Service Description: Cisco Assurance Services/Optimize

This document describes the Cisco Assurance Services.

Related Documents: This document should be read in conjunction with the following documents also posted at www.cisco.com/go/servicedescriptions/ : (1) Glossary of Terms; (2) List of Services Not Covered; and (3) Severity and Escalation Guidelines. All capitalized terms in this description have the meaning ascribed to them in the Glossary of Terms.

Direct Sale from Cisco. If you have purchased these Services directly from Cisco, this document is incorporated into your Master Services Agreement (MSA) or equivalent services agreement executed between you and Cisco. In the event of a conflict between this Service Description and your MSA or equivalent services agreement, this Service Description shall govern.

The Cisco Assurance Services are intended to supplement a current support agreement for Cisco products and are only available where all Product(s) in Customer's Network is supported by Cisco's Foundation Technology Service Provider Optimization Service. Cisco shall provide the Cisco Assurance Services described below as selected and detailed on the Purchase Order for which Cisco has been paid the appropriate fee. Cisco shall provide a Quote for Services ("Quote") setting out the extent of the Services and duration that Cisco shall provide such Services. Cisco shall receive a Purchase Order that references the Quote agreed between the parties and that, additionally, acknowledges and agrees to the terms contained therein. Availability of Services described herein and service delivery may vary by geographical region.

Cisco may extend support for third-party devices or compute and storage infrastructure as defined in Appendix B.

Cisco Assurance Services/Optimize

Service Summary

Cisco Assurance Services/Optimize is a package of services that assures the level of service for Customers' networks through real-time monitoring, analysis and recommendations. This flexible package lets the Customer select the level of support backed by service level agreements. Within the Optimize offer, three service options are available for purchase by Customer: 1) Base Package; 2) Standard Package; or 3) Advanced Package.

Cisco Responsibilities

The Cisco Assurance Services/Optimize will build upon Cisco's Foundation Technology Service Provider Optimization Service. They consist of any of the Service modules described below, which Cisco shall provide for the Customer's Network during Standard Business Hours (unless stated otherwise).

General Support

Cisco shall provide the following general support for all Service modules selected by the Customer under the Cisco Assurance Services/Optimize:

- Designate an engineer ("Network Consulting Engineer") to act as the primary interface with the Cisco project manager appointed for the Customer
- Designate engineer(s) to work with the Cisco project manager and the primary Network Consulting Engineer
- Participate in regular visits with the Customer as required by the project manager both via phone or in-person quarterly and via phone weekly/bi-weekly/monthly based on customer request to review incidents, preemptive recommendations, contracted deliverables and activities, and to plan for next quarter. In person visits not to exceed four (4) on-site visits annually with an aggregate of eight (8) days. Additional visits will be mutually agreed at Cisco's then-current travel and labor rates.
- Consult with Customer networking staff in a series of meetings to develop a thorough understanding of Customer's Network design and implementation, with a focus on concerns such as resiliency, self-recovery, scalability, disaster recovery, business continuance, virtualization, application traffic requirements, and ability to handle increased traffic demands and prioritization via quality-of-service ("QoS")
- Participate in periodic conference calls to review Customer's Network status, planning and the Services being provided
- Monitor a Customer-specific Cisco email alias to facilitate communication with Cisco designated Services team
- Network Consulting Engineer may utilize Customer provided data, scripts or internal tools to assist in collecting data from the Network.
- Provide real-time monitoring and measurement of network fault, performance, capacity and availability events to proactively analyze and identify service-impacting issues
- Provide real-time notification to Customer of network impacting issues

- Provide real-time notification to Customer of mutually agreed events that may not have an immediate impact on network performance.

- Provide real-time notification to Customer of mutually agreed events that may not have an immediate impact on network performance.

- Establish production connectivity between the customer network and the Cisco data center location using a secure VPN. Details to be worked between the customer and Cisco prior to go-live.

- Complete other startup activities as determined by teams during startup process to successfully monitor customer network. Activities include, but are not limited to, a readiness checklist to ensure that the customer network is ready for monitoring.

Base Package

The Base Package offers the basic level of Optimize support, which includes device, physical server (Bare Metal), and interface-level Key Performance Indicators (KPI) monitoring and analysis. More specifically, the following activities are performed:

- Fault Management Function
- Performance Management Function
- Availability Management Function
- Capacity Management Function
- Syslog & trap monitoring, and top-event and top-talker analytics
- Device-, physical server-, interface-level performance management (CPU, memory, interface, temperature etc.) and threshold analysis
- Device-level availability management including device & interface redundancy checks
- Device-level capacity management with 30-60-90 day capacity reports

Standard Package

The Standard Package offers network, compute, and storage virtualization level KPI monitoring and analysis and access to Cisco's web-based Assurance portal ("Portal). Activities under this package include the following:

- Base Package tasks
- Fault Trending reports by time, by network hierarchy, by frequency & by location
- Network-level performance management (BGP, OSPF, ISIS, STP, MPLS TE, L3VPN, L2VPN etc.)
- Network-level availability management (control plane availability, neighbor uptime etc.)
- Network-level capacity management with 30-60-90 day capacity reports
- Compute level performance, availability, and capacity management (Hypervisor, VM etc.)
- Storage level performance, availability, and capacity management for SAN and Storage Array (Storage Array and Storage Controller performance)
- Access to Portal, which provides a customized view with real-time data related to Customer's network, compute, and storage infrastructure.

Advanced Package

The Advanced Package offers service and application level KPIs such as application traffic profiling. Activities under this package include the following:

- Standard Package tasks
- Service-level performance management (MPLS L2/L3 VPN, Virtualization context, service-level QoS, site-to-site matrix view, application traffic profiling, IP SLA etc.)
- Application-level performance management (process level monitoring)
- Service-level aggregation across network, compute, and storage
- Service-level availability management (e.g. MPLS L2/L3 VPN Availability)
- 30-60-90 day forecasting of logical resources (e.g. MPLS L2/L3 VPN)

Activities and Deliverables Applicable Across Fault, Performance, Availability and Capacity Management Functions

Cisco provides continuous round-the-clock network monitoring, proactive notifications, KPI trending & network health reports, and periodic optimization recommendations.

- 24x7 monitoring of network KPIs chosen by the customer (around fault, performance, capacity &-availability)
- Customer notification of critical network impacting events including threshold crossing alerts (TCAs)
- Real-time reporting on infrastructure resources (network, compute, and storage), depending on the Base, Standard or Advanced package chosen by the customer
- Technical advisory for tuning, optimization & upgrade recommendations
- Overall network health trend analysis and reports
- Periodic calibration of the management platform to align with changing customer environment
- Analysis of key infrastructure usage trends (depending on the service package), and periodic reports summarizing optimization recommendations
- Periodic (ex., monthly) Optimization reports focusing on Problem management and optimization of network behavior for Fault, Performance, Capacity and Availability areas, as agreed between Cisco and Customer
- Periodic (for ex: Quarterly) meetings between Cisco & customer representatives to establish goals, assess accomplishments and review metrics, as agreed between Cisco and Customer
- Real time Portal Access for infrastructure resources (depending on Service Package), and Fault, Performance, Capacity, Availability and Network Health information

- Custom dashboards representing different Business and Operational objectives

Third Party Support

In the event that Cisco and the Customer agree on a multi-contract engagement, Cisco will provide support, where possible, on third party products under this Service, using available standards-based Management Information Base (MIB) data. In certain instances where Cisco doesn't have reasonable access to the necessary information, Cisco will request coverage coordination from Customer for the applicable third party support. Cisco shall provide support for third party products under either Base or Standard Packages as defined above based on available SNMP MIB instrumentation.

Customer Responsibilities

- **General Responsibilities**
    - Prior to performance of Cisco Assurance Services/Optimize by Cisco, Customer must provide all required documentation as specified in the Appendix A for Cisco approval.
    - Ensure that the devices under scope of the service are functioning properly as per the criteria listed in the Appendix A.
    - Designate at least one (1) technical representative in each area covered under the Cisco Assurance Services/Optimize, who must be a Customer employee in a centralized Network support center (Customer's technical assistance center), to act as the primary technical interface to the Cisco Network Consulting Engineer(s). Customer will designate as contacts senior engineers with the authority to make any necessary changes to the Network configuration. One individual, who is a senior member of management or technical staff, will be designated as Customer's primary point of contact to manage the implementation of services selected under this Service Description (e.g., chair the weekly conference calls, assist with prioritization of projects and activities)
    - Be responsible for following mutually agreed upon engagement processes.
    - Be responsible for coordinating on-site activities.
    - Provide direct and continuous access to Customer's Network to allow the monitoring platform to gather appropriate information from the Customer's network.
    - In the event Cisco provides Data Collection Tools or scripts located at Customer's site, ensure that such Data Collection Tools or scripts are located in a secure area, within a Network environment protected within a firewall and on a secure LAN, under lock and key and with access restricted to those Customer employees(s) or contractor(s) who have a need to access the Data Collection Tools and/or a need to know the contents of the output of Data Collection Tools. In the event Data Collection Tool provided by Cisco is Software (if mutually agreed for future deployments), Customer agrees to make appropriate computers available and download Software as needed. Customer shall remain responsible for any damage to or loss or theft of the Data Collection Tools while in Customer's custody.
    - Provide configuration information and information on features implemented as needed.
    - Notify Cisco Network Consulting Engineer of any major Network changes (e.g. topology, configuration, new IOS releases).
    - Identify and communicate business requirements necessary for Cisco to monitor required KPIs for each service.
    - In the event the Network composition is altered, after the Services selected under this Service Description have become effective, Customer is responsible to notify Cisco in writing within ten (10) days of the change. Cisco may require modifications to the fee if the Network composition has increased beyond the scope covered by the original pricing quote for Services.
    - Create and manage an internal mail alias for communication with Cisco Network Consulting Engineer.
    - Retain overall responsibility for any business process impact and any process change implementation.
    - Be responsible for all issue resolutions requiring onsite field presence.
    - Details of customer requirements on the program(s) it wants to Cisco to manage.
    - Provide details of customer requirements on the program(s) it wants to Cisco to manage.
    - Provide access to all relevant Customer material, equipment, facilities and personnel required to manage the program(s).
    - Provide information on current releases running in the Network and current configuration templates.
    - Provide information on Customer business and technical requirements for new Software releases.
    - Provide details of Customer requirements on the topics it wants to see covered through transfer and

mentoring together with background information on the skill sets of the audience.

- Ensure that facilities and equipment are available to host the informal technical update sessions.
- Provide information of Customer certification process and lab testing process.
- Provide information on Customer change control process if change management is to be implemented by Cisco NOC personnel.
- Be responsible for implementing actionable recommendations provided by Cisco.

- **Service-Specific Responsibilities**

  For each of the Service Packages, Customer shall provide the following in addition to General Responsibilities:

  - Details of Customer requirements on the topics it wants to see covered through transfer and mentoring together with background information on the skill sets of the audience
  - Information on any service level agreements or Network performance requirements
  - Low-level design document describing how Customer Network is built and engineered to meet a specific set of technical requirements and design goals. The level of details must be sufficient to be used as input to an implementation plan.
  - Ensure key detailed design stakeholders and decision-makers are available to participate during the course of the service.
  - Provide or extract additional information required for Cisco to cover Availability Management function (e.g., current and planned traffic characteristics).
  - Information on critical applications supported by the Network
  - Information on which applications are mission-critical and their priority schemes
  - Information on Customer's plans for business continuance, consolidation, and virtualization
  - Information on expected Network growth and application mix changes
  - Data collection activities as needed to facilitate a specific Cisco analysis
  - Information on any future advanced technology implementations
  - Review details of any planned changes with Network Consulting Engineer

- **Third Party Support**

  - Review details of any planned changes with Network Consulting Engineer

Appendix A

Readiness for Hand-off - Cisco Assurance Services/Optimize

Network Operational Status
The customer will document an Operational Readiness Test (ORT) or similar process that certifies that the network is ready for operation. All network equipment will be installed and verified as operational.

Documentation
Provide High Level Design and Low Level Design for the network including device names, IP addresses, SNMP passwords, configuration, and any other documentation.

Provide as-built documentation including device names, IP addresses, SNMP passwords, device configurations, and any other network documentation.

Provide POD-specific documentation to the Operation Team.

As- built documentation:

Device Documentation and Configurations

- Configuration information for all devices
- Operations team access into all devices
- TACACS configured and functional
- Host Names must match "as built" documentation
- MOTD banner (if applicable) should be configured correctly
- Syslogs enabled on all devices and pointing to Cisco NOC
- SNMP traps enabled on all devices and pointing to Cisco NOC
- All devices reachable from the Cisco NOC for ICMP and SNMP polling