



Cisco Unified Computing Remote Management Services

Service Overview

Cisco® Unified Computing Remote Management Services (RMS) can help corporate IT management to accelerate the transformation of your data center to a unified computing architecture through the monitoring, management, and performance reporting of the Cisco Unified Computing System. By monitoring the infrastructure and performance of applications as well as alerting, reporting, and analyzing performance problems, this Cisco RMS solution can be a valuable business asset.

Cisco® Unified Computing Remote Management Services is a way to remotely manage your unified computing environment, including devices, applications, and supporting LAN infrastructure, 24 hours a day, 365 days per year.

Cisco Unified Computing RMS is a way to remotely manage your unified computing environment, including devices, applications, and supporting LAN infrastructure, 24 hours a day, 365 days per year. These services are delivered by an experienced team of Cisco engineers using industry-leading tools and processes based on the IT Infrastructure Library (ITIL®). With Cisco RMS, you can:

- Accelerate the benefits of a Cisco Unified Computing System
- 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 may be combined to deliver a customized solution to meet your needs.

- **Standard service**
 - Monitoring
 - Incident Management
 - Problem Management
 - Service Level Management
- **Elective service**
 - Managed service engineering hours
- **Advanced Performance Monitoring**

Table 1 shows the day-to-day activities associated with the standard and elective services elements.

Table 1. Flexible Remote Management Services Options

Day-to-Day Management Activities
24-hour monitoring and notification
Incident resolution: receive, respond, resolve P1–P4 tickets
Problem management: root cause analysis
Standard changes
Standard reports
Customer web portal
Configuration support
Customer-requested changes
Apply software updates and patches

■ Standard Service
 ■ Elective Service

The Cisco Unified Computing Standard Service provides physical and logical monitoring for all unified computing hardware and software elements coupled with incident management, problem management, and service level management.

Standard Service

The Cisco Unified Computing Standard Service provides physical and logical monitoring for all unified computing hardware and software elements coupled with incident management, problem management, and service level management. 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. Standard service features include:

Incident Management, Problem Management, and Service Level Management

- Incident detection, recording, analysis, and notification
- Ticket generation and remediation recording in a knowledge base
- Performance threshold notifications for early warning of pending problems
- Engineering support: diagnose and resolve incidents, restore service
- Problem engineering: identification, root cause analysis, resolution
- Performance trending: identification, root cause analysis, resolution
- Ticket trend analysis and problem identification
- Web portal for access to tickets, availability, and performance statistics
- Standard reports for performance and availability

Hardware Monitoring

- **Cisco UCS Blade Server Chassis**
 - CRC: status, BIOS, GRU ID
 - Blade slots: status, power
 - Power: status, deviation
 - Fans: status, deviation
 - Temperature: status, deviation
- **Cisco UCS Blade 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 WS 2003 and 2008**
 - CPU and memory usage
 - Interface utilization
 - File system utilization
 - Change alerts
 - Process alerts
 - Services alerts
 - Open ports
- **Server Array Manager (SAM)**
 - 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 in 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

Standard Reports *(Continued)*

- 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

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

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.

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 (MACs) 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 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
- Upgrade mezzanine card drivers

The Advanced Performance Monitoring Service provides end-to-end SLA monitoring of application response time, fault isolation, and reporting and gives critical visibility into application packets as they flow through your network to and from the data center.

Advanced Performance Monitoring

Advanced Performance Monitoring (APM) augments Remote Management Services with a means to baseline and monitor performance of business-critical applications across your network. This service provides end-to-end SLA monitoring of application response time, fault isolation, and reporting and gives critical visibility into application packets as they flow through your network to and from the data center. APM measures application round-trip time, server response time, and data transfer time and delivers information as to what applications are using network bandwidth. Data can be provided for nearly any circuit—whether physical or virtual—in your network.

Performance Profile and Monitoring

- Agentless system using roundtrip and latency values by application type
- To establish a performance baseline, the following performance metrics are measured:
 - Network
 - Server
 - Network plus server
- Metrics are based on:
 - Network metrics
 - Server metrics
 - Combined thresholds

Fault Isolation

- Auto-identification of network, server, and application performance problems triggers investigations to find the cause and to provide analysis
- When a performance issue is detected:
 - Auto-launch of trace-route to identify the slowest hop in the data path
 - Auto-polling the network devices along the path
 - Auto-polling the affected server(s) for top processes, CPU utilization, memory usage, disk usage, and interface statistics
- Active testing of server and applications
- Auto-launch of application port connect to verify service availability
- Automatic collection of packet trace filtered for the affected applications and servers
- Export of the trace report

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.

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 a 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 a 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 resources 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 Operation 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, check with your Cisco sales representative.

For More Information

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



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