This document referred to as a Technology Addendum describes the Cisco Unified Communications and Unified Contact Center (UC & UCC) Remote Management Service Offer.

Related Documents: This document should be read in conjunction with the following documents also posted at www.cisco.com/go/servicedescriptions: (1) Cisco Remote Management Services RMS Common Service Description (“RMS Common Service Description”); (2) Glossary of Terms; (3) List of Services Not Covered

Direct Sale from Cisco

If you have purchased these Services directly from Cisco, this document is incorporated into your Master Services Agreement (MSA), Advanced Services Agreement (ASA), or equivalent services agreement executed between you and Cisco. If not already covered in your MSA or equivalent services agreement, this document should be read in conjunction with the Related Documents identified above. In the event of a conflict between this Service Description and your MSA or equivalent services agreement, this Service Description shall govern.

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 this document to you, or you can obtain a copy of this and other Cisco service descriptions at www.cisco.com/go/servicedescriptions./

The Service

This Technology Addendum is designed to be read in conjunction with the Cisco Remote Management Services Common Service Description (Common Service Description) which is also posted at: http://www.cisco.com/web/about/doing_business/legal/servicedescriptions/index.html. The Common Service Description describes the activities and deliverables that make up Cisco Remote Management Services. In addition to the activities and deliverables outlined in the Common Service Description, the Cisco Unified Communication and Unified Contact Center Remote Management Services Technology Addendum outlines the unique activities and deliverables for the Customer’s UC and UCC devices and infrastructure that are being managed by RMS. Both service descriptions should be read in combination to fully understand the scope of the services being purchased.

Cisco Unified Communications and Unified Contact Center Remote Management Services and other optional services are intended to supplement a current support agreement for Cisco products, and only available where all the Managed Components in a Customer’s network and Cisco Unified Communications Solution are supported through a minimum of core services such as Cisco’s SMARTnet and Software Application Services, as applicable. Cisco shall provide the Cisco Unified Communications and Unified Contact Remote Management 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. Cisco only provides support for Managed Components, unless specifically noted. For any device, component or solution element not specifically designated as a Managed Component, Cisco shall have no responsibilities whatsoever.

This Technology Addendum describes the services capabilities, supported devices, elective changes, and reports delivered with Cisco Unified Communication and Unified Contact Center Remote Management Services.

1. Service Levels
The Cisco UC & UCC Remote Management Services are offered in two service levels:

- Monitoring Service
- Managed Service

These service levels are described in detail in the Common Service Description. In addition to these two service levels, the Customer can also purchase Optional services as needed to augment their Cisco UC & UCC Remote Management Services. The table below outlines the activities and deliverables that are covered under the two service levels and Optional Services for the Cisco UC & UCC Remote Management Services.

<table>
<thead>
<tr>
<th>Activities / Deliverables</th>
<th>Monitoring Service</th>
<th>Managed Service</th>
<th>Optional Services</th>
<th>Requirements / Additional Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Readiness Assessment</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Device Monitoring</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Record</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Notification</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backup of Cisco Devices</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Management</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Event Correlation</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Priority and Classification</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Investigation and Diagnosis</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Resolution and Restoration</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Escalations</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Closure</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root Cause Analysis Reports</td>
<td></td>
<td>✓</td>
<td></td>
<td>Customer Engineer Level I</td>
</tr>
<tr>
<td>Ticket Trending and Analysis</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Customer Engineer Level II Option</td>
</tr>
<tr>
<td>Review / Assess Cisco Field Notices</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Customer Engineer Level II Option</td>
</tr>
<tr>
<td>Operations Manager Level I and II</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Engineer Level I and II</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Operations Manager</td>
</tr>
<tr>
<td>Defined Changes</td>
<td></td>
<td>✓</td>
<td></td>
<td>Elective Changes</td>
</tr>
<tr>
<td>Custom Scoped Elective Changes</td>
<td></td>
<td>✓</td>
<td></td>
<td>Elective Changes</td>
</tr>
<tr>
<td>Web Accessible Portal</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Reports</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Reports</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Managed Service</td>
</tr>
<tr>
<td>Custom Reports</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Operation Manager II</td>
</tr>
<tr>
<td>UC &amp; UCC Application Support</td>
<td></td>
<td>✓</td>
<td></td>
<td>Requires Managed Services</td>
</tr>
</tbody>
</table>
2. Reporting

2.1. Standard Level Reports

The Cisco Management Application Platform (“MAP”) constantly gathers device level information from the Managed Components covered within the Service. This information is compiled and made available via reports available on the Services portal. Device level reports available are listed below.

- **Bandwidth Utilization** - Bandwidth usage per day across monitored devices
- **Graph Export** - Downloadable reports of performance metrics
- **Hardware Inventory Report** - Identify hardware components under management
- **Key Performance Indicators** - Performance metrics and resource utilization
- **System Infrastructure Report** - Identifies IOS image per managed device
- **Top Active Devices** - Devices that caused the most incidents
- **Registered Phone Count Report** - Identifies registered phones at the time that the report is generated
- **Voice Service Levels** - Voice service levels per device pool. Cisco measures mean opinion scores (MOS) to determine call quality.
- **Cisco Version Report** - Cisco IOS/CatOS version information
- **System Uptime** - Device uptime metrics
- **Syslog** - Logs from the syslog system log module

2.2. Advanced Level Reports

Advanced Reports provide a detailed look at the Service and the Managed Components covered by the Service. Specific reports are itemized below.

- **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 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 & UCC 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.

- **Operations Report** - A monthly report that provides ticket activity, detail by user, suppression, created by, notification and response times

A detailed list of the available reports can be found here:  

### 2.3 Custom Reports

Provides for the ability to create or modify the types of reports based upon the available data. Each request for Custom Reporting must be evaluated and mutually agreed upon between the Cisco Operations Manager and the Customer. Operations Manager Level 2 is a pre-requisite for Custom Reporting.

### 3. Supported Device List

Products supported under the Unified Communications and Unified Contact Center RMS Offer fall into the following two categories:

- Endpoint (Indirect Support)
- Applications/Devices


### 4. Unified Communications and Unified Contact Center Remote Monitoring Capabilities

Cisco RMS provides real-time monitoring on key UC and UCC components under the Monitoring and Managed Services and proactively declares incident events for:

- System and/or Application Availability
- System and/or Application Performance
- Hardware Environmental
- Operating System Availability
- Syslog and Traps
Further details specific to the technical parameters and levels used to trigger Incidents and other management details can be accessed via the UC and UCC RMS Monitoring Details documented, located at http://www.cisco.com/en/US/products/ps6192/serv.datasheets.list.html hereby incorporated into, and made part of, this Service Description by this reference.

5. Quality of Service Ticketing

Voice Quality of Service (QoS) monitoring and ticketing is an important element of the UC & UCC RMS offer. The capability provides for monitoring of QoS metrics like jitter, latency and packet loss as indicated within a Mean Opinion Score (MOS).

The Cisco MAP 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 MAP Portal to map directly to the level of call quality that a support organization wishes to establish as the benchmark. Benchmarks, or threshold criteria, is configured to match the level of monitoring mutually agreed by the Customer and Cisco.

6. Customer Requested Change Management

Customers purchase a block of support hours that can be leveraged across all MACD Categories and Custom Scoped Elective Changes that a Customer has under their RMS contract. The Customer must have a sufficient balance of support hours on account to cover the requested change. Additional support hours may be purchased if required.

6.1. Defined Changes

Defined Changes are categorized into Small, Medium, and Large activities. A Defined Change is a requested change by the Customer that is pre-approved and does not cause a risk to the environment. Defined Changes are not the result of Cisco Incident Management and Problem Management processes. The Customer identifies the needed type of change and submits a Defined Change Request on the Portal.

6.1.1. Defined Changes - Unified Communications

Defined Changes Type 1:

Phone Administration (single phone):
• Adding a new phone
• Adding a new user
• Configure/Change/Delete Lines
• Configure Speed Dials
• Configure XML Services (e.g. Extension Mobility) NOTE: If service is provided
• Agent Association with skillset/queues

How-To Support:
• Password reset
• Reassign IP Phone
• Delete IP Phone
- Single Number Reach
- Single Number Reach (SNR) Call Manager Express (CME)
- External Call Forward
- User Profile Setup
- Call Restrictions
- Cisco Unity
- Manage Unity user accounts
- Voice Mail Reset
- Voice Mail Setup
- Alternate extensions

**Dial Plan Administration**
- Time of day routing of calls (THIS DOES NOT INCLUDE DESIGN)
- Configuring line and hunt groups
- Configuring and administering UC Attendant Console

**MeetingPlace/MeetingPlace Express**
- Managing user accounts and groups

*Note*: Customer may submit up to 12 type 1 MACDs per business day. More than 12 per customer per business day will be negotiated.

**Defined Changes Type 2:**
- Configuring and administering Auto-Attendant (options, recordings, prompts)
- IP Communicator Setup (includes call-manager config and PC walkthrough)

**Defined Changes Type 4:**
- Cisco Unity
  - Unity Call Handler changes
- Gateway Administration
  - Allocate Directory Numbers to trunks for analog ports (1 trunk)

**Defined Changes - Type 8:**
- License uploads
• Private Line Ring Down (PLAR)

6.1.2. Defined Changes - Unified Contact Center

Defined Changes - Type 2:

CTI

• Port and route point integration updates

Routing script adjustments

• Perform changes to routing scripts in support of call routing applications

Administration script adjustments

• Perform changes in support of administrative applications

Configuration Manager Changes

• Perform updates to Configuration Manager

Port Administration

• Modifications
• Turn up/down

Wave File, TTS and ASR Administration

• Changes to, prompts, vocabulary, administration, tuning and basic call transfer
• File additions, modifications and deletions

Email Administration

• Administration of application

Ingress Gateway Administration

• Service changes for new application deployments, call service additions and dial peers
• Administer changes to the ingress gateway

Gatekeeper Administration

• Changes to gatekeeper configuration

Outbound campaign modifications

• Administer the system configuration
• Changes to dialer lists, modes and scripts

CVP self-service applications in Audium/Design Studio

• Application changes and enhancements

SIP Proxy Server

• Configuration and Table changes

CVP Operations Console and Reporting server and Database

• Application changes and enhancements
• File additions, modifications and deletions
Defined Changes Type 4

CTI

- Scripting updates

Provisioning applications and interfaces

- Provisioning of integration elements between applications

License Administration

- Administer modifications to licenses, including additions and deletions

Outbound campaign modifications

- Administer outbound campaign application

CVP self-service applications in Audium/Design Studio

- File additions, modifications and deletions

6.1.3. Custom Scoped Elective Changes

Custom Scoped Elective Changes are Customer requested changes that fall outside Incident and Problem (Standard) changes for restoring service. Custom Scoped Elective changes require a mutually agreed upon statement of work (SOW) that describes the scope of changes to be executed. See Cisco RMS Common Service Description for more details of Custom Scoped Elective Change support.

Some examples of Custom Scoped Elective Change activities are listed below:

Dial plan administration

- Minor dial-plan updates and corrections

Cisco Media Convergence Server (MCS) administration

- Apply operating system patches

Cisco application software administration

- Apply Cisco-recommended minor software updates and patches
- Apply Cisco-recommended (minor, same code train) software updates security-related purposes
- IOS same-train software upgrades

Capacity Planning – Optimization services from AS

- Evaluation of Network performance and current resource utilization
- Determining impacts and required modifications to support new applications and services

Creation of custom reports

- Consultation
- Definition
- Configuration
Creation of custom dashboards

- Consultation
- Definition
- Configuration

SIP Proxy Server

- Upgrades, additions, modifications and deletions

Feature Upgrades

- CM, Unity, IOS, etc. major upgrades

Bulk Phone Load Upgrades (100 phones) – Requires Ops Manager 1

6.1.4. Discovery audit

For customers with existing Cisco IP equipment, a discovery audit will be required in order to turn-up service.

The discovery audit service will be Custom Scoped and conducted by the Customer using Cisco-supplied processes and tools for the Cisco Unified Communications Remote Management Services.

The discovery audit must be completed and submitted to Cisco 14 calendar days after placing the order for the Service.

If the Customer so elects, Cisco can perform this audit as a Custom Scoped Elective Change Service. The audit process requires Customer to run a Cisco-supplied macro to identify peripherals, routing clients, dialed numbers, dialed number map, call types, services, routes, peripheral targets, labels, device targets, skill groups, skill group members, agents, person and agent person map.

The Customer will provide the following documentation:

- Architecture diagrams (to include Trunk and Port counts per peripheral)
- Network diagrams (to include IP addressing for visible and private Networks)
- Design Docs
- Network implementation plan
- As-built documentation
- Customer change control process
- Mapping of DNIS to call types, variables and scripts
- Population points of all variables

6.1.5. Synthetic Transactions

Synthetic Transactions is a Custom Scoped service in which the Cisco MAP 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 MAP 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 MAP Portal event analysis engine. The test is run at routine intervals to select destinations established in the Cisco MAP 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 MAP 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 MAP 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.

7. Optional Services

7.1. Dedicated Reporting Server

The Dedicated Report Server option will allow for an extended and offline data store of management and performance data gathered through normal operation of the MAP. Data is regularly moved from the primary MAP system to the dedicated report server. The data within this server is then available for Customer reporting or data mining in the case having to store call detail records for extended periods of time or just using to look at system performance data.

7.2. Business Continuity

Cisco’s MAP Business Continuity option allows for disparate geographically deployed MAPs. This option allows for redundant management applications to provide for a backup capability in case of total data center failure. 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 address redundancy in the event the primary system fails.

• IP-SLA Monitoring

Within the Management Application Platform a Customer would be able to leverage and analyze the optional IP SLA statistics for a consistent, scheduled approach to voice management. These statistics are monitored and recorded within the IP SLA section of the MAP.

The Cisco RMS team utilizes IP SLA, in conjunction with MoS scoring. By its very nature, IP SLA is a scheduled and regular test while phone calls are random and infrequent.

The test requires the use of two routers running IP SLA, a feature within Cisco IOS, which are set up as a source and a responder.

Every minute the router will generate 100 packets at a rate of 50 per second which are tagged with the voice class of service following the same path as voice packets but the size is small enough to prevent injecting problems into the very environment being monitored.

As the packets leave the initiator, they are tagged with a date/time stamp. The packets will also be date/time stamped when arriving at the responder. These same packets are then marked in the same fashion when leaving the responder and again when arriving back at the initiator. This information is then analyzed to determine jitter, latency and packet loss.

7.3. IP Phone Problem Reporting

The Cisco MAP XML integration allows users experiencing an incident with voice services to use the dynamic capabilities of Cisco® IP telephone menus to report the problem to support personnel using the MAP solution. When an incident report is submitted from a phone, the MAP systematically opens a case including the available CallManager detail reported for the event. Support personnel can then analyze the issue, take the appropriate actions, and work the case through to completion using the MAP’s Incident
Management capabilities. Case data is archived to form a centralized repository on the time/type/frequency of incidents and stations impacted.

**Activation services include:**

- Provide XML code and configuration guidelines for installation of application on CallManager
- Testing

**Subscription services include:**

- Cisco IP Telephone XML integration application
- Maintenance support

8. **SERVICES NOT COVERED:**

This Technology Addendum should be read in conjunction with the List of Services Not Covered document posted at http://www.cisco.com/go/servicedescriptions/, which is hereby incorporated into, and made part of, this Technology Addendum by this reference. To the extent there is a conflict between the terms of this Technology Addendum and such document, the terms of this Technology Addendum shall control.