

## **SERVICE LEVEL AGREEMENTS (SLAs)**

### **ALL BUNDLES—SERVICE LEVEL AGREEMENTS (SLAS)**

The SLAs for Telecommunications are categorized into the following sections: Trouble Resolution, System Performance, and Operations and Administration. Detailed descriptions of the State's telecommunications SLAs are documented in the following matrix. The Contractor is required to comply with the SLAs.

System Performance Categories are:

- Availability
- Response Time
- Throughput
- Error Rate
- Security

Service Performance Categories are:

- Provisioning and Fulfillment
- Service Center
- Problem Resolution

### **SERVICE LEVEL AGREEMENT (SLA) REQUIREMENTS AND ALARMS**

#### **PURPOSE:**

1. To define SLA requirements: Clarify priority details and include examples that will assist individuals in setting the correct priority levels when opening a request. Include all areas in the State Choice of Record (SCR) system.
2. Set escalation / alarms on all SCR requests based on priority level. Alert cost center managers to the requests not worked or serious in nature. Need to ID outage vs. regular requests.
3. Define alarm termination. To flowchart progression of alarm and when to terminate alarm.

Alarms are generally set for all requests and cost centers.

#### **GENERAL INFORMATION:**

An SLA measures an expected level of service and SCR alarms work to escalate issues to gain notice/attention. An alarm indicates a dip below a required service level.

## **PRIORITY LEVELS:**

### **Priority 1** – Business Stopped: Mission Critical Impact - 24x7x365

- Multiple users (10+) affected by downed application, network and/or service

SCR entry within 15 min. of notification: callback within 30 minutes; assignment and dispatch within 1 hour, resolution within four hours. Root cause analysis for each unplanned outage and SLA alarm.

#### **Escalation alarm** – 2 hour with 2 hour intervals (6 & 6)

- Public Safety Dispatch Center – Any location
- PFC – Permanent Fund Corp
- Governor’s executive offices
- Legislator’s main number
- Mission critical locations

See sample mission critical locations below

### **Priority 2** - Business Impacted: Major Impact - 24x7x365

- Single to multiple users (10) affected by downed application, network and/or service

SCR entry within 15 min. of notification: callback within 30 minutes; assignment and dispatch within 1 hour, resolution within eight hours. Root cause analysis for each unplanned outage and SLA alarm.

#### **Escalation alarm** – 4 hours with 4 hour intervals (12 & 12)

### **Priority 3** – Non critical problems/requests – workaround available - 24x7x365

- Single user affected by downed application, network and/or service

SCR entry within 15 min. of notification: Callback by next business day; assignment and dispatch within two days; resolution within five business days.

#### **Escalation alarm** – 4 hours with 8 hour intervals (20 & 20)

### **Priority 4** – Large service request for planned event IMACD (install, move, add, change, delete)

- Multiple user (20+) service request

SCR entry within 15 min. of notification: Callback and assignment within 5 business days; dispatch within five days; resolution within forty five business days.

#### **Escalation Alarm** – 36 hours with 36 hour intervals(30 & 30)

### **Priority 5** – Small service request for planned event IMACD (install, move, add, change, delete)

- Single to Multiple user (20) service request

SCR entry within 15 min. of notification: Callback and assignment within 5 business days; dispatch within five days; resolution within ten business days or customer target date.

**Escalation Alarm** – 45 hours with 45 hour intervals (?)

**Priority None** - Small service request

- Identity management, access control and information requests, i.e. password resets, directory (LDAP) changes, hierarchy, information requests.

SCR entry within 15 min. of notification: Callback or assignment within one hour; resolution within four hours or customer target date.

**Escalation Alarm** – 4 hours with 4 hour intervals (4 & 4)

### **SAMPLE OF MISSION CRITICAL SERVICES BY AGENCY, SERVICE, AND LOCATION**

The final list will be determined within three to six months after the contract award and reviewed annually.

- ❖ Agency
  - Function
    - Functional Description
- ❖ Department of Administration
  - Vehicle and Driver Licensing
  - Retiree Payroll Check Processing
  - OIT Network Services - data network and internet connectivity
- ❖ Alaska Housing Finance Corporation
  - Payroll Check Processing
    - ◆ Penalties apply if missed.
  - Electronic transfer of funds
    - ◆ Federal fund receipt (HUD, DOE, etc.) Bond payments.
  - Accounts Receivable / Accounts Payable
    - ◆ Downloading interest rate for each day.
    - ◆ Loan commitment fees, grant funding (receipts and payments)
    - ◆ Low-Income Rental deposits/payments, bond payments, short-term securities/transfers.
- ❖ Alaska Permanent Fund Corporation
  - All investment and finance-related activities
    - ◆ Investments, analysis, trades, and information exchange including pricing and
    - ◆ analytic data feeds, trades, bank transactions, and e-mail
  - Board of Trustee meetings and packet production

- ◆ Preparation for and activities during APFC Board of Trustee meetings
- ❖ Community & Economic Development
  - Insurance Licensing in time of emergency
  - All aspects of Licensing Insurance Producers, SLBs, ADJs, MGAs, TPAs, RIMs, and RIBs
  - Hydroelectric Plants (Bradley Lake Hydro, Larsen Bay Hydro, Four Dam Pool Hydro)
    - Alaska Intertie, Alaska Railroad
- ❖ Department of Corrections
  - Telecommunications inside and between all correctional facilities.
    - ◆ Twelve Correctional Institutions, And Their Security, Central Control Systems,
    - ◆ Perimeter Fences, Card Entry/Exit Systems, Monitoring Systems,
    - ◆ Health and Life/Safety Systems
- ❖ Department of Environmental Conservation
  - Communications System for Emergency Response
  - Analysis of environmental samples in an emergency response
- ❖ Department of Fish & Game
  - Communications (Field, Remote) to all vessels and aircraft (radios/Loran)
- ❖ Office of the Governor
  - Elections processing - data communications and telephones
- ❖ Department of Health
  - Public Health Laboratories
  - Emergency Medical Services
- ❖ Department of Family and Community Services Family and Youth Services
  - Youth Detention Facilities
  - Family and Youth Services - Family Services, Child Protection
  - Alaska Pioneer Homes (general) - Including two-way radios and pagers.
  - Alaska Psychiatric Institute
- ❖ Department of Labor
  - Unemployment Benefits System
    - ◆ Uses automated telephone interactive voice response units in Anchorage, Fairbanks, and Juneau to allow claimants statewide to file claims.
- ❖ Department of Law
  - Prosecution of Criminals
    - ◆ This involves access to Police Department and AJIS database information about outstanding criminal warrants. Without database access, criminals could be improperly released from custody.
  - All Communications in Child Protection Cases
- ❖ Department of Military & Veterans Affairs

- All communications to DMVA facilities including National Guard
- ❖ Department of Natural Resources
  - Wildland Fire Suppression Systems
  - Field Radio and Mobile Repeater Systems
- ❖ Department of Public Safety
  - Alaska Public Safety Information Network
    - ◆ Communication link with national databases
  - APSCS Microwave System - All microwave links transport Safety of Life communications from two-way radio repeaters to PSAPs and local emergency medical response services
  - PSAP Public Safety Answering Points
    - ◆ Coordinates critical Safety of Life Communications / 911 Emergency Dispatch Centers in Kenai and Fairbanks
- ❖ Department of Revenue
  - Collection of state revenues and agency receipts and disbursement of state funds. This function makes extensive use of electronic funds transfers.
  - Treasury
  - Portfolio Management - this includes sending Trades electronically and support for leased line connections with a variety of providers; TIME is an issue as well. We are dealing with the NY markets – systems cannot be "down for routine maintenance" at 4 am just because nobody else in the state is working.
  - Permanent Fund Dividend application and payment processing
    - ◆ Dividend application processing is considered mission critical from January 1 through March 31. Dividend payment processing is considered mission critical from September 15 to October 15.
  - Process Child Support Payments
    - ◆ This includes electronic funds transfers as well as payments and is critical as delays can cause custodial parents to go without Necessary funds to provide for the child's welfare.
- ❖ Department of Transportation
  - All communications on Marine Highway System/vessel and shore facilities, and airport facilities in Anchorage and Fairbanks

## SERVICE LEVEL AGREEMENTS

SYSTEM PERFORMANCE					
#	Category	Service Hours	Service Level	Measurement Definition	Notes
<b>Availability</b>					
1.	Bundle 1: Wired Telephony	24x7x365	99.999% Systemwide availability excluding State approved scheduled downtime.	Actual uptime as a percentage of scheduled uptime.	The "System" is equal to the aggregate of the State's voice desktop instruments, feature sets, voice mail systems, long distance access. System is considered unavailable upon failure of any key component (e.g., CallManagerä, WAN circuit, data router, Ethernet switch) that prevents a site from using the System.
2	Bundle 2: Data Network Services	24x7x365	99.999% Systemwide availability excluding State approved scheduled downtime.	Actual uptime as a percentage of scheduled uptime.	The "System" is equal to the aggregate of Provider-provided or managed Customer Edge devices, Provider Edge devices used for the Services, and Provider Core devices. The system is considered unavailable upon failure of any key component (e.g. data router, Ethernet switch) that prevents a site from using the System.
3	Bundle 3: End User Services	24x7x365	99.999% Systemwide availability excluding State approved scheduled downtime.	Actual uptime as a percentage of scheduled uptime.	The "System" is equal to the aggregate of the monitoring, alarm, notification, escalation, and dispatch processes. The "system" is considered unavailable upon failure of any key component (e.g., monitoring, alarming) that prevents a site from recovery within four hours.
<b>SLA Credits</b>					
4	Bundle 1: Wired Telephony	24x7x365	All	As defined in all sections.	One day of credit for each hour that a service is unavailable.
5	Bundle 2: Data Network	24x7x365	99.999% System wide availability excluding State approved scheduled downtime.	Packet loss of le	One day of credit for each full msec over 30 ms. Round trip.
6	Bundle 3: End User Services	24x7x365	99.999% System wide availability excluding State approved scheduled downtime.	As defined in all sections.	One day of credit for each full msec over 30 ms. Round trip.
<b>Response Time</b>					
7	Dial Tone Access	24x7x365	99% within 1 second of an off-hook condition.	Number of calls achieving dial tone within 1 second as a percentage of all off-hook conditions	
8	Voice Call Setup Delay	24x7x365	99% of calls ring within 1 second of last digit depressed.	Number of calls achieving setup within 1 second as a percentage of all calls placed	
<b>Throughput</b>					
9	Data Transmission Bundle 1 Bundle 2	24x7x365	99.9% of Intrastate traffic transmissions, round-trip delay (RTD), less than 85ms for transports other than satellite or terrestrial microwave, less than 600 ms for satellite, less than 100 ms for terrestrial microwave.	Number of round trips completing in target timeframe or less as a percentage of all roundtrips	Voice quality, industry standard sampling plan inclusive of MOS measurement based on ITU-T P.563 and P.862, acceptable to the State. Sampling measurement information shall be stored as a historical baseline in a centralized repository and assessable to the State.

## SYSTEM PERFORMANCE

#	Category	Service Hours	Service Level	Measurement Definition	Notes
10	Bundle 1: Wired Telephony Voice System Call Blocking	24x7x365	No more than 1% during peak calling periods	Number of calls blocked or experiencing service busy as a percentage of all calls	
11	Bundle 2 – Router CPU Utilization	24x7x365	75% Maximum CPU Utilization during 5 minute intervals	SNMP Polling or other mechanism to monitor maximum threshold.	Polling required to monitor maximum thresholds to determine service impact.
12	Bundle 2 – Routers Memory Utilization	24x7x365	75% Maximum Memory Utilization during 5 minute intervals	SNMP Polling or other mechanism to monitor maximum threshold.	Polling required to monitor maximum thresholds to determine service impact.
<b>Error Rate</b>					
13	VOIP quality equivalencies Bundle 1 Bundle 2	24x7x365	.1% packet loss, below 50ms one way latency and .5 ms jitter.	Measured from Provider demarcation to Provider demarcation	Network tools should minimize delay on voice quality such as lost-packet compensation, clock synchronization and echo cancellation. measurement information shall be stored as a historical baseline in a centralized repository and assessable to the State.
<b>Security</b>					
14	Network Intrusion Detection System	24x7x365	99.5% System wide availability excluding State approved scheduled downtime.	Actual uptime as a percentage of scheduled uptime.	
15	Security related IMACD	24x7x365	98% of IMACD performed within 2 hours for the restricted VLAN switch or other security related activities.	Completed Security IMACDs completion duration as a percentage of total requests. Measured on a monthly basis.	A "security related" IMACD is one that the State security lead, their designee or the State project manager determine is related to security. Security related issues are intended to take the highest priority.
16	Security Incident Response	24X7X365	Security Incident response must be expedited and performed 24x7x365. Provider will: a) recognize or otherwise acknowledge the incident within 5 minutes b) Initiate pre-planned response within 15 minutes or begin developing a plan for responding within 30 minutes	100% or all security incidents are responded to and reported within 24 hours.	Parties will conduct Root Cause Analysis of a Security Incident. Parties will agree on what is continuously monitored and those alarms will be reported in accordance with Section 19.

## SERVICE PERFORMANCE

#	Category	Service Hours	Service Level	Measurement Definition	Notes
<b>Provisioning and Fulfillment</b>					
17	Service Request Response – length of time to evaluate service requests and provide schedule and cost estimates	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	90% of schedule and cost estimates to be submitted within 10 business days after receiving request; 100% within 30 business days	Number of Service Requests responded to within specified timeframes as a percentage of all Service Requests received	
18	Order Fulfillment	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	98% of orders fulfilled within Provider specified timeframes as approved and accepted by the State.	Number of orders fulfilled within Provider specified timeframe as a percentage of the total number of orders fulfilled	
19	IMACD (Install, Move, Add, Change, Deletions) Service Completion	7:00 a.m.- 5:00 p.m. Monday – Friday, Excluding State holidays	98% of IMACDs completed within schedule negotiated between State and Provider.	Number of IMACDs completed within scheduled timeframe as a percentage of the total number of IMACDs attempted	
20	IMACD Completion Notification	7:00 a.m.- 5:00 p.m. Monday – Friday, Excluding State holidays	Notification must occur by close of next business day.	Number of completion confirmation calls performed within 2 hours as a percentage of the total number of completion confirmation calls placed.	
21	IMACD Priority 1 – Expedite	24X7X365	IMACD Processed with additional Fees applicable, overtime eligible.	IMACD Requests received	
22	IMACD Priority 2 – 5 Day Processing	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	Standard IMACD Processed in 5 Days	IMACD Requests received	
23	IMACD Priority 3 – 30 Day Processing	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	IMACD – 30 Day Processing – Typically Site Provisioning; circuits, hardware ordering.	IMACD Requests received	
24	Reporting - Bundle 1 – Voice Bundle 2 – Data Bundle 3 – End User Support Services	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	Monthly service reports required for core services	Monthly SLA reports are required for cores service bundles, i.e Voice, Data, Video & Help Desk.	Report detail to include but not limited to usage, capacity, utilization & provisioning. See RFP reporting / billing requirements
<b>Service Center</b>					
25	First Call Problem Resolution Rate	24x7x365	All calls not requiring dispatch are closed, in the perspective of the customer, within 30 minutes:	Number of problems resolved during the first call as a percentage of the total number of calls placed	“Call” includes all forms of real-time and asynchronous contact including electronic trouble reports, etc.
26	Dispatch Confirmation call	24x7x365	99% within 15 minutes for Mission Critical functions 99% within 1 hour for all other functions	The number of dispatch confirmation calls placed within specified timeframe for each category as a percentage of the total number of confirmation calls placed within that category.	Notification calls placed to end user of approximate time for technician response to service call requiring technician dispatch.

## SERVICE PERFORMANCE

#	Category	Service Hours	Service Level	Measurement Definition	Notes
27	Average Speed to Answer	24x7x365	99% within 1 minute	Number of calls answered within 1 minute as a percentage of the total number of calls answered	
28	Call Abandonment Rate	24x7x365	No more than 5%	Number of abandoned calls as a percentage of the total number of calls	An "abandoned" call is one which has entered the queue, but the caller "hangs up" before the call is answered.
29	Root Cause Analysis (RCA)	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	Root Cause Analysis will be done on all major disruptions of services provided in bundles 1, 2, 3 & 7	The number of major outages must be matched with a follow-up RCA by close of next business day following resolution of problem.	The State requires follow-up problem resolution descriptions that include the following: A- Problem Definition B- Problem Cause C- Problem Resolution D- Remediation Effort to avoid problem recurrence.
<b>Problem Resolution</b>					
30	Repeat Calls for Service	24x7x365	No more than 2%	Number of repeat calls as a percentage of the total number of calls	Repeat call is defined as a recurring failure of the same device, or request for same service, within 30 days. Measured via Help Desk software
31	Trouble Ticket Priority 1 - Severe Impact (Major Site Interrupted, Core Service, Critical Business Function)	24x7x365	Immediate Response; Resolution 4 hours	Automatic or manual SCR Trouble Ticket within 15 min.; identified & technical resources engaged.	Root cause analysis required
32	Trouble Ticket Priority 2 - Major Impact (Multiple User Locations & Services down)	24x7x365	1 Hour Response Resolution 8 hours	Trouble Ticket Identified & technical resources engaged.	Root cause analysis required.
33	Trouble Ticket Priority 3 – Minor Impact with work around (Functional Disruption)	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	2 business day response Resolution 5 business days	Trouble Ticket Identified & technical resources engaged.	Trouble Ticket Created and technical Response Required. priority alarm set
34	Service Ticket Priority 4 – Large request for planned event. (20+ users, new site, etc.)	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	5 business day response Resolution 45 days or customer target	SCR; customer callback & assignment 5 days.	SCR ticket generated; priority alarm set
35	Service Ticket Priority 5 – Small request for planned event. (10- users, phone repair etc.)	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	5 business days or customer target	SCR; callback & assignment 5 days.	SCR ticket generated; priority alarm set
36	Service Ticket Priority 0 – Small service request; password reset, information requests, etc.	7:00 a.m.- 5:00 p.m. Monday – Friday, excluding State holidays	4 hour response	Trouble Ticket Identified & technical resources engaged.	SCR ticket generated; priority alarm set