



ShoreTel Communicator for IBM Sametime Administrator Guide

Release 3.0

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CHAPTER

1

Introduction

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Overview

ShoreTel Communicator for IBM Sametime is a powerful and reliable collaboration and unified communications solution that combines the power of IP telephony and unified messaging with IBM's Sametime communications and collaboration tools.

ShoreTel Communicator for Sametime enhances Sametime Connect by making it easy to work with voice calls from the desktop. It provides features that are commonly available from a telephone and additional features that enable advanced communications.

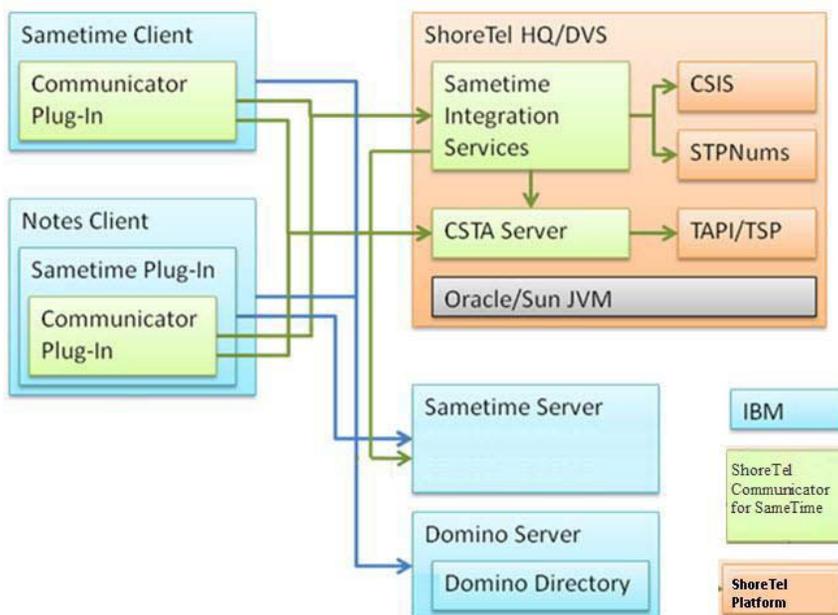
Features to work with voice mail within Sametime Connect are also provided by ShoreTel Communicator for Sametime. This includes information on voice messages and the ability to listen and reply to, create, and manage voice mails.

In this chapter you find information on ShoreTel Communicator for Sametime:

- Components
- Architecture
- Licensing

Components

The ShoreTel Communicator for Sametime system is made up of the following components:



- IBM Sametime
- ShoreTel Unified Communications Platform
- ShoreTel Communicator for IBM Sametime Solution
- Optional Components

IBM Sametime

IBM Sametime consists of client and server applications that enable a community of users to collaborate in real-time. ShoreTel Communicator for Sametime plugs into Sametime release 8.5.2 or 9. The Sametime environment is made up of:

- IBM Lotus Domino Server
IBM's social business application platform for critical business, collaboration, and messaging applications.
- IBM Sametime Servers
An IBM Lotus Domino server in which Lotus Sametime server software has been installed and set up. Each Sametime server contains an IBM Lotus Domino Directory that maintains information about all users and servers that comprise the Sametime community.
- IBM Lotus Sametime Connect client (either standalone or embedded in Lotus Notes)
A client application that provides features for presence, chat, screen sharing, a shared whiteboard, and real-time audio/video capabilities.

Refer to your IBM documentation for additional information on IBM Sametime.

ShoreTel Unified Communications Platform

ShoreTel Communicator for Sametime requires specific components and devices of the ShoreTel Unified Communications platform to support call control and unified messaging. The components that enable these features are:

- ShoreGear Voice Switches
The distributed call control software runs on the ShoreGear voice switches. Each call control element manages the call setup and call tear down, including features such as transfer, conference, forward, call permissions, and call routing.
- ShorePhone IP Telephones
ShoreTel offers a wide range of IP telephones for use within its business communication solution, designed to help boost productivity and meet the needs of every user. Each phone is preconfigured for quick and easy installation with the ShoreTel Unified Communications system.
- ShoreTel Core Software
ShoreTel Core Software that delivers tools to form your business communication system, including voice routing, automated attendant, advanced telephony features, unified messaging, call accounting and reporting, and powerful workgroup routing capabilities. The ShoreTel release includes the Headquarters (HQ) and Distributed Voice Services (DVS) servers.

Supported ShoreTel releases: 12.0 and higher.

The ShoreTel HQ Server runs on a Windows server and manages the voice communications solution by distributing call control intelligence to voice switches. In addition, it distributes voice applications, including voice mail systems and automated attendants. The ShoreTel database is also located on the HQ server. For the ShoreTel Communicator Integration Solution, licenses are installed on the HQ server.

The (optional) ShoreTel DVS Server allows you to run ShoreTel in a distributed environment, providing faster local queries, reduced network traffic, improved scalability, and reliable telephony services for a remote location during WAN outages.

For information on ShoreTel system requirements, refer to the *ShoreTel Planning and Installation Guide*. You configure and manage the integrated components of the ShoreTel Unified Communications Platform using ShoreTel Director; see the *ShoreTel Administration Guide* for specifics.

ShoreTel for IBM Sametime Solution

ShoreTel for IBM Sametime Integration Solution enhances the Sametime Connect client by providing features for making, answering, and managing voice calls and working with voice mail. ShoreTel for IBM Sametime Integration Solution is made up of:

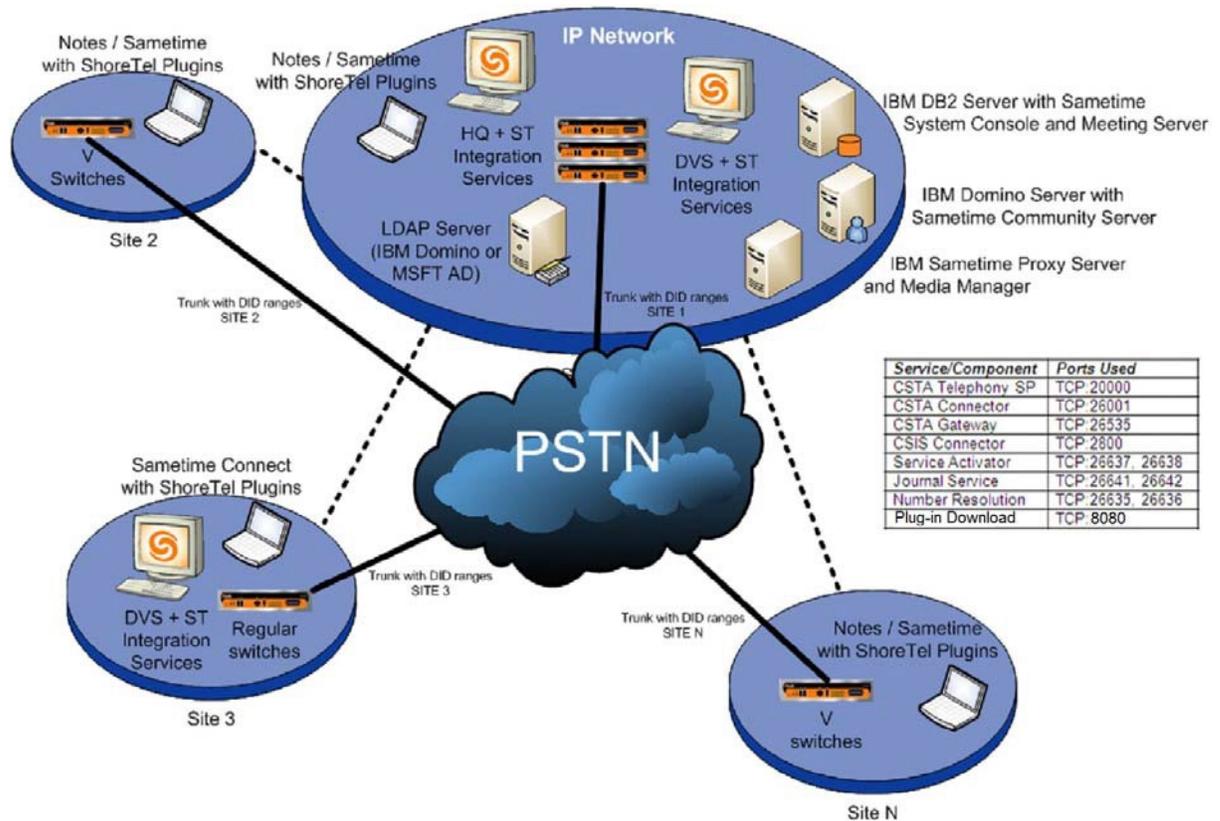
- IBM Sametime Integration Services
Installed on the ShoreTel HQ and all DVS servers. These services provide access to voice mail, number resolution, telephony presence, and other features.
- TeamCall CSTA Server
Integrates IP telephony applications with the ShoreTel Unified Communications Platform using an open standard interface based on the Computer Supported Telephony Application (CSTA) protocol.

The CSTA server is installed on the same server as the Sametime Integration Services (i.e. the ShoreTel HQ and all DVS servers).
- ShoreTel Communicator for Sametime Plug-Ins
Enhances the Sametime Connect client with the ability to make and manage calls, and work with voice mail. The plug-in features are available in either the standalone Sametime Connect application or the Sametime Connect client embedded in Lotus Notes.

Architecture

The IBM Sametime architecture is based on the Eclipse rich client architecture. ShoreTel Communicator for Sametime is an Eclipse-based plug-in that extends Sametime functionality.

The ShoreTel Communicator for Sametime Plug-In is installed on the IBM Lotus Sametime Connect client (either standalone or embedded in Lotus Notes). The client plug-in communicates with the Sametime Integration Services and CSTA Server on the ShoreTel HQ or optional DVS server.



ShoreTel for IBM Lotus Sametime – Multiple Site Deployment

Licensing

Software license keys are required, and must be installed, to use ShoreTel Communicator for Sametime.

On installation of ShoreTel Communicator for Sametime on the ShoreTel HQ server, a temporary license key is installed. You use this temporary license key to install and initially use ShoreTel Communicator for Sametime. You then have 45 days to request and enter the required permanent license key, while continuing to use ShoreTel Communicator for Sametime.

If you do not enter the permanent license key within 45 days, users will be unable to use ShoreTel Communicator for Sametime. Users will see a red **X** over the phone icon in the Sametime Connect toolbar; clicking on the icon displays the error message “CTI License is not available for you”.

Refer to the section Installing the Permanent License Key on page 20 for details on installing a permanent license key and viewing license information.

CHAPTER

2

Installing ShoreTel Communicator for IBM Sametime

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Overview

The chapter provides information on the requirements for, and the process of, installing ShoreTel Communicator for Sametime. Details on uninstalling ShoreTel Communicator for Sametime are also included.

Requirements

The following system, hardware, and software requirements must be met before installing ShoreTel Communicator for Sametime:

- Installed and fully functional Sametime 8.5.2 or 9 environment
- Installed and fully functional ShoreTel Unified Communication Platform deployment, release 12.0 or higher
- Reserved ports for ShoreTel Communicator for Sametime use

Sametime Environment

You must have an installed and fully operational Sametime 8.5.2 or 9 environment (however the Sametime Entry version is not supported).

The Sametime environment is made up of a DB2 server, a Websphere application server, a Domino Server, a Sametime Server, and the Sametime Connect client (standalone Sametime client and Sametime client embedded in Lotus Notes). If you are using the Sametime client embedded in Lotus Notes, the embedded Sametime client version must be 8.5.2 or higher (note that Notes 8.5.2 and 8.5.3 ship with an older Sametime client that needs to be updated).



Note

IBM clustering, TCSPI, and Tivoli are not supported.

Sametime environment requirements

The Sametime environment must meet the following requirements:

- Domino configurations must be LDAP enabled and the Sametime server needs to be configured to connect to LDAP (Domino native setup is not supported).
- The Sametime server must be configured to operate as a client to a Lightweight Directory Access Protocol (LDAP) server containing an LDAP directory. The LDAP Directory server contains all user telephone and email information. This server can be installed on IBM Lotus Domino or Microsoft Active Directory.

- LDAP needs to be either Domino LDAP or Active Directory LDAP (while other LDAP servers might work, these servers are not supported). Note that the LDAP configuration for telephone numbers must not contain a space; otherwise ShoreTel Communicator for Sametime will display wrong phone numbers for outbound dialing to Sametime contacts.
- ShoreTel Communicator for Sametime supports all client operating systems supported by Sametime.
- Sametime System Console, which you use to administer and configure Sametime servers, is required for several steps in the ShoreTel Communicator for IBM Sametime installation process. You had an option to install Sametime System Console when you first installed Sametime. If you did not choose this option at installation, install Sametime System Console now.
- For Sametime Connect embedded in Lotus Notes, the Notes Live Text feature must be enabled. This feature is used by ShoreTel Communicator for Sametime Live Text phone number recognition.
- Only a single Sametime enterprise deployment (which can be distributed) is supported by ShoreTel Communicator for Sametime.

Sametime server configuration requirements

The Sametime server configuration must meet these requirements:

- Matching Sametime user accounts must exist for all ShoreTel users who will use ShoreTel Communicator for Sametime.
- The Sametime community needs to be configured to accept connections from the ShoreTel HQ/DVS server ("Trusted Server" in the Sametime server configuration).

Refer to your IBM documentation for information on installing and setting up the Sametime environment.

ShoreTel Unified Communications Platform

You must have an installed and fully functional ShoreTel Unified Communications platform deployment made up of ShoreGear voice switches, ShorePhone IP telephones, and ShoreTel supported build (please refer to the ShoreTel Communicator for SameTime app note for details of supported releases).

Your ShoreTel deployment can be on either a physical server or a virtual deployment.

You can only have a single ShoreTel system (which can be distributed) when implementing ShoreTel Communicator for Sametime.

For information, see the *ShoreTel Planning and Installation Guide* and the *ShoreTel Administration Guide*.

Reserved Ports

The following TCP ports need to be reserved for ShoreTel Communicator for Sametime on the ShoreTel HQ or DVS server:

- **2800, 20000, 26001, and 26535** - Used by the ilink TeamCall CSTA server.
- **8080, 26636, 26637, 26638, 26641, and 26642** - Used by the ilink IBM Sametime Integration Services.

Network Access

Sametime clients need to be able to access the following TCP ports, they must not be blocked by a firewall:

- ShoreTel HQ or DVS server: **2800**, **26535**, **26641**, and **26642**.
- ShoreTel HQ only: **8080**.

Installation

Once you have an installed and fully functional Sametime environment and ShoreTel Unified Communications Platform, and have reserved the required ports, you can install ShoreTel Communicator for Sametime. Use the following installation process:

- Configure the Sametime trust relationship
- Set Sametime policies
- Install JVM
- Match users
- Enhance call functionality
- Install ShoreTel Communicator for Sametime on the server
- Install ShoreTel Communicator for Sametime on clients
- Configure the client for telephony status
- Install the permanent license key

Configuring the Sametime Trust Relationship

The first step in installing ShoreTel Communicator for Sametime is to configure the Sametime Community server to trust the ShoreTel server(s) (i.e. the HQ server and DVS servers if used). The trust relationship enables the Sametime server to accept communication from the Sametime Integration Services.

You can check that you have correctly configured the Sametime trust relationship by looking at log files. The Service Activator log, located on the HQ server at `%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\SIS\Services`, displays the following error if the trust relationship is **not** configured properly:

```
2014-07-06 14:01:04,110 ERROR [de.ilink.sa.sametime.channel.SametimeConnector] Logged out, reason = 0x8000021C
```

And the ShoreTelConfigurator.log file, found on the client at `%appdata%\Lotus\Sametime\logs` will show these errors:

```
2014-07-06 12:53:53,377 ERROR [ChannelClient_ConfigurationPlugin] channelOpenFailed
2014-07-06 12:53:53,377 DEBUG [ChannelClient_ConfigurationPlugin] Server
Application is probably not running
```

Configuration

1. Launch the Sametime System Console server.
2. Navigate to the **Sametime System Console > Sametime Servers > Sametime Community Servers** page.
3. On the Sametime Community Servers page, click on the Community Server under Deployment Identifier.
4. In the **Trusted Servers** area of the Sametime Community Servers page, enter the IP address of your ShoreTel HQ server in the **New IP Address** field and click **Add**.

The server appears in the IP address field.

5. If you are using ShoreTel in a distributed environment, repeat step 4 for each of your DVS servers.
6. Click **OK**.

Setting Sametime Policies

Sametime default policies allow you to determine the access of users to specific features. Default policy settings have no user or group assignment. When the Sametime Policy service calculates policy for a specific user, it applies to that user the Default policy if no other policy can be found for that user.

For ShoreTel Communicator for Sametime, the default instant messaging and meetings policies need to be changed to enable plug-in features.

1. Using the Sametime System Console, navigate to the **Manage Policies** page.
2. On the Manage Policies page > Instant Messaging tab, select the **Sametime Instant Messaging Default Policy** option and click **Edit**.
3. On the Instant Messaging > Edit Policy page > Chat section
 - Select the Allow all Sametime Connect features to be used with integrated clients (IC) option.
 - In the Sametime update site URL (IC) field, enter the URL of your update site.



Note

The URL should point to a folder and **not** to a file (for example, not to site.xml); the URL should **not** end with a forward slash.

4. In the Plugin Management section, select the **Allow user to install plug-ins** option to enable end-users to manually install the ShoreTel Communicator for Sametime plug-in.
5. Click **OK**.
6. Reboot the Sametime server.

Installing Java Virtual Machine (JVM)

You must install a 32 bit Java runtime environment on the same server that you plan to host the ShoreTel for IBM Solution. JRE 6 or higher are supported.

The ShoreTel for IBM Solution installer checks for the presence of JVM and will proceed only if an appropriate JVM is detected.

Matching Users

Client users in the Sametime and ShoreTel environments are created and managed independently. Users in both systems need to be linked in order for ShoreTel Communicator for IBM Sametime to work.

By default, users in both systems are linked by finding matching ShoreTel Properties for one of the following LDAP properties: **uid**, **SAMAccountName**, **mail**.

The LDAP properties to use for matching are defined in `%ProgramFiles%\link\ShoreTel Communicator for Sametime\Application Server\SIS\config\match.xml`.

```
<match>
  <property>uid</property>
  <property>SAMAccountName</property>
  <property>mail</property>
</match>
```

The order of the properties in the **match.xml** file is significant in that the system tries to match users using the first property, and then moving down the list in order, until it finds a match.

You can change the LDAP properties used for matching by editing the **match.xml** file.

Most LDAP properties are compared to the ShoreTel client ID for matching. There are two special cases outlined below:

Table 1: Mapping LDAP and ShoreTel Properties

LDAP	ShoreTel
uid	ShoreTel Client User ID
SAMAccountName	ShoreTel Client User ID
mail	ShoreTel Client User ID (comparing this to the part of the LDAP data that precedes the @ character)
cn	ShoreTel user's first and last name concatenated with a space
<i>Any other LDAP property</i>	ShoreTel Client User ID

Set up matching users

Using **ShoreTel Director > Edit User > General** tab, for each user ensure that the user First Name and Last Name, and/or Client User ID matches the appropriate LDAP property.

By default, the ShoreTel Client User ID is the first initial of the user's first name followed by the user's entire last name.

Example

ShoreTel Properties

First Name	Alan
Last Name	Harper
Number	201-16001
Client User ID	AHarper

LDAP (Domino) Properties

cn	Alan Harper
mail	AlanHarper@ilink.de
uid	AlanHarper

User matching first tries to match the LDAP uid property (AlanHarper) to the ShoreTel client ID (AHarper). This does not match.

Next, the LDAP SAMAccountName property would be used for matching, but this property does not exist in a typical Domino LDAP setup (it's a property typically to be found in Active Directory LDAP servers).

Finally, the part of the LDAP mail property that precedes the @ character (AlanHarper) is compared to the ShoreTel client ID (AHarper). This does not match.

The result would be that user matching does not work in this case.

To correct, do one of two things:

1. Modify the LDAP uid value to be AHarper instead of AlanHarper so that it will match the ShoreTel client ID.
2. Add the LDAP property cn to match.xml:

```
<match>
  <property>cn</property>
  <property>uid</property>
  <property>SAMAccountName</property>
  <property>mail</property>
</match>
```

This will cause its contents (Alan Harper) to be compared to ShoreTel user's first and last name concatenated with a space (Alan Harper).

Effect of non matching users

If no matching ShoreTel user can be found for the logged in Sametime user, ShoreTel Communicator for IBM Sametime will not be able to provide services to this Sametime user.

No license will be used for this user and the user will see the following red cross error message in the Sametime client: "CTI license is not available for you".

Enhancing Call Functionality

In order for your users to more easily make calls using ShoreTel Communicator for Sametime, you need to:

- **Correctly configure telephone numbers in LDAP.** The telephone number field must exist in LDAP, and the number must not contain spaces. ShoreTel Communicator for Sametime interprets a space in the LDAP telephone number field as the start of a new number and therefore displays a single number with a space as multiple contacts.
- **Encourage your users to specify their primary phone number using a Sametime geographic location profile.** ShoreTel Communicator for Sametime recognizes this number as the user's primary phone number, displaying it first in all contact lists.
- **Disable the duplicate Call icon.** Duplicate Call icons may be displayed, confusing users as to which icon to use to make a call. To disable the duplicate Call icon, add the following line to your `plugin_customization.ini` file

```
com.ibm.collaboration.realtime.telephony.ui/hideTelephonyUI=True
```

Installing ShoreTel Communicator for Sametime on the Server

Installing ShoreTel Communicator for Sametime installs the Sametime Integration Services, the CSTA Services and the ShoreTel Communicator for Sametime Plug-In on the ShoreTel HQ server. If you are using ShoreTel in a distributed environment, ShoreTel Communicator for Sametime also needs to be installed on your DVS servers.

The process for installing ShoreTel Communicator for Sametime is the same for both 32-bit and 64-bit Windows systems.

The ShoreTel Communicator for Sametime Plug-In is installed on the server for later deployment to Sametime clients at `%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\client\update`. The files in the update directory can be viewed by pointing your web browser to the URL `http://<HQ Server>:8080/IBM/client/updatesite/site.xml`.

1. On the ShoreTel HQ server, copy the ShoreTel Communicator for Sametime installation package onto your desktop.

The installation package can be found on the Sametime Integration Services DVD or on the ShoreTel Support web site.

2. Locate, and then double-click, the **ShoreTel CMSametime.msi** to start the installation process.
3. You are asked to accept the terms of the license agreement. Then click **Install**.

4. In the Server Settings screen, enter the fully qualified domain name or IP address of your Domino and Sametime servers. In most implementations, both are the same server. Then click **Next**.
5. In the LDAP Directory Settings screen, enter the following information. Then click **Next**.
 - **LDAP Directory Server.** The fully qualified domain name or IP address of the host on which the LDAP server runs.
 - **Name of LDAP user.** The name of an LDAP user with sufficient rights to access the user information.
 - **Password of LDAP user.** The LDAP password of the LDAP user.
 - **LDAP search base for user searches.** The LDAP search base for user searches, if any.
6. In the second LDAP configuration screen, enter the following LDAP field names. Then click **Next**.

These settings need to match your LDAP server configuration and may be different depending if you are using a Domino LDAP or Active Directory LDAP configuration.

 - **Name of LDAP user name field.** The name of the LDAP user object field that contains the clear text user name. This name is used for display purposes.
 - In a Domino LDAP configuration, this field name is usually **cn**; in an Active Directory configuration, it is usually **distinguishedName**.
 - **Name of LDAP phone number field.** The name of the LDAP user object field that contains the phone number. Usually, this field name is **telephonenumber**.
 - **Name of LDAP mobile number field.** The name of the LDAP user object field that contains the mobile phone number. Usually, this field name is **mobile**.
7. When the installation is completed, click **Finish** in the screen.
8. Reboot the server.
9. If you are using ShoreTel Communicator for Sametime in a distributed environment, install the ShoreTel for IBM Solution on your DVS servers by repeating this process.

Installing ShoreTel Communicator for Sametime on Clients

ShoreTel Communicator for Sametime can be installed on a client either manually by the user, or for the Sametime Connect standalone client (only) deployed automatically.



Note

If you want to enable automatic deployment in Sametime Connect embedded in Lotus Notes clients, contact your IBM business partner.

Enabling Manual Installation

Users can only manually install the ShoreTel Communicator for Sametime plug-in if you have configured the appropriate Sametime policy.

To enable manual installation:

- Make sure that the Allow user to install plug-ins option is selected in Sametime System Console.

Users can then manually install ShoreTel Communicator for Sametime, following the instructions in the *ShoreTel Communicator for IBM Sametime User Guide*.

Enabling Automatic Deployment for the Sametime Connect Standalone Client

The automatic deployment of the ShoreTel Communicator for Sametime plug-in to a standalone Sametime Connect client requires the configuration of the appropriate Sametime policy.

Note that by default the update site URL for the ShoreTel Communicator for Sametime plug-in is *http://<IP of the HQ Server>:8080/IBM/client/updatesite*

If you are also installing the ShoreTel Communicator for Sametime plug-in on a remote server, the default update site URL is *http://<IP of the HQ Server>:8080/IBM/client/updatesite ;http://<IP of the Remote Server>:8080/IBM/client/updatesite*

To enable automatic installation:

1. Using the Sametime System Console, navigate to the **Manage Policies** page.
2. On the Manage Policies page > Instant Messaging tab, select the **Sametime Instant Messaging Default Policy** option and click **Edit**.
3. On the Instant Messaging > Edit Policy page > Chat section, enter the URL of the **site.xml** file on the Sametime Community Server in the **Sametime update site URL (IC)** field, and then click **OK**.

A couple of minutes after being launched, the client discovers the Sametime for Communicator plug-in on the server and prompts the user to install it, as explained in the *ShoreTel Communicator for IBM Sametime User Guide*.

Configuring the Client for Telephony Status

Each Sametime Connect client needs to be configured for telephony status. This is done automatically if you have enabled automatic deployment of the Sametime Connect standalone client.

However, if you are using the manual installation process, you must configure the client for telephony status by editing the file `plugin_customization.ini`.

- For the Sametime Connect standalone client, the file is located at `%ProgramFiles%\IBM\Lotus\Sametime Connect\rpc`.
- For the Sametime Connect client embedded in Lotus Notes, the file is located at `%ProgramFiles%\IBM\Lotus\Notes\Framework\rpc`.

Change the parameter `com.ibm.collaboration.realtime/enableTelephonyStatus` to **true**:

```
com.ibm.collaboration.realtime/enableTelephonyStatus=true
```

If this parameter doesn't appear in the file, add the entire parameter to the file.

Installing the Permanent License Key

ShoreTel Communicator for Sametime ships with a temporary license key that can be used for only up to 100 users. You then have 45 days to enter the permanent license key (available from your ShoreTel representative) while continuing to use ShoreTel Communicator for Sametime.

For information on viewing license information and working with licenses, see Chapter 3.

- Copy the permanent license key file onto the HQ Server into *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\license*.

Troubleshooting the plug-in installation

You may encounter the following error when you are installing the Sametime plug-in:

```
CWPPR032E: The requested provisioning operation(s) failed. (see attached screen shot and email for more info)
```

To resolve this error

1. Exit the Sametime client.
2. Right click on the Sametime client icon and choose "Run as administrator".
3. Repeat the plug-in installation steps.

Parallel installation of ShoreTel Communicator for Sametime and ShoreTel CSTA Server

If you want to run both ShoreTel Communicator for Sametime and ShoreTel CSTA Server on the same server, you will have to perform a few manual configuration steps.

Installation of both products on the same server poses no problems.

ShoreTel Communicator for Sametime installs into **%ProgramFiles%\ilink\ShoreTel Communicator for Sametime**, ShoreTel CSTA Server installs into **%ProgramFiles%\ilink\ShoreTel CSTA Server**.

However, the components of both products use the same port numbers, so there will be port conflicts when both sets of services are started.

You'll need to change the port configuration of one of the two products in order to resolve the conflicts.

Details are described in the ShoreTel CSTA Server configuration guide.

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Overview

Maintaining ShoreTel Communicator for Sametime involves working with licenses and updating the application. This chapter also provides information on problems when using ShoreTel Communicator for Sametime, log files, and limitations to help you troubleshoot the system.

Working with Licenses

Initially, you are provided with a temporary demonstration license key, which allows you to use ShoreTel Communicator for Sametime for 100 users for 45 days. During this period you need to install the permanent license key.

You can view license information on ShoreTel Communicator for Sametime using the **license-info.xml** file on the ShoreTel server, which can be found at `%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\license`. The **license-deny.xml** file is also in that directory. It is used to unassign licenses.

Viewing License Information

The file *license-info.xml* is located on the HQ Server at `%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\license`. The file can be viewed using a text editor; it cannot be edited.

The *license-info.xml* displays multiple `<license>` subsections in the `<licenses>` section; there is a subsection for the temporary license and for each permanent license.

For a temporary license, the *license-info.xml* file contains information on the number of temporary licenses currently available and the expiration date of the temporary license.

The *license-info.xml* file contains the following information:

- A timestamp indicating when the file was last updated
- The total number of licenses you have
- The number of licenses currently in use (assigned)
- The number of unused licenses
- The name of users with currently assigned licenses

The permanent *license-info.xml* file also includes information on:

- Which license files are being used by the system
- Compliance problems
- License file errors

Assigning and Unassigning Licenses

ShoreTel Communicator for Sametime licenses are tied to specific users, meaning that they are not floating licenses. Users must have matching ShoreTel and Sametime accounts to receive a license.

Licenses are taken from the pool of unused licenses and are permanently assigned to users automatically on startup of the ShoreTel Communicator for Sametime system and whenever new users are created. If no licenses are available, and a new user is added to the system, that user will not be assigned a license and can only use ShoreTel Communicator for Sametime to view the telephony presence of licensed users.

Licenses are unassigned from a user, and become available for future assignment, when:

- There is no longer is a match between the ShoreTel and Sametime user account.
- A user account is deleted.
- You add the user name (the same user name used in the *license-info.xml*) of a user to the *license-deny.xml* file located on the HQ Server at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\license*. The user will not be assigned a license while listed in this file.

You can clear all license assignments by removing the **license-info.xml** file.

Troubleshooting Licenses

In the case where a new user is not assigned a ShoreTel Communicator for Sametime license check that:

- The user has matching ShoreTel and Sametime accounts
- You have an available license, as indicated in the **license-info.xml** file
- The services running on a DVS server are able to communicate with the License Service on the HQ Server.

In the case where an existing user is unable to attain a ShoreTel Communicator for Sametime license verify that:

- The user is **not** listed in the **license-deny.xml** file
- The services running on a DVS server are not able to communicate with the License Service on the HQ Server.

Updating ShoreTel Communicator for Sametime

This section provides information on updating ShoreTel Communicator for Sametime on both the server and clients.

Server Update

Installing a new version of ShoreTel Communicator for Sametime automatically updates the folders and files on your HQ server at `%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\client\update`. The files in the update directory can be viewed by pointing your web browser to the URL `http://<HQ Server>:8080/IBM/client/updatesite/site.xml`.

In addition, the following services are automatically restarted on the server when you install a new version of ShoreTel Communicator for Sametime:

- ilink CSIS Connector for Sametime
- ilink IBM Sametime Integration
- ilink TeamCall CA ShoreTel for Sametime
- ilink TeamCall CSTA Server for Sametime
- ilink TeamCall LinkTSP for Sametime

Client Update

Updates can be installed on a client either manually by the user, or for the Sametime Connect standalone client only, deployed automatically. Automatic deployment can be optional (i.e. the user can choose to update) or required (the user must update).



Note

If you want to enable automatic updating in Sametime Connect *embedded in Lotus Notes* clients, contact your IBM business partner. Automatic updating for Sametime Connect *embedded in Lotus Notes* is not supported by ilink, only for the Sametime Connect standalone client.

The process of updating clients is the same as a fresh install. Refer to the section Installing ShoreTel Communicator for Sametime on Clients section on page 16 for details.

If you want to check whether clients have the updated ShoreTel Communicator for Sametime plug-in, on the Sametime Connection standalone client choose **Tools > Plugins > Manage Plug-ins > %ProgramFiles%\IBM\Lotus\Sametime Connect\Shared\ eclipse**.

Uninstalling ShoreTel Communicator for Sametime

There is no ilink provided uninstaller for ShoreTel Communicator for Sametime.

To uninstall the server side components, use uninstall in the Windows Programs and Features list, to uninstall the client side components, use the standard IBM procedure for uninstalling plug-ins.

Problems when Using ShoreTel Communicator for Sametime

This section provides information on specific problems or errors you may encounter when using ShoreTel Communicator for Sametime. These problems are organized by type of error, specifically:

- Red X over phone icon
- Unable to make a call
- Inactive feature
- Loss of call history
- Error messages

Red X Over Phone Icon

A red **X** displayed over the phone icon indicates several possible problems with ShoreTel Communicator for Sametime. See “Error Messages” below for a description of the different problems.

HQ Server is Down

If the HQ server is down, restart the HQ server to reactivate the service for the client.

Unable to Make or Answer a Call

The inability to make a call can be the result of configuration issues.

Call is Not Placed

When a user selects a recipient and clicks the Call icon a call is not placed. This is caused when a user is part of the ShoreTel system but not part of the Sametime environment. The user must be linked in each system by matching the LDAP and ShoreTel properties.

Phone Number Displayed as Two Incomplete Numbers

A call is made and the call is not placed. This occurs when Sametime is unable to dial a number that includes a space in the LDAP configuration. In this case, the space must be removed from the LDAP number configuration.

Incoming and Active Calls Not Displayed in Active Call Area

Incoming and active calls fail to display in the active call area. When this occurs, the client must be restarted and the ilink Sametime Integration Services using Service.msc on the HQ/DVS server must be restarted.

Inactive Feature

If a feature is inactive or grayed out, your configuration may be incomplete.

No Telephony Presence

Sametime does not display telephony presence making the user unable to determine a contact's telephony presence. Restart the ilink Sametime Integration Services using Services.msc on the HQ/DVS server.

Call Handling Mode and Softphone Cannot be Selected

The call handling mode and the Softphone as default telephony device are grayed out. Check the connection between CA-CSIS (a.k.a ilink CSIS Connector) and the ShoreTel CSIS service by telnetting to the CA-CSIS. Using any telnet client, telnet to the HQ/DVS server on port 2800. In the console enter `isa_isready`. If the resulting state is 1, the connection is good. Any other return value indicates that CA-CSIS is not talking to ShoreTel CSIS.

If CA-CSIS is not talking to ShoreTel CSIS, restart the ilink CSIS Connector (i.e. the CA-CSIS) on the HQ/DVS server.

Unable to Integrate Lotus Notes Calendar

Users with Lotus Notes with embedded Sametime Connect can automatically set their call handling mode from the Lotus Notes calendar. To resolve, on the Domino Server, DIIOP must be enabled for calendar integration. To enable DIIOP:

1. RDP to the Sametime/Domino server.
2. Use Notepad to open the file `%ProgramFiles%\IBM\Lotus\Domino\notes.ini`.
3. Find the parameter
`ServerTasks=Update,Replica,Router,AMgr,AdminP,CalConn,Sched,HTTP,RnRMgr,staddin.`
4. Add **DIIOP** to the end of the line, so that the parameter looks like
`ServerTasks=Update,Replica,Router,AMgr,AdminP,CalConn,Sched,HTTP,RnRMgr,staddin,DIIOP.`
5. Save the file.
6. Open the Lotus Domino Console.
7. Type **restart server** and wait up to 5 minutes. You should then see **DIIOP Server: Started**

Loss of Call History

A user's call history, available from the History tab of ShoreTel Communicator for Sametime, can be lost if their mailbox has been moved to a different server.

User Mailbox Moved to a Different Server

The user's mailbox has been moved from one server to another (i.e. from the HQ server to a DVS server, or vice versa). To resolve, the system begins to list call history from when the mailbox was moved.

ilink Sametime Integration Service Down

The ilink IBM Sametime Integration service is down. To resolve, restart the ilink IBM Sametime Integration service using Services.msc on the HQ/DVS server.

Error Messages

System errors are indicated by a red **X** over the phone icon in the Sametime Connect client toolbar; clicking on the icon displays the appropriate error message.

Getting Configuration

The client cannot retrieve configuration from the Service Activator via the Sametime server. To resolve:

- Verify that the ilink IBM Sametime Integration service is running.
- Make sure that a trust relationship exists between the Sametime server and the ilink IBM Sametime Integration service.
- Check that communication between the ilink IBM Sametime Integration service and the Sametime server is not blocked (e.g. by a firewall).
- Check that communication between the client and Sametime server is not blocked (e.g. by a firewall).
- Review the Service Activator log file for pertinent information.

Unable to Get Device from DB

The ilink IBM Sametime Integration service cannot get extension information from the ilink TeamCall CSTA Server service, or the ilink IBM Sametime Integration service cannot get extension information from LDAP. To resolve:

- Verify that the user is still configured in the Sametime system and that their extension is correct.
- Verify that the user is still configured in the ShoreTel system and that their extension is correct.
- Check that the ilink TeamCall CSTA Server service is running.
- Check that the ilink CSIS Connector service is running.
- Ensure that the LDAP server is running.
- Verify that communication between the ilink IBM Sametime Integration service and the ilink CSIS Connector service is not blocked (e.g. by a firewall).

- Verify that communication between the ilink CSIS Connector service and the ilink TeamCall CSTA Server service is not blocked (e.g. by a firewall).
- Ensure that the ilink IBM Sametime Integration service's LDAP configuration is correct (in *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\SIS\config\Configuration.properties*).
- Verify that communication between the ilink IBM Sametime Integration service and the LDAP server is not blocked (e.g. by a firewall).
- Review the Service Activator log file for any pertinent information.

CTI License Service is Not Available

The client is not configured properly in LDAP (e.g. there is no telephone number in the user account), or the ilink IBM Sametime Integration service cannot contact the LDAP server, or there are internal errors in the ilink IBM Sametime Integration service. To resolve:

- Verify that the user is correctly configured in the Sametime system.
- Ensure that the LDAP server is running.
- Check that the ilink IBM Sametime Integration service's LDAP configuration is correct (in *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\SIS\config\Configuration.properties*).
- Verify that communication between the ilink IBM Sametime Integration service and the LDAP server is not blocked (e.g. by a firewall).
- Verify that the Sametime services are running on the ShoreTel server
- Review the Service Activator log file for any pertinent information

CTI License is Not Available for You

The license service is unable to grant a license to the client. To resolve:

- Check the **license-info.xml** file to make sure that there are still unassigned licenses available. If not, you'll need to install an additional license file.
- Check the **license-deny.xml** file to see if the user is listed in the file. If so, the user will be denied a license.
- Make sure that the user has matching ShoreTel and Sametime accounts (see Matching Users section on page 15).
 - For example, if the LDAP field SAMAccountName is to be used for user matching, proceed as follows:
 1. Use an LDAP browser and view the non-working user's entry in the SAMAccountName field of their LDAP record. Make note of this data.
 2. Open ShoreTel Director, and then go to the same user's record under **Administration -> Users... -> Individual User**.
 3. Review the data in the Client User ID field (near bottom of page) in ShoreTel Director.

4. Compare with the results of step 3.
 5. The SAMAccountName entry and the Client User ID must match exactly in order for the user to be assigned a license. While the data is **NOT case sensitive**, they must contain the same user information.
 - In some instances, the LDAP entry is truncated, while the ShoreTel entry is not. So while Edgar Smithson's LDAP username may be truncated to **esmithso**, his default ShoreTel username will be **ESmithson**. In this case there is not an exact match and so the user will not receive a Same Time user license.
 - If possible, consider updating the LDAP field length to allow for user first initial plus last name by default (no truncating).
 - Alternatively the ShoreTel user name can be shortened to **ESmithso**, as a workaround to the disagreement between records.
- Check that the services running on a DVS server are able to communicate with the License Service on the HQ Server.
 - Review the License log for any pertinent information.

CTI Not Available

The ilink IBM Sametime Integration service cannot communicate with the CSTA server, or the client cannot communicate with the CSTA server. To resolve:

- Ensure that the ilink TeamCall CSTA Server service is running.
- Verify that communication between the ilink IBM Sametime Integration service and the CSTA server is not blocked (e.g. by a firewall).
- Review the Service Activator log file for any pertinent information.
- Review the CSTA server log file for any pertinent information.

A 32 bit Java JRE must be installed for installation of ilink Sametime Integration Services 3.x.

No 32-bit JRE (Java 6 or higher) is installed. To resolve, install a current 32-bit JRE.

Java JRE versions below 1.6 are not supported for installation of ilink Sametime Integration Services 3.x. Please upgrade your 32 bit Java installation

A 32-bit JRE installed, but its version is below JRE 1.6 (Java 6). To resolve, install a current 32-bit JRE.

Log Files

ShoreTel Communicator for Sametime provides both server and client log files that detail system information.

Server Log Files

The following server log files are provided:

- Sametime Integration Services
- CSTA Services (CA ShoreTel, CSTA Server, LinkTSP)
- CA CSIS
- Call Logs



Note

The times shown in the server log files are in Coordinated Universal Time (UTC).

Sametime Integration Services Log Files

The log files of the ilink IBM Sametime Integration services are located in the following paths on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\SIS\...*
 - *...server.log*
 - *...Services\JournalContentService.log*
 - *...Services\PhoneNumberResolution.log*
 - *...Services\PresenceService.log*
 - *...Services\ServiceActivator.log* (on the HQ server only)

These log files can be configured using the Java logging framework **log4j** (see page 35 below).

The **log4j** configuration file for all four Sametime Integration Services logs is located at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\SIS\server\default\conf\jboss-log4j.xml*. A backup of this file, *jboss-log4j-backup.xml*, is automatically generated and located next to *jboss-log4j.xml*.

CA ShoreTel Log Files

The log files of CA ShoreTel are located in the following paths on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\CSTA\...*
 - *...\CA-Shoretel.log*
 - *...\CA-Shoretel-system.err.txt*
 - *...\CA-Shoretel-system.out.txt*

The CA-Shoretel.log can be configured using the Java logging framework **log4j** (see page 35 below).

The **log4j** configuration file for the CA-ShoreTel logs is located at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\CSTA Server\Config\CAShoreTel-log4j-config.xml*. A backup of this file, *CAShoreTel-log4j-config-backup.xml*, is automatically generated and located next to *CAShoreTel-log4j-config.xml*.

CSTA server Log Files

The log files of the CSTA server are located in the following paths on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\CSTA\...*
 - *...CSTA.log* (optional)
 - *...Devices.log* (optional)
 - *...Error.log*
 - *...Sys.log*

The CSTA server log files **do not** use log4j for configuration. Instead, log configuration is done with the **debugLevel** entry in the file located at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\CSTA Server\Config\Default.conf*.

Log files are generated and retained based on a specified size and the required number of backups, and not by date. To specify the maximum file size in kB before generating a new log file, use the parameter **logFileMaxSize**; to specify the number of backup files to retain, use the parameter **logFileMaxBackups**. For example:

```
logFileMaxSize = 10240
logFileMaxBackups = 10
```

Logging occurs for a logging level between 0 (no logging) and 9 (verbose logging). You can change the logging level using the **debugLevel** parameter. For example:

```
debugLevel = 9
```



Note

The CSTA Server must be restarted in order for changes to the Default.conf file to take effect (Windows service: ilink TeamCall CSTA Server for Sametime).

LinkTSP Log Files

The log file of LinkTSP are located in the following path on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\CSTA\LinkTSP.log*
(*LinkTSP.log.1, ...*)

The LinkTSP log uses **log4cxx** for configuration, which is a log4j compatible framework (see page 35 below for general information about log4j configuration, but please note that the configuration parameters used by LinkTSP are slightly different from those of the other server based services).

Log files are generated and retained based on a specified size and the required number of backups, and not by date. To specify the maximum file size before generating a new log file, use the parameter

MaxFileSize; to specify the number of backup files to retain, use the parameter **MaxBackupIndex**. For example:

```
<param name="MaxFileSize" value="10MB"/>
<param name="MaxBackupIndex" value="5"/>
```

Logging occurs for the levels TRACE< DEBUG, INFO, WARN, ERROR, and FATAL. Each level includes all log output of the levels listed to its right, e.g. log level WARN includes log output of levels WARN, ERROR, and FATAL.

By default, the logging level used is INFO. You can change the logging level using the **Threshold** parameter. For example:

```
<param name="Threshold" value="DEBUG"/>
```

The **log4cxx** configuration file is located at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\CSTA Server\Config\LinkTSP-log4j-config.xml*. A backup of this file, *LinkTSP-log4j-config-backup.xml*, is automatically generated and located next to *LinkTSP-log4j-config.xml*.

CA CSIS Log Files

The log files of the CA CSIS are located in the following path on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Log Files\CA-CSIS\CSIS_CA01.LOG (CSIS_CA02.LOG, ...)*

The CA CSIS log file **does not** use log4j for configuration. Instead, log configuration is done with the **debugLevel** entry in the file located at *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\CSTA Server\Bin\CSIS-CA\PluginDebug\PLUGINDEBUGSTANDARD.INI*.



Note

The CA CSIS must be restarted in order for changes to the Default.conf file to take effect (Windows service: ilink CSIS Connector for Sametime).

Call Logs

Call logs are located in the following path on the server which runs your call control service (i.e. the HQ server or a DVS server):

- *%ProgramFiles%\ilink\ShoreTel Communicator for Sametime\Application Server\data\callhistory*

Each call log is stored in an individual *.cdr file, the file format is a proprietary binary format.

Client Log Files

The following client log files are provided:

- ShoreTelConfigurator.log
- ShoreTelLiveText.log (only for the Sametime Connect embedded in Lotus Notes client)
- ShoreTelCallControl.log
- ShoreTelToolBarIcon.log

Sametime Connect Standalone Client Log Files

On Windows XP, the client log files are located at

C:\Documents and Settings\<User>\Application Data\Lotus\Sametime\logs.

On Windows 7 and 8, the client log files are located at

C:\Users\<User>\AppData\Roaming\Lotus\Sametime\logs.

On Mac OS, the client log files are located at

~/Library/Application Support/IBM Sametime Data/logs (for Sametime 9)

~/Library/Application Support/Lotus Sametime Data/logs (for Sametime 8.5)

The OS X Finder hides this folder by default.

You can access it as follows:

Select the Finder menu item Go/Go to Folder...

A small input window will open. Please enter the path of the log file folder as listed above (including the ~) and click Go.

The Sametime Connect standalone client log files use **log4j** for configuration (see page 35 below). The log4j configuration files (including backup copies) are located at these places within the client plugin folder:

- *<Client plugin folder>\de.ilink.sametime.configurator\log4j.xml*
- *<Client plugin folder>\de.ilink.shoretel.callcontrol\log4j.xml*
- *<Client plugin folder>\de.ilink.shoretel.statusicon\log4j.xml*

The client plugin folder is located at:

- On Windows:
%APPDATA%\Lotus\Sametime\.metadata\.plugins
- On Mac OS with Sametime 9:
~/Library/Application Support/IBM Sametime Data/.metadata/.plugins/

On Mac OS with Sametime 8.5:

~/Library/Application Support/Lotus Sametime Data/.metadata/.plugins/

The OS X Finder hides these folders by default.

You can access them as follows:

Select the Finder menu item Go/Go to Folder...

A small input window will open. Please enter the path of the client plugin folder as listed above (including the ~) and click Go.

Sametime Connect Embedded in Lotus Notes Client Log Files

On Windows XP, the client log files are located at

C:\Documents and Settings\\Local Settings\Application Data\Lotus\Notes\Data\workspace\logs.

On Windows 7 and 8, the client log files are located at

C:\Users\\AppData\Local\Lotus\Notes\Data\workspace\logs.

On Mac OS, the client log files are located at

~/Library/Application Support/IBM Notes Data/Expedito/Applications/logs (for Notes 9)

~/Library/Application Support/Lotus Notes Data/Expedito/Applications/logs (for Notes 8.5)

The OS X Finder hides this folder by default.

You can access it as follows:

Select the Finder menu item Go/Go to Folder...

A small input window will open. Please enter the path of the log file folder as listed above (including the ~) and click Go.

The Sametime Connect embedded in Lotus Notes client log files use **log4j** for configuration (see page 35 below). The log4j configuration files (including backup copies) are located at these places within the client plugin folder:

- *<Client plugin folder>\de.ilink.sametime.configurator\log4j.xml*
- *<Client plugin folder>\de.ilink.sametime.notes.livetext\log4j.xml*
- *<Client plugin folder>\de.ilink.shoretel.callcontrol\log4j.xml*
- *<Client plugin folder>\de.ilink.shoretel.statusicon\log4j.xml*

The client plugin folder is located at:

- On Windows:
%APPDATA%\Lotus\Notes\Data\workspace\metadata\plugins
- On Mac OS with Sametime 9:
~/Library/Application Support/IBM Notes Data/Expedito/Applications/.metadata/.plugins/

On Mac OS X with Sametime 8.5:

~/Library/Application Support/Lotus Notes Data/Expedito/Applications/.metadata/.plugins/

The OS X Finder hides these folders by default.

You can access them as follows:

Select the Finder menu item Go/Go to Folder...

A small input window will open. Please enter the path of the client plugin folder as listed above (including the ~) and click Go.

Log configuration via log4j

Most log files can be configured using the Java logging framework **log4j 1.2** (exceptions are noted above). Using the log4 configuration you can configure when a new log file is generated, how many log files to retain, and the log level that shall be used.

The logging configuration is specified via XML based configuration files. XML files depend on their syntax being intact, which makes them potentially fragile. To allow an easy recovery in the case of XML syntax errors, backup copies of the log configuration files are provided. The locations of the individual configuration files and their backup files are listed in the log file specific sections above.

Log files are generated and retained by date up to the configured number of backups. A maximum file size serves as a safeguard against excessive use of disk space.

The log configuration file declares one or more *loggers* (as input into the logging system) and one or more *appenders* (as output out of the logging system).

Loggers define what will be logged and which log level shall be used. The main logger is called `<root>`. **It contains the log level to be used for all log output.** The log level of individual components can optionally be set to a different level using additional `<logger>` sections in the configuration file.

Appendors define where the log output will be written to (typically a logfile) as well as the timestamp format and log file rotation specific settings. We typically control activation and deactivation of specific log files within the appender configuration.

Parameters for both server and client logs

Root logger

Logging occurs for the levels TRACE, DEBUG, INFO, WARN, ERROR, and FATAL. Each level includes all log output of the levels listed to its right, e.g. log level WARN includes all log output of levels WARN, ERROR, and FATAL.

By default, the logging level used is INFO. You can change the logging level using the root logger's **level** parameter. For example:

```
<root>
  <level value="DEBUG"/>
```

Individual log levels for specific loggers

In a troubleshooting situation, the ilink support team may request to set individual log levels for specific loggers. To do so, additional `<logger>` sections need to be added to the configuration file:

```
<logger name="...a name...">
  <level value="DEBUG"/>
</logger>
```

The log4j configuration file already contains the above lines as a template, but ilink will send you specific instructions in such a case, including the name of the logger that should be used.

Parameters for Sametime Integration Services and CA ShoreTel

DatePattern

```
<param name="DatePattern" value=".yyyy-MM-dd"/>
```

DatePattern determines the length of the maximum duration per log file (".yyyy-MM-dd" = daily, ".yyyy-MM" = monthly; ".yyyy-MM-dd-HH" = hourly): when the next day (month, hour) starts, the current log file is archived and a new log file is started. The day (month, hour) is appended to the name of the archived backup file:

```
server.log  
server.log.2014-07-22  
server.log.2014-07-23
```

MaxFileSize

```
<param name="MaxFileSize" value="10MB"/>
```

MaxFileSize specifies a maximum file size per uncompressed backup file. If the current log file reaches this limit before the DatePattern duration expires, the current log file is archived and a new log file is started. A sequential index is appended to the name of the archived backup file in this case:

```
server.log  
server.log.2014-07-22.1  
server.log.2014-07-22.2
```

MaxRollFileCount

MaxRollFileCount specifies the maximum number of backup files to retain. A periodic cleanup process will count the backup files and remove the oldest backups if the limit has been exceeded.

CompressionMinQueueSize

Log backup files are automatically compressed using gzip. This reduces the file size to about 5-10% of the original size. In order to provide easier and more immediate access to the latest backup files, CompressionMinQueueSize can be used to specify the number of (newest) backup files to leave uncompressed.

For example, these settings:

```
<param name="MaxFileSize" value="10MB"/>  
<param name="MaxRollFileCount" value="5"/>  
<param name=" CompressionMinQueueSize" value="2"/>
```

could result in these log files being retained:

```
server.log  
server.log.2014-07-23.1.gz  
server.log.2014-07-23.2.gz  
server.log.2014-07-23.3.gz  
server.log.2014-07-23.4.gz  
server.log.2014-07-24.gz  
server.log.2014-07-25.1.gz  
server.log.2014-07-25.2  
server.log.2014-07-25.3
```

If you are operating under disk space constraints and want to know the disk space used for a given log file and its backup files, use the following formula for a conservative estimate:

$$\begin{aligned} \text{max space} &= \text{MaxFileSize} \\ &\times \left(1 + \text{CompressionMinQueueSize} + \frac{(\text{MaxRollFileCount} - \text{CompressionMinQueueSize})}{10} \right) \end{aligned}$$

Parameters for client logs and for LinkTSP

MaxFileSize

```
<param name="MaxFileSize" value="5MB"/>
```

MaxFileSize specifies a maximum file size per backup file. If the current log file reaches this limit, the current log file is archived and a new log file is started. A sequential index is appended to the name of the archived backup file with older backup files being renamed accordingly:

```
ShoreTelCallControl.log
ShoreTelCallControl.log.1
ShoreTelCallControl.log.2
ShoreTelCallControl.log.3
```

MaxBackupIndex

```
<param name="MaxBackupIndex" value="5"/>
```

MaxBackupIndex specifies the maximum number of backup files to retain. When a new backup file is archived, the oldest one will be removed if the limit has been exceeded.

Limitations

Limitations and unsupported features of ShoreTel Communicator for Sametime can be organized by general, call control, unified messaging, and localization limitations.

General Limitations

- Sametime Connect web versions are not supported.
- Only Sametime Connect releases 8.5.2 and 9 are supported.
- Support is for a maximum of a single Sametime deployment (which can be on multiple machines) in an enterprise. In other words, Sametime integration supports a single ShoreTel system per customer. Multiple systems connected together, like RHI, are not supported.
- Non-Domino LDAP configurations are not supported.
- Only users that are defined in the system can be added as contacts from the History tab.
- When users are moved from an HQ server to a DVM server, or vice versa, call history is lost.

- When the HQ server is down, existing users are only able to use the system for up to 24 hours. New users are unable to use the system.
- When a user is moved from an HQ server to a DVM server, or vice versa, the client needs to be restarted.

Call Control Limitations

- Administrators are unable to set call forwards conditions for call handling model using Call Control Lite. Use instead the telephone or ShoreTel Director.
- Administrators are unable to drop a leg on a conference call with 4 to 6 participants using Call Control Lite. Instead use the telephone.
- Only system extensions can be added to a Sametime contact.
- For remote users, when a call is put on hold there is no indication that the call is on hold.
- Personal contacts, from outside the system, cannot be added to the Sametime Connect standalone client.
- Users cannot drop a call on hold.
- Calls made before Sametime Connect is launched are not displayed in ShoreTel Communicator for Sametime. Calls made after Sametime Connect is launched are shown.
- Blind conference calls are not supported.
- Limit in the number of simultaneous calls. ShoreTel Communicator for Sametime can only make up to 6 simultaneous calls.
- Only one outgoing call can be made at a time; simultaneous calls are not supported.
- Workgroup calls are displayed as a conference call once answered.
- SCA/BCA calls do not appear in the active call area.
- Remote users are unable to see other user extensions in the Call menu if the HQ server is down.

Unified Messaging Limitations

- Voice mail cannot be forwarded via the Sametime client, but can be forwarded via the ShoreTel Telephone.
- The originating voice mail cannot be attached when replying to a message.
- Voice mail cannot be sent to, or answered, from a group or distribution list.
- Forwarded voice mail cannot be played via the Sametime client, however it can be played via the ShoreTel Telephone.

Localization Limitations

- To view Sametime Connect and ShoreTel Communicator for Sametime in a language other than English, set your client operating system to the language you want.
- ShoreTel Communicator for Sametime supports English, German, French, Spanish, and Italian.