



California Government Enterprise Network (CGEN)

Service Availability Plan

Office of Technology Services

Version 1.1

April 3, 2014



1. Executive Summary

The purpose of this availability plan is to ensure that existing and future availability requirements for network services offered by the Office of Technology Services (OTech) can be provided cost effectively and will meet the vital business function (VBF) needs of its customers. Availability is a foundational factor in the formation of Service Level Agreements (SLA) and upon which SLA warranties and penalties are calculated.

1.1 Description of Service Area

OTech's network service is the California Government Enterprise Network (CGEN). CGEN is a vendor-managed service and the CGEN vendors are an integral part of service delivery, quality, availability and service restoration. Each vendor shall report monthly to the CGEN Service Manager on service availability. OTech also monitors CGEN availability. Vendor reports shall be compared to OTech reports.

CGEN is a wide area network (WAN) solution for the California Executive Branch of Government. It is built on managed services provided by the CALNET vendors. The term "managed services" means that the customer edge network access equipment is provided by and managed by the CALNET vendor.

CGEN provides WAN connectivity for access to servers and the Internet by customer headquarters staff, customer field staff, and other trusted customer business partners.



2. Introduction

2.1 Purpose

This plan is intended to ensure that existing and future availability objectives for network IT services can be provided cost effectively and will meet customer VBF requirements.

2.2 Objectives

The following objectives shall be met within this plan:

- i) Define availability level requirements for future network IT services
- ii) Document the activities of monitoring and reporting service availability
- iii) Improve the availability of current network IT services

2.3 Scope

This plan applies to the following IT service: CGEN.

2.4 Deliverables

As a result of executing this plan, the following deliverables will be produced:

- i) A monthly Service Availability Report (see Section 3.5)
- ii) A Service Interruption Analysis (SIA) report, upon the conclusion of each service interruption. This report will document the timeline, cause(s), and restoration efforts that took place to restore the interrupted service. In addition, the report will suggest lessons learned and opportunities for service improvement.



3. Plan Content

3.1 Background

Availability has an immediate impact on the way the business and the users perceive the quality of the services they receive. This plan addresses the service warranty of availability, and sets the operational activities to monitor and report on this service quality.

3.2 Service Operations

3.2.1 Service Hours

Service hours provide a timeframe of when the service or service component is available and indicates when certain support and performance levels are available. The network service has established preventative maintenance (PM) windows that will not be factored into the available service hours, except in the cases of customers who require 24x7x365 operations.

3.2.2 Operations Center

The OTech Operations Center is available twenty-four hours a day, seven days a week, and 365 days a year (24x7x365). Any customer requiring service assistance can contact the Operations Center at (916) 464-4311.

Operations Center staff will:

- i) Serve as the single point-of-contact for service-related incidents
- ii) Log and manage service-related incidents
- iii) Monitor service operation and availability
- iv) Communicate service interruption, degradations and restorations to impacted customer(s)

3.2.3 Technical Support Resources

Technical support resources are available and on-site during primary business hours from 8:00 a.m. to 5:00 p.m. Pacific Standard Time, Monday through Friday, excluding holidays and non-State work days.

On-site technical support resource availability is not guaranteed outside of primary business hours.

3.2.4 Maintenance Schedule

Table 1: Planned Maintenance Schedule – Network Service, shown below, documents the planned maintenance schedule (scheduled downtime) for the network service resources. Service may be available and operational during the indicated timeframes, but it is not guaranteed.



Table 1: Planned Maintenance Schedule – Network Services

Resource	Reason/Use	Start	End
Sundays			
Network	CGEN, CSGNET (legacy network), Campus Network Maintenance	0400 Sundays	0700 Sundays

3.2.5 Service Incident Management

The OTech Operations Center is the single point-of-contact for all network customers to report service incidents. The OTech Operations Center will record, track, and manage service incident resolution for the Network Service on a 24x7x365 basis. The OTech Operations Center will acknowledge each reported service incident by providing the customer with a unique service incident reference number (INC #) when a service incident is reported via telephone. The OTech Operations Center will provide service incident resolution progress updates via email to all impacted customers.

Upon receipt, the OTech Operations Center will assess and classify service incidents using the criteria illustrated in *Table 2: Service Incident Classification*, shown below. All service incidents that cannot be resolved by the OTech Operations Center will be automatically escalated to an OTech technical service group for troubleshooting and resolution.

Service incident resolution efforts by OTech technical service groups will occur based on the service incident priority. With the agreement of the customer, the priority of a service incident may be lowered before a service incident is resolved. This typically occurs when circumvention (work around) is available. Table 2: Service Incident Classification depicts how OTech will apply technical team efforts to resolve service incidents based on the service incident priority.

Table 2: Service Incident Classification

<u>SEVERITY</u>	<u>IMPACT</u>	<u>RESOLUTION APPROACH</u>
Critical	<i>Extensive/Widespread</i> <ul style="list-style-type: none"> Major system or network outage; Multiple sites or organizations down; or Service incident affects one or more customer resources (designated by the customer in advance) that require an expedited service incident response due to their role within the Customer organization. 	Effort is applied continuously until the service incident is resolved or the customer lowers the priority.
High	<i>Significant/Large</i> A single site or organization is down, or significantly degraded.	Effort is applied continuously until the service incident is resolved or the customer lowers the priority.
Medium	<i>Moderate/Limited</i> A single user is down, or service is degraded, but operational.	Effort is applied during primary business hours. Effort may be delayed or interrupted by allocation of resources to higher priority service incidents.
Low	<i>Minor/Localized</i> No immediate significant impact on service performance.	Effort is applied during primary business hours. Effort may be delayed or interrupted by allocation of resources to higher priority service incidents.



When the service incident is resolved, the OTech Operations Center will contact the customer to report the repair is complete and will request the customer validate the service restoration was successful. The status of a service incident is then changed to *closed*, but only after the customer agrees that the repair was successful or after several documented, unsuccessful attempts to contact the customer for verification. *Table 3: Service Incident Resolution Service Objective*, shown below, lists the resolution timeframe service objective.

Table 3: Service Incident Resolution Service Objective

Service Hours	Priority	Interval				
		Initiate Repair	1st Notification	Status Update	ESCALATION NOTIFICATIONS	
					Service Incident Acceptance	Service Incident Resolution
Primary Hours	1	20 min	30 min	60 min	Every 15 minutes	Every 4 hours
	2	25 min	60 min	60 min	Every 30 minutes	Every 4 hours
	3	1 hour	12 hours	12 hours	Every 2 hours	None
	4	1.5 hours	24 hours	24 hours	Every 4 hours	None
Extended Hours	1	Best Effort	30 min	60 min	Every 15 minutes	Every 4 hours
	2	Best Effort	60 min	60 min	Every 30 minutes	Every 4 hours
	3	Best Effort	12 hours	12 hours	None	None

3.3 Service Objectives

3.3.1 Service Availability

The CGEN Service Availability Objective is 99.5% of 24x7x365 based on the vendor’s SLA for availability, with exclusions as identified below:

3.3.2 Exclusions

The CGEN Service Objective and any applicable Service Levels do not apply to any performance or availability failures or degradations in the following:

- i) Any factors outside OTech’s reasonable control;
- ii) Any factors documented in the vendor’s SLAs;
- iii) Caused by a customer’s or third party application code, hardware, software, or network;
- iv) Caused by actions or inactions of the customer, their agents, or third parties;
- v) Caused by customer’s use of the service after OTech advised Customer to modify its use of the service, if customer did not modify its use as advised;
- vi) During scheduled downtime and maintenance.



3.4 Service Measurement Details

As the Service Provider for CGEN services, the vendors are responsible for reporting on availability. Both vendors use eHealth as their tool for calculating and reporting on availability. On a monthly basis, both vendors submit a written report and meet with Network Engineering management to discuss CGEN services.

OTech also prepares monthly reports on availability of CGEN services using OTech's eHealth tool.

3.4.1 Downtime

Defined as any period of time when a customer network connection is scheduled to be available but is unavailable. Downtime does not include the exclusions listed in Section 3.3.2 – Exclusions.

3.4.2 Scheduled Downtime

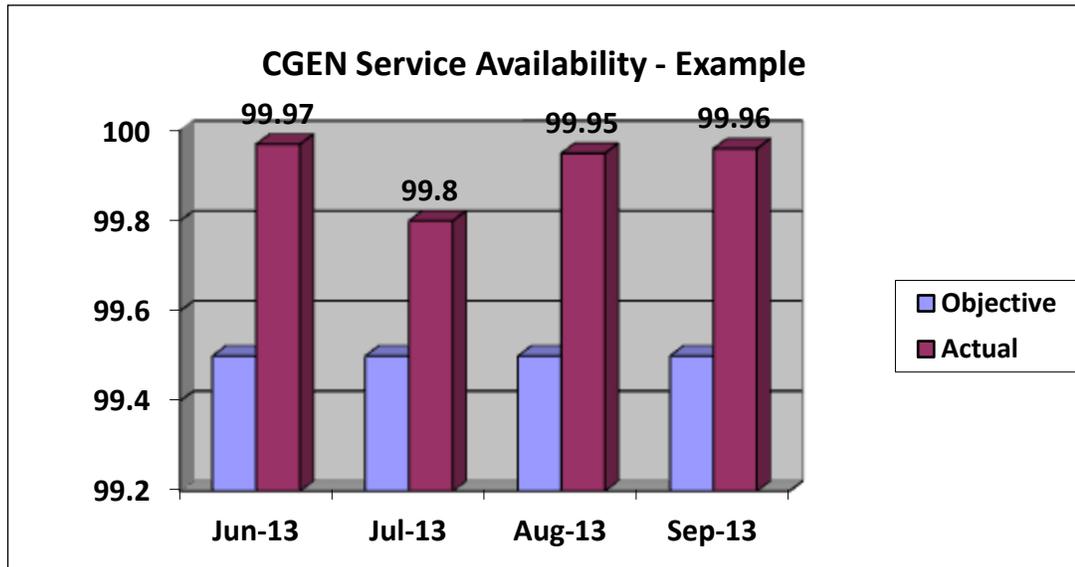
Defined as those times where OTech notifies customers of periods of downtime or it falls within predefined OTech PM windows.

3.5 Service Availability Report

A service availability report will be produced 15 business days following the close of the reporting period. Reporting periods begin the first day of the month and conclude on the last day of the month.

Service availability reports will be published after they are reviewed and approved by service managers, in scope for this plan, and the OTech Deputy Directors.

The approved availability report will be made available to subscribing customers through the Customer Delivery Division and published on the OTech website: http://www.otech.ca.gov/services/SLM_Availability.asp.



3.6 Schedule of Planned Service Interruption Analysis (SIA) Assignments

Service Interruption Analysis (SIA) is produced to improve the overall availability of the services. A detailed SIA shall be completed within 15 business days of a documented CGEN service interruption. The objectives of SIAs are to identify:

- i) underlying causes of service interruptions
- ii) service restoration efforts conducted
- iii) opportunities to enhance the reliability of service availability

The SIA is developed for internal service and process improvements and is provided to impacted CGEN customers.