STATE OF CALIFORNIA
STANDARD AGREEMENT AMENDMENT
STD. 213 A (Rev 2/12)

X	CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED	306	Pages	AGREEMENT NUMBER: 5-06-58-20 (DTS 06E1390) / REGISTRATION NUMBER:	AMENDMENT NUMBER: 16

1. This Agreement is entered into between the State Agency and Contractor named below:
STATE AGENCY'S NAME
California Technology Agency (Formerly Office of the State Chief Information Officer (OCIO))
CONTRACTOR'S NAME
SBC Global Services, Inc. dba AT&T Global Services

2. The term of this Agreement is 1/30/2007 through 1/29/2014

3. The maximum amount of this agreement after this amendment is: N/A

4. The parties mutually agree to this amendment as follows. All actions noted below are by this reference made a part of the Agreement and incorporated herein:

A. Signature authority for the Office of the State Chief Information Officer (OCIO) has changed to the California Technology Agency per Chapter 404, Statutes of 2010, AB 2408 effective January 1, 2011.
Under Public Contract Code Section 12120, this administrative amendment hereby replaces the State Agency's Name on the STD 213 A as follows:

From: Department of General Services
To: California Technology Agency

All references to Department of General Services (DGS) are hereby deleted within this contract and superseded by California Technology Agency, Office of Telecommunications Procurement, ~~3101 Gold Camp Dr~~ P.O. Box 1810 Mail Stop Y12., Rancho Cordova, CA ~~95670~~ 95741:

Continued on the next page.

This Agreement is effective December 1, 2012, or upon California Technology Agency approval, whichever is later.

All other terms and conditions of the original agreement shall remain the same.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR	CALIFORNIA TECHNOLOGY AGENCY Use Only
CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.): SBC Global Services, Inc. dba AT&T Global Services	
BY (Authorized Signature) ✍ [signature] / DATE SIGNED (Do not type): 12-5-12	Approved [signature] 1/17/13
PRINTED NAME AND TITLE OF PERSON SIGNING: JOSEPH F POSTEN	
ADDRESS: 2700 WATT AVE. SACRAMENTO CA	
AGENCY NAME: California Technology Agency	
BY (Authorized Signature) ✍ [signature] / DATE SIGNED (Do not type): 12/6/12	☐ Exempt per:
PRINTED NAME AND TITLE OF PERSON SIGNING: Steve Rushing, Deputy Director, Office of Technology Services - STND	
ADDRESS: P.O. Box 1810, MS Y-13, Rancho Cordova, CA 95741-1810	

Continuation
STD 213A Standard Agreement Amendment 5-06-58-20 (DTS 06E1390) 16

Pursuant to Section 28 Contract Modifications under RFP DGS-2053, the following Amendments and changes are made to the following sections and attachments:

B. This amendment includes the following changes, Subject CALNET 2, MSA 1 (AT&T):

1. 6.1.3.2.5 Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services, Attachment 3 (Service Description) has been modified to include the following:

- Update title to include "Attachment 3", page 1;
- Update document footer to include contract section number and name, pages 1-141;
- Update product description for AT&T Ethernet Private Line Service (EPLS-WAN), page 140;
- Delete EPLS-WAN 50 Mbps and EPLS-WAN 150 Mbps services from EPLS-WAN Services and Features table, page 140;
- Update Feature Descriptions for EPLS-WAN 600 Mbps and EPLS-WAN 1000 Mbps from "Includes local access" to "Requires Ethernet Access to LD POP", page 140;
- Add a new Feature Name, Identifier and Feature Description for "EPLS-WAN 10 Gbps" to the feature table, page 140; and
- Add a new Feature Table for Ethernet Access to Long Distance POP, pages 140-141.

Remove Attachment 3, Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services pages 1-139 listed as "Revised: MSA 1 – Amendment No. 12" and replace with pages 1-141 hereto attached identified with the following statement: "Revised: MSA 1 - Amendment No. 16."

2. 6.1.7 Service Identifier: Managed Internet Service (MIS), Attachment 3 (Service Description) has been modified to include the following:

- Update title to include "Attachment 3", page 1;
- Update document footer to include contract section number and name, pages 1-29;
- Description of Service section, paragraph 2, 3rd sentence, has been updated as follows:
  - Replace 2.5 Gbps with 10 Gbps, page 1; and
  - Replace OC-48 with LAN-PHY, page 1.
- Update existing feature table for Hi Cap Flex Ethernet Port Only, remove superscript 2 and 4, pages 10-11;
- Add a new feature table for Hi Cap Flex – 10 Gig Ethernet Port Only, pages 11-12;
- Remove notes referring to superscript 2 and 4, page 12;
- Update existing feature table for Hi Cap Flex Ethernet Port Only with Managed Router, remove superscript 2 and 4, page 13;
- Remove notes referring to superscript 2 and 4, page 13;
- Add a new feature "1000-Base-SX/LX 600 Mbps Ethernet" to the Ethernet Access to Long Distance POP feature table, page 14;
- Add a new feature "10G-Base-LSR 10000 Mbps Ethernet" to the Ethernet Access to Long Distance POP feature table, page 14;

- Add a new header for Optional Features – Class of Service with a Description of Service, pages 20-21; and
- Add a new feature table for Class of Service (CoS) Option, pages 21-24.

Remove Attachment 3, Service Identifier: Managed Internet Service (MIS) pages 1- 25 listed as "Revised: MSA 1 – Amendment No. 11" and replace with pages 1-30 hereto attached identified with the following statement: "Revised: MSA 1 - Amendment No. 16."

3. 6.1.3.2.5 Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services, Attachment 4 (Pricing) has been modified to include the following:

- Update title to include "Attachment 4", page 1;
- Update document footer to include contract section number and name, pages 1-95;
- Update column headers in all tables throughout document for consistency as follows:
    - Non-Recurring Charge (NRC); and
    - Monthly Recurring Charge (MRC).
- Reduce pricing for Monthly Recurring Charges on AT&T Switched Ethernet (ASE) Service pricing table, pages 11-31;
- Reduce pricing for Non-Recurring Charge on AT&T Switched Ethernet (ASE) Service Optional Features, Administrative Change Charge, page 31;
- Reduce pricing for Non-Recurring, Recurring and Change Charges on OPT-E-WAN pricing table, pages 52-63;
- Reduce pricing for Non-Recurring and Change Charges on OPT-E-WAN Bandwidth Setup (IntraState) and (InterState), pages 73-74;
- Reduce pricing for Non-Recurring, Recurring and Change Charges on OPT-E-WAN (OEW) Managed Service Bundles w/Standard Features pricing table, pages 75-80;
- Reduce pricing for Change Charges on select OEW Managed Service Bundles listed below, pages 80-82;
    - OEW Managed Service Bundle - 550M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 600M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 650M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 700M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 750M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 800M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 850M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 900M w / Type 26 Router Fiber Ethernet;
    - OEW Managed Service Bundle - 950M w / Type 26 Router Fiber Ethernet; and
    - OEW Managed Service Bundle - 1000M w / Type 26 Router Fiber Ethernet.
- Add table header to CSME feature table, pages 92-95;
- Add the following description to EPLS-WAN product header "(POP to POP) Requires Ethernet LD Access", page 93;
- Delete the following service features: EPLS-WAN 50 Mbps SCRM – OKLD, SCRM – ANHM, SCRM – SNDG, OKLD – ANHM, ANHM – SNDG from pricing table, page 93;
- Delete the following service features: EPLS-WAN 150 Mbps SCRM – OKLD, SCRM – ANHM, SCRM – SNDG, OKLD – ANHM, ANHM – SNDG, pages 93-94;
- Update feature names for all EPLS-WAN 600 Mbps and 1000 Mbps service options to remove the verbiage "(includes local access)", pages 93-94;
- Reduce pricing for Non-Recurring Charges (NRC) and Monthly Recurring Charges (MRC) on all EPLS-WAN 600 Mbps and 1000 Mbps service options, pages 93-94;

- Add new features and pricing for EPLS-WAN 10 Gbps to the EPLS-WAN feature table, page 94; and
- Add a new feature table and pricing for Ethernet Access to Long Distance POP, pages 94- 95.

Remove Attachment 4, Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services pages 1-92 listed as "Revised: MSA 1 – Amendment No. 12" and replace with pages 1-95 hereto attached identified with the following statement: "Revised: MSA 1 - Amendment No. 16."

4. 6.1.7 Service Identifier: Managed Internet Service (MIS), Attachment 4 (Pricing) has been modified to the following:

- Update title to include "Attachment 4", page 1;
- Update document footer to include contract section number and name, pages 1-33;
- Update column headers in all tables throughout document for consistency as follows:
  - Non-Recurring Charge (NRC); and
  - Monthly Recurring Charge (MRC).
- Update existing feature table for Hi Cap Flex Ethernet Port Only, remove superscript 2 and 4, pages 13-15;
- Add a new feature table and pricing for Hi Cap Flex – 10 Gig Ethernet Port Only, pages 15-16;
- Remove notes referring to superscript 2 and 4, page 16;
- Update existing feature table for Hi Cap Flex Ethernet Port Only with Managed Router, remove superscript 2 and 4, pages 18-20;
- Remove notes referring to superscript 2 and 4, page 20;
- Add a new feature and pricing for "1000-Base-SX/LX 600 Mbps Ethernet" to the Ethernet Access to Long Distance POP feature table, page 20;
- Add a new feature and pricing for "10G-Base-LSR 10000 Mbps Ethernet" to the Ethernet Access to Long Distance POP feature table, page 20; and
- Add a new feature table and pricing for Optional Features - Class of Service, pages 29-32.

Remove Attachment 4, Service Identifier: Managed Internet Service (MIS) pages 1-29 listed as "Revised: MSA 1 – Amendment No. 11" and replace with pages 1-33 hereto attached identified with the following statement: "Revised: MSA 1 - Amendment No. 16."

5. 6.1.11.2.14 Service Level Agreement (SLA) – MSA 1 has been modified to include the following changes:

- Update Time to Repair (TTR) Minor – Remove OPT-E-WAN from table and move to separate table, (replace Page 6-807); and
- Add Time to Repair (TTR) – OPT-E-WAN table, (insert Page 6-810E).

Remove MSA 1 SLA, Volume 1 - Page 6-807 and replace with pages 6-807 and 6-807E hereto attached identified with the following statement: "Revised: MSA 1 - Amendment No. 16."

6. The price reductions in this Amendment will be effective on the 1st of the month following the final signature date of this Amendment.

C. Amendment Summary:

- **What is this amendment about?**

This amendment replaces the State Agency's Name on the STD 213A as follows:

- From: Department of General Services
  To: California Technology Agency
  All references to Department of General Services (DGS) are hereby deleted within this contract and superseded by California Technology Agency, Office of Telecommunications Procurement.

- Section 6.1.3.2.5 - Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN), Price Reductions to AT&T Switched Ethernet (ASE), and OPT-E-WAN (OEW) Services.

- Section 6.1.3.2.5 - Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN) have been enhanced with additional features for AT&T Ethernet Private Line Service (EPLS-WAN). 10Gbps EPLS-WAN will provide higher Ethernet Bandwidth availability to State agencies.

- **Why is the contract being amended?**

This Amendment will add service enhancements to provide additional bandwidth configuration options to (MIS) and greater bandwidth to (EPLS-WAN), for our customers.

- **What is the reason/purpose for the amendment?**

This amendment will provide more ordering options for customers to configure their existing network which may result in cost savings and/or a more reliable service.

6.1.3.2.5 Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services Attachment 3

Description of Service

The following services can support the transmission of digital signals at 1 Gbps in Ethernet format:

- GigaMAN
- SONET
- Multi-Service Optical Network Ring (MON)
- Optical Ethernet Transparent LAN (OPT-E-MAN)
- AT&T Switched Ethernet (ASE)
- Optical Ethernet Wan (OPT-E-WAN)
- Customized Switched Metro Ethernet Service (CSME)

AT&T Fibre Channel Metropolitan Area Network (FibreMAN) is capable of high-speed transmissions but uses the fibre channel protocol.

We provide details about our SONET offering in the SONET attachment.

Availability

AT&T provides a variety of high-capacity transport media within our Local Service areas in California.

Service is only available where facilities and operating conditions permit. Where facilities and/or operating conditions do not permit, special construction will apply.

GigaMAN® / DecaMAN® / FibreMAN®

GigaMAN and DecaMAN are fiber based, intra-lata, point-to-point, Ethernet services that transport data at rates of 1 Gigabit Per Second (Gbps) and 10 Gbps, respectively. This allows customers to transport data signals between local area networks (LANs). GigaMAN transports data signals at the rate of 1 Gbps. DecaMAN transports data signals at the rate of 10 Gbps.

DecaMAN is available with two different customer interfaces:

- 10 Gigabit Ethernet (LAN-PHY) - A version of Ethernet that allows data transmission rates of 10.3125 Gbps with a LAN-PHY only interface (10GBase-LR 1310nm single mode fiber).

- 10 Gigabit Ethernet (WAN-PHY) - A version of Ethernet that allows data transmission rates of 9.953 Gbps with a WAN-PHY only interface (10GBase-LW 1310nm, single mode fiber)

GigaMAN provides the following customer interface:

- 1 Gigabit Ethernet (1000Base-SX & 1000Base-LX)

FibreMAN is an intra-lata, point-to-point service based on the same optical platform as GigaMAN and DecaMAN above, but provides a Fibre Channel interface to the customer.

FibreMAN is based on the Fibre Channel protocol, which is a unique and highly reliable interconnection protocol that supports rapid transfer of data between workstations, mainframes, servers, and data storage systems. The FibreMAN product offering is a dedicated fiber based point-to-point transport service. This service is used to connect customer provided Fibre Channel switches or routers from one customer location to another at a 1 Gbps or 2 Gbps line rate.

FibreMAN supports two optical interface versions:

- the 1000Base-SX interface—short wavelength design and
- the 1000Base-LX interface—long wavelength design.

The SX interface uses multi-mode (MM) fiber. AT&T only uses 50 micron multimode fiber for the connection between the Nortel equipment and the demarcation point. Customers can use either one of two types of multi-mode fiber between their CPE and the demarcation point:

--- 62.5 micron multimode fiber for interconnections up to 275 meters (902 feet) for unprotected services only between the CPE and demarcation point.

--- 50 micron multimode fiber for interconnections up to 550 meters (1804 feet) between the CPE and demarcation point.

As FibreMAN is provided by the same network equipment as GigaMAN/DecaMAN, the general network descriptions and diversity options described below also apply to FibreMAN. Protection Options apply only to GigaMAN and DecaMAN.

General Network Descriptions:

AT&T provisions GigaMAN/DecaMAN service on the Nortel Networks OPTera 5100/5200 platform using Wavelength Division Multiplexing (WDM) technology, a highly efficient way to keep your data moving fast. CPE can be a router with a gigabit Ethernet blade or an Ethernet switch equipped to support gigabit Ethernet. The Nortel equipment adheres to the Telcordia Network Equipment Building System (NEBS) requirements, which lay out the

specifications for carrier-class equipment. The equipment is tested by a third-party laboratory to ensure that it meet such parameters as Zone 4 earthquake, relative humidity and temperature ranges, voltage range, resistance to electromagnetic interference (EMI) and appropriate levels of radio frequency interference (RFI).

GigaMAN/DecaMAN service provides an easy and straightforward migration path for upgrading backbone networks to higher performance levels without major disruptions. Because GigaMAN/DecaMAN/DecaMAN service carries your LAN traffic in its native Ethernet format, it won't affect your existing LAN management systems or support software. GigaMAN/DecaMAN service also interconnects with standard LAN devices. GigaMAN is a single-protocol Ethernet service, so it minimizes the need for additional equipment, protocol conversion, and extensive training.

GigaMAN/DecaMAN service saves on installation costs because it simply connects to your existing gigabit Ethernet LAN or Ethernet-ready switch router. And, there's no need to worry about additional network security issues, since GigaMAN/DecaMAN service securely contains your organization's data on your own private, dedicated facilities.
With GigaMAN/DecaMAN service, you can expect high-speed performance and nearly error-free transmission of those bandwidth-intensive applications at the core of your business. Users can transmit large files typical of document imaging, medical imaging, CAD/CAM systems, video conferencing, and graphics applications in real time, without compromising network performance. GigaMAN/DecaMAN service is not limited to one application—multiple applications can share the same link. Where technology and facilities permit, GigaMAN/DecaMAN service can extend across the geographic reach of most LATAs.
Using optical transport and end-to-end network monitoring, GigaMAN/DecaMAN service is extremely reliable. These features enable streamlined network maintenance, faster service, and early detection of potential problems to keep your business operating smoothly.

GigaMAN/DecaMAN are "designed services". This means that equipment used will depend on the type and quantity of service ordered, existing fiber and equipment, and customer reliability requirements.

AT&T engineers will design each circuit to meet current and forecasted network needs:

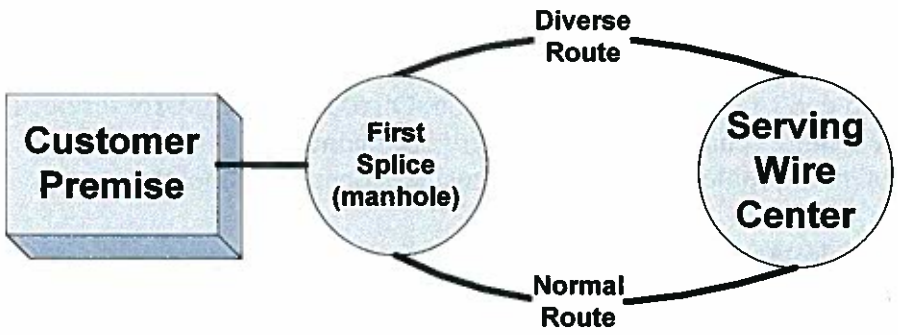
- May use WDM to deliver multiple circuits over same fiber pair, conserving customer entrance facilities
- May use on-site intelligent network equipment to support edge-monitoring and to extend signal and/or provide specified interface
- May use on-site passive network equipment to support edge-monitoring
- Requirements for customer provided space, power, conduit, etc. will be provided by your AT&T representative

GigaMAN and DecaMAN are deployed over the same WDM infrastructure, and both offer the same optional features to meet service reliability greater than the standard point-to-point service. Upon review of specific reliability requirements, the following service options can be incorporated into the service design:

- Basic service is unprotected
- Optional design features include Diversity and Protection
- Diversity assures 2 unprotected circuits will be separated
- Protection uses 2 pairs (4 fibers) for a single circuit, to provide separate paths thru the network with automatic fail-over
- Each design option provides elements of redundancy
- Best option varies by customer need

Diversity Options:

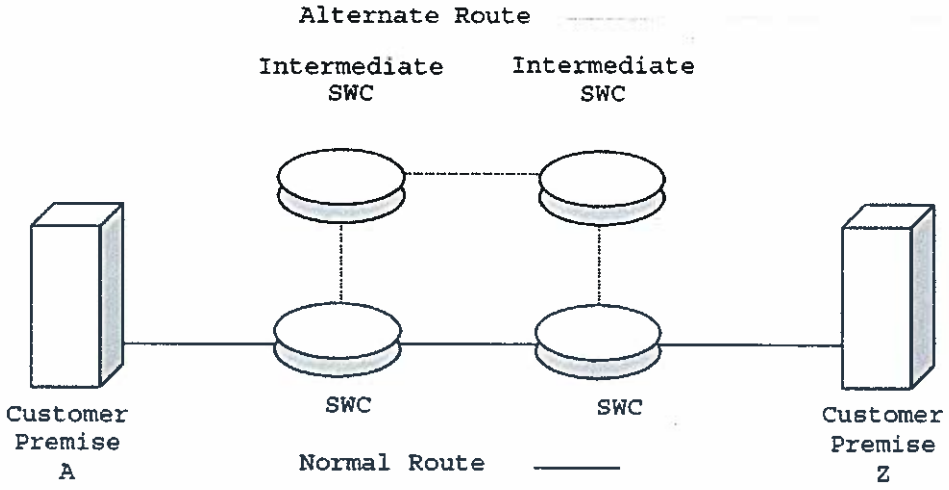
1) Local Channel Diversity provides for a transmission path between a designated customer premises and the standard service wire center (SWC) that is diverse from the normal/standard transmission path. Local Channel Diversity requires two GigaMAN/DecaMAN services purchased by the same customer of record. With this arrangement, one or more local distribution channels will be provisioned over the standard route, and one or more local distribution channels will be provisioned over the diverse route. Local Channel Diversity does not provide for all diversity, it only allows for diversity from the splice point closest to the customer's property line to the SWC. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer's premises, at the customer's expense.



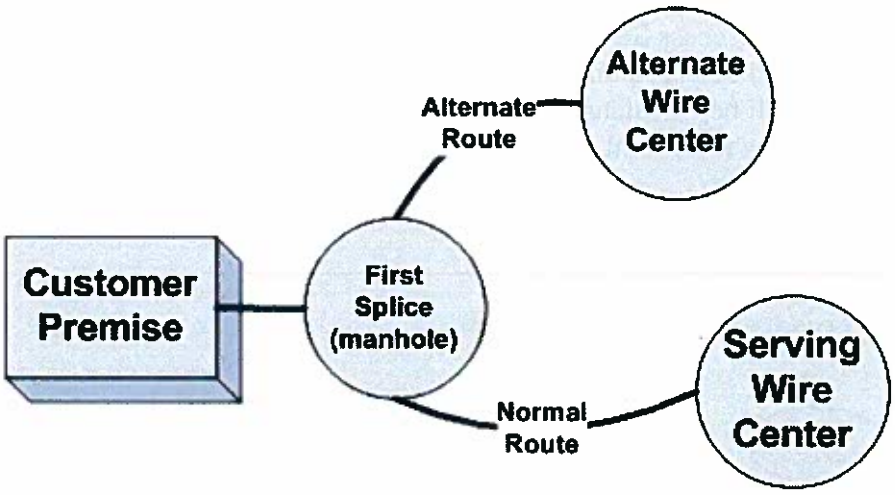
2) Inter-Wire Center (IWC) Diversity arrangements presume that each end of a GigaMAN/DecaMAN local distribution channel is serviced out of a different serving wire center (SWC). Inter-Wire Center Diversity requires two GigaMAN/DecaMAN services purchased by the same customer of record. This arrangement provides a transmission path for GigaMAN/DecaMAN local distribution channels between the customer's designated SWC and the SWC at the distant end of the circuit over a transmission path that is separate from the standard transmission path between the two wire centers. IWC diversity does not provide for full diversity. It only offers interoffice diversity. If a customer desires full diversity, Alternate Wire Center Diversity must be implemented along with IWC Diversity. Additionally, arrangements must be made for constructing dual entrance facilities at the customer's premises, at the customer's expense.

Inter-Wire Center Diversity (IWC) Mileage Measurement:

Mileage measurements for Access Services, provisioned via an Inter-Wire Center Diversity, will be based on the diverse routing; i.e. mileage measurements will be calculated between the Intermediate Serving Wire Centers along the circuit path of the diversely routed GigaMAN/DecaMAN service.



3) Alternate Wire Center Diversity is for the local loop only. It provides a local channel transmission path for GigaMAN/DecaMAN service between the customer's designated premises and a wire center that is not the normal (or standard) service wire center. The Telephone Company will choose the alternate wire center closest to the customer's designated premises that is capable of providing GigaMAN/DecaMAN service over the alternate route. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer's premises, at the customer's expense. If the circuit routed to the alternative wire center has Interoffice Mileage, measurements will be based on the alternate routing; i.e. mileage measurements will be made to the alternate wire center rather than the serving wire center from which the customer designed premises would normally obtain dial tone.



Protection Options:

Protection options are provisioned on the customer's GigaMAN/DecaMAN service, and the customer is not required to purchase a second GigaMAN/DecaMAN circuit for protection options. Protection options are applied on a per GigaMAN/DecaMAN circuit basis only. Protection options are available where facilities and/or operating conditions permit. Where facilities and/or operating conditions do not permit, Special Construction charges may apply. Protection options provide additional levels of reliability to GigaMAN/DecaMAN service. There are multiple protection options offered. The options do not need to be the same, but both Channel Terminations of the GigaMAN/DecaMAN service must include some form of protection for the service to be considered protected.
The Telephone Company will design the protection option based upon the configuration of the customer's GigaMAN/DecaMAN service.

GigaMAN/DecaMAN Protection Options are offered as follows:

(A) Equipment Only Protection – per Termination Point
(B) Equipment Plus Fiber Path Protection
    (1) Equipment Plus Alternate Wire Center Path Protection – per Terminating Point
    (2) Equipment Plus Channel Termination Path Protection – per Terminating Point
(C) Inter Wire Center Path Protection – per Interoffice Segment
(D) Power Protection

A) Equipment Only Protection offers one GigaMAN/DecaMAN signal routed on two different fiber pairs that co-exist in the same cable and conduit structure that terminates in two distinct and separate network terminating equipment devices at the customer's premises. All protected configurations have one working and one standby path. In the event of a failure of the customer's transmission path, the GigaMAN/DecaMAN equipment will switch the customer's transmission to a dedicated standby path within 50 milliseconds of detection. In

the event of a failure to both fiber transmission paths, an out of service condition will result. This form of protection can only be ordered per channel termination for each protected GigaMAN/DecaMAN service, and may also apply to the Inter-Wire center segment if the GigaMAN/DecaMAN service is served by more than one serving wire center. If a customer requests complete protection extending to the Telephone Company serving wire center from their premises location when utilizing Equipment Protection, they must request diverse entrance facilities into their premises at each end from the nearest Telephone Company splice point closest to the customer premises location. This work is subject to Special Construction charges.

B) Equipment Plus Fiber Path Protection offers varying degrees of path protection for each channel termination of the GigaMAN/DecaMAN service, plus the inter-wire segment if the service is served by more than one serving wire center, and is offered as follows:

(B.1) Equipment Plus Alternate Wire Center Path Protection offers one GigaMAN/DecaMAN signal routed over one fiber pair of the protected GigaMAN/DecaMAN service from the customer's premises to the customer's normal serving wire center, and a duplicate GigaMAN/DecaMAN signal routed over a diversely routed fiber pair to the Alternate Wire center selected by the Telephone Company. If any location between the two fiber paths is closer than ten feet, the location will be disclosed to the customer. The customer will determine whether to accept the engineered path or agree to pay Special Construction charges to provide a completely diverse route. Where facilities are not available, the customer may select Equipment Only Protection for an inter-office segment. This option can be selected for one or both channel terminations of the GigaMAN/DecaMAN service. All protected configurations have one working and one standby path. In the event of a failure of the customer's transmission path, the GigaMAN/DecaMAN service will switch to a dedicated standby path within 50 milliseconds of detection. In the event of failure to both fiber transmission paths, an out of service condition will result. This form of protection can only be ordered per channel termination for each protected GigaMAN/DecaMAN service. If a customer requests complete protection extending to the Telephone Company serving wire center from their premise location when utilizing Equipment Protection Plus Alternate Wire Center Path Protection, they must request diverse entrance facilities into their premises at each end, from the nearest Telephone Company splice point closest to the customer premise location. This work is subject to Special Construction charges.

(B.2) Equipment Plus Channel Termination Path Protection offers a duplicate GigaMAN/DecaMAN signal routed over two diversely routed fiber paths to the customer's normal serving wire center. If any location(s) between two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine whether to accept the engineered path or agree to pay Special Construction charges, to provide a completely diverse route. All protected configurations have one working and one standby path. In the event of a failure of the customer's transmission path, GigaMAN/DecaMAN technology will switch the

customer's transmission to a dedicated standby path within 50 milliseconds of detection. In the event of failure to both fiber transmissions to a dedicated standby path and/or failure to both fiber transmission paths, an out of service condition will result. This form of protection can only be ordered per Channel Termination for each protected GigaMAN/DecaMAN service from the customer's premises location, or from the manhole/splice point nearest the customer premises to the Telephone Company serving wire center. If a customer requests complete protection extending to the Telephone Company serving wire center from their premises location when utilizing Equipment Protection Plus Channel Termination Path Protection, they must request diverse entrance facilities into their premises at each end from the nearest Telephone Company splice point closest to the customer premises location. This work is subject to Special Construction charges.

(C) Inter-Wire Center Path Protection offers a duplicate GigaMAN/DecaMAN signal routed over two diversely routed fiber paths between the two serving wire centers or alternate wire centers. Path protection starts at the nearest manhole outside the Telephone Company serving wire center. Inter Wire Center Path Protection must be ordered with either Equipment Only, Channel Termination Path Protection or Alternate Wire Center Path Protection. If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine whether to accept the engineered path or agree to pay Special Construction charges, to provide a completely diverse route. All protected configurations have one working and one standby path. In the event of a failure of the customer's transmission path, GigaMAN/DecaMAN technology will switch the customer's transmission to a dedicated standby path within 50 milliseconds of detection. In the event of failure to both fiber transmission paths, an out of service condition will result.

(D) Power Protection provides GigaMAN/DecaMAN customers with battery backup for up to eight (8) hours to maintain GigaMAN/DecaMAN equipment in the event of a commercial AC power failure. Power Protection is offered on a per equipment bay capacity basis, per customer premises, and is dependent upon the number of GigaMAN/DecaMAN services for the GigaMAN/DecaMAN customer of record. The Telephone Company will apply the power protection rate elements based upon the circuit capacity. More than one rate element may be applicable. The Telephone Company will determine the design and engineering requirements for Power Protection for GigaMAN/DecaMAN customers. Customers in multi-tenant buildings will require separate equipment and bays dedicated to each customer. The addition of Power Protection to existing GigaMAN/DecaMAN service may result in temporary service interruption. Power Protection is not available for installations using a wall mounted cabinet. Customers are responsible for providing floor space for power equipment.

SLA Enhancement:

GigaMAN/DecaMAN with protection:

A service interruption will result in a credit equal to 100% of the monthly recurring charge for the entire circuit. Only one such credit in a billing period will apply.

This outage must be reported by the customer and the circuit made available to AT&T for testing. The outage must be determined by AT&T to be in its network and the failure occurred in the part of the service with path protection.

GigaMAN® Service and Features

Feature Name	Identifier	Feature Description
GigaMAN Local Distribution Channel	LNVX5	Local Distribution Channel (Same as Channel Termination) is the termination of GigaMAN at a customer designated premise (node), consisting of the following two elements: (a) the termination for the fiber optic facilities at each node and its serving wire center. (b) the fiber optic facility between each node and its serving wire center.
GigaMAN Repeater	VU4X5	Repeaters (Circuit Regenerators) provide essential detection and retransmission of GigaMAN® signals. Repeaters are provided as required by the Telephone Company when actual fiber facility loss between customer designated premises and/or central office locations exceed design limits. Repeaters will be located exclusively in Telephone Company central offices and are required for each successive transport segment of approximately 21.4 db.
GigaMAN Interoffice Mileage	1L5X3	Interoffice Transport facilities, which provide the transmission path between Serving Wire Centers associated with two customer designated premises, are comprised of Fixed and Per Mile rate elements.
GigaMAN Channel Termination Diversity (Local Channel Diversity)	CPAL5	Channel termination diversity (i.e., local channel diversity) provides for a transmission path between a designated customer premises and the standard serving wire center that is diverse from the standard transmission path of the GigaMAN service.
GigaMAN Alternate Wire Center Diversity	CPAA5	Alternate Wire Center Diversity provides for a Local Distribution Channel from the customer premises to a serving wire center that is not the customer's standard serving wire center.

Feature Name	Identifier	Feature Description
GigaMAN Inter-Wire Center Diversity	CPAT5	Inter-Wire Center Diversity provides for a transmission path that is not the standard transmission path between the serving wire centers of a GigaMAN service.
GigaMAN Equipment Only Protection	CPAE3	Equipment Only Protection offers one GigaMAN signal routed on two different fiber pairs that co-exist in the same cable and conduit structure that terminates in two distinct and separate network terminating equipment devices at the customer's premises.
GigaMAN Equipment plus Alternate Wire Center Path Protection	CPAF3	Equipment Plus Alternate Wire Center Path Protection offers one GigaMAN signal routed over one fiber pair of the protected GigaMAN service from the customer's premises to the customer's normal serving wire center, and a duplicate GigaMAN signal routed over a diversely routed fiber pair to the Alternate Wire center.
GigaMAN Equipment plus Channel Termination Path Protection	CPAG3	Equipment Plus Channel Termination Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths to the customer's normal serving wire center.
GigaMAN Inter-Wire Center Path Protection	CPAH3	Inter-Wire Center Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths between the two serving wire centers or alternate wire centers.
GigaMAN Power Protection	VBBG3	Provides up to 8 hours of battery back-up power protection for equipment. Per end, as required.
GigaMAN Administration Charge	NRBAO	Administration charge, one per order.

DecaMAN® Service and Features

Feature Name	Identifier	Feature Description
DecaMAN Local Distribution Channel WAN-PHY	1RSTX	Local Distribution Channel (Same as Channel Termination) is the termination of DecaMAN at a customer designated premise (node), consisting of the

Feature Name	Identifier	Feature Description
		following two elements: (a) the termination for the fiber optic facilities at each node and its serving wire center. (b) the fiber optic facility between each node and its serving wire center.
DecaMAN Local Distribution Channel LAN-PHY	1RSTX	Local Distribution Channel (Same as Channel Termination) is the termination of DecaMAN at a customer designated premise (node), consisting of the following two elements: (a) the termination for the fiber optic facilities at each node and its serving wire center. (b) the fiber optic facility between each node and its serving wire center.
DecaMAN Interoffice Mileage	JZ68S	Interoffice Transport facilities, which provide the transmission path between Serving Wire Centers associated with two customer designated premises, are comprised of Fixed and Per Mile rate elements.
DecaMAN Repeater	VU4	Repeaters (Circuit Regenerators) provide essential detection and retransmission of DecaMAN signals. Repeaters are provided as required by the Telephone Company when actual fiber facility loss between customer designated premises and/or central office locations exceed design limits. Repeaters will be located exclusively in Telephone Company central offices and are required for each successive transport segment of approximately 21.4 db.
DecaMAN Channel Termination Diversity (Local Channel Diversity)	CPALX	Channel termination diversity (i.e., local channel diversity) provides for a transmission path between a designated customer premises and the standard serving wire center that is diverse from the standard transmission path of the DecaMAN service.
DecaMAN Alternate Wire Center Diversity	CPAAX	Alternate Wire Center Diversity provides for a Local Distribution Channel from the customer premises to a serving wire center that is not the customer's standard serving wire center.
DecaMAN Inter-Wire Center Diversity	CPATX	Inter-Wire Center Diversity provides for a transmission path that is not the standard transmission path between the serving wire centers of a DecaMAN service.
DecaMAN Equipment Only Protection	CPAEX	Equipment Only Protection offers one DecaMAN signal routed on two different fiber pairs that co-exist in the same cable and conduit structure that terminates

Feature Name	Identifier	Feature Description
		in two distinct and separate network terminating equipment devices at the customer's premises
DecaMAN Equipment plus Alternate Wire Center Path Protection	CPAFX	Equipment Plus Alternate Wire Center Path Protection offers one DecaMAN signal routed over one fiber pair of the protected DecaMAN service from the customer's premises to the customer's normal serving wire center, and a duplicate DecaMAN signal routed over a diversely routed fiber pair to the Alternate Wire center.
DecaMAN Equipment plus Channel Termination Path Protection	CPAGX	Equipment Plus Channel Termination Path Protection offers a duplicate DecaMAN signal routed over two diversely routed fiber paths to the customer's normal serving wire center.
DecaMAN Inter-Wire Center Path Protection	CPAHX	Inter-Wire Center Path Protection offers a duplicate DecaMAN signal routed over two diversely routed fiber paths between the two serving wire centers or alternate wire centers.
DecaMAN Power Protection	VBBGX	Provides up to 8 hours of battery back-up power protection for equipment. Per end, as required.
DecaMAN Administration Charge	NRBAO	Administration charge, one per order.

FibreMAN® Service and Features

Feature Name	Identifier	Feature Description
FibreMAN Local Distribution Channel 1 Gbps	25P8X	Local Distribution Channel (Same as Channel Termination) is the termination of FibreMAN at a customer designated premise (node), consisting of the following two elements: (a) the termination for the fiber optic facilities at each node and its serving wire center. (b) the fiber optic facility between each node and its serving wire center.
FibreMAN Local Distribution Channel 2 Gbps	25P9X	Local Distribution Channel (Same as Channel Termination) is the termination of DecaMAN at a customer designated premise (node), consisting of the following two elements: (a) the termination for the fiber optic facilities at each node and its serving wire center.

Feature Name	Identifier	Feature Description
		(b) the fiber optic facility between each node and its serving wire center.
FibreMAN Repeater	VU4	Repeaters (Circuit Regenerators) provide essential detection and retransmission of FibreMAN signals. Repeaters are provided as required by the Telephone Company when actual fiber facility loss between customer designated premises and/or central office locations exceed design limits. Repeaters will be located exclusively in Telephone Company central offices and are required for each successive transport segment of approximately 21.4 db.
FibreMAN Alternate Wire Center Diversity	AVOYX	Alternate Wire Center Diversity provides for a Local Distribution Channel from the customer premises to a serving wire center that is not the customer's standard serving wire center.
FibreMAN Channel Termination Diversity(Local Channel Diversity)	DJVYX	Channel termination diversity (i.e., local channel diversity) provides for a transmission path between a designated customer premises and the standard serving wire center that is diverse from the standard transmission path of the FibreMAN service.
FibreMAN Inter-Wire Center Diversity	DEQYX	Inter-Wire Center Diversity provides for a transmission path that is not the standard transmission path between the serving wire centers of a FibreMAN service.
FibreMAN Interoffice Mileage	JZ4XS	Interoffice Transport facilities, which provide the transmission path between Serving Wire Centers associated with two customer designated premises, are comprised of Fixed and Per Mile rate elements.

Multi-Service Optical Network Ring (MON Ring)

AT&T Multi-Service Optical Network Ring (MON Ring) Service provides high-volume optical transport using DWDM technology in a dedicated-ring configuration. Multiple data signals transmit over fiber-optic cable using different wavelengths of light. Each of these wavelengths represents a transmission channel in the MON Ring system and is protocol-independent of every other channel in the system.

AT&T Multi-Service Optical Network (MON) Service can extend customer networks to off-site locations. These include, but are not limited to, disaster recovery, storage area networking (SAN) connections, data center mirroring, and mainframe-to-mainframe communications. AT&T MON Ring Service allows customers to combine their multiple data signals so that they can be amplified and transported over one network. MON Ring Service provides dedicated capacity over a single pair of fiber in two directions, increasing capacity without limiting customer-required data interfaces.

MON Ring Service is available in either a 16-wavelength or a 32-wavelength configuration. A 16-wavelength MON Ring Service can handle a maximum of 16 wavelengths or 80 Gbps of protected channels or 160 Gbps of unprotected channels. Our 32-wavelength MON Ring Service can handle a maximum of 32 wavelengths or 160 Gbps of protected channels or 320 Gbps of unprotected channels.

You can combine protected and unprotected circuits on a single MON. The increase in "unprotected"capacity is simply because the extra channels go unused for protection and can be used for data. This effectively doubles the capacity available for each circuit left unprotected. This assumes that the customer has either opted not to require protection on a channel because of the nature of the traffic, or that the customer performs the protection themselves using CPE. Each channel can handle 2.5 Gbps of traffic.

MON Ring Service and Features

Feature Name	Identifier	Feature Description
MON Ring Customer Prem Node	F2ND1	Includes 1st shelf; Provides termination of the service on a per-shelf basis, and presents the various selected ports to the customer's equipment. Minimum two nodes required
MON Ring Customer Prem Node	F2NDS	Per Subsequent shelf; Provides termination of the service on a per-shelf basis, and presents the various selected ports to the customer's equipment. Minimum two nodes required
MON Ring Central Office Node	F2NC1	Includes 1st shelf; Provides for the termination of service in an AT&T serving wire center for various port bandwidth to the customer's ring.
MON Ring Central Office Node	F2NCS	Per subsequent shelf; Provides for the termination of service in an AT&T serving wire center for various port bandwidth to the customer's ring.
MON Ring Interoffice Mileage	1L5X5	Per Mile; Interoffice mileage is calculated using the V&H coordinate method. There is always a two-mile minimum (one mile in each direction—node-to-

Feature Name	Identifier	Feature Description
		node connection).
MON Bulk Power - Shelves 1-4	CBVDX	Provides power for customer premises node which may be required, at the request of the customer, when nodes are added to or dropped from a ring.
MON Bulk Power - Subsequent shelves 5-8	CVBDS	Provides power for customer premises node which may be required, at the request of the customer, when nodes are added to or dropped from a ring.
MON Ring Central Office Optical Amplifier - Per location C-Band	67QXX	Provides for an optical signal boost if the distance between nodes exceeds the transmission loss parameters (link loss specific).
MON Ring Central Office Optical Amplifier - Per location L-Band	67QSX	Provides for an optical signal boost if the distance between nodes exceeds the transmission loss parameters (link loss specific).
MON Ring Central Office Regenerator - Up to 2.5 Gbps, Per shelf	V8RXX	Provides for re-timing, re-shaping, and regeneration of the signal if degradation exceeds the dispersion limits.
MON Ring Central Office Regenerator - Up to 10 Gbps, per Circuit	V8R2C	Provides for re-timing, re-shaping, and regeneration of the signal if degradation exceeds the dispersion limits.
MON Ring Port ETR - 8 Mbps ETR unprotected	POYKW	8 Mbps—Manchester Encoded—External Timing References. This protocol is used for IBM GEOPLEX architecture for multiple-location host processors. ETR limited to a maximum distance of 40 km.
MON Ring Port Fibre Channel - 1.0625 Gbps Unprotected	POYNW	1.0625 Gbps—an industry-standard protocol used to interconnect storage area networks (SANs).
MON Ring Port Fibre Channel Protected - 1.0625 Gbps Protected	POYNP	1.0625 Gbps—an industry-standard protocol used to interconnect storage area networks (SANs).
MON Ring Port Fibre Channel 2G - 2.125 Gbps Unprotected	POYYW	2.125 Gbps—an industry-standard protocol used to interconnect storage area networks (SANs).
MON Ring Port Fibre Channel 2G Protected - 2.125 Gbps Protected	POYYP	2.125 Gbps—an industry-standard protocol used to interconnect storage area networks (SANs).
MON Ring Port	POYMW	1.0625 Gbps—a higher-speed evolution of

Feature Name	Identifier	Feature Description
FICON - 1.0625 Gbps Unprotected		ETRTM, enabling 1 Gbps connectivity among mainframes, storage devices, and peripherals.
MON Ring Port FICON Protected - 1.0625 Gbps Protected	POYMP	1.0625 Gbps—a higher-speed evolution of ETRTM, enabling 1 Gbps connectivity among mainframes, storage devices, and peripherals. Protected.
MON Ring Port FICON 2G - 2.125 Gbps Unprotected	POYWW	2.125 Gbps—a higher-speed evolution of ETRTM, enabling 1 Gbps connectivity among mainframes, storage devices, and peripherals.
MON Ring Channel Port FICON 2G - 2.125 Gbps Protected	POYWP	2.125 Gbps—a higher-speed evolution of ETRTM, enabling 1 Gbps connectivity among mainframes, storage devices, and peripherals. Protected.
MON Ring Port Gigabit Ethernet - 1 Gbps Ethernet Unprotected	POYLW	A version of Ethernet that allows data transmission rates of 1 Gbps.
MON Ring Port Gigabit Ethernet Protected - 1 Gbps Ethernet Protected	POYLP	A version of Ethernet that allows data transmission rates of 1 Gbps. Protected.
MON Ring Port 10W Gigabit Ethernet - 10 Gbps Ethernet Unprotected (WAN PHY)	POYTW	A version of Ethernet that allows data transmission rates of 10 Gbps, compatible with OC-192 transport (WAN PHY).
MON Ring Port 10W Gigabit Ethernet Protected - 10 Gbps Ethernet Protected (WAN PHY)	POYTP	A version of Ethernet that allows data transmission rates of 10 Gbps, compatible with OC-192 transport (WAN PHY). Protected.
MON Ring Port 10L Gigabit Ethernet - 10 Gbps Ethernet Unprotected (LAN PHY)	POYUW	A version of Ethernet that allows data transmission rates of 10 Gbps (LAN PHY).
MON Ring Port 10L Gigabit Ethernet Protected - 10 Gbps Ethernet Protected (WAN PHY)	POYUP	A version of Ethernet that allows data transmission rates of 10 Gbps (LAN PHY). Protected.
MON Ring Port SONET OC-12/OC-12c	POYFW	OC-12/OC-12c Port Unprotected

Feature Name	Identifier	Feature Description
Unprotected		
MON Ring Port SONET OC-12/OC-12c Protected	POYFP	OC-12/OC-12c Port Protected
MON Ring Port SONET OC-48/OC-48c	POYGW	SONET OC-48/OC-48c Port
MON Ring Port SONET OC-48/OC-48c Protected	POYGP	SONET OC-48/OC-48c Port. Protected
MON Ring Port SONET OC-192/OC-192c	POYOW	SONET OC-192/OC-192c Port
MON Ring Port SONET OC-192/OC-192c Protected	POYOP	SONET OC-192/OC-192c Port. Protected.
MON Ring Fibre Channel SRM Port	POY6W	Fibre Channel riding sub-rate multiplexer (SRM). Unprotected.
MON Ring FibreChannel SRM Port Protected	POY6P	Fibre Channel riding sub-rate multiplexer (SRM). Protected.
MON Ring SRM Port	POY7W	FICON riding sub-rate multiplexer (SRM). Unprotected.
MON Ring FICON SRM Port Protected	POY7P	FICON riding sub-rate multiplexer (SRM). Protected.
MON Gigabit Ethernet SRM Port	POY4W	Gigabit Ethernet riding sub-rate multiplexer (SRM). Unprotected.
MON Gigabit Ethernet SRM Port Protected	POY4P	Gigabit Ethernet riding sub-rate multiplexer (SRM). Protected.
MON SONET OC-12/OC-12c SRM Port	POY5W	SONET OC-12/OC-12c riding sub-rate multiplexer (SRM). Unprotected.
MON SONET OC-12/OC-12c SRM Port Protected	POY5P	SONET OC-12/OC-12c riding sub-rate multiplexer (SRM). Protected.
MON SONET OC-3/OC-3c SRM Port	POYEW	SONET OC-12/OC-12c riding sub-rate multiplexer (SRM). Unprotected.
MON SONET OC-3/OC-3c SRM Port Protected.	POYEP	SONET OC-12/OC-12c riding sub-rate multiplexer (SRM).
MON ESCON SRM	POYHW	ESCON riding sub-rate multiplexer (SRM).

Feature Name	Identifier	Feature Description
Port		Unprotected.
MON ESCON SRM Port Protected	POYHP	ESCON riding sub-rate multiplexer (SRM). Protected.

Optical Ethernet Transparent LAN (OPT-E-MAN®)

Service Note:

OPT-E-MAN® is a shared, switched Ethernet service and not the appropriate solution for customers who require high bandwidth, two node, point to point Ethernet connectivity. GigaMAN® is a private line (dedicated) Ethernet service, and it is better suited for point to point, high bandwidth applications. For this reason the following restrictions apply:

- Customers may connect any two or more locations together when utilizing a point-to-point or point-to-multipoint configuration, and a minimum of three or more locations when utilizing a multipoint-to-multipoint configuration as long as they are in the same MAN and the service is available.

- The aggregate assigned Committed Information Rate (CIR) across all Ethernet Virtual Connections (EVCs) between any two customer connections cannot exceed 600Mbps per Basic or Basic Plus connection.

AT&T Optical Ethernet Transparent LAN Service (OPT-E-MAN) is an advanced switched Ethernet product that provides point-to-point and point-to-multipoint transparent LAN service (TLS) for a metro area. Fiber facilities are required, as is AT&T-owned network terminating equipment (NTE) located at the customer premises. The current OPT-E-MAN product supports both 10/100 Mbps and 1 Gbps customer handoffs with bandwidth CIR options ranging from 10 Mbps to 1 Gbps. OPT-E-MAN can be used for interconnecting multiple customer LANs within the same LATA (i.e., IntraLATA) appearing as segments on the same LAN. OPT-E-MAN is also available as a high-speed connection to AT&T Ethernet Dedicated Internet Access (EDIA) service.

The AT&T local phone company uses Cisco 7609 switches to form the core Ethernet over MPLS (EoMPLS) network. We use Cisco 3550 switches, placed at your premises, as Layer 2 switch devices to provide both routing and switching. The Cisco 3550 also serves as NTE. The Cisco 3550 allows AT&T to extend the EoMPLS network to the customer premises. A Cisco 3550 repeater may be placed in the network between the Cisco 7609-equipped wire center to the customer premises on distance and condition of fiber.

ELinks are built using Ethernet virtual connections (EVCs). EVCs are logical connections between two or more customer locations across the OPT-E-MAN network. We can provide an Ethernet virtual private LAN (EVPL) service using EVCs. From the Cisco 3550 perspective, the EVCs are constructed using either Ethernet Wire Service (EWS) or Ethernet Relay Service (ERS). We can configure these port-based services as single or multiple EVCs.

OPT-E-MAN Basic and Basic Plus Options:

OPT-E-MAN Basic service provides a logical Point-to-Point (P2P) connection between two customer locations (within the same OPT-E-MAN domain) or a customer location and an Internet Service Provider Point of Presence (POP), Interexchange Carrier POP, or another 3rd party location. AT&T's Managed Internet Service, Virtual Private Network Service and OPT-E-WANSM are all well suited for dedicated or virtual access from OPT-E-MAN Networks. Ethernet Virtual Connections (EVCs) are used to transport multiple connections over a single physical circuit. Basic OPT-E-MAN service is similar to traditional Frame Relay service in that a Frame Relay PVCs (EVCs in OPT-E-MAN) only have two endpoints and multiple PVCs (OPT-E-MAN EVCs) can ride over a common circuit.

OPT-E-MAN Basic Plus is a multipoint Ethernet service. OPT-E-MAN Basic Plus will transport Ethernet frames among three or more customer sites using transparent bridging (via an E-LAN). Basic Plus service supports either tagged (ERS) or untagged (EWS) traffic. The Basic Plus element in OPT-E-MAN only relates to the multipoint nature of the network. If EVCs are used, multiple Basic Plus domains (separate broadcast domains) in the OPT-E-MAN cloud may be established for a single customer and/or network.

Ethernet Wire Service (EWS)

Ethernet Wire Service (EWS) is a *port-based* OPT-E-MAN service facilitating the transport of all Ethernet packets (802.1Q tagged or not) through the OPT-E-MAN cloud. OPT-E-MAN will only use the destination MAC address for forwarding decisions (ignoring any and all 802.1Q tags) for all forwarding decisions. EWS services does not require customer and OPT-E-MAN coordination (other than a single VLAN that cannot be used on the customer's CPE) and allows the customer to change the VLANs transported through OPT-E-MAN without any coordination or scheduling requirements. EWS is used in both Basic and Basic Plus based networks. By definition and practice, an EWS circuit does not support OPT-E-MAN EVCs.

Ethernet Relay Service (ERS)

Ethernet Relay Service uses 802.1Q tags to differentiate multiple paths or EVCs (Ethernet Virtual Circuits) through the OPT-E-MAN network. ERS provides the mechanism for a single OPT-E-MAN circuit to transport multiple logical connections carrying communications to different endpoints or sites. The 802.1Q tag in an ERS environment is equivalent to the DLCI (Data Link Connection Identifier) on a Frame Relay connection. Like Frame Relay, the 802.1Q EVC tag is locally significant and needs not be set to the same value at both ends of the virtual circuit. On any given Ethernet circuit, each EVC must use a different VLAN number.

OPT-E-MAN service includes the transport from the customer premises to the Ethernet network, a port on the Ethernet network, and an assigned bandwidth usage, which includes the

CIR and one EVC. We include the 1 Gbps connection and 1 Gbps usage in the network overhead.

You must order OPT-E-MAN via an OPT-E-MAN standard interface, described as follows (and in the figure below):

- 100BASE-T bandwidth limitation of 100 Mbps
- 1 Gbps Ethernet (1000BASE-SX, 1000BASE-LX/LH or 1000BASE-ZX) is a fiber handoff with a bandwidth limitation of 1 Gbps

Provisioning of this service is subject to the availability and operational limitations of AT&T equipment and associated facilities.

Grades of service, which are similar to quality of service, will be available with the OPT-E-MAN product. Three grades of service are available—Best Effort, Bronze and Silver. The grades of service are associated with the bandwidth usage rate (committed information rate [CIR]) ordered by the customer for each connection at the customer locations. If the customer requests multiple EVCs per location, then a grade of service will be associated with each EVC. Service levels are available as listed below.

Best Effort: This Grade of Service supports non-critical data applications with more tolerance for delay and/or those that are lower in priority (i.e. LAN traffic). There are no service performance parameters associated with this Grade of Service.

Bronze: The applications best suited for this grade of service are data applications with more tolerance for delay and/or those that are lower in priority. This grade of service is the appropriate selection for LAN traffic since it tolerates bursty and time-varying traffic. The service parameters associated with this grade of service are packet delivery rate (PDR) and latency.

- PDR guarantee for Bronze grade of service is 99.5% of total traffic
- Latency guarantee for Bronze grade of service is less than 27 ms one way, end-to-end (54 ms roundtrip)

Silver: Supports applications that require minimal loss and low latency variation (i.e., jitter). The network will provision data in this grade of service in a priority queue indicating that it is delay sensitive. The service parameters associated with this grade of service are PDR, latency and jitter.

- PDR guarantee for Silver grade of service is 99.9% of total traffic
- Latency guarantee for Silver grade of service is less than 18 ms one way, end-to-end (36 ms roundtrip)
- Jitter guarantee for Silver grade of service is 12 ms one way, end-to-end

OPT-E-MAN Service and Features

Feature Name	Identifier	Feature Description
OPT-E-MAN Basic Connection 10/100 Mbps	P9FEX	10/100 Mbps Ethernet port per location; Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The OPT-E-MAN connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
OPT-E-MAN Basic Connection Gigabit Ethernet	P9FGX	1000 Mbps Ethernet port per location; Assessed per interface at bandwidths of 1Gbps Ethernet. The OPT-E-MAN connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
OPT-E-MAN Basic Plus Connection 10/100 Mbps	P9FFX	Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The OPT-E-MAN connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
OPT-E-MAN Basic Connection Gigabit Ethernet	P9FHX	Assessed per interface at bandwidths of 1Gbps Ethernet. The OPT-E-MAN connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
OPT-E-MAN Additional MAC Addresses (51-100)	M2CAX	MAC Address rate element is a data link layer protocol used for Layer 2 connectivity. Standard service allows up to 50 MAC addresses to be present per Basic/Basic Plus connection. This optional feature increases that limit to up to 100 MAC addresses per Basic/Basic Plus connection. A technical review via will be necessary to determine if service can be provided and for approval to exceed the limit.
OPT-E-MAN Repeater Service	VU4	Repeater technology may be used for customers: requesting OPT-E-MANSM service from a service wire center not equipped to provide OPT-E-MANSM service; or customers outside the technical limits of an Ethernet equipped Central Office.
OPT-E-MAN Service	NHCEO	Service order change charge for pending service

Feature Name	Identifier	Feature Description
Order Change Charge		orders and is assessed per location:
OPT-E-MAN Miscellaneous Change Charge	NHCEN	Assessed per location when customer requests changes to existing OPT-E-MAN Service
OPT-E-MAN Service Order Cancellation Charge	OGCEO	If the customer cancels service prior to installation being completed, a Cancellation charge (per port, per location) will apply.
OPT-E-MAN Expedite Charge	EODEO	Expedite change is assessed per location when customer requests service to be installed sooner than AT&T agreed upon due date.
OPT-E-MAN Ethernet Virtual Connection (EVC)	OMEVC	EVC rate element assessed in ranges of 5-1000 Mbps and provided at no charge. EVCs can be assigned in 1 Mbps increments within each range. Customer may order additional EVCs to establish additional virtual connections over the same physical connections. When additional EVCs are ordered, the customer must designate the portion of the CIR bandwidth assigned to each EVC.
Best Effort Grade of Service		
OPT-E-MAN Committed Information Rate – 2 Mbps Best Effort	R6E2E	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Best Effort grade of service (GoS).
OPT-E-MAN Committed Information Rate – 4 Mbps Best Effort	R6E4E	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Best Effort grade of service (GoS).
OPT-E-MAN Committed Information Rate – 8 Mbps Best Effort	R6E8E	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Best Effort grade of service (GoS).
Bronze Grade of Service		
OPT-E-MAN Committed Information Rate – 2 Mbps Bronze	R6E2B	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN	R6E4B	A statistically guaranteed level of transmission or

Feature Name	Identifier	Feature Description
Committed Information Rate – 4 Mbps Bronze		guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 5 Mbps Bronze	R6EAB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 8 Mbps Bronze	R6E8B	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 10 Mbps Bronze	R6EBB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 20 Mbps Bronze	R6EDB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 50 Mbps Bronze	R6EHB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 100 Mbps Bronze	R6ELB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 150 Mbps Bronze	R6ENB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 250 Mbps Bronze	R6EQB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).

Feature Name	Identifier	Feature Description
OPT-E-MAN Committed Information Rate – 500 Mbps Bronze	R6ETB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 600 Mbps Bronze	R6EUB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
OPT-E-MAN Committed Information Rate – 1000 Mbps Bronze	R6EZB	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Bronze grade of service (GoS).
Silver Grade of Service		
OPT-E-MAN Committed Information Rate – 2 Mbps Silver	R6E2C	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 4 Mbps Silver	R6E4C	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 5 Mbps Silver	R6EAC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 8 Mbps Silver	R6E8C	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 10 Mbps Silver	R6EBC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information	R6EDC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will

Feature Name	Identifier	Feature Description
Rate – 20 Mbps Silver		provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 50 Mbps Silver	R6EHC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 100 Mbps Silver	R6ELC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 150 Mbps Silver	R6ENC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 250 Mbps Silver	R6EQC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 500 Mbps Silver	R6ETC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 600 Mbps Silver	R6EUC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).
OPT-E-MAN Committed Information Rate – 1000 Mbps Silver	R6EZC	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR Silver grade of service (GoS).

AT&T Switched Ethernet (ASE) Service:

AT&T Switched Ethernet Service is a switched Ethernet transport service providing advanced Ethernet functionality using fiber and copper access technology and a switched Ethernet core

network. It provides full duplex transport of data signals between a Customer's premises and an Ethernet switch in a Telephone Company central office. Each connection is referred to as a "port" throughout this document. These ports can be interconnected in a variety of ways in the core network.

AT&T Switched Ethernet Service supports point-to-point, point-to-multipoint or multipoint-to-multipoint configurations. Point-to-point service provides a connection between two ports. Point-to- multipoint service provides multiple point-to-point connections between several different ports, most typically as a "hub and spoke" design, where a single hub site has multiple virtual connections to remote (spoke) sites. Multipoint-to-multipoint service provides a multipoint connection between three or more designated ports and is often referred to as "any to any" type of connectivity.

AT&T Switched Ethernet Service is available in two serving arrangements and two types of Customer Port Connections - the Basic Service Arrangement and Basic Ports, and the Per Packet Class of Service Arrangement and PPCOS Ports.

Customer connections (ports) are offered at 100 Mbps, 1,000 Mbps (1 Gig) and 10,000 Mbps (10 Gig) and customers may subscribe to a variety of Committed Information Rates (CIRs) within those maximum port speeds, according to the bandwidth needs of the specific port's application. The customer interface to the service includes choice of several industry standard interfaces described later in this document. The associated site readiness requirements for access, space, power and environmental will be discussed and provided by the customer's AT&T Account Team.

AT&T Switched Ethernet Service is offered where facilities are available in selected metropolitan areas within the AT&T Telco franchise territory. Where facilities are not available, facilities may be constructed, subject to certain conditions as determined by AT&T and Special Construction charges may apply.

AT&T Switched Ethernet Service is a Layer-2 transport service and is fully compliant with IEEE 802.3 Ethernet standards using standard Ethernet frame formats. It complies with the following IEEE standards:

Full-duplex	802.3x
Gigabit Ethernet	802.3z
Virtual LAN	802.1Q
Transparent Bridging	802.1d
Packet Priority	802.1p

Under ASE, AT&T provides the following:

Basic Service Arrangement

This type of service provides transport of data using a fixed class of service for each Ethernet virtual connection.

AT&T Switched Ethernet Service will be provisioned using the service components described below.

Customer Port Connection (port): This component provides the physical transport facilities from the customer's premises to an Ethernet switch at the AT&T central office. The customer Port Connection is available at transmission speeds of 100 Mbps, 1 Gbps and 10 Gbps. The customer must select one CoS and CIR for each port. The CIR selected cannot exceed the Customer Port Connection bandwidth.

Committed Information Rate (CIR): This component provides the subscribed maximum bandwidth available for assignment on a Customer Port Connection. It is sometimes referred to as the "Logical Channel". It is available per Customer Port Connection in increments ranging from 2 Mbps to 10,000 Mbps.

Customer Port Connection	CIR Bandwidth Supported
100 Mbps	2 Mbps – 100 Mbps
1 Gbps	2 Mbps – 1000 Mbps
10 Gbps	1000 Mbps – 10,000 Mbps

Class of Service (CoS): Each CIR is offered with multiple choices for CoS. CoS establishes the performance characteristics of the network that are suitable for certain applications. Each AT&T Switched Ethernet Service Port will have a single CIR and COS associated with it. CoS options have a hierarchy and are listed from "highest" to "lowest" based on network prioritization and performance which are described as follows:

1. Real-Time: Supports applications that require minimal loss, are latency-sensitive and require low latency variation (jitter), including voice and video.

2. Interactive: Supports high-priority business data applications or jitter-sensitive applications such as voice or video. This CoS is comparable to OPT-E-MAN Silver GoS.

3. Business Critical-High: Supports most business data applications with moderate tolerance for delay and which are more sensitive to jitter, and have a higher priority than Business Critical-Medium.

4. Business Critical-Medium: Supports most business data applications with moderate tolerance for delay and which are less sensitive to jitter. This CoS is comparable to OPT-E-MAN Bronze GoS.

5. Non-Critical High: Supports low priority business applications with more tolerance for delay and availability.

Ethernet Virtual Circuit (aka connection) (EVC): An EVC provides a logical connection to enable the flow of Ethernet traffic between designated ports in a point-to-point or multi-point configurations. Standard EVCs are not billed to the Customer as a separate rate element. Each EVC is assigned a CIR. For a PPCoS port, the customer specifies a profile for each EVC which proportions the capacity to different Classes of Service as allowed in the PPCoS Package subscribed on the port.

Per Packet Class of Service Arrangement

This service arrangement provides transport of data with variable Classes of Service within an Ethernet virtual connection, using a feature called "Per Packet Class of Service" or "PPCoS." With this serving arrangement, the Customer applies a priority identifier to each Ethernet frame (packet) within an EVC, and the packet is given the associated CoS priority level within the AT&T network.

PPCoS Service Arrangement is offered where suitable PPCoS facilities exist, and may not be available at all locations for which the Basic Service Arrangement is available.

PPCoS Customer Port Connection (PPCoS port)
This component provides the physical transport facilities from the Customer's premises to an Ethernet switch at the Telephone Company central office. The Customer Port Connection is available at transmission speeds of 100 Mbps, 1 Gbps and 10 Gbps.

Committed Information Rate (CIR) and Class of Service (CoS) Packages
CIR, sometimes referred to as the "Logical Channel" of the port, provides the bandwidth available on a Customer Port Connection. CIR is available per Customer Port Connection in increments ranging from 2 Mbps to 10,000 Mbps. Under the PPCoS Service Arrangement, CIR is offered in "packages" that specify the maximum percentage of traffic that may be assigned a given Class of Service in a variety of combinations. Each PPCoS port will be ordered with one PPCoS CIR package. Customers may select a PPCoS CIR package that best matches the characteristics of their data and its associated priority levels.

PPCoS Packages (listed in hierarchical order from highest priority to lowest priority):

1. Multimedia High: Allows Customer to designate up to 100% of port CIR as "Real Time" and remaining percentage (if any)can be divided among any/all CoS (below Real Time) as ordered.

2. Multimedia Standard: Allows Customer to designate up to 50% of port CIR as "Real Time" and the remaining percentage can be divided among any/all CoS (below Real Time) as ordered.

3. Critical Data: Allows Customer to designate up to 80% of port CIR as "Business Critical - High" and the remaining percentage can be divided among any/all CoS (below Business Critical - High) as ordered.

4. Business Data: Allows Customer to designate up to 90% of port CIR as "– Business Critical - Medium" and the remaining percentage can be divided among any/all CoS (below Business Critical - Medium) as ordered.

Per Packet Class of Service - Classes of Service
The PPCoS CIR packages are provisioned on PPCoS ports and allow the customer to apply a CoS priority indicator to each Ethernet frame (packet) and AT&T will route the packet with the assigned CoS priority. The customer-assigned priority will signify which of the following six Classes of Service AT&T will apply to that frame. PPCoS Ports support the same Classes of Service as are supported by the Basic Service Arrangement, plus an additional Class of Service (Non-Critical - Low) as described below. CoS options are listed as a hierarchy, from "highest" to "lowest" based on network prioritization and performance as follows:

- Real-Time
- Interactive
- Business Critical-High
- Business Critical-Medium
- Non-Critical High
- Non-Critical Low: Supports the lowest priority traffic.

PPCoS Scheduling Method
PPCoS ports can be ordered in one of two available configurations in order to support different "scheduling methods." The AT&T Switched Ethernet Service network components will create a separate queue for each CoS served according to its weight/priority to ensure that higher CoS packets are prioritized over lower, but that even the lowest CoS is not "starved".

Port-Level Scheduling: Under this method, AT&T will prioritize all traffic on the port using a single queue schedule, so that the specified percentages of each priority are allowed to transit the network. This is the only option applicable to "port-based" service. This method can also be used for VLAN-based ports if the Customer desires CoS priority to be applied as a single queue at the port level.

VLAN Level Scheduling: Under this method, there are individual scheduling queues for each VLAN on the port and the priority or volume of packets on one VLAN have no impact on another VLAN. This may be appropriate when the Customer needs each VLAN to have its own prioritization schedule without impacting other VLANs on the port. Requests to change the type of PPCoS Scheduling Method of an existing port may require a new port to be ordered.

Optional Features:

Additional MAC Addresses: Provides for a higher limit of MAC addresses on the associated AT&T Switched Ethernet Service port. This feature is offered on a per port basis. When a Customer subscribes to this feature, the EVC limit associated with multipoint EVCs shall be increased from 50 to 100 for each multipoint EVC present on that port. See Section 2.3 Service Configuration.

Regenerator: Regenerating technology provides essential detection and retransmission of Ethernet signals. The type of transport medium and equipment needed for regeneration will be provided only as required by AT&T when actual fiber facility distance between central office locations exceeds design limits (typically more than 20 – 30 IOF miles, depending on conditions) and will require a repeater rate element to be charged. One such repeater charge will be applicable on ports with distance of 20 – 60 miles. Another repeater charge is applicable if the distance is 60 to 90 miles, and a 3rd will apply if the port is 90 miles or more, up to the maximum of 100 miles. The Regenerator rate element is applicable on a on a per port basis for 100 Mbps, 1 Gbps and 10 Gbps ports. Since the charge already accounts for the potential for multiple ports to use the same technology, the charge is still applicable per port when multiple ports traverse the same path.

Customer Network Management: The Customer Network Management feature is offered to all customers subscribing to AT&T Switched Ethernet Service at no additional charge. Customer Network Management capabilities are available using AT&T BusinessDirect® and provide alarm surveillance, SLA reporting, performance reporting, maintenance trouble reporting, and SLA credit requests. Customers must have a web interface to access and monitor their network using the AT&T BusinessDirect web portal.

Service Configurations:

Port and EVC Settings and Limitations:

Port Settings: The customer subscribes to a Port, which has both a physical limit of the interface and the subscribed Committed Information Rate (CIR) available to be used by the customer when assigning EVCs. This is referred to as the Port CIR and is often referred to as the "logical channel capacity" in the communications industry. Thus a Port CIR can never be HIGHER than the physical port capacity, e.g. you cannot have a 500M CIR on a 100M port. But a Port CIR is frequently LOWER than the physical capacity, e.g. a 500M CIR on a 1000M port. This configuration allows customers to size the "logical" capacity to meet their current requirements and can easily be upgraded (with no physical changes) to support higher capacity Port CIR. Similarly, the Port has a Class of Service subscription that designates the highest level CoS that will be needed on that Port.

EVC Settings: Customers have many options for creating virtual connections between ports using EVCs in a point-to-point or multi-point configuration. The CIR of the EVC can be set in 1 Mbps increments from 1 Mbps to 1000 Mbps, up to the subscribed and unassigned Port CIR capacity. A customer may have a 100M Port Connection and a 50M Port CIR and may use the entire capacity for a single 50M EVC to another AT&T Switched Ethernet Service port. Alternatively, the customer may have five separate 10M EVCs to five other AT&T

Switched Ethernet Service ports. But they can never assign a total (aggregate) of EVC CIRs that is higher than the Port CIR. AT&T Switched Ethernet Service does not offer over-subscription. The EVC also is designated with a CoS for that EVC. The CoS cannot be higher than that subscribed, e.g. a port with Interactive CoS cannot have an EVC with a Real Time CoS. However an EVC can have a lower level CoS if desired, e.g. a port with Interactive CoS can have an EVC with a Non Critical High setting, which might be appropriate when the distant port only supports that (NC-H) CoS.

Important Note: The aggregate assigned Committed Information Rate (CIR) for all EVCs between any two Customer ports cannot exceed 1000 Mbps.

There is a limit to the quantity of EVCs that may be provisioned on a single port:

Port Type	Maximum EVCs
100 Mbps	Up to 8 EVCs
1 Gbps	Up to 64 EVCs
10 Gbps	Up to 256 EVCs

MAC Address Limitations: Customers may configure EVCs as point-to-point (connecting two locations) or as multipoint (connecting three or more locations), as defined above. Point-to-point EVCs (i.e. EVCs between two ports) can be associated with an unlimited number of MAC addresses. Multipoint EVCs (i.e., EVCs between three or more ports) will be limited to 50 MAC addresses per multipoint EVC that is present on each port, unless the customer subscribes to the "Additional MAC Addresses" feature for that port. MAC addresses associated with point-to-point EVCs do no count against this limit. For example, a port that is provisioned with 3 separate multipoint EVCs may have up to 50 MAC addresses associated with each of those EVCs, for a total of 150 MAC addresses in use on that port, but each EVC is still limited to a maximum of 50 MAC addresses.

Frame Size Limits: AT&T Switched Ethernet Service will be configured to support Ethernet frame sizes up to 1526 bytes on a 100 Mbps port. For service provisioned on 1 Gbps and 10 Gbps ports the maximum frame size will be 9126 bytes. Extended frame sizes on 1 Gbps ports may be restricted to less than 9126 bytes when the port is provisioned at CIR speeds of 10 Mbps or less but at minimum will allow 1526 bytes. There are plans to increase the 1526 limit to 1720 in the future. Contact Product Manager if you have a current need for up to 1720 on a port currently limited to 1526.

Network Policing Policy:

EVC Policing: At the ingress port of AT&T Switched Ethernet Service, customer's bandwidth is **policed** to the CIR values of the EVC. *Any traffic in excess of the CIR value will be discarded at the ingress port.*

Symmetric Point to Point EVCs: All point to point EVCs must be symmetrical, e.g. 10Mbps at each end, cannot be 10M at one end and 20M at the other.

Asymmetric Multipoint EVCs: Multipoint EVCs can have different EVC CIR assigned to each port, based on the needs of traffic at that port. For example a 5 port multipoint network may have a 1G Port / 500M CIR at the primary hub location and may have 100M / 100M CIR at each of 4 remotes. If the majority of traffic is to and from the hub, it can easily accommodate simultaneous 100M to each site for a combined 400M. Customer may also decide that due to bursty nature of traffic and statistical multiplexing, the aggregate traffic from the hub will normally not exceed 250M. Customer may choose the lower priced 250M CIR but if the hub tries to transmit at rate greater than 250M the packets above the CIR value may be discarded. Rate shaping and other techniques may limit this risk.

General Service Limitations:

- There is no option to temporarily suspend service
- Service may not be available where facilities do not exist, even if previously available in the same area or location.
- Service is limited to be physically intraLATA although it may be used in conjunction with an interLATA network provided by customer or other network providers
- The service is only offered within AT&T Telco territory (22 states), either in-franchise or via designated out-of-franchise exchanges and/or via meetpoint with other ILECs.
- Regular rules and policies pertaining to service demarcation shall apply

AT&T Switched Ethernet (ASE) Service and Features

Feature Name	Identifier	Feature Description
Basic Service Arrangement (Basic or BSA) Ports		
ASE (BSA) Connection 10/100 Mbps	EYQEX	10/100 Mbps Ethernet port per location; Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
ASE (BSA) Connection 1 Gigabit Ethernet	EYQFX	1000 Mbps Ethernet port per location; Assessed per interface at bandwidths of 1Gbps Ethernet. The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet

Feature Name	Identifier	Feature Description
		network, and a port on the NTE.
ASE (BSA) Connection 10 Gigabit Ethernet	EYQGX	Assessed per interface at bandwidths of 10Gbps Ethernet. The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
Basic Service Arrangement Class of Service (CoS) and Committed Information Rate (CIR)		
Real Time		
ASE (BSA) Committed Information Rate – 2 Mbps Real Time	R6E2XRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4 Mbps Real Time	R6E4XRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5 Mbps Real Time	R6EAXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 8 Mbps Real Time	R6E8XRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10 Mbps Real Time	R6EBXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 20 Mbps Real Time	R6EDXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed	R6EHXRT	A statistically guaranteed level of transmission or

Feature Name	Identifier	Feature Description
Information Rate – 50 Mbps Real Time		guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 100 Mbps Real Time	R6ELXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 150 Mbps Real Time	R6ENXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 250 Mbps Real Time	R6EQXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 500 Mbps Real Time	R6ETXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 600 Mbps Real Time	R6EUXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 1000 Mbps Real Time	R6EZXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2000 Mbps Real Time	R61BXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2500 Mbps Real Time	R61CXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).

Feature Name	Identifier	Feature Description
ASE (BSA) Committed Information Rate – 4000 Mbps Real Time	R61FXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5000 Mbps Real Time	R61HXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 7500 Mbps Real Time	R61NXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 9500 Mbps Real Time	R61RXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10000 Mbps Real Time	R61SXRT	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Real time Class of Service (CoS).
Interactive		
ASE (BSA) Committed Information Rate – 2 Mbps Interactive	R6E2XIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4 Mbps Interactive	R6E4XIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5 Mbps Interactive	R6EAXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 8 Mbps Interactive	R6E8XIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs

Feature Name	Identifier	Feature Description
		should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10 Mbps Interactive	R6EBXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 20 Mbps Interactive	R6EDXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 50 Mbps Interactive	R6EHXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 100 Mbps Interactive	R6ELXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 150 Mbps Interactive	R6ENXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 250 Mbps Interactive	R6EQXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 500 Mbps Interactive	R6ETXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 600 Mbps Interactive	R6EUXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate –	R6EZXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will

Feature Name	Identifier	Feature Description
1000 Mbps Interactive		provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2000 Mbps Interactive	R61BXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2500 Mbps Interactive	R61CXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4000 Mbps Interactive	R61FXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5000 Mbps Interactive	R61HXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 7500 Mbps Interactive	R61NXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 9500 Mbps Interactive	R61RXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10000 Mbps Interactive	R61SXIA	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Interactive Class of Service (CoS).
Business Critical-High		
ASE (BSA) Committed Information Rate – 2 Mbps Business Critical High	R6E2XBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).

Feature Name	Identifier	Feature Description
ASE (BSA) Committed Information Rate – 4 Mbps Business Critical High	R6E4XBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5 Mbps Business Critical High	R6EAXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 8 Mbps Business Critical High	R6E8XBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10 Mbps Business Critical High	R6EBXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 20 Mbps Business Critical High	R6EDXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 50 Mbps Business Critical High	R6EHXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 100 Mbps Business Critical High	R6ELXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 150 Mbps Business Critical High	R6ENXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 250 Mbps Business Critical High	R6EQXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical

Feature Name	Identifier	Feature Description
		High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 500 Mbps Business Critical High	R6ETXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 600 Mbps Business Critical High	R6EUXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 1000 Mbps Business Critical High	R6EZXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2000 Mbps Business Critical High	R61BXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2500 Mbps Business Critical High	R61CXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4000 Mbps Business Critical High	R61FXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5000 Mbps Business Critical High	R61HXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 7500 Mbps Business Critical High	R61NXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 9500 Mbps Business	R61RXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs

Feature Name	Identifier	Feature Description
Critical High		should not exceed the CIR. Business Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10000 Mbps Business Critical High	R61SXBH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical High Class of Service (CoS).
Business Critical-Medium		
ASE (BSA) Committed Information Rate – 2 Mbps Business Critical Medium	R6E2XBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4 Mbps Business Critical Medium	R6E4XBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5 Mbps Business Critical Medium	R6EAXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 8 Mbps Business Critical Medium	R6E8XBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10 Mbps Business Critical Medium	R6EBXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 20 Mbps Business Critical Medium	R6EDXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 50 Mbps Business Critical Medium	R6EHXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).

Feature Name	Identifier	Feature Description
ASE (BSA) Committed Information Rate – 100 Mbps Business Critical Medium	R6ELXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 150 Mbps Business Critical Medium	R6ENXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 250 Mbps Business Critical Medium	R6EQXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 500 Mbps Business Critical Medium	R6ETXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 600 Mbps Business Critical Medium	R6EUXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 1000 Mbps Business Critical Medium	R6EZXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2000 Mbps Business Critical Medium	R61BXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2500 Mbps Business Critical Medium	R61CXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4000 Mbps Business Critical Medium	R61FXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical

Feature Name	Identifier	Feature Description
		Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5000 Mbps Business Critical Medium	R61HXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 7500 Mbps Business Critical Medium	R61NXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 9500 Mbps Business Critical Medium	R61RXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10000 Mbps Business Critical Medium	R61SXBM	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Critical Medium Class of Service (CoS).
Non-Critical High		
ASE (BSA) Committed Information Rate – 2 Mbps Non-Critical High	R6E2XNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4 Mbps Non-Critical High	R6E4XNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5 Mbps Non-Critical High	R6EAXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 8 Mbps Non-Critical High	R6E8XNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10	R6EBXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will

Feature Name	Identifier	Feature Description
Mbps Non-Critical High		provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 20 Mbps Non-Critical High	R6EDXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 50 Mbps Non-Critical High	R6EHXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 100 Mbps Non-Critical High	R6ELXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 150 Mbps Non-Critical High	R6ENXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 250 Mbps Non-Critical High	R6EQXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 500 Mbps Non-Critical High	R6ETXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 600 Mbps Non-Critical High	R6EUXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 1000 Mbps Non-Critical High	R6EZXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed	R61BXNH	A statistically guaranteed level of transmission or

Feature Name	Identifier	Feature Description
Information Rate – 2000 Mbps Non-Critical High		guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 2500 Mbps Non-Critical High	R61CXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 4000 Mbps Non-Critical High	R61FXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 5000 Mbps Non-Critical High	R61HXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 7500 Mbps Non-Critical High	R61NXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 9500 Mbps Non-Critical High	R61RXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
ASE (BSA) Committed Information Rate – 10000 Mbps Non-Critical High	R61SXNH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Non-Critical High Class of Service (CoS).
Per Packet Class of Service (PPCoS) Arrangement Ports		
ASE (PPCoS) Connection 10/100 Mbps	EYQLX	10/100 Mbps Ethernet port per location; Assessed per interface at bandwidths of 10/100 Mbps (10/100BASE-T). The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
ASE (PPCoS)	EYQMX	1000 Mbps Ethernet port per location;

Feature Name	Identifier	Feature Description
Connection 1 Gigabit Ethernet		Assessed per interface at bandwidths of 1Gbps Ethernet. The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
ASE (PPCoS) Connection 10 Gigabit Ethernet	EYQNX	10Gbps Ethernet port per location; Assessed per interface at bandwidths of 10Gbps Ethernet. The ASE connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
Per Packet Class of Service Arrangement Class of Service (CoS) Packages and Committed Information Rate (CIR)		
Multimedia High		
ASE (PPCoS) Committed Information Rate – 2 Mbps Multimedia High	R6E2XMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4 Mbps Multimedia High	R6E4XMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5 Mbps Multimedia High	R6EAXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 8 Mbps Multimedia High	R6E8XMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10 Mbps Multimedia High	R6EBXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).

Feature Name	Identifier	Feature Description
ASE (PPCoS) Committed Information Rate – 20 Mbps Multimedia High	R6EDXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 50 Mbps Multimedia High	R6EHXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 100 Mbps Multimedia High	R6ELXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 150 Mbps Multimedia High	R6ENXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 250 Mbps Multimedia High	R6EQXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 500 Mbps Multimedia High	R6ETXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 600 Mbps Multimedia High	R6EUXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 1000 Mbps Multimedia High	R6EZXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2000 Mbps Multimedia High	R61BXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High

Feature Name	Identifier	Feature Description
		Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2500 Mbps Multimedia High	R61CXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4000 Mbps Multimedia High	R61FXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5000 Mbps Multimedia High	R61HXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 7500 Mbps Multimedia High	R61NXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 9500 Mbps Multimedia High	R61RXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10000 Mbps Multimedia High	R61SXMH	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia High Class of Service (CoS).
Multimedia Standard		
ASE (PPCoS) Committed Information Rate – 2 Mbps Multimedia Standard	R6E2XMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4 Mbps Multimedia Standard	R6E4XMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information	R6EAXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will

Feature Name	Identifier	Feature Description
Rate – 5 Mbps Multimedia Standard		provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 8 Mbps Multimedia Standard	R6E8XMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10 Mbps Multimedia Standard	R6EBXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 20 Mbps Multimedia Standard	R6EDXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 50 Mbps Multimedia Standard	R6EHXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 100 Mbps Multimedia Standard	R6ELXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 150 Mbps Multimedia Standard	R6ENXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 250 Mbps Multimedia Standard	R6EQXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 500 Mbps Multimedia Standard	R6ETXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS)	R6EUXMS	A statistically guaranteed level of transmission or

Feature Name	Identifier	Feature Description
Committed Information Rate – 600 Mbps Multimedia Standard		guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 1000 Mbps Multimedia Standard	R6EZXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2000 Mbps Multimedia Standard	R61BXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2500 Mbps Multimedia Standard	R61CXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4000 Mbps Multimedia Standard	R61FXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5000 Mbps Multimedia Standard	R61HXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 7500 Mbps Multimedia Standard	R61NXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 9500 Mbps Multimedia Standard	R61RXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10000 Mbps Multimedia Standard	R61SXMS	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Multimedia Standard Class of Service (CoS).

Feature Name	Identifier	Feature Description
Critical Data		
ASE (PPCoS) Committed Information Rate – 2 Mbps Critical Data	R6E2XCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4 Mbps Critical Data	R6E4XCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5 Mbps Critical Data	R6EAXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 8 Mbps Critical Data	R6E8XCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10 Mbps Critical Data	R6EBXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 20 Mbps Critical Data	R6EDXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 50 Mbps Critical Data	R6EHXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 100 Mbps Critical Data	R6ELXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 150 Mbps	R6ENXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs

Feature Name	Identifier	Feature Description
Critical Data		should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 250 Mbps Critical Data	R6EQXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 500 Mbps Critical Data	R6ETXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 600 Mbps Critical Data	R6EUXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 1000 Mbps Critical Data	R6EZXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2000 Mbps Critical Data	R61BXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2500 Mbps Critical Data	R61CXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4000 Mbps Critical Data	R61FXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5000 Mbps Critical Data	R61HXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information	R61NXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will

Feature Name	Identifier	Feature Description
Rate – 7500 Mbps Critical Data		provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 9500 Mbps Critical Data	R61RXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10000 Mbps Critical Data	R61SXCD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Critical Data Class of Service (CoS).
Business Data		
ASE (PPCoS) Committed Information Rate – 2 Mbps Business Data	R6E2XBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4 Mbps Business Data	R6E4XBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5 Mbps Business Data	R6EAXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 8 Mbps Business Data	R6E8XBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10 Mbps Business Data	R6EBXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 20 Mbps Business Data	R6EDXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).

Feature Name	Identifier	Feature Description
ASE (PPCoS) Committed Information Rate – 50 Mbps Business Data	R6EHXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 100 Mbps Business Data	R6ELXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 150 Mbps Business Data	R6ENXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 250 Mbps Business Data	R6EQXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 500 Mbps Business Data	R6ETXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 600 Mbps Business Data	R6EUXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 1000 Mbps Business Data	R6EZXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2000 Mbps Business Data	R61BXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 2500 Mbps Business Data	R61CXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class

Feature Name	Identifier	Feature Description
		of Service (CoS).
ASE (PPCoS) Committed Information Rate – 4000 Mbps Business Data	R61FXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 5000 Mbps Business Data	R61HXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 7500 Mbps Business Data	R61NXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 9500 Mbps Business Data	R61RXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
ASE (PPCoS) Committed Information Rate – 10000 Mbps Business Data	R61SXBD	A statistically guaranteed level of transmission or guaranteed bandwidth that the network will provide to the EVC. The sum total of the EVCs should not exceed the CIR. Business Data Class of Service (CoS).
Optional Features		
ASE Additional MAC Addresses (51-100) Per Port	M2CBX	MAC Address rate element is a data link layer protocol used for Layer 2 connectivity and is assessed per MAC address group 51-100. A limit of 100 MAC addresses total per Basic Connection. A technical review via will be necessary to determine if service can be provided.
ASE Regenerator 10/100 Mbps port	EYQHX	Regenerating technology provides essential detection and retransmission of Ethernet signals. The type of transport medium and equipment needed for regeneration will be provided only as required by AT&T when actual fiber facility distance between central office locations exceeds design limits.
ASE Regenerator 1 Gbps port	EYQJX	Regenerating technology provides essential detection and retransmission of Ethernet signals. The type of transport medium and equipment needed for regeneration will be provided only as

Feature Name	Identifier	Feature Description
		required by AT&T when actual fiber facility distance between central office locations exceeds design limits.
ASE Regenerator 10 Gbps port	EYQKX	Regenerating technology provides essential detection and retransmission of Ethernet signals. The type of transport medium and equipment needed for regeneration will be provided only as required by AT&T when actual fiber facility distance between central office locations exceeds design limits.
ASE Administrative Change Charge	ORCMX	Service order change charge, per order, for customer initiated inside moves or reconfiguration of existing ASE ports and CIR.

OPT-E-MAN Managed Service Bundles

AT&T **OPT-E-MAN** Managed Service Bundle is a fully managed Customer Edge to Customer Edge service providing a managed solution for AT&T **OPT-E-MAN** Transport ("AT&T **OPT-E-MAN**").

AT&T Optical Ethernet Transparent LAN Service (OPT-E-MAN) is an advanced switched Ethernet product that provides point-to-point and point-to-multipoint transparent LAN service (TLS) for a metro area. Fiber facilities are required, as is AT&T-owned network terminating equipment (NTE) located at the customer premises. The current OPT-E-MAN product supports both 10/100 Mbps and 1 Gbps customer handoffs with bandwidth CIR options ranging from 2 Mbps to 1 Gbps. OPT-E-MAN can be used for interconnecting multiple customer LANs within the same LATA (i.e., IntraLATA) appearing as segments on the same LAN. OPT-E-MAN is also available as a high-speed connection to AT&T Ethernet Dedicated Internet Access (EDIA) service.

Under the AT&T OPT-E-MAN Managed Service Bundle, AT&T provides the following:

Standard:

- OPT-E-MAN 10/100Mbps or 1Gbps Ethernet Connection / Port
- Bronze or Silver Grade of Service
- Basic or Basic Plus configuration
- Ethernet Wire Service or Ethernet Relay Service
- AT&T owned Managed Router (7X24X365)
- Router Maintenance (7X24X4 Hr Response)
- Inside Wiring and or Demarc extension (up to 300 feet in customer provided conduit)
- Business line and modem for Out-of Band (OOB) emergency access to the Managed Router

- Network Operations Management Reports;
- Managed SLAs
    - Network Performance SLAs (Packet Loss and Latency))
    - Standard Provisioning, Availability/TTR, and Proactive Notification SLAs
    - CAT 1, 2, & 3 Outages

Standard Features and Functions

Design and Engineering

AT&T will design and/or document the Customer's Network topology, applications, connectivity, projected traffic flows, and performance based upon Customer provided information and Customer-specified requirements.

- AT&T will validate hardware, software and network platforms provided as the result of the engineered router network design utilizing established AT&T testing and troubleshooting criteria.
- AT&T will also develop specifications for the type of router hardware and software necessary to support the mutually agreed goals, objectives and requirements of the engineered network solution. The specifications will include the manufacturer's router model, port capacity, software version, appropriate memory and protocol support, and addressing/routing tables.
- AT&T will review with Customer all pre-existing hardware configurations for compatibility with the Customer's requested network design.
- AT&T will document the network addressing plans, logical network device assignments and logical parameters for network management connectivity to the Customer's Network.

Installation Functions

AT&T furnishes and installs all network components and AT&T Furnished Equipment at all Sites on the Customer Network. At AT&T's option, the AT&T Furnished Equipment may come from AT&T inventory or directly from the manufacturer. As part of the installation function, AT&T provides staging of AT&T Furnished Equipment in which the AT&T Furnished Equipment is configured, and shipped to the designated Site.

During test and turn-up, the Field Engineer installs AT&T Furnished Equipment on the installation date specified in the Project Schedule. AT&T verifies connectivity to the Site and transfers the Site to the Global Client Service Center (GCSC) for management center acceptance. This marks the end of the implementation process for that particular site. AT&T technicians test connectivity through the network equipment into the AT&T Network.

AT&T will perform physical installations of AT&T Furnished Equipment or Customer Provided Equipment during local Standard Business Hours, Monday through Friday, utilizing an AT&T provided on-site supplier.

Implementation Functions

AT&T provides project implementation, management and installation services for all network and equipment components.

Project Implementation Management ("PIM") includes the development of project schedules and identification of all Customer and AT&T activities necessary to implement the network solution. This includes:

- Development of project timeline
- Coordination of transport and provisioning of Equipment
- Tracking and managing to completion all activities in AT&T project plan
- Logical Management Configuration
- AT&T will load the logical management configurations and perform logical connectivity testing to determine that connected Sites can communicate with each other and with the appropriate AT&T network management center.
- AT&T will utilize network acceptance tests between the AT&T work centers and designated Customer interface(s) to verify connectivity between Customer LAN ports. These tests do not test host/LAN applications through the network.
- Logical configurations loaded on Equipment, whether AT&T or Customer Equipment, are the sole and exclusive intellectual property of AT&T. Logical Configurations are confidential and proprietary AT&T Information. Upon termination of Service, Customer shall have no right to use, or ownership interest in, the logical configurations loaded on Equipment. Upon Service termination, including individual Site deletions, Customer shall ensure that AT&T has all opportunities to erase logical configurations.

Network Management

Standard Management functions consist of the following

- Network Monitoring and Fault Identification,
- Fault Resolution, and
- Ongoing Configuration Management

Network Monitoring and Fault Identification

AT&T will proactively monitor the Customer Network, 7 days a week/ 24 hours per day, to identify faults within the Service Boundaries. AT&T WAN transport problems will be isolated, diagnosed and resolved by the AT&T network management center.

In providing the Network Monitoring and Fault Identification function, AT&T will:

- Monitor CPE interfaces within the Service Boundary utilizing SNMP techniques in-band and out-of-band.

- Perform diagnostic testing of CPE interfaces and isolate, sectionalize and identify faults as being physical or logical in nature.
- Maintain databases consisting of the logical configurations of Customer wide area network, WAN site and network connectivity, software specifications and Customer contact information.
- Provide trouble status to Customers at 1 hour intervals.

The AT&T GCSC Global Client Support Center serves as an SPOC for AT&T related faults. This activity includes the coordinated resolution with an AT&T network management center of Router Site faults caused by AT&T transport problems. . In addition, the California Major Account Center (CMAC) will receive and track trouble ticket status until the trouble ticket is closed out with the customer NOC or the customer. Either the AT&T GCSC or the CMAC can be contacted to initiate a trouble ticket, get status of an existing trouble ticket or request an escalation.

Logical Fault Resolution

AT&T manages the logical configuration design for the Customer Network. Fault resolution provides for the coordinated identification and resolution of logical connectivity network problems for AT&T Furnished Equipment or Customer Equipment within the Service Boundary. Logical fault resolution includes:

- Management of the logical trouble resolution process;
- Proactive problem management and engagement of additional tiered expertise, if necessary, to resolve the logical trouble;
- If the root cause of the logical failure is outside the Service Boundary, the problem will be referred to the Customer with the diagnosis. If the cause of the failure is beyond the Service Boundary, Customer may request AT&T to assist in resolving the failure in which case Customer shall be billed on an hourly basis in accordance with the OPT-E-MAN Managed Service Bundle Pricing Schedule entitled "Supplementary Professional, Engineering and Technical Services."

Ongoing Configuration Management (OCM)

AT&T will manage a database of specific information regarding the logical address configuration(s) of the AT&T Furnished Equipment and Customer Equipment and associated software specifications. AT&T will manage changes made to access lists, device passwords, and will use secured community strings for SNMP access. Configuration changes due to maintenance and moves, adds, changes or deletes ("MACDs") will be included in the database. Reloads of router configurations from the AT&T technical platform database will be performed by the AT&T work center(s) if required as a result of major outages or system failures. AT&T work center(s) may initiate software updates to Customer Equipment with prior notification to and approval from Customer.

Maintenance Functions

Except as limited herein, maintenance applies to the physical, software and firmware failure of Equipment maintained by AT&T. AT&T Furnished Equipment may be maintained only by AT&T. Customer may request AT&T to provide maintenance of Customer Equipment. Customer Equipment must be AT&T-certified. AT&T maintenance extends only to the following equipment:

- CSU/DSU
- Dial backup modem
- Out of band management access modems
- Routers

AT&T will proactively isolate and diagnose Equipment hardware faults and will interface with Equipment vendors and other vendors for engineering support, parts ordering and fault resolution of physical faults within the identified service boundaries, as well as respond to Customer-reported faults. If the physical failure's root cause is outside the contractually defined service boundaries, the problem will be referred back to the Customer with the diagnosis. Equipment maintenance will also cover software/firmware problems that cannot be resolved remotely.

Equipment Maintenance Support Levels

Four Hour, 24-Hour-a-Day Service (7X24)

Under Four Hour, 24-Hour-a-Day Service (7x24), repair coverage is offered 24 hours per day, seven days per week. If dispatch is required, a field engineer will arrive at the Customer premises within four hours of the completion of trouble resolution processes, regardless of the time of day or day of the week. Dispatch of technicians will only occur after remote trouble resolution processes have determined that the problem is in the Equipment.

Network Operations Management Reports

The standard OPT-E-MAN MANAGED SERVICE BUNDLE Network operations reports focus on basic router performance and include WAN and LAN utilization information. These reports are available, in color charts and graphs, via a web-based, HTML viewable format. Operations management reports are provided on a scheduled periodic basis as agreed to by AT&T and the customer, with each report displaying information gathered during the previous period's activity. Reports cover both AT&T Furnished Equipment and Customer Equipment. The standard reports are the following:

Router Information Report

The Router Detail Report provides basic inventory and logistical information about the router, such as router name, location, PVC terminations, DLCI and port speeds.

Router Performance Report

The Router Performance Report provides network and router utilization information, and network health information. The report may summarize network usage volumes and averages or report router performance on an exception basis.

Access Port Report

The Access Port Report provides the network and router performance from the volume of data that has been sent or received at the WAN port interface. This report gives a summary of WAN port activity and also lists areas for concern, based on pre-defined thresholds for WAN use.

LAN Port Report

The LAN Port Report provides the router performance based on the utilization of the LAN ports on the router. These reports, like WAN reports, provide information on utilization of LAN ports on the router and also indicate exceptions to pre-described thresholds.

OPT-E-MAN (OEM) Managed Service Bundles w/ Standard Features

Feature Name	Identifier	Feature Description
OPT-E-MAN (OEM) Managed Service Bundles w/ Standard Features		
10/100 Mbps Connection – Bronze CIR Grade of Service		
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB2A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB2B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB4A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.

Feature Name	Identifier	Feature Description
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB4B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB5A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB5B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB8A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB8B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB10A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic	OEMB10B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or

Feature Name	Identifier	Feature Description
or Basic Plus Connection 10/100 Mbps – 10 Mbps Bronze w Type 22A Router Cu Ethernet		Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB20A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB20B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB50A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Bronze w Type 10A Router Cu Ethernet	OEMB50B	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 100 Mbps Bronze w Type 10A Router Cu Ethernet	OEMB100A	10/100 Mbps Ethernet port per location; Includes: Bronze CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
10/100 Mbps Connection –Silver CIR Grade of Service		
OEM Managed	OEMS2A	10/100 Mbps Ethernet port per location;

Feature Name	Identifier	Feature Description
Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Silver w Type 7A Router Cu Ethernet		Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Silver w Type 22A Router Cu Ethernet	OEMS2B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Silver w Type 7A Router Cu Ethernet	OEMS4A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Silver w Type 22A Router Cu Ethernet	OEMS4B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Silver w Type 7A Router Cu Ethernet	OEMS5A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Silver w Type 22A Router Cu Ethernet	OEMS5B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus	OEMS8A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet),

Feature Name	Identifier	Feature Description
Connection 10/100 Mbps – 8 Mbps Silver w Type 7A Router Cu Ethernet		installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Silver w Type 22A Router Cu Ethernet	OEMS8B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Silver w Type 7A Router Cu Ethernet	OEMS10A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Silver w Type 22A Router Cu Ethernet	OEMS10B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Silver w Type 7A Router Cu Ethernet	OEMS20A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Silver w Type 22A Router Cu Ethernet	OEMS20B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps	OEMS50A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and

Feature Name	Identifier	Feature Description
Silver w Type 22A Router Cu Ethernet		diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Silver w Type 10A Router Cu Ethernet	OEMS50B	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 100 Mbps Silver w Type 10A Router Cu Ethernet	OEMS100A	10/100 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
1 Gbps Connection – Bronze CIR Grade of Service		
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG2A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG2B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG4A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4	OEMBG4B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including

Feature Name	Identifier	Feature Description
Mbps Bronze w Type 9A Router Fiber Ethernet		configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG5A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG5B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG8A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG8B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG10A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Bronze w Type 9A Router Fiber	OEMBG10B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.

Feature Name	Identifier	Feature Description
Ethernet		
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG20A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG20B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG50A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 11A Router Fiber Ethernet	OEMBG50B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG50C	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Bronze w Type 11A Router Fiber Ethernet	OEMBG100A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed	OEMBG100B	1000 Mbps Ethernet port per location;

Feature Name	Identifier	Feature Description
Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Bronze w Type 26 Router Fiber Ethernet		Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Bronze w Type 11A Router Fiber Ethernet	OEMBG150A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG150B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG200A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG250B	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 500 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG500A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus	OEMBG600A	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet),

Feature Name	Identifier	Feature Description
Connection 1 Gbps – 600 Mbps Bronze w Type 27 Router Fiber Ethernet		installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 1000 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG1KA	1000 Mbps Ethernet port per location; Includes: Bronze CIR POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
1 Gbps Connection – Silver CIR Grade of Service		
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG2A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG2B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG4A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG4B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic	OEMSG5A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or

Feature Name	Identifier	Feature Description
or Basic Plus Connection 1 Gbps – 5 Mbps Silver w Type 21A Router Fiber Ethernet		Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG5B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG8A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG8B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG10A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG10B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps –	OEMSG20A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including

Feature Name	Identifier	Feature Description
20 Mbps Silver w Type 21A Router Fiber Ethernet		configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG20B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG50A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG50B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG50C	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG100A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Silver w Type 26 Router Fiber	OEMSG100B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.

Feature Name	Identifier	Feature Description
Ethernet		
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG150A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG150B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG250A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG250B	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 500 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG500A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 600 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG600A	1000 Mbps Ethernet port per location; Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEM Managed	OEMSG1KA	1000 Mbps Ethernet port per location;

Feature Name	Identifier	Feature Description
Service Bundles Basic or Basic Plus Connection 1 Gbps – 1000 Mbps Silver w Type 27 Router Fiber Ethernet		Includes: Silver CIR, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.

OPT-E-MAN Managed Service Bundles Life Cycle Management Features and Services

Life Cycle Management is composed of the following functions:

- Moves, Adds, Changes and Deletes (MACDs) (via Business Direct)
- Supplementary Professional, Engineering and Technical Services
- Configuration Changes

Moves, Adds, Changes and Deletes

Moves, Adds, Changes and Deletes consist of: Addition, Deletion or Moves of hardware at a Customer site, modifying routing tables, adding, deleting or modifying protocols or protocol prioritization schemes, Software Additions/Modifications of Serial and/or LAN connections. The AT&T Work Center will perform such work. Moves, Adds and Changes are provided on a per network, per transaction and/or per event basis as set forth in the Pricing Schedule, in the section entitled "Life Cycle Management Changes." Any movement that is not an Inside Move or an Outside Move is billed as a Site de-install and new order.

All rates for Lifecycle activity assume that work will be performed and completed during Standard Business Hours. In the event work is performed during non-Standard Business Hours, the applicable hourly rate for non-Standard Business Hours will apply in addition to the lifecycle charges.

Supplementary Professional, Engineering and Technical Services

AT&T will provide supplementary professional, engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the table entitled "Supplementary Professional, Engineering and Technical Services."

AT&T will perform Professional Services as requested by Customer and agreed to by AT&T. If AT&T is required to perform Services outside of Standard Business Hours, then the Non-Standard Hours rates will apply in addition to the appropriate charge for the Service being performed.

Configuration Changes

Configuration changes will be performed as requested by Customer and will be billed at the rates set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Features."

OPT-E-MAN Managed Service Bundles Life Cycle Management Features and Services

Feature Name	Identifier	Feature Description
Moves, Adds, Changes and Deletes		Moves, Adds, Changes and Deletes consist of: Addition, Deletion or Moves of hardware at a Customer site, modifying routing tables, adding, deleting or modifying protocols or protocol prioritization schemes, Software Additions/Modifications of Serial and/or LAN connections. The AT&T Work Center will perform such work. Moves, Adds and Changes are provided on a per network, per transaction and/or per event basis as set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Features." Any movement that is not an Inside Move or an Outside Move is billed as a Site de-install and new order. All rates for Lifecycle activity assume that work will be performed and completed during Standard Business Hours. In the event work is performed during non-Standard Business Hours, the applicable hourly rate will apply in addition to the lifecycle charges.
Move Router Site (Inside) – Low Complexity	13092L	18xx, 19xx, 28xx, 29xx series routers
Move Router Site (Inside) – Medium Complexity	13092M	38xx, 39xx series routers
Move Router Site (Inside) – High Complexity	13092H	72xx, 73xx, 76xx, ASR1002 series routers
Move Router Site (Outside) - Low Complexity	13093L	18xx, 19xx, 28xx, 29xx series routers
Move Router Site (Outside) - Medium Complexity	13093M	38xx, 39xx series routers
Move Router Site (Outside) - High Complexity	13093H	72xx, 73xx, 76xx, ASR1002 series routers

Feature Name	Identifier	Feature Description
Router Site Add - Low Complexity	13118L	18xx, 19xx, 28xx, 29xx series routers
Router Site Add - Medium Complexity	13118M	38xx, 39xx series routers
Router Site Add - High Complexity	13118H	72xx, 73xx, 76xx, ASR1002 series routers
Add/Delete Router Boards – Low Complexity	13127L	18xx, 19xx, 28xx, 29xx series routers
Add/Delete Router Boards – Medium Complexity	13127M	38xx, 39xx series routers
Add/Delete Router Boards – High Complexity	13127H	72xx, 73xx, 76xx, ASR1002 series routers
Site Delete for AT&T Provided Equipment	13119	Site Delete for AT&T Provided Equipment
Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away	14570	Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away
Cancellation to Receive On-Site Services with Less than Five Business Days notice to AT&T	13109A	Cancellation to Receive On-Site Services with Less than Five Business Days notice to AT&T
Supplementary Professional, Engineering and Technical Services		AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services." AT&T will perform Professional Services as requested by Customer and agreed to by AT&T. If AT&T is required to perform Services outside of Standard Business Hours, then the Non-Standard Hours rates will apply in addition to

Feature Name	Identifier	Feature Description
		the appropriate charge for the Service being performed.
Standard Hours (8am – 5pm local time) First Hour	13109B	Standard Hours (8am – 5pm local time) First Hour. AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Standard Hours (8am – 5pm local time) Subsequent Hour	13109C	Standard Hours (8am – 5pm local time) Subsequent Hour. AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Non-Standard Hours First Hour	13109D	Non-Standard Hours First Hour. AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Non-Standard Hours	13109E	Non-Standard Hours Subsequent Hours.

Feature Name	Identifier	Feature Description
Subsequent Hours		AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Lost Equipment Charge for AT&T Owned CPE	13054	Customer is solely responsible for the loss or destruction of AT&T-owned CPE. If AT&T CPE is lost or destroyed or not able to be returned to AT&T, Customer shall be responsible for replacement value of the equipment (as per Paragraph 74 of the CALNET II Model Contract Language "Title to Equipment"), not to exceed the cost of new, equivalent replacement CPE based on existing State discount found in CALNET II. All costs and labor associated with equipment and software replacement due to manufacture discontinuation, repair, maintenance, and upgrade, is the responsibility of AT&T.
Router Configuration Changes	14158	Configuration changes will be performed as requested by Customer and will be billed at the rates set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Changes."

OPT-E-MAN Managed Service Bundles Optional Up Lift Features and Services

- Router Protocol, Memory and Misc Feature Upgrades to AT&T Owned and Managed Routers
- Optional Architectural Validation Professional Services
- Dial back up (Analog and ISDN (BRI and PRI)
- TACACS Read Only Access

OPT-E-MAN Managed Service Bundles Optional Up Lift Features and Services

Feature Name	Identifier	Feature Description
Router Protocol, Memory and Misc		Router protocol, memory and misc. features upgrades to AT&T owned and managed service

Feature Name	Identifier	Feature Description
Managed Router Feature Upgrades		bundle routers.
Enterprise Services IOS w/o encryption for 18XX series managed router feature upgrade	MSB1000	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 1 and 17 (see router description table).
Enterprise Services IOS w/o encryption for 28XX series managed router feature upgrade	MSB1001	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 2, 3, 4 and 7 (see router description table).
Enterprise Services IOS w/o encryption for 38XX series managed router feature upgrade	MSB1002	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 5, 6, 8, 9, 21, and 22 (see router description table).
Advanced Enterprise Services IOS w encryption for 18XX series managed router feature upgrade	MSB1003	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 1 and 17 (see router description table).
Advanced Enterprise Services IOS w encryption for 28XX series managed router feature upgrade	MSB1004	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 2, 3, 4 and 7 (see router description table).
Advanced Enterprise Services IOS w encryption for 38XX series managed router feature upgrade	MSB1005	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 5, 6, 8, 9, 21, and 22 (see router description table).
Advanced Enterprise Services IOS w encryption for 72XX series managed router feature upgrade	MSB1006	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 26 (see router description table).
Extra Memory for Enterprise and Advanced Enterprise IOS for 18XX series managed router feature upgrade	MSB1007	Extra Memory for Enterprise and Advanced Enterprise IOS for router types 1 and 17 (see router description table).
Extra Serial Port	MSB1008	Extra Serial Port Card for router types 1-9, 17,

Feature Name	Identifier	Feature Description
Card for 18XX, 28XX and 38XX series managed router feature upgrade		21 and 22 (see router description table).
Extra 4 Port Serial Port Adapter Card for 72XX and 73XX series managed router feature upgrade	MSB1009	Extra 4 Port Serial Port Adapter Card for router types 10, 11, 18 and 26 (see router description table).
2-Port Fast Ethernet 100Base TX Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1010	2-Port Fast Ethernet 100Base TX Port Adapter for router types 10, 11, 18 & 26 (see router description table).
4-Port Ethernet 10BaseT Port Adapter fro 72XX and 73XX managed router feature upgrade	MSB1011	4-Port Ethernet 10BaseT Port Adapter for router types 10, 11, 18 & 26 (see router description table).
1-Port Gigabit Ethernet Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1012	1-Port Gigabit Ethernet Port Adapter for router types 10, 11, 18 & 26 (see router description table).
1000BASE-SX Short Wavelength GBIC (Multimode only) for 72XX and 73XX series managed router feature upgrade	MSB1013	1000BASE-SX Short Wavelength GBIC (Multimode only) for router types 10, 11, 18 & 26 (see router description table).
1000BASE-SX Short Wavelength GBIC (Copper) for 72XX and 73XX series managed router feature upgrade	MSB1014	1000BASE-SX Short Wavelength GBIC (Copper) for router types 10, 11, 18 & 26 (see router description table).
Extra 4 port 10/100 Ethernet switch interface card for 28XX and 38XX series managed router feature upgrade	MSB1015	Extra 4 port 10/100 Ethernet switch interface card for router types 1-9, 21 and 22 (see router description table).

Feature Name	Identifier	Feature Description
10/100 routed port HWIC Card for 28XX and 38XX series managed router feature upgrade	MSB1016	10/100 routed port HWIC Card for router types 1-9, 21 and 22 (see router description table).
GE SFP, LC connector LX/LH transceiver for 38XX series managed router feature upgrade	MSB1017	GE SFP, LC connector LX/LH transceiver
1000BASE-SX SFP (DOM) for 38XX series managed router feature upgrade	MSB1018	1000BASE-SX SFP (DOM)
7304 Carrier Card for 7200 Series Port Adapters managed router feature upgrade	MSB1019	7304 Carrier Card for 7200 Series Port Adapters for router types 10, 11, 18 & 26 (see router description table).
Serial Cable managed router feature upgrade	MSB1020	Serial Cable
Console Port to CAS cable managed router feature upgrade	MSB1021	Console Port to CAS cable
Fiber Cable managed router feature upgrade	MSB1022	Fiber Cable
Rack Mount Kit managed router feature upgrade	MSB1023	Rack Mount Kit for 1841 for router types 1 & 17 (see router description table).
Extra Serial Port for ASR1000 series managed router feature upgrade	MSB1024	Extra Serial Port 1000BASE-SX SFP
Extra Serial Cable for ASR1000 series managed router feature upgrade	MSB1025	Extra Serial Port 1000BASE-T SFP (NEBS 3 ESD)
Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter for ASR1000 series	MSB1026	Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter

Feature Name	Identifier	Feature Description
managed router feature upgrade		
2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1027	2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter
Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1028	Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1029	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
G2 Series Routers 19xx, 29xx, 39xx managed router feature upgrades		
GE SFP, LC connector LX/LH transceiver managed router feature upgrade	MSB1030	GE SFP, LC connector LX/LH transceiver
GE SFP, LC connector SX transceiver managed router feature upgrade	MSB1031	GE SFP, LC connector SX transceiver
1000BASE-T SFP managed router feature upgrade	MSB1032	1000BASE-T SFP
1-port 10/100 Routed Port HWIC managed router feature upgrade	MSB1033	1-port 10/100 Routed Port HWIC
GigE high speed WIC managed router feature upgrade	MSB1034	GigE high speed WIC with one SFP slot
1-Port Serial WAN	MSB1035	1-Port Serial WAN Interface Card

Feature Name	Identifier	Feature Description
Interface Card managed router feature upgrade		
4-Port 10/100 Ethernet switch interface card managed router feature upgrade	MSB1036	4-Port 10/100 Ethernet switch interface card
1000BASE-SX SFP (DOM) managed router feature upgrade	MSB1037	1000BASE-SX SFP (DOM)
1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1038	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1039	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
Data IOS for Cisco 19XX Series managed router feature upgrade	MSB1040	Data IOS for Cisco 19XX Series
Security IOS for Cisco 19XX Series managed router feature upgrade	MSB1041	Security IOS for Cisco 19XX Series
Data IOS for Cisco 29XX Series managed router feature upgrade	MSB1042	Data IOS for Cisco 29XX Series
Security IOS for Cisco 29XX Series managed router feature upgrade	MSB1043	Security IOS for Cisco 29XX Series
Data IOS for Cisco 39XX Series managed router feature upgrade	MSB1044	Data IOS for Cisco 39XX Series

Feature Name	Identifier	Feature Description
Security IOS for Cisco 39XX Series managed router feature upgrade	MSB1045	Security IOS for Cisco 39XX Series
COS device 4 port COS switch managed router feature upgrade	MSB1046	COS device 4 port COS switch
Cable from: OOB modem to: COS/4 managed router feature upgrade	MSB1047	Cable from: OOB modem to: COS/4
Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.) managed router feature upgrade	MSB1048	Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.)
AIM Module 1800/2800/3800 managed router feature upgrade	MSB1049	AIM Module 1800/2800/3800 DES/3DES/AES/SSL VPN Encryption/Compression
SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules managed router feature upgrade	MSB1050	SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules
12 port COS Switch managed router feature upgrade	MSB1051	12 port COS Switch
Optional Architectural Validation Professional Services	13096	AT&T's experts analyze an existing router network based upon the customer's network goals and provide specific recommendations for improvements. Additional charges will apply, as specified in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Dial Backup		
Analog (POTS) Dial Backup Management	13060A	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features requires

Feature Name	Identifier	Feature Description
		Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. Analog dial backup provides for individual telephone lines at remote sites to access a dial line at speeds up to 56k in case of primary transport failure. HUB sites may be configured with multiple, bonded analog lines to backup the primary transport in increments of 56k.
ISDN Basic Rate Interface (BRI) Dial Backup Management	13060B	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features requires Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. BRI ports for ISDN may be added to a site router. Up to 4 BRI ports per site router are allowed, subject to capability constraints of the site router.
ISDN Primary Rate Interface (PRI) Dial Backup Management	13060C	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features requires Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. PRI port for ISDN may be added to a site router, subject to capability constraints of the site router.
TACACS (Terminal Access Controller Access Control System) Read Only Access		
TACACS Read Only Access – Router Enablement	TACACSRE	TACACS (Terminal Access Controller Access Control System) Read Only Access Provides secure remote access to AT&T Managed router using an authentication protocol that allows a remote (customer) access server to forward a customer user's logon password to an AT&T server to determine whether access can be allowed to a router.

Feature Name	Identifier	Feature Description
TACACS Read Only Access – Support	TACACSRS	TACACS (Terminal Access Controller Access Control System) Read Only Access Provides secure remote access to AT&T Managed router using an authentication protocol that allows a remote (customer) access server to forward a customer user's logon password to an AT&T server to determine whether access can be allowed to a router.
TACACS Read Only Access – Enablement 1 to 6 Enabled Employees	TACACS1	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.
TACACS Read Only Access – Enablement 7 to 12 Enabled Employees	TACACS2	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.
TACACS Read Only Access – Enablement 13 to 25 Enabled Employees	TACACS3	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.

AT&T provides all network components and configures, monitors, manages and maintains the AT&T-provided Equipment located at the Customer Site.

The management demarcation point for AT&T OPT-E-MAN is the LAN interface card on the router at the Customer Site (Service Boundary).

Logical configurations or other router management commands employed by AT&T with Managed Router Equipment, whether AT&T or Customer-owned Equipment, are the sole and exclusive property of AT&T. Logical configurations and other router commands are confidential AT&T Information. Upon termination of Service or disconnection or termination of a Site, Customer shall have no right to use, or ownership interest in, the logical

configurations or other router management commands present or loaded on Equipment. Upon termination of Service or disconnection or termination of a Site, Customer shall ensure that Equipment is returned or made available to AT&T to allow removal of all AT&T confidential Information, including logical configurations and router management commands.

OPT-E-MAN Managed Service Bundles Router Description

Pricing for at least two routers options, where feasible, are given for each bandwidth. The base router will be sufficient for a basic IP networking. An upgrade router is available for each speed to provide extra performance if needed for adding additional services such as IPX, DLSW, IOS firewall support or anticipation of future growth. In addition, optional versions of software and associated memory are available in addition to address various network requirements. See router description table below.

Router Description Table

Router Type	Router Description	Suggested Max EVC Mbps
AVPN, OPTEMAN and OPTEWAN Managed Service Bundle Router Types	A managed router with internal CSU will be included in each Managed Service Bundle. Engineering rules drive default router selection, based on the port size and optional features selected by the customer; Router configuration will default to the smallest serviceable device for the site. In addition to port size, engineering rules factor in features such class of service. Optional Router models are included where appropriate. For example, a different router could be selected based on the real-time requirements. A base model router may be selected for lower utilization needs such as no or modest real-time traffic, whereas a higher level router may be selected for a more taxing requirement such as supporting an AVPN port with a Multimedia High COS package near the routes bandwidth capacity. The following are a descriptions of the default routers used for the Managed Service Bundles	
Type 1 Router MLPPP	Installation of Managed Router Bundled. Includes configuration, life-cycle maintenance and diagnostic monitoring. T1 PPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X,IP BASE,64F/256D, Cisco 2821 or successor model	1.544Mbps
Type 1A Router MLPPP	Installation of Managed Router Bundled. Includes configuration, life-cycle maintenance and diagnostic monitoring. T1 PPP Configuration: Cisco 1941 with 2	1.544Mbps

Router Type	Router Description	Suggested Max EVC Mbps
	onboard GE, 2 EHWIC slots, 1 ISM slot, 256MB CF default, 512MB DRAM default, IP Base, Cisco 1921 or successor model	
Type 2 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 2-T1 MLPPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X,IP BASE,64F/256D, Cisco 2821 or successor model	3.088Mbps
Type 2A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 2-T1 MLPPP Configuration: Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	3.088Mbps
Type 3 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 3-T1 MLPPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X, IP BASE,64F/256D, Cisco 2821 or successor model	4.632Mbps
Type 3A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 3-T1 MLPPP Configuration: Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	4.632Mbps
Type 4 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Up to 25M DS3 Configuration: AC PWR, 2GE, 1SFP, 2NME, 4HWIC, IP Base, 64F/256D, Cisco 3825 or successor model. For Frame Relay or PPP access	6.176Mbps
Type 4A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	6.176Mbps
Type 5 Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. UP to 25M DS3 Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D, Cisco 3825 or successor model	Up to 10Mbps

Router Type	Router Description	Suggested Max EVC Mbps
Type 5A Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base, Cisco 3925 or successor model	Up to 45Mbps
Type 6 Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Full DS3 Configuration: AC PWR, 2GE, 1SFP, 4NME, 4HWIC, IP Base, 64F/256D, Cisco 3845 or successor model. For Frame Relay or PPP access	45Mbps
Type 6A Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Full DS3 Configuration: Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base, Cisco 3925 or successor model	45Mbps
Type 7 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Low speed Ethernet Configuration: AC PWR,2GE,4HWICs,3PVDM,1NME-X,2AIM,IP BASE,64F/256D, Cisco 2821 or successor model	10Mbps
Type 7A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Low speed Ethernet Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	20Mbps
Type 8 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D , Cisco 3825 or successor model	30Mbps
Type 8A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	30Mbps
Type 9 Router	Installation of Managed Router Bundle. Includes	50Mbps

Router Type	Router Description	Suggested Max EVC Mbps
Fiber Ethernet	configuration, life-cycle maintenance and diagnostic monitoring. AC PWR, 2GE, 1SFP, 4NME, 4HWIC, IP Base, 64F/256D, Cisco 3845 or successor model.	Fiber
Type 9A Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3925 or successor model.	50Mbps Fiber
Type 10 Router Gig Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 7304 or successor model	100Mbps Cu
Type 10A Router Gig Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base., Cisco 3945 or successor model	100Mbps Cu
Type 11 Router Gig Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 7304 or successor model	1Gig Fiber
Type 11A Router Gig Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3945 or successor model	200M Fiber
Type 17 Router DS0	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. DS0 Configuration: Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR, Cisco 1841 or successor model	56Kbps
Type 17A Router DS0	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. DS0 Configuration: Cisco 1941 with 2 onboard GE, 2 EHWIC slots, 1 ISM slot, 256MB CF	56Kbps

Router Type	Router Description	Suggested Max EVC Mbps
	default, 512MB DRAM default, IP Base, Cisco 1921 or successor model	
Type 18 Router DR #1	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 2 GE WAN Port, Cisco 7304 or successor model. (configured for dual router DR pair – must be ordered with complementary router).	Up to 1G fiber
Type 20 Router DLSW Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and Ent. IP SW, Dual Power Supply, Cisco 7206VXR or successor model	DLSW
Type 21 Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D , Cisco 3825 or successor model	30Mbps Fiber
Type 21A Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	30Mbps Fiber
Type 22 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 10/100 Copper Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 3845 or successor model	50Mbps
Type 22A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3945 or successor model	100Mbps
Type 23 Router IPsec Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. High Speed (10/100) Ethernet Configuration: AC PWR,2GE,1SFP,4NME,4HWIC, IP Base, 64F/256D,	IPSEC router

Router Type	Router Description	Suggested Max EVC Mbps
	Cisco 3845 or successor model	
Type 24 Router IPsec Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and IP SW, Cisco 7200 Series IOS Advanced Enterprise Services, Cisco 7206VXR or successor model	IPSEC router
Type 25 Router Gig Fiber Ethernet	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 7606-S, Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B, SUP720 IOS Advanced IP Services SSH, Cat6500 4-port 10 Gigabit Ethernet Module, Cat6500 48-port 10/100/1000 GE Mod: fabric enabled, RJ-45,2700W AC power supply,	10Gig-SR Fiber Handoff
Type 26 Router – Gig E	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and Enterprise IP SW, Cisco 7206VXR or successor mode	Up to 250M
Type 27 Router – Gig E	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco ASR1002 Chassis, 4 built-in GE, Dual P/S, 4GB DRAM, Cisco ASR1002 or successor model	Up to 1G

OPT-E-MAN Managed Services Data Center Stand Alone Routers

Feature Name	Identifier	Feature Description
Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20	MSDCRT1	Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20
IPSEC Standalone router Type 24	MSDCRT2	IPSEC Standalone router Type 24
Traffic Aggregation Standalone router Type 25	MSDCRT3	Traffic Aggregation Standalone router Type 25
Traffic Aggregation Standalone router Type 27	MSDCRT4	Traffic Aggregation Standalone router Type 27

Under the OPT-E-MAN Managed Service Bundles, the Router is owned by AT&T and made available to Customer solely for use as part of OPT-E-MAN Managed Service Bundles.

Upon termination of the Service or de-installation of any Site, Customer shall make the AT&T CPE at such Site available for removal by AT&T or third party designated by AT&T

and return it in the same condition as originally installed, ordinary wear or tear excepted, or Customer shall pay for restoration of the AT&T CPE to such condition.

Customer is solely responsible for the loss or destruction of AT&T-owned CPE. If AT&T CPE is lost or destroyed or not able to be returned to AT&T, Customer shall be responsible for replacement value of the equipment (as per Paragraph 74 of the CALNET II Model Contract Language "Title to Equipment"), not to exceed the cost of new, equivalent replacement CPE based on existing State discount found in CALNET II. All costs and labor associated with equipment and software replacement due to manufacture discontinuation, repair, maintenance, and upgrade, is the responsibility of AT&T.

OPT-E-WAN®

Description of Service:

OPT-E-WAN is a Layer 2 VPN service, providing Ethernet switching between customer endpoints. The reach of the service includes in-telco region domestic US, out of region domestic US and Global. The basis for the service implementation is VPLS, using the AT&T core MPLS network for transport. The service is a Layer 2 Ethernet VPN. The network ties together the service instances of the customer VPN into an Any to Any forwarding domain. The network makes forwarding decisions based on a combination of Ethernet MAC addresses, VLANs and port configuration depending on the service options selected for a given connection.

With VPLS, the provider's network creates the mesh of connections over MPLS. Each customers Edge (CE) device connects to a Provider Edge (PE) router that looks up the destination Ethernet address and adds a virtual channel label to the packet. Packets are directed through the MPLS Network via MPLS Label Switched Routers to the PE router at the other end. OPT-E-WAN provides two basic customer UNI definitions. These two UNI definitions are referred to as "Per Port" and "Per VLAN" service. These two UNI definitions define the service significance of VLANs on the customer UNI.

AT&T OPT-E-WAN is available in speeds of 1-20 Mbps, in 1 Mbps increments, 20-100 Mbps in 10 Mbps increments, 100 Mbps-1G in 50 Mbps increments and 1000 Mbps-10G in 500 Mbps increments.

Access Options:

Access provides connectivity between the customer location and the nearest AT&T POP.

- OPT-E-MAN: OPT-E-MAN is a switched Ethernet service that provides Metro area VPLS connectivity between multiple customer locations in a LATA.
- GigaMAN: GigaMAN is a 1 Gbps optical Ethernet over CWDM point-to-point service.

Grade of Service:

4 Class of Service options will be available for customers to choose from. They can decide which applications should have priority and apply the appropriate CoS package on a per port or per EVC basis.

- CoS 1: Real Time - Designed for jitter and latency sensitive application like voice and video.
- CoS 2V: Interactive - Designed to carry very high priority business applications or may carry jitter sensitive applications like video when CoS1 is already in use.
- CoS 3: Business Critical High - Designed to carry high priority business applications.
- CoS 4: Non Critical High - Designed to carry low priority business applications.

Availability:

OPT-E-WAN is currently available in the following metropolitan areas: Sacramento, San Francisco, San Diego and Los Angeles. Check with account team for availability outside of the listed major metropolitan areas.

Feature Name	Identifier	Feature Description
OPT-E-WAN (OEW) Switched Port Only		Port Only. Requires CALNET access, charged separately. Available in speeds of 1-20 Mbps (in 1 Mbps increments), 20-100 Mbps (in 10 Mbps increments), 100 Mbps – 1 Gbps (in 50 Mbps increments) and 1500 Mbps – 10 Gbps (in 500 Mbps increments)
OEW Switched Port – .5M – 500Mbps (IntraState)	84433, 84434 80326 – 80361	OEW Switched Port – Requires CALNET Opt-E-MAN access, charged separately. Ranging from .5M – 500Mbps (IntraState)
OEW Switched Port – .5M – 500Mbps (InterState)	84435, 84436 80390 – 80425	OEW Switched Port – Requires CALNET Opt-E-MAN access, charged separately. Ranging from .5M – 500Mbps (InterState)
OEW Dedicated Port – 550Mbps – 1Gbps (IntraState)	80362 – 80371	OEW Dedicated Port – Requires CALNET GigaMAN access, charged separately. Ranging from 550Mbps – 1Gbps (IntraState)
OEW Dedicated Port – 550Mbps – 1Gbps (InterState)	80426 – 80435	OEW Dedicated Port – Requires CALNET GigaMAN access, charged separately. Ranging from 550Mbps – 1Gbps (InterState)
OEW Dedicated Port – 1500Mbps – 10Gbps (IntraState)	96777, 96779, 96781, 96783, 96785, 96787, 96789, 96791, 96793, 96795, 96797, 96799, 96801, 96803, 96805, 96807, 96809, 96811	OEW Dedicated Port – Requires CALNET DecaMAN access, charged separately. Ranging from 1500Mbps – 10Gbps (IntraState)
OEW Dedicated Port – 1500Mbps – 10Gbps	96776, 96778, 96780, 96782,	OEW Dedicated Port – Requires CALNET DecaMAN access, charged separately. Ranging

Feature Name	Identifier	Feature Description
(InterState)	96784, 96786, 96788, 96790, 96792, 96794, 96796, 96798, 96800, 96802, 96804, 96806, 96808, 96810	from 1500Mbps – 10Gbps (IntraState)
OEW Class of Service Options:		
COS 1 – Real Time (IntraState)	92993	Real Time - Designed for jitter and latency sensitive application like voice and video.
COS 1 – Real Time (InterState)	92997	Real Time - Designed for jitter and latency sensitive application like voice and video.
COS 2V – Interactive (Video) (IntraState)	92994	Interactive - Designed to carry very high priority business applications or may carry jitter sensitive applications like video when CoS1 is already in use.
COS 2V – Interactive (Video) (InterState)	92998	Interactive - Designed to carry very high priority business applications or may carry jitter sensitive applications like video when CoS1 is already in use.
COS 3 – Business Critical Medium (IntraState)	92995	Business Critical High - Designed to carry high priority business applications.
COS 3 – Business Critical Medium (InterState)	92999	Business Critical High - Designed to carry high priority business applications.
COS 4 – Non Critical High (IntraState)	92996	Non Critical High - Designed to carry low priority business applications.
COS 4 – Non Critical High (InterState)	93000	Non Critical High - Designed to carry low priority business applications.
Other Non-Recurring Charges:		
OPT-E-WAN Bandwidth Set-Up (IntraState)	80372	OPTEWAN Port Bandwidth Set-UP
OPT-E-WAN Bandwidth Set-Up (InterState)	80436	OPTEWAN Port Bandwidth Set-UP
CoS Service Establishment (IntraState)	80376	Class of Service Establishment
CoS Service Establishment	80440	Class of Service Establishment

Feature Name	Identifier	Feature Description
(InterState)		
Additional MAC Addresses, EVCs, VLANs (IntraState)	80385	Moves Adds and Changes for IP Addresses, Ethernet Virtual Channels and Virtual Local Area Networks
Additional MAC Addresses, EVCs, VLANs (InterState)	80443	Moves Adds and Changes for IP Addresses, Ethernet Virtual Channels and Virtual Local Area Networks
Initial Service Order Change Charge (IntraState)	80386	Changes made to initial Service Orders
Initial Service Order Change Charge (InterState)	80444	Changes made to initial Service Orders
Service Order Cancellation (IntraState)	80387	Cancellation by customer of a Service Order before the ordered circuit has been installed.
Service Order Cancellation (InterState)	80445	Cancellation by customer of a Service Order before the ordered circuit has been installed.
Miscellaneous Change Charge (IntraState	80388	Changes to Port or service configuration
Miscellaneous Change Charge (Interstate)	80446	Changes to Port or service configuration
OPT-E-WAN Site Termination Charge (IntraState)	80389	OPT-E-WAN Site Termination Charge will be applied when an ordered circuit is cancelled after installation.
OPT-E-WAN Site Termination Charge (InterState)	80447	OPT-E-WAN Site Termination Charge will be applied when an ordered circuit is cancelled after installation.
Other Features:		
Diverse POP Service Set-Up Charge (IntraState)	80384	Diverse Point of Presence routing
Diverse POP Service Set-Up Charge (InterState)	80442	Diverse Point of Presence routing
Diverse Line Card (IntraState)	93013	Line Card Diversity
Diverse Line Card (InterState)	93014	Line Card Diversity
POP Diversity (IntraState)	93018	Diverse Point of Presence routing MRC
POP Diversity (InterState)	93019	Diverse Point of Presence routing MRC

OPT-E-WAN (OEW) Managed Service Bundles

AT&T OPT-E-WAN Managed Service Bundle is a fully managed Customer Edge to Customer Edge service providing a managed solution for AT&T OPT-E-WAN Transport ("AT&T OPT-E-WAN").

OPT-E-WAN is a Layer 2 VPN service, providing Ethernet switching between customer endpoints. The reach of the service includes in-telco region domestic US, out of region domestic US and Global. The basis for the service implementation is VPLS, using the AT&T core MPLS network for transport. The service is a Layer 2 Ethernet VPN. The network ties together the service instances of the customer VPN into an Any to Any forwarding domain. The network makes forwarding decisions based on a combination of Ethernet MAC addresses, VLANs and port configuration depending on the service options selected for a given connection.

Under the AT&T OPT-E-WAN Managed Service Bundle, AT&T provides the following:

Standard:

- OPT-E-WAN Port
- OPT-E-WAN Ethernet Access Circuit
- CoS4
- AT&T owned Managed Router (7X24X365)
- Router Maintenance (7X24X4 Hr Response)
- Inside Wiring and or Demarc extension (up to 300 feet in customer provided conduit)
- Business line and modem for Out-of-Band (OOB) emergency access to the Managed Router
- Network Operations Management Reports;
- Managed SLAs
    - Network Performance SLAs (Packet Loss and Latency))
    - Standard Provisioning, Availability/TTR, and Proactive Notification SLAs
    - Cat 1, 2 and 3 Outages

Standard Features and Functions

Design and Engineering

AT&T will design and/or document the Customer's Network topology, applications, connectivity, projected traffic flows, and performance based upon Customer provided information and Customer-specified requirements.

- AT&T will validate hardware, software and network platforms provided as the result of the engineered router network design utilizing established AT&T testing and troubleshooting criteria.
- AT&T will also develop specifications for the type of router hardware and software necessary to support the mutually agreed goals, objectives and

requirements of the engineered network solution. The specifications will include the manufacturer's router model, port capacity, software version, appropriate memory and protocol support, and addressing/routing tables.

- AT&T will review with Customer all pre-existing hardware configurations for compatibility with the Customer's requested network design.
- AT&T will document the network addressing plans, logical network device assignments and logical parameters for network management connectivity to the Customer's Network.

Installation Functions

AT&T furnishes and installs all network components and AT&T Furnished Equipment at all Sites on the Customer Network. At AT&T's option, the AT&T Furnished Equipment may come from AT&T inventory or directly from the manufacturer. As part of the installation function, AT&T provides staging of AT&T Furnished Equipment in which the AT&T Furnished Equipment is configured, and shipped to the designated Site.

During test and turn-up, the Field Engineer installs AT&T Furnished Equipment on the installation date specified in the Project Schedule. AT&T verifies connectivity to the Site and transfers the Site to the Global Client Service Center (GCSC) for management center acceptance. This marks the end of the implementation process for that particular site. AT&T technicians test connectivity through the network equipment into the AT&T Network.

AT&T will perform physical installations of AT&T Furnished Equipment or Customer Provided Equipment during local Standard Business Hours, Monday through Friday, utilizing an AT&T provided on-site supplier.

Implementation Functions

AT&T provides project implementation, management and installation services for all network and equipment components.

Project Implementation Management ("PIM") includes the development of project schedules and identification of all Customer and AT&T activities necessary to implement the network solution. This includes:

- Development of project timeline
- Coordination of transport and provisioning of Equipment
- Tracking and managing to completion all activities in AT&T project plan
- Logical Management Configuration
- AT&T will load the logical management configurations and perform logical connectivity testing to determine that connected Sites can communicate with each other and with the appropriate AT&T network management center.

- AT&T will utilize network acceptance tests between the AT&T work centers and designated Customer interface(s) to verify connectivity between Customer LAN ports. These tests do not test host/LAN applications through the network.
- Logical configurations loaded on Equipment, whether AT&T or Customer Equipment, are the sole and exclusive intellectual property of AT&T. Logical Configurations are confidential and proprietary AT&T Information. Upon termination of Service, Customer shall have no right to use, or ownership interest in, the logical configurations loaded on Equipment. Upon Service termination, including individual Site deletions, Customer shall ensure that AT&T has all opportunities to erase logical configurations.

Network Management

Standard Management functions consist of the following:

- Network Monitoring and Fault Identification,
- Fault Resolution, and
- Ongoing Configuration Management

Network Monitoring and Fault Identification

AT&T will proactively monitor the Customer Network, 7 days a week/ 24 hours per day, to identify faults within the Service Boundaries. AT&T WAN transport problems will be isolated, diagnosed and resolved by the AT&T network management center.

In providing the Network Monitoring and Fault Identification function, AT&T will:

- Monitor CPE interfaces within the Service Boundary utilizing SNMP techniques in-band and out-of-band.
- Perform diagnostic testing of CPE interfaces and isolate, sectionalize and identify faults as being physical or logical in nature.
- Maintain databases consisting of the logical configurations of Customer wide area network, WAN site and network connectivity, software specifications and Customer contact information.
- Provide trouble status to Customers at 1 hour intervals.

The AT&T GCSC Global Client Support Center serves as an SPOC for AT&T related faults. This activity includes the coordinated resolution with an AT&T network management center of Router Site faults caused by AT&T transport problems. In addition, the California Major Account Center (CMAC) will receive and track trouble ticket status until the trouble ticket is closed out with the customer NOC or the customer. Either the AT&T GCSC or the CMAC can be contacted to initiate a trouble ticket, get status of an existing trouble ticket or request an escalation.

Logical Fault Resolution

AT&T manages the logical configuration design for the Customer Network. Fault resolution provides for the coordinated identification and resolution of logical connectivity network problems for AT&T Furnished Equipment or Customer Equipment within the Service Boundary. Logical fault resolution includes:

- Management of the logical trouble resolution process;
- Proactive problem management and engagement of additional tiered expertise, if necessary, to resolve the logical trouble;
- If the root cause of the logical failure is outside the Service Boundary, the problem will be referred to the Customer with the diagnosis. If the cause of the failure is beyond the Service Boundary, Customer may request AT&T to assist in resolving the failure in which case Customer shall be billed on an hourly basis in accordance with the OPT-E-WAN Managed Service Bundle Pricing Schedule entitled "Supplementary Professional, Engineering and Technical Services."

Ongoing Configuration Management (OCM)

AT&T will manage a database of specific information regarding the logical address configuration(s) of the AT&T Furnished Equipment and Customer Equipment and associated software specifications. AT&T will manage changes made to access lists, device passwords, and will use secured community strings for SNMP access. Configuration changes due to maintenance and moves, ads, changes or deletes ("MACDs") will be included in the database. Reloads of router configurations from the AT&T technical platform database will be performed by the AT&T work center(s) if required as a result of major outages or system failures. AT&T work center(s) may initiate software updates to Customer Equipment with prior notification to and approval from Customer.

Maintenance Functions

Except as limited herein, maintenance applies to the physical, software and firmware failure of Equipment maintained by AT&T. AT&T Furnished Equipment may be maintained only by AT&T. Customer may request AT&T to provide maintenance of Customer Equipment. Customer Equipment must be AT&T-certified. AT&T maintenance extends only to the following equipment:

- CSU/DSU
- Dial backup modem
- Out of band management access modems
- Routers

AT&T will proactively isolate and diagnose Equipment hardware faults and will interface with Equipment vendors and other vendors for engineering support, parts ordering and fault resolution of physical faults within the identified service boundaries, as well as respond to Customer-reported faults. If the physical failure's root cause is outside the contractually defined service boundaries, the problem will be referred back to the Customer with the

diagnosis. Equipment maintenance will also cover software/firmware problems that cannot be resolved remotely.

Equipment Maintenance Support Levels

Four Hour, 24-Hour-a-Day Service (7X24)

> Under Four Hour, 24-Hour-a-Day Service (7x24), repair coverage is offered 24 hours per day, seven days per week. If dispatch is required, a field engineer will arrive at the Customer premises within four hours of the completion of trouble resolution processes, regardless of the time of day or day of the week. Dispatch of technicians will only occur after remote trouble resolution processes have determined that the problem is in the Equipment.

Network Operations Management

The standard OPT-E-WAN MANAGED SERVICE BUNDLE Network operations reports focus on basic router performance and include WAN and LAN utilization information. These reports are available, in color charts and graphs, via a web-based, HTML viewable format. Operations management reports are provided on a scheduled periodic basis as agreed to by AT&T and the customer, with each report displaying information gathered during the previous period's activity. Reports cover both AT&T Furnished Equipment and Customer Equipment. The standard reports are the following:

Router Information Report

The Router Detail Report provides basic inventory and logistical information about the router, such as router name, location, PVC terminations, DLCI and port speeds.

Router Performance Report

The Router Performance Report provides network and router utilization information, and network health information. The report may summarize network usage volumes and averages or report router performance on an exception basis.

Access Port Report

The Access Port Report provides the network and router performance from the volume of data that has been sent or received at the WAN port interface. This report gives a summary of WAN port activity and also lists areas for concern, based on pre-defined thresholds for WAN use.

LAN Port Report

The LAN Port Report provides the router performance based on the utilization of the LAN ports on the router. These reports, like WAN reports, provide information on utilization of LAN ports on the router and also indicate exceptions to pre-described thresholds.

OPT-E-WAN (OEW) Managed Service Bundles w/ Standard Features

Feature Name	Identifier	Feature Description
OPT-E-WAN (OEW) Managed Service Bundle w/ Standard Features		OPT-E-WAN port and Ethernet access transport, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet in customer provided conduit), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring , applicable CSU and Modem. OPT-E-WAN Port is rate limited to selected port bandwidth. See service elements below.
OEW Managed Service Bundle – .5M w / Type 7A Router Cu Ethernet	OEWMS05A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – .5M w / Type 22A Router Cu Ethernet	OEWMS05B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 1M w / Type 7A Router Cu Ethernet	OEWMS1A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 1M w / Type 22A Router Cu Ethernet	OEWMS1B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 1.5M w / Type 7A Router Cu Ethernet	OEWMS015A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 1.5M w / Type 22A Router Cu Ethernet	OEWMS015B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 2M w / Type 7A Router Cu Ethernet	OEWMS2A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle – 2M w / Type 22A Router Cu Ethernet	OEWMS2B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 3M w / Type 7A Router Cu Ethernet	OEWMS3A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 3M	OEWMS3B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
w / Type 22A Router Cu Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 4M w / Type 7A Router Cu Ethernet	OEWMS4A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 4M w / Type 22A Router Cu Ethernet	OEWMS4B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 5M w / Type 7A Router Cu Ethernet	OEWMS5A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 5M w / Type 22A Router Cu Ethernet	OEWMS5B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 6M w / Type 7A Router Cu Ethernet	OEWMS6A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 6M w / Type 22A Router Cu Ethernet	OEWMS6B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 7M w / Type 7A Router Cu Ethernet	OEWMS7A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 7M w / Type 22A Router Cu Ethernet	OEWMS7B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 8M w / Type 7A Router Cu Ethernet	OEWMS8A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 8M w / Type 22A Router Cu Ethernet	OEWMS8B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 9M	OEWMS9A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
w / Type 7A Router Cu Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 9M w / Type 22A Router Cu Ethernet	OEWMS9B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 10M w / Type 7A Router Cu Ethernet	OEWMS10A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 10M w / Type 22A Router Cu Ethernet	OEWMS10B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 11M w / Type 7A Router Cu Ethernet	OEWMS11A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 11M w / Type 22A Router Cu Ethernet	OEWMS11B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 12M w / Type 7A Router Cu Ethernet	OEWMS12A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 12M w / Type 22A Router Cu Ethernet	OEWMS12B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 13M w / Type 7A Router Cu Ethernet	OEWMS13A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 13M w / Type 22A Router Cu Ethernet	OEWMS13B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 14M w / Type 7A Router Cu Ethernet	OEWMS14A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 14M	OEWMS14B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
w / Type 22A Router Cu Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 15M w / Type 7A Router Cu Ethernet	OEWMS15A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 15M w / Type 22A Router Cu Ethernet	OEWMS15B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 16M w / Type 7A Router Cu Ethernet	OEWMS16A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 16M w / Type 22A Router Cu Ethernet	OEWMS16B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 17M w / Type 7A Router Cu Ethernet	OEWMS17A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 17M w / Type 22A Router Cu Ethernet	OEWMS17B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 18M w / Type 7A Router Cu Ethernet	OEWMS18A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 18M w / Type 22A Router Cu Ethernet	OEWMS18B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 19M w / Type 7A Router Cu Ethernet	OEWMS19A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 19M w / Type 22A Router Cu Ethernet	OEWMS19B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 20M	OEWMS20A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
w / Type 22A Router Cu Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 20M w / Type 10A Router Cu Ethernet	OEWMS20B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 30M w / Type 22A Router Cu Ethernet	OEWMS30A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 30M w / Type 10A Router Cu Ethernet	OEWMS30B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 40M w / Type 22A Router Cu Ethernet	OEWMS40A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 40M w / Type 10A Router Cu Ethernet	OEWMS40B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 50M w / Type 22A Router Cu Ethernet	OEWMS50A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 50M w / Type 10A Router Cu Ethernet	OEWMS50B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 60M w / Type 10A Router Cu Ethernet	OEWMS60A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 70M w / Type 10A Router Cu Ethernet	OEWMS70A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 80M w / Type 10A Router Cu Ethernet	OEWMS80A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 90M	OEWMS90A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
w / Type 10A Router Cu Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 100M w / Type 10A Router Cu Ethernet	OEWMS100A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 150M w / Type 11A Router Fiber Ethernet	OEWMS150A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 150M w / Type 26 Router Fiber Ethernet	OEWMS150B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 200M w / Type 11A Router Fiber Ethernet	OEWMS200A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 200M w / Type 26 Router Fiber Ethernet	OEWMS200B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 250M w / Type 26 Router Fiber Ethernet	OEWMS250A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 250M w / Type 27 Router Fiber Ethernet	OEWMS250B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 300M w / Type 26 Router Fiber Ethernet	OEWMS300A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 300M w / Type 27 Router Fiber Ethernet	OEWMS300B	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 350M w / Type 27 Router Fiber Ethernet	OEWMS350A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle -	OEWMS400A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
400M w / Type 27 Router Fiber Ethernet		Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 450M w / Type 27 Router Fiber Ethernet	OEWMS450A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 500M w / Type 27 Router Fiber Ethernet	OEWMS500A	OPT-E-WAN port using Switched Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Switched Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 550M w / Type 11 Router Fiber Ethernet	OEWMS550A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 550M w / Type 26 Router Fiber Ethernet	OEWMS550B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 600M w / Type 11 Router Fiber Ethernet	OEWMS600A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 600M w / Type 26 Router Fiber Ethernet	OEWMS600B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 650M w / Type 11 Router Fiber Ethernet	OEWMS650A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 650M w / Type 26 Router Fiber Ethernet	OEWMS650B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 700M w / Type 11 Router Fiber Ethernet	OEWMS700A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 700M w / Type 26 Router Fiber Ethernet	OEWMS700B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle -	OEWMS750A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
750M w / Type 11 Router Fiber Ethernet		Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 750M w / Type 26 Router Fiber Ethernet	OEWMS750B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 800M w / Type 11 Router Fiber Ethernet	OEWMS800A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 800M w / Type 26 Router Fiber Ethernet	OEWMS800B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 850M w / Type 11 Router Fiber Ethernet	OEWMS850A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 850M w / Type 26 Router Fiber Ethernet	OEWMS850B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle

Feature Name	Identifier	Feature Description
		maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 900M w / Type 11 Router Fiber Ethernet	OEWMS900A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 900M w / Type 26 Router Fiber Ethernet	OEWMS900B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 950M w / Type 11 Router Fiber Ethernet	OEWMS950A	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 950M w / Type 26 Router Fiber Ethernet	OEWMS950B	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle - 1G w / Type 11 Router Fiber Ethernet	OEWMS1KA	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000 Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.
OEW Managed Service Bundle -	OEWMS1KB	OPT-E-WAN port using Dedicated Gigabit Ethernet access; Speeds from .5 Mbps to 1000

Feature Name	Identifier	Feature Description
1000M w / Type 26 Router Fiber Ethernet		Mbps. Includes: Dedicated Gigabit Ethernet access circuit, CoS4, POTS line, IW and or Demarc extension services (up to 300 feet), installation of a managed router including configuration, life-cycle maintenance and diagnostic monitoring, CSU and Modem.

OPT-E-WAN Managed Service Bundles Life Cycle Management Features and Services

Life Cycle Management is composed of the following functions:

- Moves, Adds, Changes and Deletes (MACDs) (via Business Direct)
- Supplementary Professional, Engineering and Technical Services
- Configuration Changes

Moves, Adds, Changes and Deletes

Moves, Adds, Changes and Deletes consist of: Addition, Deletion or Moves of hardware at a Customer site, modifying routing tables, adding, deleting or modifying protocols or protocol prioritization schemes, Software Additions/Modifications of Serial and/or LAN connections. The AT&T Work Center will perform such work. Moves, Adds and Changes are provided on a per network, per transaction and/or per event basis as set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Features." Any movement that is not an Inside Move or an Outside Move is billed as a Site de-install and new order.

All rates for Lifecycle activity assume that work will be performed and completed during Standard Business Hours. In the event work is performed during non-Standard Business Hours, the applicable hourly rate for non-Standard Business Hours will apply in addition to the lifecycle charges.

Supplementary Professional, Engineering and Technical Services

AT&T will provide supplementary professional, engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the table entitled "Supplementary Professional, Engineering and Technical Services."

AT&T will perform Professional Services as requested by Customer and agreed to by AT&T. If AT&T is required to perform Services outside of Standard Business Hours, then the Non-Standard Hours rates will apply in addition to the appropriate charge for the Service being performed.

Configuration Changes

Configuration changes will be performed as requested by Customer and will be billed at the hourly rates set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Changes."

OPT-E-WAN Managed Service Bundles Life Cycle Management Features and Services

Feature Name	Identifier	Feature Description
Moves, Adds, Changes and Deletes		Moves, Adds, Changes and Deletes consist of: Addition, Deletion or Moves of hardware at a Customer site, modifying routing tables, adding, deleting or modifying protocols or protocol prioritization schemes, Software Additions/Modifications of Serial and/or LAN connections. The AT&T Work Center will perform such work. Moves, Adds and Changes are provided on a per network, per transaction and/or per event basis as set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Features." Any movement that is not an Inside Move or an Outside Move is billed as a Site de-install and new order. All rates for Lifecycle activity assume that work will be performed and completed during Standard Business Hours. In the event work is performed during non-Standard Business Hours, the applicable hourly rate will apply in addition to the lifecycle charges.
Move Router Site (Inside) – Low Complexity	13092L	18xx, 19xx, 28xx, 29xx series routers
Move Router Site (Inside) – Medium Complexity	13092M	38xx, 39xx series routers
Move Router Site (Inside) – High Complexity	13092H	72xx, 73xx, 76xx, ASR1002 series routers
Move Router Site (Outside) - Low Complexity	13093L	18xx, 19xx, 28xx, 29xx series routers
Move Router Site (Outside) - Medium Complexity	13093M	38xx, 39xx series routers
Move Router Site (Outside) - High Complexity	13093H	72xx, 73xx, 76xx, ASR1002 series routers

Feature Name	Identifier	Feature Description
Router Site Add - Low Complexity	13118L	18xx, 19xx, 28xx, 29xx series routers
Router Site Add - Medium Complexity	13118M	38xx, 39xx series routers
Router Site Add - High Complexity	13118H	72xx, 73xx, 76xx, ASR1002 series routers
Add/Delete Router Boards – Low Complexity	13127L	18xx, 19xx, 28xx, 29xx series routers
Add/Delete Router Boards – Medium Complexity	13127M	38xx, 39xx series routers
Add/Delete Router Boards – High Complexity	13127H	72xx, 73xx, 76xx, ASR1002 series routers
Site Delete for AT&T Provided Equipment	13119	Site Delete for AT&T Provided Equipment
Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away	14570	Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away
Cancellation to Receive On-Site Services with Less than Five Business Days notice to AT&T	13109A	Cancellation to Receive On-Site Services with Less than Five Business Days notice to AT&T
Supplementary Professional, Engineering and Technical Services		AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services." AT&T will perform Professional Services as requested by Customer and agreed to by AT&T. Professional Services are billed with a minimum of four hours. If AT&T is required to perform Services outside of Standard Business Hours,

Feature Name	Identifier	Feature Description
		then the Non-Standard Hours rates will apply in addition to the appropriate charge for the Service being performed.
Standard Hours (8am – 5pm local time) First Hour	13109B	Standard Hours (8am – 5pm local time) First Hour. AT&T will provide supplementary professional, engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Standard Hours (8am – 5pm local time) Subsequent Hour	13109C	Standard Hours (8am – 5pm local time) Subsequent Hour. AT&T will provide supplementary professional, engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Non-Standard Hours First Hour	13109D	Non-Standard Hours First Hour. AT&T will provide supplementary professional, engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."

Feature Name	Identifier	Feature Description
Non-Standard Hours Subsequent Hours	13109E	Non-Standard Hours Subsequent Hours. AT&T will provide supplementary engineering and technical activities, including but not limited to network re-design and re-configuration to support additional protocols, re-addressing of the network and other agreed upon changes. These activities will be defined on a per Customer basis (detailed Scope of Work required) and will be priced according to the Professional services rates and charges as defined in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Lost Equipment Charge for AT&T Owned CPE	13054	Customer is solely responsible for the loss or destruction of AT&T-owned CPE. If AT&T CPE is lost or destroyed or not able to be returned to AT&T, Customer shall be responsible for replacement value of the equipment (as per Paragraph 74 of the CALNET II Model Contract Language "Title to Equipment"), not to exceed the cost of new, equivalent replacement CPE based on existing State discount found in CALNET II. All costs and labor associated with equipment and software replacement due to manufacture discontinuation, repair, maintenance, and upgrade, is the responsibility of AT&T.
Router Configuration Changes	14158	Configuration changes will be performed as requested by Customer and will be billed at the rates set forth in the Pricing Schedule, in the table entitled "Life Cycle Management Features."

OPT-E-WAN Managed Service Bundles Optional Up Lift Features and Services

- Router Protocol, Memory and Misc. Feature Upgrades to AT&T Owned and Managed Routers
- Optional Architectural Validation Professional Services
- Dial back up (Analog and ISDN (BRI and PRI)
- TACACS Read Only Access

OPT-E-WAN Managed Service Bundles Optional Up Lift Features and Services

Feature Name	Identifier	Feature Description
Router Protocol, Memory and Misc		Router protocol, memory and misc. features upgrades to AT&T owned and managed service

Feature Name	Identifier	Feature Description
Managed Router Feature Upgrades		bundle routers.
Enterprise Services IOS w/o encryption for 18XX series managed router feature upgrade	MSB1000	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 1 and 17 (see router description table).
Enterprise Services IOS w/o encryption for 28XX series managed router feature upgrade	MSB1001	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 2, 3, 4 and 7 (see router description table).
Enterprise Services IOS w/o encryption for 38XX series managed router feature upgrade	MSB1002	IP/SNA/IPX Enterprise Services IOS w/o encryption for router types 5, 6, 8, 9, 21, and 22 (see router description table).
Advanced Enterprise Services IOS w encryption for 18XX series managed router feature upgrade	MSB1003	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 1 and 17 (see router description table).
Advanced Enterprise Services IOS w encryption for 28XX series managed router feature upgrade	MSB1004	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 2, 3, 4 and 7 (see router description table).
Advanced Enterprise Services IOS w encryption for 38XX series managed router feature upgrade	MSB1005	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 5, 6, 8, 9, 21, and 22 (see router description table).
Advanced Enterprise Services IOS w encryption for 72XX series managed router feature upgrade	MSB1006	IP/SNA/IPX Advanced Enterprise Services IOS w encryption for router types 26 (see router description table).
Extra Memory for Enterprise and Advanced Enterprise IOS for 18XX series managed router feature upgrade	MSB1007	Extra Memory for Enterprise and Advanced Enterprise IOS for router types 1 and 17 (see router description table).
Extra Serial Port	MSB1008	Extra Serial Port Card for router types 1-9, 17,

Feature Name	Identifier	Feature Description
Card for 18XX, 28XX and 38XX series managed router feature upgrade		21 and 22 (see router description table).
Extra 4 Port Serial Port Adapter Card for 72XX and 73XX series managed router feature upgrade	MSB1009	Extra 4 Port Serial Port Adapter Card for router types 10, 11, 18 and 26 (see router description table).
2-Port Fast Ethernet 100Base TX Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1010	2-Port Fast Ethernet 100Base TX Port Adapter for router types 10, 11, 18 & 26 (see router description table).
4-Port Ethernet 10BaseT Port Adapter fro 72XX and 73XX managed router feature upgrade	MSB1011	4-Port Ethernet 10BaseT Port Adapter for router types 10, 11, 18 & 26 (see router description table).
1-Port Gigabit Ethernet Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1012	1-Port Gigabit Ethernet Port Adapter for router types 10, 11, 18 & 26 (see router description table).
1000BASE-SX Short Wavelength GBIC (Multimode only) for 72XX and 73XX series managed router feature upgrade	MSB1013	1000BASE-SX Short Wavelength GBIC (Multimode only) for router types 10, 11, 18 & 26 (see router description table).
1000BASE-SX Short Wavelength GBIC (Copper) for 72XX and 73XX series managed router feature upgrade	MSB1014	1000BASE-SX Short Wavelength GBIC (Copper) for router types 10, 11, 18 & 26 (see router description table).
Extra 4 port 10/100 Ethernet switch interface card for 28XX and 38XX series managed router feature upgrade	MSB1015	Extra 4 port 10/100 Ethernet switch interface card for router types 1-9, 21 and 22 (see router description table).

Feature Name	Identifier	Feature Description
10/100 routed port HWIC Card for 28XX and 38XX series managed router feature upgrade	MSB1016	10/100 routed port HWIC Card for router types 1-9, 21 and 22 (see router description table).
GE SFP, LC connector LX/LH transceiver for 38XX series managed router feature upgrade	MSB1017	GE SFP, LC connector LX/LH transceiver
1000BASE-SX SFP (DOM) for 38XX series managed router feature upgrade	MSB1018	1000BASE-SX SFP (DOM)
7304 Carrier Card for 7200 Series Port Adapters managed router feature upgrade	MSB1019	7304 Carrier Card for 7200 Series Port Adapters for router types 10, 11, 18 & 26 (see router description table).
Serial Cable managed router feature upgrade	MSB1020	Serial Cable
Console Port to CAS cable managed router feature upgrade	MSB1021	Console Port to CAS cable
Fiber Cable managed router feature upgrade	MSB1022	Fiber Cable
Rack Mount Kit managed router feature upgrade	MSB1023	Rack Mount Kit for 1841 for router types 1 & 17 (see router description table).
Extra Serial Port for ASR1000 series managed router feature upgrade	MSB1024	Extra Serial Port 1000BASE-SX SFP
Extra Serial Cable for ASR1000 series managed router feature upgrade	MSB1025	Extra Serial Port 1000BASE-T SFP (NEBS 3 ESD)
Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter for ASR1000 series	MSB1026	Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter

Feature Name	Identifier	Feature Description
managed router feature upgrade		
2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1027	2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter
Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1028	Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1029	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
G2 Series Routers 19xx, 29xx, 39xx managed router feature upgrades		
GE SFP, LC connector LX/LH transceiver managed router feature upgrade	MSB1030	GE SFP, LC connector LX/LH transceiver
GE SFP, LC connector SX transceiver managed router feature upgrade	MSB1031	GE SFP, LC connector SX transceiver
1000BASE-T SFP managed router feature upgrade	MSB1032	1000BASE-T SFP
1-port 10/100 Routed Port HWIC managed router feature upgrade	MSB1033	1-port 10/100 Routed Port HWIC
GigE high speed WIC managed router feature upgrade	MSB1034	GigE high speed WIC with one SFP slot
1-Port Serial WAN	MSB1035	1-Port Serial WAN Interface Card

Feature Name	Identifier	Feature Description
Interface Card managed router feature upgrade		
4-Port 10/100 Ethernet switch interface card managed router feature upgrade	MSB1036	4-Port 10/100 Ethernet switch interface card
1000BASE-SX SFP (DOM) managed router feature upgrade	MSB1037	1000BASE-SX SFP (DOM)
1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1038	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1039	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
Data IOS for Cisco 19XX Series managed router feature upgrade	MSB1040	Data IOS for Cisco 19XX Series
Security IOS for Cisco 19XX Series managed router feature upgrade	MSB1041	Security IOS for Cisco 19XX Series
Data IOS for Cisco 29XX Series managed router feature upgrade	MSB1042	Data IOS for Cisco 29XX Series
Security IOS for Cisco 29XX Series managed router feature upgrade	MSB1043	Security IOS for Cisco 29XX Series
Data IOS for Cisco 39XX Series managed router feature upgrade	MSB1044	Data IOS for Cisco 39XX Series

Feature Name	Identifier	Feature Description
Security IOS for Cisco 39XX Series managed router feature upgrade	MSB1045	Security IOS for Cisco 39XX Series
COS device 4 port COS switch managed router feature upgrade	MSB1046	COS device 4 port COS switch
Cable from: OOB modem to: COS/4 managed router feature upgrade	MSB1047	Cable from: OOB modem to: COS/4
Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.) managed router feature upgrade	MSB1048	Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.)
AIM Module 1800/2800/3800 managed router feature upgrade	MSB1049	AIM Module 1800/2800/3800 DES/3DES/AES/SSL VPN Encryption/Compression
SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules managed router feature upgrade	MSB1050	SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules
12 port COS Switch managed router feature upgrade	MSB1051	12 port COS Switch
Optional Architectural Validation Professional Services	13096	AT&T's experts analyze an existing router network based upon the customer's network goals and provide specific recommendations for improvements. Additional charges will apply, as specified in the Pricing Schedule, in the section entitled "Supplementary Professional, Engineering and Technical Services."
Dial Backup		
Analog (POTS) Dial Backup Management	13060A	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features require

Feature Name	Identifier	Feature Description
		Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. Analog dial backup provides for individual telephone lines at remote sites to access a dial line at speeds up to 56k in case of primary transport failure. HUB sites may be configured with multiple, bonded analog lines to backup the primary transport in increments of 56k.
ISDN Basic Rate Interface (BRI) Backup Management	13060B	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features require Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. BRI ports for ISDN may be added to a site router. Up to 4 BRI ports per site router are allowed, subject to capability constraints of the site router.
ISDN Primary Rate Interface (PRI) Backup Management	13060C	The Dial Backup feature offers Customers the ability to backup their primary Wide Area Network (WAN) circuits with secondary switched circuits in order to protect against network and/or access failures. The managed ISDN and Analog Dial back up features require Customer to obtain ISDN line (BRI or PRI) or Analog Dial line. PRI port for ISDN may be added to a site router, subject to capability constraints of the site router.
TACACS (Terminal Access Controller Access Control System) Read Only Access		
TACACS Read Only Access – Router Enablement	TACACSRE	TACACS (Terminal Access Controller Access Control System) Read Only Access Provides secure remote access to AT&T Managed router using an authentication protocol that allows a remote (customer) access server to forward a customer user's logon password to an AT&T server to determine whether access can be allowed to a router.

Feature Name	Identifier	Feature Description
TACACS Read Only Access - Support	TACACSRS	TACACS (Terminal Access Controller Access Control System) Read Only Access Provides secure remote access to AT&T Managed router using an authentication protocol that allows a remote (customer) access server to forward a customer user's logon password to an AT&T server to determine whether access can be allowed to a router.
TACACS Read Only Access – Enablement 1 to 6 Enabled Employees	TACACS1	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.
TACACS Read Only Access – Enablement 7 to 12 Enabled Employees	TACACS2	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.
TACACS Read Only Access – Enablement 13 to 25 Enabled Employees	TACACS3	A user will be authorized to execute simple router commands, extended ping, extended trace route, show tech-support commands to view basic router features, interface status and router configuration information. *TACACS Read Only Access is not available for more than 25 Enabled Employees for a defined customer entity.

AT&T provides all network components and configures, monitors, manages and maintains the AT&T-provided Equipment located at the Customer Site.

The management demarcation point for AT&T OPT-E-WAN is the LAN interface card on the router at the Customer Site (Service Boundary).

Logical configurations or other router management commands employed by AT&T with Managed Router Equipment, whether AT&T or Customer-owned Equipment, are the sole and exclusive property of AT&T. Logical configurations and other router commands are confidential AT&T Information. Upon termination of Service or disconnection or termination of a Site, Customer shall have no right to use, or ownership interest in, the logical

configurations or other router management commands present or loaded on Equipment. Upon termination of Service or disconnection or termination of a Site, Customer shall ensure that Equipment is returned or made available to AT&T to allow removal of all AT&T confidential Information, including logical configurations and router management commands.

OPT-E-WAN Managed Service Bundles Router Description

Pricing for at least two routers options, where feasible, are given for each bandwidth. The base router will be sufficient for a basic IP networking. An upgrade router is available for each speed to provide extra performance if needed for adding additional services such as IPX, DLSW, IOS firewall support or anticipation of future growth. In addition, optional versions of software and associated memory are available in addition to address various network requirements. See router description table below.

Router Description Table

Router Type	Router Description	Suggested Max EVC Mbps
AVPN, OPTEMAN and OPTEWAN Managed Service Bundle Router Types	A managed router with internal CSU will be included in each Managed Service Bundle. Engineering rules drive default router selection, based on the port size and optional features selected by the customer; Router configuration will default to the smallest serviceable device for the site. In addition to port size, engineering rules factor in features such class of service. Optional Router models are included where appropriate. For example, a different router could be selected based on the real-time requirements. A base model router may be selected for lower utilization needs such as no or modest real-time traffic, whereas a higher level router may be selected for a more taxing requirement such as supporting an AVPN port with a Multimedia High COS package near the routes bandwidth capacity. The following are a descriptions of the default routers used for the Managed Service Bundles	
Type 1 Router MLPPP	Installation of Managed Router Bundled. Includes configuration, life-cycle maintenance and diagnostic monitoring. T1 PPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X,IP BASE,64F/256D, Cisco 2821 or successor model	1.544Mbps
Type 1A Router MLPPP	Installation of Managed Router Bundled. Includes configuration, life-cycle maintenance and diagnostic monitoring. T1 PPP Configuration: Cisco 1941 with 2	1.544Mbps

Router Type	Router Description	Suggested Max EVC Mbps
	onboard GE, 2 EHWIC slots, 1 ISM slot, 256MB CF default, 512MB DRAM default, IP Base, Cisco 1921 or successor model	
Type 2 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 2-T1 MLPPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X,IP BASE,64F/256D, Cisco 2821 or successor model	3.088Mbps
Type 2A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 2-T1 MLPPP Configuration: Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	3.088Mbps
Type 3 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 3-T1 MLPPP Configuration: AC PWR, 2GE, 4HWICs, 3PVDM,1NME-X, IP BASE,64F/256D, Cisco 2821 or successor model	4.632Mbps
Type 3A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 3-T1 MLPPP Configuration: Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	4.632Mbps
Type 4 Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Up to 25M DS3 Configuration: AC PWR, 2GE, 1SFP, 2NME, 4HWIC, IP Base, 64F/256D, Cisco 3825 or successor model. For Frame Relay or PPP access	6.176Mbps
Type 4A Router MLPPP	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	6.176Mbps
Type 5 Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. UP to 25M DS3 Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D, Cisco 3825 or successor model	Up to 10Mbps

Router Type	Router Description	Suggested Max EVC Mbps
Type 5A Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base, Cisco 3925 or successor model	Up to 45Mbps
Type 6 Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Full DS3 Configuration: AC PWR, 2GE, 1SFP, 4NME, 4HWIC, IP Base, 64F/256D, Cisco 3845 or successor model. For Frame Relay or PPP access	45Mbps
Type 6A Router	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Full DS3 Configuration: Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base, Cisco 3925 or successor model	45Mbps
Type 7 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Low speed Ethernet Configuration: AC PWR,2GE,4HWICs,3PVDM,1NME-X,2AIM,IP BASE,64F/256D, Cisco 2821 or successor model	10Mbps
Type 7A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Low speed Ethernet Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	20Mbps
Type 8 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D , Cisco 3825 or successor model	30Mbps
Type 8A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	30Mbps
Type 9 Router	Installation of Managed Router Bundle. Includes	50Mbps

Router Type	Router Description	Suggested Max EVC Mbps
Fiber Ethernet	configuration, life-cycle maintenance and diagnostic monitoring. AC PWR, 2GE, 1SFP, 4NME, 4HWIC, IP Base, 64F/256D, Cisco 3845 or successor model.	Fiber
Type 9A Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 3925 with 3 onboard GE, C3900-SPE100/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 2 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3925 or successor model.	50Mbps Fiber
Type 10 Router Gig Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 7304 or successor model	100Mbps Cu
Type 10A Router Gig Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base., Cisco 3945 or successor model	100Mbps Cu
Type 11 Router Gig Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 7304 or successor model	1Gig Fiber
Type 11A Router Gig Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3945 or successor model	200M Fiber
Type 17 Router DS0	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. DS0 Configuration: Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR, Cisco 1841 or successor model	56Kbps
Type 17A Router DS0	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. DS0 Configuration: Cisco 1941 with 2 onboard GE, 2 EHWIC slots, 1 ISM slot, 256MB CF	56Kbps

Router Type	Router Description	Suggested Max EVC Mbps
	default, 512MB DRAM default, IP Base, Cisco 1921 or successor model	
Type 18 Router DR #1	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 2 GE WAN Port, Cisco 7304 or successor model. (configured for dual router DR pair – must be ordered with complementary router).	Up to 1G fiber
Type 20 Router DLSW Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and Ent. IP SW, Dual Power Supply, Cisco 7206VXR or successor model	DLSW
Type 21 Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D , Cisco 3825 or successor model	30Mbps Fiber
Type 21A Router Fiber Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Medium Speed Ethernet Configuration: Configuration Cisco 2921 with 3 onboard GE, 4 EHWIC slots, 3 DSP slots, 1 ISM slot, 256MB CF default , 512MB DRAM default, IP Base, Cisco 2921 or successor model	30Mbps Fiber
Type 22 Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. 10/100 Copper Ethernet Configuration: 4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory, 1 GE WAN Port., Cisco 3845 or successor model	50Mbps
Type 22A Router Cu Ethernet	Installation of Managed Router Bundle. Includes configuration, life-cycle maintenance and diagnostic monitoring. Gigabit Ethernet Configuration: Cisco 3945 with 3 onboard GE, C3900-SPE150/K9, 4 EHWIC slots, 4 DSP slots, 1 ISM slot, 4 SM slots, 256MB CF default, 1 GB DRAM default, IP Base Cisco 3945 or successor model	100Mbps
Type 23 Router IPsec Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. High Speed (10/100) Ethernet Configuration: AC PWR,2GE,1SFP,4NME,4HWIC, IP Base, 64F/256D,	IPSEC router

Router Type	Router Description	Suggested Max EVC Mbps
	Cisco 3845 or successor model	
Type 24 Router IPsec Host	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and IP SW, Cisco 7200 Series IOS Advanced Enterprise Services, Cisco 7206VXR or successor model	IPSEC router
Type 25 Router Gig Fiber Ethernet	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco 7606-S, Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B, SUP720 IOS Advanced IP Services SSH, Cat6500 4-port 10 Gigabit Ethernet Module, Cat6500 48-port 10/100/1000 GE Mod: fabric enabled, RJ-45,2700W AC power supply,	10Gig-SR Fiber Handoff
Type 26 Router – Gig E	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. NPE-G1 includes 3GigE/FE/E Ports and Enterprise IP SW, Cisco 7206VXR or successor mode	Up to 250M
Type 27 Router – Gig E	Installation of Managed Router. Includes configuration, life-cycle maintenance and diagnostic monitoring. Cisco ASR1002 Chassis, 4 built-in GE, Dual P/S, 4GB DRAM, Cisco ASR1002 or successor model	Up to 1G

OPT-E-WAN Managed Services Data Center Stand Alone Routers

Feature Name	Identifier	Feature Description
Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20	MSDCRT1	Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20
IPSEC Standalone router Type 24	MSDCRT2	IPSEC Standalone router Type 24
Traffic Aggregation Standalone router Type 25	MSDCRT3	Traffic Aggregation Standalone router Type 25
Traffic Aggregation Standalone router Type 27	MSDCRT4	Traffic Aggregation Standalone router Type 27

Under the OPT-E-WAN Managed Service Bundles, the Router is owned by AT&T and made available to Customer solely for use as part of OPT-E-WAN Managed Service Bundles.

Upon termination of the Service or de-installation of any Site, Customer shall the AT&T CPE at such Site available for removal by AT&T or third party designated by AT&T and return it in the same condition as originally installed, ordinary wear or tear excepted, or Customer shall pay for restoration of the AT&T CPE to such condition.

Customer is solely responsible for the loss or destruction of AT&T-owned CPE. If AT&T CPE is lost or destroyed or not able to be returned to AT&T, Customer shall be responsible for replacement value of the equipment (as per Paragraph 74 of the CALNET II Model Contract Language "Title to Equipment"), not to exceed the cost of new, equivalent replacement CPE based on existing State discount found in CALNET II. All costs and labor associated with equipment and software replacement due to manufacture discontinuation, repair, maintenance, and upgrade, is the responsibility of AT&T.

Customized Switched Metro Ethernet (CSME)

Customized Switched Metro Ethernet Service (CSME) is a sub-set of the OPT-E-MAN service offerings (available in most locations where OPT-E-MAN is not available). CSME is a switched Ethernet service that connects your LANs within the same metropolitan area to create a metropolitan area network (MAN). CSME service is available in a wide range of metropolitan areas and provides scalable optical service at speeds of 10 Mbps, 100 Mbps, or 1 Gbps. Unlike OPT-E-MAN, CSME does not have MPLS in the core network.

CSME is a fiber-based, Layer 2 switched Ethernet service that provides a VPN that connects to multiple metropolitan area locations over a public network. The network will act as an Ethernet bridge to the connected LANs enabling any-to-any connectivity.

CSME supports many transport data configurations (point-to-point, point-to-multipoint, multipoint-to-multipoint with the network acting as a broadcast domain). You can assign VLANs to segregate your traffic as necessary. CSME uses physical and virtual connections to satisfy your specific business requirements.

CSME connects into the Ethernet cloud and establishes logical EVCs traversing the network to connect your locations transparently. It uses fiber optics and Ethernet to provide you with a VPN. You connect to the network using a router, bridge, or switch. You can connect to locations within a MAN as if they were segments on the same LAN. CSME features include:

- Customer Handoff—10/100BASE-T, 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-ZX (RJ-45 patch panel for the 10/100 Mbps connection or fiber patch panel for 1 Gbps Ethernet connection)
- Network components include a Layer 2/Layer 3 switch in the Core (Cisco 7609) and the Cisco Catalyst 3550s as the Network Terminating Equipment
- Full-duplex operation (communications are bi-directional)

To establish the service, AT&T will place a Cisco 7609 in the central office core network and a Cisco 3550 at the customer premises. The Cisco 3550 is AT&T network terminating equipment, and it will enable AT&T to push a portion of the core functionality to the network edge for better service management. Customers will connect to our network using a router, bridge, or switch, and fiber transport AT&T provides to the customer premises.

CSME Service and Features

Feature Name	Identifier	Feature Description
CSME Basic Connection 10 Mbps	P9FYX	10 Base T Ethernet Port, First Per Location; Assessed per interface at bandwidths of 10 Mbps Base T. The CSME connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
CSME Basic Connection - subsequent 10 Mbps	P9FZX	10 Base T Ethernet Port, Subsequent Per Location; Assessed per interface at bandwidths of 10 Mbps Base T. The CSME connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
CSME Basic Connection 100 Mbps	P9FKX	100 Base T Ethernet Port, First Per Location; Assessed per interface at bandwidths of 100 Mbps Base T. The CSME connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
CSME Basic Connection Subsequent 100 Mbps	P9FPX	10 Base T Ethernet Port, Subsequent Per Location; Assessed per interface at bandwidths of 100 Mbps Base T. The CSME connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
CSME Basic Connection 1 Gigabit	P9FLX	Gigabit Ethernet Port Per Location; Assessed per interface at bandwidths of 1 Gbps. The CSME connection rate element includes the physical connection between the customer's demarcation and the core Ethernet network, and a port on the NTE.
CSME Ethernet Virtual Connection (EVC)	EVNDE	Virtual Connection between CSME ports - Per connection; A total of eight Ethernet Virtual Connections (EVCs) may be configured per 100 Base T port should the customer wish to segregate traffic. A total of 64 EVCs may be configured per 1 Gbps port. Should the customer request more than 64 EVCs on 1 Gbps port, a technical review will need to be conducted to determine whether the

Feature Name	Identifier	Feature Description
		network will support more than 64 EVCs.
CSME Media Access Control (MAC) Addresses	M2CAX	Additional (51-200); MAC addresses rate element is a data link layer protocol used for Layer 2 connectivity and is assessed per MAC address—up to 150 addresses per port at no additional charge. Should the customer require additional MAC addresses over the first 150, customers will be assessed an additional charge per block of 150-200 addresses with a limit of 200 MAC addresses per port.
CSME Repeater	VU4	A repeater may be required when a customer requests CSME service from a serving wire center not equipped to provide CSME service. If the technical review indicates that the service can be provided using a repeater from the customer's connection to the Ethernet network, a repeater charge will be applied.
CSME Service Order Change Charge	NHCEO	Service order change charge for pending service orders and is assessed per location.
CSME Miscellaneous Change Charge	NHCEN	Assessed per location when customer requests changes to existing CSME Service
CSME Service Order Cancellation Charge	OGCEO	If the customer cancels service prior to installation being completed, a Cancellation charge (per port, per location) will apply.
CSME Service Expedite Charge	EODEO	Expedite change is assessed per location when customer requests service to be installed sooner than AT&T agreed upon due date.

AT&T Ethernet Private Line Service (EPLS-WAN)

AT&T Private Line Service Ethernet Interoffice Channel (IOC) will provide inter-city, full-duplex, point-to-point transport of Ethernet packets over the AT&T Corp. long-haul transport infrastructure. We deploy the Ethernet IOC service using the multi-service platform (MSP), which will perform encapsulation of the customer's native Ethernet traffic into SONET frames for transport across the AT&T long-haul network. The Ethernet packet traffic is mapped to a SONET frame as payload and transported as an STS-N (N = 12c, 24c, 192c) circuit across the AT&T long-haul network; provision of SONET-layer protection is on the high-speed facilities over which the Ethernet IOC circuit is routed. 600 Mbps, 1000 Mbps and 10 Gbps Ethernet IOC circuits are mapped to STS-12c, STS-24c and STS-192c signals, respectively. EPLS-WAN requires Ethernet LD access from the customer premises to AT&T POP.

EPLS-WAN Service and Features

Feature Name	Identifier	Feature Description
EPLS-WAN 600 Mbps	WAN60a-e	Gigabit Ethernet port with point-point InterLATA Ethernet connections between equipped AT&T POPs at total throughput of 600 Mbps. Requires Ethernet Access to LD POP.
EPLS-WAN 1000Mbps	WAN1Ga-e	Gigabit Ethernet port with point-point InterLATA Ethernet connections between equipped AT&T POPs at total throughput of 1000 Mbps. Requires Ethernet Access to LD POP.
EPLS-WAN 10 Gbps	WAN10Ga-e	Gigabit Ethernet port with point-point InterLATA Ethernet connections between equipped AT&T POPs at total throughput of 10 Gbps. Requires Ethernet Access to LD POP.

ETHERNET ACCESS to LONG DISTANCE POP

Feature Description	Identifier
100-Base-TX 2 Mbps Ethernet	LNET2
100-Base-TX 4 Mbps Ethernet	LNET4
100-Base-TX 5 Mbps Ethernet	LNET5
100-Base-TX 8 Mbps Ethernet	LNET8

Feature Description	Identifier
100-Base-TX 10 Mbps Ethernet	LNET10
100-Base-TX 20 Mbps Ethernet	LNET20
100-Base-TX 50 Mbps Ethernet	LNET50
100-Base-TX 100 Mbps Ethernet	LNET100
1000-Base-SX/LX 150 Mbps Ethernet	LNET150
1000-Base-SX/LX 250 Mbps Ethernet	LNET250
1000-Base-SX/LX 500 Mbps Ethernet	LNET500
1000-Base-SX/LX 600 Mbps Ethernet	LNET600
1000-Base-SX/LX 1000 Mbps Ethernet	LNET1G
10G-Base-LSR 10000 Mbps Ethernet	LNET10G

Customer Premises Equipment (CPE) and Services

AT&T offers a variety of CPE and pre-implementation, implementation and post-implementation services for CPE in support of all WAN access services.

See Required CPE and Other Equipment for descriptions of additional equipment and services offered.

6.1.3.2.5 Service Identifier: Metropolitan Area Network (MAN) and Wide Area Network (WAN) Services
Attachment 4

Pricing is for standard components only, additional buildout shall be considered on an ICB basis.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
GigaMAN®					
GigaMAN Local Distribution Channel	LNVX5	$ 1,350.00	$ 2,280.00	Per Channel	N/A
GigaMAN Repeater	VU4X5	N/A	$ 550.00	per additional repeater	N/A
GigaMAN Inter-Office Mileage - Variable	1L5X3	N/A	$ 10.00	per mile	N/A
GigaMAN Inter-Office Mileage Fixed	1L5X3	$ -	$ 160.00	channel	N/A
GigaMAN Channel Termination Diversity (Local Channel Diversity)	CPAL5	$ -	$ 600.00	channel	N/A
GigaMAN Alternate Wire Center Diversity	CPAA5	$ -	$ 960.00	channel	N/A
GigaMAN Inter-Wire Center Diversity	CPAT5	$ -	$ 475.00	circuit	N/A
GigaMAN Equipment Only Protection	CPAE3	$ 625.00	$ 840.00	channel	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
GigaMAN Equipment plus Alternate Wire Center Path Protection	CPAF3	$ 1,400.00	$ 1,280.00	channel	N/A
GigaMAN Equipment plus Channel Termination Path Protection	CPAG3	$ 1,225.00	$ 1,140.00	channel	N/A
GigaMAN Inter-Wire Center Path Protection	CPAH3	$ 625.00	$ 120.00	channel	N/A
GigaMAN Power Protection	VBBG3	$ 475.00	$ 384.00	rack or cabinet	N/A
GigaMAN Administration Charge	NRBAO	$ 46.00	N/A	order	N/A
DecaMAN®					
DecaMAN Local Distribution Channel LAN-PHY	1RSTX	$ 1,500.00	$ 8,400.00	channel	N/A
DecaMAN Local Distribution Channel WAN-PHY	1RSTX	$ 1,500.00	$ 10,560.00	channel	N/A
DecaMAN Interoffice Channel Mileage - Fixed	JZ68S	N/A	$ 1,260.00	channel	N/A
DecaMAN Interoffice Channel Mileage - Variable	JZ68S	N/A	$ 175.00	mile	N/A
DecaMAN Repeater	VU4	N/A	$ 1,920.00	per additional repeater	N/A
DecaMAN Channel Termination Diversity (Local Channel Diversity)	CPALX	$ 850.00	$ 2,160.00	channel	N/A
DecaMAN Alternate Wire Center Diversity	CPAAX	$ 950.00	$ 3,456.00	channel	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
DecaMAN Inter-Wire Center Diversity	CPATX	$ 700.00	$ 1,440.00	circuit	N/A
DecaMAN Equipment Only Protection	CPAEX	$ 3,000.00	$ 5,880.00	channel	N/A
DecaMAN Equipment plus Alternate Wire Center Path Protection	CPAFX	$ 4,500.00	$ 8,832.00	channel	N/A
DecaMAN Equipment plus Channel Termination Path Protection	CPAGX	$ 4,200.00	$ 7,920.00	channel	N/A
DecaMAN Inter-Wire Center Path Protection	CPAHX	$ 625.00	$ 480.00	circuit	N/A
DecaMAN Power Protection	VBBGX	$ 475.00	$ 420.00	rack or cabinet	N/A
DecaMAN Administration Charge	NRBAO	$ 46.00	N/A	order	N/A
FibreMAN®					
FibreMAN Local Distribution Channel - 1 Gbps	25P8X	$ 1,500.00	$ 2,850.00	channel	N/A
FibreMAN Local Distribution Channel - 2 Gbps	25P9X	$ 1,500.00	$ 4,000.00	channel	N/A
FibreMAN Repeater	VU4	$ -	$ 1,150.00	per additional repeater	N/A
FibreMAN Alternate Wire Center Diversity	AVOYX	$ -	$ 1,200.00	channel	N/A
FibreMAN Channel Termination Diversity (Local Channel Diversity)	DJVYX	$ -	$ 750.00	channel	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
FibreMAN Inter-Wire Center Diversity	DEQYX	$ -	$ 500.00	circuit	N/A
FibreMAN Inter-Office Mileage - Fixed	JZ4XS	$ -	$ 200.00	channel	N/A
FibreMAN Inter-Office Mileage - Variable	JZ4XS	$ -	$ 100.00	mile	N/A
MON Ring					
MON Ring Customer Prem Node	F2ND1	$ -	$ 4,680.00	node	N/A
MON Ring Customer Prem Node	F2NDS	$ -	$ 3,510.00	node	N/A
MON Ring Central Office Node	F2NC1	$ -	$ 4,680.00	node	N/A
MON Ring Central Office Node	F2NCS	$ -	$ 3,510.00	node	N/A
MON Ring Interoffice Mileage	1L5X5	$ -	$ 195.00	ring	N/A
MON Bulk Power	CBVDX	$ -	$ 1,240.00	node	N/A
MON Bulk Power	CVBDS	$ -	$ 992.00	node	N/A
MON Ring Central Office Optical Amplifier - Per location C-Band	67QXX	$ -	$ 3,240.00	amplifier	N/A
MON Ring Central Office Optical Amplifier - Per location L-Band	67QSX	$ -	$ 3,240.00	amplifier	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
MON Ring Central Office Regenerator	V8RXX	$ -	$ 4,500.00	regenerator	N/A
MON Ring Central Office Regenerator	V8R2C	$ -	$ 9,000.00	regenerator	N/A
MON Ring Port ETR Unprotected	POYKW	$ -	$ 585.00	port	N/A
MON Ring Port Fibre Channel	POYNW	$ -	$ 720.00	port	N/A
MON Ring Port Fibre Channel Protected	POYNP	$ -	$ 1,440.00	port	N/A
MON Ring Port Fibre Channel 2G	POYYW	$ -	$ 1,020.00	port	N/A
MON Ring Port Fibre Channel 2G Protected	POYYP	$ -	$ 2,040.00	port	N/A
MON Ring Port FICON	POYMW	$ -	$ 585.00	port	N/A
MON Ring Port FICON Protected	POYMP	$ -	$ 1,170.00	port	N/A
MON Ring Port FICON 2G	POYWW	$ -	$ 1,020.00	port	N/A
MON Ring Channel Port FICON 2G	POYWP	$ -	$ 2,040.00	port	N/A
MON Ring Port Gigabit Ethernet	POYLW	$ -	$ 720.00	port	N/A
MON Ring Port Gigabit Ethernet Protected	POYLP	$ -	$ 1,440.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
MON Ring Port 10W Gigabit Ethernet	POYTW	$ -	$ 9,000.00	port	N/A
MON Ring Port 10W Gigabit Ethernet Protected	POYTP	$ -	$ 12,000.00	port	N/A
MON Ring Port 10L Gigabit Ethernet	POYUW	$ -	$ 9,225.00	port	N/A
MON Ring Port 10L Gigabit Ethernet Protected	POYUP	$ -	$ 12,300.00	port	N/A
MON Ring Port SONET OC-12/OC-12c	POYFW	$ -	$ 780.00	port	N/A
MON Ring Port SONET OC-12/OC-12c Protected	POYFP	$ -	$ 1,560.00	port	N/A
MON Ring Port SONET OC-48/OC-48c	POYGW	$ -	$ 2,640.00	port	N/A
MON Ring Port SONET OC-48/OC-48c Protected	POYGP	$ -	$ 3,960.00	port	N/A
MON Ring Port SONET OC-192/OC-192c	POYOW	$ -	$ 9,000.00	port	N/A
MON Ring Port SONET OC-192/OC-192c Protected	POYOP	$ -	$ 12,000.00	port	N/A
MON Ring Fibre Channel SRM Port	POY6W	$ -	$ 300.00	port	N/A
MON Ring FibreChannel SRM Port Protected	POY6P	$ -	$ 600.00	port	N/A
MON Ring Ficon SRM Port	POY7W	$ -	$ 240.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
MON Ring Ficon SRM Port Protected	POY7P	$ -	$ 480.00	port	N/A
MON Gigabit Ethernet SRM Port	POY4W	$ -	$ 300.00	port	N/A
MON Gigabit Ethernet SRM Port Protected	POY4P	$ -	$ 600.00	port	N/A
MON SONET OC-12/OC-12c SRM Port	POY5W	$ -	$ 300.00	port	N/A
MON SONET OC-12/OC-12c SRM Port Protected	POY5P	$ -	$ 600.00	port	N/A
MON SONET OC-3/OC-3c SRM Port	POYEW	$ -	$ 60.00	port	N/A
MON SONET OC-3/OC-3c SRM Port	POYEP	$ -	$ 60.00	port	N/A
MON ESCON SRM Port	POYHW	$ -	$ 60.00	port	N/A
MON ESCON SRM Port Protected	POYHP	$ -	$ 60.00	port	N/A
OPT-E-MAN®					
OPT-E-MAN Basic Connection 10/100 Mbps	P9FEX	N/A	$ 323.61	port	N/A
OPT-E-MAN Basic Connection Gigabit Ethernet	P9FGX	N/A	$ 681.66	port	N/A
OPT-E-MAN Basic Plus Connection 10/100 Mbps	P9FFX	N/A	$ 323.61	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OPT-E-MAN Basic Plus Connection Gigabit Ethernet	P9FHX	N/A	$ 681.66	port	N/A
OPT-E-MAN Additional MAC Addresses (51-100)	M2CAX	N/A	$ 4.00		N/A
OPT-E-MAN Repeater Service	VU4	N/A	$ 260.00	repeater	N/A
OPT-E-MAN Service Order Change Charge	NHCEO	$ 75.00	N/A		N/A
OPT-E-MAN Miscellaneous Change Charge	NHCEN	$ 50.00	N/A		N/A
OPT-E-MAN Service Order Cancellation Charge	OGCEO	$ 200.00	N/A		N/A
OPT-E-MAN Expedite Charge	EODEO	$ 300.00	N/A		N/A
OPT-E-MAN Ethernet Virtual Connection (EVC)	OMEVC	$ -	$ -	virtual circuit	N/A
Best Effort Grade of Service					
OPT-E-MAN Committed Information Rate – 2 Mbps Best Effort	R6E2E	N/A	$ 50.02	port	N/A
OPT-E-MAN Committed Information Rate – 4 Mbps Best Effort	R6E4E	N/A	$ 75.04	port	N/A
OPT-E-MAN Committed Information Rate – 8 Mbps Best Effort	R6E8E	N/A	$ 133.41	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Bronze Grade of Service					
OPT-E-MAN Committed Information Rate – 2 Mbps Bronze	R6E2B	N/A	$ 58.85	port	N/A
OPT-E-MAN Committed Information Rate – 4 Mbps Bronze	R6E4B	N/A	$ 88.28	port	N/A
OPT-E-MAN Committed Information Rate – 5 Mbps Bronze	R6EAB	N/A	$ 102.02	port	N/A
OPT-E-MAN Committed Information Rate – 8 Mbps Bronze	R6E8B	N/A	$ 156.95	port	N/A
OPT-E-MAN Committed Information Rate – 10 Mbps Bronze	R6EBB	N/A	$ 305.06	port	N/A
OPT-E-MAN Committed Information Rate – 20 Mbps Bronze	R6EDB	N/A	$ 427.67	port	N/A
OPT-E-MAN Committed Information Rate – 50 Mbps Bronze	R6EHB	N/A	$ 521.84	port	N/A
OPT-E-MAN Committed Information Rate – 100 Mbps Bronze	R6ELB	N/A	$ 616.01	port	N/A
OPT-E-MAN Committed Information Rate – 150 Mbps Bronze	R6ENB	N/A	$ 392.26	port	N/A
OPT-E-MAN Committed Information Rate – 250 Mbps Bronze	R6EQB	N/A	$ 588.54	port	N/A
OPT-E-MAN Committed Information Rate – 500 Mbps	R6ETB	N/A	$ 686.63	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Bronze					
OPT-E-MAN Committed Information Rate – 600 Mbps Bronze	R6EUB	N/A	$ 735.68	port	N/A
OPT-E-MAN Committed Information Rate – 1000 Mbps Bronze	R6EZB	N/A	$ 778.83	port	N/A
Silver Grade of Service					
OPT-E-MAN Committed Information Rate – 2 Mbps Silver	R6E2C	N/A	$ 58.85	port	N/A
OPT-E-MAN Committed Information Rate – 4 Mbps Silver	R6E4C	N/A	$ 88.28	port	N/A
OPT-E-MAN Committed Information Rate – 5 Mbps Silver	R6EAC	N/A	$ 102.02	port	N/A
OPT-E-MAN Committed Information Rate – 8 Mbps Silver	R6E8C	N/A	$ 156.95	port	N/A
OPT-E-MAN Committed Information Rate – 10 Mbps Silver	R6EBC	N/A	$ 368.82	port	N/A
OPT-E-MAN Committed Information Rate – 20 Mbps Silver	R6EDC	N/A	$ 503.20	port	N/A
OPT-E-MAN Committed Information Rate – 50 Mbps Silver	R6EHC	N/A	$ 607.18	port	N/A
OPT-E-MAN Committed Information Rate – 100 Mbps Silver	R6ELC	N/A	$ 711.15	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OPT-E-MAN Committed Information Rate – 150 Mbps Silver	R6ENC	N/A	$ 490.45	port	N/A
OPT-E-MAN Committed Information Rate – 250 Mbps Silver	R6EQC	N/A	$ 784.72	port	N/A
OPT-E-MAN Committed Information Rate – 500 Mbps Silver	R6ETC	N/A	$ 882.81	port	N/A
OPT-E-MAN Committed Information Rate – 600 Mbps Silver	R6EUC	N/A	$ 907.33	port	N/A
OPT-E-MAN Committed Information Rate – 1000 Mbps Silver	R6EZC	N/A	$ 924.99	port	N/A
AT&T Switched Ethernet (ASE) Service and Features					
Basic Service Arrangement (Basic or BSA) Ports					
ASE (BSA) Connection 10/100 Mbps	EYQEX	N/A	$225.00	port	N/A
ASE (BSA) Connection 1 Gigabit Ethernet	EYQFX	N/A	$632.50	port	N/A
ASE (BSA) Connection 10 Gigabit Ethernet	EYQGX	N/A	$2,280.00	port	N/A
Basic Service Arrangement Class of Service (CoS) and Committed Information Rate (CIR)					
Real Time					

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 2 Mbps Real Time	R6E2XRT	N/A	$61.20	port	N/A
ASE (BSA) Committed Information Rate – 4 Mbps Real Time	R6E4XRT	N/A	$104.50	port	N/A
ASE (BSA) Committed Information Rate – 5 Mbps Real Time	R6EAXRT	N/A	$130.00	port	N/A
ASE (BSA) Committed Information Rate – 8 Mbps Real Time	R6E8XRT	N/A	$150.00	port	N/A
ASE (BSA) Committed Information Rate – 10 Mbps Real Time	R6EBXRT	N/A	$202.00	port	N/A
ASE (BSA) Committed Information Rate – 20 Mbps Real Time	R6EDXRT	N/A	$260.00	port	N/A
ASE (BSA) Committed Information Rate – 50 Mbps Real Time	R6EHXRT	N/A	$496.40	port	N/A
ASE (BSA) Committed Information Rate – 100 Mbps Real Time	R6ELXRT	N/A	$561.00	port	N/A
ASE (BSA) Committed Information Rate – 150 Mbps Real Time	R6ENXRT	N/A	$356.00	port	N/A
ASE (BSA) Committed Information Rate – 250 Mbps Real Time	R6EQXRT	N/A	$514.80	port	N/A
ASE (BSA) Committed Information Rate – 500 Mbps Real Time	R6ETXRT	N/A	$680.00	port	N/A
ASE (BSA) Committed Information Rate – 600 Mbps Real Time	R6EUXRT	N/A	$775.00	port	N/A
ASE (BSA) Committed Information Rate – 1000 Mbps Real Time	R6EZXRT	N/A	$877.50	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 2000 Mbps Real Time	R61BXRT	N/A	$1,391.50	port	N/A
ASE (BSA) Committed Information Rate – 2500 Mbps Real Time	R61CXRT	N/A	$1,669.80	port	N/A
ASE (BSA) Committed Information Rate – 4000 Mbps Real Time	R61FXRT	N/A	$1,971.10	port	N/A
ASE (BSA) Committed Information Rate – 5000 Mbps Real Time	R61HXRT	N/A	$2,318.40	port	N/A
ASE (BSA) Committed Information Rate – 7500 Mbps Real Time	R61NXRT	N/A	$3,045.20	port	N/A
ASE (BSA) Committed Information Rate – 9500 Mbps Real Time	R61RXRT	N/A	$3,624.80	port	N/A
ASE (BSA) Committed Information Rate – 10000 Mbps Real Time	R61SXRT	N/A	$3,767.40	port	N/A
Interactive					
ASE (BSA) Committed Information Rate – 2 Mbps Interactive	R6E2XIA	N/A	$56.40	port	N/A
ASE (BSA) Committed Information Rate – 4 Mbps Interactive	R6E4XIA	N/A	$98.80	port	N/A
ASE (BSA) Committed Information Rate – 5 Mbps Interactive	R6EAXIA	N/A	$122.00	port	N/A
ASE (BSA) Committed Information Rate – 8 Mbps Interactive	R6E8XIA	N/A	$140.00	port	N/A
ASE (BSA) Committed Information Rate – 10 Mbps Interactive	R6EBXIA	N/A	$188.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 20 Mbps Interactive	R6EDXIA	N/A	$242.00	port	N/A
ASE (BSA) Committed Information Rate – 50 Mbps Interactive	R6EHXIA	N/A	$459.00	port	N/A
ASE (BSA) Committed Information Rate – 100 Mbps Interactive	R6ELXIA	N/A	$523.60	port	N/A
ASE (BSA) Committed Information Rate – 150 Mbps Interactive	R6ENXIA	N/A	$330.00	port	N/A
ASE (BSA) Committed Information Rate – 250 Mbps Interactive	R6EQXIA	N/A	$479.60	port	N/A
ASE (BSA) Committed Information Rate – 500 Mbps Interactive	R6ETXIA	N/A	$632.50	port	N/A
ASE (BSA) Committed Information Rate – 600 Mbps Interactive	R6EUXIA	N/A	$722.50	port	N/A
ASE (BSA) Committed Information Rate – 1000 Mbps Interactive	R6EZXIA	N/A	$820.00	port	N/A
ASE (BSA) Committed Information Rate – 2000 Mbps Interactive	R61BXIA	N/A	$1,301.80	port	N/A
ASE (BSA) Committed Information Rate – 2500 Mbps Interactive	R61CXIA	N/A	$1,559.40	port	N/A
ASE (BSA) Committed Information Rate – 4000 Mbps Interactive	R61FXIA	N/A	$1,842.30	port	N/A
ASE (BSA) Committed Information Rate – 5000 Mbps Interactive	R61HXIA	N/A	$2,166.60	port	N/A
ASE (BSA) Committed Information Rate – 7500 Mbps Interactive	R61NXIA	N/A	$2,845.10	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 9500 Mbps Interactive	R61RXIA	N/A	$3,385.60	port	N/A
ASE (BSA) Committed Information Rate – 10000 Mbps Interactive	R61SXIA	N/A	$3,521.30	port	N/A
Business Critical-High					
ASE (BSA) Committed Information Rate – 2 Mbps Business Critical High	R6E2XBH	N/A	$48.00	port	N/A
ASE (BSA) Committed Information Rate – 4 Mbps Business Critical High	R6E4XBH	N/A	$86.45	port	N/A
ASE (BSA) Committed Information Rate – 5 Mbps Business Critical High	R6EAXBH	N/A	$110.00	port	N/A
ASE (BSA) Committed Information Rate – 8 Mbps Business Critical High	R6E8XBH	N/A	$131.00	port	N/A
ASE (BSA) Committed Information Rate – 10 Mbps Business Critical High	R6EBXBH	N/A	$166.00	port	N/A
ASE (BSA) Committed Information Rate – 20 Mbps Business Critical High	R6EDXBH	N/A	$220.00	port	N/A
ASE (BSA) Committed Information Rate – 50 Mbps Business Critical High	R6EHXBH	N/A	$421.60	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 100 Mbps Business Critical High	R6ELXBH	N/A	$486.20	port	N/A
ASE (BSA) Committed Information Rate – 150 Mbps Business Critical High	R6ENXBH	N/A	$317.00	port	N/A
ASE (BSA) Committed Information Rate – 250 Mbps Business Critical High	R6EQXBH	N/A	$431.20	port	N/A
ASE (BSA) Committed Information Rate – 500 Mbps Business Critical High	R6ETXBH	N/A	$577.50	port	N/A
ASE (BSA) Committed Information Rate – 600 Mbps Business Critical High	R6EUXBH	N/A	$667.50	port	N/A
ASE (BSA) Committed Information Rate – 1000 Mbps Business Critical High	R6EZXBH	N/A	$765.00	port	N/A
ASE (BSA) Committed Information Rate – 2000 Mbps Business Critical High	R61BXBH	N/A	$1,258.10	port	N/A
ASE (BSA) Committed Information Rate – 2500 Mbps Business Critical High	R61CXBH	N/A	$1,507.65	port	N/A
ASE (BSA) Committed Information Rate – 4000 Mbps Business Critical High	R61FXBH	N/A	$1,781.35	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 5000 Mbps Business Critical High	R61HXBH	N/A	$2,095.30	port	N/A
ASE (BSA) Committed Information Rate – 7500 Mbps Business Critical High	R61NXBH	N/A	$2,750.80	port	N/A
ASE (BSA) Committed Information Rate – 9500 Mbps Business Critical High	R61RXBH	N/A	$3,274.05	port	N/A
ASE (BSA) Committed Information Rate – 10000 Mbps Business Critical High	R61SXBH	N/A	$3,405.15	port	N/A
Business Critical-Medium					
ASE (BSA) Committed Information Rate – 2 Mbps Business Critical Medium	R6E2XBM	N/A	$39.60	port	N/A
ASE (BSA) Committed Information Rate – 4 Mbps Business Critical Medium	R6E4XBM	N/A	$74.10	port	N/A
ASE (BSA) Committed Information Rate – 5 Mbps Business Critical Medium	R6EAXBM	N/A	$100.00	port	N/A
ASE (BSA) Committed Information Rate – 8 Mbps Business Critical Medium	R6E8XBM	N/A	$122.00	port	N/A
ASE (BSA) Committed Information Rate – 10 Mbps Business Critical	R6EBXBM	N/A	$144.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Medium					
ASE (BSA) Committed Information Rate – 20 Mbps Business Critical Medium	R6EDXBM	N/A	$198.00	port	N/A
ASE (BSA) Committed Information Rate – 50 Mbps Business Critical Medium	R6EHXBM	N/A	$384.20	port	N/A
ASE (BSA) Committed Information Rate – 100 Mbps Business Critical Medium	R6ELXBM	N/A	$448.80	port	N/A
ASE (BSA) Committed Information Rate – 150 Mbps Business Critical Medium	R6ENXBM	N/A	$304.00	port	N/A
ASE (BSA) Committed Information Rate – 250 Mbps Business Critical Medium	R6EQXBM	N/A	$382.80	port	N/A
ASE (BSA) Committed Information Rate – 500 Mbps Business Critical Medium	R6ETXBM	N/A	$522.50	port	N/A
ASE (BSA) Committed Information Rate – 600 Mbps Business Critical Medium	R6EUXBM	N/A	$612.50	port	N/A
ASE (BSA) Committed Information Rate – 1000 Mbps Business Critical Medium	R6EZXBM	N/A	$710.00	port	N/A
ASE (BSA) Committed Information Rate – 2000 Mbps Business Critical	R61BXBM	N/A	$1,214.40	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Medium					
ASE (BSA) Committed Information Rate – 2500 Mbps Business Critical Medium	R61CXBM	N/A	$1,455.90	port	N/A
ASE (BSA) Committed Information Rate – 4000 Mbps Business Critical Medium	R61FXBM	N/A	$1,720.40	port	N/A
ASE (BSA) Committed Information Rate – 5000 Mbps Business Critical Medium	R61HXBM	N/A	$2,024.00	port	N/A
ASE (BSA) Committed Information Rate – 7500 Mbps Business Critical Medium	R61NXBM	N/A	$2,656.50	port	N/A
ASE (BSA) Committed Information Rate – 9500 Mbps Business Critical Medium	R61RXBM	N/A	$3,162.50	port	N/A
ASE (BSA) Committed Information Rate – 10000 Mbps Business Critical Medium	R61SXBM	N/A	$3,289.00	port	N/A
Non-Critical High					
ASE (BSA) Committed Information Rate – 2 Mbps Non-Critical High	R6E2XNH	N/A	$37.20	port	N/A
ASE (BSA) Committed Information Rate – 4 Mbps Non-Critical High	R6E4XNH	N/A	$70.30	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 5 Mbps Non-Critical High	R6EAXNH	N/A	$93.00	port	N/A
ASE (BSA) Committed Information Rate – 8 Mbps Non-Critical High	R6E8XNH	N/A	$114.00	port	N/A
ASE (BSA) Committed Information Rate – 10 Mbps Non-Critical High	R6EBXNH	N/A	$134.00	port	N/A
ASE (BSA) Committed Information Rate – 20 Mbps Non-Critical High	R6EDXNH	N/A	$185.00	port	N/A
ASE (BSA) Committed Information Rate – 50 Mbps Non-Critical High	R6EHXNH	N/A	$358.70	port	N/A
ASE (BSA) Committed Information Rate – 100 Mbps Non-Critical High	R6ELXNH	N/A	$418.20	port	N/A
ASE (BSA) Committed Information Rate – 150 Mbps Non-Critical High	R6ENXNH	N/A	$282.00	port	N/A
ASE (BSA) Committed Information Rate – 250 Mbps Non-Critical High	R6EQXNH	N/A	$355.30	port	N/A
ASE (BSA) Committed Information Rate – 500 Mbps Non-Critical High	R6ETXNH	N/A	$486.25	port	N/A
ASE (BSA) Committed Information Rate – 600 Mbps Non-Critical High	R6EUXNH	N/A	$570.00	port	N/A
ASE (BSA) Committed Information Rate – 1000 Mbps Non-Critical High	R6EZXNH	N/A	$660.00	port	N/A
ASE (BSA) Committed Information Rate – 2000 Mbps Non-Critical High	R61BXNH	N/A	$1,131.60	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (BSA) Committed Information Rate – 2500 Mbps Non-Critical High	R61CXNH	N/A	$1,357.00	port	N/A
ASE (BSA) Committed Information Rate – 4000 Mbps Non-Critical High	R61FXNH	N/A	$1,603.10	port	N/A
ASE (BSA) Committed Information Rate – 5000 Mbps Non-Critical High	R61HXNH	N/A	$1,886.00	port	N/A
ASE (BSA) Committed Information Rate – 7500 Mbps Non-Critical High	R61NXNH	N/A	$2,475.95	port	N/A
ASE (BSA) Committed Information Rate – 9500 Mbps Non-Critical High	R61RXNH	N/A	$2,947.45	port	N/A
ASE (BSA) Committed Information Rate – 10000 Mbps Non-Critical High	R61SXNH	N/A	$3,064.75	port	N/A
Per Packet Class of Service (PPCoS) Arrangement Ports					N/A
ASE (PPCoS) Connection 10/100 Mbps	EYQLX	N/A	$294.00	port	N/A
ASE (PPCoS) Connection 1 Gigabit Ethernet	EYQMX	N/A	$759.00	port	N/A
ASE (PPCoS) Connection 10 Gigabit Ethernet	EYQNX	N/A	$2,736.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Per Packet Class of Service Arrangement Class of Service (CoS) Packages and Committed Information Rate (CIR)					
Multimedia High					
ASE (PPCoS) Committed Information Rate – 2 Mbps Multimedia High	R6E2XMH	N/A	$61.20	port	N/A
ASE (PPCoS) Committed Information Rate – 4 Mbps Multimedia High	R6E4XMH	N/A	$104.50	port	N/A
ASE (PPCoS) Committed Information Rate – 5 Mbps Multimedia High	R6EAXMH	N/A	$130.00	port	N/A
ASE (PPCoS) Committed Information Rate – 8 Mbps Multimedia High	R6E8XMH	N/A	$150.00	port	N/A
ASE (PPCoS) Committed Information Rate – 10 Mbps Multimedia High	R6EBXMH	N/A	$202.00	port	N/A
ASE (PPCoS) Committed Information Rate – 20 Mbps Multimedia High	R6EDXMH	N/A	$260.00	port	N/A
ASE (PPCoS) Committed Information Rate – 50 Mbps Multimedia High	R6EHXMH	N/A	$496.40	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (PPCoS) Committed Information Rate – 100 Mbps Multimedia High	R6ELXMH	N/A	$561.00	port	N/A
ASE (PPCoS) Committed Information Rate – 150 Mbps Multimedia High	R6ENXMH	N/A	$356.00	port	N/A
ASE (PPCoS) Committed Information Rate – 250 Mbps Multimedia High	R6EQXMH	N/A	$514.80	port	N/A
ASE (PPCoS) Committed Information Rate – 500 Mbps Multimedia High	R6ETXMH	N/A	$680.00	port	N/A
ASE (PPCoS) Committed Information Rate – 600 Mbps Multimedia High	R6EUXMH	N/A	$775.00	port	N/A
ASE (PPCoS) Committed Information Rate – 1000 Mbps Multimedia High	R6EZXMH	N/A	$877.50	port	N/A
ASE (PPCoS) Committed Information Rate – 2000 Mbps Multimedia High	R61BXMH	N/A	$1,391.50	port	N/A
ASE (PPCoS) Committed Information Rate – 2500 Mbps Multimedia High	R61CXMH	N/A	$1,669.80	port	N/A
ASE (PPCoS) Committed Information Rate – 4000 Mbps Multimedia High	R61FXMH	N/A	$1,971.10	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (PPCoS) Committed Information Rate – 5000 Mbps Multimedia High	R61HXMH	N/A	$2,318.40	port	N/A
ASE (PPCoS) Committed Information Rate – 7500 Mbps Multimedia High	R61NXMH	N/A	$3,045.20	port	N/A
ASE (PPCoS) Committed Information Rate – 9500 Mbps Multimedia High	R61RXMH	N/A	$3,624.80	port	N/A
ASE (PPCoS) Committed Information Rate – 10000 Mbps Multimedia High	R61SXMH	N/A	$3,767.40	port	N/A
Multimedia Standard					
ASE (PPCoS) Committed Information Rate – 2 Mbps Multimedia Standard	R6E2XMS	N/A	$56.40	port	N/A
ASE (PPCoS) Committed Information Rate – 4 Mbps Multimedia Standard	R6E4XMS	N/A	$98.80	port	N/A
ASE (PPCoS) Committed Information Rate – 5 Mbps Multimedia Standard	R6EAXMS	N/A	$122.00	port	N/A
ASE (PPCoS) Committed Information Rate – 8 Mbps Multimedia Standard	R6E8XMS	N/A	$140.00	port	N/A
ASE (PPCoS) Committed Information Rate – 10 Mbps	R6EBXMS	N/A	$188.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Multimedia Standard					
ASE (PPCoS) Committed Information Rate – 20 Mbps Multimedia Standard	R6EDXMS	N/A	$242.00	port	N/A
ASE (PPCoS) Committed Information Rate – 50 Mbps Multimedia Standard	R6EHXMS	N/A	$459.00	port	N/A
ASE (PPCoS) Committed Information Rate – 100 Mbps Multimedia Standard	R6ELXMS	N/A	$523.60	port	N/A
ASE (PPCoS) Committed Information Rate – 150 Mbps Multimedia Standard	R6ENXMS	N/A	$330.00	port	N/A
ASE (PPCoS) Committed Information Rate – 250 Mbps Multimedia Standard	R6EQXMS	N/A	$479.60	port	N/A
ASE (PPCoS) Committed Information Rate – 500 Mbps Multimedia Standard	R6ETXMS	N/A	$632.50	port	N/A
ASE (PPCoS) Committed Information Rate – 600 Mbps Multimedia Standard	R6EUXMS	N/A	$722.50	port	N/A
ASE (PPCoS) Committed Information Rate – 1000 Mbps Multimedia Standard	R6EZXMS	N/A	$820.00	port	N/A
ASE (PPCoS) Committed Information Rate – 2000 Mbps	R61BXMS	N/A	$1,301.80	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Multimedia Standard					
ASE (PPCoS) Committed Information Rate – 2500 Mbps Multimedia Standard	R61CXMS	N/A	$1,559.40	port	N/A
ASE (PPCoS) Committed Information Rate – 4000 Mbps Multimedia Standard	R61FXMS	N/A	$1,842.30	port	N/A
ASE (PPCoS) Committed Information Rate – 5000 Mbps Multimedia Standard	R61HXMS	N/A	$2,166.60	port	N/A
ASE (PPCoS) Committed Information Rate – 7500 Mbps Multimedia Standard	R61NXMS	N/A	$2,845.10	port	N/A
ASE (PPCoS) Committed Information Rate – 9500 Mbps Multimedia Standard	R61RXMS	N/A	$3,385.60	port	N/A
ASE (PPCoS) Committed Information Rate – 10000 Mbps Multimedia Standard	R61SXMS	N/A	$3,521.30	port	N/A
Critical Data					
ASE (PPCoS) Committed Information Rate – 2 Mbps Critical Data	R6E2XCD	N/A	$39.60	port	N/A
ASE (PPCoS) Committed Information Rate – 4 Mbps Critical Data	R6E4XCD	N/A	$74.10	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (PPCoS) Committed Information Rate – 5 Mbps Critical Data	R6EAXCD	N/A	$100.00	port	N/A
ASE (PPCoS) Committed Information Rate – 8 Mbps Critical Data	R6E8XCD	N/A	$122.00	port	N/A
ASE (PPCoS) Committed Information Rate – 10 Mbps Critical Data	R6EBXCD	N/A	$144.00	port	N/A
ASE (PPCoS) Committed Information Rate – 20 Mbps Critical Data	R6EDXCD	N/A	$198.00	port	N/A
ASE (PPCoS) Committed Information Rate – 50 Mbps Critical Data	R6EHXCD	N/A	$384.20	port	N/A
ASE (PPCoS) Committed Information Rate – 100 Mbps Critical Data	R6ELXCD	N/A	$448.80	port	N/A
ASE (PPCoS) Committed Information Rate – 150 Mbps Critical Data	R6ENXCD	N/A	$304.00	port	N/A
ASE (PPCoS) Committed Information Rate – 250 Mbps Critical Data	R6EQXCD	N/A	$382.80	port	N/A
ASE (PPCoS) Committed Information Rate – 500 Mbps Critical Data	R6ETXCD	N/A	$522.50	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
ASE (PPCoS) Committed Information Rate – 600 Mbps Critical Data	R6EUXCD	N/A	$612.50	port	N/A
ASE (PPCoS) Committed Information Rate – 1000 Mbps Critical Data	R6EZXCD	N/A	$710.00	port	N/A
ASE (PPCoS) Committed Information Rate – 2000 Mbps Critical Data	R61BXCD	N/A	$1,214.40	port	N/A
ASE (PPCoS) Committed Information Rate – 2500 Mbps Critical Data	R61CXCD	N/A	$1,455.90	port	N/A
ASE (PPCoS) Committed Information Rate – 4000 Mbps Critical Data	R61FXCD	N/A	$1,720.40	port	N/A
ASE (PPCoS) Committed Information Rate – 5000 Mbps Critical Data	R61HXCD	N/A	$2,024.00	port	N/A
ASE (PPCoS) Committed Information Rate – 7500 Mbps Critical Data	R61NXCD	N/A	$2,656.50	port	N/A
ASE (PPCoS) Committed Information Rate – 9500 Mbps Critical Data	R61RXCD	N/A	$3,162.50	port	N/A
ASE (PPCoS) Committed Information Rate – 10000 Mbps Critical Data	R61SXCD	N/A	$3,289.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Business Data					
ASE (PPCoS) Committed Information Rate – 2 Mbps Business Data	R6E2XBD	N/A	$37.20	port	N/A
ASE (PPCoS) Committed Information Rate – 4 Mbps Business Data	R6E4XBD	N/A	$70.30	port	N/A
ASE (PPCoS) Committed Information Rate – 5 Mbps Business Data	R6EAXBD	N/A	$93.00	port	N/A
ASE (PPCoS) Committed Information Rate – 8 Mbps Business Data	R6E8XBD	N/A	$114.00	port	N/A
ASE (PPCoS) Committed Information Rate – 10 Mbps Business Data	R6EBXBD	N/A	$134.00	port	N/A
ASE (PPCoS) Committed Information Rate – 20 Mbps Business Data	R6EDXBD	N/A	$185.00	port	N/A
ASE (PPCoS) Committed Information Rate – 50 Mbps Business Data	R6EHXBD	N/A	$358.70	port	N/A
ASE (PPCoS) Committed Information Rate – 100 Mbps Business Data	R6ELXBD	N/A	$418.20	port	N/A
ASE (PPCoS) Committed Information Rate – 150 Mbps	R6ENXBD	N/A	$282.00	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Business Data					
ASE (PPCoS) Committed Information Rate – 250 Mbps Business Data	R6EQXBD	N/A	$355.30	port	N/A
ASE (PPCoS) Committed Information Rate – 500 Mbps Business Data	R6ETXBD	N/A	$486.25	port	N/A
ASE (PPCoS) Committed Information Rate – 600 Mbps Business Data	R6EUXBD	N/A	$570.00	port	N/A
ASE (PPCoS) Committed Information Rate – 1000 Mbps Business Data	R6EZXBD	N/A	$660.00	port	N/A
ASE (PPCoS) Committed Information Rate – 2000 Mbps Business Data	R61BXBD	N/A	$1,131.60	port	N/A
ASE (PPCoS) Committed Information Rate – 2500 Mbps Business Data	R61CXBD	N/A	$1,357.00	port	N/A
ASE (PPCoS) Committed Information Rate – 4000 Mbps Business Data	R61FXBD	N/A	$1,603.10	port	N/A
ASE (PPCoS) Committed Information Rate – 5000 Mbps Business Data	R61HXBD	N/A	$1,886.00	port	N/A
ASE (PPCoS) Committed Information Rate – 7500 Mbps	R61NXBD	N/A	$2,475.95	port	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Business Data					
ASE (PPCoS) Committed Information Rate – 9500 Mbps Business Data	R61RXBD	N/A	$2,947.45	port	N/A
ASE (PPCoS) Committed Information Rate – 10000 Mbps Business Data	R61SXBD	N/A	$3,064.75	port	N/A
Optional Features					
ASE Additional MAC Addresses (51-100) Per Port	M2CBX	$0.00	$0.00	port	$0.00
ASE Regenerator 10/100 Mbps port	EYQHX	$0.00	$260.80	port	$0.00
ASE Regenerator 1 Gbps port	EYQJX	$0.00	$260.80	port	$0.00
ASE Regenerator 10 Gbps port	EYQKX	$0.00	$768.00	port	$0.00
ASE Administrative Change Charge	ORCMX	$49.98	$0.00	Per order	$49.98

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OPT-E-MAN (OEM) Managed Service Bundles w/ Standard Features					

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
10/100 Mbps Connection – Bronze CIR Grade of Service					
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB2A	$143.00	$751.45	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB2B	$143.00	$1,009.84	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB4A	$143.00	$780.88	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB4B	$143.00	$1,039.27	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB5A	$143.00	$794.62	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB5B	$143.00	$1,053.01	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection	OEMB8A	$143.00	$849.55	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
10/100 Mbps – 8 Mbps Bronze w Type 7A Router Cu Ethernet					
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB8B	$143.00	$1,107.94	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB10A	$143.00	$997.66	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB10B	$143.00	$1,256.05	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Bronze w Type 7A Router Cu Ethernet	OEMB20A	$143.00	$1,120.27	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB20B	$143.00	$1,378.66	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Bronze w Type 22A Router Cu Ethernet	OEMB50A	$143.00	$1,472.83	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection	OEMB50B	$143.00	$1,589.38	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
10/100 Mbps – 50 Mbps Bronze w Type 10A Router Cu Ethernet					
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 100 Mbps Bronze w Type 10A Router Cu Ethernet	OEMB100A	$143.00	$1,683.55	Bundle	N/A
10/100 Mbps Connection – Silver CIR Grade of Service					
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Silver w Type 7A Router Cu Ethernet	OEMS2A	$143.00	$751.45	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 2 Mbps Silver w Type 22A Router Cu Ethernet	OEMS2B	$143.00	$1,009.84	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Silver w Type 7A Router Cu Ethernet	OEMS4A	$143.00	$780.88	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 4 Mbps Silver w Type 22A Router Cu Ethernet	OEMS4B	$143.00	$1,039.27	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Silver w Type 7A Router Cu Ethernet	OEMS5A	$143.00	$794.62	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 5 Mbps Silver w Type 22A Router Cu Ethernet	OEMS5B	$143.00	$1,053.01	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Silver w Type 7A Router Cu Ethernet	OEMS8A	$143.00	$849.55	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 8 Mbps Silver w Type 22A Router Cu Ethernet	OEMS8B	$143.00	$1,107.94	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Silver w Type 7A Router Cu Ethernet	OEMS10A	$143.00	$1,061.42	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 10 Mbps Silver w Type 22A Router Cu Ethernet	OEMS10B	$143.00	$1,319.81	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Silver w Type 7A Router Cu Ethernet	OEMS20A	$143.00	$1,195.80	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 20 Mbps Silver w Type 22A Router Cu Ethernet	OEMS20B	$143.00	$1,454.19	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Silver w Type 22A Router Cu Ethernet	OEMS50A	$143.00	$1,558.17	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 50 Mbps Silver w Type 10A Router Cu Ethernet	OEMS50B	$143.00	$1,674.72	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 10/100 Mbps – 100 Mbps Silver w Type 10A Router Cu Ethernet	OEMS100A	$143.00	$1,778.69	Bundle	N/A
1 Gbps Connection – Bronze CIR Grade of Service					
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG2A	$143.00	$1,125.19	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG2B	$143.00	$1,383.58	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG4A	$143.00	$1,154.62	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1	OEMBG4B	$143.00	$1,413.01	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Gbps – 4 Mbps Bronze w Type 9A Router Fiber Ethernet					
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG5A	$143.00	$1,168.36	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG5B	$143.00	$1,426.75	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG8A	$143.00	$1,223.29	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG8B	$143.00	$1,481.68	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Bronze w Type 21A Router Fiber Ethernet	OEMBG10A	$143.00	$1,371.40	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG10B	$143.00	$1,629.79	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1	OEMBG20A	$143.00	$1,494.01	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Gbps – 20 Mbps Bronze w Type 21A Router Fiber Ethernet					
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG20B	$143.00	$1,752.40	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 9A Router Fiber Ethernet	OEMBG50A	$143.00	$1,846.57	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 11A Router Fiber Ethernet	OEMBG50B	$143.00	$1,963.12	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG50C	$143.00	$2,348.44	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Bronze w Type 11A Router Fiber Ethernet	OEMBG100A	$143.00	$2,057.29	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG100B	$143.00	$2,442.61	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1	OEMBG150A	$143.00	$1,833.64	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Gbps – 150 Mbps Bronze w Type 11A Router Fiber Ethernet					
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG150B	$143.00	$2,218.96	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Bronze w Type 26 Router Fiber Ethernet	OEMBG200A	$143.00	$2,415.14	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG250B	$143.00	$2,836.58	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 500 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG500A	$143.00	$2,934.67	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 600 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG600A	$143.00	$2,983.72	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 1000 Mbps Bronze w Type 27 Router Fiber Ethernet	OEMBG1KA	$143.00	$3,026.87	Bundle	N/A
1 Gbps Connection – Silver CIR Grade of Service					

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG2A	$143.00	$1,125.19	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 2 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG2B	$143.00	$1,383.58	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG4A	$143.00	$1,154.62	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 4 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG4B	$143.00	$1,413.01	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG5A	$143.00	$1,168.36	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 5 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG5B	$143.00	$1,426.75	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG8A	$143.00	$1,223.29	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 8 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG8B	$143.00	$1,481.68	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG10A	$143.00	$1,435.16	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 10 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG10B	$143.00	$1,693.55	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Silver w Type 21A Router Fiber Ethernet	OEMSG20A	$143.00	$1,569.54	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 20 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG20B	$143.00	$1,827.93	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 9A Router Fiber Ethernet	OEMSG50A	$143.00	$1,931.91	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG50B	$143.00	$2,048.46	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 50 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG50C	$143.00	$2,433.78	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG100A	$143.00	$2,152.43	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 100 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG100B	$143.00	$2,537.75	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Silver w Type 11A Router Fiber Ethernet	OEMSG150A	$143.00	$1,931.73	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 150 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG150B	$143.00	$2,317.05	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Silver w Type 26 Router Fiber Ethernet	OEMSG250A	$143.00	$2,611.32	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 250 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG250B	$143.00	$3,032.76	Bundle	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 500 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG500A	$143.00	$3,130.85	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 600 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG600A	$143.00	$3,155.37	Bundle	N/A
OEM Managed Service Bundles Basic or Basic Plus Connection 1 Gbps – 1000 Mbps Silver w Type 27 Router Fiber Ethernet	OEMSG1KA	$143.00	$3,173.03	Bundle	N/A
OPT-E-MAN Managed Service Bundles Life Cycle Management Features and Services					
Moves, Adds, Changes and Deletes					
Move Router Site (Inside) - Low Complexity	13092L	$600.00	N/A	Router	N/A
Move Router Site (Inside) - Medium Complexity	13092M	$720.00	N/A	Router	N/A
Move Router Site (Inside) - High Complexity	13092H	$850.00	N/A	Router	N/A
Move Router Site (Outside) - Low Complexity	13093L	$1,200.00	N/A	Router	N/A
Move Router Site (Outside) - Medium Complexity	13093M	$1,440.00	N/A	Router	N/A
Move Router Site (Outside) - High Complexity	13093H	$1,700.00	N/A	Router	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Router Site Add - Low Complexity	13118L	$1,500.00	N/A	Router	N/A
Router Site Add - Medium Complexity	13118M	$1,620.00	N/A	Router	N/A
Router Site Add - High Complexity	13118H	$1,750.00	N/A	Router	N/A
Add/Delete Router Boards – Low Complexity	13127L	$300.00	N/A	Router	N/A
Add/Delete Router Boards – Medium Complexity	13127M	$360.00	N/A	Router	N/A
Add/Delete Router Boards – High Complexity	13127H	$425.00	N/A	Router	N/A
Site Delete for AT&T Provided Equipment	13119	$0.00	N/A	Router	N/A
Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away	14570	$200.00	N/A	Router	N/A
Cancellation to Receive on Site Services with Less Than Five Business Days notice to AT&T	13109A	$200.00	N/A	Router	N/A
Supplementary Professional, Engineering and Technical Services					
Standard Hours (8AM – 5PM local time) First Hour	13109B	N/A	$360.00	Hour	N/A
Standard Hours (8AM – 5PM local time) Subsequent Hours	13109C	N/A	$180.00	Hour	N/A
Non-Standard Hours First Hour	13109D	N/A	$460.00	Hour	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Non-Standard Hours Subsequent Hours	13109E	N/A	$230.00	Hour	N/A
Lost Equipment Charge for AT&T Owned CPE	13054	Residual Value of Lost CPE	N/A	N/A	N/A
Router Configuration Changes	14158	$150.00	N/A	Router	N/A
OPT-E-MAN Managed Service Bundles Optional Up lift Features and Services					
Router Protocol, Memory and Misc Managed Router Feature Upgrades					
Enterprise Services IOS w/o encryption for 18XX series managed router feature upgrade	MSB1000	$590.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Enterprise Services IOS w/o encryption for 28XX series managed router feature upgrade	MSB1001	$826.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Enterprise Services IOS w/o encryption for 38XX series managed router feature upgrade	MSB1002	$1,180.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 18XX series managed router feature upgrade	MSB1003	$1,062.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 28XX series managed router feature upgrade	MSB1004	$1,416.00	N/A	Router	$150.00* *Applies to Upgrade to existing router

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Advanced Enterprise Services IOS w encryption for 38XX series managed router feature upgrade	MSB1005	$2,065.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 72XX series managed router feature upgrade	MSB1006	$3,835.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Extra Memory for Enterprise and Advanced Enterprise IOS for 18XX series managed router feature upgrade	MSB1007	$295.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Port Card for 18XX, 28XX and 38XX series managed router feature upgrade	MSB1008	$236.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra 4 Port Serial Port Adapter Card for 72XX and 73XX series managed router feature upgrade	MSB1009	$2,655.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2-Port Fast Ethernet 100Base TX Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1010	$2,242.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
4-Port Ethernet 10BaseT Port Adapter fro 72XX and 73XX managed router feature upgrade	MSB1011	$2,655.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port Gigabit Ethernet Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1012	$3,540.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
1000BASE-SX Short Wavelength GBIC (Multimode only) for 72XX and 73XX series managed router feature upgrade	MSB1013	$295.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-SX Short Wavelength GBIC (Copper) for 72XX and 73XX series managed router feature upgrade	MSB1014	$295.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra 4 port 10/100 Ethernet switch interface card for 28XX and 38XX series managed router feature upgrade	MSB1015	$250.75	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router
10/100 routed port HWIC Card for 28XX and 38XX series managed router feature upgrade	MSB1016	$531.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GE SFP, LC connector LX/LH transceiver for 38XX series managed router feature upgrade	MSB1017	$587.05	N/A	Connector	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-SX SFP (DOM) for 38XX series managed router feature upgrade	MSB1018	$324.50	N/A	Connector	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
7304 Carrier Card for 7200 Series Port Adapters managed router feature upgrade	MSB1019	$737.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Serial Cable managed router feature upgrade	MSB1020	$59.00	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Console Port to CAS cable managed router feature upgrade	MSB1021	$20.05	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Fiber Cable managed router feature upgrade	MSB1022	$45.89	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Rack Mount Kit managed router feature upgrade	MSB1023	$59.00	N/A	Kit	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Port for ASR1000 series managed router feature upgrade	MSB1024	$324.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Cable for ASR1000 series managed router feature upgrade	MSB1025	$259.60	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1026	$6,277.60	N/A	Adapter	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1027	$5,022.08	N/A	Adapter	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1028	$6,277.60	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1029	$6,277.60	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
G2 Series Routers 19xx, 29xx, 39xx managed router feature upgrades					
GE SFP, LC connector LX/LH transceiver managed router feature upgrade	MSB1030	$587.05	N/A	Transceiver	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GE SFP, LC connector SX transceiver managed router feature upgrade	MSB1031	$295.00	N/A	Transceiver	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-T SFP managed router feature upgrade	MSB1032	$233.05	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-port 10/100 Routed Port HWIC managed router feature upgrade	MSB1033	$531.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GigE high speed WIC managed router feature upgrade	MSB1034	$1,180.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port Serial WAN Interface Card managed router feature upgrade	MSB1035	$236.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
4-Port 10/100 Ethernet switch interface card managed router feature upgrade	MSB1036	$250.75	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
					upgrade to existing router.
1000BASE-SX SFP (DOM) managed router feature upgrade	MSB1037	$324.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1038	$767.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1039	$1,180.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 19XX Series managed router feature upgrade	MSB1040	$354.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Security IOS for Cisco 19XX Series managed router feature upgrade	MSB1041	$590.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 29XX Series managed router feature upgrade	MSB1042	$413.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Security IOS for Cisco 29XX Series managed router feature upgrade	MSB1043	$708.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 39XX Series managed router feature upgrade	MSB1044	$590.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
					upgrade to existing router.
Security IOS for Cisco 39XX Series managed router feature upgrade	MSB1045	$1,180.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
COS device 4 port COS switch managed router feature upgrade	MSB1046	$432.47	N/A	Switch	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Cable from: OOB modem to: COS/4 managed router feature upgrade	MSB1047	$17.70	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.) managed router feature upgrade	MSB1048	$11.83	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
AIM Module 1800/2800/3800 managed router feature upgrade	MSB1049	$1,475.00	N/A	Module	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules managed router feature upgrade	MSB1050	$45.89	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
12 port COS Switch managed router feature upgrade	MSB1051	$6,590.60	N/A	Switch	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Optional Architectural Validation Professional Services	13096	N/A	$350.00	Hour	N/A
Dial Backup					N/A
Analog (POTS) Dial Backup Management	13060A	N/A	$10.00	Router	N/A
ISDN Basic Rate Interface (BRI) Dial Backup Management	13060B	N/A	$10.00	Router	N/A
ISDN Primary Rate Interface (PRI) Dial Backup Management	13060C	N/A	$25.00	Router	N/A
TACACS (Terminal Access Controller Access Control System) Read Only Access					
TACACS Read Only Access – Router Enablement	TACACSRE	$40.00	N/A	Router	$150.00
TACACS Read Only Access – Support	TACACSRS	N/A	$18.00	Router	N/A
TACACS Read Only Access – Enablement 1-6 Enabled Employees	TACACS1	$0.00	N/A	Enabled Employee	$150.00
TACACS Read Only Access – Enablement 7-12 Enabled Employees	TACACS2	$250.00	N/A	Enabled Employee	$150.00
TACACS Read Only Access – Enablement 13 to 25 Enabled Employees	TACACS3	$750.00	N/A	Enabled Employee	$150.00
OPT-E-MAN Managed Services Data Center Stand Alone Routers					

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20	MSDCRT1	$0.00	$1,324.00	Router	$0.00
IPSEC Standalone router Type 24	MSDCRT2	$0.00	$1,084.34	Router	$0.00
Traffic Aggregation Standalone router Type 25	MSDCRT3	$0.00	$3,355.44	Router	$0.00
Traffic Aggregation Standalone router Type 27	MSDCRT4	$0.00	$1,340.07	Router	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OPT-E-WAN					
OPT-E-WAN (OEW) Switched Port Only					
OEW Switched Port - .5M (IntraState)	84433	$0.00	$40.70	Port	$0.00
OEW Switched Port - .5M (InterState)	84435	$0.00	$40.70	Port	$0.00
OEW Switched Port - 1M (IntraState)	80326	$0.00	$48.30	Port	$0.00
OEW Switched Port - 1M (InterState)	80390	$0.00	$48.30	Port	$0.00
OEW Switched Port - 1.5M (IntraState)	84434	$0.00	$48.80	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port - 1.5M (InterState)	84436	$0.00	$48.80	Port	$0.00
OEW Switched Port - 2M (IntraState)	80327	$0.00	$62.40	Port	$0.00
OEW Switched Port - 2M (InterState)	80391	$0.00	$62.40	Port	$0.00
OEW Switched Port - 3M (IntraState)	80328	$0.00	$75.20	Port	$0.00
OEW Switched Port - 3M (InterState)	80392	$0.00	$75.20	Port	$0.00
OEW Switched Port - 4M (IntraState)	80329	$0.00	$87.70	Port	$0.00
OEW Switched Port - 4M (InterState)	80393	$0.00	$87.70	Port	$0.00
OEW Switched Port - 5M (IntraState)	80330	$0.00	$109.20	Port	$0.00
OEW Switched Port - 5M (InterState)	80394	$0.00	$109.20	Port	$0.00
OEW Switched Port - 6M (IntraState)	80331	$0.00	$115.80	Port	$0.00
OEW Switched Port - 6M (InterState)	80395	$0.00	$115.80	Port	$0.00
OEW Switched Port - 7M (IntraState)	80332	$0.00	$124.70	Port	$0.00
OEW Switched Port - 7M (InterState)	80396	$0.00	$124.70	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port - 8M (IntraState)	80333	$0.00	$134.90	Port	$0.00
OEW Switched Port - 8M (InterState)	80397	$0.00	$134.90	Port	$0.00
OEW Switched Port - 9M (IntraState)	80334	$0.00	$145.10	Port	$0.00
OEW Switched Port - 9M (InterState)	80398	$0.00	$145.10	Port	$0.00
OEW Switched Port - 10M (IntraState)	80335	$0.00	$152.60	Port	$0.00
OEW Switched Port - 10M (InterState)	80399	$0.00	$152.60	Port	$0.00
OEW Switched Port - 11M (IntraState)	80336	$0.00	$159.10	Port	$0.00
OEW Switched Port - 11M (InterState)	80400	$0.00	$159.10	Port	$0.00
OEW Switched Port – 12M (IntraState)	80337	$0.00	$171.80	Port	$0.00
OEW Switched Port – 12M (InterState)	80401	$0.00	$171.80	Port	$0.00
OEW Switched Port – 13M (IntraState)	80338	$0.00	$172.20	Port	$0.00
OEW Switched Port – 13M (InterState)	80402	$0.00	$172.20	Port	$0.00
OEW Switched Port – 14M (IntraState)	80339	$0.00	$172.60	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port – 14M (InterState)	80403	$0.00	$172.60	Port	$0.00
OEW Switched Port – 15M (IntraState)	80340	$0.00	$177.00	Port	$0.00
OEW Switched Port – 15M (InterState)	80404	$0.00	$177.00	Port	$0.00
OEW Switched Port – 16M (IntraState)	80341	$0.00	$182.00	Port	$0.00
OEW Switched Port – 16M (InterState)	80405	$0.00	$182.00	Port	$0.00
OEW Switched Port – 17M (IntraState)	80342	$0.00	$187.00	Port	$0.00
OEW Switched Port – 17M (InterState)	80406	$0.00	$187.00	Port	$0.00
OEW Switched Port – 18M (IntraState)	80343	$0.00	$192.00	Port	$0.00
OEW Switched Port – 18M (InterState)	80407	$0.00	$192.00	Port	$0.00
OEW Switched Port – 19M (IntraState)	80344	$0.00	$197.00	Port	$0.00
OEW Switched Port – 19M (InterState)	80408	$0.00	$197.00	Port	$0.00
OEW Switched Port – 20M (IntraState)	80345	$0.00	$209.70	Port	$0.00
OEW Switched Port – 20M (InterState)	80409	$0.00	$209.70	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port – 30M (IntraState)	80346	$0.00	$278.50	Port	$0.00
OEW Switched Port – 30M (InterState)	80410	$0.00	$278.50	Port	$0.00
OEW Switched Port – 40M (IntraState)	80347	$0.00	$336.00	Port	$0.00
OEW Switched Port – 40M (InterState)	80411	$0.00	$336.00	Port	$0.00
OEW Switched Port – 50M (IntraState)	80348	$0.00	$401.20	Port	$0.00
OEW Switched Port – 50M (InterState)	80412	$0.00	$401.20	Port	$0.00
OEW Switched Port – 60M (IntraState)	80349	$0.00	$468.30	Port	$0.00
OEW Switched Port – 60M (InterState)	80413	$0.00	$468.30	Port	$0.00
OEW Switched Port – 70M (IntraState)	80350	$0.00	$531.00	Port	$0.00
OEW Switched Port – 70M (InterState)	80414	$0.00	$531.00	Port	$0.00
OEW Switched Port – 80M (IntraState)	80351	$0.00	$571.70	Port	$0.00
OEW Switched Port – 80M (InterState)	80415	$0.00	$571.70	Port	$0.00
OEW Switched Port – 90M (IntraState)	80352	$0.00	$623.40	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port – 90M (InterState)	80416	$0.00	$623.40	Port	$0.00
OEW Switched Port – 100M (IntraState)	80353	$0.00	$670.70	Port	$0.00
OEW Switched Port – 100M (InterState)	80417	$0.00	$670.70	Port	$0.00
OEW Switched Port – 150M (IntraState)	80354	$0.00	$973.20	Port	$0.00
OEW Switched Port – 150M (InterState)	80418	$0.00	$973.20	Port	$0.00
OEW Switched Port – 200M (IntraState)	80355	$0.00	$1,285.00	Port	$0.00
OEW Switched Port – 200M (InterState)	80419	$0.00	$1,285.00	Port	$0.00
OEW Switched Port – 250M (IntraState)	80356	$0.00	$1,511.80	Port	$0.00
OEW Switched Port – 250M (InterState)	80420	$0.00	$1,511.80	Port	$0.00
OEW Switched Port – 300M (IntraState)	80357	$0.00	$1,665.10	Port	$0.00
OEW Switched Port – 300M (InterState)	80421	$0.00	$1,665.10	Port	$0.00
OEW Switched Port – 350M (IntraState)	80358	$0.00	$1,818.30	Port	$0.00
OEW Switched Port – 350M (InterState)	80422	$0.00	$1,818.30	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Switched Port – 400M (IntraState)	80359	$0.00	$1,971.50	Port	$0.00
OEW Switched Port – 400M (InterState)	80423	$0.00	$1,971.50	Port	$0.00
OEW Switched Port – 450M (IntraState)	80360	$0.00	$2,124.70	Port	$0.00
OEW Switched Port – 450M (InterState)	80424	$0.00	$2,124.70	Port	$0.00
OEW Switched Port – 500M (IntraState)	80361	$0.00	$2,277.90	Port	$0.00
OEW Switched Port – 500M (InterState)	80425	$0.00	$2,277.90	Port	$0.00
OPT-E-WAN (OEW) Dedicated Port Only					
OEW Dedicated Port – 550M (IntraState)	80362	$0.00	$2,430.95	Port	$0.00
OEW Dedicated Port – 550M (InterState)	80426	$0.00	$2,430.95	Port	$0.00
OEW Dedicated Port – 600M (IntraState)	80363	$0.00	$2,584.00	Port	$0.00
OEW Dedicated Port – 600M (InterState)	80427	$0.00	$2,584.00	Port	$0.00
OEW Dedicated Port – 650M (IntraState)	80364	$0.00	$2,920.65	Port	$0.00
OEW Dedicated Port – 650M (InterState)	80428	$0.00	$2,920.65	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Dedicated Port – 700M (IntraState)	80365	$0.00	$3,257.30	Port	$0.00
OEW Dedicated Port – 700M (InterState)	80429	$0.00	$3,257.30	Port	$0.00
OEW Dedicated Port – 750M (IntraState)	80366	$0.00	$3,406.70	Port	$0.00
OEW Dedicated Port – 750M (InterState)	80430	$0.00	$3,406.70	Port	$0.00
OEW Dedicated Port – 800M (IntraState)	80367	$0.00	$3,556.10	Port	$0.00
OEW Dedicated Port – 800M (InterState)	80431	$0.00	$3,556.10	Port	$0.00
OEW Dedicated Port – 850M (IntraState)	80368	$0.00	$3,712.90	Port	$0.00
OEW Dedicated Port – 850M (InterState)	80432	$0.00	$3,712.90	Port	$0.00
OEW Dedicated Port – 900M (IntraState)	80369	$0.00	$3,869.70	Port	$0.00
OEW Dedicated Port – 900M (InterState)	80433	$0.00	$3,869.70	Port	$0.00
OEW Dedicated Port – 950M (IntraState)	80370	$0.00	$4,025.25	Port	$0.00
OEW Dedicated Port – 950M (InterState)	80434	$0.00	$4,025.25	Port	$0.00
OEW Dedicated Port – 1G (IntraState)	80371	$0.00	$4,180.80	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Dedicated Port – 1G (InterState)	80435	$0.00	$4,180.80	Port	$0.00
OPT-E-WAN (OEW) Dedicated Port Only					
OEW Dedicated Port – 1500M (IntraState)	96777	$0.00	$5,943.10	Port	$0.00
OEW Dedicated Port – 1500M (InterState)	96776	$0.00	$5,943.10	Port	$0.00
OEW Dedicated Port – 2000M (IntraState)	96779	$0.00	$7,878.70	Port	$0.00
OEW Dedicated Port – 2000M (InterState)	96778	$0.00	$7,878.70	Port	$0.00
OEW Dedicated Port – 2500M (IntraState)	96781	$0.00	$9,420.40	Port	$0.00
OEW Dedicated Port – 2500M (InterState)	96780	$0.00	$9,420.40	Port	$0.00
OEW Dedicated Port – 3000M (IntraState)	96783	$0.00	$10,915.90	Port	$0.00
OEW Dedicated Port – 3000M (InterState)	96782	$0.00	$10,915.90	Port	$0.00
OEW Dedicated Port – 3500M (IntraState)	96785	$0.00	$12,363.90	Port	$0.00
OEW Dedicated Port – 3500M (InterState)	96784	$0.00	$12,363.90	Port	$0.00
OEW Dedicated Port – 4000M (IntraState)	96787	$0.00	$13,772.70	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Dedicated Port – 4000M (InterState)	96786	$0.00	$13,772.70	Port	$0.00
OEW Dedicated Port – 4500M (IntraState)	96789	$0.00	$15,147.90	Port	$0.00
OEW Dedicated Port – 4500M (InterState)	96788	$0.00	$15,147.90	Port	$0.00
OEW Dedicated Port – 5000M (IntraState)	96791	$0.00	$16,494.30	Port	$0.00
OEW Dedicated Port – 5000M (InterState)	96790	$0.00	$16,494.30	Port	$0.00
OEW Dedicated Port – 5500M (IntraState)	96793	$0.00	$17,814.80	Port	$0.00
OEW Dedicated Port – 5500M (InterState)	96792	$0.00	$17,814.80	Port	$0.00
OEW Dedicated Port – 6000M (IntraState)	96795	$0.00	$19,112.50	Port	$0.00
OEW Dedicated Port – 6000M (InterState)	96794	$0.00	$19,112.50	Port	$0.00
OEW Dedicated Port – 6500M (IntraState)	96797	$0.00	$20,389.50	Port	$0.00
OEW Dedicated Port – 6500M (InterState)	96796	$0.00	$20,389.50	Port	$0.00
OEW Dedicated Port – 7000M (IntraState)	96799	$0.00	$21,648.00	Port	$0.00
OEW Dedicated Port – 7000M (InterState)	96798	$0.00	$21,648.00	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Dedicated Port – 7500M (IntraState)	96801	$0.00	$22,889.20	Port	$0.00
OEW Dedicated Port – 7500M (InterState)	96800	$0.00	$22,889.20	Port	$0.00
OEW Dedicated Port – 8000M (IntraState)	96803	$0.00	$24,114.50	Port	$0.00
OEW Dedicated Port – 8000M (InterState)	96802	$0.00	$24,114.50	Port	$0.00
OEW Dedicated Port – 8500M (IntraState)	96805	$0.00	$25,325.50	Port	$0.00
OEW Dedicated Port – 8500M (InterState)	96804	$0.00	$25,325.50	Port	$0.00
OEW Dedicated Port – 9000M (IntraState)	96807	$0.00	$26,522.60	Port	$0.00
OEW Dedicated Port – 9000M (InterState)	96806	$0.00	$26,522.60	Port	$0.00
OEW Dedicated Port – 9500M (IntraState)	96809	$0.00	$27,707.10	Port	$0.00
OEW Dedicated Port – 9500M (InterState)	96808	$0.00	$27,707.10	Port	$0.00
OEW Dedicated Port – 10G (IntraState)	96811	$0.00	$28,879.60	Port	$0.00
OEW Dedicated Port – 10G (InterState)	96810	$0.00	$28,879.60	Port	$0.00
OEW Class of Service Options:					
CoS 1 Real Time - IntraState	92993	$0.00	See below	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 1 Real Time - InterState	92997	$0.00	See below	Port	$0.00
CoS 1 – 0.5M	See above	$0.00	$31.75	Port	$0.00
CoS 1 – 1M	See above	$0.00	$37.67	Port	$0.00
CoS 1 – 1.5M	See above	$0.00	$38.06	Port	$0.00
CoS 1 – 2M	See above	$0.00	$48.67	Port	$0.00
CoS 1 – 3M	See above	$0.00	$58.66	Port	$0.00
CoS 1 – 4M	See above	$0.00	$68.41	Port	$0.00
CoS 1 – 5M	See above	$0.00	$85.18	Port	$0.00
CoS 1 – 6M	See above	$0.00	$90.32	Port	$0.00
CoS 1 – 7M	See above	$0.00	$97.27	Port	$0.00
CoS 1 – 8M	See above	$0.00	$105.22	Port	$0.00
CoS 1 – 9M	See above	$0.00	$113.18	Port	$0.00
CoS 1 – 10M	See above	$0.00	$119.03	Port	$0.00
CoS 1 – 11M	See above	$0.00	$124.10	Port	$0.00
CoS 1 – 12M	See above	$0.00	$134.00	Port	$0.00
CoS 1 – 13M	See above	$0.00	$134.32	Port	$0.00
CoS 1 – 14M	See above	$0.00	$134.63	Port	$0.00
CoS 1 – 15M	See above	$0.00	$138.06	Port	$0.00
CoS 1 – 16M	See above	$0.00	$141.96	Port	$0.00
CoS 1 – 17M	See above	$0.00	$145.86	Port	$0.00
CoS 1 – 18M	See above	$0.00	$149.76	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 1 – 19M	See above	$0.00	$153.66	Port	$0.00
CoS 1 – 20M	See above	$0.00	$163.57	Port	$0.00
CoS 1 – 30M	See above	$0.00	$217.23	Port	$0.00
CoS 1 – 40M	See above	$0.00	$262.08	Port	$0.00
CoS 1 – 50M	See above	$0.00	$312.94	Port	$0.00
CoS 1 – 60M	See above	$0.00	$365.27	Port	$0.00
CoS 1 – 70M	See above	$0.00	$414.18	Port	$0.00
CoS 1 – 80M	See above	$0.00	$445.93	Port	$0.00
CoS 1 – 90M	See above	$0.00	$486.25	Port	$0.00
CoS 1 – 100M	See above	$0.00	$523.15	Port	$0.00
CoS 1 – 150M	See above	$0.00	$759.10	Port	$0.00
CoS 1 – 200M	See above	$0.00	$1,002.30	Port	$0.00
CoS 1 – 250M	See above	$0.00	$1,179.20	Port	$0.00
CoS 1 – 300M	See above	$0.00	$1,298.78	Port	$0.00
CoS 1 – 350M	See above	$0.00	$1,418.27	Port	$0.00
CoS 1 – 400M	See above	$0.00	$1,537.77	Port	$0.00
CoS 1 – 450M	See above	$0.00	$1,657.27	Port	$0.00
CoS 1 – 500M	See above	$0.00	$1,776.76	Port	$0.00
CoS 1 – 550M	See above	$0.00	$1,896.14	Port	$0.00
CoS 1 – 600M	See above	$0.00	$2,015.52	Port	$0.00
CoS 1 – 650M	See above	$0.00	$2,278.11	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 1 – 700M	See above	$0.00	$2,540.69	Port	$0.00
CoS 1 – 750M	See above	$0.00	$2,657.23	Port	$0.00
CoS 1 – 800M	See above	$0.00	$2,773.76	Port	$0.00
CoS 1 – 850M	See above	$0.00	$2,896.06	Port	$0.00
CoS 1 – 900M	See above	$0.00	$3,018.37	Port	$0.00
CoS 1 – 950M	See above	$0.00	$3,139.70	Port	$0.00
CoS 1 – 1G	See above	$0.00	$3,261.02	Port	$0.00
CoS 1 – 1500M	See above	$0.00	$4,635.62	Port	$0.00
CoS 1 – 2000M	See above	$0.00	$6,145.39	Port	$0.00
CoS 1 – 2500M	See above	$0.00	$7,347.91	Port	$0.00
CoS 1 – 3000M	See above	$0.00	$8,514.40	Port	$0.00
CoS 1 – 3500M	See above	$0.00	$9,643.84	Port	$0.00
CoS 1 – 4000M	See above	$0.00	$10,742.71	Port	$0.00
CoS 1 – 4500M	See above	$0.00	$11,815.36	Port	$0.00
CoS 1 – 5000M	See above	$0.00	$12,865.55	Port	$0.00
CoS 1 – 5500M	See above	$0.00	$13,895.54	Port	$0.00
CoS 1 – 6000M	See above	$0.00	$14,907.75	Port	$0.00
CoS 1 – 6500M	See above	$0.00	$15,903.81	Port	$0.00
CoS 1 – 7000M	See above	$0.00	$16,885.44	Port	$0.00
CoS 1 – 7500M	See above	$0.00	$17,853.58	Port	$0.00
CoS 1 – 8000M	See above	$0.00	$18,809.31	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 1 – 8500M	See above	$0.00	$19,753.89	Port	$0.00
CoS 1 – 9000M	See above	$0.00	$20,687.63	Port	$0.00
CoS 1 – 9500M	See above	$0.00	$21,611.54	Port	$0.00
CoS 1 – 10G	See above	$0.00	$22,526.09	Port	$0.00
COS 2V – Interactive (Video) (IntraState)	92994	$0.00	See below	Port	$0.00
COS 2V – Interactive (Video) (InterState)	92998	$0.00	See below	Port	$0.00
CoS 2V – 0.5M	See above	$0.00	$31.75	Port	$0.00
CoS 2V – 1M	See above	$0.00	$37.67	Port	$0.00
CoS 2V – 1.5M	See above	$0.00	$38.06	Port	$0.00
CoS 2V – 2M	See above	$0.00	$48.67	Port	$0.00
CoS 2V – 3M	See above	$0.00	$58.66	Port	$0.00
CoS 2V – 4M	See above	$0.00	$68.41	Port	$0.00
CoS 2V – 5M	See above	$0.00	$85.18	Port	$0.00
CoS 2V – 6M	See above	$0.00	$90.32	Port	$0.00
CoS 2V – 7M	See above	$0.00	$97.27	Port	$0.00
CoS 2V – 8M	See above	$0.00	$105.22	Port	$0.00
CoS 2V – 9M	See above	$0.00	$113.18	Port	$0.00
CoS 2V – 10M	See above	$0.00	$119.03	Port	$0.00
CoS 2V – 11M	See above	$0.00	$124.10	Port	$0.00
CoS 2V – 12M	See above	$0.00	$134.00	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 2V – 13M	See above	$0.00	$134.32	Port	$0.00
CoS 2V – 14M	See above	$0.00	$134.63	Port	$0.00
CoS 2V – 15M	See above	$0.00	$138.06	Port	$0.00
CoS 2V – 16M	See above	$0.00	$141.96	Port	$0.00
CoS 2V – 17M	See above	$0.00	$145.86	Port	$0.00
CoS 2V – 18M	See above	$0.00	$149.76	Port	$0.00
CoS 2V – 19M	See above	$0.00	$153.66	Port	$0.00
CoS 2V – 20M	See above	$0.00	$163.57	Port	$0.00
CoS 2V – 30M	See above	$0.00	$217.23	Port	$0.00
CoS 2V – 40M	See above	$0.00	$262.08	Port	$0.00
CoS 2V – 50M	See above	$0.00	$312.94	Port	$0.00
CoS 2V – 60M	See above	$0.00	$365.27	Port	$0.00
CoS 2V – 70M	See above	$0.00	$414.18	Port	$0.00
CoS 2V – 80M	See above	$0.00	$445.93	Port	$0.00
CoS 2V – 90M	See above	$0.00	$486.25	Port	$0.00
CoS 2V – 100M	See above	$0.00	$523.15	Port	$0.00
CoS 2V – 150M	See above	$0.00	$759.10	Port	$0.00
CoS 2V – 200M	See above	$0.00	$1,002.30	Port	$0.00
CoS 2V – 250M	See above	$0.00	$1,179.20	Port	$0.00
CoS 2V – 300M	See above	$0.00	$1,298.78	Port	$0.00
CoS 2V – 350M	See above	$0.00	$1,418.27	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 2V – 400M	See above	$0.00	$1,537.77	Port	$0.00
CoS 2V – 450M	See above	$0.00	$1,657.27	Port	$0.00
CoS 2V – 500M	See above	$0.00	$1,776.76	Port	$0.00
CoS 2V – 550M	See above	$0.00	$1,896.14	Port	$0.00
CoS 2V – 600M	See above	$0.00	$2,015.52	Port	$0.00
CoS 2V – 650M	See above	$0.00	$2,278.11	Port	$0.00
CoS 2V – 700M	See above	$0.00	$2,540.69	Port	$0.00
CoS 2V – 750M	See above	$0.00	$2,657.23	Port	$0.00
CoS 2V – 800M	See above	$0.00	$2,773.76	Port	$0.00
CoS 2V – 850M	See above	$0.00	$2,896.06	Port	$0.00
CoS 2V – 900M	See above	$0.00	$3,018.37	Port	$0.00
CoS 2V – 950M	See above	$0.00	$3,139.70	Port	$0.00
CoS 2V – 1G	See above	$0.00	$3,261.02	Port	$0.00
CoS 2V – 1500M	See above	$0.00	$4,635.62	Port	$0.00
CoS 2V – 2000M	See above	$0.00	$6,145.39	Port	$0.00
CoS 2V – 2500M	See above	$0.00	$7,347.91	Port	$0.00
CoS 2V – 3000M	See above	$0.00	$8,514.40	Port	$0.00
CoS 2V – 3500M	See above	$0.00	$9,643.84	Port	$0.00
CoS 2V – 4000M	See above	$0.00	$10,742.71	Port	$0.00
CoS 2V – 4500M	See above	$0.00	$11,815.36	Port	$0.00
CoS 2V – 5000M	See above	$0.00	$12,865.55	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 2V – 5500M	See above	$0.00	$13,895.54	Port	$0.00
CoS 2V – 6000M	See above	$0.00	$14,907.75	Port	$0.00
CoS 2V – 6500M	See above	$0.00	$15,903.81	Port	$0.00
CoS 2V – 7000M	See above	$0.00	$16,885.44	Port	$0.00
CoS 2V – 7500M	See above	$0.00	$17,853.58	Port	$0.00
CoS 2V – 8000M	See above	$0.00	$18,809.31	Port	$0.00
CoS 2V – 8500M	See above	$0.00	$19,753.89	Port	$0.00
CoS 2V – 9000M	See above	$0.00	$20,687.63	Port	$0.00
CoS 2V – 9500M	See above	$0.00	$21,611.54	Port	$0.00
CoS 2V – 10G	See above	$0.00	$22,526.09	Port	$0.00
COS 3 – Business Critical Medium (IntraState)	92995	$0.00	See below	Port	$0.00
COS 3 – Business Critical Medium (InterState)	92999	$0.00	See below	Port	$0.00
CoS 3 – 0.5M	See above	$0.00	$15.87	Port	$0.00
CoS 3 – 1M	See above	$0.00	$18.84	Port	$0.00
CoS 3 – 1.5M	See above	$0.00	$19.03	Port	$0.00
CoS 3 – 2M	See above	$0.00	$24.34	Port	$0.00
CoS 3 – 3M	See above	$0.00	$29.33	Port	$0.00
CoS 3 – 4M	See above	$0.00	$34.20	Port	$0.00
CoS 3 – 5M	See above	$0.00	$42.59	Port	$0.00
CoS 3 – 6M	See above	$0.00	$45.16	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 3 – 7M	See above	$0.00	$48.63	Port	$0.00
CoS 3 – 8M	See above	$0.00	$52.61	Port	$0.00
CoS 3 – 9M	See above	$0.00	$56.59	Port	$0.00
CoS 3 – 10M	See above	$0.00	$59.51	Port	$0.00
CoS 3 – 11M	See above	$0.00	$62.05	Port	$0.00
CoS 3 – 12M	See above	$0.00	$67.00	Port	$0.00
CoS 3 – 13M	See above	$0.00	$67.16	Port	$0.00
CoS 3 – 14M	See above	$0.00	$67.31	Port	$0.00
CoS 3 – 15M	See above	$0.00	$69.03	Port	$0.00
CoS 3 – 16M	See above	$0.00	$70.98	Port	$0.00
CoS 3 – 17M	See above	$0.00	$72.93	Port	$0.00
CoS 3 – 18M	See above	$0.00	$74.88	Port	$0.00
CoS 3 – 19M	See above	$0.00	$76.83	Port	$0.00
CoS 3 – 20M	See above	$0.00	$81.78	Port	$0.00
CoS 3 – 30M	See above	$0.00	$108.62	Port	$0.00
CoS 3 – 40M	See above	$0.00	$131.04	Port	$0.00
CoS 3 – 50M	See above	$0.00	$156.47	Port	$0.00
CoS 3 – 60M	See above	$0.00	$182.64	Port	$0.00
CoS 3 – 70M	See above	$0.00	$207.09	Port	$0.00
CoS 3 – 80M	See above	$0.00	$222.96	Port	$0.00
CoS 3 – 90M	See above	$0.00	$243.13	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 3 – 100M	See above	$0.00	$261.57	Port	$0.00
CoS 3 – 150M	See above	$0.00	$379.55	Port	$0.00
CoS 3 – 200M	See above	$0.00	$501.15	Port	$0.00
CoS 3 – 250M	See above	$0.00	$589.60	Port	$0.00
CoS 3 – 300M	See above	$0.00	$649.39	Port	$0.00
CoS 3 – 350M	See above	$0.00	$709.14	Port	$0.00
CoS 3 – 400M	See above	$0.00	$768.89	Port	$0.00
CoS 3 – 450M	See above	$0.00	$828.63	Port	$0.00
CoS 3 – 500M	See above	$0.00	$888.38	Port	$0.00
CoS 3 – 550M	See above	$0.00	$948.07	Port	$0.00
CoS 3 – 600M	See above	$0.00	$1,007.76	Port	$0.00
CoS 3 – 650M	See above	$0.00	$1,139.05	Port	$0.00
CoS 3 – 700M	See above	$0.00	$1,270.35	Port	$0.00
CoS 3 – 750M	See above	$0.00	$1,328.61	Port	$0.00
CoS 3 – 800M	See above	$0.00	$1,386.88	Port	$0.00
CoS 3 – 850M	See above	$0.00	$1,448.03	Port	$0.00
CoS 3 – 900M	See above	$0.00	$1,509.18	Port	$0.00
CoS 3 – 950M	See above	$0.00	$1,569.85	Port	$0.00
CoS 3 – 1G	See above	$0.00	$1,630.51	Port	$0.00
CoS 3 – 1500M	See above	$0.00	$2,317.81	Port	$0.00
CoS 3 – 2000M	See above	$0.00	$3,072.69	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
CoS 3 – 2500M	See above	$0.00	$3,673.96	Port	$0.00
CoS 3 – 3000M	See above	$0.00	$4,257.20	Port	$0.00
CoS 3 – 3500M	See above	$0.00	$4,821.92	Port	$0.00
CoS 3 – 4000M	See above	$0.00	$5,371.35	Port	$0.00
CoS 3 – 4500M	See above	$0.00	$5,907.68	Port	$0.00
CoS 3 – 5000M	See above	$0.00	$6,432.78	Port	$0.00
CoS 3 – 5500M	See above	$0.00	$6,947.77	Port	$0.00
CoS 3 – 6000M	See above	$0.00	$7,453.88	Port	$0.00
CoS 3 – 6500M	See above	$0.00	$7,951.91	Port	$0.00
CoS 3 – 7000M	See above	$0.00	$8,442.72	Port	$0.00
CoS 3 – 7500M	See above	$0.00	$8,926.79	Port	$0.00
CoS 3 – 8000M	See above	$0.00	$9,404.66	Port	$0.00
CoS 3 – 8500M	See above	$0.00	$9,876.95	Port	$0.00
CoS 3 – 9000M	See above	$0.00	$10,343.81	Port	$0.00
CoS 3 – 9500M	See above	$0.00	$10,805.77	Port	$0.00
CoS 3 – 10G	See above	$0.00	$11,263.04	Port	$0.00
CoS 4 Non Critical High (IntraState)	92996	Included	Included	Port	$0.00
CoS 4 Non Critical High (InterState)	93000	Included	Included	Port	$0.00
Other Non-Recurring Charges:					
OPT-E-WAN Bandwidth Setup (IntraState)	80372	$0.00	N/A	Port	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OPT-E-WAN Bandwidth Setup (InterState)	80436	$0.00	N/A	Port	$0.00
CoS Service Establishment (IntraState)	80376	$0.00	N/A	Port	$0.00
CoS Service Establishment (InterState)	80440	$0.00	N/A	Port	$0.00
Additional MAC Addresses, EVCs/VLANs (50 per site) (IntraState)	80385	$0.00	N/A	Per order	$0.00
Additional MAC Addresses, EVCs/VLANs (50 per site) (InterState)	80443	$0.00	N/A	Per order	$0.00
Initial Service Order Change Charge (IntraState)	80386	$0.00	N/A	Per order	$0.00
Initial Service Order Change Charge (InterState)	80444	$0.00	N/A	Per order	$0.00
Service Order Cancellation (IntraState)	80387	$0.00	N/A	Per location	$0.00
Service Order Cancellation (InterState)	80445	$0.00	N/A	Per location	$0.00
Miscellaneous Change Charge (IntraState)	80388	$0.00	N/A	Per order	$0.00
Miscellaneous Change Charge (InterState)	80446	$0.00	N/A	Per order	$0.00
OPT-E-WAN Site Termination Charge (IntraState)	80389	$0.00	N/A	Per location	$0.00
OPT-E-WAN Site Termination Charge (InterState)	80447	$0.00	N/A	Per location	$0.00
Other Features:					

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Diverse POP Service Set-Up Charge (IntraState)	80384	$1,000.00	N/A	Port	$0.00
Diverse POP Service Set-Up Charge (InterState)	80442	$1,000.00	N/A	Port	$0.00
Diverse Line Card (IntraState)	93013	N/A	10% of Port MRC	Card	N/A
Diverse Line Card (InterState)	93014	N/A	10% of Port MRC	Card	N/A
POP Diversity (IntraState)	93018	N/A	10% of Port MRC	Port	N/A
POP Diversity (InterState)	93019	N/A	10% of Port MRC	Port	N/A
OPT-E-WAN (OEW) Managed Service Bundles w/ Standard Features					
OEW Managed Service Bundle - .5M w / Type 7A Router Cu Ethernet	OEWMS05A	$143.00	$792.15	Bundle	$0.00
OEW Managed Service Bundle - .5M w / Type 22A Router Cu Ethernet	OEWMS05B	$143.00	$1,050.54	Bundle	$0.00
OEW Managed Service Bundle - 1M w / Type 7A Router Cu Ethernet	OEWMS1A	$143.00	$799.75	Bundle	$0.00
OEW Managed Service Bundle - 1M w / Type 22A Router Cu Ethernet	OEWMS1B	$143.00	$1,058.14	Bundle	$0.00
OEW Managed Service Bundle – 1.5M w / Type 7A Router Cu Ethernet	OEWMS015A	$143.00	$800.25	Bundle	$0.00
OEW Managed Service Bundle – 1.5M w / Type 22A Router Cu Ethernet	OEWMS015B	$143.00	$1,058.64	Bundle	$0.00
OEW Managed Service Bundle - 2M w / Type 7A Router Cu Ethernet	OEWMS2A	$143.00	$813.85	Bundle	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 2M w / Type 22A Router Cu Ethernet	OEWMS2B	$143.00	$1,072.24	Bundle	$0.00
OEW Managed Service Bundle - 3M w / Type 7A Router Cu Ethernet	OEWMS3A	$143.00	$856.08	Bundle	$0.00
OEW Managed Service Bundle - 3M w / Type 22A Router Cu Ethernet	OEWMS3B	$143.00	$1,114.47	Bundle	$0.00
OEW Managed Service Bundle - 4M w / Type 7A Router Cu Ethernet	OEWMS4A	$143.00	$868.58	Bundle	$0.00
OEW Managed Service Bundle - 4M w / Type 22A Router Cu Ethernet	OEWMS4B	$143.00	$1,126.97	Bundle	$0.00
OEW Managed Service Bundle - 5M w / Type 7A Router Cu Ethernet	OEWMS5A	$143.00	$903.82	Bundle	$0.00
OEW Managed Service Bundle - 5M w / Type 22A Router Cu Ethernet	OEWMS5B	$143.00	$1,162.21	Bundle	$0.00
OEW Managed Service Bundle - 6M w / Type 7A Router Cu Ethernet	OEWMS6A	$143.00	$965.35	Bundle	$0.00
OEW Managed Service Bundle - 6M w / Type 22A Router Cu Ethernet	OEWMS6B	$143.00	$1,223.74	Bundle	$0.00
OEW Managed Service Bundle - 7M w / Type 7A Router Cu Ethernet	OEWMS7A	$143.00	$974.25	Bundle	$0.00
OEW Managed Service Bundle - 7M w / Type 22A Router Cu Ethernet	OEWMS7B	$143.00	$1,232.64	Bundle	$0.00
OEW Managed Service Bundle - 8M w / Type 7A Router Cu Ethernet	OEWMS8A	$143.00	$984.45	Bundle	$0.00
OEW Managed Service Bundle - 8M w / Type 22A Router Cu Ethernet	OEWMS8B	$143.00	$1,242.84	Bundle	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 9M w / Type 7A Router Cu Ethernet	OEWMS9A	$143.00	$1,206.52	Bundle	$0.00
OEW Managed Service Bundle - 9M w / Type 22A Router Cu Ethernet	OEWMS9B	$143.00	$1,464.91	Bundle	$0.00
OEW Managed Service Bundle - 10M w / Type 7A Router Cu Ethernet	OEWMS10A	$143.00	$1,214.02	Bundle	$0.00
OEW Managed Service Bundle - 10M w / Type 22A Router Cu Ethernet	OEWMS10B	$143.00	$1,472.41	Bundle	$0.00
OEW Managed Service Bundle - 11M w / Type 7A Router Cu Ethernet	OEWMS11A	$143.00	$1,354.90	Bundle	$0.00
OEW Managed Service Bundle - 11M w / Type 22A Router Cu Ethernet	OEWMS11B	$143.00	$1,613.29	Bundle	$0.00
OEW Managed Service Bundle - 12M w / Type 7A Router Cu Ethernet	OEWMS12A	$143.00	$1,367.60	Bundle	$0.00
OEW Managed Service Bundle - 12M w / Type 22A Router Cu Ethernet	OEWMS12B	$143.00	$1,625.99	Bundle	$0.00
OEW Managed Service Bundle - 13M w / Type 7A Router Cu Ethernet	OEWMS13A	$143.00	$1,368.00	Bundle	$0.00
OEW Managed Service Bundle - 13M w / Type 22A Router Cu Ethernet	OEWMS13B	$143.00	$1,626.39	Bundle	$0.00
OEW Managed Service Bundle - 14M w / Type 7A Router Cu Ethernet	OEWMS14A	$143.00	$1,368.40	Bundle	$0.00
OEW Managed Service Bundle - 14M w / Type 22A Router Cu Ethernet	OEWMS14B	$143.00	$1,626.79	Bundle	$0.00
OEW Managed Service Bundle - 15M w / Type 7A Router Cu Ethernet	OEWMS15A	$143.00	$1,372.80	Bundle	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 15M w / Type 22A Router Cu Ethernet	OEWMS15B	$143.00	$1,631.19	Bundle	$0.00
OEW Managed Service Bundle - 16M w / Type 7A Router Cu Ethernet	OEWMS16A	$143.00	$1,377.80	Bundle	$0.00
OEW Managed Service Bundle - 16M w / Type 22A Router Cu Ethernet	OEWMS16B	$143.00	$1,636.19	Bundle	$0.00
OEW Managed Service Bundle - 17M w / Type 7A Router Cu Ethernet	OEWMS17A	$143.00	$1,382.80	Bundle	$0.00
OEW Managed Service Bundle - 17M w / Type 22A Router Cu Ethernet	OEWMS17B	$143.00	$1,641.19	Bundle	$0.00
OEW Managed Service Bundle - 18M w / Type 7A Router Cu Ethernet	OEWMS18A	$143.00	$1,387.80	Bundle	$0.00
OEW Managed Service Bundle - 18M w / Type 22A Router Cu Ethernet	OEWMS18B	$143.00	$1,646.19	Bundle	$0.00
OEW Managed Service Bundle - 19M w / Type 7A Router Cu Ethernet	OEWMS19A	$143.00	$1,392.80	Bundle	$0.00
OEW Managed Service Bundle - 19M w / Type 22A Router Cu Ethernet	OEWMS19B	$143.00	$1,651.19	Bundle	$0.00
OEW Managed Service Bundle - 20M w / Type 22A Router Cu Ethernet	OEWMS20A	$143.00	$1,405.50	Bundle	$0.00
OEW Managed Service Bundle - 20M w / Type 10A Router Cu Ethernet	OEWMS20B	$143.00	$1,663.89	Bundle	$0.00
OEW Managed Service Bundle - 30M w / Type 22A Router Cu Ethernet	OEWMS30A	$143.00	$1,836.67	Bundle	$0.00
OEW Managed Service Bundle - 30M w / Type 10A Router Cu Ethernet	OEWMS30B	$143.00	$1,953.22	Bundle	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 40M w / Type 22A Router Cu Ethernet	OEWMS40A	$143.00	$1,894.17	Bundle	$0.00
OEW Managed Service Bundle - 40M w / Type 10A Router Cu Ethernet	OEWMS40B	$143.00	$2,010.72	Bundle	$0.00
OEW Managed Service Bundle - 50M w / Type 22A Router Cu Ethernet	OEWMS50A	$143.00	$1,959.37	Bundle	$0.00
OEW Managed Service Bundle - 50M w / Type 10A Router Cu Ethernet	OEWMS50B	$143.00	$2,075.92	Bundle	$0.00
OEW Managed Service Bundle - 60M w / Type 10A Router Cu Ethernet	OEWMS60A	$143.00	$2,246.99	Bundle	$0.00
OEW Managed Service Bundle - 70M w / Type 10A Router Cu Ethernet	OEWMS70A	$143.00	$2,309.69	Bundle	$0.00
OEW Managed Service Bundle - 80M w / Type 10A Router Cu Ethernet	OEWMS80A	$143.00	$2,350.39	Bundle	$0.00
OEW Managed Service Bundle - 90M w / Type 10A Router Cu Ethernet	OEWMS90A	$143.00	$2,402.09	Bundle	$0.00
OEW Managed Service Bundle - 100M w / Type 10A Router Cu Ethernet	OEWMS100A	$143.00	$2,449.39	Bundle	$0.00
OEW Managed Service Bundle - 150M w / Type 11A Router Fiber Ethernet	OEWMS150A	$143.00	$2,904.93	Bundle	$0.00
OEW Managed Service Bundle - 150M w / Type 26 Router Fiber Ethernet	OEWMS150B	$143.00	$3,290.25	Bundle	$0.00
OEW Managed Service Bundle - 200M w / Type 11A Router Fiber Ethernet	OEWMS200A	$143.00	$3,511.00	Bundle	$0.00
OEW Managed Service Bundle - 200M w / Type 26 Router Fiber Ethernet	OEWMS200B	$143.00	$3,896.32	Bundle	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 250M w / Type 26 Router Fiber Ethernet	OEWMS250A	$143.00	$4,123.12	Bundle	$0.00
OEW Managed Service Bundle - 250M w / Type 27 Router Fiber Ethernet	OEWMS250B	$143.00	$4,544.56	Bundle	$0.00
OEW Managed Service Bundle - 300M w / Type 26 Router Fiber Ethernet	OEWMS300A	$143.00	$4,374.51	Bundle	$0.00
OEW Managed Service Bundle - 300M w / Type 27 Router Fiber Ethernet	OEWMS300B	$143.00	$4,795.95	Bundle	$0.00
OEW Managed Service Bundle - 350M w / Type 27 Router Fiber Ethernet	OEWMS350A	$143.00	$4,949.15	Bundle	$0.00
OEW Managed Service Bundle - 400M w / Type 27 Router Fiber Ethernet	OEWMS400A	$143.00	$5,102.35	Bundle	$0.00
OEW Managed Service Bundle - 450M w / Type 27 Router Fiber Ethernet	OEWMS450A	$143.00	$5,255.55	Bundle	$0.00
OEW Managed Service Bundle - 500M w / Type 27 Router Fiber Ethernet	OEWMS500A	$143.00	$5,408.75	Bundle	$0.00
OEW Managed Service Bundle - 550M w / Type 11 Router Fiber Ethernet	OEWMS550A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 550M w / Type 26 Router Fiber Ethernet	OEWMS550B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 600M w / Type 11 Router Fiber Ethernet	OEWMS600A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 600M w / Type 26 Router Fiber Ethernet	OEWMS600B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 650M w / Type 11 Router Fiber	OEWMS650A	ICB	ICB	Bundle	ICB

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Ethernet					
OEW Managed Service Bundle - 650M w / Type 26 Router Fiber Ethernet	OEWMS650B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 700M w / Type 11 Router Fiber Ethernet	OEWMS700A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 700M w / Type 26 Router Fiber Ethernet	OEWMS700B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 750M w / Type 11 Router Fiber Ethernet	OEWMS750A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 750M w / Type 26 Router Fiber Ethernet	OEWMS750B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 800M w / Type 11 Router Fiber Ethernet	OEWMS800A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 800M w / Type 26 Router Fiber Ethernet	OEWMS800B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 850M w / Type 11 Router Fiber Ethernet	OEWMS850A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 850M w / Type 26 Router Fiber Ethernet	OEWMS850B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 900M w / Type 11 Router Fiber Ethernet	OEWMS900A	ICB	ICB	Bundle	ICB

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
OEW Managed Service Bundle - 900M w / Type 26 Router Fiber Ethernet	OEWMS900B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 950M w / Type 11 Router Fiber Ethernet	OEWMS950A	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 950M w / Type 26 Router Fiber Ethernet	OEWMS950B	ICB	ICB	Bundle	$0.00
OEW Managed Service Bundle - 1G w / Type 11 Router Fiber Ethernet	OEWMS1KA	ICB	ICB	Bundle	ICB
OEW Managed Service Bundle - 1000M w / Type 26 Router Fiber Ethernet	OEWMS1KB	ICB	ICB	Bundle	$0.00
OPT-E-WAN Managed Service Bundles Life Cycle Management Features and Services					
Moves, Adds, Changes and Deletes					
Move Router Site (Inside) - Low Complexity	13092L	$600.00	N/A	Router	N/A
Move Router Site (Inside) - Medium Complexity	13092M	$720.00	N/A	Router	N/A
Move Router Site (Inside) - High Complexity	13092H	$850.00	N/A	Router	N/A
Move Router Site (Outside) - Low Complexity	13093L	$1,200.00	N/A	Router	N/A
Move Router Site (Outside) - Medium Complexity	13093M	$1,440.00	N/A	Router	N/A
Move Router Site (Outside) - High	13093H	$1,700.00	N/A	Router	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Complexity					
Router Site Add - Low Complexity	13118L	$1,500.00	N/A	Router	N/A
Router Site Add - Medium Complexity	13118M	$1,620.00	N/A	Router	N/A
Router Site Add - High Complexity	13118H	$1,750.00	N/A	Router	N/A
Add/Delete Router Boards – Low Complexity	13127L	$300.00	N/A	Router	N/A
Add/Delete Router Boards – Medium Complexity	13127M	$360.00	N/A	Router	N/A
Add/Delete Router Boards – High Complexity	13127H	$425.00	N/A	Router	N/A
Site Delete for AT&T Provided Equipment	13119	$0.00	N/A	Router	N/A
Site Insufficiently Prepared to Receive On-Site Services / Vendor Turn-Away	14570	$200.00	N/A	Router	N/A
Cancellation to Receive on Site Services with Less Than Five Business Days notice to AT&T	13109A	$200.00	N/A	Router	N/A
Supplementary Professional, Engineering and Technical Services					
Standard Hours (8AM – 5PM local time) First Hour	13109B	N/A	$360.00	Hour	N/A
Standard Hours (8AM – 5PM local time) Subsequent Hours	13109C	N/A	$180.00	Hour	N/A
Non-Standard Hours First Hour	13109D	N/A	$460.00	Hour	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Non-Standard Hours Subsequent Hours	13109E	N/A	$230.00	Hour	N/A
Lost Equipment Charge for AT&T Owned CPE	13054	Residual Value of Lost CPE	N/A	N/A	N/A
Router Configuration Changes	14158	$150.00	N/A	Router	N/A
OPT-E-WAN Managed Service Bundles Optional Up lift Features and Services					
Router Protocol, Memory and Misc Managed Router Feature Upgrades					
Enterprise Services IOS w/o encryption for 18XX series managed router feature upgrade	MSB1000	$590.00	N/A	Router	$150.00* *Applies to Upgrade to existing router.
Enterprise Services IOS w/o encryption for 28XX series managed router feature upgrade	MSB1001	$826.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Enterprise Services IOS w/o encryption for 38XX series managed router feature upgrade	MSB1002	$1,180.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 18XX series managed router feature upgrade	MSB1003	$1,062.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 28XX series managed router feature upgrade	MSB1004	$1,416.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Advanced Enterprise Services IOS w encryption for 38XX series managed	MSB1005	$2,065.00	N/A	Router	$150.00* *Applies to Upgrade to

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
router feature upgrade					existing router
Advanced Enterprise Services IOS w encryption for 72XX series managed router feature upgrade	MSB1006	$3,835.00	N/A	Router	$150.00* *Applies to Upgrade to existing router
Extra Memory for Enterprise and Advanced Enterprise IOS for 18XX series managed router feature upgrade	MSB1007	$295.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Port Card for 18XX, 28XX and 38XX series managed router feature upgrade	MSB1008	$236.00	N/A	Port	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra 4 Port Serial Port Adapter Card for 72XX and 73XX series managed router feature upgrade	MSB1009	$2,655.00	N/A	Port	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2-Port Fast Ethernet 100Base TX Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1010	$2,242.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
4-Port Ethernet 10BaseT Port Adapter fro 72XX and 73XX managed router feature upgrade	MSB1011	$2,655.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port Gigabit Ethernet Port Adapter for 72XX and 73XX series managed router feature upgrade	MSB1012	$3,540.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-SX Short Wavelength GBIC (Multimode only) for 72XX and 73XX series managed router feature	MSB1013	$295.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
upgrade					
1000BASE-SX Short Wavelength GBIC (Copper) for 72XX and 73XX series managed router feature upgrade	MSB1014	$295.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra 4 port 10/100 Ethernet switch interface card for 28XX and 38XX series managed router feature upgrade	MSB1015	$250.75	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
10/100 routed port HWIC Card for 28XX and 38XX series managed router feature upgrade	MSB1016	$531.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GE SFP, LC connector LX/LH transceiver for 38XX series managed router feature upgrade	MSB1017	$587.05	N/A	Connector	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-SX SFP (DOM) for 38XX series managed router feature upgrade	MSB1018	$324.50	N/A	Connector	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
7304 Carrier Card for 7200 Series Port Adapters managed router feature upgrade	MSB1019	$737.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Serial Cable managed router feature upgrade	MSB1020	$59.00	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Console Port to CAS cable managed router feature upgrade	MSB1021	$20.05	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
					upgrade to existing router.
Fiber Cable managed router feature upgrade	MSB1022	$45.89	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Rack Mount Kit managed router feature upgrade	MSB1023	$59.00	N/A	Kit	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Port for ASR1000 series managed router feature upgrade	MSB1024	$324.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Extra Serial Cable for ASR1000 series managed router feature upgrade	MSB1025	$259.60	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Copper SFP - SX Cisco 2-Port Gigabit Ethernet Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1026	$6,277.60	N/A	Adapter	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2 port 100M Ethernet Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter for ASR1000 series managed router feature upgrade	MSB1027	$5,022.08	N/A	Adapter	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Adv Ent IOS for DLSw and IPSEC Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1028	$6,277.60	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Cisco ASR 1000 Series RP1 managed router feature upgrade	MSB1029	$6,277.60	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
G2 Series Routers 19xx, 29xx, 39xx managed router feature upgrades					
GE SFP, LC connector LX/LH transceiver managed router feature upgrade	MSB1030	$587.05	N/A	Transceiver	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GE SFP, LC connector SX transceiver managed router feature upgrade	MSB1031	$295.00	N/A	Transceiver	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1000BASE-T SFP managed router feature upgrade	MSB1032	$233.05	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-port 10/100 Routed Port HWIC managed router feature upgrade	MSB1033	$531.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
GigE high speed WIC managed router feature upgrade	MSB1034	$1,180.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port Serial WAN Interface Card managed router feature upgrade	MSB1035	$236.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
4-Port 10/100 Ethernet switch interface card managed router feature upgrade	MSB1036	$250.75	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
					upgrade to existing router.
1000BASE-SX SFP (DOM) managed router feature upgrade	MSB1037	$324.50	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1038	$767.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 managed router feature upgrade	MSB1039	$1,180.00	N/A	Card	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 19XX Series managed router feature upgrade	MSB1040	$354.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Security IOS for Cisco 19XX Series managed router feature upgrade	MSB1041	$590.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 29XX Series managed router feature upgrade	MSB1042	$413.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Security IOS for Cisco 29XX Series managed router feature upgrade	MSB1043	$708.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Data IOS for Cisco 39XX Series managed router feature upgrade	MSB1044	$590.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
					upgrade to existing router.
Security IOS for Cisco 39XX Series managed router feature upgrade	MSB1045	$1,180.00	N/A	Router	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
COS device 4 port COS switch managed router feature upgrade	MSB1046	$432.47	N/A	Switch	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Cable from: OOB modem to: COS/4 managed router feature upgrade	MSB1047	$17.70	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Cable from: CO to: Router's Console Port (DB25M-RJ45, 10ft.) managed router feature upgrade	MSB1048	$11.83	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
AIM Module 1800/2800/3800 managed router feature upgrade	MSB1049	$1,475.00	N/A	Module	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
SC type to SC type MMF 62.5 micron 15' for WS-G5484 modules managed router feature upgrade	MSB1050	$45.89	N/A	Cable	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
12 port COS Switch managed router feature upgrade	MSB1051	$6,590.60	N/A	Switch	*See Professional Engineering and Technical Services Charges for on-site upgrade to existing router.
Optional Architectural Validation Professional Services	13096	N/A	$350.00	Hour	N/A

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
Dial Backup					
Analog (POTS) Dial Backup Management	13060A	N/A	$10.00	Router	N/A
ISDN Basic Rate Interface (BRI) Backup Management	13060B	N/A	$10.00	Router	N/A
ISDN Primary Rate Interface (PRI) Backup Management	13060C	N/A	$25.00	Router	N/A
TACACS (Terminal Access Controller Access Control System) Read Only Access					
TACACS Read Only Access – Router Enablement	TACACSRE	$40.00	N/A	Router	$150.00
TACACS Read Only Access - Support	TACACSRS	N/A	$18.00	Router	N/A
TACACS Read Only Access – Enablement 1-6 Enabled Employees	TACACS1	$0.00	N/A	Enabled Employee	$150.00
TACACS Read Only Access – Enablement 7-12 Enabled Employees	TACACS2	$250.00	N/A	Enabled Employee	$150.00
TACACS Read Only Access – Enablement 13 to 25 Enabled Employees	TACACS3	$750.00	N/A	Enabled Employee	$150.00
OPT-E-WAN Managed Services Data Center Stand Alone Routers					
Legacy Protocol (SNA, DLSw and IPX) Standalone router Type 20	MSDCRT1	$0.00	$1,324.00	Router	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of measure	Change Charge
IPSEC Standalone router Type 24	MSDCRT2	$0.00	$1,084.34	Router	$0.00
Traffic Aggregation Standalone router Type 25	MSDCRT3	$0.00	$3,355.44	Router	$0.00
Traffic Aggregation Standalone router Type 27	MSDCRT4	$0.00	$1,340.07	Router	$0.00

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Change Charge
CSME					
CSME Basic Connection 10 Mbps	P9FYX	$ 1,600.00	$ 967.20	port	NRC applies
CSME Basic Connection - subsequent 10 Mbps	P9FZX	$ 1,150.00	$ 725.00	port	NRC applies
CSME Basic Connection 100 Mbps	P9FKX	$ 1,925.00	$ 1,246.20	port	NRC applies
CSME Basic Connection Subsequent 100 Mbps	P9FPX	$ 1,200.00	$ 1,012.00	port	NRC applies
CSME Basic Connection 1 Gigabit	P9FLX	$ 2,500.00	$ 2,717.00	port	NRC applies
CSME Ethernet Virtual Connection (EVC)	EVNDE	$ -	$ -	virtual circuit	
CSME Media Access Control (MAC) Addresses	M2CAX	$ 70.00	$ 5.00	block	NRC applies

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Change Charge
CSME Repeater	VU4	$ 250.00	$ 320.00	repeater	NRC applies
CSME Service Order Change Charge	NHCEO	$ 75.00	N/A		N/A
CSME Miscellaneous Change Charge	NHCEN	$ 50.00	N/A		N/A
CSME Service Order Cancellation Charge	OGCEO	$ 200.00	N/A		N/A
CSME Service Expedite Charge	EODEO	$ 300.00	N/A		N/A
EPLS-WAN (POP to POP) Requires Ethernet LD Access					
EPLS-WAN 600Mbps SCRM-OKLD	WAN60A	$0.00	$4,050.00	circuit	NRC applies
EPLS-WAN 600Mbps SCRM-ANHM	WAN60B	$0.00	$5,153.00	circuit	NRC applies
EPLS-WAN 600Mbps SCRM-SNDG	WAN60C	$0.00	$6,143.00	circuit	NRC applies
EPLS-WAN 600Mbps OKLD-ANHM	WAN60D	$0.00	$4,973.00	circuit	NRC applies
EPLS-WAN 600Mbps ANHM-SNDG	WAN60E	$0.00	$4,050.00	circuit	NRC applies
EPLS-WAN 1000Mbps SCRM-OKLD	WAN1GA	$0.00	$8,100.00	circuit	NRC applies
EPLS-WAN 1000Mbps SCRM-ANHM	WAN1GB	$0.00	$9,482.00	circuit	NRC applies

Feature Name	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Change Charge
EPLS-WAN 1000Mbps SCRM-SNDG	WAN1GC	$0.00	$10,012.00	circuit	NRC applies
EPLS-WAN 1000Mbps OKLD-ANHM	WAN1GD	$0.00	$9,158.00	circuit	NRC applies
EPLS-WAN 1000Mbps ANHM-SNDG	WAN1GE	$0.00	$8,100.00	circuit	NRC applies
EPLS-WAN 10Gbps SCRM-OKLD	WAN10GA	$0.00	$20,000.00	circuit	NRC applies
EPLS-WAN 10Gbps SCRM-ANHM	WAN10GB	$0.00	$30,000.00	circuit	NRC applies
EPLS-WAN 10Gbps SCRM-SNDG	WAN10GC	$0.00	$30,000.00	circuit	NRC applies
EPLS-WAN 10Gbps OKLD-ANHM	WAN10GD	$0.00	$30,000.00	circuit	NRC applies
EPLS-WAN 10Gbps ANHM-SNDG	WAN10GE	$0.00	$20,000.00	circuit	NRC applies

ETHERNET ACCESS to LONG DISTANCE POP

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Change Charge
100-Base-TX 2 Mbps Ethernet	LNET2	$0.00	$450.00	Per circuit	NRC applies
100-Base-TX 4 Mbps Ethernet	LNET4	$0.00	$500.00	Per circuit	NRC applies

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Change Charge
100-Base-TX 5 Mbps Ethernet	LNET5	$0.00	$540.00	Per circuit	NRC applies
100-Base-TX 8 Mbps Ethernet	LNET8	$0.00	$590.00	Per circuit	NRC applies
100-Base-TX 10 Mbps Ethernet	LNET10	$0.00	$720.00	Per circuit	NRC applies
100-Base-TX 20 Mbps Ethernet	LNET20	$0.00	$860.00	Per circuit	NRC applies
100-Base-TX 50 Mbps Ethernet	LNET50	$0.00	$975.00	Per circuit	NRC applies
100-Base-TX 100 Mbps Ethernet	LNET100	$0.00	$1,125.00	Per circuit	NRC applies
1000-Base-SX/LX 150 Mbps Ethernet	LNET150	$0.00	$1,400.00	Per circuit	NRC applies
1000-Base-SX/LX 250 Mbps Ethernet	LNET250	$0.00	$1,725.00	Per circuit	NRC applies
1000-Base-SX/LX 500 Mbps Ethernet	LNET500	$0.00	$2,200.00	Per circuit	NRC applies
1000-Base-SX/LX 600 Mbps Ethernet	LNET600	$0.00	$2,544.90	Per circuit	NRC applies
1000-Base-SX/LX 1000 Mbps Ethernet	LNET1G	$0.00	$3,200.00	Per circuit	NRC applies
10G-Base-LSR 10000 Mbps Ethernet	LNET10G	$0.00	$4,700.00	Per circuit	NRC applies

See Required CPE and Other Equipment for descriptions of additional equipment and service offered

6.1.7 **Service Identifier:** Managed Internet Service (MIS) Attachment 3

Description of Service

AT&T Managed Internet Service (MIS) is a dedicated Internet access service that provides businesses with high-speed Internet access through communications facilities managed by AT&T. The service consists of a dedicated Internet Port, and separately, transport from the customer site to the nearest AT&T Point-of-Presence (POP). AT&T MIS connects a business's Local Area Network or application to the Internet.

Underlying AT&T MIS is AT&T's highly reliable transport, the IP connectivity to the customer, and the IP backbone. Customer connectivity to the backbone is provided through the AT&T transport network. Access speeds range from 56 Kbps to 10 Gbps (LAN-PHY), and access methods (priced separately with FCC tariffs) include Private Line, Frame Relay, Asynchronous Transfer Mode (ATM), and Ethernet connectivity. AT&T provides access service points at more than 600 ACCUNET points of presence (POPs) in the United States. AT&T personnel coordinate the provisioning of the local access circuit for customers. Not all speeds are available in all areas or via all "Access Methods" described below. All DS3, OC-X and Ethernet opportunities must be pre-qualified. Access transport circuits used with MIS are found under DS1 and DS3 services. Ethernet access transport circuits used with MIS are found below. For Ethernet access to MIS where less than 10% of the traffic on the circuit is used for MIS Internet access, OPT-E-MAN may be used.

Three service types are available:

- AT&T MIS with AT&T Managed Router
- AT&T MIS with Customer Managed Router
- AT&T Dedicated Internet Access (DIA) with Customer Managed Router – Grandfathered, for existing customers only. Use MIS for new orders.

The distinction is whether the Customer Premises Equipment (CPE) is provided by AT&T or provided and managed by the customer. At a minimum, the CPE provided to AT&T MIS with Managed Router customers consists of a Router, a CSU/DSU, and a diagnostic Modem providing managed "end-to-end" connectivity to the Internet. Additional CPE components may be required/provided depending upon the configuration. For customers who prefer to manage several elements of their IP service in-house and retain control of the premises equipment, we offer AT&T MIS without the Managed Router. With this offer, the customer is responsible for providing, configuring, installing, maintaining, and managing the premises equipment.

MIS with Managed Router customers have the option of Tele-installation or On-site installation (except for speeds of T3 and above where only on-site installation is available, Tele-Install can be used for Ethernet speeds 100 Mbps and below if using electrical interface). If the customer selects tele-installation, the customer is responsible for unpacking and connecting the CPE, with telephone assistance from AT&T if required. With on-site installation, an authorized AT&T Service Technician will unpack, connect, and test the CPE

and completes the cooperative testing with the NOC. Charges apply for On-Site (Managed Router Service), no charge for Tele-Install.

Under each AT&T MIS service type - there are 3 types of port billing services are available:

1. Flat Rate Billing Port Only offers a fixed recurring charge.

2. Hi Cap Flex Billing Port Only customers are provisioned with a fully dedicated access circuit, but only pay for actual sustained bandwidth usage—not the full line rate. It differs from the Burstable Billing option in that customers select a minimum monthly bandwidth commitment.

3. With Burstable Billing Port Only, customers only pay for actual sustained bandwidth usage—not the full line rate. Burstable Billing customers can "burst" up to the full capacity of the access circuit when needed and are charged based on usage.

For all port types, an access circuit is ordered and billed separate from the port.

All new Internet access services will be provisioned with AT&T MIS.

AT&T Dedicated Internet Access (DIA) with Customer Managed Router Service is being grandfathered. Existing AT&T DIA Ports may be upgraded subject to bandwidth availability. Ethernet Access is not available for DIA upgrade.

The Customer Managed Flat Rate Port pricing for AT&T MIS as shown in Attachment 4 applies to DIA ports, as available.

Additional MIS Features Include (priced individually) Class of Service, Additional DNS Admin, Alternate Backbone Node, CPE Redundant Configuration, Managed Firewall Solutions, MIS Access Redundancy Options (MARO), and Secure Email Gateway.

FLAT RATE INTERNET PORT

Feature Description	Identifier
AT&T MIS @ 56Kbps	5323
AT&T MIS @ 128Kbps	5324
AT&T MIS @ 256Kbps	5325
AT&T MIS @ 384Kbps	5326
AT&T MIS @ 512Kbps	5327
AT&T MIS @ 768Kbps	5328
AT&T MIS @ 1024 Kbps	5700
AT&T MIS @ 1.544 Mbps (T1)	5701
AT&T MIS @ 2Mbps	5329
AT&T MIS @ 3 Mbps	5702
AT&T MIS @ 3 Mbps NxT1	5702
AT&T MIS @ 4Mbps	5330
AT&T MIS @ 4.5Mbps	5331
AT&T MIS @ 5Mbps	5332
AT&T MIS @ 6Mbps	5333

Feature Description	Identifier
AT&T MIS @ 6Mbps NxT1	5333
AT&T MIS @ 7Mbps	5334
AT&T MIS @ 7.5 Mbps	5382
AT&T MIS @ 8Mbps	5335
AT&T MIS @ 9Mbps	5336
AT&T MIS @ 9Mbps NxT1	5336
AT&T MIS @ 10 Mbps	5703
AT&T MIS @ 10.5 Mbps	5383
AT&T MIS @ 12 Mbps	5384
AT&T MIS @ 15 Mbps	5704
AT&T MIS @ 20 Mbps	5705
AT&T MIS @ 25 Mbps	5706
AT&T MIS @ 30 Mbps	5707
AT&T MIS @ 35 Mbps	5708
AT&T MIS @ 40 Mbps	5709
AT&T MIS @ 45 Mbps (T3)	5710
AT&T MIS @ 60Mbps (OC3)	5338
AT&T MIS @ 155 Mbps (OC3)	5712
AT&T MIS @ 622 Mbps (OC12)	6528
AT&T MIS @ 2.45 Gbps (OC48)	6837

FLAT RATE INTERNET PORT WITH ROUTER

Feature Description	Identifier
AT&T MIS w/Mgd Router @ 56Kbps	5348
AT&T MIS w/Mgd Router @ 128Kbps	5349
AT&T MIS w/Mgd Router @ 256Kbps	5350
AT&T MIS w/Mgd Router @ 384Kbps	5351
AT&T MIS w/Mgd Router @ 512Kbps	5352
AT&T MIS w/Mgd Router @ 768Kbps	5353
AT&T MIS w/Mgd Router @ 1024 Kbps	5713
AT&T MIS w/Mgd Router @ 1.544 Mbps (T1)	5714
AT&T MIS w/Mgd Router @ 2Mbps	5354

Feature Description	Identifier
AT&T MIS w/Mgd Router @ 3Mbps	5355
AT&T MIS w/Mgd Router @ 3Mbps NxT1	5355
AT&T MIS w/Mgd Router @ 4Mbps	5356
AT&T MIS w/Mgd Router @ 4.5Mbps	5357
AT&T MIS w/Mgd Router @ 5Mbps	5358
AT&T MIS w/Mgd Router @ 6Mbps	5359
AT&T MIS w/Mgd Router @ 6Mbps NxT1	5359
AT&T MIS w/Mgd Router @ 7Mbps	5360
AT&T MIS w/Mgd Router @ 7.5 Mbps	5385
AT&T MIS w/Mgd Router @ 8Mbps	5361
AT&T MIS w/Mgd Router @ 9Mbps	5362
AT&T MIS w/Mgd Router @ 9Mbps NxT1	5362
AT&T MIS w/Mgd Router @ 10Mbps	5363
AT&T MIS w/Mgd Router @ 10.5 Mbps	5386
AT&T MIS w/Mgd Router @ 12 Mbps	5387
AT&T MIS w/Mgd Router @ 15Mbps	5364
AT&T MIS w/Mgd Router @ 20Mbps	5365
AT&T MIS w/Mgd Router @ 25Mbps	5366
AT&T MIS w/Mgd Router @ 30Mbps	5367
AT&T MIS w/Mgd Router @ 35Mbps	5368
AT&T MIS w/Mgd Router @ 40Mbps	5369
AT&T MIS w/Mgd Router @ 45Mbps	5370
AT&T MIS w/Mgd Router @ 60Mbps	5374
AT&T MIS w/Mgd Router @ 155 Mbps (OC3)	5716
AT&T MIS w/Mgd Router @ 622 Mbps (OC12)	6529

Feature Description	Identifier
AT&T MIS w/Mgd Router @ 2.45 Gbps (OC48)	6840

HI CAP FLEX T3 - PRIVATE LINE, ATM (ASYNCHRONOUS TRANSFER MODE)

Feature Description	Identifier
MIS HiCap T3 2 Mbps	7400
MIS HiCap T3 3 Mbps	7401
MIS HiCap T3 4 Mbps	7402
MIS HiCap T3 5 Mbps	7403
MIS HiCap T3 6 Mbps	7404
MIS HiCap T3 7 Mbps	7405
MIS HiCap T3 8 Mbps	7406
MIS HiCap T3 9 Mbps	7407
MIS HiCap T3 10 Mbps	7408
MIS HiCap T3 15 Mbps	7409
MIS HiCap T3 20 Mbps	7410
MIS HiCap T3 25 Mbps	7411
MIS HiCap T3 30 Mbps	7412
MIS HiCap T3 35 Mbps	7413
MIS HiCap T3 40 Mbps	7414
MIS HiCap T3 45 Mbps	7415

HI CAP FLEX T3 - PRIVATE LINE, ATM (ASYNCHRONOUS TRANSFER MODE) with Managed Router

Feature Description	Identifier
MIS HiCap T3 w/Mgd Rtr 2 Mbps	7420
MIS HiCap T3 w/Mgd Rtr 3 Mbps	7421
MIS HiCap T3 w/Mgd Rtr 4 Mbps	7422
MIS HiCap T3 w/Mgd Rtr 5 Mbps	7423
MIS HiCap T3 w/Mgd Rtr 6 Mbps	7424
MIS HiCap T3 w/Mgd Rtr 7 Mbps	7425
MIS HiCap T3 w/Mgd Rtr 8 Mbps	7426
MIS HiCap T3 w/Mgd Rtr 9 Mbps	7427
MIS HiCap T3 w/Mgd Rtr 10 Mbps	7428

Feature Description	Identifier
MIS HiCap T3 w/Mgd Rtr 15 Mbps	7429
MIS HiCap T3 w/Mgd Rtr 20 Mbps	7430
MIS HiCap T3 w/Mgd Rtr 25 Mbps	7431
MIS HiCap T3 w/Mgd Rtr 30 Mbps	7432
MIS HiCap T3 w/Mgd Rtr 35 Mbps	7433
MIS HiCap T3 w/Mgd Rtr 40 Mbps	7434
MIS HiCap T3 w/Mgd Rtr 45 Mbps	7435

HI CAP FLEX OC3 - PRIVATE LINE

Feature Description	Identifier
MIS HiCap OC3 35 Mbps	8050
MIS HiCap OC3 40 Mbps	8051
MIS HiCap OC3 45 Mbps	8052
MIS HiCap OC3 60 Mbps	8053
MIS HiCap OC3 70 Mbps	8054
MIS HiCap OC3 80 Mbps	8055
MIS HiCap OC3 90 Mbps	8056
MIS HiCap OC3 100 Mbps	8057
MIS HiCap OC3 120 Mbps	8058
MIS HiCap OC3 144 Mbps	8059
MIS HiCap OC3 155 Mbps	8060

HI CAP FLEX OC3 - PRIVATE LINE with Managed Router

Feature Description	Identifier
MIS HiCap OC3 w/Mgd Rtr 35 Mbps	8070
MIS HiCap OC3 w/Mgd Rtr 40 Mbps	8071
MIS HiCap OC3 w/Mgd Rtr 45 Mbps	8072
MIS HiCap OC3 w/Mgd Rtr 60 Mbps	8073
MIS HiCap OC3 w/Mgd Rtr 70 Mbps	8074
MIS HiCap OC3 w/Mgd Rtr 80 Mbps	8075

Feature Description	Identifier
MIS HiCap OC3 w/Mgd Rtr 90 Mbps	8076
MIS HiCap OC3 w/Mgd Rtr 100 Mbps	8077
MIS HiCap OC3 w/Mgd Rtr 120 Mbps	8078
MIS HiCap OC3 w/Mgd Rtr 144 Mbps	8079
MIS HiCap OC3 w/Mgd Rtr 155 Mbps	8080

HI CAP FLEX OC12 - PRIVATE LINE

Feature Description	Identifier
MIS HiCap OC12 70 Mbps	7500
MIS HiCap OC12 80 Mbps	7501
MIS HiCap OC12 90 Mbps	7502
MIS HiCap OC12 100 Mbps	7503
MIS HiCap OC12 120 Mbps	7504
MIS HiCap OC12 144 Mbps	7505
MIS HiCap OC12 155 Mbps	7506
MIS HiCap OC12 200 Mbps	7507
MIS HiCap OC12 250 Mbps	7508
MIS HiCap OC12 300 Mbps	7509
MIS HiCap OC12 350 Mbps	7510
MIS HiCap OC12 400 Mbps	7511
MIS HiCap OC12 450 Mbps	7512
MIS HiCap OC12 500 Mbps	7513
MIS HiCap OC12 550 Mbps	7514
MIS HiCap OC12 600 Mbps	7515
MIS HiCap OC12 622 Mbps	7516

HI CAP FLEX OC12 - PRIVATE LINE - with Managed Router

Feature Description	Identifier
MIS HiCap OC3 w/Mgd Rtr 70 Mbps	7525
MIS HiCap OC3 w/Mgd Rtr 80 Mbps	7526
MIS HiCap OC3 w/Mgd Rtr 90 Mbps	7527
MIS HiCap OC3 w/Mgd Rtr 100 Mbps	7528

Feature Description	Identifier
MIS HiCap OC3 w/Mgd Rtr 120 Mbps	7529
MIS HiCap OC3 w/Mgd Rtr 144 Mbps	7530
MIS HiCap OC3 w/Mgd Rtr 155 Mbps	7531
MIS HiCap OC3 w/Mgd Rtr 200 Mbps	7532
MIS HiCap OC3 w/Mgd Rtr 250 Mbps	7533
MIS HiCap OC3 w/Mgd Rtr 300 Mbps	7534
MIS HiCap OC3 w/Mgd Rtr 350 Mbps	7535
MIS HiCap OC3 w/Mgd Rtr 400 Mbps	7536
MIS HiCap OC3 w/Mgd Rtr 450 Mbps	7537
MIS HiCap OC3 w/Mgd Rtr 500 Mbps	7538
MIS HiCap OC3 w/Mgd Rtr 550 Mbps	7539
MIS HiCap OC3 w/Mgd Rtr 600 Mbps	7540
MIS HiCap OC3 w/Mgd Rtr 622 Mbps	7541

HI CAP FLEX OC48 - PRIVATE LINE

Feature Description	Identifier
MIS HiCap OC48 600 Mbps	7450
MIS HiCap OC48 622 Mbps	7451
MIS HiCap OC48 700 Mbps	7452
MIS HiCap OC48 800 Mbps	7453
MIS HiCap OC48 1250 Mbps	7454
MIS HiCap OC48 1550 Mbps	7455
MIS HiCap OC48 1850 Mbps	7456
MIS HiCap OC48 2150 Mbps[1]	7457
MIS HiCap OC48 2450 Mbps[1]	7458

[1]Due a technical limitation with the Cisco Gigabit Router cards, actual speed of the service is limited to 1.9 Gbps. Therefore, 1850 Mbps should be the highest "Minimum Bandwidth Commitment" offered to customers at this time.

HI CAP FLEX OC48 - PRIVATE LINE - With Managed Router

Feature Description	Identifier
MIS HiCap OC48 600 Mbps	7470
MIS HiCap OC48 622 Mbps	7471
MIS HiCap OC48 700 Mbps	7472
MIS HiCap OC48 800 Mbps	7473
MIS HiCap OC48 1250 Mbps	7474
MIS HiCap OC48 1550 Mbps	7475
MIS HiCap OC48 1850 Mbps	7476
MIS HiCap OC48 2150 Mbps[1]	7477
MIS HiCap OC48 2450 Mbps[1]	7478

[1]Due a technical limitation with the Cisco Gigabit Router cards, actual speed of the service is limited to 1.9 Gbps. Therefore, 1850 Mbps should be the highest "Minimum Bandwidth Commitment" offered to customers at this time.

HI CAP FLEX ETHERNET PORT ONLY

Feature Description	Identifier
MIS Minimum Bandwidth Commitment Ethernet 2 Mbps	8301
MIS Minimum Bandwidth Commitment Ethernet 3 Mbps	8302
MIS Minimum Bandwidth Commitment Ethernet 4 Mbps	8303
MIS Minimum Bandwidth Commitment Ethernet 5 Mbps	8304
MIS Minimum Bandwidth Commitment Ethernet 6 Mbps	8305
MIS Minimum Bandwidth Commitment Ethernet 7 Mbps	8306
MIS Minimum Bandwidth Commitment Ethernet 8 Mbps	8307
MIS Minimum Bandwidth Commitment Ethernet 9 Mbps	8308
MIS Minimum Bandwidth Commitment Ethernet 10 Mbps	8309
MIS Minimum Bandwidth Commitment Ethernet 15 Mbps	8310

Feature Description	Identifier
MIS Minimum Bandwidth Commitment Ethernet 20 Mbps	8311
MIS Minimum Bandwidth Commitment Ethernet 25 Mbps	8312
MIS Minimum Bandwidth Commitment Ethernet 30 Mbps	8313
MIS Minimum Bandwidth Commitment Ethernet 35 Mbps	8314
MIS Minimum Bandwidth Commitment Ethernet 40 Mbps	8315
MIS Minimum Bandwidth Commitment Ethernet 45 Mbps	8316
MIS Minimum Bandwidth Commitment Ethernet 50 Mbps	8382
MIS Minimum Bandwidth Commitment Ethernet 60 Mbps	8317
MIS Minimum Bandwidth Commitment Ethernet 70 Mbps	8318
MIS Minimum Bandwidth Commitment Ethernet 80 Mbps	8319
MIS Minimum Bandwidth Commitment Ethernet 90 Mbps	8320
MIS Minimum Bandwidth Commitment Ethernet 100 Mbps	8321
MIS Minimum Bandwidth Commitment Ethernet 120 Mbps	8346
MIS Minimum Bandwidth Commitment Ethernet 144 Mbps	8347
MIS Minimum Bandwidth Commitment Ethernet 155 Mbps	8348
MIS Minimum Bandwidth Commitment Ethernet 200 Mbps	8349
MIS Minimum Bandwidth Commitment Ethernet 250 Mbps	8350
MIS Minimum Bandwidth Commitment Ethernet 300 Mbps	8351
MIS Minimum Bandwidth Commitment Ethernet 350 Mbps	8352
MIS Minimum Bandwidth Commitment Ethernet 400 Mbps	8353
MIS Minimum Bandwidth Commitment Ethernet 450 Mbps	8354
MIS Minimum Bandwidth Commitment Ethernet 500 Mbps	8355
MIS Minimum Bandwidth Commitment Ethernet 550 Mbps	8356

Feature Description	Identifier
MIS Minimum Bandwidth Commitment Ethernet 600 Mbps	8357
MIS Minimum Bandwidth Commitment Ethernet 622 Mbps	8358
MIS Minimum Bandwidth Commitment Ethernet 700 Mbps	8359
MIS Minimum Bandwidth Commitment Ethernet 800 Mbps	8360
MIS Minimum Bandwidth Commitment Ethernet 900 Mbps	8361
MIS Minimum Bandwidth Commitment Ethernet 1000 Mbps	8362

HI CAP FLEX – 10 Gig ETHERNET PORT ONLY

MIS Minimum Bandwidth Commitment Ethernet 1500 Mbps	8385
MIS Minimum Bandwidth Commitment Ethernet 2000 Mbps	8386
MIS Minimum Bandwidth Commitment Ethernet 2500 Mbps	8387
MIS Minimum Bandwidth Commitment Ethernet 3000 Mbps	8388
MIS Minimum Bandwidth Commitment Ethernet 3500 Mbps	8389
MIS Minimum Bandwidth Commitment Ethernet 4000 Mbps	8390
MIS Minimum Bandwidth Commitment Ethernet 4500 Mbps	8391
MIS Minimum Bandwidth Commitment Ethernet 5000 Mbps	8392
MIS Minimum Bandwidth Commitment Ethernet 5500 Mbps	8393
MIS Minimum Bandwidth Commitment Ethernet 6000 Mbps	8394
MIS Minimum Bandwidth Commitment Ethernet 6500 Mbps	8395
MIS Minimum Bandwidth Commitment Ethernet 7000 Mbps	8396
MIS Minimum Bandwidth Commitment Ethernet 7500 Mbps	8397
MIS Minimum Bandwidth Commitment Ethernet 8000 Mbps	8398
MIS Minimum Bandwidth Commitment Ethernet 8500 Mbps	8399

MIS Minimum Bandwidth Commitment Ethernet 9000 Mbps	8400
MIS Minimum Bandwidth Commitment Ethernet 9500 Mbps	8401
MIS Minimum Bandwidth Commitment Ethernet 10000 Mbps	8402

HI CAP FLEX ETHERNET PORT ONLY with Managed Router

Feature Description	Identifier
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 2 Mbps	8323
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 3 Mbps	8324
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 4 Mbps	8325
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 5 Mbps	8326
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 6 Mbps	8327
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 7 Mbps	8328
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 8 Mbps	8329
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 9 Mbps	8330
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 10 Mbps	8331
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 15 Mbps	8332
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 20 Mbps	8333
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 25 Mbps	8334
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 30 Mbps	8335
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 35 Mbps	8336
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 40 Mbps	8337
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 45 Mbps	8338
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 50 Mbps	8383
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 60 Mbps	8339

Feature Description	Identifier
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 70 Mbps	8340
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 80 Mbps	8341
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 90 Mbps	8342
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 100 Mbps	8343
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 120 Mbps	8365
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 144 Mbps	8366
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 155 Mbps	8367
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 200 Mbps	8368
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 250 Mbps	8369
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 300 Mbps	8370
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 350 Mbps	8371
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 400 Mbps	8372
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 450 Mbps	8373
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 500 Mbps	8374
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 550 Mbps	8375
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 600 Mbps	8376
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 622 Mbps	8377
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 700 Mbps	8378
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 800 Mbps	8379
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 900 Mbps	8380
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 1000 Mbps	8381

ETHERNET ACCESS to LONG DISTANCE POP

Used with HI CAP FLEX ETHERNET PORT ONLY service.

Feature Description	Identifier
100-Base-TX 2 Mbps Ethernet	LNET2
100-Base-TX 4 Mbps Ethernet	LNET4
100-Base-TX 5 Mbps Ethernet	LNET5
100-Base-TX 8 Mbps Ethernet	LNET8
100-Base-TX 10 Mbps Ethernet	LNET10
100-Base-TX 20 Mbps Ethernet	LNET20
100-Base-TX 50 Mbps Ethernet	LNET50
100-Base-TX 100 Mbps Ethernet	LNET100
1000-Base-SX/LX 150 Mbps Ethernet	LNET150
1000-Base-SX/LX 250 Mbps Ethernet	LNET250
1000-Base-SX/LX 500 Mbps Ethernet	LNET500
1000-Base-SX/LX 600 Mbps Ethernet	LNET600
1000-Base-SX/LX 1000 Mbps Ethernet	LNET1G
10G-Base-LSR 10000 Mbps Ethernet	LNET10G

BURSTABLE T1 - PRIVATE LINE, FRAME RELAY

Feature Description	Identifier
MIS Burstable T1 Up to 128 Kbps	7301
MIS Burstable T1 128.01 to 256 Kbps	
MIS Burstable T1 256.01 to 384 Kbps	
MIS Burstable T1 384.01 to 512 Kbps	
MIS Burstable T1 512.01 to full T1	

BURSTABLE T1 - PRIVATE LINE, FRAME RELAY - with Managed Router

Feature Description	Identifier
MIS Burstable T1 w/Mgd Rtr Up to 128 Kbps	7302
MIS Burstable T1 w/Mgd Rtr 128.01 to 256 Kbps	
MIS Burstable T1 w/Mgd Rtr 256.01 to 384 Kbps	
MIS Burstable T1 w/Mgd Rtr 384.01 to 512 Kbps	
MIS Burstable T1 w/Mgd Rtr 512.01 to full T1	

BURSTABLE T3 - PRIVATE LINE, ATM

Feature Description	Identifier
MIS Burstable T3 Up to 6 Mbps	7303
MIS Burstable T3 6.01 to 7.5 Mbps	
MIS Burstable T3 7.51 to 9.0 Mbps	
MIS Burstable T3 9.01 to 10.5 Mbps	
MIS Burstable T3 10.51 to 12.0 Mbps	
MIS Burstable T3 12.01 to 13.5 Mbps	
MIS Burstable T3 13.51 to 15.0 Mbps	
MIS Burstable T3 15.01 to 16.5 Mbps	
MIS Burstable T3 16.51 to 18.0 Mbps	
MIS Burstable T3 18.01 to 19.5 Mbps	
MIS Burstable T3 19.51 to 21.0 Mbps	

MIS Burstable T3 21.01 to 45.0 Mbps	

BURSTABLE T3 - PRIVATE LINE, ATM - with Managed Router

Feature Description	Identifier
MIS Burstable T3 w/Mgd Router Up to 6 Mbps	7304
MIS Burstable T3 w/Mgd Router 6.01 to 7.5 Mbps	
MIS Burstable T3 w/Mgd Router 7.51 to 9.0 Mbps	
MIS Burstable T3 w/Mgd Router 9.01 to 10.5 Mbps	
MIS Burstable T3 w/Mgd Router 10.51 to 12.0 Mbps	
MIS Burstable T3 w/Mgd Router 12.01 to 13.5 Mbps	
MIS Burstable T3 w/Mgd Router 13.51 to 15.0 Mbps	
MIS Burstable T3 w/Mgd Router 15.01 to 16.5 Mbps	
MIS Burstable T3 w/Mgd Router 16.51 to 18.0 Mbps	
MIS Burstable T3 w/Mgd Router 18.01 to 19.5 Mbps	
MIS Burstable T3 w/Mgd Router 19.51 to 21.0 Mbps	
MIS Burstable T3 w/Mgd Router 21.01 to 45.0 Mbps	

BURSTABLE OC3 - PRIVATE LINE

Feature Description	Identifier
MIS Burstable OC3 Up to 35 Mbps	7305
MIS Burstable OC3 35.01 to 45 Mbps	
MIS Burstable OC3 45.01 to 55 Mbps	
MIS Burstable OC3 55.01 to 65 Mbps	
MIS Burstable OC3 65.01 to 75 Mbps	
MIS Burstable OC3 75.01 to 85 Mbps	

Feature Description	Identifier
MIS Burstable OC3 85.01 to 100 Mbps	
MIS Burstable OC3 100.01 to 125 Mbps	
MIS Burstable OC3 125.01 to 155 Mbps	

BURSTABLE OC3 - PRIVATE LINE - with Managed Router

Feature Description	Identifier
MIS Burstable OC3 w/Mgd Router Up to 35 Mbps	7306
MIS Burstable OC3 w/Mgd Router 35.01 to 45 Mbps	
MIS Burstable OC3 w/Mgd Router 45.01 to 55 Mbps	
MIS Burstable OC3 w/Mgd Router 55.01 to 65 Mbps	
MIS Burstable OC3 w/Mgd Router 65.01 to 75 Mbps	
MIS Burstable OC3 w/Mgd Router 75.01 to 85 Mbps	
MIS Burstable OC3 w/Mgd Router 85.01 to 100 Mbps	
MIS Burstable OC3 w/Mgd Router 100.01 to 125 Mbps	
MIS Burstable OC3 w/Mgd Router 125.01 to 155 Mbps	

BURSTABLE OC-12- PRIVATE LINE

Feature Description	Identifier
MIS Burstable OC12 Up to 75 Mbps	7307
MIS Burstable OC12 75.01 to 150 Mbps	
MIS Burstable OC12 150.01 to 225 Mbps	
MIS Burstable OC12 225.01 to 300 Mbps	
MIS Burstable OC12 300.01 to 375 Mbps	
MIS Burstable OC12 375.01 to 450 Mbps	

Feature Description	Identifier
MIS Burstable OC12 450.01 to 525 Mbps	
MIS Burstable OC12 525.01 to 622 Mbps	

BURSTABLE OC-12- PRIVATE LINE - with Managed Router

Feature Description	Identifier
MIS Burstable OC12 w/Mgd Router Up to 75 Mbps	7308
MIS Burstable OC12 w/Mgd Router 75.01 to 150 Mbps	
MIS Burstable OC12 w/Mgd Router 150.01 to 225 Mbps	
MIS Burstable OC12 w/Mgd Router 225.01 to 300 Mbps	
MIS Burstable OC12 w/Mgd Router 300.01 to 375 Mbps	
MIS Burstable OC12 w/Mgd Router 375.01 to 450 Mbps	
MIS Burstable OC12 w/Mgd Router 450.01 to 525 Mbps	
MIS Burstable OC12 w/Mgd Router 525.01 to 622 Mbps	

BURSTABLE OC-48 - PRIVATE LINE

Feature Description	Identifier
MIS Burstable OC48 Up to 1250 Mbps	7309
MIS Burstable OC48 1251 to 1350 Mbps	
MIS Burstable OC48 1351 to 1450 Mbps	

Feature Description	Identifier
MIS Burstable OC48 1451 to 1550 Mbps	
MIS Burstable OC48 1551 to 1650 Mbps	
MIS Burstable OC48 1651 to 1750 Mbps	
MIS Burstable OC48 1751 to 1850 Mbps	
MIS Burstable OC48 1851 to 1950 Mbps*	
MIS Burstable OC48 1951 to 2050 Mbps*	
MIS Burstable OC48 2051 to 2150 Mbps*	
MIS Burstable OC48 2151 to 2250 Mbps*	
MIS Burstable OC48 2251 to 2350 Mbps*	
MIS Burstable OC48 2351 to 2450 Mbps*	

BURSTABLE OC-48 - PRIVATE LINE - with Managed Router

Feature Description	Identifier
MIS w/Mgd Router Burstable OC48 Up to 1250 Mbps	
MIS w/Mgd Router Burstable OC48 1251 to 1350 Mbps	
MIS w/Mgd Router Burstable OC48 1351 to 1450 Mbps	
MIS w/Mgd Router Burstable OC48 1451 to 1550 Mbps	7310
MIS w/Mgd Router Burstable OC48 1551 to 1650 Mbps	
MIS w/Mgd Router Burstable OC48 1651 to 1750 Mbps	
MIS w/Mgd Router Burstable OC48 1751 to 1850 Mbps	

Feature Description	Identifier
MIS w/Mgd Router Burstable OC48 1851 to 1950 Mbps*	
MIS w/Mgd Router Burstable OC48 1951 to 2050 Mbps*	
MIS w/Mgd Router Burstable OC48 2051 to 2150 Mbps*	
MIS w/Mgd Router Burstable OC48 2151 to 2250 Mbps*	
MIS w/Mgd Router Burstable OC48 2251 to 2350 Mbps*	
MIS w/Mgd Router Burstable OC48 2351 to 2450 Mbps*	

Optional Features – Class of Service

Description of Service

The Class of Service (CoS) feature enables Customer to prioritize traffic among four classes: real-time, high-grade data, medium-grade data, and low-grade data. Each CoS has a specific amount of bandwidth allocation so that all classes can transmit data during congestion. However, if any class does not use its entire bandwidth allocation, packets of other classes can share the unused bandwidth. Customer may select from a number of "profiles" that have predetermined bandwidth allocations for each CoS.

CPE Marking and Differentiation

The Customer Equipment (CE) has two critical functions in the performance architecture: identification and marking of application traffic flows, and differential queuing into the WAN network. The marking of packets is done by setting specific Diff-Serv Codepoint (DSCP) values within the TOS byte of the IP header. Each marking indicates the type of treatment that a packet should receive from the network. The set of flows that share a common marking, and resulting treatment are referred to as a 'class'. MIS supports 4 user markings (or classes):

Class	Marking	Behavior
COS1	EF CS5	Priority
COS2	AF31 CS3	Bursty Data
COS3	AF21 CS2	Bursty Data

COS4	Default "0"	Best Effort

Allocation Profiles

For each IP service connection, customers order a pair of 'allocation profiles', one to control ingress policing and one to control egress queuing. The profile specifies the amount of bandwidth reserved for each CoS class. When ordering CoS, the allocation profile can be specified as 'simple' or 'complex'. The simple allocation profiles provide a set of the most common allocation profiles. Use of these profiles is suitable for the vast majority of enterprise needs and is highly recommended. The table below shows traffic class allocation options using simple profiles. Priority CoS1 traffic can be allocated from 10-80% of the bandwidth. The remaining classes can use bandwidth not being used by CoS1 in the percentages shown in the table.

CoS1	CoS2	CoS3	*CoS4*
10-80%	80%	10%	*10%*
10-80%	40%	30%	*30%*
10-80%	*60%*	*30%*	*10%*

On ingress, CoS1 traffic exceeding the allocation is dropped, for the remaining data queues traffic exceeding the allocation is considered 'out of contract', and is marked accordingly (i.e. mapped to an e-LSP which has a higher drop probability during core congestion) for transport across the network core. The ingress allocation is defined as a percentage. For most services, the percentage is based on the speed of the access port.

On egress, the allocations control the relative servicing of the classes out of the egress port11 toward the customer site. This allocation is only in effect when the total data arrival rate is greater than the port capacity (i.e. the egress port is congested). Each allocation profile defines the percentage of available bandwidth for each CoS class. For any class that is not consuming its full allocation, the excess bandwidth for the class becomes available for the remaining queues in a ratio proportional to their allocation. Note that the CoS1 class is an exception. Traffic is not allowed to exceed its allocation, even if bandwidth is available on the port. CoS1 traffic exceeding the allocation is discarded. Unused COS1 bandwidth is still available for consumption by the remaining data classes.

Class of Service (CoS) Option

Feature Description	Identifier
Class of Service 1.5 Mbps Flat Rate	FRCOST1
Class of Service MLPPP NxT1 (3 to 12 Mbps)	FCOSML
Class of Service 10 Mbps Flat Rate	FRCOS10

Feature Description	Identifier
Class of Service 15 Mbps Flat Rate	FRCOS15
Class of Service 20 Mbps Flat Rate	FRCOS20
Class of Service 25 Mbps Flat Rate	FRCOS25
Class of Service 30 Mbps Flat Rate	FRCOS30
Class of Service 35 Mbps Flat Rate	FRCOS35
Class of Service 40 Mbps Flat Rate	FRCOS40
Class of Service 45 Mbps Flat Rate	FRCOS45
Class of Service Burstable T1	BCOST1
Class of Service Burstable T3	BCOST3
Class of Service Hi Cap Flex .05-1.5Mbps* *Only Available with Ethernet Access	FCOS05
Class of Service Hi Cap Flex 2 Mbps	FCOS2
Class of Service Hi Cap Flex 3 Mbps	FCOS3
Class of Service Hi Cap Flex 4 Mbps	FCOS4
Class of Service Hi Cap Flex 5 Mbps	FCOS5
Class of Service Hi Cap Flex 6 Mbps	FCOS6
Class of Service Hi Cap Flex 7 Mbps	FCOS7
Class of Service Hi Cap Flex 8 Mbps	FCOS8
Class of Service Hi Cap Flex 9 Mbps	FCOS9
Class of Service Hi Cap Flex 10 Mbps	FCOS10
Class of Service Hi Cap Flex 15 Mbps	FCOS15
Class of Service Hi Cap Flex 20 Mbps	FCOS20
Class of Service Hi Cap Flex 25 Mbps	FCOS25
Class of Service Hi Cap Flex 30 Mbps	FCOS30
Class of Service Hi Cap Flex 35 Mbps	FCOS35

Feature Description	Identifier
Class of Service Hi Cap Flex 40 Mbps	FCOS40
Class of Service Hi Cap Flex 45 Mbps	FCOS45
Class of Service Hi Cap Flex OC3	FCOS155
Class of Service Hi Cap Flex 45.1 – 155 Mbps	FCOS250
Class of Service Hi Cap Flex 200 – 250 Mbps	FCOS350
Class of Service Hi Cap Flex 300 – 350 Mbps	FCOS600
Class of Service Hi Cap Flex 400 – 600 Mbps	FCOS622
Class of Service Hi Cap Flex 622 Mbps	FCOS1G
Class of Service Hi Cap Flex 700 – 1000 Mbps	FCOST1
Class of Service Hi Cap Flex 1500 Mbps	FCOS15G
Class of Service Hi Cap Flex 2000 Mbps	FCOS2G
Class of Service Hi Cap Flex 2500 Mbps	FCOS25G
Class of Service Hi Cap Flex 3000 Mbps	FCOS3G
Class of Service Hi Cap Flex 3500 Mbps	FCOS35G
Class of Service Hi Cap Flex 4000 Mbps	FCOS4G
Class of Service Hi Cap Flex 4500 Mbps	FCOS45G
Class of Service Hi Cap Flex 5000 Mbps	FCOS5G
Class of Service Hi Cap Flex 5500 Mbps	FCOS55G
Class of Service Hi Cap Flex 6000 Mbps	FCOS6G
Class of Service Hi Cap Flex 6500 Mbps	FCOS65G
Class of Service Hi Cap Flex 7000 Mbps	FCOS7G
Class of Service Hi Cap Flex 7500 Mbps	FCOS75G
Class of Service Hi Cap Flex 8000 Mbps	FCOS8G
Class of Service Hi Cap Flex 8500 Mbps	FCOS85G

Feature Description	Identifier
Class of Service Hi Cap Flex 9000 Mbps	FCOS9G
Class of Service Hi Cap Flex 9500 Mbps	FCOS95G
Class of Service Hi Cap Flex 10000 Mbps	FCOS10G

Optional Features – AT&T Secure E-Mail Gateway (SEG)

Description of Service

AT&T Secure E-Mail Gateway (SEG) is a network-based Security as a Service (SecaaS) offering. SEG protects customers from internal and external email threats that can include: commercial spam, malicious attachments, direct email server connections from spammers and botnet-controlled endpoints, and email embedded URL-based attacks. SEG provides features and tools that enable customers to comply with data privacy and retention regulations, meet legal discovery requirements, and implement data loss prevention strategies. SEG customers retain responsibility and control over much of the configuration and settings for the service.

SEG is offered with two different service levels – "Advanced" or "Premium".

SEG Advanced

The Secure E-Mail Gateway (SEG) Advanced service helps protect customer networks from inbound messages containing spam, viruses, and malware.

The Service provides features that enable customer to manage and enforce its security policy on outbound email content.

The Service provides disaster recovery protection against lost email data in the event of a customer email server outage and provides end-user continuity functionality if the customer email server becomes unavailable.

SEG is administered by the customer through a self-service web console and provides a suite of reports.

SEG requires that the Customer own and manage their own Simple Mail Transfer Protocol (SMTP) email server or servers. The customer must also own and manage their own internet domain(s) in order to direct email to the Service for filtering.

SEG Premium

The SEG Premium Level of Service includes all features of the Secure E-Mail Gateway Advanced service plus additional Premium features.

SEG Premium provides enhanced capabilities that enable the Customer to implement more robust outbound email security policies to support their email confidentiality, privacy, and data loss prevention requirements.

Messages sent by the Customer can be encrypted automatically through policy or through end-user self initiated encryption. Encrypted messages are delivered for pick-up by an authenticated recipient and can be retrieved up to 30 days from the day they have been sent after which they are destroyed.

Optional Feature - Message Archiving

The Message Archiving option of the Secure E-Mail Gateway Service provides capabilities that can assist the Customer in complying with company, industry, and government requirements for email retention. Message Archiving is designed to automatically archive all inbound, outbound and internal email message and associated meta data to a secure centralized location and provides search and export functionality. Message Archiving is administered through a customer managed web console and provides a suite of reports. The customer must have a base service (SEG Advanced or SEG Premium) to order the archiving service option.

Customers determine how long their e-mails need to be retained to meet business, compliance or legal requirements. The Service will support from 1 year to a maximum of 7 year retention period.

Features Table & Descriptions

The following summarizes the Features included under the two SEG service levels, as well as detailed descriptions of the features:

Feature	SEG Advanced	SEG Premium
Customer Managed Administration	Included	Included
Anti-Virus Protection	Included	Included
Spam Filtering	Included	Included
Policy Enforcement	Included	Enhanced
Quarantine	Included	Included
Disaster Recovery	Included	Included
Transport Layer Security	Included	Included
Administrator Reports	Included	Included
Policy based Encryption		Included
End-User Initiated Encryption		Included
Sender Notification		Included
Web-based Delivery		Included

Feature	SEG Advanced	SEG Premium
Direct Delivery		Included
Mobile Device Support		Included
Standards Support		Included
Message Archiving	Option	Option

Standard Features – SEG Advanced

Customer Managed Administration

The primary interface to the SEG Advanced service is the Administration Center web console. This console is available 24 x 7 and allows Customer Administrators to define and manage settings and configurations for their domains, including spam treatment options, virus scanning selections, content filter settings, policy rules and user permissions.

Anti-Virus Protection

Anti-Virus Protection provides an extensive and redundant anti-virus filtering process that is designed to detect, clean, and record virus infected e-mail messages before they enter the Customer's network. Virus Protection can be configured to scan all inbound and outbound messages for viruses as recognized by industry standard virus scanning technologies.

Spam Filtering

Spam Filtering detects Spam e-mail messages before they enter the Customer's network. Captured spam is routed to the spam quarantine and can be accessed by administrators or end users at any time through a web-based interface. The Customer administrator may configure spam quarantine notification options for messages that have that been quarantined.

Policy Enforcement

Policy enforcement supports the ability to apply the Customer's corporate messaging policies on unwanted and malicious content to e-mail messages entering and leaving the Customer's e-mail system. Policy enforcement features are definable by domain or user level. Content categories that can be filtered for policy include: keyword groups, HTML, spam beacons or web bugs, hyperlinks, attachments, deny and allow lists. The Customer can define text, referred to as an "outbound disclaimer" that will be appended to the email content. The Customer administrator may configure policy enforcement notification options for emails have been identified by policy rules.

Quarantine

The Service provides multiple quarantine areas with different security access requirements to store and support review of suspect email outside of your email network. Emails that violate configured policies and that have the quarantine action applied are sorted into multiple quarantines.

- Spam Quarantined Messages – Accessible to all users, with users with role of User or Reports Manager allowed to access only their own personal spam quarantine
- Virus Quarantined Messages – Accessible to only Administrators and Quarantine Managers
- Attachment Quarantined Messages – Accessible to only Administrators and Quarantine Managers

- Content Keyword Quarantined Messages – Accessible to only Administrators and Quarantine Managers

Disaster Recovery

Disaster Recovery provides added protection against lost emails in the case the Customer's inbound email server may be unavailable to receive email.
Disaster recovery provides:

- Automatic email fails over and rolling storage for up to sixty (60) days.
- Automatic monitoring of Customer's e-mail server to establish return of service with attempt to deliver the e-mail every 20 minutes.
- Automatic forwarding of stored e-mail once Customer's e-mail service is restored
- User access to read and send messages through a web-based interface while messages are in fail-over storage status. Messages can remain in fail-over storage for up to 60 days.

Transport Layer Security

The SEG Advanced Service supports both forced and opportunistic Transport Layer Security (TLS) connections between the Customer's email server and the SEG network. TLS is designed to provide basic network level encryption through an encrypted tunnel for message transfer.

Administrator Reports

Included in the SEG Administration Center console is access to a suite of reports providing a view into the statistics and use of the Service. All mail messages processed by the Service are recorded in these statistical reports, measured on an hourly, daily, weekly, and monthly basis. The reports furnished to Customer depend of the Service components and features in use by the Customer.

Standard Features - SEG Premium

The SEG Premium Level of Service includes all features of the Secure E-Mail Gateway Advanced service and also includes the additional Premium features described below.

SEG Premium provides enhanced capabilities that enable the Customer to implement more robust outbound email security policies to support their email confidentiality, privacy, and data loss prevention requirements.

Messages sent by the Customer's end-users can be encrypted automatically through policy or through end-user self initiated encryption.

Encrypted messages and are delivered for pick-up by an authenticated recipient and can be retrieved up to 30 days from the day they have been sent after which they are destroyed.

The SEG Premium Service requires Customer acknowledgement that it is the Customer's responsibility to store or process, in an unencrypted format, any and all messages or attachments which it desires to have unencrypted access after 30 days and/or post-expiration or termination of the Services.

Customer Managed Administration

SEG Premium policies and features are configured by the Customer administrator through the SEG Premium control console.

Enhanced Policy Enforcement

A comprehensive set of policy rules to identify email messages can be defined by the Customer including the following examples:

- Keyword Rules: Rules based on keywords within the subject line and body of the email.
- Regular Expression Rules: Rules based on content such as social security numbers, drivers' license numbers, credit card numbers, accounting numbers, credit card numbers within the subject line and body of the email message.
- Domain & Sender Level Rules: Rules based on sender domains, recipient domains and sender lists.
- Regulation Dictionaries: Rules based on HIPAA, SOX and PCI oriented content.
- 3rd Party Keyword Library Support: Ability to import 3rd party keyboard libraries such as common drug codes, common drug names, and common profanity keywords.
- Keywords such as "Confidential", "Secure";
- Sender & Recipient Groups such as the Legal Department in a company, Executives, HR Business Partners.

A comprehensive set of actions to manage identified email messages can be assigned based on policy rules defined by the Customer:

- Log and Continue: Email message is logged as identified by the policy and SEG continues processing the email against the remaining policies.
- Log and Send: Email message is logged as identified by the policy name and SEG sends the email directly out. No additional policies will be executed.
- Return to Sender: The email will be discarded and a notification will be sent to sender of the email with information about what policy triggered the bounce back message. No additional policies are executed.
- Discard: The email is deleted. No additional policies are executed.
- Encrypt: The email is sent out encrypted and logged against this policy. No additional polices are executed

Policy based Encryption

The SEG Premium Service provides a policy-based encryption and decryption process. The process is designed to analyze messages leaving the Customer's network using the policy engine, match an outbound encrypt rule and enable the encryption. Outbound content policies are centrally created using the policy manager. One or more conditions (e.g. contains credit card number, message body contains keywords, email address of sender or recipient matches a domain name, message attachment is of a certain type, etc.) are defined by the Customer, and the policy is associated with the 'encrypt message' action. If a message matches one of the policies it is encrypted within the AT&T SEG network and sent to the recipient.

End-User Initiated Encryption

SEG Premium enables End Users to invoke encrypted email messages from the gateway by simply pressing an "Encrypt" button installed on the mail client. End-User Initiated Encryption is supported through an email client plug-in that provides an "encrypt button". The plug-in is available for versions of Microsoft Outlook and Outlook Web Access.

Sender Notification
SEG Premium provides notification to senders when messages are encrypted at the AT&T SEG network. Senders also receive notifications when message recipients pickup and decrypt messages. Notification messages are customizable.

Web-based Delivery
The Encrypted Message portal is a web based portal for message pick-up. After an encrypted message is sent, the recipient is prompted through an email notification to collect their message at the Encrypted Message Portal. First time users of the portal are required to create a password protected profile. Once a recipient has created a profile, they collect subsequent messages by clicking the link in the email notification and logging in to Encrypted Message Portal with their email address and password. The Encrypted Message portal and email notifications can be customer branded as an optional service.

Direct Delivery
Recipients of encrypted email messages have the option of downloading the Encrypted Reader application, which will enable them to receive, and open encrypted messages directly in their existing desktop or webmail email client. For users who have opted to use the reader, encrypted messages arrive in their inbox as an attachment to a regular message. When opening the attachment, the user is prompted for their password before the message is displayed.

Mobile Device Support
SEG Premium supports mobile devices that can render HTML on a mobile browser. As an example, SEG supports Blackberry devices, Apple iPhone, Windows mobile devices, and more. All encrypted messages being decrypted on the web-based message portal can be read on any traditional mobile browser.

The SEG Premium service has the ability to recognize which mobile browser is being used by the recipient to read and decrypt messages and adjust accordingly.

In addition, all notification messages delivered to the sender and recipient of encrypted messages can be delivered via SMS (Text messaging) to instant mobile verification. For example, when a recipient has received encrypted messages, SEG Premium can deliver a short text messages to the recipient's mobile phone with a link for the message pickup portal.

Standards Support
The SEG Premium Service leverages industry recognized standards such as PKI, X.509, S/MIME, SSL, and TLS for sending electronically signed and encrypted email messages. The solution is interoperable with other PKI based systems.

Administrator Reports
Included in the SEG Administration Center console is access to a suite of reports providing a view into the statistics and use of the Service. All mail messages processed by the Service are recorded in these statistical reports, measured on an hourly, daily, weekly, and monthly basis. The reports furnished to Customer depend of the Service components and features in use by the Customer.

6.1.7 Service Identifier: Managed Internet Service (MIS) Attachment 4

Three service types are available:

- AT&T MIS with AT&T Managed Router and
- AT&T MIS with Customer Managed Router
- AT&T Dedicated Internet Access (DIA) with Customer Managed Router – Grandfathered, for existing customers only. Use MIS for new orders.

Under each AT&T MIS service type, 3 types of port billing services are available:

- Flat Rate Port Only,
- Hi Cap Flex Port Only, and
- Burstable Port Only.

For all port types, an access circuit is ordered and billed separate from the port.

All new Internet access services will be provisioned with AT&T MIS.

AT&T Dedicated Internet Access (DIA) with Customer Managed Router Service is being grandfathered. Existing AT&T DIA Ports may be upgraded subject to bandwidth availability. Ethernet Access is not available for DIA upgrade.

The Customer Managed Flat Rate Port pricing for AT&T MIS below applies to DIA ports, as available.

Note: Charges apply for On-Site (Managed Router Service), no charge for Tele-Install.

MIS Installation Table

Port Speed	Tele-Install	On-Site
56 Kbps - 1.5 Kbps	N/C	$999.00*
NxT1 (3.0 Mbps - 6.0 Mbps)	N/C	$999.00*
Tiered/Full T3	N/C	$1000.00*
OC-X	N/C	$10000.00*
Ethernet Access	N/C	$0.00*

* - ICB pricing is available.

FLAT RATE INTERNET PORT

The Customer Managed Flat Rate Port pricing for AT&T MIS below applies to DIA ports, as available.

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
AT&T MIS @ 56Kbps	5323	N/C	$ 72.20	Port
AT&T MIS @ 128Kbps	5324	N/C	$ 85.50	Port
AT&T MIS @ 256Kbps	5325	N/C	$ 106.40	Port
AT&T MIS @ 384Kbps	5326	N/C	$ 127.30	Port
AT&T MIS @ 512Kbps	5327	N/C	$ 148.20	Port
AT&T MIS @ 768Kbps	5328	N/C	$ 155.80	Port
AT&T MIS @ 1024 Kbps	5700	N/C	$ 161.50	Port
AT&T MIS @ 1.544 Mbps (T1)	5701	N/C	$ 178.60	Port
AT&T MIS @ 2Mbps	5329	N/C	$ 147.50	Port
AT&T MIS @ 3 Mbps	5702	N/C	$ 212.50	Port
AT&T MIS @ 3 Mbps NxT1	5702	N/C	$ 212.50	Port
AT&T MIS @ 4Mbps	5330	N/C	$ 268.75	Port
AT&T MIS @ 4.5Mbps	5331	N/C	$ 275.00	Port
AT&T MIS @ 5Mbps	5332	N/C	$ 281.25	Port
AT&T MIS @ 6Mbps	5333	N/C	$ 312.50	Port
AT&T MIS @ 6Mbps NxT1	5333	N/C	$ 312.50	Port
AT&T MIS @ 7Mbps	5334	N/C	$ 353.75	Port
AT&T MIS @ 7.5 Mbps	5382	N/C	$ 370.00	Port
AT&T MIS @ 8Mbps	5335	N/C	$ 391.25	Port
AT&T MIS @ 9Mbps	5336	N/C	$ 428.75	Port
AT&T MIS @ 9Mbps NxT1	5336	N/C	$ 428.75	Port
AT&T MIS @ 10 Mbps	5703	N/C	$ 460.00	Port
AT&T MIS @ 10.5 Mbps	5383	N/C	$ 478.75	Port
AT&T MIS @ 12 Mbps	5384	N/C	$ 547.50	Port
AT&T MIS @ 15 Mbps	5704	N/C	$ 616.25	Port
AT&T MIS @ 20 Mbps	5705	N/C	$ 772.50	Port
AT&T MIS @ 25 Mbps	5706	N/C	$ 931.25	Port
AT&T MIS @ 30 Mbps	5707	N/C	$ 1,087.50	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
AT&T MIS @ 35 Mbps	5708	N/C	$ 1,247.50	Port
AT&T MIS @ 40 Mbps	5709	N/C	$ 1,403.75	Port
AT&T MIS @ 45 Mbps (T3)	5710	N/C	$ 1,562.50	Port
AT&T MIS @ 60Mbps (OC3)	5338	N/C	$ 1,956.25	Port
AT&T MIS @ 155 Mbps (OC3)	5712	N/C	$ 4,450.00	Port
AT&T MIS @ 622 Mbps (OC12)	6528	N/C	$12,675.00	Port
AT&T MIS @ 2.45 Gbps (OC48)	6837	N/C	$49,000.00	Port

FLAT RATE INTERNET PORT WITH ROUTER

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
AT&T MIS w/Mgd Router @ 56Kbps	5348	See Above	$ 98.80	Port
AT&T MIS w/Mgd Router @ 128Kbps	5349	See Above	$ 112.10	Port
AT&T MIS w/Mgd Router @ 256Kbps	5350	See Above	$ 133.00	Port
AT&T MIS w/Mgd Router @ 384Kbps	5351	See Above	$ 153.90	Port
AT&T MIS w/Mgd Router @ 512Kbps	5352	See Above	$ 174.80	Port
AT&T MIS w/Mgd Router @ 768Kbps	5353	See Above	$ 182.40	Port
AT&T MIS w/Mgd Router @ 1024 Kbps	5713	See Above	$ 188.10	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
AT&T MIS w/Mgd Router @ 1.544 Mbps (T1)	5714	See Above	$ 205.20	Port
AT&T MIS w/Mgd Router @ 2Mbps	5354	See Above	$ 221.25	Port
AT&T MIS w/Mgd Router @ 3Mbps	5355	See Above	$ 286.25	Port
AT&T MIS w/Mgd Router @ 3Mbps NxT1	5355	See Above	$ 286.25	Port
AT&T MIS w/Mgd Router @ 4Mbps	5356	See Above	$ 342.50	Port
AT&T MIS w/Mgd Router @ 4.5Mbps	5357	See Above	$ 348.75	Port
AT&T MIS w/Mgd Router @ 5Mbps	5358	See Above	$ 355.00	Port
AT&T MIS w/Mgd Router @ 6Mbps	5359	See Above	$ 386.25	Port
AT&T MIS w/Mgd Router @ 6Mbps NxT1	5359	See Above	$ 386.25	Port
AT&T MIS w/Mgd Router @ 7Mbps	5360	See Above	$ 573.75	Port
AT&T MIS w/Mgd Router @ 7.5 Mbps	5385	See Above	$ 590.00	Port
AT&T MIS w/Mgd Router @ 8Mbps	5361	See Above	$ 611.25	Port
AT&T MIS w/Mgd Router @ 9Mbps	5362	See Above	$ 648.75	Port
AT&T MIS w/Mgd Router @ 9Mbps NxT1	5362	See Above	$ 648.75	Port
AT&T MIS w/Mgd Router @ 10Mbps	5363	See Above	$ 680.00	Port
AT&T MIS w/Mgd Router @ 10.5 Mbps	5386	See Above	$ 698.75	Port
AT&T MIS w/Mgd Router @ 12 Mbps	5387	See Above	$ 767.50	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
AT&T MIS w/Mgd Router @ 15Mbps	5364	See Above	$ 836.25	Port
AT&T MIS w/Mgd Router @ 20Mbps	5365	See Above	$ 992.50	Port
AT&T MIS w/Mgd Router @ 25Mbps	5366	See Above	$ 1,151.25	Port
AT&T MIS w/Mgd Router @ 30Mbps	5367	See Above	$ 1,307.50	Port
AT&T MIS w/Mgd Router @ 35Mbps	5368	See Above	$ 1,467.50	Port
AT&T MIS w/Mgd Router @ 40Mbps	5369	See Above	$ 1,623.75	Port
AT&T MIS w/Mgd Router @ 45Mbps	5370	See Above	$ 1,782.50	Port
AT&T MIS w/Mgd Router @ 60Mbps	5374	See Above	$ 2,251.25	Port
AT&T MIS w/Mgd Router @ 155 Mbps (OC3)	5716	See Above	$ 4,745.00	Port
AT&T MIS w/Mgd Router @ 622 Mbps (OC12)	6529	See Above	$13,126.25	Port
AT&T MIS w/Mgd Router @ 2.45 Gbps (OC48)	6840	See Above	$49,763.75	Port

HI CAP FLEX T3 - PRIVATE LINE, ATM (ASYNCHRONOUS TRANSFER MODE)

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap T3 2 Mbps	7400	N/C	$ 236.00	Port	248.50	Per Mbps
MIS HiCap T3 3 Mbps	7401	N/C	$ 340.00	Port	238.00	Per Mbps
MIS HiCap T3 4 Mbps	7402	N/C	$ 430.00	Port	227.50	Per Mbps
MIS HiCap T3 5 Mbps	7403	N/C	$ 450.00	Port	189.00	Per Mbps
MIS HiCap T3 6 Mbps	7404	N/C	$ 500.00	Port	175.00	Per Mbps
MIS HiCap T3 7 Mbps	7405	N/C	$ 566.00	Port	171.50	Per Mbps
MIS HiCap T3 8 Mbps	7406	N/C	$ 626.00	Port	164.50	Per Mbps
MIS HiCap T3 9 Mbps	7407	N/C	$ 686.00	Port	161.00	Per Mbps
MIS HiCap T3 10 Mbps	7408	N/C	$ 736.00	Port	157.50	Per Mbps
MIS HiCap T3 15 Mbps	7409	N/C	$ 986.00	Port	140.00	Per Mbps
MIS HiCap T3 20 Mbps	7410	N/C	$ 1,236.00	Port	133.00	Per Mbps
MIS HiCap T3 25 Mbps	7411	N/C	$ 1,490.00	Port	126.00	Per Mbps
MIS HiCap T3 30 Mbps	7412	N/C	$ 1,740.00	Port	122.50	Per Mbps
MIS HiCap T3 35 Mbps	7413	N/C	$ 1,996.00	Port	122.50	Per Mbps
MIS HiCap T3 40 Mbps	7414	N/C	$ 2,246.00	Port	119.00	Per Mbps
MIS HiCap T3 45 Mbps	7415	N/C	$ 2,500.00	Port	N/A	Per Mbps

HI CAP FLEX T3 - PRIVATE LINE, ATM (ASYNCHRONOUS TRANSFER MODE) with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap T3 w/Mgd Rtr 2 Mbps	7420	See Above	$ 354.00	Port	248.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 3 Mbps	7421	See Above	$ 458.00	Port	238.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 4 Mbps	7422	See Above	$ 548.00	Port	227.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 5 Mbps	7423	See Above	$ 568.00	Port	189.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 6 Mbps	7424	See Above	$ 618.00	Port	175.00	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap T3 w/Mgd Rtr 7 Mbps	7425	See Above	$ 918.00	Port	171.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 8 Mbps	7426	See Above	$ 978.00	Port	164.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 9 Mbps	7427	See Above	$ 1,038.00	Port	161.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 10 Mbps	7428	See Above	$ 1,088.00	Port	157.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 15 Mbps	7429	See Above	$ 1,338.00	Port	140.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 20 Mbps	7430	See Above	$ 1,588.00	Port	133.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 25 Mbps	7431	See Above	$ 1,842.00	Port	126.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 30 Mbps	7432	See Above	$ 2,092.00	Port	122.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 35 Mbps	7433	See Above	$ 2,348.00	Port	122.50	Per Mbps
MIS HiCap T3 w/Mgd Rtr 40 Mbps	7434	See Above	$ 2,598.00	Port	119.00	Per Mbps
MIS HiCap T3 w/Mgd Rtr 45 Mbps	7435	See Above	$ 2,852.00	Port	N/A	Per Mbps

HI CAP FLEX OC3 - PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC3 35 Mbps	8050	N/C	$ 1,996.00	Port	122.50	Per Mbps
MIS HiCap OC3 40 Mbps	8051	N/C	$ 2,246.00	Port	119.00	Per Mbps
MIS HiCap OC3 45 Mbps	8052	N/C	$ 2,500.00	Port	119.00	Per Mbps
MIS HiCap OC3 60 Mbps	8053	N/C	$ 3,130.00	Port	112.00	Per Mbps
MIS HiCap OC3 70 Mbps	8054	N/C	$ 3,550.00	Port	108.50	Per Mbps
MIS HiCap OC3 80 Mbps	8055	N/C	$ 3,970.00	Port	105.00	Per Mbps
MIS HiCap OC3 90 Mbps	8056	N/C	$ 4,390.00	Port	105.00	Per Mbps
MIS HiCap OC3 100 Mbps	8057	N/C	$ 4,810.00	Port	101.50	Per Mbps
MIS HiCap OC3 120 Mbps	8058	N/C	$ 5,650.00	Port	101.50	Per Mbps
MIS HiCap OC3 144 Mbps	8059	N/C	$ 6,490.00	Port	98.00	Per Mbps
MIS HiCap OC3 155 Mbps	8060	N/C	$ 7,120.00	Port	N/A	Per Mbps

HI CAP FLEX OC3 - PRIVATE LINE with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC3 w/Mgd Rtr 35 Mbps	8070	See Above	$ 2,348.00	Port	122.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 40 Mbps	8071	See Above	$ 2,598.00	Port	119.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 45 Mbps	8072	See Above	$ 2,852.00	Port	119.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 60 Mbps	8073	See Above	$ 3,602.00	Port	112.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 70 Mbps	8074	See Above	$ 4,022.00	Port	108.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 80 Mbps	8075	See Above	$ 4,442.00	Port	105.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 90 Mbps	8076	See Above	$ 4,862.00	Port	105.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 100 Mbps	8077	See Above	$ 5,282.00	Port	101.50	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC3 w/Mgd Rtr 120 Mbps	8078	See Above	$ 6,122.00	Port	101.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 144 Mbps	8079	See Above	$ 6,962.00	Port	98.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 155 Mbps	8080	See Above	$ 7,592.00	Port	N/A	Per Mbps

HI CAP FLEX OC12 - PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC12 70 Mbps	7500	N/C	$ 3,550.00	Port	$ 108.50	Per Mbps
MIS HiCap OC12 80 Mbps	7501	N/C	$ 3,970.00	Port	$ 105.00	Per Mbps
MIS HiCap OC12 90 Mbps	7502	N/C	$ 4,390.00	Port	$ 105.00	Per Mbps
MIS HiCap OC12 100 Mbps	7503	N/C	$ 4,810.00	Port	$ 101.50	Per Mbps
MIS HiCap OC12 120 Mbps	7504	N/C	$ 5,650.00	Port	$ 101.50	Per Mbps
MIS HiCap OC12 144 Mbps	7505	N/C	$ 6,490.00	Port	$ 98.00	Per Mbps
MIS HiCap OC12 155 Mbps	7506	N/C	$ 7,120.00	Port	$ 98.00	Per Mbps
MIS HiCap OC12 200 Mbps	7507	N/C	$ 8,390.00	Port	$ 91.00	Per Mbps
MIS HiCap OC12 250 Mbps	7508	N/C	$ 9,806.00	Port	$ 84.00	Per Mbps
MIS HiCap OC12 300 Mbps	7509	N/C	$11,220.00	Port	$ 80.50	Per Mbps
MIS HiCap OC12 350 Mbps	7510	N/C	$12,640.00	Port	$ 77.00	Per Mbps
MIS HiCap OC12 400 Mbps	7511	N/C	$14,056.00	Port	$ 77.00	Per Mbps
MIS HiCap OC12 450 Mbps	7512	N/C	$15,470.00	Port	$ 73.50	Per Mbps
MIS HiCap OC12 500 Mbps	7513	N/C	$16,886.00	Port	$ 73.50	Per Mbps
MIS HiCap OC12 550 Mbps	7514	N/C	$18,300.00	Port	$ 70.00	Per Mbps
MIS HiCap OC12 600 Mbps	7515	N/C	$19,716.00	Port	$ 70.00	Per Mbps
MIS HiCap OC12 622 Mbps	7516	N/C	$20,280.00	Port	N/A	Per Mbps

HI CAP FLEX OC12 - PRIVATE LINE - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC3 w/Mgd Rtr 70 Mbps	7525	See Above	$ 4,022.00	Port	$ 108.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 80 Mbps	7526	See Above	$ 4,442.00	Port	$ 105.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 90 Mbps	7527	See Above	$ 4,862.00	Port	$ 105.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 100 Mbps	7528	See Above	$ 5,282.00	Port	$ 101.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 120 Mbps	7529	See Above	$ 6,122.00	Port	$ 101.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 144 Mbps	7530	See Above	$ 6,962.00	Port	$ 98.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 155 Mbps	7531	See Above	$ 7,592.00	Port	$ 98.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 200 Mbps	7532	See Above	$ 9,112.00	Port	$ 91.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 250 Mbps	7533	See Above	$10,528.00	Port	$ 84.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 300 Mbps	7534	See Above	$11,942.00	Port	$ 80.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 350 Mbps	7535	See Above	$13,362.00	Port	$ 77.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 400 Mbps	7536	See Above	$14,778.00	Port	$ 77.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 450 Mbps	7537	See Above	$16,192.00	Port	$ 73.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 500 Mbps	7538	See Above	$17,608.00	Port	$ 73.50	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 550 Mbps	7539	See Above	$19,022.00	Port	$ 70.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 600 Mbps	7540	See Above	$20,438.00	Port	$ 70.00	Per Mbps
MIS HiCap OC3 w/Mgd Rtr 622 Mbps	7541	See Above	$21,002.00	Port	N/A	Per Mbps

HI CAP FLEX OC48 - PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC48 600 Mbps	7450	N/C	$19,716.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 622 Mbps	7451	N/C	$20,280.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 700 Mbps	7452	N/C	$22,546.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 800 Mbps	7453	N/C	$25,376.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 1250 Mbps	7454	N/C	$40,500.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 1550 Mbps	7455	N/C	$50,000.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 1850 Mbps	7456	N/C	$59,500.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 2150 Mbps[1]	7457	N/C	$69,000.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 2450 Mbps[1]	7458	N/C	$78,400.00	Port	N/A	N/A

[1]Due a technical limitation with the Cisco Gigabit Router cards, actual speed of the service is limited to 1.9 Gbps. Therefore, 1850 Mbps should be the highest "Minimum Bandwidth Commitment" offered to customers at this time.

HI CAP FLEX OC48 – PRIVATE LINE – With Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC48 600 Mbps	7470	See Above	$20,438.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 622 Mbps	7471	See Above	$21,002.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 700 Mbps	7472	See Above	$23,268.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 800 Mbps	7473	See Above	$26,098.00	Port	$ 70.00	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS HiCap OC48 1250 Mbps	7474	See Above	$41,722.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 1550 Mbps	7475	See Above	$51,222.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 1850 Mbps	7476	See Above	$60,722.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 2150 Mbps[1]	7477	See Above	$70,222.00	Port	$ 70.00	Per Mbps
MIS HiCap OC48 2450 Mbps[1]	7478	See Above	$79,622.00	Port	N/A	N/A

[1]Due a technical limitation with the Cisco Gigabit Router cards, actual speed of the service is limited to 1.9 Gbps. Therefore, 1850 Mbps should be the highest "Minimum Bandwidth Commitment" offered to customers at this time.

HI CAP FLEX ETHERNET PORT ONLY

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 2 Mbps	8301	$0.00	$165.20	Port	$99.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 3 Mbps	8302	$0.00	$238.00	Port	$95.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 4 Mbps	8303	$0.00	$301.00	Port	$91.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 5 Mbps	8304	$0.00	$315.00	Port	$75.60	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 6 Mbps	8305	$0.00	$350.00	Port	$70.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 7 Mbps	8306	$0.00	$396.20	Port	$68.60	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 8 Mbps	8307	$0.00	$438.20	Port	65.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 9 Mbps	8308	$0.00	$480.20	Port	$64.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 10 Mbps	8309	$0.00	$515.20	Port	$63.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 15 Mbps	8310	$0.00	$690.20	Port	$56.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 20 Mbps	8311	$0.00	$865.20	Port	$53.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 25 Mbps	8312	$0.00	$1,043.00	Port	$50.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 30 Mbps	8313	$0.00	$1,218.00	Port	$49.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 35 Mbps	8314	$0.00	$1,397.20	Port	$49.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 40 Mbps	8315	$0.00	$1,235.30	Port	$37.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 45 Mbps	8316	$0.00	$1,375.00	Port	$37.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 50 Mbps	8382	$0.00	$1,489.40	Port	$36.30	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 60 Mbps	8317	$0.00	$1,721.50	Port	$35.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 70 Mbps	8318	$0.00	$1,952.50	Port	$34.10	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 80 Mbps	8319	$0.00	$2,183.50	Port	$33.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 90 Mbps	8320	$0.00	$2,414.50	Port	$33.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 100 Mbps	8321	$0.00	$2,645.50	Port	$31.90	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 120 Mbps	8346	$0.00	$3,107.50	Port	$31.90	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 144 Mbps	8347	$0.00	$3,569.50	Port	$30.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 155 Mbps	8348	$0.00	$3,916.00	Port	$30.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 200 Mbps	8349	$0.00	$4,614.50	Port	$28.60	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 250 Mbps	8350	$0.00	$5,393.30	Port	$26.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 300 Mbps	8351	$0.00	$6,171.00	Port	$25.30	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 350 Mbps	8352	$0.00	$6,320.00	Port	$22.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 400 Mbps	8353	$0.00	$7,028.00	Port	$22.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 450 Mbps	8354	$0.00	$7,735.00	Port	$21.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 500 Mbps	8355	$0.00	$8,443.00	Port	$21.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 550 Mbps	8356	$0.00	$9,150.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 600 Mbps	8357	$0.00	$9,858.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 622 Mbps	8358	$0.00	$10,140.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 700 Mbps	8359	$0.00	$10,145.70	Port	$18.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 800 Mbps	8360	$0.00	$11,419.20	Port	$18.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 900 Mbps	8361	$0.00	$12,757.50	Port	$18.00	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 1000 Mbps	8362	$0.00	$14,085.00	Port	N/A	Per Mbps

HI CAP FLEX – 10 Gig ETHERNET PORT ONLY

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 1500 Mbps	8385	$0.00	$13,158.75	Port	$14.09	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 2000 Mbps	8386	$0.00	$12,880.00	Port	$8.77	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 2500 Mbps	8387	$0.00	$13,720.00	Port	$6.44	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 3000 Mbps	8388	$0.00	$14,400.00	Port	$5.62	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 3500 Mbps	8389	$0.00	$16,747.50	Port	$4.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 4000 Mbps	8390	$0.00	$19,080.00	Port	$4.79	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 4500 Mbps	8391	$0.00	$21,397.50	Port	$4.77	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 5000 Mbps	8392	$0.00	$23,400.00	Port	$4.76	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 5500 Mbps	8393	$0.00	$25,987.50	Port	$4.68	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 6000 Mbps	8394	$0.00	$28,260.00	Port	$4.73	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 6500 Mbps	8395	$0.00	$30,517.50	Port	$4.71	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet 7000 Mbps	8396	$0.00	$32,340.00	Port	$4.70	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 7500 Mbps	8397	$0.00	$34,987.50	Port	$4.62	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 8000 Mbps	8398	$0.00	$37,200.00	Port	$4.67	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 8500 Mbps	8399	$0.00	$39,397.50	Port	$4.65	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 9000 Mbps	8400	$0.00	$41,040.00	Port	$4.64	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 9500 Mbps	8401	$0.00	$43,177.50	Port	$4.56	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet 10000 Mbps	8402	$0.00	$45,300.00	Port	$4.55	Per Mbps

HI CAP FLEX ETHERNET PORT ONLY – with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
On-Site Install Charges apply - see MIS Install Table above.						
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 2 Mbps	8323	$0.00	$247.80	Port	$99.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 3 Mbps	8324	$0.00	$320.60	Port	$95.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 4 Mbps	8325	$0.00	$383.60	Port	$91.00	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 5 Mbps	8326	$0.00	$397.60	Port	$75.60	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 6 Mbps	8327	$0.00	$432.60	Port	$70.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 7 Mbps	8328	$0.00	$642.60	Port	$68.60	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 8 Mbps	8329	$0.00	$684.60	Port	$65.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 9 Mbps	8330	$0.00	$726.60	Port	$64.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 10 Mbps	8331	$0.00	$761.60	Port	$63.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 15 Mbps	8332	$0.00	$936.60	Port	$56.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 20 Mbps	8333	$0.00	$1,111.60	Port	$53.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 25 Mbps	8334	$0.00	$1,289.40	Port	$50.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 30 Mbps	8335	$0.00	$1,464.40	Port	$49.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 35 Mbps	8336	$0.00	$1,643.60	Port	$49.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 40 Mbps	8337	$0.00	$1,428.90	Port	$37.40	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 45 Mbps	8338	$0.00	$1,568.60	Port	$37.40	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 50 Mbps	8383	$0.00	$1,719.30	Port	$36.30	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 60 Mbps	8339	$0.00	$1,981.10	Port	$35.20	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 70 Mbps	8340	$0.00	$2,212.10	Port	$34.10	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 80 Mbps	8341	$0.00	$2,443.10	Port	$33.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 90 Mbps	8342	$0.00	$2,674.10	Port	$33.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 100 Mbps	8343	$0.00	$2,905.10	Port	$31.90	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 120 Mbps	8365	$0.00	$3,367.10	Port	$31.90	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 144 Mbps	8366	$0.00	$3,829.10	Port	$30.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 155 Mbps	8367	$0.00	$4,175.60	Port	$30.80	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 200 Mbps	8368	$0.00	$5,011.60	Port	$28.60	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 250 Mbps	8369	$0.00	$5,790.40	Port	$26.40	Per Mbps

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure	Incremental Usage Monthly Recurring Charge (MRC)	Unit of Measure
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 300 Mbps	8370	$0.00	$6,568.10	Port	$25.30	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 350 Mbps	8371	$0.00	$6,681.00	Port	$22.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 400 Mbps	8372	$0.00	$7,389.00	Port	$22.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 450 Mbps	8373	$0.00	$8,096.00	Port	$21.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 500 Mbps	8374	$0.00	$8,804.00	Port	$21.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 550 Mbps	8375	$0.00	$9,511.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 600 Mbps	8376	$0.00	$10,219.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 622 Mbps	8377	$0.00	$10,501.00	Port	$20.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 700 Mbps	8378	$0.00	$10,470.60	Port	$18.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 800 Mbps	8379	$0.00	$11,744.10	Port	$18.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 900 Mbps	8380	$0.00	$13,307.40	Port	$18.00	Per Mbps
MIS Minimum Bandwidth Commitment Ethernet w/Mgd Rtr 1000 Mbps	8381	$0.00	$14,634.90	Port	N/A	Per Mbps

ETHERNET ACCESS to LONG DISTANCE POP

Used with HI CAP FLEX ETHERNET PORT ONLY service.

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
100-Base-TX 2 Mbps Ethernet	LNET2	$0.00	$450.00	Per circuit
100-Base-TX 4 Mbps Ethernet	LNET4	$0.00	$500.00	Per circuit
100-Base-TX 5 Mbps Ethernet	LNET5	$0.00	$540.00	Per circuit
100-Base-TX 8 Mbps Ethernet	LNET8	$0.00	$590.00	Per circuit
100-Base-TX 10 Mbps Ethernet	LNET10	$0.00	$720.00	Per circuit
100-Base-TX 20 Mbps Ethernet	LNET20	$0.00	$860.00	Per circuit
100-Base-TX 50 Mbps Ethernet	LNET50	$0.00	$975.00	Per circuit
100-Base-TX 100 Mbps Ethernet	LNET100	$0.00	$1,125.00	Per circuit
1000-Base-SX/LX 150 Mbps Ethernet	LNET150	$0.00	$1,400.00	Per circuit
1000-Base-SX/LX 250 Mbps Ethernet	LNET250	$0.00	$1,725.00	Per circuit
1000-Base-SX/LX 500 Mbps Ethernet	LNET500	$0.00	$2,200.00	Per circuit
1000-Base-SX/LX 600 Mbps Ethernet	LNET600	$0.00	$2,544.90	Per circuit
1000-Base-SX/LX 1000 Mbps Ethernet	LNET1G	$0.00	$3,200.00	Per circuit
10G-Base-LSR 10000 Mbps Ethernet	LNET10G	$0.00	$4,700.00	Per circuit

BURSTABLE T1 - PRIVATE LINE, FRAME RELAY

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable T1 Up to 128 Kbps	7301	N/C	$ 148.50	Port
MIS Burstable T1 128.01 to 256 Kbps		N/C	$ 187.00	Port
MIS Burstable T1 256.01 to 384 Kbps		N/C	$ 222.75	Port
MIS Burstable T1 384.01 to 512 Kbps		N/C	$ 258.50	Port
MIS Burstable T1 512.01 to full T1		N/C	$ 310.75	Port

BURSTABLE T1 - PRIVATE LINE, FRAME RELAY - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable T1 w/Mgd Rtr Up to 128 Kbps	7302	See Above	$ 187.00	Port
MIS Burstable T1 w/Mgd Rtr 128.01 to 256 Kbps		See Above	$ 225.50	Port
MIS Burstable T1 w/Mgd Rtr 256.01 to 384 Kbps		See Above	$ 261.25	Port
MIS Burstable T1 w/Mgd Rtr 384.01 to 512 Kbps		See Above	$ 297.00	Port
MIS Burstable T1 w/Mgd Rtr 512.01 to full T1		See Above	$ 349.25	Port

BURSTABLE T3 - PRIVATE LINE, ATM

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable T3 Up to 6 Mbps	7303	N/C	$ 606.00	Port
MIS Burstable T3 6.01 to 7.5 Mbps		N/C	$ 716.00	Port
MIS Burstable T3 7.51 to 9.0 Mbps		N/C	$ 826.00	Port
MIS Burstable T3 9.01 to 10.5 Mbps		N/C	$ 916.00	Port
MIS Burstable T3 10.51 to 12.0 Mbps		N/C	$ 1,006.00	Port
MIS Burstable T3 12.01 to 13.5 Mbps		N/C	$ 1,096.00	Port
MIS Burstable T3 13.51 to 15.0 Mbps		N/C	$ 1,186.00	Port
MIS Burstable T3 15.01 to 16.5 Mbps		N/C	$ 1,260.00	Port
MIS Burstable T3 16.51 to 18.0 Mbps		N/C	$ 1,336.00	Port
MIS Burstable T3 18.01 to 19.5 Mbps		N/C	$ 1,410.00	Port
MIS Burstable T3 19.51 to 21.0 Mbps		N/C	$ 1,486.00	Port
MIS Burstable T3 21.01 to 45.0 Mbps		N/C	$ 3,006.00	Port

BURSTABLE T3 - PRIVATE LINE, ATM - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable T3 w/Mgd Router Up to 6 Mbps	7304	See Above	$ 724.00	Port
MIS Burstable T3 w/Mgd Router 6.01 to 7.5 Mbps		See Above	$ 1,068.00	Port
MIS Burstable T3 w/Mgd Router 7.51 to 9.0 Mbps		See Above	$ 1,178.00	Port
MIS Burstable T3 w/Mgd Router 9.01 to 10.5 Mbps		See Above	$ 1,268.00	Port
MIS Burstable T3 w/Mgd Router 10.51 to 12.0 Mbps		See Above	$ 1,358.00	Port
MIS Burstable T3 w/Mgd Router 12.01 to 13.5 Mbps		See Above	$ 1,448.00	Port
MIS Burstable T3 w/Mgd Router 13.51 to 15.0 Mbps		See Above	$ 1,538.00	Port
MIS Burstable T3 w/Mgd Router 15.01 to 16.5 Mbps		See Above	$ 1,612.00	Port
MIS Burstable T3 w/Mgd Router 16.51 to 18.0 Mbps		See Above	$ 1,688.00	Port
MIS Burstable T3 w/Mgd Router 18.01 to 19.5 Mbps		See Above	$ 1,762.00	Port
MIS Burstable T3 w/Mgd Router 19.51 to 21.0 Mbps		See Above	$ 1,838.00	Port
MIS Burstable T3 w/Mgd Router 21.01 to 45.0 Mbps		See Above	$ 3,358.00	Port

BURSTABLE OC3 - PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC3 Up to 35 Mbps	7305	N/C	$ 2,396.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC3 35.01 to 45 Mbps		N/C	$ 3,006.00	Port
MIS Burstable OC3 45.01 to 55 Mbps		N/C	$ 3,506.00	Port
MIS Burstable OC3 55.01 to 65 Mbps		N/C	$ 4,010.00	Port
MIS Burstable OC3 65.01 to 75 Mbps		N/C	$ 4,516.00	Port
MIS Burstable OC3 75.01 to 85 Mbps		N/C	$ 5,020.00	Port
MIS Burstable OC3 85.01 to 100 Mbps		N/C	$ 5,776.00	Port
MIS Burstable OC3 100.01 to 125 Mbps		N/C	$ 7,036.00	Port
MIS Burstable OC3 125.01 to 155 Mbps		N/C	$ 8,546.00	Port

BURSTABLE OC3 - PRIVATE LINE - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC3 w/Mgd Router Up to 35 Mbps	7306	See Above	$ 2,748.00	Port
MIS Burstable OC3 w/Mgd Router 35.01 to 45 Mbps		See Above	$ 3,358.00	Port
MIS Burstable OC3 w/Mgd Router 45.01 to 55 Mbps		See Above	$ 3,978.00	Port
MIS Burstable OC3 w/Mgd Router 55.01 to 65 Mbps		See Above	$ 4,482.00	Port
MIS Burstable OC3 w/Mgd Router 65.01 to 75 Mbps		See Above	$ 4,988.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC3 w/Mgd Router 75.01 to 85 Mbps		See Above	$ 5,492.00	Port
MIS Burstable OC3 w/Mgd Router 85.01 to 100 Mbps		See Above	$ 6,248.00	Port
MIS Burstable OC3 w/Mgd Router 100.01 to 125 Mbps		See Above	$ 7,508.00	Port
MIS Burstable OC3 w/Mgd Router 125.01 to 155 Mbps		See Above	$ 9,018.00	Port

BURSTABLE OC-12- PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC12 Up to 75 Mbps	7307	N/C	$ 4,516.00	Port
MIS Burstable OC12 75.01 to 150 Mbps		N/C	$ 7,500.00	Port
MIS Burstable OC12 150.01 to 225 Mbps		N/C	$10,486.00	Port
MIS Burstable OC12 225.01 to 300 Mbps		N/C	$13,466.00	Port
MIS Burstable OC12 300.01 to 375 Mbps		N/C	$16,016.00	Port
MIS Burstable OC12 375.01 to 450 Mbps		N/C	$18,566.00	Port

MIS Burstable OC12 450.01 to 525 Mbps		N/C	$21,086.00	Port
MIS Burstable OC12 525.01 to 622 Mbps		N/C	$24,340.00	Port

BURSTABLE OC-12- PRIVATE LINE - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC12 w/Mgd Router Up to 75 Mbps	7308	See Above	$ 4,988.00	Port
MIS Burstable OC12 w/Mgd Router 75.01 to 150 Mbps		See Above	$ 7,972.00	Port
MIS Burstable OC12 w/Mgd Router 150.01 to 225 Mbps		See Above	$10,958.00	Port
MIS Burstable OC12 w/Mgd Router 225.01 to 300 Mbps		See Above	$14,188.00	Port
MIS Burstable OC12 w/Mgd Router 300.01 to 375 Mbps		See Above	$16,738.00	Port
MIS Burstable OC12 w/Mgd Router 375.01 to 450 Mbps		See Above	$19,288.00	Port
MIS Burstable OC12 w/Mgd Router 450.01 to 525 Mbps		See Above	$21,808.00	Port
MIS Burstable OC12 w/Mgd Router 525.01 to 622 Mbps		See Above	$25,062.00	Port

BURSTABLE OC-48 - PRIVATE LINE

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC48 Up to 1250 Mbps	7309	N/C	$48,600.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS Burstable OC48 1251 to 1350 Mbps		N/C	$52,390.00	Port
MIS Burstable OC48 1351 to 1450 Mbps		N/C	$56,180.00	Port
MIS Burstable OC48 1451 to 1550 Mbps		N/C	$59,970.00	Port
MIS Burstable OC48 1551 to 1650 Mbps		N/C	$63,760.00	Port
MIS Burstable OC48 1651 to 1750 Mbps		N/C	$67,550.00	Port
MIS Burstable OC48 1751 to 1850 Mbps		N/C	$71,340.00	Port
MIS Burstable OC48 1851 to 1950 Mbps*		N/C	$75,130.00	Port
MIS Burstable OC48 1951 to 2050 Mbps*		N/C	$78,920.00	Port
MIS Burstable OC48 2051 to 2150 Mbps*		N/C	$82,710.00	Port
MIS Burstable OC48 2151 to 2250 Mbps*		N/C	$86,500.00	Port
MIS Burstable OC48 2251 to 2350 Mbps*		N/C	$90,290.00	Port
MIS Burstable OC48 2351 to 2450 Mbps*		N/C	$94,080.00	Port

BURSTABLE OC-48 - PRIVATE LINE - with Managed Router

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS w/Mgd Router Burstable OC48 Up to 1250 Mbps	7310	See Above	$49,822.00	Port
MIS w/Mgd Router Burstable OC48 1251 to 1350 Mbps		See Above	$53,612.00	Port
MIS w/Mgd Router Burstable OC48 1351 to 1450 Mbps		See Above	$57,402.00	Port
MIS w/Mgd Router Burstable OC48 1451 to 1550 Mbps		See Above	$61,192.00	Port
MIS w/Mgd Router Burstable OC48 1551 to 1650 Mbps		See Above	$64,982.00	Port
MIS w/Mgd Router Burstable OC48 1651 to 1750 Mbps		See Above	$68,772.00	Port
MIS w/Mgd Router Burstable OC48 1751 to 1850 Mbps		See Above	$72,562.00	Port
MIS w/Mgd Router Burstable OC48 1851 to 1950 Mbps*		See Above	$76,352.00	Port
MIS w/Mgd Router Burstable OC48 1951 to 2050 Mbps*		See Above	$80,142.00	Port
MIS w/Mgd Router Burstable OC48 2051 to 2150 Mbps*		See Above	$83,932.00	Port
MIS w/Mgd Router Burstable OC48 2151 to 2250 Mbps*		See Above	$87,722.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
MIS w/Mgd Router Burstable OC48 2251 to 2350 Mbps*		See Above	$91,512.00	Port
MIS w/Mgd Router Burstable OC48 2351 to 2450 Mbps*		See Above	$95,302.00	Port

Optional Features – Class of Service

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
Class of Service 1.5 Mbps Flat Rate	FRCOST1	N/C	$45.00	Port
Class of Service MLPPP NxT1 (3 to 12 Mbps)	FCOSML	N/C	$45.00	Port
Class of Service 10 Mbps Flat Rate	FRCOS10	N/C	$165.00	Port
Class of Service 15 Mbps Flat Rate	FRCOS15	N/C	$215.00	Port
Class of Service 20 Mbps Flat Rate	FRCOS20	N/C	$265.00	Port
Class of Service 25 Mbps Flat Rate	FRCOS25	N/C	$315.00	Port
Class of Service 30 Mbps Flat Rate	FRCOS30	N/C	$365.00	Port
Class of Service 35 Mbps Flat Rate	FRCOS35	N/C	$420.00	Port
Class of Service 40 Mbps Flat Rate	FRCOS40	N/C	$470.00	Port
Class of Service 45 Mbps Flat Rate	FRCOS45	N/C	$550.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
Class of Service Burstable T1	BCOST1	N/C	$45.00	Port
Class of Service Burstable T3	BCOST3	N/C	$550.00	Port
Class of Service Hi Cap Flex .05-1.5Mbps* *Only Available with Ethernet Access	FCOS05	N/C	$45.00	Port
Class of Service Hi Cap Flex 2 Mbps	FCOS2	N/C	$57.00	Port
Class of Service Hi Cap Flex 3 Mbps	FCOS3	N/C	$72.00	Port
Class of Service Hi Cap Flex 4 Mbps	FCOS4	N/C	$87.00	Port
Class of Service Hi Cap Flex 5 Mbps	FCOS5	N/C	$102.00	Port
Class of Service Hi Cap Flex 6 Mbps	FCOS6	N/C	$115.00	Port
Class of Service Hi Cap Flex 7 Mbps	FCOS7	N/C	$128.00	Port
Class of Service Hi Cap Flex 8 Mbps	FCOS8	N/C	$141.00	Port
Class of Service Hi Cap Flex 9 Mbps	FCOS9	N/C	$153.00	Port
Class of Service Hi Cap Flex 10 Mbps	FCOS10	N/C	$165.00	Port
Class of Service Hi Cap Flex 15 Mbps	FCOS15	N/C	$215.00	Port
Class of Service Hi Cap Flex 20 Mbps	FCOS20	N/C	$265.00	Port
Class of Service Hi Cap Flex 25 Mbps	FCOS25	N/C	$315.00	Port
Class of Service Hi Cap Flex 30 Mbps	FCOS30	N/C	$365.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
Class of Service Hi Cap Flex 35 Mbps	FCOS35	N/C	$420.00	Port
Class of Service Hi Cap Flex 40 Mbps	FCOS40	N/C	$470.00	Port
Class of Service Hi Cap Flex 45 Mbps	FCOS45	N/C	$550.00	Port
Class of Service Hi Cap Flex OC3	FCOS155	N/C	$550.00	Port
Class of Service Hi Cap Flex 45.1 – 155 Mbps	FCOS250	N/C	$1,000.00	Port
Class of Service Hi Cap Flex 200 – 250 Mbps	FCOS350	N/C	$1,080.00	Port
Class of Service Hi Cap Flex 300 – 350 Mbps	FCOS600	N/C	$1,160.00	Port
Class of Service Hi Cap Flex 400 – 600 Mbps	FCOS622	N/C	$1,240.00	Port
Class of Service Hi Cap Flex 622 Mbps	FCOS1G	N/C	$1,400.00	Port
Class of Service Hi Cap Flex 700 – 1000 Mbps	FCOST1	N/C	$1,560.00	Port
Class of Service Hi Cap Flex 1500 Mbps	FCOS15G	N/C	$1,580.00	Port
Class of Service Hi Cap Flex 2000 Mbps	FCOS2G	N/C	$1,600.00	Port
Class of Service Hi Cap Flex 2500 Mbps	FCOS25G	N/C	$1,620.00	Port
Class of Service Hi Cap Flex 3000 Mbps	FCOS3G	N/C	$1,640.00	Port
Class of Service Hi Cap Flex 3500 Mbps	FCOS35G	N/C	$1,660.00	Port
Class of Service Hi Cap Flex 4000 Mbps	FCOS4G	N/C	$1,680.00	Port

Feature Description	Identifier	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
Class of Service Hi Cap Flex 4500 Mbps	FCOS45G	N/C	$1,700.00	Port
Class of Service Hi Cap Flex 5000 Mbps	FCOS5G	N/C	$1,720.00	Port
Class of Service Hi Cap Flex 5500 Mbps	FCOS55G	N/C	$1,740.00	Port
Class of Service Hi Cap Flex 6000 Mbps	FCOS6G	N/C	$1,760.00	Port
Class of Service Hi Cap Flex 6500 Mbps	FCOS65G	N/C	$1,780.00	Port
Class of Service Hi Cap Flex 7000 Mbps	FCOS7G	N/C	$1,800.00	Port
Class of Service Hi Cap Flex 7500 Mbps	FCOS75G	N/C	$1,820.00	Port
Class of Service Hi Cap Flex 8000 Mbps	FCOS8G	N/C	$1,840.00	Port
Class of Service Hi Cap Flex 8500 Mbps	FCOS85G	N/C	$1,860.00	Port
Class of Service Hi Cap Flex 9000 Mbps	FCOS9G	N/C	$1,880.00	Port
Class of Service Hi Cap Flex 9500 Mbps	FCOS95G	N/C	$1,900.00	Port
Class of Service Hi Cap Flex 10000 Mbps	FCOS10G	N/C	$1,920.00	Port

Optional Features – AT&T Secure E-Mail Gateway (SEG)

Feature Name	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
SEG Advanced			
• Less than 50	$ 150.00 (Set Up Fee)	$ 6.00	Per Seat
• 50 – 74	None	$ 1.58	Per Seat

Feature Name	Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Unit of Measure
• 75 – 99	None	$ 1.40	Per Seat
• 100 – 500	None	$ 1.25	Per Seat
• 501 – 1000	None	$ 1.05	Per Seat
• 1001 – and above	None	$ 1.00	Per Seat
SEG Premium			
• Less than 50	None	$ 9.00	Per Seat
• 50 – 74	None	$ 3.06	Per Seat
• 75 – 99	None	$ 2.77	Per Seat
• 100 – 500	None	$ 2.66	Per Seat
• 501 – 1000	None	$ 2.49	Per Seat
• 1001 – 2500	None	$ 2.39	Per Seat
• 2501 – and above	None	$ 2.29	Per Seat
Archiving – 1 year			
• Less than 50	$ 1,800.00 (Set Up Fee)	$ 4.17	Per Seat
• 50 – 99	None	$ 2.03	Per Seat
• 100 – 750	None	$ 1.70	Per Seat
Archiving – 7 years			
• Less than 50	$ 1,800.00 (Set Up Fee)	$ 4.17	Per Seat
• 50 – 99	None	$ 3.34	Per Seat
• 100 – 750	None	$ 2.80	Per Seat

6.1.11.2.14 Time to Repair (TTR) – Minor (M)

Services	Time to Repair (TTR)-Minor
Analog Asynchronous Transfer Mode (ATM) Carrier (DS0,DS1,DS3) Frame Relay Managed Frame Relay ISDN Primary Rate Interface (PRI) SONET (Ring and Point-to-Point) AVPN AVPN Managed Service Bundles OPT-E-MAN AT&T Switched Ethernet (ASE) OPT-E-MAN Managed Service Bundles OPT-E-WAN Managed Service Bundles CSME EPLS-WAN FibreMAN MON Ring Ethernet to LD POP Switched 56	**Definition** A Minor Fault shall be defined as a trouble ticket opened with the Contractor's helpdesk on the loss of any circuit or service to a single End-User at a site. **Measurement Process** This Service Level Agreement (SLA) applies to the services listed in the adjacent column. This SLA is based on a trouble ticket outage durations. The circuit or service is unusable during the time the trouble ticket is recorded as open in the Contractors trouble ticket system minus stop clock conditions. This SLA is applied per occurrence. Trouble reporting shall be 7X24. Any circuits or service reported by End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time. **Objectives** Analog=less than 5 hours DS0=less than 5 hours DS1=less than 4 hours DS3=less than 2 hours PRI ISDN=less than 5 hours 10/100 Mbps = less than 4 hours 1000 Mbps (1 Gbps) = less than 4 hours 10 Gbps = less than 4 hours OC-X = less than 3 hours LAN-PHY (10.3 Gbps) = less than 4 hours WAN-PHY (9.95 Gbps) = less than 4 hours **Immediate Rights and Remedies** Failing to meet the SLA Objective shall result in a 15 percent rebate of the TMRC per occurrence. End-User Escalation Process DTS/ONS Escalation Process **Monthly Rights and Remedies** N/A

6.1.11.2.14.e Time to Repair (TTR) – Opt-E-WAN

<table>
<tr><th>Services</th><th>Time to Repair (TTR) – OPT-E-WAN</th></tr>
<tr><td>OPT-E-WAN</td><td>
Definition
A Minor Fault shall be defined as a trouble ticket opened with the Contractor’s helpdesk on the loss of any circuit or service to a single End-User at a site.
Measurement Process
This Service Level Agreement (SLA) applies to the services listed in the adjacent column. This SLA is based on a trouble ticket outage durations. The circuit or service is unusable during the time the trouble ticket is recorded as open in the Contractors trouble ticket system minus stop clock conditions. This SLA is applied per occurrence. Trouble reporting shall be 7X24. Any circuits or service reported by End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.
Objective:
< 1 Minute
Immediate Rights and Remedies:
Failing to meet the SLA objective shall result in a rebate of the TMRC based on the credit schedule below:
<table>
<tr><th>Outage Time</th><th>No Resiliency</th></tr>
<tr><td>1 minute <= 2 hours</td><td>3.3%</td></tr>
<tr><td>2 hours <= 4 hours</td><td>10%</td></tr>
<tr><td>4 hours <= 8 hours</td><td>25%</td></tr>
<tr><td>8 hours <= 12 hours</td><td>50%</td></tr>
<tr><td>> 12 hours</td><td>100%</td></tr>
</table>
Monthly Rights and Remedies
N/A
</td></tr>
</table>