Cisco netManager—Unified Communications 1.0

Cisco[®] Unified Communications is a comprehensive IP communications system of voice, video, data, and mobility products and applications. It enables more effective, more secure, more personal communications that directly affect both sales and profitability. It brings people together by enabling a new way of communicating-where your business moves with you, security is everywhere, and information is always available...whenever and wherever it is needed. Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

Product Overview

Cisco netManager Unified Communications 1.0 is part of the Cisco netManager family of products, built to manage small and medium-sized voice and data networks up to 1000 phones or users. It provides easy-to-use monitoring and diagnostics for small and medium-sized deployments of Cisco Unified Communications systems with Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, or Cisco Unified Communications Manager Express.

Cisco netManager—Unified Communications 1.0 monitors all components of small and mediumsized Cisco Unified Communications systems including the underlying IP transport infrastructure and Cisco as well as third-party devices that may exist in the network and provides the current operational status of all the elements in the network. It features built-in rules and thresholds as well as automatic device identification and data collection to help enable easy setup and immediate monitoring of the managed network. It continuously monitors the different elements of the system including Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Communications Manager Express, Cisco Unity® systems, Cisco Unity Express, Cisco Unity Connection, Cisco Unified Contact Center Express, Cisco Unified Presence Server, Cisco Unified MeetingPlace® Express, as well as Cisco gateways, routers, and switches. Cisco netManager—Unified Communications also monitors any third-party devices that may exist in the network such as servers, workstations, printers, and other networking devices and provides basic availability monitoring for each of these devices. It also features an extensible monitoring framework through which coverage may be extended by adding different active monitors based on supported protocols like HTTP, Simple Network Management Protocol (SNMP), Windows Management Instrumentation (WMI), and so on that help enable custom monitoring for both Cisco and third-party devices.

Cisco netManager—Unified Communications does not require deployment of any agent software on the devices being monitored and thus is completely nondisruptive to system operations. It relies on open supported interfaces such as HTTP, SNMP, and WMI to collect status information from monitored devices.

Applications

Cisco netManager—Unified Communications 1.0 is recommended for monitoring Cisco Unified Communications systems based on Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, or Cisco Unified Communications Manager Express for up to 1000 users. A single Windows-based server/workstation running Cisco netManager— Unified Communications 1.0 software can monitor the entire Cisco Unified Communications system including up to 10 remote sites and up to 2 Cisco Unified Communications Manager clusters (Figure 1).





Features and Benefits

Cisco netManager—Unified Communications 1.0:

- Monitors and evaluates the current operational status of all the key components of the Cisco Unified Communications system, including the underlying transport infrastructure. Monitored components include Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Communications Manager Express, Cisco Unity software, Cisco Unity Connection, Cisco Unity Express, Cisco Unified Contact Center Express, Cisco Unified MeetingPlace Express, Cisco Unified Presence Server, as well as Cisco gateways, routers, and switches.
- Presents the current operational status of the Cisco Unified Communications system through service-level views of the network and provides contextual tools to view current alert status and historical information and to determine the service impacts of any outages.
- Provides visibility into network connectivity and related information by means of an autogenerated real-time physical connectivity view that not only shows interconnections between different devices but also presents the current operational status of each of the devices and applications in the network.

- Increases productivity of network managers and facilitates faster trouble isolation by providing contextual diagnostic tools and easy one-click access to embedded device management systems.
- Provides current information about connectivity-related and registration-related outages
 affecting all the IP phones (both Session Initiation Protocol [SIP]–based and Skinny Client
 Control Protocol [SCCP]–based phones) in the system and provides additional contextual
 information to help enable the location and identification of the IP phones.
- Facilitates tracking of Cisco Unified Communications devices and IP phone inventory, tracks IP phone status changes, and creates a variety of reports that conveniently summarize move, add, and change operations on IP phones in the network.
- Helps enable easy integration into customer monitoring and troubleshooting workflows by means of notification mechanisms such as SNMP traps, Short Message Service (SMS), and e-mails.
- Provides a single interface through which all the devices in the network (both Cisco devices and third-party devices) may be monitored. Basic availability/reachability status is monitored on devices such as servers, workstations, printers, and other networking devices. It also features an extensible monitoring framework through which monitoring coverage may be extended by adding different active monitors based on supported protocols like HTTP, SNMP, WMI, and so on that enable custom monitoring for both Cisco and third-party devices.
- It features a rich array of real-time reports and historical reports. Reports are divided into a variety of areas and provide specific information on each of these areas. The following lists the different categories of reports:
 - · Device reports: Focus on performance and availability data for the selected device
 - Device group reports: Focus on performance and availability data for the selected device group
 - Phone reports: Provide IP phone inventory and status information for all the IP phones in the deployment
 - Performance reports: Focus on performance data for the selected device or device group
 - Problem areas: Display alerts reported across the network across different data sources (traps, syslogs, event logs, performance errors, top N outages, and so on)
 - Event history: Provides historical reports of all events generated by Cisco netManager for the given device or device group
 - $\circ~$ General: Provides reports on application logs, user activity, and so on
- Provides real-time and historical performance reporting options for easy access and customization. All the collected performance data is summarized and maintained for up to 30 days. Data beyond 30 days is automatically purged. The collected performance data may be displayed in real-time graphical trend charts. The following is a sample of predefined reports that are available without requiring any agents:
 - CPU Utilization
 - Memory Utilization
 - Interface Utilization (Bandwidth)
 - Ping Availability
 - Hard Disk Drive Utilization

>G0 CNM Hom	eSpace				oace ⊻iew:	2	
🕤 Home 🛯 🖏 Devices	Reports		Add Con	itent Custor	mized Home Page	🞽 Help	
Monitoring Dashboard		Menu	Total Devices by Type				Menu
Service Level View Phy	sical Topology E	ivents	Device Type			Percentage	Count
North A	to the	GR	🔊 Switch			22.22%	4
	T. A.T.	Training	Communications Man	ager		16.67%	3
			Voice Gateway			16.67%	3
Device Management Summary		Menu				11.11%	2
5970			Seco Device				
State Monitored		Number of Devices 18	Communications Man	ager Express		5.56%	1
Monitoring Suspended		0	Media Server			5.56%	1
Unreachable		0	🛥 Router			5.56%	1
fotal : State		18 Number of Phones	🏐 Server			5.56%	1
state Registered		Number of Phones	M Unity Express			5.56%	1
Jnregistered		21	👽 Workstation			5.56%	1
Fotal :		29	Total:			3.50%	18
ast Device Import Status			Tutal.				10
CPU Utilization - Over 80% Utiliz	ation	Menu	Interface - Over 80% Band	lwidth Utilizatio	n		Menu
Device	СРИ	CPU Load	Device Inte	erface	Tra	insmit	Receive
nmtg-sj-ccm-pri.cisco.com	Processor	100 2					
the second second second second			N N	to intenace per	formance monitor reco	rus.	
Memory Utilization - Over 80% U	tilization	Menu					line a second
Memory Utilization - Over 80% U Device	Memory	Menu Percent Used	Ping - Devices with Respo	inse Time over	500msec		Menu
		1000 100000 - 000	Ping - Devices with Respo Device Interfac	e		(ms) s.	<u>Menu</u> Avg (ms)
Device mmtg-sj-com-pri.cisco.com 192.168.140.98 192.168.140.82 >G0 Devices	Memory Physical RAM VO VO	Percent Used		e No ping perfo	Max	s.	Avg (ms)
Device Immg-sp-cem-pricises.com 192.168.140.98 192.168.140.82 >60 Devices Shome Devices	Memory Physical RAM VO	Percent Used	Device Interfac	e No ping perfo	Max	s. ew User Defined Grou	Avg (ms)
Device 	Memory Physical RAM VO VO	Percent Used 925 2 81 2 77.7 2	Device Interfac	No ping perfo	Max	s. ew User Defined Grou @Refre	Avg (ms)
Perice Innite S-ictr-pit.cisco.com 192.168.140.82 9 60 Devices S home Devices Import Devices Wy Network wice Groups	Memory Physical RAM VO VO Display Name ~	Percent Used	Device Interfac	e No ping perfo New Device Capabilities	Max	s. ew User Defined Grou	Avg (ms)
Device Intro-Siccor.ptil.clsco.com Intro-Siccor.ptil.clsco.com 192.168.140.98 192.168.140.82 Devices Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Devices Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Devices Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Devices Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Image: Siccor.ptil.clsco.com Image: Siccor.com I	Memory Physical RAM VO VO Comparison Display Name + Voicetme2.cisco.co	Percent Used	Device Interfac	e No ping perfo New Device Capabilities Host;	Max rmance monitor record	s. ew User Defined Grou @Refra Status	Avg (ms) IP esh E
Device Inntly-Si-com-prt.cisco.com 192.168.140.92 Guidential Devices Intervential Devices My Network Intervential Devices Intervential Interven	Memory Physical RAM VO VO VO VO VO VO VO VO VO VO	Percent Used 82.5 2 81.2 77.7 2 Address m 192.168.137.100 co 192.168.137.4	Device Type Communications Manager	e No ping perfo New Device Capabilities Host; Communications	Max	ew User Defined Grou @Refr Status Service Down, Servic	Avg (ms) Ip P Help esh E ce Down, Si
Device In mitry s-jecm-pri. (isco.com 192.168.140.88 192.168.140.82 SG Devices My Network Write Network My Network My Network All routers (dynamic grou All routers (dynamic grou	Memory Physical RAM VO VO VO Display Name = Voicetme2.cisco.co a mntg sj.ccm.sec.cis mntg sj.ccm.sec.cis	Percent Used	Device Interfac	Re No ping perfo	Max rmance monitor record	s. ew User Defined Grou @Refra Status	Avg (ms) Ip P Help esh E ce Down, Si
Pevice Inntros-Jecm-pit.cisco.com Intros-Jecm-pit.cisco.com Intros-Je	Memory Physical RAM VO VO VO Reports Display Name ~ Svicetme2.cise.co. a mmtg sj.ccm.ser.cis mmtg sj.ccm.ser.cis a mmtg sj.ccm.ser.cis mmtg.core.6506.nam	Percent Used 92.5.2 81.2 77.72 Address m 192.168.137.100 cco192.168.137.8192.168.137.86	Device Interfac	Re No ping perfo	Max rmance monitor record	ew User Defined Grou @Refr Status Service Down, Servic	Avg (ms) Ip P Help esh E ce Down, Si
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO Reports Display Name + Svoicetme2.cisco.co a.mttg.sj.ccm.pri.ciss a.mttg.sj.ccm.pri.ciss a.mttg.sj.ccm.pri.ciss a.mttg.sj.ccm.pri.ciss a.mttg.sj.ccm.pri.ciss a.mttg.scre.26509.na	Address m 192.168.137.4 192.168.137.4 192.168.137.4 192.168.137.4 192.168.137.8 m. 192.168.137.8	Device Interfac	e No ping perfo New Device Capabilities Host; Communications: Media Server; Host;	Max rmance monitor record	s. ew User Defined Grou @ Refire Status Service Down, Service High CPU Utilization	Avg (ms) IP @ Help esh 1 ce Down,So n,Insufficier
Pevice Inntros-Jecm-pit.cisco.com Intros-Jecm-pit.cisco.com Intros-Je	Memory Physical RAM VO VO VO VO Display Name + Svoicetme2.cisco.co: a mntg.siccm.sec.cis mntg.sec.sec.sec.sec.sec.sec.sec.sec.sec.sec	Address M 192.168.137.10 M 192.168.137.10 M 192.168.137.10 M 192.168.137.10 M 192.168.137.2 M 192.168.137.2	Device Interfac	e No ping perfo Seven Device Capabilities Host; Communications Media Server; Host; Host; Switch;	Max rmance monitor record	ew User Defined Grou @Refr Status Service Down, Servic	Avg (ms) IP @ Help esh 1 ce Down,So n,Insufficier
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO Physical RAM VO VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO VO Physical RAM VO Physical RAM Physical RAM Ph	Percent Used 9, 5, 5, 2 81, 2 77, 7 2 20, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1	Device Interfac	e No ping perfo S New Device Capabilities Host; Communications Media Serrer; Host; Host; Unity Express;	Max rmance monitor record	s. ew User Defined Grou @ Refire Status Service Down, Service High CPU Utilization	Avg (ms) IP @ Help esh 1 ce Down,So n,Insufficier
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO Physical RAM VO Physical RAM Physical RAM VO Physical RAM Physical RAM	Address M Address M 192.168.137.100 192.168.137.40 192.168.137.80 192.168.137.80 192.168.137.80 192.168.137.82 192.168.137.82 192.168.137.82 192.168.137.82 192.168.137.82 192.168.137.82 192.168.137.82 192.148 192.268.137.45 192.148 192.168.137.45 192.148	Device Interfac	e No ping perfo Shew Device Capabilities Host; Communications Media Server; Host; Switch; Host; Host; Host;	Max rmance monitor record	s. ew User Defined Grou @ Refr Status Service Down, Service High CPU Utilization Link Down, Link Dow	Avg (ms) p @ Help esh 1 ce Down,Si n,Insufficier wn,Link Dov
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO VO VO VO VO VO VO	Percent Used 9, 5, 5, 2 81, 2 77, 7 2 20, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1	Device Interfac	e No ping perfo New Device Capabilities Capa	Max rmance monitor record	s. ew User Defined Grou @ Refin Status Service Down, Service High CPU Utilization Link Down, Link Dow Link Down, Link Dow	Avg (ms) p P Help esh C
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO VO VO VO VO VO VO	Address Market State 2015 1925 1925 1927 1921 1921 1921 1921 1921 1921 1921 1921 1921 1921 1921 1937 1921 1937 1	Device Interfac	e No ping perfo	Max Irmance monitor record Immediate Server, Manager,Media Server, Router,H523; Manager,Media Server,	s. ew User Defined Grou @Refr Status Serrice Down,Servic High CPU Utilization Link Down,Link Dow Link Down,Link Dow	Avg (ms) IP PHelp esh E ce Down,Sr m,Link Dov CPU Utiliza
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO Physical RAM VO Physical RAM VO Physical RAM Physical Ram	Percent Used 9.5 5 81 2 77.7 2 2015 2	Device Interfac	e No ping perfo Shew Device Capabilities Host; Communications Media Sever; Host; Host; Host; Host; Voice Gateway! Communications	Max rmance monitor record	s. ew User Defined Grou @ Refrr Status Service Down, Servi High CPU Utilization Link Down, Link Dow Unresponsive, Junes	Avg (ms) ip @ Help ash 1 ce Down,Si ce Down,Si c
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO Physical RAM VO Physical RAM Physical RAM Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM Physical RAM	Address Market Deveck View Problem Areas Properties. Proving Control of Cont	Device Interfac Device Type Interfac Device Type Interfac Serrer Interfac Communications Manager Interfac Media Server Interfac Cisco Device Interfac Switch S Switch S Voice Ostive Interfac Yorkstation Interfac munications Manager munications Manager munications Manager munications Manager	e No ping perfo Shew Device Capabilities Host; Communications Host; Host; Host; Host; Host; Communications Communications Switch;	Max Irmance monitor record Immediate Server, Manager,Media Server, Router,H523; Manager,Media Server,	s. ew User Defined Grou Refre Status Service Down, Service High CPU Utilization Link Down, Link Dow Unresponse/High Unresponse/High Link Down, Link Dow	Avg (ms) ip PHelp esh Cl ce Down,Si ce
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO VO VO VO VO VO VO	Percent Used 9.5 5 81 2 77.7 2 2015 2	Device Interfac Device Type Interfac Device Type Interfac Server Interfac Communications Manager Interfac Media Server Interfac Cisco Device Interfac Switch Switch Unity Express Voice Gateway Voice Gateway Interface Manager Interface Manager Interface Manager	e No ping perfo New Device Capabilities Capabilities Capabilities Communications Wedia Server, Host; Unity Express; Host; Voice Gateway; Voice Gateway; Voice Gateway; Router;	Max rmance monitor record www.Group www. New Group www. Nanager,Media Server, Manager,Media Server, Manager,Media Server,	s. ew User Defined Grou @ Refr Status Senice Down,Senic High CPU Utilization Link Down,Link Dow Unresponsive Jines Unresponsive Jines Link Down,Link Dow Link Down,Link Dow	Avg (ms)
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO VO Provide Reports Display Name + Socioctme2.ciso.cou a mttg -core 6506 ana a mtg -core 1000 ana a	Address Address I 192.168.137.10 I 192.168.137.10 I 192.168.137.4 I 192.168.1 I 192.168.1 I 192.168.1 I 192.168.1 I 192.1 I 192.168.1 I 192.1	Device Interfac Import Devices Import Device Device Type Import Devices Server Import Devices Communications Manager Import Device Media Server Import Device Cisco Device Import Device Switch Import Device Voice Sateway Import Device fmmunications Manager Itch tch Import Device	e No ping perfo Shew Device Capabilities Host, Communications Media Sever, Host, Host, Unity Express, Host, Voice Gateway! Communications Communications Switch; Router, Voice Gateway!	Nax Imance monitor record Imance monitor record Imanager, New Group Manager, Media Server; Manager, Media Server; Manager, Media Server; Router, H323, SRST Ena.	s. ew User Defined Grou Refre Status Service Down, Servic High CPU Utilization Link Down, Link Dow Unresponsive, Unres Link Down, Link Dow Unresponsive, Unres Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow	Avg (ms)
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM Physical RAM Phys	Percent Used 9.5.5 81.2 77.7 2 77.7 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Device Interfac Device Type Interfac Device Type Interfac Server Interfac Communications Manager Interfac Media Server Interfac Cisco Device Interfac Switch Interfac Voice Gateway Interfac mmunications Manager Interfac ice Gateway Interfac ice Gateway Interfac ice Gateway Interfac	e No ping perfo Shew Device Capabilities Host; Communications Host; Host; Host; Host; Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Communications Switch; Router; Router; Router; Router; Communications	Max rmance monitor record www.Group www. New Group www. Nanager,Media Server, Manager,Media Server, Manager,Media Server,	s. ew User Defined Grou @ Refr Status Service Down, Service High CPU Utilization Link Down, Link Dow Unresponsive, Unres Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow	Avg (ms) ip P Help ip C Help is ce Down, Si is ce Down, Si
Pevice Inntros-Sector-pricisco.com 192.168.140.98 Sectors 192.168.140.92 Devices Manae Man	Memory Physical RAM VO VO VO VO VO VO VO VO Poiplay Name + Voicetme2.cisco.co: a mttg si-ccm.sec.cis a mttg si-ccm.sec.cis a mttg si-ccm.sec.cis a mttg si-ccm.sec.cis a mttg si-ccm.sec.cis a austinca.cisco.co: a austincm3.cisco.co: a austincm3.cisco.co: a austincm3.cisco.co: a 192.168.140.83 Si	Address 0.2,5,2 81,2 72,7,2 81,2 72,7,2 72,7,2 72,7,2 72,7,2 72,7,2 72,7,2 72,7,2 73,7,2 74,7,2 74,7,2 74,7,2 75,7,2 74,7	Device Interfac Device Type Interfac Device Type Interfac Communications Manager Interfac Media Server Interfac Cisco Device Interfac Server Interfac Cisco Device Interfac Voice Sateway Interfac Voice Gateway Interfac aer co Gateway oc Gateway Interfac	e No ping perfo Shew Device Capabilities Capabilities Communications Host; Host; Unity Express; Host; Voice Gateway! Voice Gateway! Voice Gateway! Switch;	Nax Imance monitor record Imance monitor record Imanager, New Group Manager, Media Server; Manager, Media Server; Manager, Media Server; Router, H323, SRST Ena.	s. ew User Defined Grou @ Refire Status Service Down, Servic High CPU Utilization Link Down, Link Dow Unresponse, High Unresponse, High Unresponse, Jingh Unresponse, Jingh Dink Down, Link Dow Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow Link Down, Link Dow	Avg (ms) p P Hap ce Down,Si Ce Down,Link Down,Link Down,Link Down,Link Down,Link Down,Link Down m
Perice In mits shear-pri cisco.com In 192-186.140.82 In 192-186.140.82 In 2015 In 201	Memory Physical RAM VO VO VO VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM VO Physical RAM Physical RAM Phys	Address Addres Addr	Device Interfac Device Type Interfac Device Type Interfac Communications Manager Interfac Media Server Interfac Cisco Device Interfac Server Interfac Cisco Device Interfac Voice Sateway Interfac Voice Gateway Interfac aer co Gateway oc Gateway Interfac	e No ping perfo Server Device Capabilities Host, Communications Media Sever, Host, Host, Unity Express; Noice Gateway! Voice Gateway! Voice Gateway! Voice Gateway! Voice Gateway!	Max Imance monitor record Image New Group Manager, Media Server, Manager,	s. ew User Defined Grou @ Refr. Status Service Down,Servic High CPU Utilization Link Down,Link Dow Unresponsive,Urres Link Down,Link Dow Link Down,Link Dow Link Down,Link Dow Link Down,Link Dow Link Down,Link Dow Link Down,Link Dow	Avg (ms) P P Help Help te Down, St. te D

Figure 2. Cisco netManager—Unified Communications 1.0 Homepage and Real-Time Event Viewer

Cisco netManager—Unified Communications 1.0 has a Web-based user interface (UI). There is no need to download and install any client applications. Users could be anywhere in the world, and as long as the users have network connectivity to Cisco netManager—Unified Communications 1.0 workstation/server, they can open up Internet Explorer and connect to the Cisco netManager Web interface, authenticate themselves, and verify the system network status.

Furthermore, the Cisco netManager—Unified Communications 1.0 user interface is based on portal technology. This means that users can customize their views and client interfaces to their specific needs by adding/configuring needed content and removing unwanted content. All user customization settings are stored as user preferences and will be remembered the next time the user logs in. The entire Web-based user interface is real time/autorefresh in nature, and users can rest assured that the information they see on the user interface reflects the latest status from the devices.

Cisco netManager—Unified Communications 1.0 is available in two distinct license modes: Perpetual right-to-use (RTU) license (no expiration date) and Annual RTU license (valid for one year from the date of registration). Furthermore, within each of these editions, Cisco netManager— Unified Communications 1.0 can be licensed at different deployment scales and is appropriate for commercial class deployments of various sizes. Licensing is controlled by means of a license file, and network administrators can upgrade the license as their Cisco Unified Communications deployment grows without disrupting the monitoring or having to decommission their server. Upgrading the license is as simple as logging on to the Cisco Website, procuring a new license, and deploying it on the server. Licenses are available for monitoring 250 phones, 500 phones, and increments of 250 phones up to a maximum of 1000 phones per Cisco netManager—Unified Communications 1.0 server.



Figure 3. Cisco netManager Real-Time Service-Level View and Physical Connectivity Views

Showing: All Voice Zoom. - 4% 177.00 . I'd (int) Click to View All Pl 1 Device Name Event Narr Statu GO 🚺 172.20.4.14 Interface(3) - GigabitEthe 2007-04-30 21:03:50.0 Link Do Active Warning: 🧥 172.20.4.145 Link Down Interface(4) - FastEthem: 2007-04-30 21:03:50.0 Active 172.20.4.145172.20.4.145 Link Down Interface(10) - FastEthen 2007-04-30 21:03:50.0 Active Interface(11) - FastEthen 2007-04-30 21:03:50.0 Active Link Down 0 172.20.4.145 Link Dow Interface(12) - FastEthen 2007-04-30 21:03:50.0 Active 172.20.4.145 Interface(13) - FastEthen 2007-04-30 21:03:50.0 Active Link Down

⇒G0	Device Status		nmtg-sj-ccm- sec.cisco.com	More Device			Workspac		2
🕥 Home	S Devices	Reports	Device Properties	Device Statu	IS 🎽	Add Content	Commun	ications Manager	🎽 Help
Device Details				Menu	CPU Utilization - Las	Dollod Valuoe (Singlo Dosi	ca)	Menu
				Menu		i Polleu Values (Single Devi	C8)	
Display name: Device type: Address:	nmtg-sj-ccm-sec.cls Communications Ma 192.168.137.4				Description Processor (0)				CPU Load
Capabilities:	Communications Ma	anager;Media Ser	ver; Tools:		Memory Utilization -	Last Polled Valu	es (Single I	Device)	Menu
Last Discovered:	4/17/2007 10:29:54	PM		9 🖬 🏦 🚳 🛛	Description	Size	e Used	Total Size	Percent Used
Platform:	COMPAQ				Physical RAM	709	00 MB	1.00 GB	69.2 %
Object ID:	1.3.6.1.4.1.311.1.1.3	3.1.2			Virtual Memory	661	00 MB	2.41 GB	26.8 %
Status:	Monitored								
Device Attribute	\$			Menu	Disk Utilization - Las	t Polled Values (Single Devi		Menu
					Description			Size Used Total Siz	
	alue				C:1 Label:W2K Serial I			7.71 GB 35.27 G	
Contact: Location:					D1 Label:STI_DATA S	erial Number 18	5014d2	160.00 KB 1.95 G	8 0%
	lardware: x86 Family 1	5 Model 2 Steppin	g 9 AT/AT COMPATIB		Phone registration s	ummary			Menu
Communication	s Manager attributes			Menu	Total number of				Count
oominatio	o managor attributoo			mente	SIP phones registere	d:			0
Attribute	Va	lue			SCCP phones registe				3
Host name:	nn	ntg-sj-ccm-sec			SIP phones unregiste				0
Description:		Ibscriber			SCCP phones unregi	stered:			(
Version:		1(3.15340)			Total Phones :				3
Cluster Id:	HO	DCCM41Cluster1							
					Malas and the second				
Status:	up	1	nmtq-sj-ccm-		Voice services sum	nary			Menu
Status:	UP Device Status	Reports	nmtg-sj-ccm- sec.cisco.com Device Properties	More Device Device State	<u>R</u> eports:	Add Content	Workspa Commu	ce ⊻iew: nications Manager	Menu V Help
⇒ GO	Device Status	Reports	sec.cisco.com		<u>R</u> eports:	Add Content			_ 0
G Home Status:	Device Status	Reports	sec.cisco.com	Device Stati	Reports: JS Voice services sum Name	Add Content			✓ ep Help State
> GO Home Status: All Active Monito	Device Status	Reports	sec.cisco.com Device Properties	Device Stati	Reports: JS Y Voice services sum Name Cisco CTIManager	Add Content			
→ GO → Home Status: All Active Monitor Monitor	Device Status	Reports	sec.cisco.com Device Properties State	Device State <u>Menu</u>	Reports: JS Voice services sum Name Cisco CTManager Cisco CDR insert	Add Content mary			Help State Stopped
> G0 Status: All Active Monitor Ping	Device Status	Reports	Sec.cisco.com Device Properties State Up a	Device State Menu e t least 5 min	Reports: Is Voice services sum Name Cisco CTIManager Cisco CDR Insert Cisco Messaging Inte	Add Content mary	Commu		Help Help State stopped stopped
> G0 Status: All Active Monitor Ping	Device Status	Reports	Sec.cisco.com Device Properties State Up a	Device State <u>Menu</u>	Reports: Js Voice services sum Name Cisco CTIManager Cisco DR Insert Cisco DR Seaging Into Cisco IP Voice Media	Add Content mary erface Streaming Appli	Commu		Help State Stopped stopped
 > G0 ○ Home Status: All Active Monitor ◆ Ping ◆ SNMP 	Device Status Devices up ars	Reports	Sec.cisco.com Device Properties State Up a	Device State Menu e t least 5 min t least 5 min	Reports: Is Voice services sum Name Cisco CTIManager Cisco CDR Insert Cisco Messaging Inte	Add Content mary Prface Streaming Appli	Commu		Help Help State stopped stopped
 > G0 ○ Home Status: All Active Monitor > Ping > SNMP 	Device Status	Reports	Sec.cisco.com Device Properties State Up a	Device Statu Menu a tleast 5 min tleast 5 min Menu	Reports: Is Voice services sum Name Cisco CIManager Cisco DEN Insert Cisco De Media Cisco De Media de func	Add Content mary Prface Streaming Appli	Commu		Comparison Comparison Comparison Comparison Stopped Stopped stopped stopped
 > G0 ◇ Home Status: All Active Monitor ◆ Ping ◆ SNMP Fan Status - Las Description 	Device Status Devices up ars	e Device) Status	sec.cisco.com Device Properties State Up a Up a	Device State Menu e tleast 5 min tleast 5 min Menu Poll Time	Eeports: Js ♥ Voice services sum Name Cisco OTManager Cisco DER insert Cisco DER insert Cisco DER insert Cisco DER insert Cisco DER insert Cisco Mich Audio Tra Cisco Mich Audio Tra Cisco Mich Audio Tra Cisco Mich Audio Tra Cisco Mich Audio Tra	Add Content mary strace Streaming Applitions Inslator Server	Commu		Help Kate State stopped stopped stopped stopped stopped stopped stopped
 > G0 Status: All Active Monitor > Ping > SNMP Fan Status - Lass Description Fan - cpu 	Device Status Devices up ars	Reports	sec.cisco.com Device Properties State Up a Up a	Menu Menu tleast5 min tleast5 min Menu Poll Time 04/30 9:20 PM	Reports: Voice services sum Name Cisco CTManager Cisco CTManager Cisco CTManager Cisco Massaging Int Cisco Mandef Func Cisco Mandef Func	Add Content mary strace Streaming Applitions Inslator Server	Commu		Peip Heip Konu State stopped
GO Home Status: All Active Monitor Ping SNMP Fan Status - Lass Description Fan - cpu Fan - cpu Fan - cpu	Device Status Devices up ars	Reports o le Device) Status ok ok	sec.cisco.com Device Properties State Up a Up a Moni	Menu e tleast5 min tleast5 min Menu Pol Time 04/30 9:20 PM 04/30 9:20 PM	Reports: Is Voice services sum Name Cisco CTM Insert Cisco DFR Insert Cisco DFV de Madia Cisco DFV d	Add Content mary strace Streaming Applitions Inslator Server	Commu		Help Kate State stopped stopped stopped stopped stopped stopped stopped
G0 G0 Home Status: All Active Monitor Ping SNMP Fan Status - Lass Description Fan - cpu Fan - cpu Fan - cpu Fan - cpu	Device Status Devices up ars	e Device) Status ok ok ok ok	sec.cisco.com Device Properties State Up a Up a Mon Mon Mon Mon	Device State Menu tleast 5 min tleast 5 min Menu Poll Time 04/30 9:20 PM 04/30 9:20 PM 04/30 9:20 PM	Reports: Voice services sum Name Cisco CTManager Cisco CTManager Cisco CTManager Cisco Massaging Int Cisco Mandef Func Cisco Mandef Func	Add Content mary strace Streaming Applitions Inslator Server	Commu		Peip Heip State stopped stopped
> 60	Device Status Devices up ors	e Device) Status ok ok ok ok ok	sec.cisco.com Device Properties Statt Up a Up a Mon Mon Mon	Device State Menu tleast 5 min tleast 5 min tleast 5 min 04/30 9:20 PM 04/30 9:20 PM 04/30 9:20 PM	Reports: Is Voice services sum Name Cisco CDR Insert Cisco DP Reservices Sum Cisco DP Vice Media Cisco DP Vice Media Cisco De Vi	Add Content mary srface Streaming Appli tons nslator Server teporter	Commun		Peip Heip Kate State Stopped stopped
> 60	Device Status Devices up ors	e Device) Status ok ok ok ok	sec.cisco.com Device Properties Statt Up a Up a Mon Mon Mon	Device State Menu tleast 5 min tleast 5 min Menu Poll Time 04/30 9:20 PM 04/30 9:20 PM 04/30 9:20 PM	Beports: Is Voice services sum Name Cisco CTManager Cisco CTManager Cisco DFN Insert Cisco DFN dessaging Intro Cisco DFN dessaging Intro Cisco DFN dessaging Intro Cisco Met Audio Tra Cisco DE Metadel Andio Cisco Services Services Services Nills Data Collector More services Voice gateway regist	Add Content mary srface Streaming Appli tons nslator Server teporter	Commun		Peip Heip State stopped stopped
> GO → Home Status: All Active Monitor → Ping → SNMP →	Device Status Devices up ors	Reports) Be Device) Status ok ok ok ok	sec.tisco.com Device Properties State Up a Up a Mon Mon Mon	Device State Menu tleast 5 min tleast 5 min tleast 5 min 04/30 9:20 PM 04/30 9:20 PM 04/30 9:20 PM	Reports: Is Voice services sum Name Cisco CDR Insert Cisco DP Reservices Sum Cisco DP Vice Media Cisco DP Vice Media Cisco De Vi	Add Content mary erface Streaming Appli tons nslator Server epotter	Commun		Peip Menu Stoped stopped stoppe
GO Go Home Status: All Active Monitor ● Ping ● SinMP Fan Status - Lass Description Fan - cpu Fan - powerSupp Fan - powerSupp Temperature St	Device Status Devices up ars	Reports) Be Device) Status ok ok ok ok	sec.tisco.com Device Properties State Up a Up a Mon Mon Mon Mon	Device State Menu a tleast5 min tleast5 min tleast5 min 04/30 9:20 PM	Beports: Is Voice services sum Name Cisco CTM Inanger Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Notes Services Notes Services Voice Veck Media More services Voice veck Voice veck Voice veck Voice Veck More services Voice Veck Voice	Add Content mary orface Streaming Appli toos nslator Server teporter stration summar started:	Commun		Peip Heip State stopped stopped
GO Go Home Status: All Active Monitor Ping SNMP Fan Status - Las Description Fan - cpu	Device Status Devices up ars	e Device) Status ok ok ok ok ok ok	sec.cisco.com Device Properties Statt Up a Up a Up a Up a Om Mon Mon Mon	Device Statt Menu a 10est 5 min 10est 5 mi	Reports: Is Voice services sum Name Cisco CTManager Cisco CTManager Cisco DTV Note Media Cisco DEV Note Media Cisco Stended Func Cisco Media Audio Tra Cisco Media Audio Tra Cisco Stender Stunces Stender Stunces In Stata Collector More services Voice gateway regist Total number of MiGCP gateways regist	Add Content mary price Steaming Appli bons nslator Server epotter stration summar stered: tered:	Commun		Peip Menu Stopped stopp
GO Go Home Status: All Active Monitor Ping SisM# Fan Status - Las Description Fan - cpu Ean - cpu	Device Status Devices up ars	e Device) Status ok ok ok ok ok ok ok Status Status Status	sec.tisco.com Device Properties Statt Up a Up a Up a Up a Won Mon Mon Mon Mon Mon	Device Statt Menu *	Beports: Is Voice services sum Name Cisco CTM Inanger Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Cisco CDR insert Noice Services With Construction More services Voice dateway regis Voice dateway regis Voice dateway regis	Add Content mary orface Streaming Appli tons nstator Server eporter startion summar startic stered: tered: gistered:	Commun		Peip Heip State stopped stopped
GO Go Home Status: All Active Monitor Ping Status Satus Satus: All Active Monitor Ping Shuff Fan Status - Lass Description Fan - cpu Cpu cpu	Device Status Devices up ars	e Device) Status ok ok ok ok ok Status Status ok ok	sec.tisco.com Device Properties Statt Up a Up a Up a Up a Up a Up a Up a Up a	Device Statt Menu t least 5 min tleast 5 min tleast 5 min tleast 20 PM 04/30 9:20 PM 04/30 9:20 PM 04/30 9:20 PM Poll Time P	Reports: Is Voice services sum Name Cisco CTManager Cisco CTManager Cisco CPA Insert Cisco DP Vice Media Cisco De Vice Media Cisco De Vice Media Cisco De Media Cisco De Media Cisco De Media Services Jun Mole Services Voice gateways regis Total number of MGCP gateways regis H323 gateways regis	Add Content mary orface Streaming Appli tons nstator Server eporter startion summar startic stered: tered: gistered:	Commun		Peip Heip State stopped stopped
GO Go Home Status: All Active Monitor Ping Status Satus Satus: All Active Monitor Ping Shuff Fan Status - Lass Description Fan - cpu Cpu cpu	Device Status Devices up ors t Polled Values (Singl Hy Hy	E Device) Status ok ok ok ok ok ok ok ok ok status ok ok ok status ok ok ok	sec.tisco.com Device Properties Statt Up a Up a Up a Up a Up a Up a Up a Up a	Device Statt Menu a 188615 min 188615 min 0470 920 PM 0473 920 PM	Beports: Is ✓ ✓ Voice services sum Name Cisco CDR Insert Cisco CDR Insert Cisco CDR Vice Media Cisco DP Vice Media Cisco Disende Func Cisco Viel Audia Tra Cisco Servicesality For More services Voice gateway regist MoCP gateways regist MOCP gateways regist H323 gateways unreg	Add Content mary orface Streaming Appli tons nstator Server eporter startion summar startic stered: tered: gistered:	Commun cation	nications Manager	Peip Heip State Stopped stopped

Figure 4. Cisco Unified Communications Manager Detailed Device View

Product Specifications

Table 1 shows Cisco netManager—Unified Communications 1.0 specifications. Table 2 gives the system capacity.

 Table 1.
 Product Specifications

Description	Specifications
Product compatibility (monitored products)	Cisco Unified Communications systems consisting of Cisco Unified Communications Manager (3.x, 4.x, 5.x, 6.0), Cisco Unity (4.0.4 and higher), Cisco Unity Connection, Cisco Unified MeetingPlace Express, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unified Contact Center Express, Cisco Unified Presence Server, routers, gateways, switches, and IP phones (including IP Communicator and Cisco Unified Personal Communicator). Third-party devices (servers, workstations, printers, and other networking devices) that support SNMP, ICMP, or WMI.
Software compatibility	Windows 2003 Server with SP1
	Windows XP with SP2
	The user interface can be accessed using Microsoft Internet Explorer 6.0 on Windows 2003 and Windows XP platforms.
Data collection mechanisms	SNMP, ICMP, WMI, HTTP

Table 2. System Capacity

System Parameter	Maximum Capacity
Monitored phones	1,000
Monitored devices	100
Monitored Communications Manager clusters	2
Monitored Communications Manager Express (CME/SRST) routers	10
Monitored network locations	10
Concurrent client (browser) users	5

System Requirements

Table 3 shows Cisco netManager—Unified Communications 1.0 system requirements.

Table 3.	System Requirements
----------	---------------------

Description	Specifications
Processor	Single/Dual core P4, Xeon, or equivalent AMD processors greater than 1.66 GHz
Memory	1 GB
Hard disk	30 GB
Operating system	Windows 2003 Server with Service Pack 1 or Windows XP with Service Pack 2
HW platform	Server class machines, workstations, or laptops

Ordering Information

Table 4 lists ordering information. To place an order, visit the Cisco Ordering Homepage.

Product Name	Part Number
Cisco netManager—Unified Communications 1.0 for up to 250 phones with a perpetual RTU license	CNMUC1.0-250-K9
Cisco netManager—Unified Communications 1.0 for up to 500 phones with a perpetual RTU license	CNMUC1.0-500-K9
Cisco netManager—Unified Communications 1.0 for up to 250 phones with a 1-year RTU license	CNMUC1.0-250-1Y-K9
Cisco netManager—Unified Communications 1.0 for up to 500 phones with a 1-year RTU license	CNMUC1.0-500-1Y-K9
Cisco netManager—Unified Communications 1.0 incremental license upgrade—250 phones with a perpetual RTU license	CNMUC1.0-250-LIC

Table 4. Ordering Information

Cisco Unified Communications Services and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners offer a broad portfolio of endto-end services to support the Cisco Unified Communications system. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support, and optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.

For More Information

For more information about Cisco netManager—Unified Communications 1.0, please go to <u>http://www.cisco.com/go/netmanager</u>, send an e-mail to <u>ask-ipc-management@cisco.com</u>, or contact your local account representative.



Americas Headquarters Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134-1706 USA www.cisco.com Tel- 408 526-4000 800 553-NETS (6387)

Fax: 408 527-0883

Asia Pacific Headquarters Cisco Systems, Inc. 168 Robinson Road #28-01 Capital Tower Singapore 068912 www.cisco.com Tel: +65 6317 7777 Fax: +65 6317 7779 Europe Headquarters

Cisco Systems International BV Haarlerbergpark Haarlerbergweg 13-19 1101 CH Amsterdam The Netherlands www-europe.cisco.com Tei:+31 0 800 020 0791 Fax:+31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

©2007 Cisco Systems, Inc. All rights reserved. CCVP, the Cisco logo, and the Cisco Square Bridge logo are trademarks of Cisco Systems, Inc.: Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.: and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCIP, CCIP, CCIP, CCPA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo. Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems, Inc.: and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCIP, CCIP, CCIP, CCPA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo. Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems, Cisco Systems, Inc.: and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCIP, CCIP, CCIP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo. Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems, Cisco Systems, Inc.: and Cisco Systems logo. Cisco Unity, Enterprise/Colver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, IPhone, IP/TV, iQ Expertise, the iQ logo, IQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networking Academy, Network Registrar, Packet, PIX, ProConnect, RateMUX, ScriptShare, SideCast, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0704R)

Printed in USA

C78-388768-01 05/07