



## Cisco Unified Computing Remote Management Services

Cisco® Unified Computing Remote Management Services (RMS) are an immediate, flexible management solution that can help you realize the full value of the Cisco Unified Computing System™ (UCS) sooner. You can outtask proactive monitoring and management for high availability to Cisco experts, who will always have the latest Cisco UCS expertise. We function as an extension of your IT team, allowing you to retain control and visibility, stay focused on your core business, and lower your total cost of ownership. Cisco RMS can be a long-term management solution or a transitional one until you or a trusted partner is ready to assume management responsibilities.

Cisco Remote Management Services are an immediate, flexible management solution that can help you realize the full value of the Cisco Unified Computing System

### Service Overview

Cisco Unified Computing RMS provides comprehensive monitoring and management of your Cisco Unified Computing System around the clock. Delivered by an experienced team of Cisco engineers using industry-leading tools and IT Infrastructure Library (ITIL®)-based processes, we proactively monitor your unified computing environment, including system hardware, operating systems, virtualization technologies, and supporting network infrastructure, for fault and performance events. From our Global Network Operations Center (NOC), we resolve incidents and take the lead in co-managing the network as an extension of your IT team. With Cisco RMS, you can:

- Realize the full benefits of the Cisco Unified Computing System sooner
- Apply best practices and methodologies to assure the operation of your unified computing environment
- Optimize the uptime, performance, and efficiency of your Cisco Unified Computing System to maximize the value of your investment
- Shape operational processes around a comprehensive view of data center resources and interdependences
- Complement your firm's internal skills and achieve operational efficiencies by leaving the work of monitoring and remediation of unified computing components to Cisco's experts

- Improve application performance and availability to meet service-level agreements
- Lower total cost of ownership through reduced operating expenses by improving the efficiency of your Cisco Unified Computing System and the staff supporting it

## Features

Cisco Remote Management Services enable your organization to realize immediate benefits from your investment in the Cisco Unified Computing System by providing day-to-day monitoring and management of your environment using industry-leading expertise, processes, and tools.

Our consistent services are based on proven methodologies, tools, and talent:

- Industry-recognized processes based on ITIL®
- Cisco's world-renowned technical talent
- Deep domain expertise on Cisco Unified Computing technologies
- Best-in-class tools for monitoring and managing Cisco Unified Computing environments

## Services Specifications

Cisco Unified Computing Remote Management Services provide a flexible suite of monitoring and management service offerings for your unified computing system environment that can be combined to deliver a customized solution to meet your needs.

- **Monitor/Notify Service**
  - Monitoring
  - Detect faults and performance events
  - Customer notification
- **Standard Service**
  - Monitoring
  - Incident management
  - Problem management
  - Service-level management
- **Elective Service**
  - Managed service engineering hours

Table 1 shows the day-to-day activities associated with the Monitor/Notify, Standard, and Elective service elements.

**Table 1.** Flexible Remote Management Services Options

Day-to-Day Management Activities	Monitor/ Notify Service	Standard RMS	Elective RMS
Around-the-clock proactive monitoring	✓	✓	
Incident detection, recording, and analysis	✓	✓	
Automated event correlation	✓	✓	
Incident notification	✓	✓	
Problem identification		✓	
Root cause analysis on problems		✓	
Engineering support to diagnose and resolve incidents and problems and restore service		✓	

Day-to-Day Management Activities	Monitor/ Notify Service	Standard RMS	Elective RMS
Web portal for access to tickets, availability, and performance statistics	✓	✓	
Standard reports for performance and availability	✓	✓	
Service-level engagement		✓	
Cisco application software upgrades for feature enhancements			✓
Configuration changes to Cisco software and devices			✓
Move, add, change, or delete any component of a managed device or application			✓
Patches to the Cisco applications and devices			✓
Review incident and performance trends requiring proactive attention			✓

### Monitor/Notify Service

The Cisco Unified Computing Monitor/Notify Service provides physical and logical monitoring for all unified computing hardware and software elements, including operating systems (Microsoft, Linux) and VM (VMware) environments. Monitor/Notify Service provides around-the-clock automated event correlation and notification of all events detected, coupled with access to historical reporting for trending analysis.

### Standard Service

Building on the Monitor/Notify Service, the Cisco Unified Computing Standard Service adds incident management, problem management, and service-level management to the physical and logical monitoring of all unified computing hardware and software elements. Operating systems (Microsoft, Linux) and VM environments (VMware) are incorporated as managed instances in the Standard Service offering. VMware management will provide logical instrumentation for monitoring and managing all VMware instances and associated tools, including Virtual Center, DRS, and high availability, coupled with a robust report suite and capability to track vMotion instance movement.

From our Network Operations Center, Cisco performs the day-to-day monitoring and management activities to resolve incidents, perform root cause analysis on problems, and implement standard changes for the devices and applications in your unified computing environment. Table 2 lists Standard Service features.

**Table 2.** Standard Service Features

Incident Management, Problem Management, and Service-Level Management
<ul style="list-style-type: none"> <li>• Incident detection, recording, analysis, and notification</li> <li>• Ticket generation and remediation recording in a knowledge base</li> <li>• Performance threshold notifications for early warning of pending problems</li> <li>• Engineering support: diagnose and resolve incidents, restore service</li> <li>• Problem engineering: identification, root cause analysis, resolution</li> <li>• Performance trending: identification, root cause analysis, resolution</li> <li>• Ticket trend analysis and problem identification</li> <li>• Web portal for access to tickets, availability, and performance statistics</li> <li>• Standard reports for performance and availability</li> </ul>

## Hardware Monitoring

- **Cisco UCS Server Chassis**
  - CRC: status, BIOS, GRU ID
  - Blade slots: status, power
  - Power: status, deviation
  - Fans: status, deviation
  - Temperature: status, deviation
- **Cisco UCS Servers**
  - I/O module: media, configuration, power, status, deviation, performance
  - Server: CPU, memory, firmware, BIOS, power, status, configuration, disk, I/O
- **Cisco UCS Fabric Extenders, Cisco UCS Fabric Interconnects, Cisco UCS Converged Network Adapters**
  - Links: status, I/O, performance

## Software Monitoring

- **Operating systems**
  - Cisco Nexus™ and Cisco Nexus embedded OS
    - NXOS alarms and alerts
  - **SUSE, Redhat, Microsoft Windows 2003 and 2008**
  - CPU and memory usage
  - Interface utilization
  - File system utilization
  - Change alerts
  - Process alerts
  - Services alerts
  - Open ports
- **Unified Computing Server Manager (UCSM)**
  - Chassis and configuration alarms and alerts

## VMware Monitoring

- **Discovery and visualization of the virtualized environment**
- **Virtual Center**
  - Status and virtual center alarms and events
- **Distributed Resource Services**
  - Status: DRS alarms and events, ESX instance movement
  - vMotion sickness alarm and remediation
- **High Availability**
  - Status: HA alarms and events
- **ESX Server and virtual instance**
  - Guest instance monitoring and auditing
  - Monitoring suite
    - Status: memory utilization, bandwidth utilization, network I/O and utilization, file system utilization, data store utilization

### Standard Reports

A standard report package provides important information for the devices on your unified computing system. Reports include:

- Top 10 talkers on events: top 10 devices with most events created against it and number of those events
- Uptime: 10 devices that have the greatest percentage of uptime (with percentage of uptime)
- Downtime: 10 devices that have the lowest percentage of uptime (with percentage of uptime)
- Top 10 devices with most P1 tickets created (per month, per quarter)
- Top 10 devices with most P2 tickets created (per month, per quarter)
- Top 10 devices with most MACs created (per month, per quarter)
- Oldest existing 10 tickets
- Top 10 utilized Ethernet ports on switch (with percentage of utilization per port)
- Top 10 utilized Fibre Channel ports on switch (with percentage of utilization per port)
- Top 10 VM instances that have moved from one blade to another
- Top 10 on CPU utilization, memory utilization, traffic in and out, and file system (disk) utilization and file system (disk) availability

### VMware Reports

In addition, the service includes the following VMware reports:

- Virtualization Infrastructure Report: VMware ESX Server information: VMs grouped by ESX Server and showing info for each VM, including guest OS, CPU allocation and utilization, memory allocation and utilization, bandwidth utilization, file systems
- Virtualization Server Candidate Report: Trended utilization info for virtualization server candidates according to user-defined thresholds
- VM Virtualization Projection Report: Trended and projected utilization info for ESX servers and VMs
- VM Health Report: Health and availability for VMs showing CPU, memory, and network activity
- VM Top Utilization Report: VMs with heavy resource utilization
- VM Migration Report: For each VM a history of where it was, where it is now, and when it moved
- VM Interface Utilization Report: Bandwidth utilized by each VM and each ESX server
- VM Compliance Report: Software titles running on each VM; all VMs and physical machines with specified software titles

### Elective Service

The Elective Service option goes beyond basic monitoring and management to provide you with access to Cisco engineers to support change, release, configuration, and patch management. Delivered as a usage-based block of monthly hours, this service enables you to utilize Cisco expertise for customer-requested activities and changes to your unified computing environment. These scheduled, requested services range from routine move, add, change, and deletes (MACDs) to implementing patches or updates to devices.

Prepaid engineering hours may be used for the following:

- Configuration changes to Cisco software and devices
- Move, add, change, or delete any component of a managed device
- Identify patch, BIOS, and driver versions of installed system components
- Deploy a new blade into a chassis and update service profile
- Install a Windows server on a unified computing blade and chassis
- Apply QoS settings to the traffic on a blade and chassis
- Deploy patches to servers
- Upgrade server BIOS

Delivered as a usage-based block of monthly hours, the Elective Service option enables you to utilize Cisco expertise for customer requested activities and changes to your unified computing environment.

- Upgrade mezzanine card drivers

### **Data Center Remote Management Services**

Cisco also offers Remote Management Services for other data center technologies. For more information, visit [www.cisco.com/go/rms](http://www.cisco.com/go/rms).

### **Cisco Data Center Services**

Today, the data center is a strategic asset in a world that demands better integration among people, information, and ideas. Your business and your data center work better when technology products and services are aligned with your business needs and opportunities. Using a unique network-based perspective and unified view of data center assets, Cisco and our industry-leading partners deliver services that accelerate the transformation of your data center. Cisco takes an architectural approach to help you efficiently integrate and manage data center resources. Cisco Data Center Services help you reduce costs, deliver high availability and application performance, and better meet your service-level agreements.

### **Why Cisco Unified Computing Services**

Using a unique network-based perspective and unified view of data center resources, Cisco and our industry-leading partners deliver services that accelerate your transition to a unified computing environment. Cisco Unified Computing Services help you quickly deploy your data center resource and optimize ongoing operations to better meet your business needs. Using an end-to-end architectural approach, proven methodologies, and industry best practices, we help you realize the full benefits of unified computing and help mitigate risks as you evolve your data center. Cisco's award-winning support and remote management services help you maintain a high level of performance with your unified computing system.

### **About Cisco Remote Operations Services**

Cisco Remote Operations Services (ROS) is an organizational unit of Cisco. Cisco ROS delivers a suite of services designed to proactively manage, monitor, and protect complex networks and advanced technologies remotely, based on an ITIL® operations model. Cisco ROS anticipates, identifies, and resolves issues with greater accuracy and efficiency and in a more cost-effective manner than most customers typically achieve on their own. Cisco ROS can help you to quickly realize the business objectives of deploying Cisco advanced technologies, without the usual IT staff complexities or disruption to network performance that you might expect with such an implementation.

### **Availability and Ordering Information**

To learn the availability of the Cisco Unified Computing Remote Management Services product offerings and how to place an order, contact your Cisco sales representative.

### **For More Information**

For more information about this and other Cisco Remote Management Services, visit [www.cisco.com/go/rms](http://www.cisco.com/go/rms) or contact your local account representative.



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