



Service Description: SP Wi-Fi Optimization Service

This document describes Cisco's SP Wi-Fi Optimization Service.

Related Documents: This document should be read in conjunction with the following documents also posted at www.cisco.com/go/service-descriptions/: (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. 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.

This SP Wi-Fi 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 are supported through a minimum of core services such as Cisco's SP Wi-Fi Solution Support Service, SMARTNet, Limited Lifetime Warranty, and Software Application Services, as applicable. Where available, Cisco shall provide the SP Wi-Fi 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. Availability of Services described herein and service delivery may vary by geographical region.

SP Wi-Fi Optimization Service

Service Summary

SP Wi-Fi Optimization Service provides Service Provider Wireless-specific help for your Network support staff in the form of Network Support, Network Health Checks, and Continuous Learning service modules. The following technologies are supported under this Service Description:

- o Cisco Access Points
- o Cisco Wireless LAN Controllers
- o Cisco ASR routers
- o Cisco-approved third party products

Cisco Responsibilities

Cisco's SP Wi-Fi Optimization Service shall provide support for the Customer's Network during Standard Business Hours (unless stated otherwise). Cisco shall provide the following General Support provisions for all Services selected by Customer under the SP Wi-Fi Optimization Service:

General Support

- o Designate an engineer (the "Advanced Services Engineer") to act as the primary interface with Customer for its Network.
- o 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.
- o Schedule periodic (typically weekly) conference calls to review Customer's Network status, planning, and the Services being provided.
- o Make collaboration tools available for hosting meetings, managing documentation, instant messaging, desktop sharing, and collaborative spaces.
- o Establish a Customer-specific Cisco email alias to facilitate communication with the Advanced Services Engineer.
- o 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 and delivery frequency of any reporting and efforts for ongoing activities will vary depending on Customer requirements and what Customer and Cisco mutually agree upon when Services are purchased as identified in the Quote provided by Cisco.

Network Support

- o Provide informal, **Design Collaboration** via regular interactions (weekly, bi-weekly, or monthly calls and

- email) regarding incremental changes to the Network or architecture. Design Collaboration may include, among other activities, the following:
- Review of Customer's design requirements, priorities, and goals
 - Analysis of impact of new requirements on existing Network
 - Consultation on Wireless LAN architecture concerns
- Provide **Detailed Design Report**. Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer Network design requirements, typically focusing on technical and business requirements for incremental growth such as adding or migrating new features, Hardware, topologies, or solutions to the existing architecture or design. A Detailed Design Report may include, among other information, the following:
 - Review of Customer's design requirements, priorities, and goals
 - Review of existing and planned Wireless LAN platform and RF security
 - Analysis of documented feature and functionality requirements as well as business direction compared against current design and needs
 - Analysis of architecture and topology for the Network including WAN analysis, existing RF deployment, and frequency use
 - Report describing the new or current design with recommendations
 - Provide **Inventory Management Support**. Cisco will consult with Customer to share observations regarding device configuration attributes, software versions, and hardware inventory. Inventory Management Support may include, among other activities, the following:
 - Review of device configurations
 - Review of device inventory
 - Recommendations for changes proposed regarding software versions, software configurations, and/or hardware attributes for compliance to the documented standards.
 - Provide **Execution Analysis**. Cisco will provide in-depth performance troubleshooting and analysis for a specific portion of Wi-Fi network. Execution Analysis typically includes, among other activities, the following:
 - Review the requirements, priorities, and goals
 - Analysis of the Customer's Wi-Fi environment limited to a maximum of ten (10) Access Points (APs) or 25,000 sq. ft.
 - Analysis measuring the wireless network's signal coverage, overall level of interference, specific sources which may adversely impact wireless network performance, utilization, radio frequency (RF) signal tracking accuracy, and efficiency metrics
 - Report describing the analysis comparing Customer's current practices to Cisco's recommended best practices and Cisco's recommendations
 - Provide **Security Alert**. These reports provide information about Cisco's Security Advisories and typically include:
 - Analysis of how a Cisco Security Advisory may or may not affect Customer's Network
 - Recommendations to mitigate risk
 - List of affected or potentially affected Networking devices
 - Provide **Software Infrastructure Analysis Report**. Information in these reports typically include:
 - Customer standards and conformance to Software release recommendations
 - Software release diversity
 - Software Track related high-level analysis of Software Advisories, Software Deferrals, and Software release milestones such as End of Sale, End of Engineering, and End of Life status
 - Provide **Software Management Strategy Review**. Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Software management requirements and practices such as standards, migration triggers, and implementation methodologies. A Software Management Strategy Review will contain overall strategy recommendations and may include, among other activities:
 - Review of Customer's Software management concerns and challenges
 - Analysis of Customer's current practices related to establishing and managing Software release standards and Software migration triggers
 - Analysis of Customer's current practices related Software selection, testing, staging, deployment, and troubleshooting
 - Report describing the analysis comparing Customer's current practices to Cisco's recommended best practices and Cisco's recommendations
 - Assistance establishing Software Track methodologies
 - Assistance defining Customer-specific Software migration triggers
 - Assistance in defining feature requirements and performance/availability objectives as relates to Software strategy
 - Provide **Software Recommendation Report**. Each report covers a single Software Track and may include, among other information, the following:
 - Overall Software recommendation Customer should test and consider
 - Descriptions of new Software features
 - Unresolved Software bugs to which Customer may be exposed and if possible, appropriate workarounds

- Periodically updated follow-up reports, at a rate of no more than once per month, for up to 120 days from the original Software recommendation date
- Provide **Wireless LAN Network Assessment**. Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Wi-Fi requirements. A Wireless LAN Network Assessment may include, among other activities, the following:
 - Review of Customer's Wi-Fi network environment, priorities, and goals
 - Review of Customer's technical documentation, network diagrams topologies, and network device configurations
 - Analysis measuring the wireless network's signal coverage, overall level of interference, specific sources which may adversely impact wireless network performance, utilization, radio frequency (RF) signal tracking accuracy, and efficiency metrics
 - Analysis of the Wireless LAN Controllers and Access Point configurations, the architecture, operational status, redundancy, and security
 - Report describing the analysis comparing Customer's current practices to Cisco's recommended best practices and Cisco's recommendations
- Provide **Location Analysis**. Cisco will provide a report that describes the findings of Location Analysis. Location Analysis typically provides information about Key Performance Indicators ("KPIs") of Wi-Fi users, their movement patterns within a space, and trends. Location Analysis typically includes:
 - Analysis of various reporting metrics
 - Analysis of attributes or behaviors of repeat visitors over periods of time
 - Analysis comparing different locations or regions to each other
 - Report describing the findings
- Share with Customer relevant analyzed data and reports to review network health improvements based on Cisco recommendations and actions.
- Provide **Configuration Best Practices Report**. These reports typically examine Customer's production configurations (per device) and compare them to Cisco's best practice recommendations. The focus of the best practices is typically within the following areas:
 - Technology and Software features
 - Routing or routed protocols
 - Device security management
 - Device network management
- Provide **Syslog Analysis Report**. These reports examine Customer Syslog messages collected from Cisco devices in Customer's production Network. These reports typically include information regarding:
 - Syslog event correlation
 - Device health information
 - Baseline metrics

Continuous Learning

- Provide **Formal Training**. Cisco will lead a hands-on, multi-day customer premises training session, focusing on selected topics related to the deployment and integration of Cisco products and technologies. Formal Training may include:
 - Course instruction of tasks such as Network connectivity from a known Network design, configuring devices, and troubleshooting
 - Class availability is described on Cisco's web site: <http://www.cisco.com/go/ndm>
- Provide **Knowledge Transfer and Mentoring**. Cisco will consult with Customer to identify requirements and topics for informal training sessions. Knowledge Transfer and Mentoring sessions are:
 - Delivered in English, with other languages subject to availability
 - Delivered remotely up to four (4) hours in length, with no labs and no printed course materials
 - Relevant to the Cisco products and technologies deployed in Customer's production Network
- Provide **Technical Knowledge Library**. The Technical Knowledge Library is made available by Cisco through a secure web-based portal ("Portal"). The Technical Knowledge Library is only available to certain geographic locations and will be specified in the Quote if provided. Where available, the following is provided:
 - Configuration assistance for user account creation for the Portal
 - Initial assistance in getting the Technical Knowledge Library operational with appropriate authentication and authorizations for user community
 - Content available to the specified number of authorized viewers
 - Multimedia clips in the form of video on demand or audio on demand content

Network Health Checks

- Provide **Network Health Analysis and Dashboard**. Cisco will perform a Network Health Analysis and reporting and may include, among other activities:
 - Provide a Network Health tool that translates deliverables into issues and recommendations that are more relevant to the Customer's network. This tool includes a "Network Health Dashboard" along with a Network Health index.
 - Utilize the Network Health tool to store all recommendations for network improvement made to Customer as part of the Annual Assessment, Network Health Checks, Network Support, and Continuous Learning Services, as applicable.
 - Use the Network Health Dashboard as an interface for capturing, analyzing and reporting network health trends.
 - Use the numerical health index to track issue resolutions.

- Customer-specific deliverables archive when delivered as part of an Advanced Services subscription engagement
 - Sidebar content such as white papers, case studies, design guides, configuration guides, troubleshooting guides, training documents, deployment guides, online textbooks and/or manuals, or bumper clips
 - Listed web based trainings provided via Technical Knowledge Library to authorized viewers
 - Preventative maintenance in accordance with Cisco's normal maintenance schedules and procedures
 - Troubleshooting assistance for issues submitted to Cisco
 - Updated content as Cisco may revise, update, and/or remove previously-released multimedia clips and/or sidebar content ("updated content") and whereby Customer should discontinue any use of superseded content
- Provide a Network topology map, configuration information, and information of new features being implemented as needed.
 - Notify the Advanced Services Engineer of any major Network changes (e.g., topology, configuration, new IOS releases.).
 - 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 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.
 - Create and manage an internal email alias for communication with the Advanced Services Engineer.
 - Retain overall responsibility for any business process impact and any process change implementations.
 - Utilize communication and collaboration tool(s) provided by Cisco. If Customer uses non-Cisco provided collaboration tools for hosting meetings, managing documentation, instant messaging, desktop sharing, and collaborative spaces, provide Cisco with access.
 - Customer will provide names of users who will have authorization to access these tools.
 - Customer will support the implementation of software required to use tools in their environment.
 - 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,

Customer Responsibilities

General Responsibilities

- Designate at least two (2) but not more than six (6) technical representatives in each area covered under SP Wi-Fi, who must be Customer's employees in a centralized Network support center (Customer's technical assistance center), to act as the primary technical interface to the Advanced Services 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).
- Provide at least thirty (30) days' notice to Cisco for onsite visit requests exceeding the four (4) standard quarterly visits. Customer will provide Cisco with reasonable access to computer equipment, workstation, facilities, workspace, and telephones and if necessary, badge access enabling unescorted access into Customer's meeting areas.
- Provide details regarding Incidents involving service disruptions and/or severe performance degradation.
- Customer's technical assistance center shall maintain centralized network management for its Network supported under this Service Description, capable of providing Level 1 and Level 2 support.
- Provide reasonable electronic access to Customer's Network to allow the Advanced Services Engineer to provide support.

- 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 the following:
 - Provide the low level design document describing how Customer Network needs to be 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 in the design effort (e.g., current and planned traffic characteristics).
 - Information on current releases running in the Network and current configuration templates.
 - Information on Customer business and technical requirements for new Software releases.
 - Review details of planned changes with the Advanced Services Engineer.
 - Information on Customer certification process and lab testing process.
 - Information on Customer change control process.
- Network Health Checks**
- In addition to the General Responsibilities, Customer shall provide the following:
 - Information on any service level agreements or Network performance requirements.
 - 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 analyses.
 - Information on any future advanced technology implementations.
- Continuous Learning**
- In addition to the General Responsibilities, Customer shall 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.
- General Assumptions and Other Responsibilities**

Network Support

- All information (such as but not limited to: designs, topologies, requirements) provided by Customer is

assumed to be up-to-date and valid for the Customer's current environment. The Service is based upon information provided to Cisco by Customer at the time of the Service.

- Customer acknowledges that the completion of Service is dependent upon Customer meeting its responsibilities as indicated herein. Identify Customer's personnel and define their roles in the Service. Such personnel may include but is not limited to: architecture design and planning engineers, and network engineers.
- Customer acknowledges and agrees that it is solely responsible for compliance with all laws and regulations, including privacy and data protection laws and regulations, in connection with the Service.
- Customer shall ensure Customer's personnel are available to participate during the course of the Service to provide information and to participate in scheduled information gathering sessions, interviews, meetings and conference calls.
- Customer shall ensure that all necessary licenses, permits, authorizations and approvals have been secured in order that the Service as described herein can proceed.
- Where applicable, Customer shall ensure that Customer's Site shall be ready prior to the date scheduled for Cisco to perform the Service.