



## Service Description: Cisco Management Platform Only Services

This document describes the following Cisco Management Platform Services:

- Cisco Unified Communications Management Application Platform Services
- Cisco Unified Contact Center Management Application Platform Services

The Customer uses the Service to monitor and conduct management processes and activities within their Unified Communications network.

This Service Description is designed to provide a baseline understanding of and set expectations about the activities and deliverables that make up the Service. Please read this document carefully as it contains important information regarding the Services you have purchased from us.

**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. In the event of a conflict between this Service Description and your MSA or equivalent services agreement, this Service Description shall govern.

**Sale via Cisco Authorized Reseller.** If you have purchased these Services through a Cisco Authorized Reseller, this document is for informational purposes only; it is not a contract between you and Cisco. The contract, if any, governing the provision of this Service is the one between you and your Cisco Authorized Reseller. Your Cisco Authorized Reseller should provide the contract to you. You can obtain a copy of this and other Cisco service descriptions at [www.Cisco.com/go/servicedescriptions/](http://www.Cisco.com/go/servicedescriptions/).

This Service Description has two (2) appendices below:

- Cisco Unified Communications and Contact Center Management Platform Services
- Glossary of Terms

Cisco shall provide Cisco Remote Management Platform Services described below as selected and detailed on the purchase order for which Cisco has been paid the appropriate fee. The Service consists of two (2) service components:

1. Management Application Platform
2. Elective Change Services

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.

### 1 Remote Management Platform Services

With Remote Management Platform Services, Cisco provides Monitoring Services via the Cisco Management Application Platform (MAP), and MAP customization through Elective Change services.

#### 1.1 Monitoring Services

Monitoring is a service component that provides monitoring for all Managed Components in your solution. The Service requires the installation of the service Management Application Platform (MAP) on your network in order to provide monitoring coverage.

The MAP is configured with Customer-specific support process and Managed Component monitoring database prior to being placed into service. Once installed, the MAP will discover Managed Components as indicated via the Service Activation Kit (SAK) and build the inventory report.

The MAP contains a suite of management applications. It is deployed in a redundant configuration and consists of management software and hardware required for service delivery. The MAP or portions thereof may exist on the Customer Premise and/or at Cisco. The MAP configuration is determined by Cisco during the Transition Management phase.

The implementation of Monitoring Service may include some or all of the following activities:

- Installation of operating system and supporting applications on the MAP.
- Installation and testing of the platform software and hardware.
- Implementation of the Customer-specific monitoring and management database on the MAP. This may be conducted remotely.
- Shipment of servers, appliances and/or devices to the designated Customer location
- Installation assistance to Customer for the servers, appliances and/or devices.
- Establishment of connectivity between the Customer site and Cisco.
- Establishment of remote monitoring and management of the Management Application Platform and systems from Cisco.

The service Management Application Platform is an integral part of the Service and is installed for the duration of Services. During the Service term, the Customer is granted a

nonexclusive and nontransferable license to use the hardware and the software resident thereon solely on the service Management Application Platform supplied. The Customer must return any and all associated service Management Application Platform and connectivity devices to Cisco immediately upon expiration or termination of Services.

## 1.2 Management Connectivity

Management Connectivity establishes bi-directional communication between the Customer Premise and Cisco supporting management of the platform. Management Connectivity consists of two (2) areas: primary connectivity and overall security.

Management Connectivity requires access to specific ports and protocols; such requirements will be reviewed with Customer during the Transition Management process.

### 1.2.1 Primary Management Connectivity

Primary Management Connectivity will be provided by Cisco. At Cisco's discretion, one of two options will be selected based on the type of Service.

- A dedicated circuit between Cisco ROS Point of Presence (POP) and the Customer-designated handoff. The handoff will be at the Customer data center or other supported network termination point.
- A virtual connection via a Virtual Private Network (VPN) between Cisco ROS Point of Presence and Customer network.

Each option may include a Cisco-provided Termination Device located on the Customer Premises. The size of the connection between the Cisco POP and Customer handoff will depend on the type of Service.

Redundant circuits are an available option, however fees to cover any additional circuits are to be paid by the Customer.

### 1.2.2 Termination Device

Cisco will ship a termination device for installation at the Customer site. The termination device terminates the Management Connection. The termination device is a Managed Component supplied by Cisco and resides at the Customer Premises. The termination device must have network access to Managed Components.

Unless otherwise agreed upon, title to all termination devices shall remain in Cisco possession. Customer must return the Termination Device to Cisco immediately upon expiration or termination of Services.

Cisco, or its subcontractors, shall be allowed access to the Customer Premises (location occupied by Customer or Customer's end user) to the extent reasonably determined by Cisco for the inspection or emergency maintenance of Cisco-supplied Termination Device. Failure to allow timely access

may invalidate Cisco SLAs and SLOs and delay restoration of Services.

## 1.3 Transition Management

Transition Management is a phased process approach in which Cisco prepares to activate the Monitoring Services. The Customer must place an order with Cisco and attach Cisco Service Description to initiate the Transition Management process. The Transition Management process concludes at the negotiated Start Date of Monitoring Services.

### 1.3.1 Kickoff Meeting

Cisco will assign a Project Coordinator to act as a single point of contact during the Transition Management phase. Once a valid Purchase Order is received and processed by Cisco, the Project Coordinator will contact the Customer to schedule the kickoff meeting. The kickoff meeting is typically accomplished via a conference call and may include a Cisco partner as well. The kickoff meeting will indicate the initiation of the kickoff phase. The kickoff phase, as well as all remaining phases within Transition Management, is typically facilitated by the Project Coordinator in collaboration with Cisco Engineers assigned to the Customer account.

This Transition Management phase includes the following activities:

- Coordinating, scheduling, and executing the Kickoff meeting
- Reviewing roles and responsibilities of Cisco personnel, Customer contacts, and Partner contacts (if applicable)
- Providing Customer with escalation documentation for Transition Management phase
- Reviewing the support model
- Reviewing Services purchased, as indicated on the Purchase Order
- Aligning Cisco and Customer on all major activities, risks and milestones during the Transition Management phase
- Reviewing and completing the Service Activation Kit (SAK)

### 1.3.2 Service Activation Kit

Reviewing the SAK components and key information is critical to success for Transition Management. It is the Customer's responsibility to correctly populate all relevant data fields in the SAK, which include all necessary network and Managed Component details that are required for starting Services.

The Project Coordinator will develop a project plan for subsequent steps with distribution to project contacts.

### 1.3.3 Service Management Application Platform Configuration

During this process phase, Cisco assists in executing a discovery process for Managed Components per Purchase Order. The Project Coordinator will communicate any discrepancies between discovered devices and devices on the Purchase Order. Any Customer-requested additions beyond the Managed Components defined on the Purchase Order will be subject to incremental Service fees and additional Transition Management intervals.

Cisco adds Managed Component information into the service Management Application Platform database and configures system consoles and dashboards (per Purchase Order). Managed Components are organized into defined device groupings. Service, support and escalation processes are configured in the service Management Application Platform. This completes the configuration of the Monitoring Services.

### 1.3.4 Remote Training Session

The Project Coordinator schedules remote training sessions. The sessions are conducted using a conference bridge and collaborative software.

The objectives of the training sessions are:

- Using the Management Application Platform
- Present service documentation
- Review
  - Support services to be delivered
  - Processes for obtaining service
  - Service escalation process
  - Change control policies
  - Submit change requests
  - Standard reports
- Explain the recurring operational meetings
- Review the Customer Acceptance timing

### 1.4 Customer Acceptance

Cisco will work with the Customer to validate that Transition Management phase is complete.

Once an agreed Customer acceptance date has been received and agreed by Cisco, the service transitions from Transition Management to Service Delivery phase. All exceptions to the Service Delivery phase will be documented within the Transition Management material.

### 1.5 Software Updates for the Management Application Platform

The Service includes routine software updates for the service Management Application Platform. The Customer shall receive an e-notification from Cisco which identifies the modifications included in the next release. Cisco will schedule a maintenance window for updating the Management Application Platform. If there are any Customer-specific considerations stemming from the upgrade, they will be communicated by Cisco and addressed as part of the upgrade process. All

software updates are executed under Standard Change guidelines.

## 2 Management Application Platform Functions

### 2.1 Reactive Management

Highlighted in this section are system capabilities that will enable a support organization to reactively manage the availability of their communications resources.

The Service shall:

- Monitor the integrity of all systems supporting the organization's end-to-end Unified Communications business and process
- Identify events that have occurred anywhere within the Unified Communication converged network
- Have the integral capability of specialized monitoring of Unified Communications systems and applications
- Systematically analyze the event following identification, to isolate and report on the precise root cause
- Provide complete end-to-end visibility to the integrity of the Unified Communication infrastructure in the network. This is provided through systematic generation and updating of incident tickets within the MAP's service management application, as well as status displays.
- The capability of alerting those responsible Customer staff members of issues under their jurisdiction.
- Provide a means of quickly accessing and analyzing call processing history in response to reported issues.

### 2.2 Proactive Management

Highlighted in this section are system capabilities that will enable a support organization to proactively manage their Unified Communications infrastructure

- Log and track event history and support detail for analysis
- Monitor system performance detail, archiving the data for a year or more (size dependent)
  - Providing a sufficient performance baseline from which trending and anomaly analysis can be conducted
- Provide readily understandable views of performance attributes
  - Graphical representations

- Reports
- Support establishing thresholds on performance attributes, with notifications to workgroup members when a threshold violation occurs
- Provide insight on Unified Communications user experience
  - Quality of Service (QoS)
  - Mean Opinion Score (MOS) interpretation
- Possess the ability for staff members to proactively analyze Unified Communications system metrics, such as:
  - Call traffic
  - Call patterns
  - Types of calls
  - Call problems
  - Abnormal call disconnect causes
- Provide reporting capabilities to assist support personnel in managing the service levels being delivered to the organization
  - Infrastructure availability
  - Systems performance

### 2.3 Service Management

Highlighted in this section are Management Application Platform or integrated helpdesk system capabilities that will enable a support organization to operate efficiently while maintaining the highest levels of service responsiveness.

- Optionally support integration to a Customer's service management helpdesk solution to form a completely harmonized support process
- Provide configurable and flexible support options
  - Support mapping to an existing support environment
  - Enable a support organization to implement their desired coverage model
- Readily accessible from both internal and external locations via secure internet connection
- Integration and automation within the MAP's monitoring application provides fully unattended monitoring coverage 24x7.
- Systematically communicates validated event messages to support personnel without manual intervention
- Log and track service history detail for analysis
- Provide reports that measure service delivery in comparison to desired organizational objectives

- Support options for accepting service requests to automate delivery of support to the user community
  - Manually logging requests and issues taken via telephone
  - Online service request forms
- Provide workflow process elements that assist the support organization in delivering adequate levels of service and responsiveness
  - Assignment
  - Projects
  - Status tracking
  - Notifications
  - Escalation

### 3 Management Application Platform Access

The Cisco Management Application Platform delivers an integrated suite of management applications that enable organizations to ensure the integrity of the vital systems and networks that their success depends upon.

#### 3.1 The Portal

The Management Application Platform provides Customers a Web-based Portal method for accessing information about their network.

The Portal solution provides the following integrated service enablement applications:

- **Availability Management**, providing monitoring and management of your complete systems and network landscape
- **Service Management**, providing an effective means to track problems and projects through to completion
- **Process Automation**, enabling streamlined support and service responsiveness through automation
- **Service Level Management**, providing visibility to your systems and network operations, support responsiveness and systems availability

Customers receive end-user licenses to access the Portal. Instructions to access and navigate the Portal are provided in the remote training sessions as well as in the Portal User Guide. The Portal User Guide is available on the Portal.

#### 3.2 Availability Management

Within **Availability Management**, the Cisco Management Application Platform Portal systematically monitors the operation and performance of the vital data, IP telephony, and

contact center devices, systems, services, and applications distributed throughout the managed network infrastructure.

Cisco's Management Application Platform Portal **Availability Management** applications support a comprehensive set of integrated service enablement capabilities including:

- Status Monitoring
- Performance Monitoring
- Event Processing, including root cause analysis
- Entity Manager tools, providing system-specific management and troubleshooting applications

The Cisco Management Application Platform Portal application's Event Processing engine and programmable decision logic analyzes systems and network events identified through Status Monitoring – correlating and validating the events using its intelligent event analysis engine.

### 3.3 Service Management

Cisco's Management Application Platform Portal **Service Management** application includes the complete capabilities needed to log and track issues, as well as manage service and support requests and project activities.

When the Availability Management application validates a fault or event, it is reported via a Cisco Management Application Platform Portal incident ticket that is opened for the respective system or device determined to be the root cause. Once an incident case is opened, all subsequent operational and test activity is recorded within that single incident case to provide a consolidated resource for troubleshooting and analysis.

Cases can also be manually generated, enabling management or workgroup members to create cases to track work and project initiatives. Team members can supplement case data, update the status or criticality, escalate the problem, and attach supporting data files. All associated case detail accumulates to build a valuable knowledge base that assists in both reactive and proactive research and analysis. Powerful search and browse functions are available to navigate this database when reviewing problems and history.

The Cisco Management Application Platform Portal notifies designated parties upon new case generation and individual case updates. Notifications can be delivered via e-notification (email format) for paging formats to a multitude of devices, including PCs, wireless PDAs, mobile telephones, and text pagers.

The Cisco Management Application Platform Portal application's ticket categories capability can be tailored to direct incident cases and notifications to the specific workgroup that is responsible for supporting the object at that root cause. Rich, policy-based case escalations alerts workgroup members and management of items needing attention.

### 3.4 Process Automation

**Process Automation** consists of a series of functions, applications and actions that serve to increase workgroup productivity and systems availability, and provide higher level of service to your demanding user community.

Workflow applications, such as Change Management and Online Service Requests, can be deployed to streamline how processes are handled and managed within your support environment. Change request and service request process is highly configurable, allowing you to map the applications to your existing policies or create new ones. Requests automatically open Cisco Management Application Platform Portal cases that have specialized functions to manage the response process within the context of a case, and enable their handling as part of a consolidated service enablement and support process.

The MAP ensures that vital configuration files for IOS devices are backed up by automating many steps in that process. In an approach unique to the Cisco Management Application Platform Portal, not only does the application contain and initiate automated processes and tasks, it also continually monitors the process steps for success and failure. If any automated process is not successful, a ticket containing the complete details is automatically opened to notify staff members of the condition. Cisco's Management Application Platform Portal capabilities can be modeled to automate both standardized and customized support demands.

### 3.5 Reporting

Reports available on the Management Application Platform Portal provide detail on Tickets as well as performance for Managed Components.

The Service shall provide device-level performance, availability and inventory reports. End-users generate reports using the reporting capabilities and tools accessible via the Portal on the Service Management Application. See Appendix A for more detail about the reports available for this service.

## 4 Platform

Cisco's Management Application Platform Portal resides on a high-availability server platform consisting of the Linux OS, web server, SQL database, and security application.

### 4.1 Unified Communications Entity Manager

In addition to providing end-to-end management coverage for systems and network infrastructure, the Cisco Management Application Platform Portal contains specialized applications and monitoring to assist organizations manage their Cisco Call Manager, Communications Manager, IP Contact Center, and Unity voice and unified messaging systems.

Unified Communications management functions are accessed through Cisco's Management Application Platform Portal Entity Manager. Entity Manager provides status and performance

detail for managed systems, devices and applications, and provides quick navigation to an assortment of resources to assist in both reactive and proactive management.

#### 4.1.1 3-Gen View

Cisco's Management Application Platform Portal Availability Management module identifies, validates and makes visible events and problems within the converged network. A series of specialized monitoring capabilities for Cisco Unified Communications infrastructure is implemented and managed by Cisco's Management Application Platform Portal Event Processing engine. The Cisco Management Application Platform Portal application's event analysis engine is used to systematically review management data from network infrastructure, servers, applications and databases to provide support personnel with an accurate operational status and root-cause determination.

In addition to Cisco's Management Application Platform Portal System Console, Status Table and Status map displays, the status and health of managed Unified Communications entities can be quickly determined within the Entity Manager's 3-Gen View.

Within this view, status detail is provided through:

- A navigatable three-generation (3-Gen) map that depicts status detail including parent and child dependency relationships with other entities
- A Tools & Status panel depicting the status of all management tests for the device or application. Identifying the precise test that has failed provides valuable insight into the nature of the failure and the best path for resolution. The panel provides access to device-specific tools launched within the Cisco Management Application Platform Portal, or such functions as telnet access, manufacturer or 3<sup>rd</sup>-party diagnostics tools, links to online resources or mapping applications, manufacturer publications, internal service or policy documents, files, or other resources.

For Cisco Unified Communications, the following status detail is provided:

- Leveraging the robust capabilities of Compaq Insight Manager (CIM), the Cisco Management Application Platform Portal provides comprehensive management of key server attributes providing system status, health and utilization.
- The Cisco Management Application Platform Portal application monitors the Linux and/or Microsoft Windows operating system, providing a complete view of systems that the Unified Communication applications reside on.
- The Cisco Management Application Platform Portal application monitors SQL databases to ensure their ability to support the requirements of the Unified Communications applications.

The Cisco Management Application Platform Portal continually monitors vital Cisco Call Manager, Communications Manager, IP Contact Center and Unity application services. Using Cisco's Remote Management Services Portal event analysis engine, the response to a service failure is directly proportional to its severity. Cases are generated to alert personnel to the failure of services critical to the system's operation. Lower level services that have or can cause functional issues can open cases with context-specific messaging that define the purpose of the services and what currently may be experienced by users stemming from this failure.

#### 4.1.2 Assets

The Asset area includes management, service provider and support contract information that workgroup personnel may need immediate access to. Points of primary and escalation contact that the Cisco Management Application Platform Portal application will notify upon validating an event are shown to provide visibility to the responsible parties supporting the entity.

#### 4.1.3 Syslog Analysis

The Entity Manager includes a Syslog Analysis application, offering a handler and viewer for syslog that the Cisco Management Application Platform Portal application systematically collects from managed Unified Communications systems and devices. This allows users to view all events, or to view them by select device or grouping. The application provides users with the means to review all events that culminated into a failure, and to conduct historical analysis on events that have been collected. The Syslog Analysis application also translates meaningful events into the Cisco Management Application Platform Portal application decision engine messages for further processing.

#### 4.1.4 Performance Graphs

Entity Manager Health provides comprehensive performance detail for analysis of issues, trends and anomalies. The graphs contained correlate directly to those attributes that must be managed to maintain the service level of the specific device or application. This includes standardized attributes, such as CPU utilization, and proprietary application-specific performance detail.

The Entity Manager *Call Manager Health* contains vital detail on Call Manager performance. System data metrics are acquired from the Call Manager at routine intervals and displayed in informative graphical presentations. The Cisco Management Application Platform Portal application maintains a complete database that provides the needed views of long-term history and trending.

Thresholds can be set on any system performance metrics processed by Health, to provide advance visibility to emerging systems or network issues that require attention. Cisco's Management Application Platform Portal AutoCases notify support staff when a threshold setting has been surpassed.

#### 4.1.5 High-Availability Management Application

Cisco's Management Application Platform Portal High-Availability Management application for Cisco Unified Communications Microsoft Windows servers systematically confirms on a programmable routine basis that vital configuration files are synchronized between primary and secondary systems to ensure that the secondary redundant systems are fully prepared to be placed into service in the event the primary system fails.

#### 4.1.6 Call Detail Recording and Call Management Records

Cisco's Management Application Platform Portal comprehensive Call Manager CDR /CMR Analysis application systematically acquires, archives and presents for analysis the Call Manager Call Detail Record (CDR) and Call Management Record (CMR) log data. In addition to the standard CDR-type metrics that define number dialed, duration of call, etc., the CMR data offers Call Manager-reported QoS detail including jitter, packet loss and latency experienced for the Cisco telephone end-points engaged in each call. Also included is a wealth of detail on the success of the call, such as the disconnect cause.

As the records are archived on the Cisco Management Application Platform Portal, they are available to support views on long term trending even as logs are routinely purged from Call Manager to maintain system performance. The Cisco Management Application Platform Portal application automatically translates all fields that are communicated in machine language to readily understood fields of information.

#### 4.1.7 Quality of Service

The Cisco Management Application Platform Portal analyzes Call Manager call processing metrics - ranking individual QoS attributes and providing a corresponding Mean Opinion Score (MOS) for each call - providing staff with an estimation of the call quality as it may have been perceived by the telephone user. The quality analysis engine is tunable within the Cisco Management Application Platform Portal to map directly to the level of call quality that a support organization wishes to establish as the benchmark.

#### 4.1.8 Voice Service Levels and Traffic

A series of graphical Voice Service Level and Voice Traffic report displays are available to assess voice usage, call success and performance. Data can be displayed based on specific criteria set by the user, including such attributes as specific extension, date/time range, internal on-net or external calls, QoS determination, call volume, type of call (local, long distance, international), and utilization. Service level statistics can be viewed for the entire system, as they involve specific devices in the network, or specific extensions.

#### 4.1.9 Synthetic Call Tests

The Cisco Management Application Platform Portal provides the advanced capability to run both OnDemand Call Tests and Scheduled AutoTests. This function allows support personnel to easily test call processing throughout the network – from a centralized support site or any other location. All synthetic call

tests are an optional service component and are available for additional fees.

- The OnDemand Call Test function, conducted from within Entity Manager, generates a call to a specific entered number. The number may be an internal or external destination. Following execution, a Call Trace log is presented that states the success or failure of the call. A verbose Call Trace, providing detail on each call step, can also be accessed.
- When the test is complete, the Cisco Management Application Platform Portal application systematically obtains the Call Manager CDR record for the call and presents it for analysis.
- The AutoTest capability runs under the control of Cisco's Management Application Platform Portal event analysis engine. The test is run at routine intervals to select destinations established in the Cisco Management Application Platform Portal configuration. Destinations may be established to test service to a specific location, or to destinations for the purpose of testing a prescribed path. For instance, if a retail location in a store chain opens at 9am, the Cisco Management Application Platform Portal can be configured to generate an AutoTest call to the store at 6am. If the test call is not completed successful, an incident ticket is generated explaining the condition and the appropriate support staff notified so that corrective action can be taken before the store opens for business. Customer-assisted configuration for the supporting call processing aspects may be required.

Within Entity Manager, support personnel can view a log of AutoTest results, including their Pass or Fail status. From the log, personnel can also access the case that has been generated for failed calls to get additional detail, view the call trace, or view the CDR record that culminated from the test call.

#### 4.1.10 Discovery

The Discovery application provides a tool to view all interfaces between the entity being viewed and other entities. It makes a wealth of detail readily available on neighboring devices and interfaces - without having to open separate communication sessions.

Used during the troubleshooting process, Discovery allows support personnel to quickly walk the network to obtain configuration information and operational status detail.

## 4.2 Coordinating and Planning

Cisco provides an application on the Portal for submitting Elective Change Requests to Cisco. Approved changes will be coordinated, planned and monitored via the Cisco Management Application Platform change management feature. This will allow coordination of activities to determine how to schedule activities to minimize negative impact.

Once an Elective Change has been released and the configuration data has been updated, the Change will be evaluated to determine the level of success in meeting the goals of the Change. This evaluation is used to improve Change Management for future Changes. The Engineer will ensure that all relevant stakeholders, including the Customer, have been notified that the Change is complete. Once evaluation and notification have been completed, the Change is closed.

### 4.3 Release Management

Release Management is focused on the actual implementation of approved changes to the Management Application Platform.

Rollout planning includes planning the details involved in executing the Change into the production environment. This includes setting the detailed timetable including securing a Customer change window if necessary, identifying and communicating to all stakeholders that need to be notified, and coordinating with Customer change procedures.

Execution is the act of introducing the Change into the production environment. Once the Change has been executed, Configuration Management is initiated to record the changes to all impacted Configuration Items.

### 4.4 Configuration Management

The MAP shall maintain an inventory of the Management Application Platform components. This inventory detail includes certain configuration data and the levels of service applied to the Management Application Platform.

## 5 Standard and Elective Change Services

An Elective Change is requested by the Customer and is often the result of changes in the Customer network, business processes, or the business. Elective Changes are associated with changing, updating or customizing the Management Application Platform operational environment. The Customer identifies the requirement for making changes to the Management Application Platform and submits Elective Change Requests on the Portal.

Elective Changes are scheduled services that the Customer must request in advance of service delivery. Standard Changes are activities and updates associated with regular updates to the Management Application Platform software code and its utilities. Examples of available Cisco Elective Change Services are itemized in the **Appendices**. Cisco may elect to offer additional services within its areas of competency in response to a Customer's request for service.

Customers purchase a block of hours that are used for executing Elective Changes. The amount of hours purchased may vary by contract. The Customer must have a sufficient balance of hours on account to cover their requested Change based on time estimations provided by Cisco at the time the change is requested.

Elective Change hours are debited from the Customer's block of hours account balance as delivered, per the following:

- All Elective Change Requests will require a minimum of 0.5 hour charge. Billing will be charged in 0.5 hour increments thereafter.

- Cisco's priority handling of urgent Elective Change Requests is on an as-available basis. Cisco will make best effort to respond to such requests. If priority handling request is accepted it will be charged as a minimum 2-hour charge. Billing will then be charged in 0.5 hour increments thereafter.
- Customer Elective Change Requests where requested time of service delivery is outside of Standard Business Hours will be billed at a rate of 1.2 times the standard rate if the time is accepted by Cisco. Elective Change Requests to be delivered on Cisco-observed holidays will be billed at 2 times the rate if the change time is accepted by Cisco.
- All Elective Change hours maybe rolled over from one year to the next if Service is maintained.
- During the Change process, the Customer is required to have an authorized onsite representative available to assist as required.

Cisco shall provide a monthly Elective Change Report.

Cisco shall provide the Customer with the option to purchase additional Elective Change Hours as needed. Minimum hour purchase blocks may apply.

## 6 Customer Responsibilities

### 6.1 Management Connectivity

#### 6.1.1 Termination Device

Customer will use reasonable efforts to provide and maintain the Termination Device in good working order. The Customer shall not, nor permit others to, rearrange, disconnect, remove, attempt to repair, or otherwise tamper with the Termination Device. Should this occur without first receiving written consent from Cisco, the Customer will be responsible for reimbursing Cisco for the cost to repair any damage thereby caused to the Termination Device. Under any circumstances, Cisco will not be held liable to the Customer or any other parties for the interruption of Service, missed SLAs or SLOs, or for any other loss, cost, or damage that results from the improper use or maintenance of the Termination Device.

Unless otherwise agreed upon, title to all Termination Devices shall remain in possession of Cisco Systems, Inc. Cisco expects that, at the time of removal, the Termination Device shall be in the same condition as when installed, with the expectation of normal wear and tear. Customer shall reimburse Cisco for the depreciated costs of any Termination Device that is deemed beyond normal wear and tear.

Cisco, or its subcontractors, shall be allowed access to the Customer Premises (location occupied by Customer or Customer's end user) to the extent reasonably determined by Cisco for the inspection or emergency maintenance of Cisco-supplied Termination Device. Failure to allow timely access

may invalidate SLAs and SLOs and delay restoration of Managed Services.

### 6.1.2 Install Termination Device

The Customer shall provide the following with respect to the installation of the Termination Device:

- Provide appropriate secure rack-mount location for the Termination Device with suitable environmental conditions for computer operation.
- Install the Termination Device and network connectivity per Cisco-supplied guidelines.
- Provide communications facilities and services including internet and network configuration. Communication facilities and services must be maintained for the duration of the Service term.
- Provide a resource to support the installation of the Termination Device. These activities include:
  - Racking
  - Connection to network
  - Power connection to uninterruptible power system (UPS) or other facility with continuous uninterrupted power
  - Power-up

Provide suitable commercial power, and an UPS or other acceptable power back-up facilities providing a minimum of 1kVA dedicated for the Termination Device.

Provide mutual agreement of date concerning completion of Transition Management activities.

## 6.2 Training

The Customer shall provide training coordination support including identifying trainees and trainee contact information.

## 6.3 Transition Management

To ensure Cisco's ability to provide Services for Managed Components, Cisco requires the Customer to:

- Assign a project manager to represent the Customer during the Transition Management phase.
- Assign a technical lead to assist Cisco with establishing the network access required for remote management.
- Project manager and technical lead attend Customer Project Kickoff meeting and training sessions.

### 6.3.1 Service Activation Kit

Complete the SAK which provides the key information critical to success for Transition Management and includes:

- Location of management applications
- Network connectivity detail for Management Application Platform
- Device location and naming scheme
- Management IP addresses and system detail, SNMP community strings
- Telnet and password access
- Management system User names and contact detail
- Definition of Customer-specific support policies including:
  - Points of contact and profile data
  - Case category access
  - Notification policy
  - Escalation policy
  - Dispatch policy
- Managed Component support contract information (e.g., Cisco SMARTnet, etc.) for population of Asset screens

Complete tasks defined in the SAK to enable management access to managed systems which may include setting up SNMP, traps, system log, and traps.

### 6.3.2 Install Service Management Application Platform

For those cases where the Cisco Management Application Platform or components of the Cisco Management Application Platform resides on the Customer Premise, then the Customer must provide an appropriate secure rack-mount location for the Cisco Management Application Platform (or components) and termination devices with suitable environmental conditions for computer operation.

The Customer is also expected to provide the following:

Installation of the Management Application Platform and network connectivity per Cisco-supplied guidelines.

Provide communications facilities and services including internet and network configuration. Communication facilities and services must be maintained for the duration of the Service term.

Provide a resource to support the installation of the Management Application Platform. These activities include:

- Racking
- Connection to network
- Power connection to UPS or other facility with continuous uninterrupted power
- Power-up

Provide suitable commercial power, and an uninterruptible power system (UPS) or other acceptable power back-up facilities providing a minimum of 1kVA dedicated for the Management Application Platform and termination device.

Provide mutual agreement of date concerning completion of Transition Management activities.

Provide training coordination support including identifying trainees and trainee contact information.

#### **6.4 Service Connectivity and Network Access**

Cisco Management Application Platform Services are delivered using a collection of protocols and ports. The Customer must allow the collection of data for Managed Components.

Provide Read and Write management access to Managed Components as defined by SAK. Provide Read management access for components that are monitored only. Access must be implemented in a timely manner in accordance to the SAK. This includes SNMP, syslog, Unified Communications Manager call detail record (CDR) interface, and other defined protocols as necessary to support Services.

**APPENDIX A:**

**Cisco Unified Communication and Contact Center Management Application Platform Services**

**Deliverables and Activities:**

The following tables highlight activities provided as part of the Cisco Management Application Platform service.

| <b>Activities &amp; Deliverables</b>                             |
|--|
| Transition management  |
| Management connection  |
| Intelligent monitoring & event correlation                       |
| Incident notification  |
| Voice QOS monitoring & ticketing                                 |
| Self-diagnostics & business rules engine                         |
| Management portal  |
| Management Application Platform maintenance, updates and changes |
| Create configuration management database for managed devices     |
| Execute Elective Changes   |
| Device-level reports   |
| CDR & CUCMR collection & storage                                 |
| Premier Reports  |
| Management Application Platform software and hardware            |
| Knowledge base accessible to end users                           |

| <b>IMPLEMENTATION SERVICES</b>                             |
|--|
| <b>Manageability assessment &amp; consultation</b>         |
| Discovery  |
| Audit  |
| Determination of optimal management coverage               |
| <b>Support Process assessment &amp; consultation</b>       |
| Service coverage required to support your environment      |
| Workgroup structure  |
| Determination of optimal support processes                 |
| <b>Implementation of system software &amp; application</b> |
| <b>Burn-in of appliances to ensure reliability</b>         |
| <b>Complete system and application configuration</b>       |
| Availability Management                                    |
| Management database  |
| Event decision logic                                       |
| System Consoles  |
| Status Maps & Tables                                       |
| Groupings  |
| Categories   |

|   |
|---|
| Service Management  |
| User database   |
| Support process   |
| Case handling   |
| Notification policy   |
| Escalation policy   |
| Process Automation  |
| Service Level Management  |
| Reports configuration   |
| Availability  |
| Key Performance Indicators (KPI)  |
| Service Level Agreement (SLA) Manager                                   |
| <b>Appliance installation and network connectivity at Customer site</b> |
| <b>Remotely Delivered MAP Training</b>                                  |

| <b>SUPPORT SERVICES</b>  |
|--|
| <b>Ongoing access to the Cisco Service desk, providing complete system, administration &amp; user support via</b>                  |
| Telephone  |
| Email  |
| Tickets  |
| <b>Systems &amp; network management consultation</b>   |
| Determination and configuration of management coverage for new and existing infrastructure   |
| <b>MAP management coverage change administration</b>   |
| Performed in concert with your moves, adds & changes - ensuring that management is kept synchronized with your current environment |
| <b>Complete MAP maintenance support</b>  |
| Hardware   |
| Software   |
| Application  |
| <b>Feature enhancing software upgrades and maintenance releases</b>  |

#### Supported Cisco Unified Communication Devices:

The following table identifies the devices managed by Cisco Unified Communications Management Application Platform Service

| <b>Supported Devices</b>              |
|---------------------------------------|
| Cisco Series Routers                  |
| Cisco Series Switches                 |
| Universal Gateways and Access Servers |
| AS5200                                |
| AS5300 Series                         |
| AS5400                                |
| AS5800                                |
| Wireless                              |

| <b>Supported Devices</b>                     |
|--|
| Cisco 500 Series                             |
| Cisco 1100                                   |
| Cisco 1130                                   |
| Cisco 1200                                   |
| WLAN Controller                              |
| WSLE   |
| <b>Core Infrastructure</b>                   |
| DNS  |
| NTP  |
| <b>Core Software Subcomponents</b>           |
| Exchange                                     |
| SQL  |
| Domino                                       |
| <b>OS Components</b>                         |
| WIN 2000 OS                                  |
| WIN 2003 OS                                  |
| Linux OS                                     |
| <b>General Hardware Components</b>           |
| Cisco MCS Hardware                           |
| Cisco Approved HP, IBM, Sun Hardware         |
| <b>Unified Communications</b>                |
| Unified Communications Manager 7.x           |
| Unified Communications Manager Express (IOS) |
| Unified Communications Manager Business      |
| Unity Express 2.x-3.x                        |
| Unity 4.x-7.x                                |
| Unity Connection 1.x-2.x                     |
| Cisco Gatekeeper                             |
| Cisco SRST                                   |
| VG248  |
| IP Communicator                              |
| Cisco IP Phone                               |
| Cisco TDM Gateways                           |
| Cisco Unified Presence 6.x                   |
| Unified Mobility Manager 1.x                 |
| Meeting Place 5.x -6.x                       |
| Meeting Place Express                        |
| Unified Contact Center Express               |
| Unified Mobile Communicator                  |
| Unified Personal Communicator                |
| VoIP Trunking Gateways                       |
| VXML Gateways                                |

\* Monitor only

### Supported Cisco Unified Contact Center Devices:

The following table identifies the devices supported by the Cisco Unified Contact Center Management Application Platform Service:

| <b>Supported Devices</b>                     |  |
|--|--|
| <b>Unified Contact Center - Applications</b> | <b>Network Devices</b>                 |
| ICUCM 5.x & 6.x                              | Cisco Series Routers*                  |
| Unified Contact Center Enterprise 6.x & 7.x  | Cisco Series Switches*                 |
| Unified Customer Voice Portal 3.x-7.x        | <b>Unified Communications</b>          |
| CRS 4.X-5.x                                  | Unified Communications Manager 4.x-7.x |
| <b>Unified Contact Center - Hardware</b>     | Unity 4.x-7.x                          |
| Administrative Workstation                   | Cisco Unified Presence 6.x             |
| Peripheral Gateway                           | Unified Mobile Communicator            |
| Router (ICUCM)                               | Unified Personal Communicator          |
| Logger                                       | IP Communicator                        |
| Historical Data Server                       | Cisco IP Phone                         |
| CTI OS/CAD (PG CTI Server)                   | Cisco PSTN Gateway                     |
| ICUCM Carrier NIC                            | <b>Core Software Subcomponents</b>     |
| Ingress Gateway                              | Exchange                               |
| Egress Gateway                               | SQL                                    |
| Gatekeeper                                   | Domino                                 |
| CVP VXML Server                              | <b>OS Components</b>                   |
| Media Servers                                | WIN 2000 OS                            |
| CSS Boxes                                    | WIN 2003 OS                            |
| ASR/TTS Servers                              | Linux OS                               |
| Outbound Dialer                              | <b>General Hardware Components</b>     |
| Third Party Connectors                       | Cisco MCS Hardware                     |
| CVP Report Servers                           | Cisco Approved HP, IBM, Sun Hardware   |
| Cisco WebView Servers                        | <b>Core Infrastructure</b>             |
| CVP Application Server                       | DNS                                    |
| CVP Call Director Server                     | NTP                                    |
|  |  |

\* monitor only

## Elective Change Services

Elective Change Services are Customer requested changes and are scheduled activities. The table below identifies the changes that are available for Cisco Management Application Platform Services.

| Examples of Standard Elective Services   |
|--|
| <ul style="list-style-type: none"> <li>• Adding new systems, devices and applications to be monitored</li> </ul>   |
| Examples of Elective Services that may be included depending on scope  |
| <ul style="list-style-type: none"> <li>• Reporting (consultation, definition, configuration. support) <ul style="list-style-type: none"> <li>○ Availability</li> <li>○ Performance</li> <li>○ CDR/CMR</li> <li>○ Workgroup</li> <li>○ Business processes</li> <li>○ Change Management</li> <li>○ Compliance</li> <li>○ Management/Executive</li> <li>○ Etc.</li> </ul> </li> </ul> |
| <ul style="list-style-type: none"> <li>• Dashboards (consultation, definition,, configuration. support)</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Monitoring configurations</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Management consulting</li> </ul>  |
| Examples of Customized services/solutions requiring a Custom Service Descriptions (may not available under Elective Services)  |
| <ul style="list-style-type: none"> <li>• Change management applications</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Service procurement request forms</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Workflow applications</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Enterprise helpdesk integrations</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Synthetic testing/transactions</li> </ul>   |
|  |

## Premier Reports

The following reports are available on the Cisco Unified Communications Management Application Platform:

| Report Name                   | Description  |
|-------------------------------|--|
| System Hardware Report        | Identifies each hardware component under management and provides the following information: Host name, IP address, device model, serial #, site name, contract expiration date   |
| System Infrastructure Report  | Identifies IOS image and flash/RAM per managed device and consists of the following information: Site name, Host name, device model, modules, IOS version, IOS subset, IOS image name, Flash (size), RAM   |
| System Application Report     | Identifies OS releases and fixes per MCS and equivalent server under management. The report contains the following: Site, device name, device model, model #, device manufacturer, OS type, OS version, application version, hot fixes                   |
| Registered phone count report | Identifies registered phones at the time that the report is generated. The report shall contain the following: CUCM Host name, CUCM IP address, CUCM cluster site location, device type, device registered ID (MAC address), device description, calling |

| Report Name                        | Description   |
|------------------------------------|---|
|                                    | search space, partition, device IP address, status (registered or not registered); creates summary report xx phones registered; create a historical trend report month by month   |
| Inventory Report                   | Lists all "active" customer managed devices, by site name, device type/model, device name, "managed" customer ip address ( if NAT ), last good backup ( IOS/CAT OS ) and lists config archive exceptions. The report consist of the following: site name, site location, device type, device name, IP address Natted, IP Address (not Natted), SNMP community string, activation date (optional); date of last back-up. |
| Global Ticket Report               | Identifies the devices in the system that has been impacted by an Incident or Problem and extent of AutoCase activity. The device names indicate the location in production environments. End user selects the system, time frame and generates a report via Web portal.  |
| Service Experience Report          | Identifies top ten sites that have experienced the most tickets and causes. The report consists of: site names, site location, # of Change tickets, # of Incident tickets, device type, device name, major cause  |
| Application Server Report          | Identifies the following key server statistics: Utilization of CPU, Memory, Disk space, Network. Service status of all monitored services on Cisco UC servers. End user selects the server time frame and generates a report via Web portal.  |
| Voice Service Level Summary Report | Cisco Unified Communications Manager cluster-based report representing: mean opinion score (MoS), latency, jitter, packet loss, disconnect cause summary, call type report and inbound/outbound call report.  |
| Elective Change Report             | A monthly summary report of elective change hours expended in support of the elective changes requested by the customer.  |
| Operations Report                  | A monthly report that provides ticket information and response times.   |

|                    |
|--------------------|
| <b>APPENDIX B:</b> |
|--------------------|

|                          |
|--------------------------|
| <b>Glossary of Terms</b> |
|--------------------------|

Glossary of Terms should be read in conjunction with this Service Description. Capitalized terms not defined herein have the meanings assigned to them in the Glossary of Terms.

**Analog Telephony Devices** means devices such as fax machines, modems, and analog phones connected to FXS or gateway ports and that require call processing by a managed Cisco Unified Communications Manager.

**Advanced Event Correlation (device-level, component-level, time-based)** means the act of combining disparate data sources to obtain root cause.

**Backup Management** means the process and actions needed to backup and restore Cisco IOS router and switches. May include backup policies outlining retention policies, ad-hoc configuration backups and restores as well as standard backup reports.

**Carrier** means a provider of data transport services.

**Change Management** means the process used by Cisco to receive, authorize, execute, and communicate changes to the Management Application Platform.

**Change Request** means any request for service made by the Customer or Partner, who Customer has granted the authority to act on its behalf, in electronic format (submitted via the Portal).

**Cisco** means Cisco Systems, Inc., a California corporation having its principal place of business at 170 West Tasman Drive, San Jose, California 95134.

**Cisco Remote Operations Services (ROS)** means the Cisco Services team that delivers Cisco Remote Management Services.

**Configuration Management** means the process to create and maintain an inventory of the Managed Components.

**Customer** means the entity purchasing Services for its own internal use either directly or through an Authorized Channel.

**Customer Acceptance** means a mutual agreement with Cisco to acknowledge completion of the Transition Management phase.

**Customer Notification** means a communication to inform the Customer that an Incident has been recorded.

**Customer Premises** means the physical Customer location where the Managed Components reside.

**E-notification** means the act of sending notification of Incidents and the status of Tickets electronically.

**Elective Change** means a change requested by the Customer and is often the result of changes in the Customer network, business processes, or the business. Elective Changes are specific to activities to update, modify or customize the Management Application Platform system or software application.

**Elective Change Request** means any request for service made by the Customer or Partner, in electronic format (submitted via the Portal).

**Host Device** means chassis.

**IOS** means Cisco Internet Operating System.

**Unified Communications (UC)** means the functionality of providing traditional voice services, to include but not limited to, phones calls, convergence calls, or voicemail services, over an IP enabled network.

**Incident** means any event that is not part of the standard operation of a service and that causes or may cause an interruption to, or reduction in, the quality of that service.

**Incident Management** means the process to detect an incident, notify the Customer about the incident and resolve the incident.

**Incident Resolution** means the process to restore services on Managed Components.

**Intelligent Monitoring** means advanced correlation and automation of tools and scripts to enable quick response to incidents.

**IT** means Information Technology.

**Knowledge Base** means a searchable database of knowledge and known errors.

**Known Error** means Incidents with a defined root cause and resolution.

**Letter of Agency** means a letter which authorizes Cisco to act as the Customer's agent for purposes of ordering, facilitating, tracking and/or providing services with Carriers, maintenance contract providers, and other general-service providers.

**Managed Component** means an element for which IT-infrastructure monitoring services are provided by Cisco as identified per Customer contract

**Management Application Platform (MAP)** is suite of management applications and tools that Cisco uses to deliver ITIL based service management.

**Management Connection** means the physical communication link between the Cisco and the Customer Premise.

**Management Connectivity** means a bi-directional communication between the Customer Premise and Cisco for Management Data to be securely and consistently transmitted between Managed Components and Cisco.

**Management Data** means events, alerts, performance information, traps and/or log messages that are collected by the Service Management Application.

**Management Service** means the actions and activities such as Incident and Problem management performed by Cisco or directly by the Customer.

**Monitoring** means detecting events and performance metrics on Managed Components.

**Monitoring Service** means the actions and activities performed by the Management Application Platform and not actual Incident and Problem management activities. See Management Service for further definition.

**Network** means a set of interconnected and interworking Cisco supported hardware and software that is implemented, operated, and supported by Customer from a single network operations center (NOC).

**Network Component** means a device or link that makes up part of a network.

**Non-Managed Component** means any element for which management services is not provided by Cisco.

**OSI** means the Open System Interconnection Reference Model.

**Patch** means a small fix to a problem using a piece of software code.

**Partner** means the third party contracted by Customer to act as its technical point of contact with respect to the Services.

**Point of Presence** means a carrier aggregation point for access to carrier-provided Internet and wide area network services.

**Portal** means the online Web user interface supplied for Customers and Partners to receive and submit information to and from the NOC.

**Primary Management Connectivity** means the management connection provided by Cisco.

**Proactive Problem Management** means the process to prevent Incidents.

**Problem** means the underlying cause of one or more Incidents.

**Problem Management** means the process to find and resolve the root cause of a Problem and prevention of Incidents.

**Problem Resolution** means the process of providing remediation based on the root cause for unknown Incidents.

**Project Coordinator** means the Cisco project manager who is the single point of contact thru the Transition Management phase.

**PSSTN** means Public Switched Telephone Network.

**PVC** means Private Virtual Circuit.

**Quote** means quote for services.

**Reactive Problem Management** means the Problem Management sub-process that primarily supports Incident Management. These processes are initiated when an Incident cannot be matched to a Known Error.

**Read** means the ability to view system logs, configuration files and other device and system-level information.

**Release Management** means the process focused on the actual implementation of approved changes.

**Reseller** means the business that sold Cisco management to the Customer.

**Self-diagnostic and business rules engine** means the ability to gather further diagnostic data with the ability to take or provide additional action recommendations.

**Service Description** means Cisco will provide the Services and perform Cisco responsibilities described in the standard Cisco Service Description located at [www.cisco.com/go/servicedescriptions/](http://www.cisco.com/go/servicedescriptions/) (or such other location of which Cisco may notify Customer from time to time).

**Service Activation Kit (SAK)** means a document that is completed by the Customer during the Transition Management phase.

**Service Delivery** means the phase after Transition Management when Cisco begins to deliver Services.

**Service Desk** means a single point of contact for Customers for the Service.

**Services** mean the Cisco Unified Communications Management Application Platform Services or Unified Contact Center Management Application Platform Services as selected by Customer.

**Standard Business Hours** means 8AM to 5PM in the time zone of the Customer's headquarters.

**Standard Change** means a Cisco ROS recommended change that is often updates to the Management Application Platform.

**Standard Change Request** means a request for change to solve an Incident or Problem.

**Start Date** means the date Services commence.

**SLA** means Service Level Agreement.

**Termination Device** means is Customer Premise equipment that terminates the Management Connection.

**Ticket** means the tracking mechanism for Incidents and service requests within the NOC. The NOC activities are

detailed within the Ticket that contains the complete history of record for an Incident or service request.

**Transition Management** means a phased process approach in which Cisco prepares the Management Application Platform (MAP) for the Customer's use in managing their network

**Ticket trending and problem analysis** means analyzing tickets and ticket trends so that proactive steps can be taken to reduce or eliminate potential future incidents from occurring in the network.

**VPN** means Virtual Private Network.

**Write** means the ability to make and save changes to device configurations.