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Chapter 1

Getting started with Sametime 6.5.1 for Solaris

Welcome to IBM® Lotus® Instant Messaging and Web Conferencing (Sametime) 6.5.1 for Solaris™. Sametime merges Web server technology, Lotus Notes® technology, T.120 data-conferencing technology, and online awareness technology to allow Lotus Notes and Web browser clients to participate in live, interactive online meetings, instant messaging, and group chat sessions. Sametime enhances the workplace by placing powerful, real-time collaboration tools on the desktop of every user in a Sametime community. Now you can combine these technologies with the reliability and scalability of a Sun™ SPARC™ server.

This version of Sametime 6.5.1 provides support for the Solaris UNIX® operating systems. In addition to documenting the aspects of Sametime that are unique to Solaris, this installation guide provides an administrator with the necessary steps for completing the following tasks:

- Planning and preparing the Sametime environment
- Adding Sametime to a Domino™ server
- Installing Sametime
- Making the Sametime Connect client available to users
- Managing the Sametime server
- Using an LDAP directory

Note Although you install Sametime on a Domino server, "Sametime server" in this book refers to the Domino server with Sametime installed.

Getting Started

This chapter of the installation guide provides you with the basic information you need to install and use Sametime 6.5.1, including:

- The Sametime server: Describes the components that make up the Sametime server.
- Installing the Sametime Connect client: Describes the two versions of Sametime Connect.
- Differences for Sametime on Solaris: Describes the differences between Sametime on Solaris and other versions of Sametime.

- **Sametime for Solaris requirements:** Lists the hardware and software requirements and how to check for the presence of Domino.
- **Where to find more information:** Directs users to helpful resources.

Note For a checklist of the tasks you must complete in order to add Sametime to a Domino server, see Appendix A, "Sametime installation and configuration checklist."

The Sametime server

Before installing Sametime, you should familiarize yourself with its services, including Domino/Web Application Services, Community Services, Meeting Services, Broadcast Services, and Audio/Video Services. For more detailed information about these services, see the *IBM Lotus Instant Messaging and Web Conferencing Administrator's Guide* (sthelpad.nsf).

Domino/Web Application Services

Sametime 6.5.1 for Solaris uses the Domino R6 infrastructure and services. The primary Domino services used by a Sametime server are:

- Web server
- Directory
- Security
- Replication
- Database storage

You can deploy Sametime applications on the Sametime server or on a Domino server in the same domain in which Sametime is installed.

Community Services

Sametime Community Services support all presence (or awareness) capabilities, instant messaging, and multi-user chat conferences in a Sametime community. Any Sametime client that contains a presence list must connect to the Community Services.

Community Services provide these basic functions:

- Listening for connections from clients and handling login requests
- Accessing a directory to search for users and other Sametime servers in the Sametime community
- Disseminating presence information and chat data to all connected users
- Interacting with the Sametime Meeting Services so that Participant Lists and chat capabilities are available within meetings

Broadcast Services

Broadcast Services enable a large audience of users to watch and listen to meeting activity; however, the audience cannot interact in the meeting. The Broadcast Services support the conversion of screen-sharing, whiteboard, audio, and video data into individual RTP streams for transmission on the network. Audio and video data streams are also available if you have configured the Sametime Multimedia Services.

The Broadcast Services provide the following functions:

- Listening for connections from the Sametime Broadcast clients that access the Sametime server
- Negotiating with Broadcast clients to ensure the clients can receive the broadcast meeting streams
- Transcoding screen-sharing/whiteboard data, audio data, and video data into an RTP stream
- Transmitting RTP streams using UDP, TCP, or HTTP so that clients operating in different network environments can receive the streams
- Multicasting data streams when transmitting on multicast-enabled networks

The Sametime Broadcast client is the only client of the Broadcast Services. The first time that a client workstation accesses a broadcast meeting, the Sametime Broadcast client is downloaded automatically.

Audio/Video Services

Audio/Video Services are available only if you have configured the Sametime Multimedia Services on top of the Sametime core server. The Audio/Video Services of Sametime support all interactive IP audio/video capabilities of Sametime.

The Audio/Video Services provide the following functions:

- Handling connections from the audio/video clients
- Detecting the person currently speaking (or detecting the source of an audio stream)
- Performing audio and video switching operations as different people speak in meetings
- Providing full-duplex operation (including two-way mixing of audio that allows two participants to speak simultaneously and be heard by all meeting participants)

The Audio/Video Services clients include:

- Sametime 6.5.1 for Solaris does not support the use of a Latitude Communications™ MeetingPlace™ server.
- Although Sametime for Windows supports Web only, standalone, and merge (add to a Domino server) configurations, you can only add Sametime to a Domino server on a Solaris server. There are three different options for adding Sametime to a Domino server. For more information about these options, see Chapter 2, "Preparing the Sametime environment."

Sametime for Solaris requirements

Before you install Sametime, install the Solaris hardware and software that Sametime requires. Before you install Sametime Connect, install the workstation hardware and software that Sametime Connect requires.

The following sections describe how to check for Domino and list the hardware requirements for Sametime for Sun SPARC Solaris servers.

Checking for Domino

A Sametime server must be installed on a Domino 6.03, 6.5, or 6.5.1 server. For the instruction in this document we are using Domino 6.5.1 as the install version of the Domino server.

Domino is installed on a Solaris server via basic installation scripts. No tracking information to indicate Domino installation is stored in either the installp or package facilities of the respective operating systems. Instead, you must look for Domino on a system in other ways. The easiest way is to change the directory to /opt/lotus and list the directory. Look in the contents list for a file called ".install.dat." The existence of the directory and the ".install.dat" file indicate that Domino has been installed. Look at the contents of the ".install.dat" file and find a line reading "rev=xxxx," where xxxx indicates the version of Domino installed. The commands to look at the contents of the ".install.dat" file are:

```
cd /opt/lotus
ls -al
more .install.dat
```

If "rev=60510" or a number higher than 60510, you have the correct version of Domino installed to continue installation of the Solaris software.

- **Microphone and speakers:** High-quality microphones are recommended. Avoid microphones with on and off switches unless they are of high quality. A headset that contains a boom microphone performs best. If a desktop microphone is used, a unidirectional dynamic microphone that uses batteries is preferred.
- **Camera:** A high-quality USB or PCMCIA PC camera is recommended (do not use parallel port cameras). A camera is optional. Users who do not have a camera can participate in an audio/video meeting. These users can see video images displayed in the Sametime Meeting Room client. When a user without a camera speaks, no video image is displayed in the video component of the Meeting Room client.
- **Video capturing software:** Video for Windows

Additional Requirements

The following items are additional requirements:

- Sametime 6.5.1 for Solaris uses a graphical installation program which is based on Java™. This program requires a Java Runtime Environment (JRE) of version 1.1.4 or higher.
- Running the installation program requires access to an X Window™ interface. The installation program will not run from a telnet session.
- To install Sametime 6.5.1 for Solaris, you must be logged in as **root** along with root's environment settings. To start Sametime properly, you must be logged in as the Notes user, along with the Notes user's environment settings. If switching from root to the Notes user to start the server, be sure to include the command line switch "-" to switch the environment settings. For example: su - notes

For more detailed information about supported audio/video devices, see the IBM Lotus Instant Messaging and Web Conferencing Administrator's Guide (sthelap.nsf).

Sametime 6.5.1 supports the following clients:

Windows 2000 Professional	Windows XP Professional	Windows 2003	Windows 2000 Advanced Server	OS/400 V5R1 V5R2 V5R3	AIX 5.1	AIX 5.2	Solaris 8 (SPARC)	Solaris 9 (SPARC)	Citrix
Y - Client N - Server	Y - Client N - Server	N - Client Y - Server	N - Client Y - Server	Y - Server N - Client	Y - Server N - Client	Y - Server Y - Client	Y - Client Y - Server	N - Client Y - Server	Y - client

Where to find more information

Before installing and configuring your Sametime server, be sure to review the information in the Readme file located on your CD. You should also visit the Sametime for Solaris Web site, where additional information will be posted as it becomes available, including installation tips and sizing recommendations.

You might find the following resources helpful:

- The Lotus Sametime home page contains Sametime product and developer information, including the latest information about Sametime developer's tools and the protocols used by Sametime that make online awareness and real-time collaboration possible. This Web site includes white papers, reviewer's guides, common questions and solutions, and newsletters about the features and benefits of Sametime. The Web site is located at the following address:

<http://www.lotus.com/sametime>

- The following IBM Redbooks can help you to install, administer and customize your Domino installation on the Sun SPARC systems:
- *Lotus Domino R5 for Sun Solaris* - Document number SG24-5969.

You can find more information on these and other Redbooks on the following Web site:

<http://www.redbooks.ibm.com/>

Chapter 2

Preparing the Sametime environment

This chapter helps you prepare the Sametime environment on your Solaris server. When you prepare the Sametime environment on a UNIX system, you must always add Sametime to a Domino server. You can add Sametime to Domino in one of three ways:

- If you have not yet installed Domino, you can install a Domino server on your Solaris server, and then install Sametime.
- If you have installed a single instance of a Domino server on your Solaris server, you can install Sametime on that Domino server.
- If you have installed multiple instances of a Domino server on your Solaris server, you can install Sametime on one of the available Domino servers.

Things to Consider

The installation does not automatically check to ensure that your computer has the disk space necessary to install Sametime. Before installing Sametime, manually check your system to be sure that it has adequate disk space.

Ensure that Domino 6.5.1 has been installed and successfully started before installing Sametime. However, you do have to **stop** Domino before installing Sametime.

Installing a Domino server on your Solaris server

This section assumes that you do not already have Domino installed on the Solaris server where you will run Sametime. Since you must add Sametime to an existing Domino server, Domino software is included with the Sametime package. If you have not separately purchased a Domino server license for this Solaris server, you are authorized to use the included copy of Domino on a single server, but only to run Sametime.

To install a Domino server on your Solaris server:

- Install the Domino software and configure the Domino server.
- Install and configure the Notes Client and Domino Administrator Client.
- Modify the Domino server configuration for the addition of Sametime.

Installing the Domino software and configuring the Domino server

This section will help you install and configure a Domino server where you will add Sametime.

Installing Sametime on a UNIX server running Solaris:

The Domino installation programs for all versions of UNIX are simply scripts that ask for configuration information and then install the software in the appropriate directories. If you are unfamiliar with installing and configuring Domino, it is recommended that you obtain and review the information in the IBM Redbook *Lotus Domino R5 for Sun Solaris* (Document Number SG24-5969), before continuing. The instructions below are provided to remind you of the necessary steps to install Domino; the procedure assumes that you have a working knowledge of Domino administration.

To install Domino:

1. Place the CD in the CD-ROM drive.
2. Become the root user by logging in as the root user or using the “su” command. Open Operations Navigator.
3. Navigate to the contents of the CD and look for the the "sunspa" subdirectory, changing to that directory.
4. Start the installation script from the “sunspa” subdirectory of the CD with the command “./install”
Note For the command to function correctly, you must include the “.” and “/” shown.
5. Follow the directions on each panel of the script, making sure to retain the information you provide for the location of the Domino executable directory and the Domino data directory. You will need this information when you install Sametime.
6. Continue with the next step in the installation process, installing and configuring the Notes and Administrator Client..

Installing and configuring the Notes Client and Domino Administrator Client

To administer the Domino server, you must install and configure at least one Windows PC to act as the administration workstation. Using the Domino software that shipped with Sametime, you must install and configure the

<i>Tab</i>	<i>Field</i>	<i>Text to Enter</i>
Internet Protocols-HTTP	Host Name	The hostname for the TCP/IP address for your Sametime server (For example, stdom1.acme.com)
Internet Protocols HTTP	Bind to host name	Enabled

4. Stop the Domino server by pressing Enter on the terminal session where the Domino server was started to obtain an input prompt, and then enter the Exit command and press Enter.

Note Stopping the Domino server might take a few minutes.

5. When Domino is started again, the changes will take effect.

You have finished configuring the server, and you are ready to install Sametime. Proceed to Chapter 3, "Installing and Managing Sametime 6.5.1."

Installing Sametime on a Domino server (single instance)

If you have installed a single instance of a Domino server on your Solaris server, you can install Sametime on that Domino server. You can prepare your Sametime environment by:

- Setting up a Domino server in a new Domino domain and adding Sametime to that server
- Adding a Domino server to an existing Domino domain, and then adding Sametime to that server

Regardless of how you prepare your Sametime environment, only one Sametime server can be active on a Solaris server at one time. Sametime 6.5.1 for Solaris does not support a configuration in which Sametime and QuickPlace™ are installed on the same machine.

If you plan to run QuickPlace in the same logical partition as Sametime, see the Readme file on your CD for more information before configuring your server.

Note If you have not configured a Domino server on the Solaris server where you plan to install Sametime, you must read the first section of this chapter, "Installing a Domino server on your Solaris server."

<i>Field</i>	<i>Description</i>
Administrator's Name	Specify the Domino administrator's name. This administrator will also be the Sametime server administrator.
Internet Password	Specify an Internet password for the Domino administrator. You must specify an Internet password in order to access the Sametime components of this server.
<i>Field</i>	<i>Description</i>
Server Name	Enter the name of the Domino server where you will add Sametime. For example, specify STDOM1.

You have finished configuring the server, and you are ready to install Sametime. Proceed to Chapter 3, "Installing and Managing Sametime 6.5.1."

Installing Sametime on a Domino server (multiple instances)

If you have installed multiple instances of a Domino server on your Solaris server, you can install Sametime on one of the available Domino servers. (If you have installed multiple instances of Domino, you can only install Sametime on one instance of a Domino server.)

You can prepare your Sametime environment by:

- Setting up a Domino server in a new Domino domain and adding Sametime to that server
- Adding a Domino server to an existing Domino domain, and then adding Sametime to that server

Note If you have not configured a Domino server on the Solaris server where you plan to install Sametime, you must read the first section of this chapter, "Installing a Domino server on your Solaris server."

Setting up a Domino server in a new Domino domain and adding Sametime

When you set up a Domino server in a new Domino domain and add Sametime:

- No users are in the Domino Directory at the time the server is created.
- The server is in its own Domino domain (also known as a Sametime Community) and cannot access Domino servers outside the Sametime Community. You cannot establish a connection to any existing Domino mail or application servers outside of this community.

<i>Field</i>	<i>Description</i>
Enterprise Connection Services	Specify *NONE. Sametime does not require the use of DECS.
Administrator's Name	Specify the Domino administrator's name. This administrator will also be the Sametime server administrator.
Internet Password	Specify an Internet password for the Domino administrator. You must specify an Internet password in order to access the Sametime components of this server.
Web Browsers	Specify *HTTP. Sametime requires that you use the Domino HTTP server.
Internet Mail packages	To reduce overhead, specify *NONE. Sametime does not require mail packages.
Internet Address	Enter the TCP/IP Address for the Sametime server. For example, enter 10.1.2.4.

2. After you have entered the settings, press Enter and wait for the server configuration to complete.
3. Using a Domino Administrator client, edit the server settings in the Server document so that the Domino HTTP server binds to the specific Host Name or TCP/IP address.
4. Open the STDOM1 server document and enter values for the following fields as indicated in the Text to Enter column of the table below:

<i>Tab</i>	<i>Field</i>	<i>Text to Enter</i>
Basics	Is this a Sametime server?	Yes
Security	Run unrestricted LotusScript/Java agents	Sametime Development/Lotus Notes Companion Products If you have signed agents with a different signature, then enter that signature here also.
Ports-Notes Network Ports	Port	TCPIP Note This value must be specified <i>exactly</i> as shown or you will not be able to add Sametime to this server.
Internet Protocols-HTTP	Allow HTTP clients to browse databases	Yes
Internet Protocols-HTTP	Home URL	stcenter.nsf?Open

continued

- Create the following file, **etc/hostname.hme0:1** (you will see that **etc/hostname.hme0** is already created, this represents the "physical" address)
 - In this new file type the fully qualified name of the "logical" address for the 2nd IP you are assigning this machine.
 - Then type **ifconfig hme0 plumb**
 - Then type **ifconfig hme0:1 plumb**
 - Then type **ifconfig hme0:1 <new logical IP address> up**
 - After that you can type **ifconfig -a** and both IPs should be present.
2. Ensure that each partitioned server has a DNS name that maps to its unique IP address.
 3. To ensure that each partitioned server is run by a unique user account, create a new UNIX notes user for each partitioned server that you plan to install.

Domino Installation

When installing Domino:

1. Choose to install a "Domino Enterprise Server."
2. When prompted to install more than one Domino Server on this computer, click Yes.
3. When prompted for the location of the data directory and the notes user account, be sure to use a unique location for the data directory and the same user name for each partitioned server.

Domino Configuration

To configure Domino:

1. After installation, configure each server using the notes user account. For example, log in as "notes" and run `"/opt/lotus/bin/http httpsetup"` to configure the first server. Then log out, log in as "notes," configure the second server, and so on.
2. During configuration, make sure that any field referring to the server's name or IP address is set up properly. By default, the IP address and server name fields for each configuration contain the IP address and server name of the first server. For each additional server, you must update these fields.

Note When prompted for the Net Address on the "Network and Communications Settings" screen, ensure that "Use ports selected below" is selected in the Network Options section. Otherwise, the Domino server will not accept any change to the Net Address field.

