IBM Tivoli Composite Application Manager Agent for Lotus Sametime
Version 6.2.4

Installation and Configuration Guide

SC27-5676-00

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Note
Before using this information and the product it supports, read the information in "Notices" on page 25.

This edition applies to version 6.2.4 of IBM Tivoli Composite Application Manager Agent for Lotus Sametime (product number 5724-I45) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

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Figures

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Tables

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Chapter 1. Overview of the agent

The IBM® Tivoli® Composite Application Manager Agent for Lotus® Sametime® (product code S1) provides you with the capability to monitor IBM Lotus Sametime. You can also use the agent to take basic actions with the Lotus Sametime.

IBM Tivoli Monitoring is the base software for the Lotus Sametime agent.

IBM Tivoli Monitoring

IBM Tivoli Monitoring provides a way to monitor the availability and performance of all the systems in your enterprise from one or several designated workstations. It also provides useful historical data that you can use to track trends and to troubleshoot system problems.

You can use IBM Tivoli Monitoring to achieve the following tasks:

- Monitor for alerts on the systems that you are managing by using predefined situations or custom situations.
- Establish your own performance thresholds.
- Trace the causes leading to an alert.
- Gather comprehensive data about system conditions.
- Use policies to take actions, schedule work, and automate manual tasks.

The Tivoli Enterprise Portal is the interface for IBM Tivoli Monitoring products. You can use the consolidated view of your environment as seen in the Tivoli Enterprise Portal to monitor and resolve performance issues throughout the enterprise.

See the IBM Tivoli Monitoring publications listed in “Prerequisite publications” on page 23 for complete information about IBM Tivoli Monitoring and the Tivoli Enterprise Portal.

Features of the Lotus Sametime agent

The Lotus Sametime agent software can identify, notify you of, and correct common problems with the application that it monitors. The software includes the following features:

- Remote server monitoring

  You can install the Lotus Sametime agent on a different workstation from the one where the Sametime community server to be monitored is running.
- Multiple agent instances monitoring

  You can configure and start multiple agent instances.
- Multiple server connections monitoring in one agent instance

  You can define multiple server connections to monitor multiple servers by using one agent instance.
- Auto-discover servers in the same cluster

  After you configure one server connection, the Lotus Sametime agent can auto-discover the other servers in the same cluster.

Functions of the Lotus Sametime agent

The Lotus Sametime agent provides the following functions:

Performance monitoring
: Collects performance statistic data for Sametime community servers.

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Availability monitoring
Monitors the status of processes that are related to Sametime community servers, and provide configuration and status information about the service ports for Sametime community servers.

Function tests
Provides periodical and on-demand login, awareness, and instant messaging function tests for Sametime community servers.

Configuration monitoring
Provides configuration information about community service clusters.

Community server management
Starts or stops a Sametime community server with the Start_Community_Server and Stop_Community_Server Take Action commands.

Components of the IBM Tivoli Monitoring environment

After you install and set up the Lotus Sametime agent, you have an environment that contains the client, server, and monitoring agent implementation for Tivoli Monitoring.

This Tivoli Monitoring environment contains the following components:

Tivoli Enterprise Portal client
The portal has a user interface based on Java™ for viewing and monitoring your enterprise.

Tivoli Enterprise Portal Server
The portal server is placed between the client and the Tivoli Enterprise Monitoring Server and enables retrieval, manipulation, and analysis of data from the monitoring agents. The Tivoli Enterprise Portal Server is the central repository for all user data.

Tivoli Enterprise Monitoring Server
The monitoring server acts as a collection and control point for alerts received from the monitoring agents, and collects their performance and availability data. The Tivoli Enterprise Monitoring Server is also a repository for historical data.

Tivoli Enterprise Monitoring Agent, Lotus Sametime agent
This monitoring agent collects data and distributes the data to the Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, Tivoli Enterprise Portal, Tivoli Data Warehouse, and Tivoli Integrated Portal.

Multiple copies of this agent can run on the same system.

IBM Tivoli Netcool/OMNIbus
Tivoli Netcool/OMNIbus is an optional component and the recommended event management component. The Netcool/OMNIbus software is a service level management (SLM) system that delivers real-time, centralized monitoring of complex networks and IT domain events. Event information is tracked in a high-performance, in-memory database and presented to specific users through individually configurable filters and views. The software includes automation functions that you can use to perform intelligent processing on managed events. You can use this software to forward events for Tivoli Monitoring situations to Tivoli Netcool/OMNIbus.

IBM Tivoli Enterprise Console
The Tivoli Enterprise Console® is an optional component that acts as a central collection point for events from various sources, including events from other Tivoli software applications, Tivoli partner applications, custom applications, network management platforms, and relational database systems. You can view these events through the Tivoli Enterprise Portal (by using the event viewer), and you can forward events from Tivoli Monitoring situations to the Tivoli Enterprise Console component. If you do not already use Tivoli Enterprise Console and need an event management component, you can choose to use IBM Tivoli Netcool/OMNIbus.

Agent Management Services

You can use IBM Tivoli Monitoring Agent Management Services to manage the Lotus Sametime agent.

Agent Management Services is available for the following IBM Tivoli Monitoring OS agents: Windows, Linux, and UNIX. The services are designed to keep the Lotus Sametime agent available, and to provide information about the status of the product to the Tivoli Enterprise Portal. IBM Tivoli Monitoring V6.2.2, Fix Pack 2 or later provides support for Agent Management Services. For more information about Agent Management Services, see *Agent Management Services* in the *IBM Tivoli Monitoring Administrator's Guide*.

User interface options

Installation of the base IBM Tivoli Monitoring software and other integrated applications provides various interfaces that you can use to work with your resources and data.

The following interfaces are available:

Tivoli Enterprise Portal user interface
: You can run the Tivoli Enterprise Portal as a desktop application or a browser application. The client interface is a graphical user interface (GUI) based on Java on a Windows or Linux workstation. The browser application is automatically installed with the Tivoli Enterprise Portal Server. The desktop application is installed by using the Tivoli Monitoring installation media or with a Java Web Start application. To start the Tivoli Enterprise Portal browser client in your Internet browser, enter the URL for a specific Tivoli Enterprise Portal browser client installed on your Web server.

Command-line interface
: You can use Tivoli Monitoring commands to manage the Tivoli Monitoring components and their configuration. You can also run commands at the Tivoli Enterprise Console event server or the Tivoli Netcool/OMNIbus ObjectServer to configure event synchronization for enterprise situations.

Manage Tivoli Enterprise Monitoring Services window
: You can use the window for the Manage Tivoli Enterprise Monitoring Services utility to configure the agent and start Tivoli services not designated to start automatically.

IBM Tivoli Netcool/OMNIbus event list
: You can use the Netcool/OMNIbus event list to monitor and manage events. An event is created when the Netcool/OMNIbus ObjectServer receives an event, alert, message, or data item. Each event is made up of columns (or fields) of information that are displayed in a row in the ObjectServer alerts.status table. The Tivoli Netcool/OMNIbus web GUI is also a web-based application that processes network events from one or more data sources and presents the event data in various graphical formats.

IBM Tivoli Enterprise Console
: You can use the Tivoli Enterprise Console to help ensure the optimal availability of an IT service for an organization. The Tivoli Enterprise Console is an event management application that integrates system, network, database, and application management. If you do not already use Tivoli Enterprise Console and need an event management component, you can choose to use Tivoli Netcool/OMNIbus.

Chapter 2. Agent installation and configuration

Agent installation and configuration requires the use of the *IBM Tivoli Monitoring Installation and Setup Guide* and agent-specific installation and configuration information.

To install and configure the Lotus Sametime agent, use the *Installing monitoring agents* procedures in the *IBM Tivoli Monitoring Installation and Setup Guide* along with the agent-specific installation and configuration information.

If you are installing silently by using a response file, see *Performing a silent installation of IBM Tivoli Monitoring* in the *IBM Tivoli Monitoring Installation and Setup Guide*.

Requirements

Before installing and configuring the agent, make sure your environment meets the requirements for the IBM Tivoli Composite Application Manager Agent for Lotus Sametime.

For information about system requirements, see the Prerequisites topic (http://publib.boulder.ibm.com/infocenter/tivihelp/v24r1/topic/com.ibm.itcama.doc_7.2.1/prerequisites/apps721_systemreqs.html) in the IBM Tivoli Composite Application Manager for Applications Information Center.

For the most up-to-date information about system requirements, see the Software product compatibility reports (http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html). Search for the ITCAM for Applications product.

Language pack installation

The steps for installing language packs depend on which operating system and mode of installation you are using.

To install a language pack for the agent support files on the Tivoli Enterprise Monitoring Server, the Tivoli Enterprise Monitoring Agent, and the Tivoli Enterprise Portal Server, make sure that you installed the product in the English language. Then use the steps for the operating system or mode of installation you are using:

- "Installing language packs on Windows systems"
- "Installing language packs on UNIX or Linux systems" on page 6
- "Silent installation of language packs on Windows, UNIX, or Linux systems" on page 6

Installing language packs on Windows systems

You can install the language packs on a Windows system.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. On the language pack CD, double-click the `lpinstaller.bat` file to start the installation program.
2. Select the language of the installer and click **OK**.
3. In the Introduction panel, click **Next**
4. Click **Add/Update** and click **Next**.

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5. Select the folder where the National Language Support package (`NLSPackage`) files are located. Typically, the NLSPackage files are located in the `nlspackage` folder where the installer executable file is located.
6. Select the language support for the agent of your choice and click **Next**. To make multiple selections, press Ctrl and select the language that you want.
7. Select the languages that you want to install and click **Next**.
8. Examine the installation summary page and click **Next** to begin installation.
9. After installation completes, click **Finish** to exit the installer.
10. Restart the Tivoli Enterprise Portal, Tivoli Enterprise Portal Server, and Eclipse Help Server if any of these components are installed.

Installing language packs on UNIX or Linux systems

You can install the language packs on a UNIX or Linux system.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. Enter the `mkdir` command to create a temporary directory on the computer, for example, `mkdir` *`dir_name`*. Make sure that the full path of the directory does not contain any spaces.
2. Mount the language pack CD to the temporary directory that you created.
3. Enter the following command to start the installation program: `cd` *`dir_name`* `lpinstaller.sh -c` *`install_dir`* where *install_dir* is where you installed IBM Tivoli Monitoring. Typically, the directory name is `/opt/IBM/ITM` for UNIX and Linux systems.
4. Select the language of the installer and click **OK**.
5. In the Introduction panel, click **Next**.
6. Click **Add/Update** and click **Next**.
7. Select the folder where the National Language Support package (`NLSPackage`) files are located. Typically, the `NLSPackage` files are located in the `nlspackage` folder where the installer executable file is located.
8. Select the language support for the agent of your choice and click **Next**. To make multiple selections, press Ctrl and select the language that you want.
9. Select the languages that you want to install and click **Next**.
10. Examine the installation summary page and click **Next** to begin installation.
11. After installation completes, click **Finish** to exit the installer.
12. Restart the Tivoli Enterprise Portal, Tivoli Enterprise Portal Server, and Eclipse Help Server if any of these components are installed.

Silent installation of language packs on Windows, UNIX, or Linux systems

You can use the silent-mode installation method to install the language packs. In silent mode, the installation process obtains the installation settings from a predefined response file. It does not prompt you for any information.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. Copy and paste the `ITM_Agent_LP_silent.rsp` response file template as shown in "Response file example."
2. Change the following parameter settings:

   NLS_PACKAGE_FOLDER
   Folder where the National Language Support package (NLSPackage) files are located. Typically, the NLSPackage files are located in the `nlspackage` folder, for example: `NLS_PACKAGE_FOLDER = //tmp//LP//nlspackage`.

   PROD_SELECTION_PKG
   Name of the language pack to install. Several product components can be included in one language package. You might want to install only some of the available components in a language pack.

   BASE_AGENT_FOUND_PKG_LIST
   Agent for which you are installing language support. This value is usually the same as *PROD_SELECTION_PKG*.

   LANG_SELECTION_LIST
   Language you want to install.
3. Enter the command to install the language pack with a response file (silent installation):
   - For Windows systems:
     `lpinstaller.bat -f path_to_response_file`
   - For UNIX or Linux systems:
     `lpinstaller.sh -c candle_home -f path_to_response_file`

     where *candle_home* is the IBM Tivoli Monitoring base directory.

Response file example

```
#     IBM Tivoli Monitoring Agent Language Pack Silent Installation Operation
#
#This is a sample response file for silent installation mode for the IBM Tivoli
#Monitoring Common Language Pack Installer.
#.
#This file uses the IBM Tivoli Monitoring Common Agent Language Pack with the
#install package as an example.
#Note:
#This response file is for the INSTALLATION of language packs only.
#This file does not support UNINSTALLATION of language packs in silent mode.
#-----------------------------------------------------------------------------
#-----------------------------------------------------------------------------
#To successfully complete a silent installation of the the example of Common Agent
#localization pack, complete the following steps:
#
#1.Copy ITM_Agent_LP_silent.rsp to the directory where lpinstaller.bat or
#lpinstaller.sh is located (IBM Tivoli Monitoring Agent Language Pack build
#location).
#
#2.Modify the response file so that it is customized correctly and completely for
#your site.
#  Complete all of the following steps in the response file.
#
#3.After customizing the response file, invoke the silent installation using the
#following command:
#For Windows:
#    lpinstaller.bat -f <path_to_response_file>
#For UNIX and Linux:
#    lpinstaller.sh -c <candle_home> -f <path_to_response_file>
#Note:<candle_home> is the IBM Tivoli Monitoring base directory.
#-----------------------------------------------------------------------------
```

```
#-------------------------------------------------------------------------------
#Force silent install mode.
#-------------------------------------------------------------------------------
INSTALLER_UI=silent
#-------------------------------------------------------------------------------
#Run add and update actions.
#-------------------------------------------------------------------------------
CHOSEN_INSTALL_SET=ADDUPD_SET
#-------------------------------------------------------------------------------
#NLS Package Folder, where the NLS Packages exist.
#For Windows:
#   Use the backslash-backslash(\\) as a file separator (for example,
#C:\\zosgmv\\LCD7-3583-01\\nlspackage).
#For UNIX and Linux:
#   Use the slash-slash (//) as a file separator (for example,
#//installtivoli//lpsilenttest//nlspackage).
#-------------------------------------------------------------------------------
#NLS_PACKAGE_FOLDER=C:\\zosgmv\\LCD7-3583-01\\nlspackage
NLS_PACKAGE_FOLDER=//tmp//LP//nlspackage
#-------------------------------------------------------------------------------
#List the packages to process; both variables are required.
#Each variable requires that full paths are specified.
#Separate multiple entries with a semicolon (;).
#For Windows:
#           Use the backslash-backslash(\\) as a file separator.
#For Unix and Linux:
#           Use the slash-slash (//) as a file separator.
#-------------------------------------------------------------------------------
#PROD_SELECTION_PKG=C:\\zosgmv\\LCD7-3583-01\\nlspackage\\KIP_NLS.nlspkg
#BASE_AGENT_FOUND_PKG_LIST=C:\\zosgmv\\LCD7-3583-01\\nlspackage\\KIP_NLS.nlspkg
PROD_SELECTION_PKG=//tmp//LP//nlspackage//kex_nls.nlspkg;//tmp//LP//nlspackage//
koq_nls.nlspkg
BASE_AGENT_FOUND_PKG_LIST=//tmp//LP//nlspackage//kex_nls.nlspkg;//
tmp//LP//nlspackage//koq_nls.nlspkg
#-------------------------------------------------------------------------------
#List the languages to process.
#Separate multiple entries with semicolons.
#-------------------------------------------------------------------------------
LANG_SELECTION_LIST=pt_BR;fr;de;it;ja;ko;zh_CN;es;zh_TW
```

Agent-specific configuration

In addition to the installation and configuration information in the *IBM Tivoli Monitoring Installation and Setup Guide*, use this agent-specific configuration information to install the Lotus Sametime agent.

The following procedures require agent-specific information:

- Local configuration
  - Configuring the Lotus Sametime agent through the Manage Tivoli Monitoring Services tool
  - Configuring the Lotus Sametime agent through the command line
  - Completing a silent configuration of the LotusSametime agent
- Remote installation and configuration
  - Deploying through the portal
  - Deploying through the command line
- Starting or stopping the Lotus Sametime agent

Local configuration

You can configure the Lotus Sametime agent through the Manage Tivoli Monitoring Services or the command line.

Important: The Lotus Sametime agent accesses Sametime servers through HTTP service. If you have a firewall in your environment, and the host workstations of the Lotus Sametime agent and Sametime servers are on different sides of the firewall, you must configure the firewall to enable HTTP service.

Configuring the Lotus Sametime agent through the Manage Tivoli Monitoring Services tool

To configure the Lotus Sametime agent instance, complete the procedure for the operating system that you are using (Windows or UNIX).

Configuring on Windows systems:

1. To open the Manage Tivoli Enterprise Monitoring Services window, click **Start** > **Programs**> **IBM Tivoli Monitoring**> **Manage Tivoli Monitoring Services**.
2. Right-click the **Monitoring Agent for Lotus Sametime** item with the **Task/SubSystem** column value of **Template**, and click **Configure Using Defaults**.
3. Enter a unique instance name, and click **OK**. Only letters, Arabic numerals, the underline character (_), and the minus character (-) can be used in the instance name.

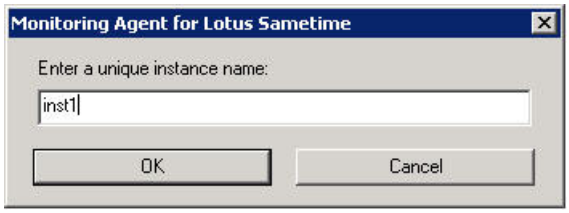

Figure 1. Entering the instance name for the agent

4. Click **Next**.

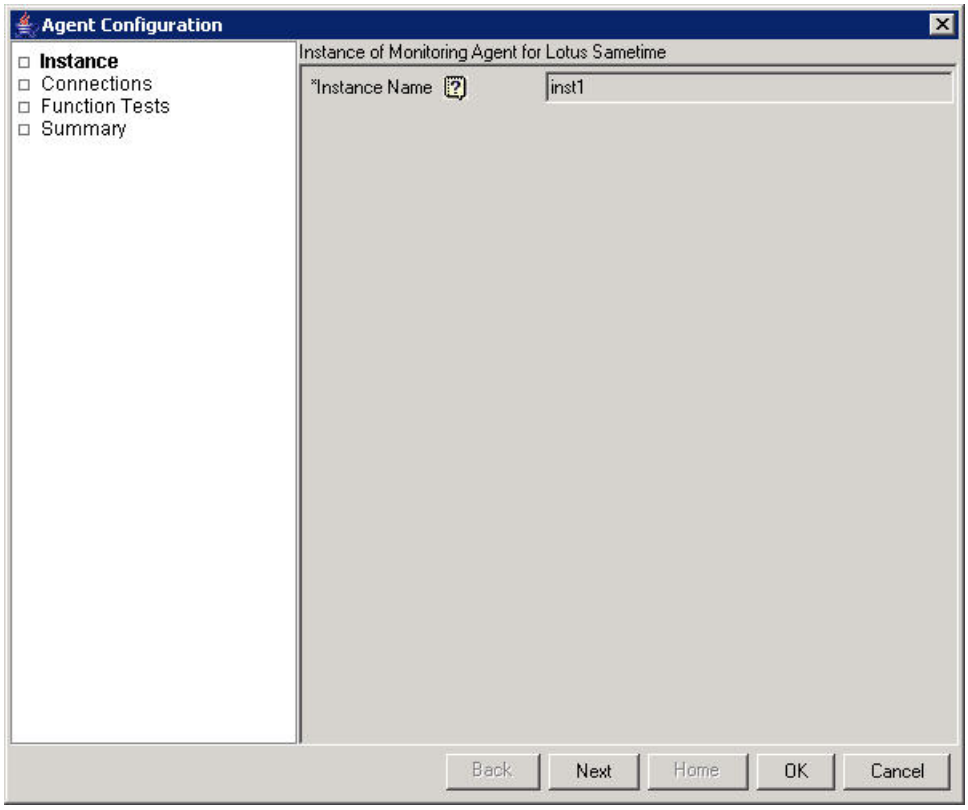

Figure 2. The Instance section

5. In the **Connections** section, create or delete server connections.
   - To create a server connection, click **New**, and enter connection information. For a description of the fields, see Table 1 on page 11.

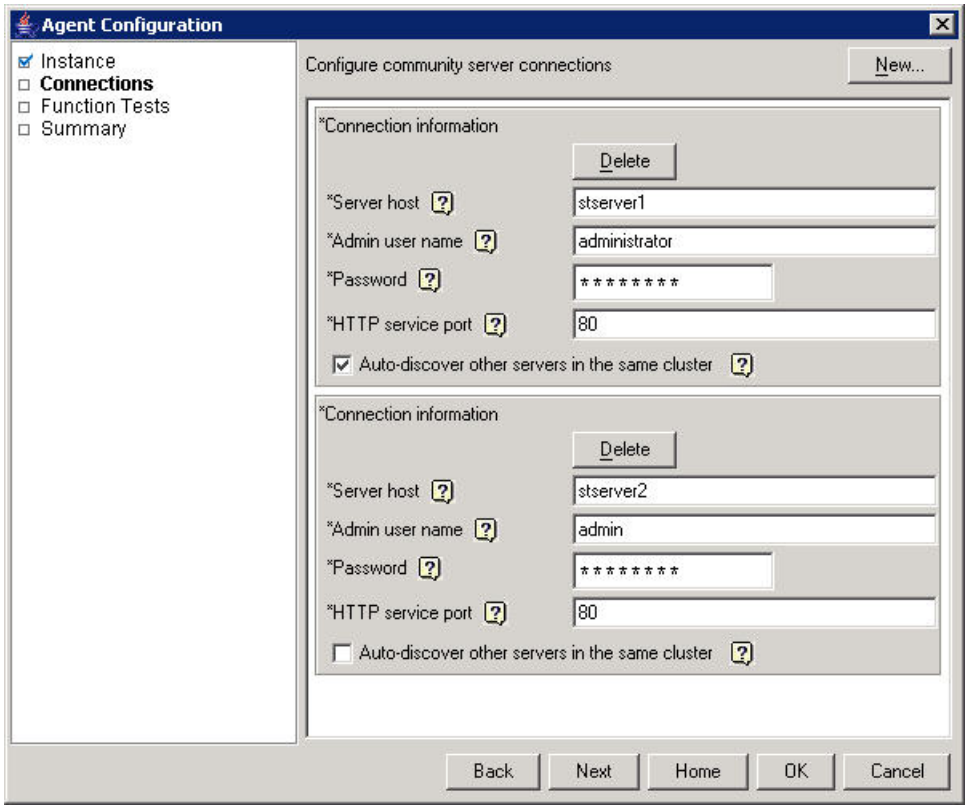

Figure 3. The Connections section of the Agent Configuration window

- To delete a server connection, click **Delete** in the server connection tab.

Table 1. Attribute descriptions for the Connections section

Attribute name	Description
Server host	The host name or the IP address of the Sametime community server that you want to monitor.
Admin user name	The user name of a Sametime administrator.
Password	The password that is associated with the specified user name.
HTTP service port	The port on which the IBM Lotus Domino HTTP server listens for HTTP connections from web browsers.
Auto-discover other servers in the same cluster	The agent can automatically discover other servers in the same cluster. If you select this option, the agent also monitors the other servers using the same connection setting. **Important:** If you select this option, the servers are considered as using the same HTTP service port that is configured for this connection. If there are servers in the cluster configured with different HTTP service ports, you must not select this option. In this case, create a server connection for each server in the cluster, otherwise data for those servers is unavailable.

6. Click **Next**.
7. If you want to enable periodical function tests or on-demand function tests, select **Configure function tests**, and specify user accounts that are used to perform function tests.

   Important:

a. Use two dedicated user accounts for function tests. Otherwise, function tests cannot be performed if the user accounts are used somewhere else at the same time.
b. When create and configure the two user accounts, leave the home Sametime server setting blank, or set the value to the cluster name.

Table 2. Attribute descriptions for the Function Test section

Attribute name	**Description**
Test user 1	The user account that is used to perform function tests. The user must have authority to log on to Sametime servers.
Password	The password for user 1.
Test user 2	The user account that is used to perform function tests. The user must have authority to log on to Sametime servers.
Password	The password for user 2.
Enable periodical login test	When this function is enabled, the Lotus Sametime agent performs the login function test periodically.
Enable periodical awareness test	When this function is enabled, the Lotus Sametime agent performs the awareness function test periodically.
Enable periodical instant messaging test	When this function is enabled, the Lotus Sametime agent performs the instant messaging function test periodically.
Enable all server connections	If you set this option to true, function tests are enabled for all server connections that you have configured, including auto-discovered servers.
Enable additional servers	Specify host names or IP addresses of additional servers for which you want to apply previous periodical function test settings. Separate multiple servers with space. It is suggested that you enter the address of a host server. A host server is the one that Sametime clients in your company use to connect to the Sametime community. For example, messaging.yourcompany.com

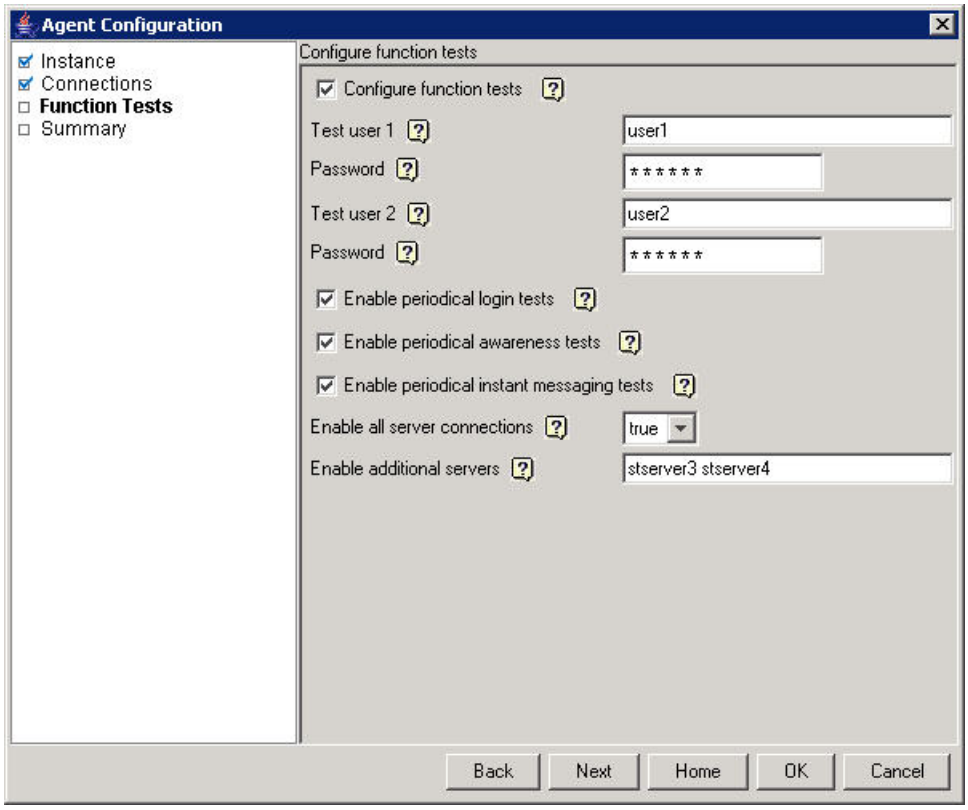

Figure 4. The Function Test section of the Agent Configuration window

8. Click **Next**.

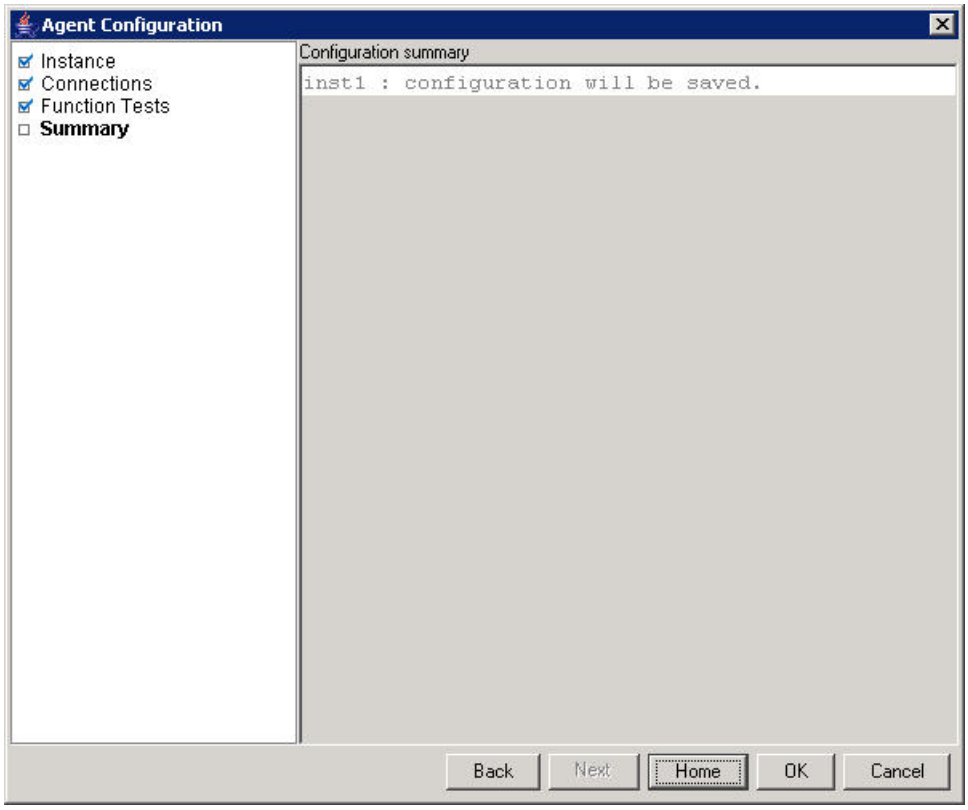

Figure 5. The Summary section

9. Click **OK** to complete the configuration.

Configuring on UNIX systems:

1. To open the Manage Tivoli Enterprise Monitoring Services window, go to the *ITMinstall_dir*/bin directory and run the following command:

   `./itmcmd manage [-h ITMinstall_dir]`

   where *ITMinstall_dir* is the installation directory of IBM Tivoli Monitoring.
2. Select and then right-click **Monitoring Agent for Lotus Sametime**.
3. Click **Configure**.
4. In the Manage Application Instances window, click **Add Instances**.
5. Enter a unique instance name, and click **OK**. Only letters, Arabic numerals, the underline character (_), and the minus character (-) can be used in the instance name.
6. Click **Next**.
7. In the **Connections** section, create or delete server connections.
   - To create a server connection, click **New**, and enter connection information. For a description of the fields, see Table 1 on page 11.

     Tip: You can configure the community servers that belong to the same logical group to be monitored by the same agent instance. For example, you can configure all community servers at site A to be monitored by one agent instance, and all community servers at site B to be monitored by another agent instance.
   - To delete a server connection, click **Delete** in the server connection tab.
8. Click **Next**.

9. If you want to enable periodical function tests or on-demand function tests, select **Configure function tests**, and specify user accounts that are used to perform function tests. For a description of the fields, see Table 2 on page 12.

   Important:

   a. Use two dedicated user accounts for function tests. Otherwise, function tests cannot be performed if the user accounts are used somewhere else at the same time.
   b. When create and configure the two user accounts, leave the home Sametime server setting blank, or set the value to the cluster name.
10. Click **Next**.
11. Click **OK** to complete the configuration.

Configuring the Lotus Sametime agent through the command line

You can configure the Lotus Sametime agent on a UNIX system through the command line.

Complete the following steps to configure the agent:

1. Change to the *ITMinstall_dir*/bin directory, where *ITMinstall_dir* is the installation directory of IBM Tivoli Monitoring.
2. *(Optional)* To check the names and settings of configured agent instances, run the following command:

   ```
   ./cinfo -s s1
   ```
3. To configure the Lotus Sametime agent, run the following command:

   ```
   ./itmcmd config –A s1
   ```
4. Type in a name for the agent instance if you want to configure a new agent instance. Or type in the name of a configured agent instance that you want to reconfigure, and press Enter.
5. Press Enter when you are asked whether you want to edit the Monitoring Agent for Lotus Sametime. The default value is Yes.
6. Press Enter.
7. To add a new server connection, type 1, and press Enter.
8. Enter server connection information by doing the following steps. For a description of the attributes, see Table 1 on page 11.
   a. Type the host name or IP address of the Sametime community server that you want to monitor, and press Enter.
   b. Type the user name of a Sametime administrator, and press Enter.
   c. Type the password, and press Enter.
   d. Confirm the password.
   e. Type the port number for HTTP service, and press Enter.
   f. Specify whether you need the Sametime agent to auto-discover and monitor the other servers in the same cluster.
9. *(Optional)* You can type 1 and press Enter to add multiple server connections to monitor multiple Sametime servers. You also have the following choices:
   - `2 Edit`, to edit a server connection

     Important: You cannot change the host name or IP address of the server in a server connection. If you need to change the host name or IP address, delete the server connection, and create a new one.
   - `3 Del`, to delete a server connection
   - `4 Next`, to change to next server connection
   - `5 Exit`, to exit the server connection section

Tip: You can configure the community servers that belong to the same logical group to be monitored by the same agent instance. For example, you can configure all community servers at site A to be monitored by one agent instance, and all community servers at site B to be monitored by another agent instance.

10. Type 5, and press Enter.
11. Specify whether you want to enable function tests. If you select true, specify the configuration information. For a description of the attributes, see Table 2 on page 12.
    a. Specify two different user accounts that are dedicated for function tests.

       Important:

       1) Use two dedicated user accounts for function tests. Otherwise, function tests cannot be performed if the user accounts are used somewhere else at the same time.
       2) When create and configure the two user accounts, leave the home Sametime server setting blank, or set the value to the cluster name.

    b. Enable the periodical function tests that you need.
    c. Specify whether you want to enable function tests for all server connections that you have configured, including auto-discovered servers.
    d. Specify additional servers for which you want to perform periodical function tests.
12. Press Enter when you are asked whether the agent connects to a Tivoli Enterprise Monitoring Server.
13. Configure the connection between the agent and the Tivoli Enterprise Monitoring Server:
    a. Type the host name of the Tivoli Enterprise Monitoring Server, and press Enter.
    b. Type the network protocol that the Tivoli Enterprise Monitoring Server uses to communicate with the agent; you have four choices: IP.UDP, SNA, IP.PIPE, or IP.SPIPE.
    c. Depending on the type of protocol you specified, provide required information when prompted.
    d. Press Enter when you are asked whether you want to configure the connection to a secondary Tivoli Enterprise Monitoring Server. The default value is No.
    e. Press Enter to accept the default value for the optional primary network name. The default value is none.

Completing a silent configuration of the Lotus Sametime agent

The Lotus Sametime agent supports silent configuration on Windows and UNIX systems. To perform the silent configuration, do the following steps:

1. Create a response file on the workstation where the Lotus Sametime agent is installed. The response file is a .txt file that contains the configuration options of the agent. The following example is a response file with all configuration options:

```
################## INSTANCE CONFIGURATION ##################
INSTANCE=InstanceName
##################  CONNECTIONS CONFIGURATION ##################
USERID.hostname1=UserName
PASSWORD.hostname1=Password
HTTP_PORT.hostname1=80
AUTO_DISCOVERY.hostname1=True
USERID.hostname2=UserName
PASSWORD.hostname2=Password
HTTP_PORT.hostname2=80
AUTO_DISCOVERY.hostname2=False
################## FUNCTION TEST CONFIGURATION ##################
FT_SELECT=True
TEST_USER_1=UserName
TEST_USER_1_PASSWORD=Password
TEST_USER_2=UserName
TEST_USER_2_PASSWORD=Password
LOGIN_TEST_ENABLE=True
```

```
AWARENESS_TEST_ENABLE=True
IM_TEST_ENABLE=False
FT_ON_CONNECTIONS=True
ADDITIONAL_SERVERS=HostServer
```

where:

- *InstanceName* is the name of the agent instance. Only letters, Arabic numerals, the underline character (_), and the minus character (-) can be used in the instance name.
- *hostname1* and *hostname2* are the host names of two community servers. This attribute does not support IP addresses or host names that with domain names. For example, use computer1 instead of computer1.cn.yourcompany.com.

  Tip: You can configure the community servers that belong to the same logical group to be monitored by the same agent instance. For example, you can configure all community servers at site A to be monitored by one agent instance, and all community servers at site B to be monitored by another agent instance.

2. Complete one of the following procedures according to your operating system:
   - For Windows systems, run the following commands in the command line:
     a. Create an agent instance with the `kinconfg -wks1InstanceName` command.
     b. Configure the agent instance with the `kinconfg -nResponse_File_Path -ciks1InstanceName` command.
   - For UNIX systems, go to the installation directory of the agent and run the following command

     ```
     CandleConfig -A  -p Response_File_Path -o InstanceName s1
     ```

   where:

   Response_File_Path is the full file path of the response file.

   InstanceName is the name of the agent instance that you want to configure. This instance name must be the same with the instance name in the response file.

   Remember: You must specify the name of the instance that you want to configure in both the response file and the configuration command.

Remote installation and configuration

IBM Tivoli Monitoring provides the ability to deploy monitoring agents from a central location, which is the monitoring server. You can also use the remote agent deployment function to configure deployed agents and install maintenance on your agents. For information, see the *IBM Tivoli Monitoring Installation and Setup Guide*. See the *IBM Tivoli Monitoring Command Reference* for commands that you can use to perform these tasks.

Before you can deploy any agents from a monitoring server, you must first populate the agent depot with bundles. For information about populating your agent depot, see the *IBM Tivolid Monitoring Installation and Setup Guide*.

Important:

1. The Lotus Sametime agent accesses Sametime servers through HTTP service. If you have a firewall in your environment, and the host workstations of the Lotus Sametime agent and Sametime servers are on different sides of the firewall, you must configure the firewall to enable HTTP service.
2. After deploying a 64-bit Lotus Sametime agent on a 64-bit Windows system with 32-bit OS agent installed or a 32-bit Lotus Sametime agent on a 64-bit Windows system with 64-bit OS agent installed, reconfigure the agent from the local workstation, or data is unavailable in workspaces.

Deploying through the portal

Refer to the *IBM Tivoli Monitoring Installation and Setup Guide* for detailed information about deploying non-OS agents.

In the New Managed System Configuration window, enter configuration information of the monitoring agent. See Table 1 on page 11 and Table 2 on page 12 for the a description of the required fields.

Tip: You can configure the community servers that belong to the same logical group to be monitored by the same agent instance. For example, you can configure all community servers at site A to be monitored by one agent instance, and all community servers at site B to be monitored by another agent instance.

Deploying through the command line

For detailed information about deploying non-OS agents, see the *IBM Tivoli Monitoring Installation and Setup Guide*.

For information about displaying the configuration options that are available to use with the **configureSystem** or **addSystem** commands, see the **tacmd describeSystemType** section in the *IBM Tivoli Monitoring Command Reference*.

See Table 1 on page 11 and Table 2 on page 12 for agent-specific configuration information.

Tip: You can configure the community servers that belong to the same logical group to be monitored by the same agent instance. For example, you can configure all community servers at site A to be monitored by one agent instance, and all community servers at site B to be monitored by another agent instance.

addSystem: The tacmd addSystem command deploys an agent if it is not already installed on the node.

Important: When you deploy an agent using the `tacmd addSystem -t pc -n node -p properties` command, the length of the *properties* string must not exceed the maximum length of 2500 characters. And only letters, Arabic numerals, the underline character (_), and the minus character (-) can be used in the instance name.

The following command is an example of remote deployment for the Lotus Sametime agent:

```
tacmd addsystem -t s1 -n Primary:sample.node.name:NT
 -p INSTANCE=InstanceName
 connections.hostname1.USERID=UserID
 connections.hostname1.PASSWORD=Password
 connections.hostname1.HTTP_PORT=PortNum
 connections.hostname1.AUTO_DISCOVERY=True
 connections.hostname2.USERID=UserID
 connections.hostname2.PASSWORD=Password
 connections.hostname2.HTTP_PORT=PortNum
 connections.hostname2.AUTO_DISCOVERY=True
 function_tests.FT_SELECT=true
 function_tests.TEST_USER_1=UserID
 function_tests.TEST_USER_1_PASSWORD=Password
 function_tests.TEST_USER_2=UserID
 function_tests.TEST_USER_2_PASSWORD=Password
 function_tests.LOGIN_TEST_ENABLE=true
 function_tests.AWARENESS_TEST_ENABLE=true
 function_tests.IM_TEST_ENABLE=true
 function_tests.FT_ON_CONNECTIONS=true
 function_tests.TARGET_HOSTS=HostServer
```

The parameters in the example are shown on separate lines for clarity. When typing the command, type all the parameters on one line.

configureSystem: Use the tacmd configureSystem command to edit configuration options of an existing agent. After the command is issued, the agent is restarted automatically for the new configuration parameters to take effect.

The following command is an example of remote configuration for the Lotus Sametime agent:

```
tacmd configuresystem -m System
-p INSTANCE=InstanceName
 function_tests.AWARENESS_TEST_ENABLE=true
 function_tests.IM_TEST_ENABLE=true
```

The parameters in the example are shown on separate lines for clarity. When typing the command, type all of the parameters on one line.

Setting environment variables

Perform one of the following procedures to set the environment variables for the Lotus Sametime agent:

- On Windows systems, you can use the Manage Tivoli Monitoring Services to set environment variables:
  1. To open the Manage Tivoli Enterprise Monitoring Services window, click **Start** > **Programs**> **IBM Tivoli Monitoring**> **Manage Tivoli Monitoring Services**.
  2. Right-click the agent instance that you want to configure, and click **Advanced**> **Edit Variables**.
  3. In the Override Local Variable Settings window, do one of the following two steps:
     – Select the variable that you want to edit, and click **Edit**.
     – If the variable does not exist, click **Add**, and enter the name and the value that you want to set.

     For a description of the variables, see Table 3.
  4. Click **OK** to close the Add Environment Setting Override window.
  5. Click **OK**.
  6. Restart the agent instance for the changes to take effect.
- On Windows and UNIX systems, you can edit the configuration file to set environment variables:
  1. Open the configuration file. On Windows systems, the file path of the configuration file is *install_dir*\TMAITM6\KS1ENV_*InstanceName*. On UNIX systems, the file path of the configuration file is *install_dir*/config/ks1.ini. *install_dir* is the installation directory of the Lotus Sametime agent, and *InstanceName* is the name of the agent instance.
  2. Set the environment variables as needed. For a description of the variables, see Table 3.
  3. Restart the agent instance for the changes to take effect.

Table 3. Environment variable description

Variable	Description
KS1_FUNCTION_TEST_INTERVAL	The interval of periodical function tests. The value must be greater than the default, which is 600 (in seconds).
KS1_STATISTIC_CACHE_TIMEOUT	The timeout value for the agent cache of community statistic data in seconds.
CDP_DP_ACTION_TIMEOUT	The maximum execution time of Take Action commands. If the execution time is exceeded, the agent stops the execution. The default value is 20 (in seconds). The minimum value is 5 (in seconds).
JAVA_TRACE_LEVEL	The trace level of log files for the agent Java process. The valid values are OFF, FATAL, ERROR, WARN, INFO, DEBUG_MIN, DEBUG_MID, DEBUG_MAX, and ALL.
JAVA_TRACE_MAX_FILE_SIZE	The maximum size (in KB) of each log file for the agent Java process. The default value is 5000.

Table 3. Environment variable description (continued)

Variable	Description
JAVA_TRACE_MAX_FILES	The maximum number of log files for the agent Java process. The default value is 4.

Starting or stopping the Lotus Sametime agent

After you install and configure the Louts Sametime agent, you must start the agent using the command relevant to the operating system and location where the Lotus Sametime agent is running. Table 4 shows which interfaces you can use with Windows and UNIX systems locally and remotely.

Table 4. Interfaces for starting and stopping the Lotus Sametime agent

Operation system	Local	Remote
Windows	• Manage Tivoli Monitoring Services • tacmd startAgent • tacmd stopAgent • tacmd restartAgent	• Tivoli Enterprise Portal • tacmd startAgent • tacmd stopAgent • tacmd restartAgent
UNIX	• Manage Tivoli Monitoring Services • itmcmd agent • CandleAgent	• Tivoli Enterprise Portal • itmcmd agent • CandleAgent

Manage Tivoli Enterprise Monitoring Services

To use Manage Tivoli Enterprise Monitoring Services to start the Lotus Sametime agent, start the Manage Tivoli Enterprise Monitoring Services utility.

Tivoli Enterprise Portal

For information about using the Tivoli Enterprise Portal to start or stop the monitoring agent, see the "Working with monitoring agents" and "Starting and stopping a monitoring agent" sections in the *IBM Tivoli Monitoring Administrator's Guide*.

tacmd command line

In the following examples, the tacmd command is used to start, stop, or restart all the Lotus Sametime agent instances on a Windows system:

- `tacmd startAgent -t s1`
- `tacmd stopAgent -t s1`
- `tacmd restartAgent -t s1`

For information about using the tacmd commands, see the *IBM Tivoli Monitoring Command Reference*.

itmcmd command line

Use the following commands to start or stop a Lotus Sametime agent instance on a UNIX system:

- `./itmcmd agent –o instance_name start s1`
- `./itmcmd agent –o instance_name stop s1`

-o Specifies the Lotus Sametime agent instance that you already configured to start or stop.

To check the names and settings of configured agent instances, navigate to the *ITMinstall_dir*/bin directory, and run the following command:

```
./cinfo -s s1
```

CandleAgent command line

Use the following commands to start or stop a Lotus Sametime instance on a UNIX system:

- `./CandleAgent –o instance_name start s1`

- `./CandleAgent –o instance_name stop s1`

-o Specifies a previously configured Lotus Sametime agent instance that you want to start or stop.

To check the names and settings of configured agent instances, navigate to the *ITMinstall_dir*/bin directory, and run the following command:

```
./cinfo -s s1
```

Performing function tests using the Lotus Sametime agent

The Lotus Sametime agent provides the following three types of function tests, and you can use these function tests to determine the problems with Sametime community servers:

- Login test: tests whether a server can be logged in

  The Lotus Sametime agent uses users that are specified during the configuration to log on to the monitored community server. If the login succeeds, a success message and the response time are displayed; otherwise, an error message and the cause of failure are displayed.
- Awareness test: tests whether two online users can be aware of each other

  The Lotus Sametime agent uses the two users that are specified during the configuration to log on to the monitored community server. Then the agent changes the status of one user and check whether the other user can be aware of the change. If yes, a success message and the response time are displayed; otherwise, an error message and the cause of failure are displayed.
- Instant messaging test: tests whether messages can be sent and received between two users

  The Lotus Sametime agent uses the two users that are specified during the configuration to log on to the monitored community server. Then the agent sends a test message from one user to the other user and check whether the message can be received. If yes, a success message and the response time are displayed; otherwise, an error message and the cause of failure are displayed.

You can enable the Lotus Sametime agent to perform these function test periodically, and you can also perform on-demand function tests through Take Action commands.

To perform function tests, you must enable function tests when configuring the Lotus Sametime agent. After the agent is configured, if you need to enable or disable function test, re-configure and restart the agent. For instructions on how to enable periodical function tests, see “Local configuration” on page 8 or “Remote installation and configuration” on page 17.

Important: You must specify the users for function tests when configuring the Lotus Sametime agent. And use two dedicated user accounts for function tests. Otherwise, function tests cannot be performed if the user accounts are used somewhere else at the same time.

Performing periodical function tests

You can enable periodical function tests when configuring the Lotus Sametime agent. The agent performs function tests periodically in the background. After the agent is configured, if you need to enable or disable function tests, re-configure and restart the agent.

If periodical function tests are enabled, with default settings, periodical function tests are performed every 600 seconds. You can set a longer interval by changing the value of the environmental variable. If you set a interval that is shorter than 600 seconds, periodical function tests are performed every 600 seconds. For instructions on how to set environmental variables, see “Setting environment variables” on page 19.

For each Sametime community server, the results of periodical function test are displayed in the Periodical Function Test Results workspace.

For the host server, the results of periodical function tests are displayed in the Periodical Function Test Results for Community view of the Function Test Results workspace.

Performing on-demand function tests

To perform function tests, you must enable function tests when configuring the Lotus Sametime agent. After the agent is configured, if you need to enable or disable function tests, re-configure and restart the agent.

You can perform on-demand function tests using Take action commands. To perform a function test, do the following steps:

1. Select an agent-level navigator item or open an agent-level workspace.
2. Right-click the navigator item or right-click in the workspace, and select **Take Action**->**Select**.
3. Select the Take action command for the function test that you want to perform.
   - **Execute_Function_Awareness**, performs an awareness test
   - **Execute_Function_IM**, performs an instant messaging test
   - **Execute_Function_Login**, performs a login test
4. Enter the host name or IP address of the target servers.
5. You can ignore the Destination Systems attribute, and press **OK**. The test result is displayed.

Detailed information about on-demand function tests is displayed in the On-demand Function Test Results view of the Function Test Results workspace.

Appendix. ITCAM for Applications documentation library

Various publications are relevant to the use of ITCAM for Applications.

For information about how to access and use the publications, see **Using the publications** (http://pic.dhe.ibm.com/infocenter/tivihelp/v61r1/topic/com.ibm.itm.doc_6.3/common/using_publications.htm).

To find publications from the previous version of a product, click **Previous versions** under the name of the product in the **Contents** pane.

Documentation for this product is in the ITCAM for Applications Information Center (http://publib.boulder.ibm.com/infocenter/tivihelp/v24r1/topic/com.ibm.itcama.doc_7.2.1/welcome_apps721.html):

- Quick Start Guide
- Offering Guide
- Download instructions
- Links to Prerequisites
- Installation and Configuration Guide for each agent
- Link to Reference information for each agent
- Link to Troubleshooting Guide for each agent

Prerequisite publications

To use the information about the agents effectively, you must have some prerequisite knowledge.

See the following information at the IBM Tivoli Monitoring Information Center (http://pic.dhe.ibm.com/infocenter/tivihelp/v61r1/index.jsp) to gain prerequisite knowledge:

- *IBM Tivoli Monitoring Administrator's Guide*
- *IBM Tivoli Monitoring Installation and Setup Guide*
- *IBM Tivoli Monitoring High Availability Guide for Distributed Systems*
- IBM Tivoli Monitoring: Installation and Configuration Guides for the following agents: Operating System agents and Warehouse agents
- IBM Tivoli Monitoring: User's Guides for the following agents: Agentless OS monitors, Log file agent, System p agents, Systems Director base agent
- *IBM Tivoli Monitoring Agent Builder User's Guide*
- *IBM Tivoli Monitoring Command Reference*
- *IBM Tivoli Monitoring: Messages*
- *IBM Tivoli Monitoring Troubleshooting Guide*
- IBM Tivoli Monitoring: References for the following agents: Operating System agents and Warehouse agents
- IBM Tivoli Monitoring: Troubleshooting Guides for the following agents: Operating System agents and Warehouse agents
- *Tivoli Enterprise Portal User's Guide*

Related publications

The publications in related information centers provide useful information.

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See the following information centers, which you can find by accessing Tivoli Documentation Central (https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli%20Documentation%20Central):

- Tivoli Monitoring
- Tivoli Application Dependency Discovery Manager
- Tivoli Business Service Manager
- Tivoli Common Reporting
- Tivoli Enterprise Console
- Tivoli Netcool/OMNIbus

Tivoli Monitoring Community on Service Management Connect

Service Management Connect (SMC) is a repository of technical information that is organized by communities.

Access Service Management Connect at https://www.ibm.com/developerworks/servicemanagement.

For information about Tivoli products, see the Application Performance Management community (http://www.ibm.com/developerworks/servicemanagement/apm/index.html).

Connect, learn, and share with Service Management professionals. Get access to developers and product support technical experts who provide their perspectives and expertise. You can use SMC for these purposes:

- Become involved with transparent development, an ongoing, open engagement between other users and IBM developers of Tivoli products. You can access early designs, sprint demonstrations, product roadmaps, and prerelease code.
- Connect one-on-one with the experts to collaborate and network about Tivoli and the (enter your community name here) community.
- Read blogs to benefit from the expertise and experience of others.
- Use wikis and forums to collaborate with the broader user community.

Other sources of documentation

You can obtain additional technical documentation about monitoring products from other sources.

See the following sources of technical documentation about monitoring products:

- IBM Integrated Service Management Library (http://www.ibm.com/software/brandcatalog/ismlibrary/) is an online catalog that contains integration documentation as well as other downloadable product extensions.
- IBM Redbook publications (http://www.redbooks.ibm.com/) include Redbooks® publications, Redpapers, and Redbooks technotes that provide information about products from platform and solution perspectives.
- Technotes (http://www.ibm.com/support/entry/portal/software), which are found through the IBM Software Support website, provide the latest information about known product limitations and workarounds.

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Index

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R

S

T

U

W

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