



Service Description: Network Availability and Operations Optimization Service

This document describes the Network Availability and Operations Optimization Service.

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), Advanced Services Agreement (ASA), or equivalent services agreement executed between you and Cisco. All capitalized terms not defined in the Supplemental Glossary of Terms for Network Availability and Operations Optimization Service at the end of this document have the meaning ascribed in the MSA or equivalent services agreement executed between you and Cisco. If not already covered in your MSA or equivalent services agreement, this document should be read in conjunction with the Related Documents identified above. In the event of a conflict between this Service Description and your MSA or equivalent services agreement, this Service Description shall govern.

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This Network Availability and Operations Optimization Service is intended to supplement a current support agreement for Cisco products and is only available where all Product(s) in Customer's Network is supported through a minimum of core services such as Cisco's SMARTnet and Software Application Services, as applicable or, outside of United States and Canada, under Cisco's Shared Support Program. Where available, Cisco shall provide the Network Availability and Operations Optimization Service 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.

Services Summary

Network Availability and Operations Optimization Service provides remote delivery of Cisco support for Customer's high availability, operations, and Network management, addressing the following:

- Supported Products and technologies include devices which forward and/or process routed IP and switched Ethernet traffic such as wired or wireless repeaters/hubs, switches, and routers.
- Supported Products and technologies include devices or applications which forward and/or process Cisco's Unified Communications voice and data traffic.
- Supported Products and technologies include application-specific Cisco devices essential to the normal business operation of the Network. Application-specific devices are defined as Cisco firewalls, Cisco intrusion detection devices, and Cisco VPN products.
- Supported Products exclude any Products declared to be "End of Support."

Network Availability and Operations Optimization Service

Cisco Responsibilities

Cisco's Network Availability and Operations Optimization Service consists of the provision of Services described below, where available which Cisco shall provide for the Customer's Network during Normal Business Hours (unless stated otherwise). Services provided by Cisco are remotely delivered unless otherwise noted. Cisco shall provide the following General Support provisions for all Services selected by Customer:

General Support

- Designate an engineer ("Advanced Services Engineer") to act as the primary interface with Customer for its Network.
- Schedule with Customer up to four (4) quarterly visits per year (not to exceed eight (8) days in aggregate) to Customer's site to review Deliverables and Activities and plan for the next quarter. Additional visits will be mutually agreed upon at Cisco's then-current travel and labor rates.
- Schedule periodic (typically weekly) conference calls to review Customer's Network status, planning, and the Services being provided.
- Establish a Customer-specific Cisco email alias to facilitate communication with Advanced Services Engineer.
- Provide certain Data Collection Tools Cisco identifies as appropriate for Network data collection during the Term of the Services, provided that all fees due and owing to Cisco under this Service Description have been paid. Data Collection Tools may or may not include hardware or software. Customer acknowledges and agrees Cisco shall retain full right, title, and interest to the Data Collection Tools. In addition to Cisco provided tools, the Advanced Services Engineer may utilize Customer provided data, scripts, or internal tools to assist in collecting data from the Customer Network.

The quantity, delivery frequency of the Deliverables, and efforts for ongoing Activities will vary depending on Customer requirements and what Customer and Cisco mutually agree upon when Services are purchased..

- Provide High Performance Network Assessment. Cisco will consult with Customer via a series of meetings to understand Customer's Network architecture or design and perform availability modeling, configuration analysis, and failure impact analysis. A High Performance Network Assessment may include, among other information, the following:
 - Review of protocol and configuration resiliency up to 5000 devices
 - Review of Network components and analysis up to 5000 devices
 - Review of Network topology up to 300 devices
 - Analysis of configuration management, change management, device manageability, and device access practices pertaining to a single Network Operations/Engineering Center
 - Report describing the analysis comparing Customer's current practices and capabilities to Cisco's recommended best practices, and Cisco's recommendations
- Provide Network Management Architecture Roadmap Review. Cisco will consult with Customer via a series of meetings to understand Customer's Network management architecture practices, focusing on capabilities and scalability. A Network Management Architecture Roadmap Review may include, among other information, the following:
 - Review Customer's Network architecture and design
 - Review Customer's Network management instrumentation architecture and design
 - Review Customer's Network management goals and business requirements
 - Analysis of Customer's fault management, performance management, configuration management, and security management practices and capabilities

- Report describing the analysis comparing Customer's current practices and capabilities to Cisco's recommended best practices, and recommendations to meet Customer's Network management business requirements
- Provide Network Resiliency Assessment. Cisco will consult with Customer via a series of meetings to understand Customer's Network architecture or design, primarily focusing on resiliency and availability. A Network Resiliency Assessment will contain recommendations to improve resiliency and availability and may include, among other information:
 - Review Customer's Network architecture and design specific to resiliency requirements
 - Analysis of strategic locations within the IP infrastructure examining topology, protocols, configurations, Network services, power, and environment
 - Report describing the analysis comparing Customer's current practices to Cisco's recommended best practices and recommendations to improve Network resiliency
- Provide Operations Risk Management Assessment. Cisco will consult with Customer via a series of meetings to understand Customer's operational practices. An Operations Risk Management Assessment may include, among other information, the following:
 - Review Customer's operational processes regarding incident management, problem management, configuration management, change management, release management, Network performance and capacity management, availability management, service level management, Network resiliency, security management, IT service continuity management, and staffing
 - Review Customer's operational processes of Network management systems tools and instrumentation
 - Report describing specific operations optimization recommendations based on industry leading practices
- Provide Unified Communications Operations Risk Management Assessment. Cisco will consult with Customer via a series of meetings to understand and Customer's Unified Communications operations readiness. A Unified Communications Operations Risk Management Assessment may include, among other information, the following:
 - Review Customer's operational processes regarding incident management, problem management, configuration management, change management, release management, service level management, operational support plan, staffing, backup and recovery management, provisioning process, and fault, proactive problem, and performance management
 - Review Customer's operational processes of Unified Communications systems management processes and tools
 - Report describing specific operations improvement recommendations
- Provide Unified Communications Operations Support Planning Workshop. Cisco will consult with Customer via a series of meetings to understand and Customer's Unified Communications Network readiness. A Unified Communications Operations Support Planning Workshop may include, among other information, the following:
 - Review Customer's proposed Unified Communications high-level design and solution requirements
 - Review Customer's Network documentation
 - Analysis of current Network infrastructure and the Network's readiness to support the proposed Unified Communication design
 - Analysis of current voice infrastructure and configurations to support proposed Unified Communications design
 - Report describing the analysis comparing Customer's current practices and capabilities to Cisco's recommended best practices, and Cisco's recommendations to meet Customer's Network management business requirements
- Provide Availability and Operations Gap Resolution Support. Cisco will help remediate operational problems discovered via a series of meetings with Customer. Availability and Operations Gap Resolution Support may include, among other information, the following:
 - Review a gap resolution plan to address operational gaps
 - Recommendations regarding process-focused leading-practices to assist with gap remediation
 - Participate in gap remediation

- Provide Customized Network Management Optimization Support. Cisco will consult with Customer to align Customer's Network management environment with Customer's business needs. Customized Network Management Optimization Support may include, among other information, the following:
 - Review and analysis of Network management Products deployed
 - Review and analysis of Network management architecture and Product configurations
 - Review of scheduled Network management system health checks in which memory utilization, CPU utilization, disk space, disk partitions, log file sizes, etc. attributes of Network management Products are examined
 - Scheduled review of Network management Product feature enhancements
 - Recommendations to optimize Network management Products and/or deployment
 - Recommendations regarding Network management Product configuration
 - Recommendations to optimize existing Customer's Network management architecture
 - Recommendations to help design and/or optimize planned or proposed Network management architecture evolution for support of new technologies
 - Support regarding Network management Product selection
 - Support regarding Network management Product integration (may include scripting support)
 - Support during Network management Product upgrades
- Provide Customized Network Management Planning, Design, & Implementation Support. Cisco will consult with Customer to analyze Customer's Network Management Planning, Design, & Implementation business needs. Customized Network Management Planning, Design, & Implementation Support may include, among other information, the following:
 - Review and analysis of Customer requirements
 - Lead development of a high level design
 - Lead development of a low level design
 - Lead development of an implementation plan
 - Lead development of a test plan
 - Development of plans for Network management solution integration(s)
 - Perform Network management solution staging
 - Participate in Network management solution acceptance testing
 - Perform Network management solution deployment (production)
 - Perform Network management solution transfer-of-information (this does not include training for the operation of the Network management Product)
- Provide Customized Operations & Service Management Optimization Support. Cisco will consult with Customer to align Customer's operations with Customer's business needs. Customized Operations & Service Management Optimization Support may include, among other information, the following:
 - Review of operations team's processes specific to one or more Operations & Service Management areas: incident management, problem management, configuration management, change management, release management, service level management, operational support plan, staffing, backup and recovery management, provisioning process, and fault, proactive problem, and performance management
 - Review operational key performance indicators and recommendations for optimization
 - Participate in Customer governance meetings related to one or more Operations & Service Management areas (e.g. change management review board meetings)
 - Recommendations to facilitate operational processes using existing Network management tools (e.g. using tools to generate reports to optimize operational efficiency), alignment to industry leading practices, and implementing and/or integrating leading practices into Customer's operational processes and Customer's Operations organization(s)
 - Development of customized process governance regarding adherence and/or adoption to recommended leading practices

Customer Responsibilities

• General Responsibilities

- Designate at least two (2) but not more than six (6) technical representatives to act as the primary technical interface to the Advanced Services Engineer. Representatives must be Customer's employees in a

centralized location. Customer will designate as contacts senior engineers, stakeholders, and decision-makers to participate 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 under this Service Description (e.g., chair the weekly conference calls, assist with prioritization of projects and activities). Provide its designated person(s) with instructions on process and procedure to engage the Advanced Services Engineer.

- In the event the Network composition is altered, after the selected Services in this Service Description are in effect, Customer is responsible to notify Cisco in writing within ten days (10) of the change. Cisco may require modifications to the fee if the Network composition has increased beyond the original pricing quote for Services.
- Within one (1) year from the commencement of the Services in this Service Description, Customer will have at least one (1) Cisco Certified Internetworking Expert ("CCIE") trained employee or one (1) employee that has achieved, in Cisco's sole determination, an equal standard through training and experience as designated contacts.
- Provide reasonable electronic access to Customer's Network to allow the Advanced Services Engineer to provide support.
- Provide periodic information about changes planned for the Network regarding new technology, applications, or major design changes (short term and long term).
- Provide Customer internal incident escalation process and contact information.
- Provide information about Customer device and Network lab testing and certification process(es).
- Provide Network topology map(s).
- Provide information about any service level agreements or Network performance requirements.
- Provide information about critical applications supported by the Network.
- Provide information about expected Network growth and application mix changes.
- Notify Advanced Services Engineer of any major Network changes (e.g., topology, configuration, new Software releases.).
- Create and manage an internal email alias for communication with Advances Services Engineer.
- Retain overall responsibility for any business process impact and any process change implementations.
- Data Collection Tools. Customer shall ensure that such Data Collection Tools or scripts are under lock and key and with access restricted to those Customer employee(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, 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.
 - Initial Set-up (One Time). If Cisco provides Data Collection Tools or scripts located at Customer's site, an initial set-up is required and the following must be performed:
 - Complete the Data Collection Tools installation and system configuration questionnaire(s) (i.e. IP address, netmask, hostname, etc.) and return to the Advanced Services Engineer
 - Install the Data Collection Tools hardware in a secure area with controlled physical access
 - Connect the Data Collection Tools hardware to the Network
 - Secure the Data Collection Tools behind Customer's corporate firewall
 - Provide access to Data Collection Tools for use by Cisco to install, troubleshoot, and maintain; for remote access, SSH, Telnet, and/or dial are options, but virtual private network (VPN) access to the Graphical User Interface (GUI) is preferred and recommended
 - When applicable, provide Data Collection Tools with HTTPS (SSL) access back to Cisco CCO/CCX servers located at nettools-upload.cisco.com; HTTP/FTP/PFTP may be used but Cisco strongly recommends HTTPS (SSL)

- When applicable, provide Data Collection Tools with SSH to the nettools-upload.cisco.com server to support the transfer of Data Collection Tools patches, security patches, and Rules Based Markup Language (RBML) update packages; FTP may be used but Cisco strongly recommends SSH
- Provide Data Collection Tools with SNMP and Command Line Interface (CLI) access to all Product(s) in the Network (necessary to facilitate collection of inventory and configuration information)
- Provide Data Collection Tools with the Network Product list in seedfile format containing SNMP Read Only (RO) community string and CLI (vty/enable or TACACS user-id / password) for access to all Product(s) in the Network (necessary to create the Data Collection Tools seedfile)
- Provide Syslog server and upload information
- Data Collection Tools Management (Ongoing). In the event Data Collection Tools are installed on Customer's Network, the following items must be performed on a regular or as needed basis to support the operation of Data Collection Tools in the Network:
 - Notify Cisco about changes made to the Network such as Product(s) added/deleted and changes made to Product credentials
 - Fix access problems (Access Control List's, firewall, etc.) which may periodically occur between Data Collection Tools and the Product(s) in the Network
 - When applicable, fix data communication problems which prevent Data Collection Tools from uploading data to Cisco or prevent the remote maintenance of the Data Collection Tools
 - Notify the Advanced Services Engineer when changes are made to Syslog, DNS, proxy and gateway servers IP address(es)
- In addition to the General Responsibilities, Customer shall:
 - Provide information about overall device and Network management strategy.
 - Provide information about operational and change management processes.
 - Provide information about Network management systems and instrumentation capabilities.
 - Provide information about maintenance windows and any other constraints.
 - Provide information about Customer's standard operating procedures related to business practices, its internal operational nomenclature, to allow Cisco to effectively communicate and discuss changes with Customer in the context of Customer's business environment.

Supplemental Glossary of Terms for Network Availability and Operations Optimization Service
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- **“Activity”** means a set of technical or business consulting tasks performed for the benefit of Customer in the delivery of a Service in which no published document accompanies the exit criteria and is typically referred to an “ongoing” task under a subscription service.
- **“Deliverable”** means a set of technical or business consulting tasks performed for the benefit of Customer in the delivery of a Service in which the exit criteria is a published document such as multiple design reviews or Software recommendation reports, audits, etc.