



Service Description: Cisco Mobility Quantum Policy Solution (QPS) Optimization Support Service

This document describes Cisco's Mobility Quantum Policy Solution (QPS) Optimization Support 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) 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.

This Cisco Mobility QPS Optimization Support 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 by Cisco's Foundation Technology Service Provider Optimization Service. Cisco shall provide the Mobility QPS Optimization Support 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 Mobility QPS Optimization Support Service

Service Summary

Cisco Mobility QPS Optimization Support Service provides Mobile Wireless-specific help for your Mobility QPS support staff in the form of Design Support, Software Strategy, Network Health Checks, and Continuous Learning service modules.

Services performed under this Service Description that are comparable to those services performed under Cisco's Foundation Technology Service Provider Optimization Service will build upon the original service support therein and will be focused on the specific technology described in this Service Description.

Cisco Responsibilities

Cisco's Mobility QPS Optimization Support Service consists of the provision of, at a minimum, Design Support, from the Services described below, which Cisco shall provide 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 Cisco Mobility QPS Optimization Support Service:

General Support

- Designate an engineer ("Cisco Mobility QPS Network Consulting Engineer") to act as the primary interface with the Cisco project manager appointed for the Customer.
- Participate in regular visits to the Customer as required by the project manager either via phone or in-person to review proactive deliverables and activities and to plan for next quarter. Additional visits will be mutually agreed at Cisco's then-current travel and labor rates.
- Designate engineer(s) to work with the Cisco project management and the primary Cisco Mobility QPS Network Consulting Engineer.
- Participate in periodic conference calls (usually weekly) to review Customer's Network status, planning and the Services being provided.
- Monitor a Customer-specific Cisco email alias to facilitate communication with primary Cisco Mobility QPS Network Consulting Engineer as well as the engineers on the Cisco's Mobility QPS support team.
- Cisco Mobility QPS Consulting Engineer may utilize Customer provided data, scripts or internal tools to assist in collecting data from the Network.

Design Support

- **Design Report & Design Collaboration**
 - Cisco QPS Solution Design Report develops a best practices approach to integrate the Customer's technical requirements and design goals into the overall network design, while

transferring design knowledge to Customer throughout the design process.

- A Design Review Report may include, among other information, the following:
 - Review of Customer's design requirements, priorities, and goals
 - Analysis of impact of new requirements on the existing Policies
 - Review of Cisco QPS Solution configuration
 - Review of protocol selection and configuration
 - Review of feature selection and configuration
 - Review of device security considerations (i.e. authentication, VLANs, subnet isolations, etc.)
 - Report describing the new or current design with recommendations

• **Design Collaboration**

Once Customer has described its design goals, Cisco begins collaborating with Customer via a series of meetings to develop a thorough understanding of Customer policy and charging design requirements.

- Cisco will typically focus on technical and business requirements for incremental growth such as adding or migrating new features, networking nodes and elements, topologies, or solutions to the existing architecture or design.
- Cisco will deliver a Low-Level Design (LLD) documentation detailing Cisco QPS Solution's targeted deployment requirements, targeted policy design, and targeted hardware configuration, as well as relevant strategic plans such as migration strategy and any relevant technical risks.

• **Implementation Plan Review**

- Cisco Mobility QPS Network Consulting Engineer will review Customer's implementation plan to assess whether the plan contains the elements necessary for all deployment.
- Cisco will review of a Method of Procedure (MOP) that focuses on the step-by-step procedure needed to implement a network change.

• **Scheduled Change Support**

- Cisco will support Customer Scheduled Change which will help Customer minimize the potential for error during scheduled changes.
- Cisco network engineering staff will be available to provide immediate support during the process of a scheduled change.
- There is a maximum 8-hour window of remote support of a Cisco QPS Solution change event. *This requires a 7 day notification period.*

• **Onsite Support**

- Where available, Cisco will provide Cisco networking professionals to remain on the Customer site for technical support and information.
- Onsite support is available for day-to-day operations or on the basis of specific agreed-upon Customer activities and projects.

• **Bug Impact Report**

- Cisco will provide a detailed root cause analysis for a particular bug event.
- The analysis tracks the details and updates related the bug event as well as provide an impact report on how it affects the Customer network.
- A workaround, if feasible, is also provided.

Software Strategy

Provide support to Customer on overall Software Strategy for Cisco QPS Solution.

• **Software Recommendation Report**

- Cisco will provide a detailed list of unresolved issues and caveats in a particular software release in the context of the Customer's Cisco QPS Solution ecosystem.
- This report is directly relevant to the production environment in order to provide complete understanding of potential risks.
- These reports typically examine Customer's production configurations (per device) and compare them to Cisco's best practice recommendations. On the basis of identified risks, recommendations are provided.
- Topics in this report include:
 - Software Summary
 - Technology and Software features
 - Bug Summary
 - Proactive Bug Impact Analysis and Recommendations

• **Major Software Upgrade**

- Cisco will provide support for new major software release upgrades within a lab environment where no new features and no additional customizations are required.
- If applicable, Cisco may include software feature testing, regression testing at the Customer lab, assist in upgrading affected nodes and monitoring

the network status related to the major software upgrade.

- **Minor Software Upgrade**

- Cisco will provide support for new minor software release upgrades within a lab environment where no new features and no additional customizations are required.
- If applicable, Cisco may include software feature testing, regression testing at the customer lab, assist in upgrading affected nodes and monitoring the network status related to the major software upgrade.

- **Security Alert Report**

- Provide Security Alert Report for Cisco QPS Solution. 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

QPS Solution Health Checks

- **KPI Audit and Recommendation Reports**

- Create KPI Audit and Recommendation Report by collecting and analyzing Key Performance Indicator (KPIs) data from the Cisco QPS Solution over a specified timeframe
- If applicable, following KPIs on both Gx & Gy interface will be part of the report:
 - Credit Control Request – success, dropped and error rate
 - Reauthorization request – success, dropped and authorization rate
- If applicable, following KPIs on Sy interface will be part of the report:
 - Spending Limit Request – success rate
 - Spending Status Notification – success rate
 - Session Termination Request – success rate

- **Network Health Analysis & Dashboard**

- Cisco will provide health analysis and dashboard to Customer to track Cisco recommendations
- Cisco will quantify the value to the Customer by providing a health score of their policies.
- Cisco will track health score periodically and update it to constantly show the trending and improvements

- **Configuration Audit and Best Practices Report**

- Cisco will help the Customer in identifying Cisco QPS Solution configuration issues by checking the existing configuration against best practice guidelines formulated by Cisco field engineers
- Cisco will tune configuration to remove unnecessary configurations, identify potential erroneous configuration, and optimize configuration as required.
- Cisco will help Customer improve the security of a Cisco QPS Solution, decrease resource utilization, improve manageability, and reduce complexity by optimizing QPS internal traffic cycles
- The best practices report typically includes:
 - Hardware platform Configurations / Misconfigurations
 - System Configurations / Misconfigurations
 - Policy Configurations / Misconfigurations
 - Configuration Optimization and Recommendations

- **Custom Configuration – Use Case Development**

- Cisco will provide support for agreed hours as identified in the Quote to build Customer use case design, enabling new services and driving more efficiency from existing Cisco QPS Solution once Customer requirements are determined.
- Any additional hardware and/or software needed for these new use cases will be provided by Customer.

- **Performance Audit & Recommendation Report**

- Create QPS Platform Performance Audit and Recommendation Report by collecting and analyzing Key Platform system data from the Cisco QPS Solution over a specified timeframe
- Check for issues in the areas of Fault, Performance and Capacity Management which are directly related to QPS solution stability and availability.
- If applicable, following system parameters for QPS platform will be part of the report:
 - PCRF Client Availability – SVN service
 - PCRF Client Availability – Policy Builder
 - QNS Availability
 - QNS CPU Utilization
 - Average load
 - Memory Utilization
 - Server Availability

Continuous Learning

- **Knowledge Transfer and Mentoring.**

- Provide informal technical update training such as a “chalk talk” on a topic that is mutually agreed upon and relevant to the Products and Cisco technologies.
- These sessions may be delivered onsite or remotely via email, WebEx, or other conferencing tools.
- Such training would be provided by the Cisco Mobility QPS Network Consulting Engineer or another senior Cisco engineer.
- Since they are informal in nature, they are generally delivered without any lab equipment.

Customer Responsibilities

• General Responsibilities

- Designate at least two (2) but not more than six (6) technical representatives in each area covered under Mobility QPS, 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 Cisco Mobility QPS 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).
- 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 Cisco Mobility QPS Network Consulting Engineer to provide support.
- If Cisco provides Data Collection Tools or scripts located at Customer's site, Customer shall 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 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.

- Provide a Network topology map, configuration information, and information of new features being implemented as needed.
- Notify Cisco Mobility QPS Network Consulting Engineer of any major Network changes (e.g., topology, configuration, new OS/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 Cisco Mobility QPS Network Consulting Engineer.
- Retain overall responsibility for any business process impact and any process change implementations.

Design Support

In addition to the General Responsibilities, Customer shall provide the following:

• Detailed Design Report

- Ensure key detailed design stakeholders and decision-makers are available to participate during the course of the service.
- Provide detailed documentation and information on policy and charging design requirements
- Provide or extract additional information required in the design effort. (e.g., OSS connectivity parameters and bandwidth requirements).

• Design Collaboration

- Collaborate and work with Cisco Mobility QPS Networking Consulting Engineer
- Provide technical and business requirement for incremental growth such as adding or migrating new features.

- **Implementation Plan Review**

- Provide all the implementation details and related schedules of Cisco Mobility QPS deployment to Cisco Mobility QPS Network Consulting Engineer.

- **Scheduled Change Review**

- Provide all details related to Cisco Mobility QPS scheduled event to Cisco at least 30 days in advance
- Review and finalize needed support for Cisco QPS Solution for scheduled event at least 10 working days in advance.

- **Onsite Support**

- Check Standard language for onsite support Customer deliverables and add them here.

- **Bug Analysis Report**

- Provide all the relevant details of the event or bug encountered in Cisco Mobility QPS.
- Review report and follow up on action items outlined in report.

Software Strategy

In addition to the General Responsibilities, Customer shall provide the following:

- **Software Recommendation Report**

- Review Software Recommendation Report with Cisco Mobility QPS Network Engineer and prepare action plan/s for new recommended release of software.

- **Major Software Upgrade**

- Provide and discuss all the plans and details of upcoming Major Software Upgrade of Cisco QPS Solution with Cisco Mobility QPS engineer in advance.
- Provide all the relevant details on the Cisco Mobility QPS Server and related systems to Cisco Mobility QPS Engineer

- **Minor Software Upgrade**

- Provide and discuss all the plans and details of upcoming Minor Software Upgrade of Cisco QPS Solution with Cisco Mobility QPS engineer in advance.
- Provide all the relevant details on the Cisco Mobility QPS Server and related systems to Cisco Mobility QPS Engineer

- **Security Alert Report**

- Review Security Alert notification and/or report with Cisco Mobility QPS Engineer and finalize strategy to make changes to system if applicable.

QPS Solution Health Checks

In addition to the General Responsibilities, Customer shall provide the following:

- **KPI Audit and Recommendation Reports**

- Review KPI Audit and Recommendation report with Cisco Mobility QPS Engineer and define action plan to mitigate identified offenders.

- **Network Health Analysis & Dashboard**

- Review dashboard reports with Cisco Mobility QPS Engineer and prepare action plan based on these reports to improve KPIs.

- **Configuration Audit and best Practices Report**

- Review report with Cisco Mobility QPS Engineer and prepare action plan to address issues identified in the report

- **Custom Configuration – Use Case Development**

- Provide all detailed requirements of Custom Configuration Use Case development to Cisco Mobility QPS Engineer in advance
- Provide any hardware and / or software required for use case development

- **Performance Audit & Recommendation Report**

- Review Cisco Mobility QPS Server performance audit results with Cisco and implement changes recommended by Cisco advanced Services

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.