



SCOPIA XT Desktop Server

Installation Guide

Version 2.0



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Table of Contents

1 About SCOPIA XT Desktop Server

2 Prerequisites for Installing the SCOPIA XT Desktop Server

Verifying Server Requirements	.3
Providing Sufficient Bandwidth	.4
Using SCOPIA XT Desktop Server In a Dual-NIC Deployment	. 5
Verifying Operating System Requirements	. 5
Verifying Browser Requirements	.6

3 Installing SCOPIA XT Desktop Server

4 Configuring Your Deployment

Logging In to the Administration Interface	9
Configuring SCOPIA XT Desktop to Work with SCOPIA XT1000	9
Defining the Local Administrator Account	10
Configuring the Local Directory	11
Accessing Log Files	13
Protecting Meetings Using a PIN	14
Verifying Component Communication and Status	15
Configuring SCOPIA XT Desktop Clients	16
Defining Client Video Quality and Connection Parameters	16
Defining Meeting Features	18





About SCOPIA XT Desktop Server

SCOPIA XT Desktop is the desktop server component of the SCOPIA XT1000 SMB Edition. The SCOPIA XT1000 SMB Edition is a unique video conferencing solution especially suited to the communication requirements of Small and Medium Businesses (SMB). Built on the SCOPIA XT1000 HD room system, with the highest capacity embedded MCU in the industry today, the SCOPIA XT1000 SMB Edition combines HD room system capabilities, embedded multi-party conferencing, desktop conferencing and firewall traversal into the only integrated solution of its kind available. Video conferencing with the SCOPIA XT1000 SMB Edition provides the face-to-face element necessary for successful business relationships. It extends the boundaries of your organization enabling business to be efficiently conducted with remote employees, clients, suppliers and partners, saving money in travel costs and increasing productivity.





Prerequisites for Installing the SCOPIA XT Desktop Server

This section provides pre-installation guidelines for the SCOPIA XT Desktop Server. The topics included in this section are:

Verifying Server Requirements	page 3
Providing Sufficient Bandwidth	page 4
Using SCOPIA XT Desktop Server In a Dual-NIC Deployment	page 5
Verifying Operating System Requirements	page 5
Verifying Browser Requirements	page 6

Verifying Server Requirements

Observe these guidelines when preparing a server for the SCOPIA XT Desktop Server installation:

- Use the right duplex configuration on your Ethernet NIC cards. It is essential for optimizing the videoconferencing experience.
- Use 100 Mb full duplex NIC settings for the switch and the SCOPIA XT Desktop Server.
- If you use a Gigabit NIC and switch, set the duplex setting to auto-sense. Do not use the auto-sense setting if you are not using a Gigabit NIC and switch because auto-sense might cause significant packet loss.
- Verify that the server you intend to use meets the requirements listed in Table 2-1. These requirements are based on calls made up to a bandwidth of 1024 Kbps.
- Verify that the operating system is supported and that the latest Service Releases for this operating system are installed. Refer to Verifying Operating System Requirements page 5 for a list of supported operating systems.

Table 2-1 describes server requirements.

Deployment	Maximum number of connections	Server requirements
SCOPIA XT1004	4	RAM: 2G
		Disk: 20G
		CPU: Dual Core Intel Pentium E5400, 2.70GHz
		NIC: 100 Mbit
SCOPIA XT1009	9	RAM: 2G
		Disk: 20G
		CPU: Dual Core Intel Pentium E5400, 2.70GHz
		NIC: 100 Mbit

Table 2-1 Requirements for SCOPIA XT Desktop Server Installations

Providing Sufficient Bandwidth

SCOPIA XT Desktop Server acts as a gateway between participating SCOPIA XT Desktop clients and the SCOPIA XT1000. Table 2-3 shows the bandwidth resources required to enable between 1 and 7 users to connect to the system. We recommend that you use the data provided in Table 2-4 to plan your deployment and NIC card requirements.

Note: The minimum requirement is to use a 100 Mbit NIC. It is recommended that you use a Gigabyte NIC for better performance. Bandwidth shown is for Standard Definition (384 Kbps) or High Definition (1024 Kbps).

The SCOPIA XT Desktop Server manages the throughput of each video conferencing session according to the following workflow:

- SCOPIA XT Desktop Client sends media to SCOPIA XT Desktop Server.
- SCOPIA XT Desktop Server forwards media to SCOPIA XT1000.
- SCOPIA XT1000 returns media to SCOPIA XT Desktop Server.
- SCOPIA XT Desktop Server sends media to SCOPIA XT Desktop Client.

Therefore, the formula for calculating the bandwidth required for interactive sessions is:

Bandwidth = Bandwidth Required for One Connection × 4 × Number of Connections

Thus, for a 384 Kbps call there is 1536 Kbps of media going through the SCOPIA XT Desktop Server for each client.

For high definition conferencing, SCOPIA XT Desktop Server sends 768 Kpbs and receives 1024 Kbps, which doubles the bandwidth required for the 384 Kbps standard definition call.

Clients	Standard Definition	High Definition	
1	1536	3584	
2	3072	7168	
3	4608	10752	
4	6144	14336	
5	7680	17920	
6	9216	21504	
7	10752	25088	

Table 2-2	Required	Bandwidth	Resources
-----------	----------	-----------	-----------

Using SCOPIA XT Desktop Server In a Dual-NIC Deployment

SCOPIA XT Desktop Server can be installed on servers with multiple Network Interface Cards (NICs). Depending on the deployment and network configuration, you may want to control which NIC is used for various server communications.

For example, in secure multiple NIC deployments you can use a NIC configured behind the firewall to communicate with SCOPIA XT1000 Series, while using another NIC for SCOPIA XT Desktop Clients to connect to. In this case you must configure the SCOPIA XT Desktop network interface address to represent the NIC behind the firewall, and then in the Public Address field enter a DNS name which resolves to the NIC outside the firewall and is accessible both inside and outside the corporate network.

For single NIC deployments, the network interface address represents the SCOPIA XT Desktop Server IP address that clients use to connect to SCOPIA XT Desktop Server. In single NIC deployments with both internal and external clients, this value represents an external, statically-mapped SCOPIA XT Desktop Server IP address.

SCOPIA XT Desktop Clients can connect to the SCOPIA XT Desktop Server either by an IP or a DNS name. If a DNS name is not specified in the Public Address field, the SCOPIA XT Desktop Server network interface address is used. However, in many deployments the SCOPIA XT Desktop Server network interface address is not accessible to clients outside the intranet due to NAT or firewall restrictions. Therefore, it is recommended that you specify the Public Address, which must be a DNS name resolving to the correct SCOPIA XT Desktop Server IP address both inside and outside the corporate network.

Verifying Operating System Requirements

It is recommended that you use the latest service pack of the Windows operating systems listed in this section.

The following operating systems are supported with this release of SCOPIA XT Desktop Server:

- Windows 2003 (English, Japanese)
- Windows 2008 (English, Japanese)

The following operating systems are supported for the SCOPIA XT Desktop Client:

- Windows XP (SP2 and higher, 32 and 64 Bit)
- Windows Vista (SP2 and higher, 32 and 64 Bit)
- Windows 7
- Macintosh OS X version 10.5 (Leopard) or higher, Intel CPU only

Verifying Browser Requirements

The following browsers are supported by SCOPIA XT Desktop Server Administration interface and SCOPIA XT Desktop Client interface:

- Internet Explorer 6.x, 7.x & 8.0 (Windows)
- Firefox 3.5, 3.6, and 4.0 (Windows and Macintosh)
- Chrome 5.0 (Windows and Macintosh)
- Safari 4.0 and 5 (Windows and Macintosh)





2	Installing SCOPIA XT Desktop Server
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Follow these recommendations when installing SCOPIA XT Desktop Server:

• The default SCOPIA XT Desktop Web Server port is 80. If other applications are using port 80, the installer prompts you to specify a different port.

If you wish to use port 80, access the Services panel on your computer and disable the IIS Administration, HTTP SSL, and World Wide Web Publishing services. You can do this before installing the SCOPIA XT Desktop Server software or when you receive the "ip address/ port is in use" error during installation.

After disabling these services, installation completes normally and SCOPIA XT Desktop clients can connect to the SCOPIA XT Desktop server using port 80.

• If you wish to use the HTTPS protocol for security, configure the SCOPIA XT Desktop web server to port 443 after the installation is completed.

Note: Do not install the SCOPIA XT Desktop Client on the SCOPIA XT Desktop Server.

To enable SCOPIA XT Desktop to work with the SCOPIA XT1000, you need to configure the SCOPIA XT1000 with two licenses: an MCU license and a SCOPIA XT Desktop license. There are two kinds of MCU license: the Basic MCU license that allows a limited number of participants and the Extended MCU license for the maximum number of participants. You can use either of these licenses for your SCOPIA XT1000 deployment to support 4 or 9 participants.

Before You Begin

Verify that SCOPIA XT1000 is configured with proper licenses.

Procedure

- Step 1 Navigate to the setup.exe file and double-click to launch the installer.
- Step 2 Select Run in the Security Warning window.
- Step 3 Select the installation language in the Choose Setup Language window, and select OK.
- Step 4 Select Next in the Welcome window.
- Step 5 Read the agreement in the License Agreement window, choose I accept the terms in the license agreement, and then select Next.
- Step 6 Enter the SCOPIA XT1000 endpoint IP address in the SCOPIA XT1000 Address window, and select Next.
- Step 7 Define the installation folder and select Next.
- Step 8 Configure the SCOPIA XT Desktop Network Interface and SCOPIA XT Desktop web server port in the SCOPIA XT Desktop Network Configuration window, and select Next.
- Step 9 Specify the hostname of the server that clients should use to connect to the SCOPIA XT Desktop in the SCOPIA XT Desktop Hostname Configuration window.

Note: Make sure that you specify the hostname that clients can resolve.

- Step 10 Select Install in the Ready to Install the Program window.
- Step 11 Select Finish.





Configuring Your Deployment

This section describes how to access Administration interface, configure your SCOPIA XT Desktop, define a local administrator account, and verify that the SCOPIA XT1000 and SCOPIA XT Desktop are successfully connected.

Logging In to the Administration Interface pag	e 9
Configuring SCOPIA XT Desktop to Work with SCOPIA XT1000 pag	e 9
Verifying Component Communication and Status page	15
Defining the Local Administrator Account page	10
Configuring the Local Directory page	12
Accessing Log Files page	14
Protecting Meetings Using a PIN page	15
Configuring SCOPIA XT Desktop Clients page	15

Logging In to the Administration Interface

The SCOPIA XT Desktop Server Administration interface is a web-based application. To login:

Procedure

- Step 1 Open the Internet browser.
- Step 2 Enter the following URL:
 - http://<host>[:<port>]/scopia/admin
 - where <host> is the location of your corporate SCOPIA XT Desktop Server.
- Step 3 On the Administration page, enter your username and password.
- Step 4 Select Sign In.

The default username and password are both "admin"

Configuring SCOPIA XT Desktop to Work with SCOPIA XT1000

	This section describes how to configure SCOPIA XT Desktop to work with SCOPIA XT1000.
	Before You Begin
	Login to the SCOPIA XT Desktop Server Administration web user interface.
	Procedure
Step 1	Select the Deployment icon in the sidebar.
	Figure 4-1 SCOPIA XT Desktop Deployment Icon
Step 2	Verify that the IP address of SCOPIA XT1000 appears on the Servers tab.
	Figure 4-2 SCOPIA XT1000 Section
	SCOPIA XT1000
	Management Address: 192.168.115.43
Step 3	If the SCOPIA XT Desktop is configured with multiple NICs, select the network interface that will be used for communication between SCOPIA XT Desktop and SCOPIA XT1000
	be used for communication between seon A XT besktop and seon A XT 1000.
	Figure 4-3 Servers Tab
	Servers
	If the SCOPIA XT Desktop server is configured with multiple IP addresses, select the network interface to use when communicating with the specified component. Refer to the deployment guide for details.
	SCOPIA XT1000
	Management Address: 192 168 115 63

A XT1000			
Management Address:	192.168.115.63	•	
SCOPIA XT Desktop Network Interface:	10.100.254.70	•	

- Step 4 From the SCOPIA XT Desktop Control Interface list, select the interface that will be used for cascading control data.
- Step 5 From the SCOPIA XT Desktop Media Interface list, select the interface that will be used for media data.
- Step 6 Select OK.

Verifying Component Communication and Status

The SCOPIA XTDesktop user interface provides a page for reporting the connectivity status of your deployment. The indicators next to each link shows whether or not the connection to the target server or registration with a particular component is successful. When the indicator is red, a tooltip containing error details is available.

Procedure

Step 1 To verify that SCOPIA XT Desktop Server is connected to SCOPIA XT1000, select the Status icon in the sidebar.

Figure 4-4 SCOPIA XT Desktop Status Icon

Step 2 View the connection status for each server or component. If necessary, select any red indicators to view further error information.







If necessary, select any red indicators to view further error information.

You can define a user and password for an administrator to access SCOPIA XT Desktop Administration web user interface.

Procedure

Step 1Select Directory and Authentication on the sidebar.The Settings tab is displayed.

Figure 4-6 Local Administrator Configuration Panel

Settings	Directory					
Local Administrator						
Please enter the credentials used to log into these administration pages.						
	User Name:		admin			
	Password:		•••••			
	Confirm Pas	ssword:	•••••			

- Step 2 Enter credentials in the Local Administrator area.
- Step 3 Select OK.

The SCOPIA XT Desktop Status page opens.

Configuring the Local Directory

The local directory is a local database containing names and IP addresses of terminals on the SCOPIA XT Desktop Server deployment.

Before You Begin

• Login to the SCOPIA XT Desktop Server Administration web user interface.

Procedure

Step 1 Select Directory and Authentication icon in the sidebar.

Figure 4-7 Directory and Authentication icon



Step 2 Select the Directory tab.

	Figure 4-8 Directory Tab		
	Settings Directory		
	Search Display Names:	6	
	Delete		
	Display Name	▲ Address	
	Sony	10.100.254.65	
	Add Entry to Local Directory: Add	3 N	Page 1 of 1 > >
Step 3	To add a new terminal to your l	ocal directory:	
	a. Select Add.		
	b. Enter the terminal name an	d IP address.	
	c. Select OK.		
Step 4	To edit properties for a termina	l:	
	a. Select the Edit button next	to the terminal whose propert	ties you want to edi
	b. In the Edit Entry window, e	dit properties as needed.	
	c. Select OK.		
Step 5	To delete a terminal from the d	atabase:	
-	a. Select a check box for the t	erminal you want to delete.	
	b. Select the Delete button.		

Accessing Log Files

SCOPIA XT Desktop automatically maintains extensive logs to help maintain your deployment and troubleshoot problems. By accessing the Logging tab, you can turn on enhanced logging, which provides network trace on the server (with or without media, depending on your selection) as well as extended middleware logging.

Note: Enabling enhanced logging for extended periods of time adds largelog files to the system. However, you can turn it this feature on/off at anytime.

Before You Begin

Navigate to the SCOPIA XT Desktop Server Administration web user interface.

Procedure

- Step 1 Select the Status icon in the sidebar.
- Step 2 Select the Logging tab.

Figure 4-9 Logging Tab							
SCOPIA Desktop	Directory	Recording	Content Slider	Logging			
Logging Contr	ol				Logging Summary		
Log File:		Downlo	ad		Enhanced Logging:		
Enhanced Loggi	ng:	Enable	e Disable	📄 Log All Media	Disabled		

- Step 3 To download a zipped version of current log files, select the Download button.
- Step 4 (Optional) To enable enhanced logging, select the Enable button.

The Logging Summary displays the current status of enhanced logging - enabled or disabled.

Protecting Meetings Using a PIN

You can enable a meeting protection PIN. In this case attendees are required to enter the PIN you configured to access the meeting.

Before You Begin

Navigate to the SCOPIA XT Desktop Server Administration web user interface.

Procedure

Step 1 Select Directory and Authentication in the sidebar.

Figure 4-10 Directory and Authentication Icon



Step 2 Select the Require attendees to enter a PIN to gain access to the meeting check box in the Meeting PIN section.

Figure 4-11 Meeting PIN Section

Require attendees to enter a PIN to gain access to the meeting.				
PIN:				
Confirm PIN:				
	Display PIN			

- Step 3 Enter a PIN in the PIN field.
- Step 4 Enter the PIN again in the Confirm PIN field.
- Step 5 To check the PIN you have configured, select the Display PIN button.
- Step 6 Select OK.

Configuring SCOPIA XT Desktop Clients

You configure SCOPIA XT Desktop clients in order to define the parameters related to the video quality, connection addresses, and meeting functionality. The topic included are:

- Defining Client Video Quality and Connection Parameters...... page 16
- Defining Meeting Features page 18

During this procedure you define the maximum bandwidth used between the SCOPIA XT Desktop client and the SCOPIA XT Desktop Server.

You can also configure the maximum transmission unit (MTU) size the SCOPIA XT Desktop client uses for communicating with SCOPIA XT Desktop. The default value is 1360. This setting should match the setting on the MCU and your network settings to avoid fragmentation.

If you need to limit UDP ports that are opened on the firewall to allow SCOPIA XT Desktop clients to send RTP to SCOPIA XT Desktop, you must define a multimedia port range. We recommend that you use a limited range between 2326 and 65535. If this option is used, each client connection uses eleven ports; to define the range, multiply the number of connections allowed by your license by eleven.

During this procedure you also configure the SCOPIA XT Desktop public address which SCOPIA XT Desktop clients use to connect to the SCOPIA XT Desktop Server. To allow clients from the public network to connect, use a FQDN they can resolve.

Before You Begin

Navigate to the SCOPIA XT Desktop Server Administration web user interface.

Procedure

Step 1 Select the Client icon in the sidebar.

Figure 4-12 Scopia Desktop Administration Client Icon



Step 2 Select the Settings tab.

Step 3 Select the maximum call rate in the Maximum Video Quality section.

Maximum Call Rate (Kb/s):		
The second s	1024 (720p)	
	128 (CIF)	
U Size	192 (288p) 256 (288p)	
The MTU Size specifies the maximum transmis Desktop.	384 (448p) 448 (448p) 512 (576p) 768 (720p)	when communicating with SCOPIA XT
MTU Size:	1024 (720p) 1280 (720p)	
	1472 (720p)	
ltimedia Ports	1920 (720p)	
You can limit the UDP port range that clients ne limited scope between 2326 and 65535.	egotiate with SCOPIA	XT Desktop to send audio and video. You must use a
Lowest Multimedia Port		
Lowest Multimedia Port Highest Multimedia Port		
Lowest Multimedia Port Highest Multimedia Port Innection Information		
Lowest Multimedia Port Highest Multimedia Port nnection Information SCOPIA XT Desktop clients will connect to the Interface, or a public address (FQDN recomme	server by using either nded) if specified belo	r the selected SCOPIA XT Desktop Network

Figure 4-13 Client Settings Tab

Step 4 Enter a value in the MTU Size field.

Figure 4-14 MTU Size Section

MTU Size						
The MTU Size specifies the may communicating with SCOPIA D	ximum transmission unit size the client will use when esktop.					
MTU Size:	1360					

Step 5 If necessary, configure a multimedia port range byentering values for the lowest multimedia port and the highest multimedia port.

RADVISION | Installation Guide for SCOPIA XT Desktop Server Version 2.0

Step 6 Insert the public address.

Figure 4-15 Connection Information Connection Information SCOPIA Desktop clients will connect to the server by using either the selected SCOPIA Desktop Network Interface, or a public address (FQDN recommended) if specified below. Public Address: sdbeta.RADVISION.com

Step 7 Select OK or Apply.

Defining Meeting Features

This section describes how each of the meeting features affect SCOPIA XT Desktop administration and the end user experience:

You can enable the Custom Panel option to display an additional custom panel in the SCOPIA XT Desktop Live Meeting Console. The custom panel location is preconfigured and cannot be changed.

The URL parameters are passed to the custom URL as follows: ?meetingid=NNN&nickname=XXX, where NNN is the ID of the meeting the user is connected to, and XXX is the nickname of the connected user. You can also use the custom panel URL to specify additional URL parameters. You must use the URL-encoding for the additional URL parameters. For example, if the custom panel URL is "http://www.mycustompanel.com/myservlet?arg1" and the SCOPIA XT Desktop entry page or conference room is launched with the additional argument "?CUSTOM=arg2%26arg3% 3D123", the custom panel opens to the URL "http://www.mycustompanel.com/myservlet? arg1&arg2&arg3=123".

Configure the Push to Talk option to define how participants use the microphone button in the SCOPIA XT Desktop Live Meeting Console:

- Allow users to join a meeting with their microphone on—The microphone is on and the audio output is sent when participants enter a meeting. The participants must select the microphone button to mute themselves.
- Force users to join a meeting with their microphone off—The microphone is off and the audio output is not sent when participants enter a meeting. The participants must select the microphone button to unmute themselves.
- Force users to hold down their microphone button while speaking—Participants must select and hold down the microphone button to activate their microphones and to send their audio output.

You can enable media encryption (audio, video, presentation) between SCOPIA XT Desktop Server and the SCOPIA XT Desktop client. Encryption may be used, for example, in a corporate deployment where the SCOPIA XT Desktop Server is used to invite people outside of your network. Since this option only enables secure encryption of the media, you need to secure the web portal.

Before You Begin

Navigate to the SCOPIA XT Desktop Server Administration web user interface.

Procedure

- Step 1 Select the Client icon in the sidebar.
- Step 2 Select the Meeting Features tab.
- Step 3 In the Meeting Room section, configure the Desktop Sharing option as desired.

Figure 4-16 Meeting Room Settings

Meeting Room				
✓ Enable Desktop Sharing				
✓ Enable Chat				
Display an additional panel in the conference room				
URL to Display:				

- Step 4 Configure the Chat option as required.
- Step 5 Define the additional custom panel option as desired:
 - a. Select the Display an additional panel in the conference room check box to enable the option.
 - b. Enter the URL in the field.
- Step 6 Define the Push to Talk option as desired.

Figure 4-17 Push to Talk Settings



Step 7 Define the security option as desired.

Figure 4-18 Security Settings





Step 8 Select OK or Apply.



About RADVISION

RADVISION (NASDAQ: RVSN) is the industry's leading provider of market-proven products and technologies for unified visual communications over IP and 3G networks. With its complete set of standards based video networking infrastructure and developer toolkits for voice, video, data and wireless communications, RADVISION is driving the unified communications evolution by combining the power of video, voice, data and wireless - for high definition video conferencing systems, innovative converged mobile services, and highly scalable video-enabled desktop platforms on IP, 3G and emerging next generation networks. For more information about RADVISION, visit www.radvision.com

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