Service Description: Cisco Optimization Service for Virtual Managed Services

This document describes Cisco Optimization Service for Virtual Managed Services (vMS).

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 Optimization Service for vMS 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 the necessary maintenance contracts for Cisco products or third party products. Cisco shall provide the Optimization 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 Optimization Service for vMS

Service Summary

Cisco Optimization Service for vMS has been structured to address the following post implementation service programs:

VMS Adoption Acceleration Program

- Design Collaboration
- Software Recommendation
- Fully Managed Software Upgrades
- Migration Planning Support
- Capacity and Performance Audit
- Validation and Testing Support
- Solution Security Alerts
- Focused Knowledge Transfer

VMS Optimization Program

- Focused Knowledge Transfer
- Software Recommendation
- Fully Managed Software Upgrades
- Migration Planning Support
- Validation and Testing Support
- Solution Security Alerts
- Ongoing Operational Support
- Design Collaboration
- Custom Scripting Support
- Validation and Testing
- Pro-Active Recommendation Implementation
- Capacity and Performance Audit

Customized Software Reactive Support

- Incident and Problem Management

Core Services

- Program Management

Cisco Responsibilities

Cisco Optimization Service for vMS consists of the Services described below, which Cisco shall provide for the Customer's vMS Infrastructure during Standard Business Hours (unless stated otherwise). Cisco shall provide the following General Support provisions for all Services selected by Customer under the Cisco Optimization Service for vMS:

General Support

- o Designate an engineer ("vMS Network Consulting Engineer") to act as the primary interface with the Cisco project manager appointed for the Customer.

- o Participate in regular meetings with the Customer as required by the project manager either via phone or in-person to review proactive deliverables, activities and to plan for next quarter. In-person visits not to exceed eight (8) days in aggregate. Additional visits will be mutually agreed at Cisco's then-current travel and labor rates.

- o Designate additional engineer(s) to work with the Cisco project management and the primary vMS Solution Integration Architect.

- o Monitor a Customer-specific Cisco email alias to facilitate communication with primary vMS Solution Integration Architect as well as the engineers on the Cisco's vMS team.

- o vMS Engineer may utilize Customer provided data, scripts or internal tools to assist in collecting data from the Customer operations environment.

Design Collaboration

The activities and deliverables for the Design Collaboration tasks are the following:

- o Review of Customer's design requirements, priorities and goals and/or review of Customer's design document
- o Analysis of impact of new requirements on existing vMS infrastructure
- o Engaging during design whiteboards and workshops, and providing vMS expertise
- o Providing design assistance in aligning vMS design with deployment architecture evolution
- o Design interlock sessions with Cisco engineering experts

Software Recommendation

Provide a software recommendations report for vMS applications, containing an overall set of recommendation, which typically include the following:

- o Identification of appropriate Software versions
- o Review of Software Feature Set Upgrade triggers and lifecycle considerations
- o Identify overall software and feature set recommendations and dependencies on any upgrade testing
- o High-level analysis of software advisories
- o Provide critical bug analysis (for P1 and P2 bugs) for identified software versions or key software feature categories
- o Forecast licensing requirement

Fully Managed Software Upgrades

Provide Customer with remote resource to act as advisor to the change and as support contact on changes to the vMS system within the change periods, which may include:

- o Collaboration with the Customer during network and vMS system change windows and help address the issues as they arise during change windows into live production environments in

addition to the support provided under the standard TAC process.
- o Collaborate with Customer to verify vMS systems readiness during change windows on the request of the Customer.
- o Provide a review of the change plan or method of procedures (MOPs) provided by the Customer.

Cisco will make available, upon receipt of not less than twenty-one (21) days prior written request by Customer to Cisco, a designated support contact that can accept calls during Standard Business hours and consult with Customer on a 24-hour 7-day standby basis to remotely assist Customer and address no more than three support issues identified by Customer during the change window (typically over a weekend) of major Software installations, major site installation and/or major configuration changes.

Validation and Testing Support

Consult with Customer via a series of meetings to develop a thorough understanding of Customer's solution-oriented testing goals and requirements. Validation and Testing Support may include, among other information, the following:
- o Review of Customer's testing goals and business objectives;
- o Test Plan development assistance or review/refine existing test plan;
- o Test Results Analysis – Document the analysis of the results in a Test Report.
- o Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

Migration Planning Support

Provide migration-consulting services that support migration from one environment to another (e.g. pilot to production) and may include, among other information, the following:
- o Review the requisite list of high level events, phased changes and activities in order to introduce new solution
- o Identify solution dependencies and impact and recommend risk mitigation steps for the migration
- o Review Method Of Procedure documentation for pre and post cut-over connectivity and testing
- o Review Master configuration templates for representative device or site types
- o Review solution test procedures for the ready-for-use (RFU) solution testing
- o Assist with migration change windows – outcome: remote/on call support during the change window (up to 4 hours)

Solution Security Alerts

These reports provide information about Cisco's Security Advisories and typically include:
o Analysis of how a Cisco Security Advisory may or may not affect Customer's deployment.
o Recommendations to mitigate risk.
o List of the affected components in vMS deployment.

Focused Knowledge Transfer

Provide a customized knowledge transfer ("How to") for the vMS solution with emphasis on providing guidance on basic troubleshooting, maintenance, and functionality.

Program Management

o Conduct a kickoff call to initiate a new service engagement to identify key stakeholders, review and agree on service scope and activities and discuss governance & communication process.
o Lead periodic conference calls to review Customer's status, planning and the Services being provided.

Incident and Problem Management

Cisco will perform one or more of following service activities:

o Implement the incident and problem management processes
o Identify and Document software bugs
o Recreate bugs in lab to validate
o Provide bug advisories/report
o Help create and implement workaround
o Assist Cisco business units to understand the impact and drive bug resolution in subsequent releases of software or point patches
o Drives product development/enhancement interlock with the Cisco product business units.

Cisco will provide reactive support on only custom software code developed by Cisco related to the vMS solution. Any custom code modifications beyond minor bug-fixes of existing customizations would be entitled through a Statement of Work as purchased separately by the Customer.

Ongoing operational support

Provide support to assist Customer with general advice and guidance on Cisco recommendations around vMS solution.

o Designate an engineer ("Advanced Services Engineer") to act as the primary interface with Customer for its vMS solution. This engineer would be available for five (5) days per week (pending local work restrictions) during Normal Business Hours excluding Cisco holidays, locally recognized country holidays, vacation, and training days.
o Participate in regular visits to the Customer either via phone, email or in-person to review proactive deliverables and activities and to plan for next quarter. In-person visits not to exceed five (5) days in aggregate. Additional visits will be mutually agreed at Cisco's then-current travel and labor rates.
o Ongoing support service's scope focuses on content and Cisco recommendations around vMS solution, including:
  • Compute environment change support
  • Configuration review
  • Configuration implementation support
  • Support during scheduled maintenance window to implement a new VM and deploy VNF
o Participate in periodic conference calls (usually Bi-weekly or Monthly) at mutually agreeable time for an hour to review Customer's VMS solution status, address questions, planning and the services being provided.
o Monitor a Customer-specific Cisco email alias to facilitate communication with primary Advanced Services Engineer as well as the engineers on the Cisco's VMS team. Respond to Customer emails within 24-48 hours with acknowledgement and start working with Customer on the plan to address the topic of the email.
o Advanced Services Engineer will provide general advice and guidance to lead the delivery of the VMS solution ordered by Customer.
o Make collaboration tools available for the purposes of (including but not limited to): hosting meetings, managing documentation, instant messaging, desktop sharing, and collaborative spaces

The quantity of any reporting and efforts for ongoing activities described herein 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.

Pro-Active Recommendation Implementation

Cisco would deploy recommended changes based on other proactive deliverables such as best practices, configs audit, performance tuning.

The following can be part of the pro-active recommendation implementation using manual scripts:
o Baseline the current compute nodes, virtual environment
o Determine the changes to implement based on recommendations from other deliverables (Design review, best practices, etc)
o Implement the changes using tools, scripts, or manually
o Re-run the reports on as needed basis and compare the results with the previously established baseline.

Capacity and Performance Audit

Consult with Customer to understand Customer's Virtual Managed Solution, focusing on capacity, performance and scalability.
o Documentation of any existing customer issues with application performance and projected capacity planning needs.
o Baseline compute and virtual environment parameters
o Baseline performance metrics
o Gathering data over a two or seven day period and upload the data to Cisco for analysis
o Review of overall system resource utilization.
o Review of system resource utilization by application
o Report with recommendations on optimizations of existing product configurations and on changes to platform resources

Custom Scripting Support

Access to Cisco Advanced Services-developed Script Library

o The VMS script library is a repository of Cisco developed scripts for common Customer use cases.
o These scripts can be downloaded and reused, significantly reducing the time to deploy these functionalities. These scripts can help with the deployment, data gathering, polling the network, performance management, etc. of the deployed VMS solution

Validation and Testing

Cisco will provide remote ongoing informal support for ad_hoc Customer testing of new features, command line syntax, upgrade procedures & new custom SW updates. This would also include basic POC testing for trying new options in the vMS solution deployed by

Cisco. Full end-to-end solution validation or certification is not covered as part of this deliverable.

Customer Responsibilities

• **General Responsibilities**

o Designate at least two (2) but not more than six (6) technical representatives in each area covered under vMS, who must be Customer's employees in a centralized operations support center (Customer's technical assistance center), to act as the primary technical interface to the vMS Network Consulting Engineer (s). Customer will designate as contacts senior engineers with the authority to make any necessary changes to the vMS 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).

o Provide reasonable electronic access to Customer's vMS solution to allow the vMS Network Consulting Engineer to provide support.

o 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.

o In the event that Cisco provides Customer with Cisco scripts to assist with the implementation, problem diagnosis and/or resolution, Customer shall return the Cisco scripts upon request by Cisco or within 5 days from termination of the Service.

o Provide the appropriate information about the vMS systems, configuration, and information of any new features being implemented as requested by Cisco.

o In the event the numbers of vMS systems within scope are 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 vMS composition has increased beyond the original pricing quote for Services.

o Create and manage an internal email alias for communication with vMS Network Consulting Engineer.

o Retain overall responsibility for any business process impact and any process change implementations.

• **Design Collaboration**

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

o Provide the design and process documents describing how Customer vMS 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 review any of the services being delivered to the Customer.

o Ensure key detailed design stakeholders and decision-makers are available to participate during the course of the service(s).

o Provide or extract additional information required in the design effort (e.g., current and planned operational framework).

• **Fully Managed Software Upgrades**

In addition to the General Responsibilities, Customer shall provide:

o Information on current operating system and application levels of the vMS components in scope of these services.

o Information on Customer business and technical requirements for new Software releases.

o Review details of planned changes with vMS Network Consulting Engineer.

o Information on Customer certification process and lab testing process.

o Information on Customer change control process.

• **Focused Knowledge Transfer**

In addition to the General Responsibilities, Customer shall:

o Provide Details of Customer requirements on the vMS related topics that the customer wants to see covered through transfer and mentoring together with background information on the skill sets of the audience.

o Ensure that facilities and equipment are available to host the informal technical update sessions, if needed.

• **Validation and Testing Support**

In addition to the General Responsibilities, Customer shall:

o Perform the physical test setup.
o Document the Test plan.
o Execute the test plan with Cisco's assistance.

• **Migration Planning Support**

In addition to the General Responsibilities, Customer shall:

o Provide all the Customer required migration documents.
o Plan the migration schedule.

• **Ongoing Operational Support**

In addition to the General Responsibilities, Customer shall:
o Provide information about operational and change management processes
o Provide information about maintenance windows and any other constraints
o 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.