



OMi Management Pack for Microsoft Skype for Business Server

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For Operations Manager i for Linux and Windows® operating systems

User Guide

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Chapter 1: OMi Management Pack for Microsoft Skype for Business Server

The HPE OMi Management Pack for Skype for Business Server (OMi MP for Skype for Business Server) works with HPE Operations Manager i (OMi) and enables you to monitor instances of Microsoft Lync Servers - 2010, 2013, and Skype for Business Server 2015 in your environment and its underlying infrastructure.

OMi MP for Microsoft Skype for Business Server includes Event Type Indicators (ETIs), Health Indicators (HIs), and Topology Based Event Correlation (TBEC) Rules that analyze the events that occur in the Skype for Business and report the health and performance status. The Management Templates consist of a wide range of Aspects which enables you to monitor the availability and performance of Skype for Business Servers and system infrastructure. These Management Templates can be deployed by administrators for monitoring Skype for Business Servers in an environment. The Subject Matter Experts (SMEs) and developers can customize the Skype for Business Server Management Templates.

The out-of-the-box (OOTB) Aspects can be used to monitor the following features along with the performance and availability of Microsoft Skype for Business Server:

- Skype Key Health Indicators (KHIs)
- Call Detail Records (CDR) and Quality of Experience (QoE)
- Synthetic transactions
- Port and URL monitoring
- Monitoring from any location

OMi MP for Microsoft Skype for Business Server works with OMi and provides the following additional functionality to support a unified monitoring solution:

- Microsoft Lync Server instance-based deployment and simplified configuration.
- Supports agent based monitoring of Microsoft Skype for Business Server instances.
- Ready to deploy out-of-the-box management solution to suit different monitoring requirements.
- Monitoring of composite applications - Microsoft Skype for Business Server, domain controllers, Microsoft SQL Server and underlying infrastructure.

Chapter 2: Getting Started

The following section provides information about the tasks required to monitor Lync 2010, 2013 and Skype for Business servers using OMi MP for Microsoft Skype for Business Server.


Task 1: Adding Nodes to BSM 9.2x or OMi 10.x

Console

Note: If the Microsoft Lync Server 2010 or 2013 that you want to monitor is already being monitored by Smart Plug-in (SPI) for Microsoft Enterprise Servers, then remove the SPI artifacts and data sources from the managed node hosting the Microsoft Lync Servers before proceeding.

Note: If the node already exists in Run-time Service Model (RTSM), you can skip this step and proceed to "[Task 2: Deploying the Skype Discovery and Skype Configuration Aspects](#)".

Follow these steps to add nodes before you begin monitoring:

1. Open the Monitored Nodes pane from Administration:
On BSM 9.2x, click **Admin > Operations Management > Setup > Monitored Nodes**.
On OMi 10.x, click **Administration > Setup and Maintenance > Monitored Nodes**.
2. In the **Node Views** pane, click **Predefined Node Filters > Monitored Nodes**, and click , and then click **Computer > <select the OS type>**. The Create New Monitored Nodes dialog box opens.
3. Specify the Primary DNS Name and verify the IP Address.
4. Select the Operating System and Processor Architecture of the node from the drop-down list, and then click **OK**.

The newly created node is saved as a CI instance in RTSM.

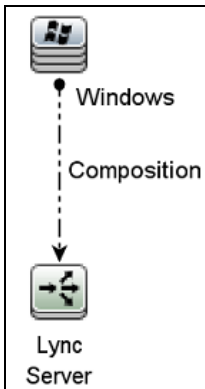
Note: The node with Operations Agent must be connected on OMi Server and certificate must be granted.


Task 2: Deploying the Skype Discovery and Skype Configuration Aspects

To discover all the Lync CIs, you must install both Skype Discovery and Skype Configurations Aspects.

Deploying Skype Discovery Aspect

The Skype Discovery Aspect enables you to discover the Lync Server CIs:

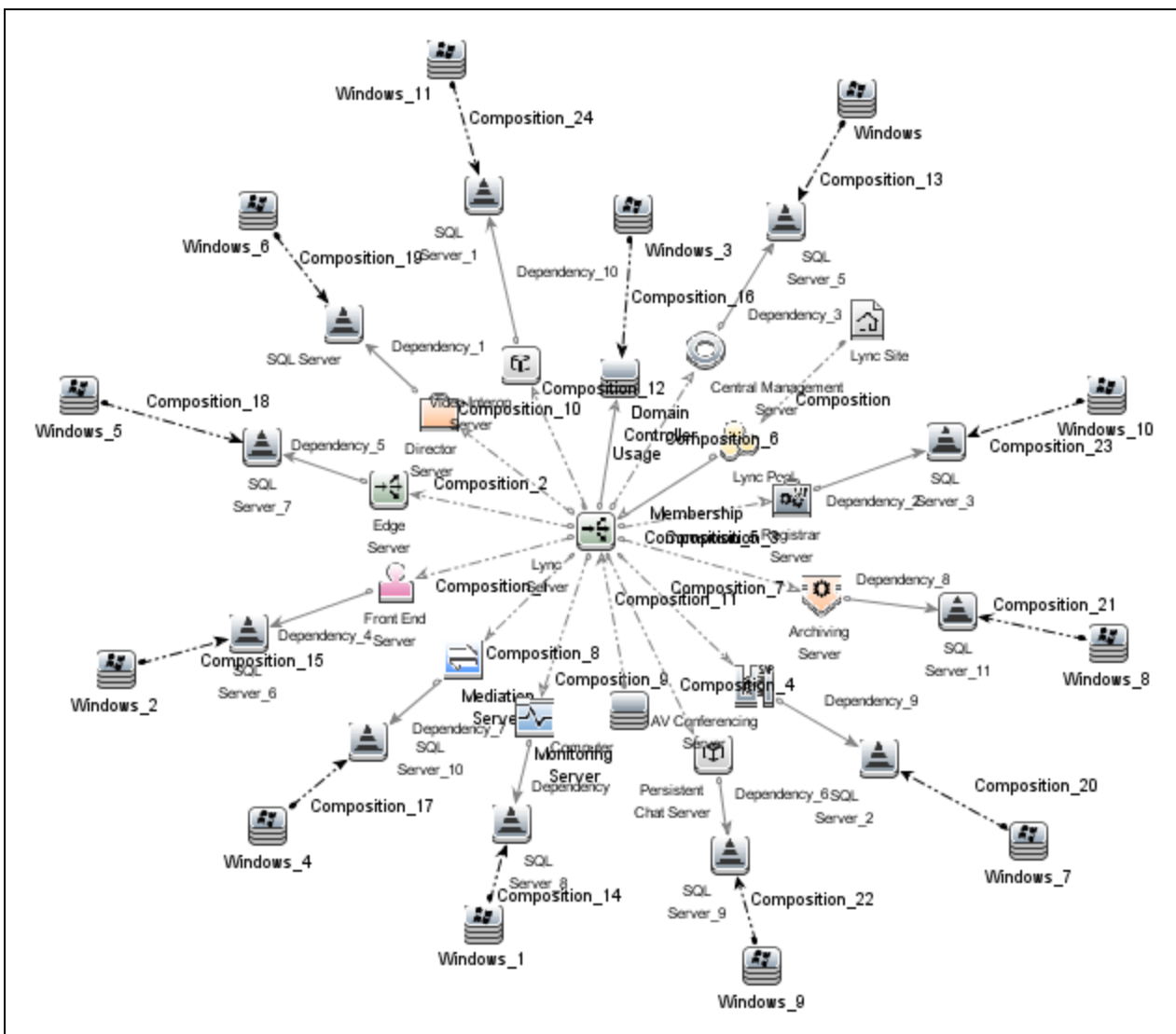


1. Open the Management Templates & Aspects pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:
Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Aspects**.
3. In the Management Template & Aspects pane, select the **Skype Discovery** Aspect, and then click  **Assign and Deploy Item**. The Assign and Deploy Wizard appears.
4. In the **Configuration Item** tab, select the **Windows** managed node CI and then click **Next**.
5. In the **Required Parameters** tab, click **Finish**.

Note: The Skype Discovery Aspects does not have mandatory parameters. You will get a notification stating the following message: There are no parameters that require editing for this Assignment.

Deploying Skype Configuration Aspect

The Skype Configuration Aspect enables you to discover the Lync Roles and Services, Lync Pool, Lync Site, domain controllers, SQL Servers, and other CIs:




1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Aspects**.


3. In the Management Templates & Aspects pane, select the **Skype Configuration** Aspect, and then click  **Assign and Deploy Item**. The Assign and Deploy Wizard appears.

4. In the **Configuration Item** tab, select the **Windows** managed node CI and then click **Next**.


5. In the **Required Parameters** tab, to enter value for the required parameters follow these steps:

Make sure DISCOVERY_USERNAME have the following privileges:

- o CSViewOnlyAdministrator
- o RTCUniversalReadOnlyAdminsw

- a. Select the **DISCOVERY_USERNAME** parameter in the list, and then click . The USERNAME dialog box opens.

- b. Specify the value in the `<domain>\<username>` format and then click **OK**.


- c. Select the **DISCOVERY_PASSWORD** parameter in the list, and then click . The PASSWORD dialog box opens.

- d. Click **Value** and type a value in the **Password** field.


- e. In the **Verify Password** field and type the same password and then click **OK**.

- f. Click **Next**.

6. (Optional). In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, follow these steps:

- a. Select the **USERNAME** parameter in the list, and then click . The USERNAME dialog box opens.

- b. Specify the value and then click **OK**.

- c. Select the **PASSWORD** parameter in the list, and then click . The PASSWORD dialog box opens.


- d. Click **Value** and type a value in the **Password** field.
 - e. In the **Verify Password** field and type the same password and then click **OK**.
 - f. Click **Next**.
7. (*Optional*). If you do not want to enable the assignment immediately, follow the step:
- On BSM 9.2x, clear the **Enable Assigned Objects** check box.
- On OMi 10.x, clear the **Enable Assignment(s)** check box.
- You can then enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

Deploying Skype Configuration Aspect on the Edge Server


1. Open the Management Templates & Aspects pane:


On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:



Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Aspects**.
3. Select the **Skype Discovery** Aspect, and then click  **Assign and Deploy Item**. The Assign and Deploy Wizard appears.
4. In the **Configuration Item** tab, select the **Windows** managed node CI and then click **Next**.
5. In the **Required Parameters** tab, follow these steps:

Make sure DISCOVERY_USERNAME have privileges has local administrator privileges on the Edge Server.

 - a. Select the **DISCOVERY_USERNAME** parameter in the list, and then click . The USERNAME dialog box opens.
 - b. Specify the value in the `<username>` format and then click **OK**.

- c. Select the **DISCOVERY_PASSWORD** parameter in the list, and then click . The PASSWORD dialog box opens.
 - d. Click **Value** and type a value in the **Password** field.
 - e. In the **Verify Password** field and type the same password and then click **OK**.
 - f. Click **Next**.
6. (Optional). In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, follow these steps

Make sure the domain user has the following privileges:

- o CSViewOnlyAdministrator
 - o RTCUniversalReadOnlyAdminsw
- a. Select the **USERNAME** parameter in the list, and then click . The USERNAME dialog box opens.
 - b. Specify the value in the `<domain>\<username>` format and then click **OK**.
 - c. Select the **PASSWORD** parameter in the list, and then click . The PASSWORD dialog box opens.
 - d. Click **Value** and type a value in the **Password** field.
 - e. In the **Verify Password** field and type the same password and then click **OK**.
 - f. Click **Next**.
7. (Optional). If you do not want to enable the assignment immediately, follow the step:
- On BSM 9.2x, clear the **Enable Assigned Objects** check box.
- On OMi 10.x, clear the **Enable Assignment(s)** check box.
- You can enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

Note: After the Skype Discovery and Skype Configuration Aspects are deployed, the following message appears: Assignment and deployment jobs created. To check the status of the deployment job, go to the following location:

On BSM 9.2x, **Admin > Operations Management > Monitoring > Deployment Jobs**.

On OMi 10.x, **Administration > Monitoring > Deployment Jobs**.

Task 3: Verifying Discovery

After you deploy the Skype Discovery Aspect, you must verify if the CIs are populated in the View Explorer.

To view the CIs discovered, follow these steps:

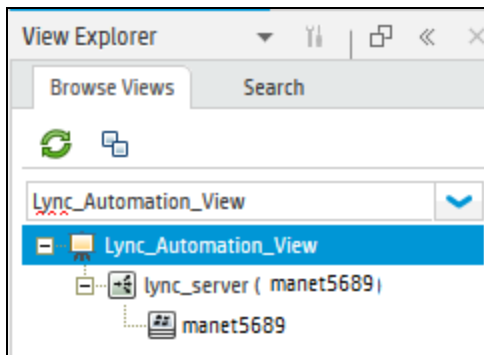
1. Open the Event Perspective pane:

On BSM 9.2x, click **Applications > Operations Manager > Event Perspective**.

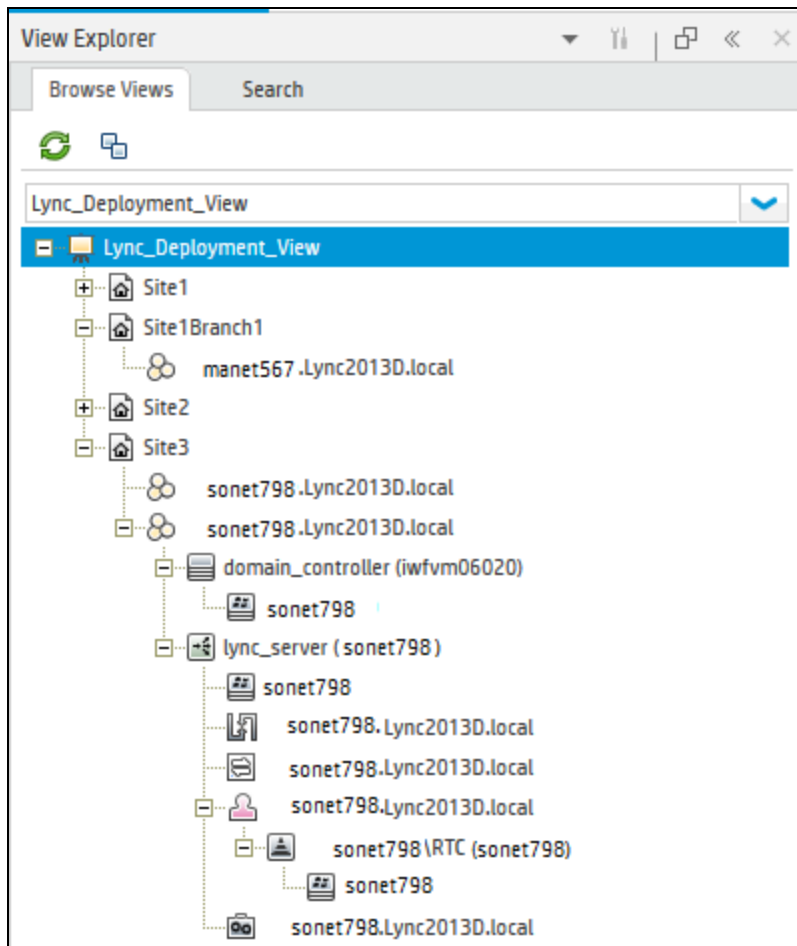
On OMi 10.x, click **Workspaces > Operations Console > Event Perspective**.

2. In the **Browse Views** tab, follow these steps:

For verifying Skype Discovery Aspect deployment, select the **Lync_Automation_View**.



For verifying Skype Configuration Aspect deployment, select the **Lync_Deployment_View**.



Task 4: Deploying the Microsoft Skype for Business Server Management Templates or Aspects

You can deploy the Management Templates to the Lync Site CIs. You can deploy Aspects to FrontEnd Server, Edge Server, or other CIs depending on the feature required to be monitored. For more information about deploying Management Template, go to [Task 4a: Identifying and Deploying the Microsoft Skype for Business Management Template](#) and for more information about deploying Aspects, go to [Task 4b: Deploying the Microsoft Skype for Business Aspects](#).

The Skype Configuration Aspect is deployed automatically on deploying any Management Template. The Skype Configuration Aspect discovers remaining CI types, creates data sources, deploys instrumentation, and defines schedulers for metric collection.

Data Collection Process

The frequency (polling interval) at which each policy must be monitored is predefined with a default value in a specific frequency parameter. Frequency parameter is an expert parameter that is defined for each of the metrics regardless of whether they are for generating events or not.

Following are the four predefined frequency parameters:

Scheduler Frequency	Default value
Very High	5 mins
High	15 mins
Medium	1 hour
Low	24 hours

After Management Templates and Aspects are deployed, collector is triggered based on the parameter value in a specific policy. You can modify the default value of the parameter at following levels:

- During deployment of the Management Template or Aspects using the Management Templates & Aspects pane
- After deployment using the Assignments & Tuning pane.

For more information about how to modify the parameter values, see [Tuning Parameters](#).

Task 4a: Identifying and Deploying the Microsoft Skype for Business Server Management Template

Before deploying the Lync Management Templates, following these recommendation to identify the Microsoft Skype for Business Management Template suitable for your environment:

- If you want to monitor the storage services, instant messenger performance and conference health of Lync or Skype Business servers, you can deploy the **Essential Management Template for Skype for Business Server**.
- If you want to monitor the end-to-end user scenario of Microsoft Skype for Business Server, you can deploy the **Skype Solution Management Template for Skype for Business Server**.

As part of the solution Microsoft Active Directory, Microsoft SQL Server, and the underlying infrastructure are monitored along with Skype for Business Servers functionality.

Note: Before deploying the **Skype Solution Management Template for Skype for Business Server**, make sure OMi MP for Microsoft SQL Server 1.01 is installed and Management Templates and Aspects assignments are updated to the latest version. For more information about how to update the version, see the *OMi MP for Microsoft SQL Server 1.01 - Installation Guide* or *User Guide*.

OMi MP for Microsoft Skype for Business Server provide wide range of Aspects to monitor various features of Skype for Business Server. You can either deploy aspects or customize existing Management Template to monitor additional feature. For more information about list of Aspects, see the section "[Grouping of Skype Aspects](#)".

To deploy the Microsoft Skype for Business Server Management Templates to the Lync Site CI, follow these steps:




1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates

3. In the Management Templates & Aspects pane, select the Management Template that you want to deploy, and then click  **Assign and Deploy Item**. The Assign and Deploy wizard opens.
4. In the **Configuration Item** tab, select the CI to which you want to assign the Management Template, and then click **Next**.
5. In the **Required Parameters** tab, to provide values to the required parameters follow these steps:
 - a. Select the **DISCOVERY_USERNAME** parameter in the list, and then click . The DISCOVERY_USERNAME dialog box opens.
 - b. Specify the value in the `<domain>\<username>` format and then click **OK**.
 - c. Select the **DISCOVERY_PASSWORD** parameter in the list, and then click . The DISCOVERY_PASSWORD dialog box opens.

- d. Click **Value** and type a value in the **Password** field.
 - e. In the **Verify Password** field and type the same password and then click **OK**.
 - f. Click **Next**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, if you are deploying the Management Template on other server, click **Next**.
 7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, follow the step:

On BSM 9.2x, clear the **Enable Assigned Objects** check box.

On OMi 10.x, clear the **Enable Assignment(s)** check box.

You can enable the assignment later using the Assignments & Tuning pane.
 8. Click **Finish**.


Task 4b: Deploying the Microsoft Skype for Business Server Aspects

To deploy Microsoft Skype for Business Aspects to the Lync server CIs, follow these steps:

1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:

Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Aspects
3. In the Management Templates & Aspects pane, select the Aspect that you want to deploy, and then click  **Assign and Deploy Item**.
4. In the **Configuration Item** tab, select the required CI to deploy the Aspect and then click **Next**.

Note: If you want to deploy Aspects to Node CIs, select the **Also show CIs of type Node** check box.

5. In the **Required Parameters** tab, click **Next**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, you can change the default values of the parameters, else click **Next**.
7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, follow the step:
 - On BSM 9.2x, clear the **Enable Assigned Objects** check box.
 - On OMi 10.x, clear the **Enable Assignment(s)** check box.You can enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.


Checking Topology Synchronization Settings

Note: It is recommended to check the Topology Synchronization settings if a Node or a CI is monitored by HP Operations Manager.

If you are using Smart Plug-in for Microsoft Enterprise Servers with HP Operations Manager, perform the following steps to forward topology data from the HPOM Server to OMi Server.

For more information about the Topology Synchronization, see the *OMi Administration Guide*.

To check the Topology Synchronization settings, follow these steps:

1. Open the Infrastructure Settings pane from Administration:
 - On BSM 9.2x, click **Admin > Platform > Setup and Maintenance > Infrastructure Settings**.
 - On OMi 10.x, click **Administration > Setup and Maintenance > Infrastructure Settings**.
2. In the Infrastructure Settings pane, select **Applications > Operations Management**.
3. To verify the availability of toposync package to be synchronized, go to **Operations Management – HPOM Topology Synchronization Settings** and check if **HPOprLys** is available.
4. If the package is not available, to add the toposync package follow these steps:
 - a. In the **Packages for Topology Sync**, click  .
 - b. In **Value**, add **HPOprLys** and then click **Save**.

Monitoring Microsoft Skype for Business ServerEnvironment

After you deploy Aspects, you can analyze the status and health of the Lync Server CIs from the following perspectives:

[Event Perspective](#)

[Health Perspective](#)

[Performance Perspective](#)

Event Perspective

After you deploy the Skype Discovery and Skype Configuration Aspects, you can view the events of the Lync Server CIs that are monitored by OMi MP for Microsoft Skype for Business Server.

To view the Event Perspective of the Lync Server CIs, follow these steps:

1. Open the Event Perspective pane:
On BSM 9.2x, click **Applications > Operations Management > Event Perspective**.
On OMi 10.x, click **Workspaces > Operations Console > Event Perspective**.
The View Explorer pane appears.
2. In the View Explorer, select the **Browse Views** tab.
3. From the drop-down menu, select the **Lync_Deployment_View** View. Alternatively, you can use the **Search** tab to find a Lync Server CIs .

A list of Lync Server CIs monitored by OMi MP for Microsoft Skype for Business Server appears.

4. Select the Lync Server CI for which you want to view the Event Perspective. A list of events for the selected Lync Server CI appears on the Event Browser pane.

When you select an event from the Event Browser, the Event Details pane opens where you can view following details:

- **General** - Displays the detailed information about the selected event such as Severity, Lifecycle State, Priority, Related CIs and so on.

- **Additional Info** - Displays more detailed information about the attributes of the selected event.
- **Source Info** - Displays an overview of the information available about the source of the selected event.
- **Actions** - Displays the list of actions available for a selected event. There are two types of possible actions: User Action and Automatic Action.
- **Annotations** - Displays a list of the annotations attached to the selected event.
- **Custom Attributes** - Displays a list of the attributes that either an administrator or a responsible user manually configured and added to the selected event.
- **Related Events** - Displays an overview of all the events that are related to the event selected in the Event Browser.
- **History** - Displays the history of the selected event.
- **Resolver Hints** - Displays the information used to identify the node and CI associated with an event.
- **Instructions** - Displays instruction information designed to help operators handle the associated event.
- **Forwarding** - Displays the transfer of ownership details if any, for the events.

For more information about the list of ETIs, see the section [Event Types Indicators \(ETIs\)](#).

Health Perspective

After you deploy the Skype Discovery and Skype Configuration Aspects, you can view the events related to the health of the Lync Server CIs that are monitored by OMi MP for Microsoft Skype for Business Server.

To view the Health Perspective of the Lync Server CIs, follow these steps:

1. Open the Health Perspective pane:

On BSM 9.2x, click **Applications > Operations Management > Health Perspective**.

On OMi 10.x, click **Workspaces > Operations Console > Health Perspective**.

The View Explorer pane appears.

2. In the View Explorer, select the **Browse Views** tab.
3. From the drop-down menu, select the **Lync_Deployment_View** View. Alternatively, you can use

the **Search** tab to find a Lync Server CIs.

A list of Lync Server CIs monitored by OMi MP for Microsoft Skype for Business Server appears.

4. Select the Lync Server CI for which you want to view the Health Perspective. A list of health related events for the selected Lync Server CI appears on the Event Browser pane.

When you select an event from the Event Browser pane, the following panes appear:

- **Health Top View** - Displays the health top view of the selected event.
- **Health Indicators** - Displays the Key Performance Indicators (KPIs) and HIs related to the CI that you select from the Health Top View pane.
- **Actions** - Displays the list of actions available for a selected event.

For more information about the list of HIs, see the section [Health Indicators \(HIs\)](#).

Performance Perspective

Performance Perspective enables you to populate graphs from existing graph templates. You can also plot customized graphs by selecting the required metrics for a selected CI.

To view the Performance Perspective of Lync Server CIs using graphs, follow these steps:

1. Open the Performance Perspective pane:

On BSM 9.2x, click **Applications > Operations Management > Performance Perspective**.

On OMi 10.x, click **Workspaces > Operations Console > Performance Perspective**.

The View Explorer pane appears.

2. In the **Browse Views** tab, select the **Lync_Deployment_View** View. Alternatively, you can use the **Search** tab to find a Lync Server CIs.

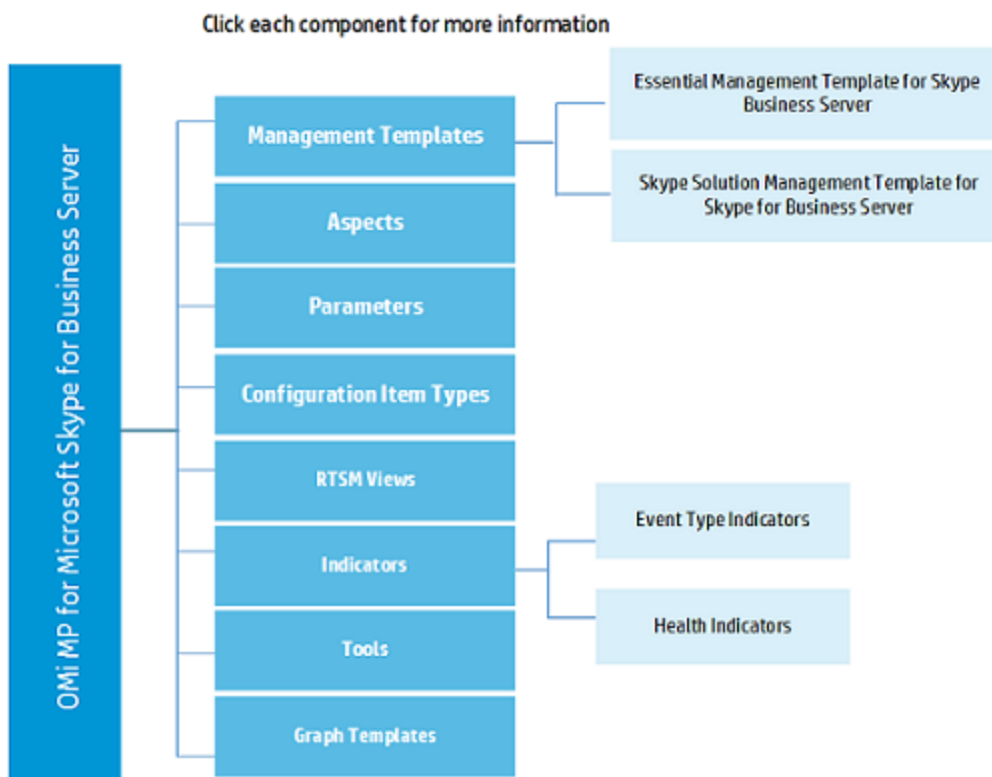
The performance pane appears, which lists the default graphs available for the **Lync_Deployment_View**.

3. Click the graph you want to plot from the **Graphs** tab, and then click  the **Draw Graphs**. The selected graph is plotted on the right pane.

Note: For more information about managing events, health, and performance perspectives, see the *Operations Manager i Concepts Guide*.

Chapter 3: Components of OMi MP for Microsoft Skype for Business Server

The OMi MP for Microsoft Skype for Business Server includes the following components for monitoring Microsoft Skype for Business Server in your environment:

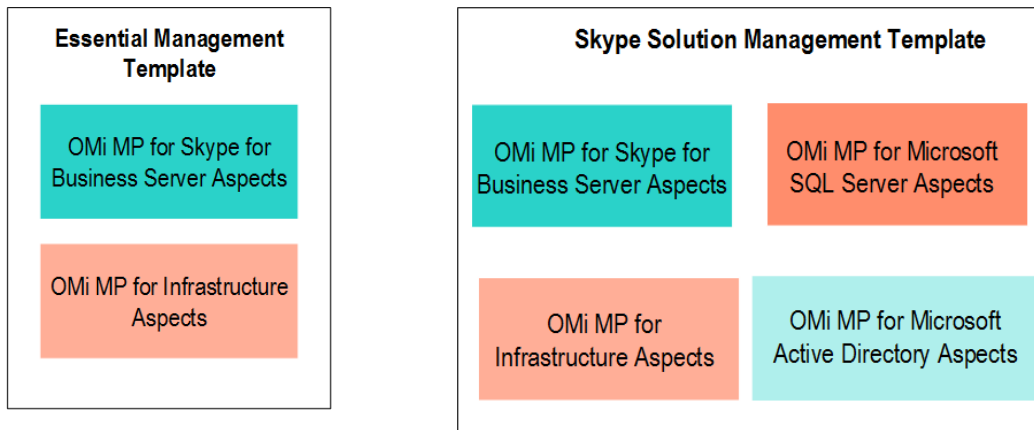


Microsoft Skype for Business Server Management Templates

The Management Templates consists of several Aspects which enables you to monitor Lync Servers based on the criticality and type of the environment. By default, the OMi MP for Microsoft Skype for Business Server consists of a set of Management Templates. You can deploy the out-of-the-box (OOTB) Management Templates with the default parameters or you can customize the Management Templates based on your requirements. In addition, you can also create Management Templates based on the monitoring requirements using the Skype Aspects.

Overview

The OMi MP for Microsoft Skype for Business Server comprises the following Management Templates:



How to Access the Skype for Business Server Management Templates

1. Open Management Templates & Aspects pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates**.

How to Automatically Assign Skype for Business Server Management Templates and Skype Aspects

To automatically assign Oracle Management Templates or Oracle Aspects, you must specify the required privileges.

1. Open Automatic Assignment Rules pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Automatic Assignment Rules**.

On OMi 10.x, click **Administration > Monitoring > Automatic Assignment Rules**.

The pane consists of the Auto-Assignment Rules pane at the top, and a Parameter list at the bottom.

2. Click **New Assignment** in the toolbar of the Auto-Assignment Rules pane and select the appropriate option.
3. In the **Select Target View** tab, select the Oracle view containing the CIs for which you want to create an automatic assignment, and click **Next**.
4. In the **Select Item to Assign** tab, select the Oracle management template or aspect that you want to automatically assign to all CIs with a CI type appearing in the selected view.

The list shows only the management templates that have a root CI type that appears in the view that you selected or, in case an aspect is auto-assigned, compatible aspects.

The latest version of the management template or aspect that you want to assign is selected by default. If required, select a different version in **Version** column.

Click **Next**.

5. In the **Required Parameter** tab, all the mandatory parameters in the management template are listed.
 - a. To change a parameter, double-click it, or select it in the list and click **Edit**.
 - b. For standard parameters, the Edit Parameter dialog opens.

Click **Value**, specify the value, and then click **OK**.
 - c. For instance parameters, the Edit Instance Parameter dialog opens.

Add instance values, and then for each instance value, specify dependent parameter values. After you specify the instances and dependent parameter values, click **OK**.
 - d. Click **Next**.
6. *(Optional)*. In the **All Parameters/Parameter Summary** tab, specify a value for each parameter that must be monitored against a different value than the default value.
 - a. To change a parameter, double-click it, or select it in the list and click **Edit**.
 - b. For standard parameters, the Edit Parameter dialog opens.

- Click **Value**, specify the value, and then click **OK**.
- c. For instance parameters, the Edit Instance Parameter dialog opens.
Add instance values, and then for each instance value, specify dependent parameter values.
After you specify the instances and dependent parameter values, click **OK**.
 - d. Click **Next**.

Click **Next** to go to the **Configure Options** tab, or **Finish** to save the assignment and close the wizard.

7. (Optional). In the **Configure Options** tab, clear the **Enable Assigned Objects** check box on BSM 9.2x or clear the **Enable Assignment(s)** check box on OMi 10.x, if you do not want to activate the assignment rule immediately.
8. Click **Finish** to save the changes and close the wizard.

The assignment rule is added to the list of auto-assignment rules.

An assignment may trigger an event to be sent to OMi if one of the following situations applies:

- A deployment job fails.
- An auto-assignment fails.
- An auto-assignment succeeds. This behavior can be configured in the Infrastructure Settings.

Follow the steps to check if the automatic assignment rule successfully created the expected assignments:

- Open Assignments & Tuning pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Assignments & Tuning**.
On OMi 10.x, click **Administration > Monitoring > Assignments & Tuning**.
- In the **Browse Views** tab, select the view you identified when creating your automatic assignment rule.
- Expand the view, and select a node that corresponds to the root CI type of the assigned item. Assignments created as a result of Automatic Assignment Rules are shown in the list of assignments at the top of the right pane, and have the value `AutoAssignment` in the column **Assigned By**.

You can consider the following options for tuning the assignment:

- Use the Auto-Assignment Rules pane to tune the parameter values for all assignments triggered by the automatic assignment rule.
- Use the Assignments pane to tune, redeploy, delete, and enable or disable individual assignments.

How to Display an Assignment Report for Skype for Business Server Management Template

1. Select the Management Template you want to create the report for.
2. Click **Generate Assignment Report** in the Management Templates & Aspects pane.

The preconfigured Assignment Report is displayed.

You can display additional types of reports from the Assignments & Tuning pane.

Essential Management Template for Skype for Business Server

How to Access the Essential Management Template for Skype for Business Server

1. Open the Management Templates & Aspects pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates**.

User Interface Reference

Management Template - General

Provides an overview of the attributes of the Management Template.

UI Element	Description
Name	Essential Management Template for Skype for Business Server
Description	This Management Template monitors the availability and performance of core components of Microsoft Skype for Business Server.
ID	A unique identifier for the GUID version.
Version ID	A unique identifier for this version of the Essential Management Template for Skype for Business Server.
Version	The current version of the Management Template. In this instance, the version of the Management Template is 1.0.

Management Template - Topology View

UI Element	Description
Topology View	Lync_Deployment_View is the topology view for the Essential Management Template for Skype for Business Server. It contains the CI Types that you want to manage using the Management Template.
CI Type	Indicates the type of CI managed by the Essential Management Template for Skype for Business Server. The Essential Management Template for Skype for Business Server contains the Lync Site CI Type.

Management Templates - Aspects

Skype Solution Management Template for Skype for Business Server contains following Skype Aspects:

- [Skype AV TCP](#)
- [Skype AV UDP](#)
- [Skype Conference Health](#)
- [Skype Conference Processing Performance](#)
- [Skype Configuration](#)
- [Skype Database Performance](#)
- [Skype Edge Server Key Health](#)
- [Skype External Request](#)
- [Skype FrontEnd Server Key Health](#)
- [Skype General Server Key Health](#)

- [Skype IM Performance](#)
- [Skype Join Failure Performance](#)
- [Skype MCU Health Performance](#)
- [Skype MCU Health State](#)
- [Skype Media Performance](#)
- [Skype Mediation Server Key Health](#)
- [Skype Queue Performance](#)
- [Skype Server Health](#)
- [Skype Server Performance](#)
- [Skype Services](#)
- [Skype SIP Performance](#)
- [Skype SQL Server Key Health](#)
- [Skype Storage Service](#)
- [Skype Video Integration Server Key Health](#)
- [Skype Web Service Performance](#)

The Skype Solution Management Template for Skype for Business Server contains the following Infrastructure Aspects:

Resource Bottleneck Diagnosis

The Resource Bottleneck Diagnosis Aspect identifies congestions and bottleneck conditions for system resources like the CPU, memory, network and disk. CPU bottleneck monitoring is based on global CPU utilization and load average (Run Queue Length).

System Infrastructure Discovery

Discovers and gathers information regarding the system resources, operating system, and applications on a managed node.

System Fault Analysis

The System Fault Analysis Aspect monitors the kernel log file, boot log file, and event log file for critical error conditions and instructions on what might have caused it.

Skype Solution Management Template for Skype for Business Server

How to Access the Skype Solution Management Template for Skype for Business Server

1. Open the Management Templates & Aspects pane:
 - On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
 - On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. Click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates**.

User Interface Reference

Management Template - General

Provides an overview of the attributes of the Management Template.

UI Element	Description
Name	Skype Solution Management Template for Skype for Business Server
Description	This Management Template monitors the availability and performance of core components of Microsoft Skype for Business Server along with its neighborhood CIs'.
ID	A unique identifier for the GUID version.
Version ID	A unique identifier for this version of the Skype Solution Management Template for Skype for Business Server.
Version	The current version of the Management Template. In this instance, the version of the Management Template is 1.0.

Management Template - Topology View

UI Element	Description
Topology View	Lync_Deployment_View is the topology view for the Skype Solution Management Template for Skype for Business Server. It contains the CI Types that you want to

UI Element	Description
	manage using the Management Template.
CI Type	Indicates the type of CI managed by the Skype Solution Management Template for Skype for Business Server. The Skype Solution Management Template for Skype for Business Server contains the Lync Site CI Type.

Management Templates - Aspects

Skype Solution Management Template for Skype for Business Server contains following Skype Aspects:

- [Skype AV TCP](#)
- [Skype AV UDP](#)
- [Skype Conference Health](#)
- [Skype Conference Processing Performance](#)
- [Skype Configuration](#)
- [Skype Database Performance](#)
- [Skype Edge Server Key Health](#)
- [Skype External Request](#)
- [Skype FrontEnd Server Key Health](#)
- [Skype General Server Key Health](#)
- [Skype IM Performance](#)
- [Skype Join Failure Performance](#)
- [Skype MCU Health Performance](#)
- [Skype MCU Health State](#)
- [Skype Media Performance](#)
- [Skype Mediation Server Key Health](#)
- [Skype Queue Performance](#)
- [Skype Server Health](#)
- [Skype Server Performance](#)
- [Skype Services](#)
- [Skype SIP Performance](#)

- [Skype SQL Server Key Health](#)
- [Skype Storage Service](#)
- [Skype Video Integration Server Key Health](#)
- [Skype Web Service Performance](#)

The Skype Solution Management Template for Skype for Business Server contains the following Infrastructure Aspects:

Resource Bottleneck Diagnosis

The Resource Bottleneck Diagnosis Aspect identifies congestions and bottleneck conditions for system resources like the CPU, memory, network and disk. CPU bottleneck monitoring is based on global CPU utilization and load average (Run Queue Length).

System Infrastructure Discovery

Discovers and gathers information regarding the system resources, operating system, and applications on a managed node.

System Fault Analysis

The System Fault Analysis Aspect monitors the kernel log file, boot log file, and event log file for critical error conditions and instructions on what might have caused it.

The Skype Solution Management Template for Skype for Business Server contains the following Microsoft Active Directory Aspects:

Microsoft AD Collection Schedule

This Aspect contains the schedule task policies required to trigger the collection on predefined schedules.

Microsoft AD Directory Access

This Aspect monitors the directory throughput of LDAP in Microsoft Active Directory.

Microsoft AD Discovery

The OMi MP for Microsoft Active Directory expands the discovery and adds multiple hierarchical levels of details. At a higher level, the OMi MP for Microsoft Active Directory discovers forests and goes further to the lower levels to discover each Domain Controller (DC) with its name. The Data Sources are automatically created after the deployment of Microsoft Active Directory Discovery Aspect.

Microsoft AD DNS Response

This Aspect monitors the DNS Server response time and DNS query response time.

Microsoft AD Response Time

This Aspect monitors the LDAP and GC query response time.

Microsoft AD Services

This Aspect monitors the core Services of Microsoft Active Directory.

The Skype Solution Management Template for Skype for Business Server contains the following Microsoft SQL Server Aspects:

Microsoft SQL Server Discovery

This Aspect discovers Microsoft SQL Server standalone instances and failover cluster instances, databases, services, and so on.

Microsoft SQL Server Availability

This Aspect monitors the Microsoft SQL Server database connection status and services.

Microsoft Skype for Business Server Aspects

Skype for Business Server Aspects can be used to monitor the building blocks or units of Microsoft Skype for Business Server. A Skype for Business Server Aspect comprises policy templates, instrumentation, and parameters for monitoring the health and performance of Microsoft Skype for Business Server.

How to Access Skype for Business Server Aspects

1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folder pane, click **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Aspects**.

Tasks

How to Deploy Skype for Business Server Aspects

For more information about deploying Skype for Business Server Aspects, see [Task 5: Deploying the](#)

[Skype for Business Server Management Templates or Aspects.](#)

Grouping of Skype Aspects

The OOTB Essential Management Template for Skype for Business Server, enable you to monitor performance and availability of Microsoft Skype for Business Server and Microsoft Key Health Indicators. In addition, OMi MP for Microsoft Skype for Business Server provides a wide range of Aspects to monitor the features such as QoE, CDR, port, URL, and synthetic transactions. To monitor these features, you must customize the OOTB Management Template by adding the corresponding Aspects.

The Skype Aspects grouped as follows:

Discovery

Skype Discovery

Discovers all instances of Lync Server CIs.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_Discovery	NA	This policy discovers all the instances of Lync 2010, 2013 and Skype for Business Server 2015.	Service Auto-Discovery

Skype Configuration

This Aspect discovers the Lync Roles and Services, Lync Pool, Lync Site, domain controllers, SQL Servers, and other CIs:

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_ExtendedDiscovery	NA	Discovers Lync pools, sites, roles, domain controllers, SQL server instances and others.	Service Auto-Discovery
Windows	MSBS_CreateDataSource	NA	This policy creates the data sources.	Scheduled Task

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_Collection_Definition_2010	NA	The policy contains the metric definition xml which will be used by Microsoft Collector to collect metrics for Lync Server 2010.	ConfigFile
Windows	MSBS_Collection_Definition_2013	NA	This Policy contains the metric definition xml which will be used by Microsoft collector to collect metrics for Lync Server 2013.	ConfigFile
Windows	MSBS_Collection_Definition_2015	NA	The Policy Contains the metric definition xml which will be used by Microsoft Collector to collect metrics for Skype for Business Server 2015.	ConfigFile
Windows	MSBS_EdgeDiscovery_Conf	NA	Configuration file for Edge Server discovery.	ConfigFile

Base

Skype Base

This is the base Aspect for monitoring Microsoft Skype for Business Server. It contains definition for low, medium, daily, high, and very high scheduler for all the CITs.

CI Type	Policy Template	Indicator	Description	Policy Type
Lync Server, Edge Server, Archiving Server, Director Server, AV Conferencing Server, Mediation	MSBS_SCH_MEDIUM	NA	Schedule task policy of frequency MEDIUM for collecting metrics on MSBS	Scheduled Task

CI Type	Policy Template	Indicator	Description	Policy Type
Server, Monitoring Server, Persistent Chat Server, Registrar Server, Central Management Server, Front End Server, Video Interop Server	MSBS_SCH_VERY_HIGH	NA	Schedule task policy of frequency VERY_HIGH for collecting metrics for MSBS	Scheduled Task
	MSBS_SCH_DAILY	NA	Schedule task policy of frequency DAILY for collecting metrics for MSBS	Scheduled Task
	MSBS_SCH_HIGH	NA	Schedule task policy of frequency HIGH for collecting metrics on MSBS	Scheduled Task
	MSBS_SCH_LOW	NA	Schedule task policy of MEDIUM frequency for collecting metrics on MSBS	Scheduled Task

Performance

Skype Archive Message Performance

Monitors the performance of Archive Message, this aspect logs collected metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ArchiveMsgPerform_2010_Conf	NA	This policy contains the schedule for monitoring status for the different services for Lync Server 2010.	ConfigFile
	MSBS_ArchiveMsgPerform_Conf	NA	This policy contains the schedule for monitoring status for the different services for Lync Server 2013 and Skype for Business Server 2015.	ConfigFile

Skype Archiving Performance

Monitors Archiving options to help you meet your compliance needs like Messages failed Validation, Arch Service Dropped Messages etc., this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Archiving Server	MSBS_ArchServiceMessagesthatfailedvalidation	NA	This Policy Monitors the number of messages for which validation has failed	Measurement Threshold
	MSBS_ArchServiceMessagesfailedtobewrittentoDB	NA	This policy monitors the rate of failure in numbers when the messages are written in to SQL database	Measurement Threshold
	MSBS_Archiving_Performance_2010_Conf	NA	This policy contains schedulers for monitoring the performance of Archiving server of Lync 2010.	ConfigFile
	MSBS_ArchServiceDroppedmessagesfromMQ	NA	This policy monitors MSMQ for the number of messages getting dropped	Measurement Threshold

Skype ASMCU Performance

Monitors the App Sharing Multipoint Conferencing Unit Performance, this aspect logs collected metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ASMCUPerform_Conf	NA	This policy contains scheduler to monitor application sharing MCU performance for Lync 2013 and Skype for Business Server 2015.	ConfigFile
	MSBS_ASMCUPerform_2010_Conf	NA	This policy contains scheduler to monitor application sharing MCU performance for Lync 2010.	ConfigFile

Skype Authentication

Monitors the Latency, Bad Requests Received by Edge and authentication, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Direct or Server, Front End Server	MSBS_DirSprocLatency	SprocLatency:VeryHigh, SprocLatency:Normal	This policy monitors the average time taken in processing a RTCAuthorizeDelegate sproc call	Measurement Threshold
	MSBS_EdgeBadRequestsReceived	NA	This policy monitors Bad Requests Received per second	Measurement Threshold
	MSBS_Authentication_Conf	NA	This policy contains scheduler for monitors the authentication related data for Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_Authentication_2010_Conf	NA	This policy contains scheduler for monitors the authentication related data for Lync 2010.	ConfigFile

Skype AV TCP

Monitors the TCP stack of Audio Video Conferencing, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_AVEdgeAllocateRequestExceedingPortLimit	NA	This policy monitors if the allocation requests has exceeded the port limit per sec over TCP.	Measurement Threshold
	MSBS_AVEdgePacketsDroppedPerSec	NA	This policy monitors the packets dropped per sec over TCP.	Measurement Threshold
	MSBS_AVEdgeActiveSessionsExceedingPeakBWLimit	NA	This policy monitors if the active sessions has exceeded peak bandwidth limit over TCP.	Measurement Threshold
Edge Server	MSBS_AV_TCP_Conf	NA	This policy contains scheduler for monitoring the TCP stack of Audio Video conferencing feature for Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_AV_TCP_2010_Conf	NA	This policy	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			contains scheduler for monitoring the TCP stack of Audio Video conferencing feature for Lync 2010.	
	MSBS_AVEdgeAuthFailurePerSec	NA	This policy monitors the authentication failures per sec over TCP.	Measurement Threshold

Skype AV UDP

Monitors the UPD stack of Audio Video Conferencing, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_AVEdgeUDPAllocateReqExceedPortLimit	NA	This policy monitors if the allocation requests are exceeding the port limit per sec over TCP.	Measurement Threshold
	MSBS_AVEdgeUDPActSessionsExceedingAvgBWLmt	NA	This policy monitors if the active sessions are exceeding the average bandwidth limit over TCP.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_AVEdgeUDPActSessionsExceedingPeakBWLmt	NA	This policy monitors Active Sessions Exceeding Peak Bandwidth Limit over TCP.	Measurement Threshold
Edge Server	MSBS_AV_UDP_Conf	NA	This policy contains scheduler for monitoring the UPD stack of Audio Video Conferencing feature of Lync 2013 and Skype Business Server 2015.	ConfigFile
	MSBS_AVEdgeUDPAuthFailurePerSec	NA	This policy monitors Authentication Failures/sec over TCP.	Measurement Threshold
	MSBS_AV_UDP_2010_Conf	NA	This policy contains scheduler for monitoring the UPD stack of Audio Video Conferencing feature of Lync 2010.	ConfigFile
	MSBS_AVEdgeUDPPacketsDroppedPerSec	NA	This policy monitors packets	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			dropped per sec over TCP.	

Skype Blob Operations Performance

Monitors the Blob Operations Performance, this aspect logs collected metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_BlobOperatPerform_Conf	NA	This policy scheduler for monitoring the performance of blob operations in Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Bottlenecks

Monitors the Latency to measure bottlenecks, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_LogRetentionConferenceMessageQueryLatency	NA	This policy monitors the value of Conference Session Query latency (ms) for instance	Measurement Threshold
	MSBS_ConferenceMessageQueryLatency	NA	This policy monitors Get Conferencing Messages Latency	Measurement Threshold
	MSBS_UploadActivityLogLatency	NA	This policy monitors UploadActivityLog Latency	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_PurgingFailedSessions	NA	This policy monitors Update Sessions Purgeable Failures	Measurement Threshold
Front End Server	MSBS_Bottlenecks_Conf	NA	This Policy monitors the performance bottlenecks related metrics in Skype Business Server	ConfigFile
	MSBS_GetNextPageLatency	NA	This policy monitors the latency of calling GetNextPage	Measurement Threshold
	MSBS_P2PMessageQueryLatency	NA	This policy monitors Get P2P Messages Latency	Measurement Threshold
	MSBS_P2PSessionQueryLatency	NA	This policy monitors Get P2P Sessions Latency	Measurement Threshold
	MSBS_LogRetentionGetNextPageLatency	NA	This policy monitors the value of GetNextPage latency (ms) for instance	Measurement Threshold
Front End Server	MSBS_SendingFailedEmails	NA	This policy monitors Send Email Failures	Measurement Threshold
	MSBS_GetLogUploadUrlLatency	NA	This policy monitors the latency of calling GetLogUploadUrls	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_AddingTenantAndSyndicatorLatency	NA	This policy monitors Add Tenant and Syndicator Latency	Measurement Threshold
	MSBS_LegalInterceptUnexpectedExceptions	NA	This policy monitors Unexpected Exceptions for an Instance	Measurement Threshold
	MSBS_SendEmailLatency	NA	This policy monitors Send Email Latency	Measurement Threshold
Front End Server	MSBS_FailedGetLogUploadUrlCalls	NA	This policy shows the total number of failed GetLogUploadUrls calls	Measurement Threshold
	MSBS_FailedUploadActivityLogCalls	NA	This policy shows the total number of failed UploadActivityLog calls	Measurement Threshold
	MSBS_MaxRetryCount	NA	This policy monitors the value of Maximum Retry Count for instance	Measurement Threshold
	MSBS_DeletingSyndicatorCacheLatency	NA	This policy monitors Delete Syndicator Cache Latency	Measurement Threshold
	MSBS_ProcessingFailedSessions	NA	This policy monitors Archived Session Processing Failures	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_UpdatingRecordsProcessedLatency	NA	This policy monitors Update Sessions Processed Latency	Measurement Threshold
	MSBS_UpdatingRecordsPurgeableLatency	NA	This policy monitors the latency of updating records purgeable	Measurement Threshold
	MSBS_LogRetentionUnexpectedException	NA	This policy monitors the value of Unexpected Exceptions for Log Retention	Measurement Threshold

Skype Call Performance

Monitors the Mediation Server call performance. This aspect logs data and create events for alerts.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server	MSBS_MedMediaConnectivityCheckFailure	NumberOfCallFailures:VeryHigh, NumberOfCallFailures:Normal, NumberOfCallFailures:High	This policy monitors the number of failures in media connectivity check.	Measurement Threshold
	MSBS_MedTotalRejectedDueToLoad	NA	The policy monitors the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			number of SIP invites from proxy which were rejected immediately because of server load.	
	MSBS_TotFailedCallsCausdbyUnexpctdIntefrmGateway	NA	This policy monitors the number of call failures due to unexpected interaction with proxy.	Measurement Threshold
	MSBS_Call_Performance_2010_Conf	NA	This policy contains scheduler for monitoring the Call performance of Lync Server 2010.	ConfigFile

Skype Collaboration Service

Monitors the Collaboration Services on Edge Server, Director Server and Front End Server for SIP connection. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server , Director Server , Front End Server	MSBS_EdgeNoFailedDCAuthRequestsPerSecond	NA	This policy monitors the number of failed Data Collaboration authentication request per second.	Measurement Threshold
	MSBS_EdgeSIPConnectionFailuresPerSecond	NA	This policy monitors the number of SIP connection failures per second.	Measurement Threshold
	MSBS_NumberofFailedDCAuthRequest	NA	This policy monitors the number of failed Data Collaboration authentication request per second.	Measurement Threshold
	MSBS_NumberofDataCollabConnFailureswithDCServers	NA	This policy monitors the number of Data Collaboration connection failures with Data Collaboration servers.	Measurement Threshold
Edge	MSBS_Collaboration_Service_Conf	NA	This policy	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
Server , Director or Server , Front End Server			contains scheduler for monitoring collaboration service for Lync 2013 and Skype Business Server 2015.	
	MSBS_DirectorNoFailedDCAuthRequestsPerSecond	NA	This policy monitors the number of failed Data Collaboration authentication request per second.	Measurement Threshold
	MSBS_EdgeNoQueuedBytesForDCServerConnections	NA	This policy monitors the total number of queued bytes for Data Collaboration Server Connections.	Measurement Threshold
	MSBS_NumberofDataCollabClinetConnClosed	NA	This policy monitors the number of Data Collaboration client connections closed due to throttling per second.	Measurement Threshold
	MSBS_TotalNumberOfQueuedBytesForDCServerCon	NA	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			monitors the total number of queued bytes for Data Collaboration Server Connections.	
	MSBS_DirectorNoDCConnFailureWithServers	NA	This policy monitors the number of Data Collaboration connection failures with Data Collaboration servers.	Measurement Threshold
Edge Server , Director Server , Front End Server	MSBS_EdgeNofDCClientConnClosedDuetoThrottlingPerSec	NA	This policy monitors the number of Data Collaboration client connections closed due to throttling per second.	Measurement Threshold
	MSBS_DirectorNoQueuedBytesForDCServerConnections	NA	This policy monitors the total number of queued bytes for Data Collaboration Server Connections.	Measurement Threshold
	MSBS_DirNofDCClientConnClosedDuetoThrottlingPerS	NA	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	econd		monitors the number of Data Collaboration client connections closed due to throttling per second.	
	MSBS_DirectorSIPConnectionFailuresPerSecond	NA	This policy monitors the number of SIP connection failures per second.	Measurement Threshold
	MSBS_SIPConnectionFailures	NA	This policy monitors the number of SIP connection failures per second.	Measurement Threshold
	MSBS_EdgeNoDCCConnFailureWithServers	NA	This policy monitors the number of Data Collaboration connection failures with Data Collaboration servers.	Measurement Threshold

Skype Collaboration SIP Service

Monitors the Collaboration Session Initiation Protocol Service. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_CollaborationService_2010_Conf	NA	This policy contains scheduler for monitoring SIP service for Lync Server 2010.	ConfigFile
	MSBS_SIPConnectionFailures	NA	This policy monitors the number of Sip connection failures per second.	Measurement Threshold
	MSBS_CollaborationService_Conf	NA	This policy contains scheduler for monitoring SIP service for Lync Server 2010.	ConfigFile

Skype Credential Authentication

Monitors credentials issued authentications. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_CredentialsIssuedAuth	Credential_Authentication:Major, Credential_Authentication:Normal	This policy monitors the Credentials Issued by Lync or Skype Audio/Video Authentication Server.	Measurement Threshold
	MSBS_AuthenticCredential_2010_Conf	NA	This policy contains scheduler to monitor credential based authentication for Lync 2010.	ConfigFile
	MSBS_AuthenticCredential_Conf	NA	This policy contains scheduler to monitor credential based authentication for Lync 2013 and Skype for Business Server 2015.	ConfigFile
	MSBS_AuthCredentialsIssuedPS	NA	This policy monitors Credentials Issued per second by Skype Audio/Video Authentication Server	Measurement Threshold

Skype Data Collection

Monitors the data collection counters on the Skype Front End Server. This aspect logs collected data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Data_Collection_Conf	NA	This policy contains schedule for monitoring the data collection for Lync 2013 and Skype for Business Server 2015.	ConfigFile

Skype Database Performance

Monitors the database latency, blocked threads and SQL errors. This aspect logs data and creates events for alerting on these features.

CI Type	Policy Template	Indicator	Description	Policy Type
Archiving Server, Registrar Server, Front End Server	MSBS_BlockedClientThreads	NA	This policy monitors the average number of client threads that are blocked in the queue, waiting for the queue depth to decrease	Measurement Threshold
	MSBS_UsrvSprocLatency	NA	This policy monitors the processing time taken by the back end for one request.	Measurement Threshold
	MSBS_ArchServiceQueueLatency	NA	This policy monitors	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			the average time (in milliseconds) spent by a request in the database queue before it is processed	
	MSBS_RegistrarTotalsevereSQLerrors	NA	This policy monitors the number of severe SQL errors occurred since the server started.	Measurement Threshold
	MSBS_Database_Performance_2010_Conf	NA	This policy Monitors the Database related Performance metrics of Skype Business Server	ConfigFile
Archiving Server, Registrar Server, Front End Server	MSBS_RegistrarLegacyREGISTERSrejected	NA	This policy monitors the number of legacy registers that are rejected because of the publisher is in rich mode.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_Database_Performance_Conf	NA	This policy gives us the information about the Database related performance Metrics of the Front End Server	ConfigFile
	MSBS_RegistrarThrottledrequestsPersec	ThrottlingRate:VeryHigh, ThrottlingRate:Normal	This policy monitors the number of requests rejected in a second with a message to retry later because of the high database latency.	Measurement Threshold
	MSBS_RegDBSTQueueLatency	NA	This policy monitors the average wait time in database queue by registrar module	Measurement Threshold
	MSBS_RegistrarTotalthrottledrequests	NA	This policy monitors the number of requests rejected with a message to retry after some time	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			because of high database queue latency.	
Archiving Server, Registrar Server, Front End Server	MSBS_RegistrarEndpointsDisconnected	NA	This policy monitors the number of endpoints that are disconnected because of missed keep-alives.	Measurement Threshold
	MSBS_RegistrarRegistrationNotificationsSent	NA	This policy monitors the number of de-registered notifications that are sent to the contacts. These notifications are sent when the server decides that the contacts are invalid.	Measurement Threshold
	MSBS_RegistrarTotalDroppedRequests	NA	This policy monitors the number of requests dropped by the database	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			layer as they will time out.	
	MSBS_RegistrarTotalfatalSQLErrors	NA	This policy monitors the number of fatal SQL errors occurred since the server started.	Measurement Threshold
	MSBS_RegistrarTotalDeadlockFailures	NA	This policy monitors the number of deadlock failures occurred since the server was started.	Measurement Threshold
Archiving Server, Registrar Server, Front End Server	MSBS_RegistrarTotalDeadlocks	NA	This policy monitors the number of deadlocks occurred since the server was started.	Measurement Threshold
	MSBS_RegIndirectlyConndEndpointsDisc onntd	NA	This policy monitors the number of indirect endpoints that are disconnected because of error responses.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ArchServiceBlockedClientThreads	NA	This Policy monitors the average number of client threads that are blocked and waiting for the decrease in the queue depth	Measurement Threshold
	MSBS_RegistrarTotalODBCTimeoutFailures	NA	This policy monitors the number of ODBC timeout failures occurred since the server was started.	Measurement Threshold
	MSBS_RegistrarQueueDepth	QueueDepth:VeryHigh, QueueDepth:Normal	This policy monitors the average number of database requests to execute.	Measurement Threshold
	MSBS_UsrvQueueLatency	QueueLatency:VeryHigh, QueueLatency:Normal	This policy monitors the time period that a request takes in the back end queue.	Measurement Threshold

Skype Directory Search

Monitors the latency of directory search, number of requests for directory search and LDAP errors. This

aspect logs data and creates events for alerting on these features.

CI Type	Policy Template	Indicator	Description	Policy Type
Director Server, Front End Server	MSBS_DirectorySearchLatency	LDAPLatency:VeryHigh, LDAPLatency:Normal	This policy monitors the average LDAP search time in milliseconds.	Measurement Threshold
	MSBS_DirNumberOfLDAPErrorsPerSecond	NA	This policy monitors the per second rate at which this LDAP session in communications server's directory search component of the user services module associated with GC.	Measurement Threshold
	MSBS_Directory_Search_2010_Conf	NA	This policy contains scheduler for monitoring the directory search of Lync 2010.	ConfigFile
	MSBS_DirNumberOfoutstandingsearches	NA	Total number of outstanding searches on the LDAP session in the Directory Search component of the Communications Server, User Servers Module associated with	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			a GC.	

Skype DataProxy

Monitors the Edge Proxy Active Connection and Data Proxy server disconnections, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_WebEdgeDataProxySystemisthrottling	NA	The policy monitors the system wide throttling.	Measurement Threshold
	MSBS_Clientsdisconpersecdueinvalidcookietimstmp	NA	This policy monitors the number of clients rejected in a second because of invalid timestamps.	Measurement Threshold
	MSBS_DataPrxySvrconndisconduetothrotling	NA	This policy monitors the total number of server connections disconnected due to throttling.	Measurement Threshold
	MSBS_EdgeDataProxyServerConnActive	NA	This policy monitors current number of active connections to Web Conferencing Server.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_DataPrxyCurrcountofsvrconnthrottled	NA	This policy monitors the number of throttled server connections.	Measurement Threshold
Edge Server	MSBS_Clientsdisconpersecdueinvalidcookiedata	NA	This policy monitors the number of clients disconnected in a second because of invalid cookie data.	Measurement Threshold
	MSBS_Data_Proxy_2010_Conf	NA	This policy contains scheduler for monitoring the Edge Proxy on Lync Server 2010.	ConfigFile
	MSBS_Data_Proxy_Conf	NA	This policy contains scheduler for monitoring the Edge Proxy on Lync Server 2013 and Skype for Business 2015.	ConfigFile
	MSBS_EdgeDataProxySystemisthrottling	NA	This policy monitors if the system wide throttling is ON.	Measurement Threshold

Skype DNS Resolution

Monitors the Domain Name System Resolution, this aspect test the SIP DNS Connection.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_DNSResolution_Conf	NA	This policy contains the scheduler for monitoring DNS connection on Lync 2013 and Skype for Business Server 2015.	ConfigFile

Skype Edge Server Key Health

Monitors Edge Server for Inbound/Outbound streams failure. This aspect logs data and creates events for alerting on stream failure.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_Failedoutboundstreamestablishespersec	Failedoutboundstreamestablishespersec:Minor, Failedoutboundstreamestablishespersec:Normal	This policy monitors the per-second number of outbound stream establishment failures.	Measurement Threshold
	MSBS_Systemisthrottling	Server_Connections:Minor, Server_Connections:Normal	This policy monitors indicates that system wide throttling is ON.	Measurement Threshold
	MSBS_Failedinboundstreamestablishespersec	Streams:Minor, Streams:Normal	This policy monitors the per-	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			second number of inbound stream establishment failures.	
	MSBS_EDGESERVER_Conf	NA	This policy contains scheduler for monitoring of Edge Server health of Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Edge TLS

Monitors the TLS performance of Edge Server. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server	MSBS_Edge_TLS_2010_Conf	NA	This policy contains scheduler for monitoring the TLS performance Edge role of Lync 2010.	ConfigFile
	MSBS_APIEdgeTransPendingDispatchCompln	NA	The policy monitors the number of established TLS connections that are currently active. TLS	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Connection is considered established when peer certificate and, possibly, host name are verified for trust relationship.	

Skype External Request

Monitors the authentication for the external request. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Registrar Server, Front End Server	MSBS_IncomingMessagesNotAuthorizedPerSec	NA	This policy monitors per-second rate of incoming messages that could not be authorized.	Measurement Threshold
	MSBS_ExternalRequest_2010_Conf	NA	This policy contains scheduler for monitoring authentication of external request for Lync 2010.	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_IncomingMessagesNotAuthenticatedPerSec	NA	This policy monitors per-second rate of incoming messages that could not be authenticated	Measurement Threshold
Edge Server, Registrar Server, Front End Server	MSBS_BadRequestsReceivedPerSec	BadRequestsReceivedPerSec:Major, BadRequestsReceivedPerSec:Normal	This policy monitors the number of bad requests received per second	Measurement Threshold
	MSBS_AuthenticationSystemErrorsPerSec	NA	This policy monitors per-second rate of authentication failures caused by system errors	Measurement Threshold
	MSBS_ExternalRequest_Conf	NA	This policy contains scheduler for monitoring authentic	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			ation of external request for Lync 2013 and Skype for Business 2015.	

Skype FrontEnd Server Key Health

Monitors the health metrics of Skype Front End Server like Database Latencies, Throttled Requests, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge server, Front End Server	MSBS_ Numberofincomingfailureresponses	Emergency_Call_Routing:Major, Emergency_Call_Routing:Normal	This policy monitors number of times an Emergency Call failure response was received from Gateway.	Measurement Threshold
	MSBS_SHAREDDBStoreSprocLatency	SHAREDDBStoreSprocLatency:Major, SHAREDDBStoreSprocLatency:Normal	This policy monitors the average time it takes to	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			execute a sproc call against RTCS shared database.	
	MSBS_AverageIncomingMessageProcessingTime	Protocol:Major, Protocol:Normal	This policy monitors the average time (in seconds) it takes to process an incoming message	Measurement Threshold
Edge server, Front End Server	MSBS_SendsTimedOut	Peers:Minor, Peers:Normal	This policy monitors the total number of sends dropped because they stayed in the outgoing (send) queue for too long.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_RequestsRejected	ASP.NET_Apps:Major, ASP.NET_Apps:Normal	This policy monitors the number of requests rejected because the request queue was full.	Measurement Threshold
	MSBS_IncomingRequestsDropped	IncomingRequestsDropped: Major, IncomingRequestsDropped: Normal	This policy monitors the per-second rate of incoming requests dropped because they could not be processed (due to bad headers, insufficient routing information, server resources).	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			e allocation failure).	
Edge server, Front End Server	MSBS_REGDBSprocLatency	REGDBSprocLatency:Major, REGDBSprocLatency:Normal	This policy monitors the average time it takes to execute a sproc call against RTC database.	Measurement Threshold
	MSBS_NumoffailureofreplicationoperatsenttootherReplicaspersecond	Cluster_Manager:Minor, Cluster_Manager:Normal	This policy monitors the per-second rate of replication operation failures.	Measurement Threshold
	MSBS_HTTP5xxResponsespersec	UCWA:Minor, UCWA:Normal	This policy monitors the per second rate of responses with HTTP 5xx code.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge server, Front End Server	MSBS_SHAREDDatabaseQueueLatency	Shared_Database:Major, Shared_Database:Normal	This policy monitors the average time a request is held in the request queue to RTCS shared database.	Measurement Threshold
	MSBS_DatabaseThrottledrequests	DB_Store:Major, DB_Store:Normal	This policy monitors the number of requests that were rejected with a retry since the database queue latency was high.	Measurement Threshold
	MSBS_FRONTENDSERVER_Conf	NA	This policy maintains the monitoring Fronten	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			d Server Health	
Edge server, Front End Server	MSBS_CreateConferenceLatency	Conference_MCU_Allocator:Major, Conference_MCU_Allocator:Normal	This policy monitors the average time (in milliseconds) taken to complete a create conference call.	Measurement Threshold
	MSBS_Incompletecallspersec	Operations:Minor, Operations:Normal	This policy monitors the per second rate of incomplete calls to Conferencing Attendee. This includes calls disconnected by the user and by the system due to invalid conference id,	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			passcode, etc.	
Edge server, Front End Server	MSBS_ Failedvalidcertcallstocertauthprovider	Auth_Provider_related_calls:Minor, Auth_Provider_related_calls:Normal	This policy monitors the number of failed validate cert calls to the cert auth provider.	Measurement Threshold
	MSBS_ SHAREDDatabaseThrottledrequests	SHAREDDatabaseThrottledrequests:Major, SHAREDDatabaseThrottledrequests:Normal	This policy monitors the number of requests that were rejected with a retry since the database queue latency was high.	Measurement Threshold
	MSBS_FRONTENDSERVER_Conf_2010	NA	This policy maintains the monitoring	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			Frontend Server Health	
Edge server, Front End Server	MSBS_TimedoutActiveDirecRequests	Distribution_List_Expansion:Minor, Distribution_List_Expansion:Normal	This policy monitors the per-second rate of timed out Active Directory requests.	Measurement Threshold
	MSBS_IncomingResponsesDropped	IncomingResponsesDropped:Major, IncomingResponsesDropped:Normal	This policy monitors the per-second rate of incoming responses dropped because they could not be processed (due to bad headers, insufficient routing	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			information, server resource allocation failure).	
Edge server, Front End Server	MSBS_IncomingMessagesTimedout	Load_Management:Minor, Load_Management:Normal	This policy monitors the number of incoming messages currently being held by the server for processing for more than the maximum tracking interval.	Measurement Threshold
	MSBS_REGDBQueueLatency	REG_DBStore:Major, REG_DBStore:Normal	This policy monitors the average time a request is held in the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			request queue to RTC database.	
	MSBS_REGDBStoreThrottledrequests	REGDBStoreThrottledrequests:Major, REGDBStoreThrottledrequests:Normal	This policy monitors the number of requests that were rejected with a retry since the database queue latency was high.	Measurement Threshold
Edge server, Front End Server	MSBS_FailureIMDNssent	SIP_Instant_Messaging:Minor, SIP_Instant_Messaging:Normal	This policy monitors failure IMDNs sent/sec.	Measurement Threshold
	MSBS_AboveLimitConnectionsDropped	AboveLimitConnectionsDropped:Minor, AboveLimitConnectionsDropped:Normal	This policy monitors the total number of connecti	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			ons that were dropped because the limit on number of incoming connections from a federated partner or clearing house was exceeded.	

Skype General Server Key Health

Monitors features like Disk Read/Write, Memory, Packet Loss and Processor Information, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Lync Server	MSBS_ProcessorInformation	ProcessorInformation:Major, ProcessorInformation:Normal	This policy monitors CPU Utilization; this event indicates that an application is consuming	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			excessive processor resources	
	MSBS_AvgDisksecRead	Physical_Disk:Major, Physical_Disk:Normal	This policy monitors represents the average time of disk read latency.	Measurement Threshold
	MSBS_AvgDisksecWrite	AvgDisksecWrite:Major, AvgDisksecWrite:Normal	This policy monitors represents the average time of disk write latency.	Measurement Threshold
	MSBS_PacketsOutboundDiscarded	PacketsOutboundDiscarded:Major, PacketsOutboundDiscarded:Normal	This policy monitors packet loss indicator	Measurement Threshold
	MSBS_Memory	Memory:Major, Memory:Normal	This policy monitors displays the bytes of physical memory available to processes running on the computer.	Measurement Threshold
Lync Server	MSBS_OutputQueueLength	Network_Interface:Major, Network_Interface:Normal	This policy monitors indicator of how	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			busy a network interface is.	
	MSBS_PacketsReceivedDiscarded	PacketsReceivedDiscarded:Major, PacketsReceivedDiscarded:Normal	This policy monitors packet loss indicator	Measurement Threshold
	MSBS_GENERALSERVERHEALTH_Conf	NA	This policy maintains the monitoring Server Health on all Servers - Processor, Disk, Memory and Network	ConfigFile
	MSBS_GENERALSERVERHEALTH_Conf_2010	NA	This policy maintains the monitoring Server Health on all Servers - Processor, Disk, Memory and Network	ConfigFile

Skype High Availability

Monitors SIP load management details. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_SIPLoadMgmtAvgHoldTimeForInMessages	RequestProcessingLatency:VeryHigh, RequestProcessingLatency:Normal	This policy monitors the average processing time taken by the server for one request.	Measurement Threshold
	MSBS_High_Availability_2010_Conf	NA	This policy contains scheduler for monitoring the high availability of Lync 2010.	ConfigFile

Skype Host Integration

Monitors the host integration migration failures. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ADReadWriteFailures	NA	This policy monitors Hosted User Migration Service AD Sync failures.	Measurement Threshold
	MSBS_HostedMigrationUnexpectedFailures	NA	This policy monitors Hosted User Migration Service unhandled exception failures.	Measurement Threshold
	MSBS_COMMMethodFailures	NA	This policy monitors	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			Hosted User Migration Service Front End DCOM connection failures.	Threshold
	MSBS_Host_Integration_Conf	NA	This policy contains scheduler for monitoring the Host Integration features of Lync 2013 and Skype Business Server 2015.	ConfigFile

Skype IM Performance

Monitors the Instant Messaging Queue Details, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Persistent Chat Server	MSBS_ChatMessagesInUCMAQueue	NA	This policy monitors the pending outbound messages to the clients.	Measurement Threshold
	MSBS_TotalMessagesWaitingtoBeSenttoPeers	NA	This policy monitors the total number of messages waiting to be sent to peers.	Measurement Threshold
	MSBS_Persistent_Chat_Conf	NA	This policy contains schedulers for monitoring the IM performance of Lync 2013 and Skype Business Server 2015.	ConfigFile
	MSBS_ChatInboundQueueSize	NA	This policy monitors the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			current size of the inbound message processing queue.	
	MSBS_ChatLastMessageWaitTime	NA	This policy monitors the wait time in milliseconds for the last XCCOS message processed.	Measurement Threshold

Skype Join Failure Performance

Monitors the conference join failure performance. This aspect logs data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_JoinFailurePerform_Conf	NA	This policy contains scheduler for monitoring performance of call join failures of Lync 2013 and Skype for Business 2015.	ConfigFile

Skype LGS Performance

Monitors the LGS response and logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_LGS_Response_Conf	NA	This policy contains scheduler for monitoring LGS response of Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Logical Disk

Monitors the Logical Disk details like Free Disk Space, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Mediation Server ,	MSBS_Logical_Disk_Conf	NA	This policy contains scheduler for monitoring the logical disk feature of Lync 2013 and Skype Business Server 2015.	ConfigFile
Front End Server , Persistent Chat Server	MSBS_PercentageFreeSpace	NA	This policy monitors % Free Space of total usable space on the selected logical disk drive that was free.	Measurement Threshold

Skype MCU Health Performance

Monitors the Multi-point Conferencing Unit health performance. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_MCUHealthStateAva	MCU_Health_Performance:Warning, MCU_Health_Performance:Normal	This policy monitors current health of the MCU. 0 = Normal. 1 = Loaded. 2 = Full. 3 = Unavailable	Measurement Threshold
	MSBS_MCUHealthPerform_2010_Conf	NA	This policy contains scheduler for monitoring the MCU health of Lync 2010.	ConfigFile
	MSBS_MCUHealthPerform_Conf	NA	This policy contains scheduler for monitoring the MCU health of Lync 2013 and Skype for Business 2015.	ConfigFile

Skype MCU Health State

Monitors the Multipoint Conferencing Unit Health State, this aspect test metric for Data MCU Health,

Instant Messaging MCU Conference and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_MCUHealthState_Conf	NA	This policy contains scheduler for monitoring MCU health state of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_MCUHealthState_2010_Conf	NA	This policy contains scheduler for monitoring MCU health state of Lync 2010.	ConfigFile

Skype MCU Performance

Monitors the multipoint control unit (MCU) for the Skype for Business Server used to bridge video conferencing connections. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Conference_MCU_Conf	NA	This policy contains scheduler for monitoring the data of the MCU(multipoint control unit) for Lync 2013 and Skype Business Server 2015.	ConfigFile

Skype MCU Request Responses

Monitors the responses of Multipoint Conferencing Unit request. This aspect logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_MCUReqResponses_Conf	NA	This policy contains scheduler for monitoring response of MCU request for Lync 2013 and Skype for Business Server 2015.	ConfigFile
	MSBS_MCUReqResponses_2010_Conf	NA	This policy contains scheduler for monitoring response of MCU request for Lync 2010.	ConfigFile

Skype Media Performance

Monitors the media performance and logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server	MSBS_MediaPerform_Conf	NA	This policy contains scheduler for monitoring the media performance of Lync 2013 and Skype for Business Server 2015.	ConfigFile
	MSBS_MediaPerform_2010_Conf	NA	This policy contains scheduler for monitoring the media performance of Lync 2010.	ConfigFile

Skype Media

Monitors media related counters such as Media Delayed Processing. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_MEDIADelayedProcessing	NA	This policy monitors number of occasions conference processing is delayed.	Measurement Threshold
	MSBS_Media_Conf	NA	This policy contains scheduler for monitoring the media related counters of Lync 2013 and Skype Business Server 2015.	ConfigFile

Skype Mediation Server Key Health

Monitors the health of the Skype Mediation Server, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server	MSBS_CandidatesMissing	Media_Relay:Minor, Media_Relay:Normal	This policy monitors the number of times Media stack does not have Media relay candidates.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_MEDIATIONSERVER_Conf	NA	This policy contains scheduler for monitoring of Mediation Server health of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_MEDIATIONSERVER_Conf_2010	NA	This policy contains scheduler for monitoring of Mediation Server health of Lync 2010.	ConfigFile

Skype MRAS Requests

Monitors the media relay authentication service requests and logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_MRASRequests_Conf	NA	This policy contains scheduler for monitoring the MRAS request of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_MRASRequests_2010_Conf	NA	This policy contains scheduler for monitoring the MRAS request of Lync 2010.	ConfigFile

Skype Park Requests

Monitors the Call Park Requests and logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ParkRequests_2010_Conf	NA	This policy contains scheduler for monitoring call park request of Lync 2010.	ConfigFile
	MSBS_ParkRequests_Conf	NA	This policy contains scheduler for monitoring call park request of Lync 2013 and Skype for Business Server 2015.	ConfigFile

Skype Provisioning Performance

Monitors the failed publish calls, various failures and latency. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_FailedPublishCalls	NA	This policy monitors the failed to publish objects status to MSODS.	Measurement Threshold
	MSBS_TenantProvisionFailures	NA	This policy monitors the number of tenant provision failures.	Measurement Threshold
	MSBS_SaveLatency	NA	This policy monitors the latency of saving objects in AD.	Measurement Threshold
	MSBS_ContactProvisionFailures	NA	This policy monitors the number of provision contact failures.	Measurement Threshold
	MSBS_CookiePersistenceFailures	NA	This policy monitors the number of cookie persistence failures.	Measurement Threshold
	MSBS_ContactProvisionLatency	NA	This policy monitors the latency of provision contact.	Measurement Threshold
Front End Server	MSBS_UserProvisionLatency	NA	This policy monitors the latency of provision User.	Measurement Threshold
	MSBS_DCReplicaLatency	NA	This policy monitors the latency of AD replication.	Measurement Threshold
	MSBS_SyncToADFailures	NA	This policy monitors the number of failure to apply the synced changes to AD.	Measurement Threshold
	MSBS_UserProvisionFailures	NA	This policy monitors the number of user provision failures.	Measurement Threshold
	MSBS_TenantProvisionLatency	NA	This policy monitors the latency of provision tenant.	Measurement Threshold
	MSBS_Provisioning_Performance_Conf	NA	This policy contains scheduler for monitoring the performance of Lync 2013 and Skype Business Server 2015 provisioning.	ConfigFile
	MSBS_	NA	This policy monitors the latency	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
	PICWebServiceLatency		of calling PIC web service.	Threshold
Front End Server	MSBS_GetChangesLatency	NA	This policy monitors the latency of calling MSDOS Web Service.	Measurement Threshold
	MSBS_PublishLatency	NA	This policy monitors the latency of calling Publishing to MSODS.	Measurement Threshold

Skype Queue Performance

Monitors the queue performance, logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server, Edge Server	MSBS_QueuePerform_Conf	NA	This policy contains scheduler for monitoring queue performance of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_Local500Responses	NA	This policy monitors the total number of 500 responses generated by the server.	Measurement Threshold
	MSBS_SentBytesPerSec	NA	This policy monitors Bytes sent per second by the server.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_NonBlockingSends	NA	This policy monitors Non-Blocking messages sent.	Measurement Threshold
	MSBS_MessagesInServer	NA	This policy monitors the number of messages currently being processed by the server.	Measurement Threshold
	MSBS_AverageOutgoingQueueDelay	Queue_Performance:Major, Queue_Performance:Normal	This policy monitors the average outgoing queue Delay.	Measurement Threshold
Front End Server, Edge Server	MSBS_ReceivedBytesPerSec	NA	This policy monitors the number of bytes received per second by the server.	Measurement Threshold
	MSBS_NonBlockingSendsPerSec	NA	This policy monitors Non Blocking messages sent per second.	Measurement Threshold
	MSBS_BackXDsDBStorQUDepth	NA	This policy monitors the average number of database	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			requests waiting to be executed for backup Db Store.	
	MSBS_QueuePerform_2010_Conf	NA	This policy contains scheduler for monitoring queue performance of Lync 2010.	ConfigFile
	MSBS_ReceivedBytes	NA	This policy monitors the number of bytes received by the server.	Measurement Threshold
	MSBS_SendsOutstanding	NA	This policy monitors the number of messages that are currently present in the outgoing (send) queues.	Measurement Threshold
	MSBS_SentBytes	NA	This policy monitors the Sent Bytes by the Server.	Measurement Threshold
	MSBS_FlowControlledConnectionsDropped	NA	This policy monitors the total number of connections	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server, Edge Server			dropped because of excessive flow-control.	
	MSBS_FlowControlledConnections	NA	This policy monitors the number of connections that are currently being flow-controlled (no socket receives are posted).	Measurement Threshold

Skype RTC Performance

Monitors the RTC database performance and logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_RTCPerform_Conf	NA	This policy contains scheduler for monitoring the RTC database performance for Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Server Health

Monitors the Audio/Video HTTP Stack Load and other Server health metrics. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server, AV Conferenci	MSBS_AvConfHTTPStackload	NA	This policy monitors the time taken in	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
ing Server, Front End Server			HTTP stack to process all pending transactions. It is measured in milliseconds.	
	MSBS_Health_2010_Conf	NA	This policy contains scheduler for monitoring the health related metrics on Lync 2010.	ConfigFile
	MSBS_Server_Health_Conf	NA	This policy contains scheduler for monitoring the health related metrics on Lync 2013 and Skype Business Server 2015.	ConfigFile
Mediation Server, AV Conferencing Server, Front End Server	MSBS_MCUHealthState	NA	This policy monitors DATAMCU's current health. The value of 0 signifies normal , 1 signifies loaded , 2	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			signifies full and 3 signifies unavailable of MCU	
	MSBS_AvConfMCUHealthState	AVConferencingHealth:Overloaded, AVConferencingHealth:Normal, AVConferencingHealth:Loaded	Current Health of AVMCU is monitored by this policy. A value 0 signifies normal, 1 signifies loaded, 2 signifies full and 3 signifies unavailable of MCU	Measurement Threshold
	MSBS_MedLoadCallFailureIndex	MediationServerHealth:Overloaded, MediationServerHealth:Normal	This policy monitors the index of call failures due to heavy load, The index is scaled between 0 to 100	Measurement Threshold

Skype Server Performance

Monitors the Mediation Server processor time and memory details. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Archiving Server, Mediation Server ,	MSBS_FERTCDATAMCUPercentprocessorTime	NA	This policy monitors the percentage of processor time counter available in the Web Conferencing service.	Measurement Threshold
AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_MonitoringRtcCdrPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Lync Server Call Detail Recording service.	Measurement Threshold
	MSBS_FERTCASMCPPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Lync Server Application Sharing service.	Measurement Threshold
	MSBS_EdgeMRASSvcThreadCount	NA	This policy monitors the Thread Count counter available in the Audio/Video Authentication service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_MedMediationServerSvcPercentprocessor Time	NA	This policy monitors the % Processor Time counter available in the Mediation service.	Measurement Threshold
	MSBS_FERTCASMPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Lync Server Application Sharing service.	Measurement Threshold
	MSBS_FEMRPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Lync Server Master Replicator Agent service.	Measurement Threshold
	MSBS_FEFTAPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Lync Server File Transfer Agent service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_FERTCIMMCUThreadCount	NA	This policy monitors the Thread Count counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_FERTCIMMCUPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_AvConfAVMCUSvcProcessorTime	NA	This policy monitors the % Processor Time counter available in the Audio/Video Conferencing service.	Measurement Threshold
	MSBS_FERTCDATAMCUPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_FERTCASMCPPercentprocessorTime	NA	This policy monitors the % Processor Time counter available	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Lync Server Application Sharing service.	
Edge Server, Director Server, Archiving Server, Mediation Server ,	MSBS_MonitoringRtcCdrWorkingSet	NA	This policy monitors the Working Set Counter available in the Lync Server Call Detail Recording service.	Measurement Threshold
AV Conferencing Server, Monitoring Server, Front End Server,	MSBS_FERTCIMMCUPercentprocessorTime	NA	This policy monitors the % Processor Time counter available in the Web Conferencing service.	Measurement Threshold
Archiving Server	MSBS_MonitoringRtcCdrProcessorTime	NA	This policy monitors the % Processor Time counter available in Lync Server Call Detail Recording service.	Measurement Threshold
	MSBS_EdgeMediaRelaySvcPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Audio/Video Edge service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Archiving Server, Mediation Server ,	MSBS_FERTCASMThreadCount	NA	This policy monitors the Thread Count counter available in Lync Server Application Sharing service.	Measurement Threshold
AV Conferencing Server, Monitoring Server, Front End Server,	MSBS_RTCSRVThreadCount	NA	This policy monitors the Thread Count counter available in the Front End service.	Measurement Threshold
Archiving Server	MSBS_EdgeDataProxyPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Web Conferencing Edge service.	Measurement Threshold
	MSBS_MonitoringQmsSvcThreadCount	NA	This policy monitors the Thread Count counter available in the QoE Monitoring service.	Measurement Threshold
Edge Server, Director Server,	MSBS_RTCSRVPrivateBytes	NA	This policy monitors the Private Bytes	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Archiving Server, Mediation Server ,			counter available in the Front End service.	
AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_EdgeMediaRelaySvcPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Audio/Video Edge service.	Measurement Threshold
	MSBS_EdgeMRASSvcWorkingSet	NA	This policy monitors the Working Set counter available in the Audio/Video Authentication service.	Measurement Threshold
	MSBS_FEMeetingMCUThreadCount	NA	The thread count of web conference compatibility process is monitored by this policy	Measurement Threshold
	MSBS_MedMediationServerSvcPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Mediation service.	Measurement Threshold
Edge Server,	MSBS_FEMRAThreadCount	NA	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Director Server, Archiving Server, Mediation Server , AV Conferencing Server,			monitors the Thread Count counter available in the Lync Server Master Replicator Agent service.	
Monitoring Server, Front End Server, Archiving Server	MSBS_FERTCDATAMCUPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_AvConfAVMCUSvcWorkingSet	NA	This policy monitors the Working Set counter available in the Audio/Video Conferencing service.	Measurement Threshold
	MSBS_MedMediationServerSvcThreadCount	NA	This policy monitors the Thread Count counter available in the Mediation service.	Measurement Threshold
	MSBS_EdgeMediaRelaySvcWorkingSet	NA	This policy monitors the Working Set	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			counter available in the Audio/Video Edge service.	
Edge Server, Director Server, Archiving Server, Mediation Server ,	MSBS_AvConfAVMCUSvcPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Audio/Video Conferencing service.	Measurement Threshold
AV Conferencing Server, Monitoring Server, Front End Server,	MSBS_FERTCDATAMCUWorkingSet	NA	This policy monitors the Working Set counter available in the Web Conferencing service.	Measurement Threshold
Archiving Server	MSBS_EdgeMediaRelaySvcProcessorTime	NA	This policy monitors the % Processor Time counter available in the Audio/Video Edge service.	Measurement Threshold
	MSBS_AvConfAVMCUSvcPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Audio/Video	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Conferencing Service.	
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_ArchivingRTCArchProcessorTime	NA	This policy monitors the % Processor Time counter available in the Archiving and CDR service.	Measurement Threshold
	MSBS_MonitoringQmsSvcPrivateBytes	NA	This policy monitors the Private Bytes counter available in the QoE Monitoring service.	Measurement Threshold
	MSBS_FEFTAThreadCount	NA	This policy monitors the Thread Count counter available in the Lync Server File Transfer Agent service.	Measurement Threshold
	MSBS_ArchivingRTCArchWorkingSet	NA	This policy monitors the Working Set counter available in the Archiving and CDR service.	Measurement Threshold
Edge Server,	MSBS_FERTCDATAMCUThreadCount	NA	This policy monitors the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Director Server, Archiving Server, Mediation Server ,			Thread Count counter available in the Web Conferencing service.	
AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_FEMRAPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Lync Server Master Replicator Agent service.	Measurement Threshold
	MSBS_REPLICAThreadCount	NA	This policy monitors the Thread Count counter available Lync Server Replica Replicator Agent service	Measurement Threshold
	MSBS_Performance_2010_Conf	NA	This policy contains scheduler for monitoring the performance of Lync 2010 processing.	ConfigFile
	MSBS_ArchivingRTCArchPrivateBytes	NA	This policy monitors the Private	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Bytes counter available in the Archiving and CDR service.	
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server,	MSBS_MedMediationServerSvcWorkingSet	NA	This policy monitors the Working Set counter available in the Mediation service.	Measurement Threshold
Front End Server, Archiving Server	MSBS_FEMeetingMCUPrivateBytes	NA	Private bytes of Web conference compatibility process is monitored by this policy	Measurement Threshold
Front End Server, Archiving Server	MSBS_MonitoringRtcCdrThreadCount	NA	This policy monitors the Thread Count counter available Lync Server Call Detail Recording service.	Measurement Threshold
	MSBS_EdgeDataProxyWorkingSet	NA	This policy monitors the Working Set counter available in the Web Conferencing Edge service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_AvConfAVMCUSvcThreadCount	NA	This policy monitors the Thread Count counter available in the Audio/Video Conferencing service.	Measurement Threshold
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_Performance_Conf	NA	This policy contains scheduler for monitoring the performance of Lync 2013 and Skype Business Server 2015 processing.	ConfigFile
	MSBS_MedMediationServerSvcPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Mediation service.	Measurement Threshold
	MSBS_FERTCASM CUWorkingSet	NA	This policy monitors the Working Set counter available in the Application Sharing service.	Measurement Threshold
	MSBS_FEMRAPercentprocessorTime	NA	This policy monitors the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			% Processor Time counter available in the Lync Server Master Replicator Agent service.	
	MSBS_ArchivingRTCArchPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Archiving and CDR service.	Measurement Threshold
Edge Server, Director Server, Archiving Server,	MSBS_RTCSRVPPercentprocessorTime	NA	This policy monitors the % Processor Time counter available in the Front End service.	Measurement Threshold
Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server,	MSBS_EdgeMRASSvcIPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available in the Audio/Video Authentication service.	Measurement Threshold
Archiving Server	MSBS_MonitoringRtcCdrPageFaultsPersec	NA	This policy monitors the Page Faults/sec counter available	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Lync Server Call Detail Recording service.	
	MSBS_EdgeMRASSvcPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Audio/Video Authentication service.	Measurement Threshold
	MSBS_REPLICAPrivateBytes	NA	This policy monitors the Private Bytes counter available in the Lync Server Replica Replicator Agent service.	Measurement Threshold
Edge Server, Director Server, Archiving Server, Mediation Server , AV Conferencing Server, Monitoring Server,	MSBS_ArchivingRTCArchThreadCount	NA	This policy monitors the Thread Count counter available in the Archiving and CDR service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server, Archiving Server	MSBS_FERTCIMMCUPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_MonitoringQmsSvcPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the QoE Monitoring service.	Measurement Threshold
	MSBS_RTCSRVPPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Front End service.	Measurement Threshold
	MSBS_EdgeMRASSvcProcessorTime	NA	This policy monitors the % Processor Time counter available in the Audio/Video Authentication service.	Measurement Threshold
Edge Server, Director Server,	MSBS_FEMeetingMCUPercentProcessorTime	NA	% processor time of web conference compatibility process is	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Archiving Server,			monitored by this policy	
Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_SystemPercentProcessorTime	NA	This policy monitors Percentage Processor Time is the percentage of elapsed time that all of process threads used the processor to execution instructions.	Measurement Threshold
	MSBS_FERTCIMMCUWorkingSet	NA	This policy monitors the Working Set counter available in the Web Conferencing service.	Measurement Threshold
	MSBS_REPLICAPercentprocessorTime	NA	This policy monitors the % Processor Time counter available in the Lync Server Replica Replicator Agent service.	Measurement Threshold
Edge Server, Director Server, Archiving	MSBS_EdgeDataProxyPrivateBytes	NA	This policy monitors the Private Bytes counter available in	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Server, Mediation Server ,			the Web Conferencing Edge service.	
AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_MonitoringQmsSvcWorkingSet	NA	This policy monitors the Working Set Counter available in the QoE Monitoring service.	Measurement Threshold
	MSBS_FEFTAPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Lync Server File Transfer Agent service.	Measurement Threshold
	MSBS_EdgeDataProxyThreadCount	NA	This policy monitors the Thread Count counter available in the Web Conferencing Edge service.	Measurement Threshold
Edge Server, Director Server, Archiving Server,	MSBS_REPLICAPageFaultsPerSec	NA	This policy monitors the Page Faults/sec counter available in the Lync Server	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server , AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server			Replica Replicator Agent service.	
	MSBS_FEFTAWorkingSet	NA	This policy monitors the Working Set counter available in the Lync Server File Transfer Agent service.	Measurement Threshold
	MSBS_FEMRAWorkingSet	NA	This policy monitors the Working Set counter available in the Lync Server Master Replicator Agent service.	Measurement Threshold
	MSBS_FEMeetingMCUWorkingSet	NA	This policy monitors the working set bytes of web conference compatibility process.	Measurement Threshold
	MSBS_EdgeMediaRelaySvcThreadCount	NA	This policy monitors the thread count counter available in the Audio/Video Edge service.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Archiving Server, Mediation Server ,	MSBS_EdgeDataProxyProcessorTime	NA	This policy monitors the percentage of Processor Time counter available in the Web Conferencing Edge service.	Measurement Threshold
AV Conferencing Server, Monitoring Server, Front End Server, Archiving Server	MSBS_REPLICAWorkingSet	NA	This policy monitors the Working Set Counter available in the Lync Server Replica Replicator Agent service.	Measurement Threshold
	MSBS_RTCSRVWorkingSet	NA	This policy monitors the Working Set counter available in the Front End service.	Measurement Threshold
	MSBS_FEMeetingMCUPageFaultsPersec	NA	The Page Faults / sec of Web Conference compatibility process is monitored by this policy	Measurement Threshold
	MSBS_MonitoringQmsSvcProcessorTime	NA	This policy monitors the % Processor Time counter available in	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			the QoE Monitoring service.	

Skype Server Windows Event

Monitors Windows Events generated on Lync Server from various sources. Events are generated for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Lync Server	MSBS_ServerEventsLyncLog	NA	Forwards all application errors for event sources of Skype Servers.	Windows Event Log
	MSBS_LyncServerEvents	NA	Forwards all application errors for event sources of Lync Servers.	Windows Event Log
	MSBS_SkypeServerEvents	NA	Forwards all application errors for event sources of Skype Servers.	Windows Event Log

Skype SIP Performance

Monitors the drop rate of SIP incoming responses and messages on Edge SIP. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Front End Server	MSBS_SIPIncomingResponsesDropdpersec	NA	This policy monitors the rate at which the incoming responses are dropped per	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			second as they could not be processed.	
	MSBS_EdgeSIPIncomingMessagesTimedOut	NA	This policy monitors the number of incoming messages currently being held by the server for processing for more than the maximum tracking interval.	Measurement Threshold
	MSBS_EdgeSIPMessagesDroppedDueToInternalError	NA	The number of messages dropped due to an internal server error.	Measurement Threshold
	MSBS_EdgeSIPPeersSendsOutstandingLogging	NA	This policy monitors the average time (in seconds) the messages delayed in outgoing	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			(send) queues.	
Edge Server, Front End Server	MSBS_EdgeTransactionsTimedOutPersec	NA	The total number of Transactions Timed Out	Measurement Threshold
	MSBS_EdgeSIPLoadMgmtAvgHoldTimeForInMsgLogging	NA	This policy monitors the average time that the server held the incoming messages currently being processed.	Measurement Threshold
	MSBS_PeersFlowcontrolIdConns	NA	The policy monitors the number of connections that are currently being flow-controlled (no socket receives are posted).	Measurement Threshold
	MSBS_SIPAvgIncomMsgeProcessingTime	SIPLoad:VeryHigh, SIPLoad:Normal	This policy monitors the average	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			processing time of an incoming message in seconds.	
Edge Server, Front End Server	MSBS_ExMsgsDrpdDueToUnresolvedDom	NA	Rate at which the number of messages is dropped at the external edge, as DNS SRV failed to resolve the domain.	Measurement Threshold
	MSBS_SIPMessagesInServer	NA	The policy monitors the number of messages currently being processed by the server.	Measurement Threshold
	MSBS_EdgeSIPMessageDroppedDueToUnknownDomain	NA	This policy monitors the per-second rate of messages that could not be routed	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			because the message domain is not configured and does not appear to belong to a federated partner.	
	MSBS_EdgeSIPAddressspaceusage	NA	The policy monitors the percentage of available address space currently in use by the server process.	Measurement Threshold
Edge Server, Front End Server	MSBS_SIPLocal503ResponsePerSec	NA	This policy monitors the number of 503 responses received in a second. Code 503 means that the server is unavailable.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_EdgeConnsRefusedDueToServerOverload	NA	This policy monitors the total number of the connections that were refused with Service Unavailable response because the server was overloaded.	Measurement Threshold
	MSBS_SIPMsgsPersecDropdDueToCertiMismatch	NA	This policy monitors the rate at which the messages are dropped per second as they did not have an FQDN that matched the remote peer's certificate.	Measurement Threshold
	MSBS_MsgsDropdDueToOtherRoutingFail	NA	The total number of	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			<p>messages dropped due to a routing failure that is not covered by any of the other counters. For further information, enable DIAGNOSTIC tracing in the administrator log and examine the text and result code of each event.</p>	
Edge Server, Front End Server	MSBS_SIP_Performance_Conf	NA	This policy maintains the information about SIP related metrics for the Skype Business Server	ConfigFile
	MSBS_PeersAboveLimitConnsDropd	DOSAttack:Attacked, DOSAttack:Normal	The policy monitors the total number of	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			connections that were dropped because the limit on number of incoming connections from a federated partner or clearing house was exceeded.	
	MSBS_PeersFlowcontrldConnsDropd	NA	The policy monitors the total number of connections dropped because of excessive flow-control.	Measurement Threshold
	MSBS_IncomngMesgsAbovOvrloadWatermark	NA	This policy monitors the number of incoming messages which are currently held by the server for	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			processing for more than the overload watermark time threshold.	
Edge Server, Front End Server	MSBS_EdgeSipEpsCoreManagerQueueLength	NA	Current Queue Length of events indicated by core manager thread	Measurement Threshold
	MSBS_EdgeSipEpsNumberOfDNSResolutionFailures	NA	The total number of DNS resolution failures	Measurement Threshold
	MSBS_ExMsgsDrpdDueToIncompatibleMsgDom	NA	Rate at which the messages are dropped per second at the external edge, as the previous messages are not compatible with the federation type of domain.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_EdgeConnectionsFailedToEstablishPerSec	NA	The per-second rate of the connections dropped because the peer failed to exchange valid data with the server within establishing timeout.	Measurement Threshold
	MSBS_SIPIncomingReqsDropdpersec	NA	This policy monitors the rate at which the incoming requests are dropped, as they could not be processed due to bad headers, insufficient routing information, and severe resource allocation failure.	Measurement Threshold
	MSBS_SIP_Performance_2010_Conf	NA	This	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			Policy monitors the SIP Performance of Skype Business Server	
Edge Server, Front End Server	MSBS_ExMsgsDrpdDueToBlkdDom	NA	Number of messages which are dropped at the external edge as their domain is in the blocked list, in one second.	Measurement Threshold
	MSBS_SIPAvgIncomMsgeProcessingTimeLogging	NA	This policy monitors the average time (in seconds) it takes to process an incoming message.	Measurement Threshold
	MSBS_SIPPeersSendsOutstanding	OutboundTasksQueued: VeryHigh, OutboundTasksQueued: Normal	This policy monitors the number of outbound requests and	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			responses queued.	
	MSBS_EdgeSIPPeersSendsTimed-Out	NA	The policy monitors the total number of sends dropped because they stayed in the outgoing (send) queue for too long.	Measurement Threshold
Edge Server, Front End Server	MSBS_SIPLocal504ResponsePerSec	NA	This policy monitors the number of 504 responses received in a second. Code 504 implies that there are problems connecting to other servers.	Measurement Threshold
	MSBS_ExMsgsDrpdDueToBlkdIMSvcProviderDom	NA	Rate of messages dropped at the external edge, in a	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			second, because of DNS SRV resolving the domain to a server blocked in the IM Service Providers table.	
	MSBS_RejectdExEdgeClientConnsPerSec	NA	This policy monitors the rate at which the number of client connections is rejected, in a second, at the external edge as the remote user access is disabled.	Measurement Threshold
	MSBS_RejectdExEdgeServerConnsPerSec	NA	This policy monitors the rate of server connections rejected at the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			external edge in a second because all federation is disabled	

Skype SQL Server Key Health

Monitors the page life expectancy of SQL Server. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_LynclocalPagelifeexpectancy	MSSQL:Major, MSSQL:Normal	This policy monitors how many seconds SQL Server expects a data page to stay in cache.	Measurement Threshold
	MSBS_RtclocalPagelifeexpectancy	MSSQL:Major, MSSQL:Normal	This policy monitors how many seconds SQL Server expects a data page to stay in cache.	Measurement Threshold
	MSBS_SQLSERVER_Conf	NA	This policy contains scheduler for monitoring the SQL Server health on Back-end and Front-end Servers of Lync 2013 and Skype for Business 2015.	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_SQLSERVER_Conf_2010	NA	This policy contains scheduler for monitoring the SQL Server health on Back-end and Front-end Servers of Lync 2010.	ConfigFile

Skype Storage Service Perf

Monitors the performance of Storage service. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Storage_Service_Perf_Conf	NA	This policy contains scheduler for monitoring the Storage Service Performance of Lync 2013 and Skype Business Server 2015.	ConfigFile
	MSBS_LYSSCurrentNumberofStorageServiceStaleQueueItems	NA	This policy monitors Current number of Storage Service queue items which are not owned and last attempted a	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			long time ago.	
	MSBS_LYSSTotalNumberOfFailedGetItemListCalls	NA	This policy monitors the total number of failed Get Item List calls while processing ucs contact notifications.	Measurement Threshold
	MSBS_LYSSTotalNoOfStorageAdptAsyncTskStopOprFailure	NA	This policy monitors Total number of storage adaptor asynchronous task stop operation failures.	Measurement Threshold
	MSBS_LYSSTotalNumberOfNotificationFailure	NA	This policy monitors the total number of notification requests failed to be executed by Storage Service.	Measurement Threshold
	MSBS_LYSSTotalNoOfEWSSubscriptionsFailed	NA	This policy monitors Total number of EWS Subscriptions failed	Measurement Threshold
	MSBS_LYSSTotalNumberOfDatabaseOprFailures	NA	This policy	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			monitors Total number of times that LYSS database operations failed to execute	Threshold
Front End Server	MSBS_LYSSTotalNumberOfDeleteBlobOprFailed	NA	This policy monitors the total number of delete blob operations failed to be executed by Storage Service.	Measurement Threshold
	MSBS_LYSSTotalNumberOfQueueMessagesFailure	NA	This policy monitors the total number of queue messages requests failed to be executed by Storage Service.	Measurement Threshold
	MSBS_LYSSTotNoOfStorageAdptorAsyncTskStopUnhand Except	NA	This policy monitors Total number of storage adaptor asynchronous task unhandled exceptions.	Measurement Threshold
	MSBS_LYSSTotalNumberOfFailedStoredProcedureTimeout	NA	This policy monitors	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
	s		Total number of failed stored procedure time outs.	Threshold
	MSBS_LYSSTotNumofStorageServiceEWSAutoDiscoveryErrors	NA	This policy monitors the value of total number of Storage Service EWS Auto discovery errors	Measurement Threshold
	MSBS_LYSSTotalNumberOfPUTBlobOprFailed	NA	This policy monitors the total number of put blob operations failed to be executed by Storage Service.	Measurement Threshold
Front End Server	MSBS_LYSSTotNumofStgServiceFabricServiceUnhandException	NA	This policy monitors Total number of Storage Service Fabric Service unhandled exceptions.	Measurement Threshold
	MSBS_LYSSTotNoofStorageServiceOAuthSTSRequestFailure	NA	This policy monitors Total number of Storage Service OAuth STS request	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			failures	

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_LYSSTotalNumberOfGetBlobOprFailed	NA	This policy monitors the total number of get blob operations failed to be executed by Storage Service.	Measurement Threshold
	MSBS_LYSSTotalNumberOfExecuteCommandFailure	NA	This policy monitors the total number of execute command requests failed to be executed by Storage Service.	Measurement Threshold
	MSBS_LYSSTotNumofStorageAdaptReportedinUnhealthState	NA	This policy monitors Total number of storage adaptors reported in unhealthy state	Measurement Threshold
	MSBS_LYSSTotalNumberOfStorageServiceOAuthFailures	NA	This policy monitors Total number of Storage Service OAuth authentication failures.	Measurement Threshold
	MSBS_LYSSTotalNumberOfUnexpectedExceptions	NA	This policy monitors total number of	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			unexpected exceptions from sources such as storage adaptors, custom commands and controller.	

Skype Subscribed User

Monitors the Subscribed User, this aspect logs collected metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
frontendserver	MSBS_SubscribedUser_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile

Skype Video Integration Server Key Health

Monitors the health of the Skype Video Integration Server, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Video Interop Server	MSBS_TotalInteropLegCallFailures	TotalInteropLegCallFailures:Major, TotalInteropLegCallFailures:Normal	This policy monitors the counter that shows the total number of interop leg call	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			failures.	
	MSBS_ TotalCallsdeclinedduetoload	VISSvc:Major, VISSvc:Normal	This policy monitors the counter that shows the total number of calls rejected because the server is overloaded.	Measurement Threshold
	MSBS_ TotalProxyLegCallFailures	TotalProxyLegCallFailures:Major, TotalProxyLegCallFailures:Normal	This policy monitors the counter that shows the total number of Proxy leg call failures.	Measurement Threshold
	MSBS_ VIDEOINTEGRATIONSERVER_Conf	NA	This policy contains scheduler for monitoring the Video Integration Server health on Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Web Scheduler

Monitors the Web Scheduler requests that are unsuccessful. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Web_Scheduler_Conf	NA	This policy contains scheduler for monitoring the Web Scheduler feature of Lync 2013 and Skype Business Server 2015.	ConfigFile
	MSBS_RequestForWhichResponseStatusIsNotSuccesses	NA	This policy monitors total number of requests for which response status is not success.	Measurement Threshold
	MSBS_NumberofFailedAddressBookLookupsFailed	NA	This policy monitors number of failed address book lookups that failed for instance.	Measurement Threshold

Skype Web Service Performance

Monitors the metrics of Web Service Performance like failed HTTP search requests, successful search requests. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_SuccessfulSearchRequests	NA	This policy monitors successful search requests.	Measurement Threshold
	MSBS_WebServicePerform_2010_Conf	NA	This policy contains scheduler for monitoring the performance of web service on Lync 2010.	ConfigFile
	MSBS_WebServicePerform_Conf	NA	This policy contains scheduler for monitoring the performance of web service on Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_RequestsExceededPerAppLimit	NA	This policy monitors the number of requests that were rejected because per-application queue limit was exceeded.	Measurement Threshold
	MSBS_TotalRequestsInProgress	NA	This policy monitors the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			total number of requests currently being processed by application.	
	MSBS_FailSearchRequest	Web_Service_Performance:Major, Web_Service_Performance:Normal	This policy monitors Failed Search Requests.	Measurement Threshold

Skype Web Server Performance

Monitors the failed Web Server requests and other exceptions. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Front End Server	MSBS_NumberofProxyRequestsAwaitingCompletion	NA	This policy monitors Number of proxy requests awaiting completion.	Measurement Threshold
	MSBS_FailedSearchRequests	NA	This policy monitors the per-second rate of failed address book search requests.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_SOAPEExceptions	NA	This policy monitors the SOAP exceptions generated per second.	Measurement Threshold
	MSBS_UnAuthenticatedRequestInProgress	NA	This policy monitors the number of requests currently in processing by application that have not yet been authenticated or are processed anonymously.	Measurement Threshold
	MSBS_DirectorAvgProcessingTimeForSearchReq	NA	This policy monitors the average processing time for an address book search request in milliseconds.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Edge Server, Director Server, Front End Server	MSBS_Web_Service_Performance_Conf	NA	This policy contains scheduler for monitoring the web server performance of Lync 2013 and Microsoft Skype Business Server 2015.	ConfigFile
	MSBS_EdgeSoapExceptionPerSecond	NA	This policy monitors the per-second rate of Soap Exceptions.	Measurement Threshold
	MSBS_FailedFileRequests	NA	This policy monitors the per-second rate of failed Address Book file requests.	Measurement Threshold
	MSBS_Web_Service_Performance_2010_Conf	NA	This policy contains scheduler for monitoring the web	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			server performance of Lync 2010.	
	MSBS_RequestsExceededPerAppLimit	NA	This policy monitors the number of requests that were rejected because per-application queue limit was exceeded.	Measurement Threshold
	MSBS_EdgeFailedRequestsperSecond	NA	This policy monitors the per-second rate of failed Address Book file requests.	Measurement Threshold
Edge Server, Director Server, Front End Server	MSBS_EdgeSuccessRequestProcTime	NA	This policy monitors Average processing time for a successful request to be completed.	Measurement Threshold
	MSBS_TotalRequestsInProcessing	NA	This	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			policy monitors the total number of requests currently being processed by application.	Threshold
	MSBS_DirectorSoapExceptionPerSecond	NA	This policy monitors the per-second rate of Soap Exceptions.	Measurement Threshold
	MSBS_EdgeFailedSearchRequests	NA	This policy monitors the per second rate of failed address book search requests	Measurement Threshold
	MSBS_DirectorSuccessRequestProcTime	NA	This policy monitors Average processing time for a successful request to be completed.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_DirectorFailedSearchRequests	NA	This policy monitors the per second rate of failed address book search requests	Measurement Threshold
	MSBS_Averagememberpropertiesfetchtimein milliseconds	NA	This policy monitors the average fetch time of member properties in milliseconds.	Measurement Threshold
Edge Server, Director Server, Front End Server	MSBS_FailedHTTPProxyRequests	NA	This policy monitors the number of HTTP proxy requests that failed.	Measurement Threshold
	MSBS_PendingActiveDirectoryRequests	ADRequestsPending:VeryHigh, ADRequestsPending:Normal, ADRequestsPending:High	This policy monitors the number of request waiting currently for Active Directory responses.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_DirectorFailedRequestsperSecond	NA	This policy monitors the per-second rate of failed Address Book file requests.	Measurement Threshold
	MSBS_EdgeAvgProcessingTimeForSearchRequests	NA	This policy monitors the average processing time for an address book search request in milliseconds.	Measurement Threshold

Services

Skype Storage Service

Monitors the Storage Service, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Storage_Service_Conf	NA	This policy contains scheduler for monitoring the Storage	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			Service feature in Lync 2013 and Skype Business Server 2015.	
	MSBS_RequestsForWhichResponseStatusIsNotSuccessful	NA	This policy monitors total number of requests for which response status is not successful.	Measurement Threshold
	MSBS_FailedCallsToStorageService	NA	This policy monitors total number of failed calls to storage service.	Measurement Threshold
	MSBS_FailedToPerformNotificationOperation	NA	This policy monitors total number of failed notification calls to storage service.	Measurement Threshold

Skype Services

Monitors the availability of Skype for Business Server Services in SCM, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Lync Server, Edge Server, Director Server,	MSBS_FERTCBIDataCollectorServState	NA	This policy checks the status of the BI DataCollector Service	Measurement Threshold
Archiving Server, AV Conferencing Server, Mediation Server,	MSBS_FEPushServiceServState	NA	This policy checks the status of the Lync Online Push Notification Service	Measurement Threshold
Monitoring Server, Front End Server	MSBS_Services_2010_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_FERTCACPMCUServState	NA	This policy checks the status of the Lync Online Telephony Conferencing Service	Measurement Threshold
	MSBS_FEMASTERServState	MasterReplicaAgt:Down, MasterReplicaAgt:Up	This policy	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			checks the status of the Lync Server Master Replicator Agent Service	Threshold
Lync Server, Edge Server, Director Server, Archiving Server, AV Conferencing Server, Mediation Server, Monitoring Server, Front End Server	MSBS_FERTCDATAMCUservState	WebConferencingServiceStatus:Down, WebConferencingServiceStatus:Up	This policy checks the status of the Lync Server Web Conferencing Service	Measurement Threshold
	MSBS_FERTCMEETINGMCUservState	WebConfCompatibilityServiceStatus:Down, WebConfCompatibilityServiceStatus:Up	This policy Checks the status of the Web Conferencing Compatibility Service	Measurement Threshold
	MSBS_FERTCSrvServState	NA	This policy Checks the status of the Front-End Service	Measurement Threshold
	MSBS_MediationREPLICAServState	NA	This policy checks	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			the status of the Lync Server Replica Replicator Agent Service	
	MSBS_MonitoringRTCCDRServState	CDRMonitoringServiceStatus: Down, CDRMonitoringServiceStatus: Up	Checks the status of the Call Detail Recording Service	Measurement Threshold
	MSBS_FERTCPDPAUTHServState	BandWidthPolicyServiceAuth Status:Down, BandWidthPolicyServiceAuth Status:Up	This policy checks the status of the Lync Server Bandwidth Policy Service (Authentication) Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving Server, AV Conferencing	MSBS_FERTCProvServState	NA	This policy checks the status of the Lync Online Provisioning Service	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Server, Mediation Server, Monitoring Server, Front End Server	MSBS_FERTCIMMCUServState	IMConferencingServiceStatus:Down, IMConferencingServiceStatus:Up	This policy checks the status of the Lync Server IM Conferencing Service	Measurement Threshold
	MSBS_MonitoringRtcQmsServState	QoEMonitoringServiceStatus:Down, QoEMonitoringServiceStatus:Up	Checks the status of the QoE Monitoring Service	Measurement Threshold
	MSBS_EdgeRTCMEDIARELAYServState	EdgeAVServiceStatus:Down, EdgeAVServiceStatus:Up	This policy checks the status of the Lync Server AV Authentication Edge Service	Measurement Threshold
	MSBS_DirectorRTCSrvServState	NA	Checks the status of the Front-End Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving	MSBS_FERTCCAAServState	ConfAttendantServiceStatus:Down, ConfAttendantServiceStatus:Up	This policy checks the status of the Conference Attendant Service	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Server, AV Conferencing Server, Mediation Server , Monitoring Server, Front End Server				

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ AvConfRTCAVMCUservState	AVConfServiceStatus:Down, AVConfServiceStatus:Up	Checks the status of the Audio/Video Conferencing service	Measurement Threshold
	MSBS_ DirectorREPLICAServState	NA	This policy checks the status for Director Server of the Lync Server Replica Replicator Service	Measurement Threshold
	MSBS_FEw3svcServState	NA	This policy checks the status of the World Wide Web Publishing Service	Measurement Threshold
	MSBS_ FERTCASMCServState	MCUservState:Down, MCUservState:Up	This policy checks the status of the Lync Server Application Sharing Service	Measurement Threshold
	MSBS_ FERTCAVMCUservState	NA	This policy	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			checks the status of the Lync Server Audio/Video Conferencing Service	Threshold
Lync Server, Edge Server, Director Server, Archiving Server, AV Conferencing Server, Mediation Server, Monitoring Server, Front End Server	MSBS_FERTCCPSServState	CallParkServiceStatus:Down, CallParkServiceStatus:Up	This policy checks the status of the Lync Server Call Park Service	Measurement Threshold
	MSBS_FERTCPDPCOREServState	BandWidthPolicyServiceCore Status:Down, BandWidthPolicyServiceCore Status:Up	This policy checks the status of the Lync Server Bandwidth Policy Service (Core) Service	Measurement Threshold
	MSBS_FELYNCBACKUPServState	NA	This policy checks the status of the Lync Backup Service	Measurement Threshold
	MSBS_FERTCRGSServState	ResponseGrpServiceStatus:Down,	This policy	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
		ResponseGrpServiceStatus:Up	checks the status of the Lync Server Response Group Service	Threshold
	MSBS_EdgeRTCServiceState	EdgeAccessServiceStatus:Down, EdgeAccessServiceStatus:Up	This policy checks the status of the Lync Edge Server Service	Measurement Threshold
	MSBS_FERTCLRSVCServiceState	NA	This policy checks the status of the Lync Online Log Retention Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving Server, AV Conferencing Server,	MSBS_ArchivingRTCLOGServiceState	ArchivingServiceStatus:Down, ArchivingServiceStatus:Up	Checks the status of the Archiving and CDR service	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server, Monitoring Server, Front End Server				

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_EdgeRTCMRAUTHServState	EdgeAVAuthServiceStatus:Down, EdgeAVAuthServiceStatus:Up	This policy checks the status of the AV Authentication of Edge Server Service	Measurement Threshold
	MSBS_FERTCCASServState	ConfAnnouncementServiceStatus:Down, ConfAnnouncementServiceStatus:Up	This policy checks the status of the Conference Announcement Service	Measurement Threshold
	MSBS_EdgeRTCDATAPROXYServState	EdgeWebConfServiceStatus:Down, EdgeWebConfServiceStatus:Up	This policy checks the status of the Lync Server Web Conferencing Edge Service	Measurement Threshold
	MSBS_EdgeRTCXMPPTGWPXServState	NA	This policy checks the status of the Lync Server XMPP Translating Gateway	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Proxy Service	
	MSBS_FERTCLISVCServState	NA	This policy checks the status of the Lync Online Legal Intercept Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving Server,	MSBS_FERTCXPPTGWServState	NA	This policy checks the status of the Lync Server XMPP Translating Gateway Service	Measurement Threshold
AV Conferencing Server, Mediation Server	MSBS_ReplicaServState	ReplicationServiceStatus:Down, ReplicationServiceStatus:Up	Checks the status of the Replica Replicator Agent Service	Measurement Threshold
Monitoring Server, Front End Server	MSBS_PersistentChatRTCCHATServState	NA	This policy checks the status of the Lync Server Persistent Chat Service	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_FEFTAServState	FileTransferAgentServiceStatus:Down, FileTransferAgentServiceStatus:Up	This policy checks the status of the Lync Server File Transfer Agent Service	Measurement Threshold
	MSBS_EdgeREPLICAServState	NA	This policy checks the status for Edge Server of the Lync Server Replica Replicator Agent Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving Server, AV Conferencing Server, Mediation Server	MSBS_FERTCATSServState	AudioTestServiceStatus:Down, AudioTestServiceStatus:Up	This policy Checks the status of the Audio Test Service	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Monitoring Server, Front End Server	MSBS_PersistentChatREPLICAServState	NA	This policy checks the status of the Lync Server Replica Replicator Service	Measurement Threshold
	MSBS_Services_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_FEREPLICAServState	NA	This policy checks the status for Front End of the Lync Server Replica Replicator Agent Service	Measurement Threshold
Lync Server, Edge Server, Director Server, Archiving	MSBS_FERTCCLSAGTServState	NA	This policy checks the status of the Lync Server Centralized Logging	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
g Server,			Service Agent Service	
AV Conferencing Server,	MSBS_FrontEndRTCSRVServState	FrontEndServiceStatus:Down, FrontEndServiceStatus:Up	This policy checks the status of the Lync Server Front End Service	Measurement Threshold
Mediation Server,				
Monitoring Server,	MSBS_MediationRTCMEDSRVServState	MediationServiceStatus:Down, MediationServiceStatus:Up	This policy checks the status of the Lync Server Mediation Service	Measurement Threshold
Front End Server	MSBS_PersistentChatRTCCHATCOMPLServState	NA	This policy checks the status of the Lync Server Persistent Chat Compliance Service	Measurement Threshold

Port

Skype Port Monitor

Monitors metrics related to ports. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_SimpleWatcherPort5068	NA	This policy indicates that this is Used for incoming SIP requests from the PSTN gateway.	Measurement Threshold
	MSBS_SimpleWatcherPort444	NA	This policy indicates that this is Used for HTTPS communication between the Focus and the individual servers. This port is also used for TCP communication between Survivable Branch Appliances and Front End Servers.	Measurement Threshold
	MSBS_SimpleWatcherPort5082	NA	This policy indicates that this is Used for outgoing SIP requests from the Mediation Server to the PSTN gateway.	Measurement Threshold
	MSBS_SimpleWatcherPort5064	NA	This policy indicates that this is Used for incoming SIP requests for dial-in conferencing.	Measurement Threshold
	MSBS_SimpleWatcherPort448	NA	This policy indicates that this is Used for	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			call admission control by the Lync Server Bandwidth Policy Service.	
	MSBS_SimpleWatcherPort5066	NA	This policy indicates that this is Used for outbound Enhanced 9-1-1 (E9-1-1) gateway.	Measurement Threshold
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_SimpleWatcherPort5060	NA	This policy indicates that this is Optionally used by Standard Edition servers and Front End Servers for static routes to trusted services, such as remote call control servers.	Measurement Threshold
	MSBS_SimpleWatcherPort5071	NA	This policy indicates that this is Used for incoming SIP requests for the Response Group application.	Measurement Threshold
	MSBS_SimpleWatcherPort5067	NA	This policy indicates that this is Used for incoming SIP requests from the PSTN gateway.	Measurement Threshold
	MSBS_SimpleWatcherPort5062	NA	This policy indicates that this is Used for	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			incoming SIP requests for instant messaging (IM) conferencing.	
	MSBS_SimpleWatcherPort8058	NA	This policy indicates that this is Used to listen for Persistent Shared Object Model (PSOM) connections from the Live Meeting client and previous versions of Lync Server.	Measurement Threshold
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_SimpleWatcherPort5065	NA	This policy indicates that this is Used for incoming SIP listening requests for application sharing.	Measurement Threshold
	MSBS_SimpleWatcherPort5087	NA	This policy indicates that this is SIP port used by Mobility Services internal processes.	Measurement Threshold
	MSBS_SimpleWatcherPort5063	NA	This policy indicates that this is Used for incoming SIP requests for audio/video (A/V) conferencing.	Measurement Threshold
	MSBS_SimpleWatcherPort5073	NA	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			indicates that this is Used for incoming SIP requests for the Lync Server Conferencing Announcement service (that is, for dial-in conferencing).	
	MSBS_ SimpleWatcherPort445	NA	This policy indicates that this is Used to push configuration data from the Central Management store to servers running Lync Server.	Measurement Threshold
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_ SimpleWatcherPort5070	NA	This policy indicates that this is Used by the Mediation Server for incoming requests from the Front End Server.	Measurement Threshold
	MSBS_ SimpleWatcherPort8061	NA	This policy indicates that this is Used to listen for Persistent Shared Object Model (PSOM) connections from the Live Meeting client and previous versions of Lync Server.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ SimpleWatcherPort5061	PortMonitor:Down, PortMonitor:Up	This policy indicates that this is Used by Standard Edition servers and Front End pools for all internal SIP communications between servers (MTLS) and for SIP communications between Server and Client (TLS).	Measurement Threshold
	MSBS_ SimpleWatcherPort881	NA	This policy indicates that this is Persistent Chat Front End Server	Measurement Threshold
	MSBS_ SimpleWatcherPort8080	NA	This policy indicates that this is Used by web components for external access.	Measurement Threshold
	MSBS_ SimpleWatcherPort5081	NA	This policy indicates that this is Used for outgoing SIP requests from the Mediation Server to the PSTN gateway.	Measurement Threshold
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_ SimpleWatcherPort5075	NA	This policy indicates that this is Used for incoming SIP requests for the Call Park application.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ SimpleWatcherPort5080	NA	This policy indicates that this is Used for call admission control by the Bandwidth Policy service for A/V Edge TURN traffic.	Measurement Threshold
	MSBS_ SimpleWatcherPort135	NA	This policy indicates that this is Used for DCOM based operations such as Moving Users, User Replicator Synchronization, and Address Book Synchronization.	Measurement Threshold
	MSBS_ SimpleWatcherPort8404	NA	This policy indicates that this is Used for incoming SIP requests for the Response Group application.	Measurement Threshold
	MSBS_PortWatcher_ Conf	NA	This policy contains scheduler for monitoring ports on Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_ SimpleWatcherPort8057	NA	This policy indicates that this is Used to listen for Persistent Shared Object Model (PSOM)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			connections from client.	
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_SimpleWatcherPort4443	NA	This policy indicates that this is Used for internal communications between servers and for client connections.	Measurement Threshold
	MSBS_SimpleWatcherPort5072	NA	This policy indicates that this is Used for incoming SIP requests for Attendant (dial in conferencing).	Measurement Threshold
	MSBS_SimpleWatcherPort443	NA	This policy indicates that this is Used for communication from Front End Servers to the web farm FQDNs (the URLs used by IIS web components).	Measurement Threshold
	MSBS_SimpleWatcherPort5086	NA	This policy indicates that this is SIP port used by Mobility Services internal processes.	Measurement Threshold
	MSBS_SimpleWatcherPort80	NA	This policy indicates that this is Used for communication from Front End Servers to the web farm FQDNs (the	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			URLs used by IIS web components) when HTTPS is not used.	
	MSBS_SimpleWatcherPort5041	NA	This policy indicates that this is Used for internal communications between servers and for client connections.	Measurement Threshold
Mediation Server, Front End Server, Director Server, Persistent Chat Server	MSBS_SimpleWatcherPort5262	NA	This policy indicates that this is Used For XMPP federation	Measurement Threshold
	MSBS_PortWatcher_2010_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_SimpleWatcherPort5076	NA	This policy indicates that this is Used for incoming SIP requests for the Audio Test service	Measurement Threshold
	MSBS_SimpleWatcherPort8060	NA	This policy indicates that this is Used to listen for Persistent Shared Object Model (PSOM) connections from the Live Meeting client and previous	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			versions of Lync Server.	

URL

Skype URL Watcher

Monitors availability of simple URL watcher such as Admin, Dial-in and Meet. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_URLWatcher_Conf	NA	This policy contains scheduler for monitoring the URL of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_URLWatcherMeet	URLWatcherMeet:Minor, URLWatcherMeet:Normal	This policy monitors HTTP response of a meet URL.	Measurement Threshold
	MSBS_URLWatcherDialin	URLWatcherDialin:Minor, URLWatcherDialin:Normal	This policy monitors HTTP response of a Dial-in URL.	Measurement Threshold
	MSBS_URLWatcherAdmin	URLWatcherAdmin:Minor, URLWatcherAdmin:Normal	This policy monitors HTTP response of a Admin URL.	Measurement Threshold
	MSBS_URLWatcher_Conf_2010	NA	This policy contains scheduler for monitoring the URL of Lync 2010.	ConfigFile

Additional Configuration for CDR/QoE Monitoring

To monitor CDR or QoE features, SQL database test user must have access to Lync or Skype for Business Server - Monitor Database. Additionally, the Test user must minimum have *Read Only* access to *LcsCDR* and **QoEMetrics** Databases.

To provide access to the databases, follow these steps:

1. Login to SQL Server Management Studio as a SQL Administrator user.
2. In the Object Explorer pane, expand **Security**.
3. Right-click **Logins** and click **Create Login**.
4. In the Login - New window, Enter a name for test user in **General** tab.
5. Click **User Mapping** tab, follow these:
 - a. Under *Users mapped to this login*, select the check box against **LcsCDR** and **QoEMetrics**.
 - b. Under *Database role membership for:LcsCDR*, select the **db_datareader** and **public** check boxes.
6. Click **OK**.

First deploy the *Skype SQL Database Configurations*Aspect to configure the SQL database user to collect data for CDR or QoE monitoring.

Skype SQL Database Configurations

This Aspect deploys the database connection details for monitoring Skype application

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ DatabaseConnection	NA	This policy holds connection parameters	ConfigFile

Quality of Experience (QoE)

Skype Quality of Experience

Monitors Audio, Video and Application Sharing quality of experience metrics from QoE database. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ AppSharingOneWayTripPoorCallsPercentage	NA	This policy monitors Poor Video that have Relative Network One Way Average Time more than a set threshold value and calculates percentage of poor calls for a given interval	Measurement Threshold
	MSBS_ VideoJitterPoorCallsPercentage	NA	This policy monitors Poor Video that have Jitter more than a set threshold value and calculates	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			es percent age of poor calls for a given interval	
	MSBS_ PoorStreamsBtwnSubnetsPercenta ge	NA	This policy monitors Poor Streams Between n internal Lync desktop users and confere ncing and mediatio n servers and calculat es percent age for a given interval	Measure ment Threshol d
	MSBS_QOE_Conf_2010	NA	This policy gives us the informat ion for the collabor ation of Lync	ConfigFi le

CI Type	Policy Template	Indicator	Description	Policy Type
			Server	
	MSBS_PoorStreamsBtwnMSAndAVMCUPpercentage	NA	This policy monitors Poor Streams between Mediation Server and Audio-Video Conferencing Unit and calculates percentage for a given interval	Measurement Threshold
Front End Server	MSBS_VideoRoundTripPoorCallsPercentage	NA	This policy monitors Poor Video that have Network Packet Roundtrip Time more than a set threshold value and calculates percentage of	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			poor calls for a given interval	
	MSBS_AudioJitterPoorCallsPercentage	NA	This policy monitors Poor Audio that have Jitter more than a set threshold value and calculates percentage of poor calls for a given interval	Measurement Threshold
	MSBS_VideoPacketLossPoorCallsPercentage	VideoPacketLossPoorCallsPercentage:Major, VideoPacketLossPoorCallsPercentage:Normal, VideoPacketLossPoorCallsPercentage:Warning	This policy monitors Poor Video that have Packet Loss more than a set threshold value and calculates	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			es percent age of poor calls for a given interval	
	MSBS_ PoorStreamsBtwnMediationAndGatewayPercentage	NA	This policy monitors Poor Streams between Mediation and Gateway Server and calculates percent age for a given interval	Measurement Threshold
	MSBS_ AppSharingJitterPoorCallsPercentage	AppSharingJitterPoorCallsPercentage:Major, AppSharingJitterPoorCallsPercentage:Normal, AppSharingJitterPoorCallsPercentage:Warning	This policy monitors Poor Application Sharing that have Jitter more than a set threshold value and calculates	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			percent age of poor calls for a given interval	
	MSBS_QOE_Conf	NA	This policy gives us the information for the collaboration of Lync Server	ConfigFile
Front End Server	MSBS_AudioRoundTripPoorCallsPercentage	NA	This policy monitors Poor Audio that have Network Packet Roundtrip Time more than a set threshold value and calculates percent age of poor calls for a given interval	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ AudioNetworkMOSPoorCallsPercentage	NA	This policy monitors Poor Audio that a Network Degradation Mean Opinion Score more than a set threshold value and calculates percentage of poor calls for a given interval.	Measurement Threshold
	MSBS_ ExternalPoorStreamsPercentage	NA	This policy monitors Poor Streams between External users talking to internal or external endpoints and	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			calculates percentage for a given interval	
	MSBS_AudioPacketLossPoorCallsPercentage	AudioPacketLossPoorCallsPercentage:Major, AudioPacketLossPoorCallsPercentage:Normal, AudioPacketLossPoorCallsPercentage:Warning	This policy monitors Poor Audio that have Packet Loss more than a set threshold value and calculates percentage of poor calls for a given interval	Measurement Threshold

Skype QoE Perf

Monitors the data counters of Quality of Experience. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Monitoring Server	MSBS_QoE_Perf_2010_Conf	NA	This policy contains scheduler for	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			monitoring QoE performance of monitoring role for Lync 2010.	
	MSBS_ Totnofreportsdropduetodbinsertionfail	NA	This policy monitors the number of reports dropped because of database insertion failure. The transaction was committed prematurely because of an unrecoverable database error.	Measurement Threshold
	MSBS_ NoOfMSMQmsgsrecivdwithincorcttypeorversion	NA	This policy monitors the number of discarded MSMQ messages that are not of the expected type or version.	Measurement Threshold

Call Details Record (CDR)

Skype CDR Perf

Monitors the Call Details Recording details such as the number of SQL errors and total throttling requests. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Monitoring Server	MSBS_MonitoringTotalsevereSQLerrors	NA	This policy monitors the number of severe SQL errors that occurred since the server started.	Measurement Threshold
	MSBS_CDR_Perf_2010_Conf	NA	This policy maintains the information about the CDR Performance metrics for the Skype Business Server	ConfigFile
	MSBS_MonitoringTotalthrottledrequests	NA	This policy monitors the number of requests that were rejected with a retry-after due to high database queue latency.	Measurement Threshold
	MSBS_MonitoringTotalODBCTimeoutFailures	NA	This policy monitors the number of ODBC timeout failures that have taken place since the server started.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_MonitoringTransactionsaborted	NA	This policy monitors the number of transactions that are aborted.	Measurement Threshold
	MSBS_MonitoringMessagesfailedtobewrittentoDB	NA	This policy monitors the number of messages that failed to get written to the SQL database.	Measurement Threshold
	MSBS_MonitoringTotalDeadlocks	NA	This policy monitors the total number of deadlocks that have occurred since the start of the server.	Measurement Threshold
Monitoring Server	MSBS_MonitoringNumberoffailuresduetointernallocks	NA	This policy monitors the number of error report failures that occurred because of internal locks.	Measurement Threshold
	MSBS_MonitoringQueueLatency	NA	This policy monitors the average time (in milliseconds) the database holds a request in queue.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_MonitoringDroppedmessagesfromMQ	NA	This policy monitors the number of messages that are dropped from the MSMQ queue.	Measurement Threshold
	MSBS_MonitoringTotalfatalSQLerrors	NA	This policy monitors the number of fatal SQL errors that have taken place since the server started.	Measurement Threshold
	MSBS_MonitoringNumberofunknownfailures	NA	This policy monitors the number of unknown error report failures.	Measurement Threshold
	MSBS_MonitoringMessagesfailedvalidation	NA	This policy monitors the number of messages that failed the validation process.	Measurement Threshold
	MSBS_NoOfthrotlderrorrepeatsduetomaxreptperminlim	NA	This policy monitors the number of error reports throttled because of the limit on maximum reports in a minute.	Measurement Threshold

Skype Call Details Record

Monitors metrics for Call Details Records like Instant Messaging, App Sharing failures from CDR database, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_CDR_Conf_2010	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_FileTransferFailurePercentage	NA	This policy monitors call failures periodically from the CDR database and raises an alert whenever call failures exceed the specified threshold percentage value.	Measurement Threshold
	MSBS_AudioVideoCallFailurePercentage	AudioVideoCallFailurePercentage: Major, AudioVideoCallFailurePercentage: Normal, AudioVideoCallFailurePercentage: Warning	This policy monitors call failures	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			periodically from the CDR database and raises an alert whenever call failures exceed the specified threshold percentage value.	
	MSBS_VOIPFailurePercentage	NA	This policy monitors call failures periodically from the CDR database and raises an alert whenever call failures exceed the specified threshold percentage value.	Measurement Threshold
Front End Server	MSBS_ConferenceFailurePercentage	ConferenceFailurePercentage:Major, ConferenceFailurePercentage:Normal, ConferenceFailurePercentage:War	This policy monitors call	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
		ning	failures periodically from the CDR database and raises an alert whenever call failures exceed the specified threshold percentage value.	
	MSBS_CDR_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_AppSharingCallFailurePercentage	AppSharingCallFailurePercentage: Major, AppSharingCallFailurePercentage: Normal, AppSharingCallFailurePercentage: Warning	This policy monitors call failures periodically from the CDR database and raises an alert whenever call failures	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			exceed the specified threshold percentage value.	
	MSBS_ InstantMessagingFailurePercentage	NA	This policy monitors call failures periodically from the CDR database and raises an alert whenever call failures exceed the specified threshold percentage value.	Measurement Threshold
	MSBS_ AudioFailurePercentage	NA	This policy monitors call failures periodically from the CDR database and raises an alert whenever call failures	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			exceed the specified threshold percentage value.	

Skype Call Park Service

Monitors the total park requests failed and related metrics. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_Call_Park_Service_Conf	NA	This policy contains scheduler for monitoring the Call Park related metrics on Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_TotalParkRequestsFailed	NA	This policy monitors the total number of park requests that failed.	Measurement Threshold
	MSBS_TotalfailedFallbackAttempts	NA	This policy monitors the total number of failed fallback attempts.	Measurement Threshold
	MSBS_TotalparkRequestFailedUnavailableOrbit	NA	This policy monitors the total number	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			of park requests failed because no orbit was available.	
	MSBS_ TotalparkRequestFailedUnavailableOrbit	NA	This policy monitors the total number of park requests failed because no orbit was available.	Measurement Threshold

Skype Call Performance

Monitors the Mediation Server call performance. This aspect logs data and create events for alerts.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server	MSBS_ MedMediaConnectivityCheckFailure	NumberOfCallFailures:VeryHigh, NumberOfCallFailures:Normal, NumberOfCallFailures:High	This policy monitors the number of failures in media connectivity check.	Measurement Threshold
	MSBS_MedTotalRejectedDueToLoad	NA	The policy monitors the number of SIP invites from proxy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			which were rejected immediately because of server load.	
	MSBS_TotFailedCallsCausdbyUnexpctdIntefrmGateway	NA	This policy monitors the number of call failures due to unexpected interaction with proxy.	Measurement Threshold
	MSBS_Call_Performance_2010_Conf	NA	This policy contains scheduler for monitoring the Call performance of Lync Server 2010.	ConfigFile

Skype Conf Performance

Monitors the Audio/Video conferences and failed Audio/Video conferences. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
AV Conferencing Server	MSBS_AvConfNumberofaddconferencerequestsfailed	NumberOfFailedConference:VeryHigh, NumberOfFailedConference:Normal	This policy monitors the number of failed response returned by add-conference	Measurement Threshold
	MSBS_AvConfNumberofConferences	ConcurrentConferences:VeryHigh, ConcurrentConferences:Normal, ConcurrentConferences:High	In A/V conferencing server, the number of conferences that are currently active is monitored by this policy	Measurement Threshold
	MSBS_Conf_Performance_2010_Conf	NA	This policy contains scheduler for monitoring the performance of AvConf role of Lync 2010.	ConfigFile

Skype Conference Health

Monitor the SIP connection failures and other conference health counters. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_SIPConnectionFailures	NA	This policy monitors the number of SIP connection failures per second.	Measurement Threshold
	MSBS_Conference_Health_Conf	NA	This policy contains scheduler for monitoring the conference health of Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Conference MCU

Monitors the MCU session queue state and unhandled application exceptions. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Archiving Server	MSBS_SessionQueuesState	NA	This policy monitors the state of session queue .	Measurement Threshold
	MSBS_No.ofUnhandledApplicationException	NA	This policy the number of unhandled exception in application.	Measurement Threshold
	MSBS_Conference_MCU_2010_Conf	NA	This policy contains scheduler for monitoring the data of the MCU (multi-point control unit) for the Lync 2010.	ConfigFile

Skype Conference Processing Performance

Monitors the conference processing performance. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Mediation Server, Front End Server, Edge Server	MSBS_CredentialsIssuedPerSec	Conference_Processing_Performance:Warning, Conference_Processing_Performance:Normal	This policy monitors Credentials Issued Per Sec	Measurement Threshold
	MSBS_ConferenceProcPerform_Conf	NA	This policy contains scheduler for monitoring conference processing for Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_ConferenceProcPerform_2010_Conf	NA	This policy contains scheduler for monitoring conference processing for Lync 2010.	ConfigFile
	MSBS_CurrentRequestsServiced	NA	This policy monitors Current Requests Serviced	Measurement Threshold

Skype Conferences Connection

Monitors the conferences connection. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_NumberOfUnhandledApplicationException	NA	This policy monitors Number Of Unhandled Application Exception	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ConferenceWorkitemsLoad	Conferences_Connection:Warning, Conferences_Connection:Normal	This policy monitors Conference Work items Load	Measurement Threshold
	MSBS_ConferencesConnection_2010_Conf	NA	This policy contains scheduler for monitoring the conference connection in Lync 2010.	ConfigFile
	MSBS_ConferencesConnection_Conf	NA	This policy contains scheduler for monitoring the conference connection in Lync 2013 and Skype for Business 2015.	ConfigFile

Skype Conferencing Attendant

Monitors the Conference Attendant, Endpoint Creation Failures, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_TotAppIEndPointCreationFailure	NA	This policy monitors Platform Endpoint Creation	Measurement Threshold
	MSBS_Conference_Attendant_Conf	NA	This policy contains scheduler for monitoring the	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			conference attendant of Lync 2013 and Skype Business Server 2015.	

Skype Conferencing Call Performance

Monitors the performance of Conferencing Call. This aspect logs related data.

CI Type	Policy Template	Indicator	Description	Policy Type
Front End Server	MSBS_ConferenceCallPerform_2010_Conf	NA	This policy contains scheduler for monitoring the conferencing performance for Lync 2010.	ConfigFile
	MSBS_ConferenceCallPerform_Conf	NA	This policy contains scheduler for monitoring the conferencing performance for Lync 2013 and Skype for Business 2015.	ConfigFile

Additional Configuration for Remote Monitoring

Before deploying any of the following Aspects, you must first a remote server from where you can remote Lync or Skype for Business Servers in your environment. For more information about how to configure a remote node, see the section ["Remote Monitoring" on page 260](#).

Synthetic Transactions

Skype Test Conferencing Service

This Aspects tests Audio Video conferencing, data conferencing, Instant Messaging conferencing of Lync and Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_AudioVideoConferenceLatency	AudioVideoConferenceLatency: Major, AudioVideoConferenceLatency: Normal	This policy monitors latency in group audio/video	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			conference transaction.	
	MSBS_JoinLauncherScheduledMeetings	JoinLauncherScheduledMeetings:Up, JoinLauncherScheduledMeetings:Down	This policy monitors the information which confirms that users are able to create and join scheduled meetings via a web address link.	Measurement Threshold
	MSBS_DataConferenceLatency	DataConferenceLatency:Major, DataConferenceLatency:Normal	This policy monitors latency in group data conference transaction.	Measurement Threshold
	MSBS_AudioVideoConferencing	AudioVideoConferencing:Down, AudioVideoConferencing:Up	This policy monitors the information which confirms that users are able to create and participate in an audio/video conference.	Measurement Threshold
Windows	MSBS_Synthetic_Conf	NA	This policy contains	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			scheduler for monitoring conference services of Lync 2013 and Skype for Business 2015.	
	MSBS_Synthetic_Conf_2010	NA	This policy contains scheduler for monitoring conference services of Lync 2010.	ConfigFile
	MSBS_GroupInstantMessagingLatency	GroupInstantMessagingLatency: Major, GroupInstantMessagingLatency: Normal	This policy monitors the latency in receipt of instant messages in group instant messaging.	Measurement Threshold
	MSBS_InstantMessageConferencing	InstantMessageConferencing:Down, InstantMessageConferencing:Up	This policy monitors the information which confirms that users are able to send instant messages in conferences and	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			participate in instant message conversations with three or more people.	
	MSBS_DataConferencing	DataConferencing:Down, DataConferencing:Up	This policy monitors the information which confirms that users can participate in a data collaboration conference, an online meeting that includes activities such as whiteboards and polls.	Measurement Threshold
	MSBS_JoinLauncherLatency	JoinLauncherLatency:Major, JoinLauncherLatency:Normal	This policy monitors latency in receipt of confirmation that users are able to create and join scheduled meetings via a web address link.	Measurement Threshold

Skype Test Contacts

This Aspects tests Synthetic Transactions related to Contacts such as Address Book and Unified Contact Store of Lync 2013 Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_AddressBookWebQuery	NA	This policy monitors the information which confirms that users are able to access address book web Query	Measurement Threshold
	MSBS_AddressBookServiceLatency	Address_Book_Service_Latency:Minor, Address_Book_Service_Latency:Normal	This policy monitors the address book service latency	Measurement Threshold
	MSBS_AddressBookWebQueryLatency	Address_Book_Web_Query_Latency:Minor, Address_Book_Web_Query_Latency:Normal	This policy monitors the address book web query latency	Measurement Threshold
	MSBS_UnifiedContactStore	NA	This policy monitors the information which confirms that users are able to access unified	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			contact store	
Windows	MSBS_SyntheticRPC_Conf	NA	This policy maintains the information about the status for the different services	ConfigFile
	MSBS_AddressBookService_FileDownload	Contacts:Down, Contacts:Up	This policy monitors the information which confirms that users are able to download file	Measurement Threshold
	MSBS_SyntheticRPC_Conf_2010	NA	This policy contains scheduler for monitoring test contacts in Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_UnifiedContactStoreLatency	UnifiedContactStoreLatency:Minor, UnifiedContactStoreLatency:Normal	This policy monitors latency in receipt of confirmation that users are able to	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			access unified contact store	

Skype Test Enterprise Voice

This Aspects tests Synthetic Transactions related to Enterprise Voice of Lync and Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_PSTNPeer2PeerCallLatency	PSTNPeer2PeerCallLatency:Minor, PSTNPeer2PeerCallLatency:Normal	This policy monitors latency in receipt of confirmation that users are able to place and receive calls with people outside of the enterprise (PSTN numbers).	Measurement Threshold
	MSBS_PSTNPeer2PeerCall	NA	This policy monitors the information which confirms that users are able to place and receive calls with people	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			outside of the enterprise (PSTN numbers).	
	MSBS_VPW_Conf_2010	NA	This policy contains scheduler for monitoring the enterprise voice in Lync 2010.	ConfigFile
	MSBS_VPW_Conf	NA	This policy contains scheduler for monitoring the enterprise voice in Lync 2013 and Skype for Business 2015..	ConfigFile

Skype Test Network And Partner Dependencies

This Aspects tests metrics for Synthetic Transactions related to Network and Partner dependencies like XMPP Federation, Exchange Unified Messaging of Microsoft Skype for Business Server of Microsoft Skype for Business Server 2015, this aspect logs and events on some metrics.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_ExchangeUnifiedMessageConnectivityVoiceMailLatency	ExchangeUnifiedMessageConnectivityVoiceMailLatency:Minor, ExchangeUnifiedMessageConnectivityVoiceMailLatency:Normal	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			monitors latency in receipt of confirmation that a user can connect to Exchange Unified Messaging (UM).	
	MSBS_XMPPInstantMessagingFederationLatency	XMPPInstantMessagingFederationLatency:Minor, XMPPInstantMessagingFederationLatency:Normal	This policy monitors latency in receipt of confirmation that an instant message can be sent across the XMPP (Extensible Messaging and	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Presence Protocol gateway.	
	MSBS_AVEdgeConnectivity	NetPartDepend:Down, NetPartDepend:Up	This policy monitors the information which confirms that the A/V Edge servers are able to accept connections for peer-to-peer calls and conference calls.	Measurement Threshold
	MSBS_ExchangeUnifiedMessageConnectivityVoiceMail	NA	This policy monitors the information which confir	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			ms that a user can connect to Exchange Unified Messaging (UM).	
Windows	MSBS_SyntheticNPD_Conf	NA	This policy contains scheduler for monitoring network and partner dependencies on Lync 2013 and Skype for Business 2015.	Config File
	MSBS_AVEdgeConnectivityLatency	AVEdgeConnectivityLatency:Minor, AVEdgeConnectivityLatency:Normal	This policy monitors latency in receipt	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			of confirmation that the A/V Edge servers are able to accept connections for peer-to-peer calls and conference calls.	
	MSBS_XMPPInstantMessagingFederation	NA	This policy monitors the information which confirms that an instant message can be sent across the XMPP (Extensible Messaging	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			and Presence Protocol) gateway.	

Skype Test Peer to Peer Services

This Aspects tests Synthetic Peer to Peer services like Instant Messaging, Audio Video Call of Lync and Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_Peer2PeerMobileIM	Peer2PeerMobileIM:Down, Peer2PeerMobileIM:Up	This policy monitors the information which confirms that mobile device users are able to register and send instant messages.	Measurement Threshold
	MSBS_Peer2PeerMobileIMLatency	Peer2PeerMobileIMLatency:Major, Peer2PeerMobileIMLatency:Normal	This policy monitors the peer to peer Mobile IM latency.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_SyntheticP2P_Conf_2010	NA	This policy contains scheduler for monitoring peer-to-peer services in Lync 2010.	ConfigFile
	MSBS_PeerToPeerAudioVideoLatency	PeerToPeerAudioVideoLatency: Major, PeerToPeerAudioVideoLatency: Normal	This policy monitors the latency peer to peer audio/video transaction.	Measurement Threshold
	MSBS_Peer2PeerInstantMessaging	Peer2PeerInstantMessaging:Up, Peer2PeerInstantMessaging:Normal	This policy monitors the information which confirms that users are able to send peer-to-peer instant messages.	Measurement Threshold
	MSBS_SyntheticP2P_Conf	NA	This policy contains scheduler for monitoring	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			peer-to-peer services in Lync 2013 and Skype for Business 2015.	
	MSBS_Peer2PeerAudioVideo	Peer2PeerAudioVideo:Down, Peer2PeerAudioVideo:Up	This policy monitors the information which confirms that users are able to place peer-to-peer audio calls (signaling only).	Measurement Threshold
	MSBS_InstantMessagingLatency	InstantMessagingLatency:Minor, InstantMessagingLatency:Normal	This policy monitors the instant messaging latency.	Measurement Threshold

Skype Test Persistent Chat

This Aspect tests Synthetic Transactions related to persistent chat of Lync 2013 and Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_PersistentChat	PersistentChat:Down, PersistentChat:Up	This policy monitors the information which	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			confirms that users can exchange messages by using the Persistent Chat service.	
	MSBS_ PersistantChat_Conf	NA	This policy contains scheduler for monitoring the persistent chat on Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_ PersistantChatLatency	PersistantChatLatency:Minor, PersistantChatLatency:Normal	This policy monitors the latency which confirms that users can exchange messages by using the Persistent Chat service	Measurement Threshold

Skype Test Presence

This Aspects tests synthetic transactions related to presence of Lync or Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_Presence	Presence:Down, Presence:Up	This policy monitors the information which confirms that users are able to contact.	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	MSBS_ PresenceLatency	PresenceLatency:Major, PresenceLatency:Normal	This policy monitors latency in the notification of presence of the user	Measurement Threshold
	MSBS_ Presence_Conf	NA	This policy contains scheduler for monitoring presence of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_ Presence_2010_ Conf	NA	This policy contains scheduler for monitoring presence of Lync 2010.	ConfigFile

Skype Test User Registration

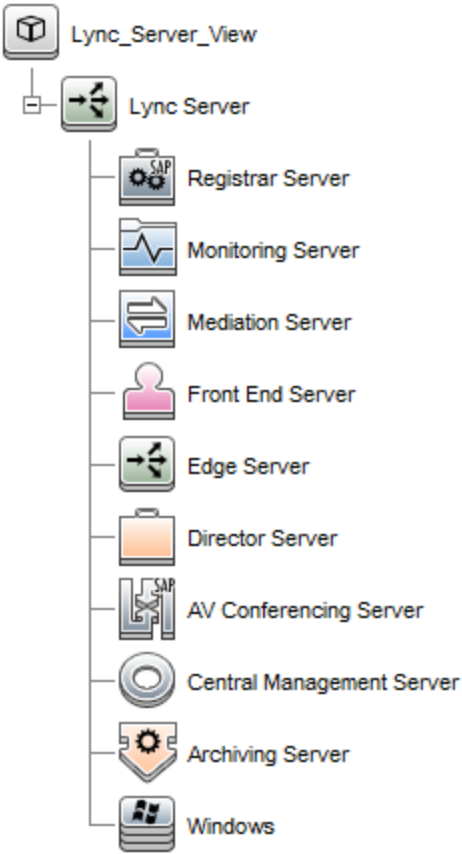
This Aspects tests the ability of a user to log on to Lync or Skype for Business Server 2015. This aspect logs data and creates events for alerting.

CI Type	Policy Template	Indicator	Description	Policy Type
Windows	MSBS_ UserRegistration	Registration:Down, Registration:Up	This policy monitors the operation of log on registration to a Lync pool.	Measurement Threshold
	MSBS_ RegistrationLatency	RegistrationLatency:Major, RegistrationLatency:Normal	This policy monitors the latency in registration of the user to the group.	Measurement Threshold
	MSBS_ UserRegistration_ Conf	NA	This policy contains scheduler for monitoring user registration of Lync 2013 and Skype for Business 2015.	ConfigFile
	MSBS_ UserRegistration_ 2010_Conf	NA	This policy contains scheduler for monitoring user registration of Lync 2010.	ConfigFile

Configuration Items and Configuration Item Types

Configuration Items (CIs) are component that needs to be managed in order to deliver an IT Service. CIs typically include IT Services, hardware, and software. Configuration Item Types (CITs) describes the type of a CI and its attributes. The Microsoft Skype for Business Server CIs that are discovered in an environment are grouped together under the CITs.

The OMi MP for Microsoft Skype for Business Server consists the following CITs:

List of CITs	Hierarchy of the CITs
<ul style="list-style-type: none"> • Archiving Server • AV Conferencing Server • Central Management Server • Directory Server • Edge Server • Front End Server • Lync Server • Lync Pool • Lync Site • Lync Server Role • Mediation Server • Monitoring Server • Persistent Chat Server • Registrar Server • Windows 	 <pre> graph TD Lync_Server_View[Lync_Server_View] --> Lync_Server[Lync Server] Lync_Server --> Registrar_Server[Registrar Server] Lync_Server --> Monitoring_Server[Monitoring Server] Lync_Server --> Mediation_Server[Mediation Server] Lync_Server --> Front_End_Server[Front End Server] Lync_Server --> Edge_Server[Edge Server] Lync_Server --> Director_Server[Director Server] Lync_Server --> AV_Conferencing_Server[AV Conferencing Server] Lync_Server --> Central_Management_Server[Central Management Server] Lync_Server --> Archiving_Server[Archiving Server] Lync_Server --> Windows[Windows] </pre>

Run-time Service Model Views

A Run-time Service Model (RTSM) view enables you to build and visualize a subset of the overall CI model that comprises Microsoft Lync Server CITs related to specific area of interest.

How to Access RTSM Views

1. Open the Modeling Studio pane:

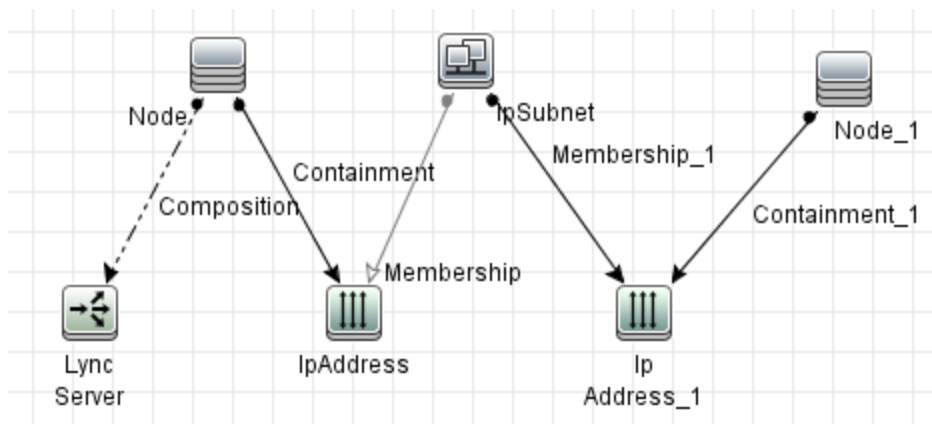
On BSM 9.2x, click **Admin > RTSM Administration > Modeling > Modeling Studio**.

On OMi 10.x, click **Administration > RTSM Administration > Modeling > Modeling Studio**.

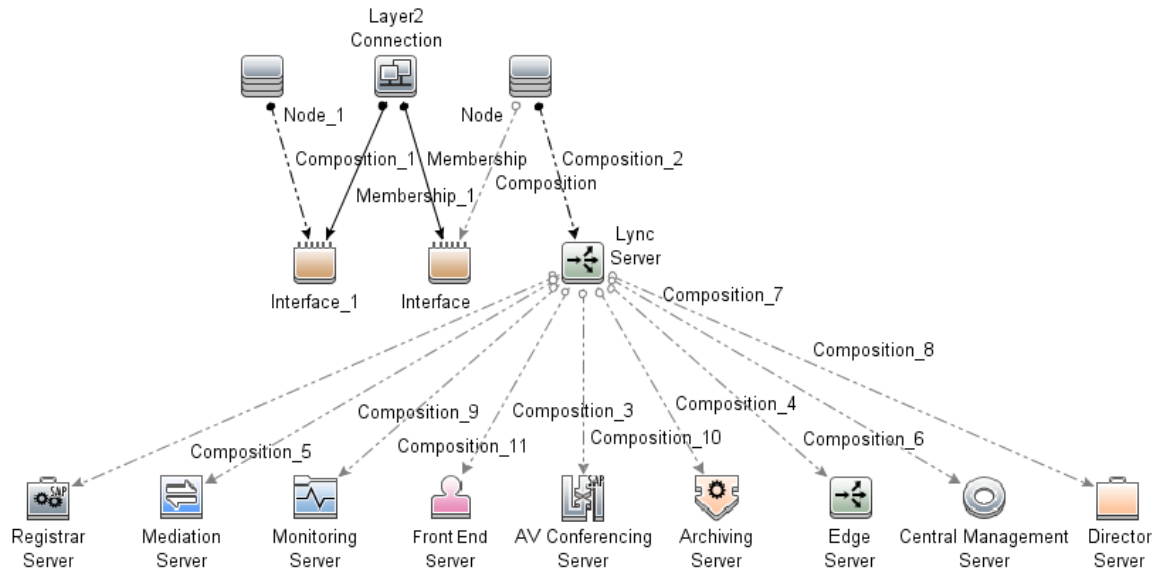
2. Select **Views** from the **Resource Type** drop-down list.
3. Select **Operations Management > Lync Server**.

By default, OMi MP for Microsoft Lync Server includes the following Views:

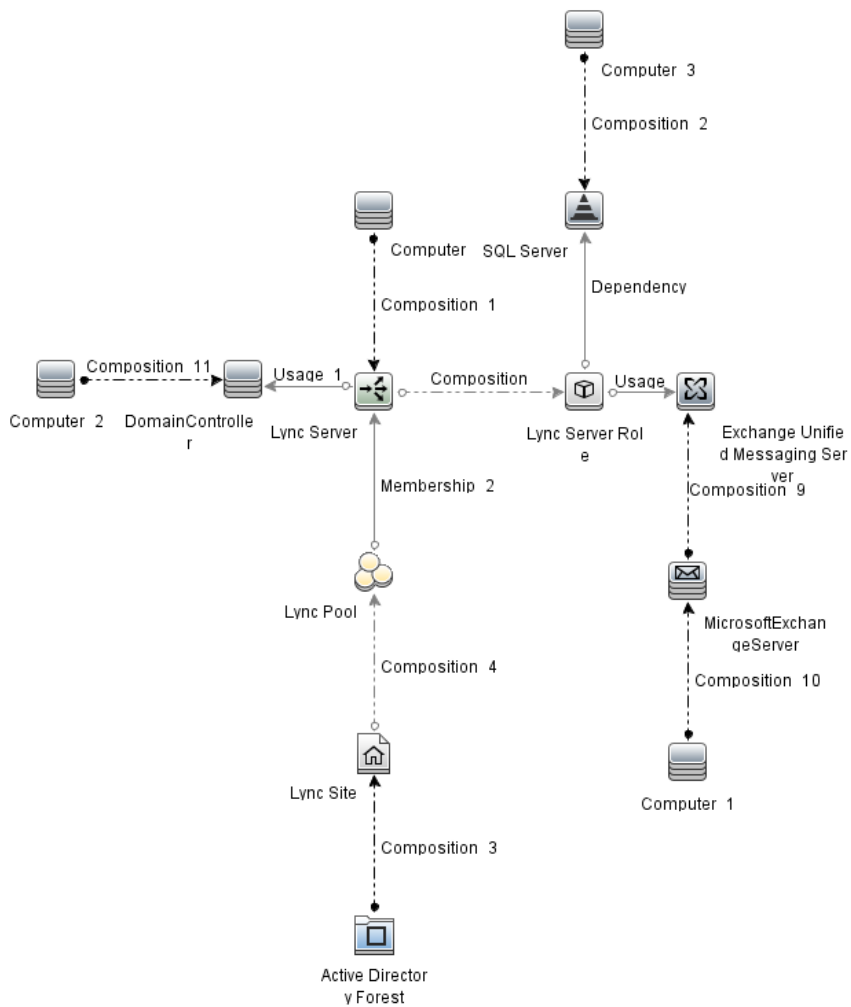
- Lync_NetworkIP_View



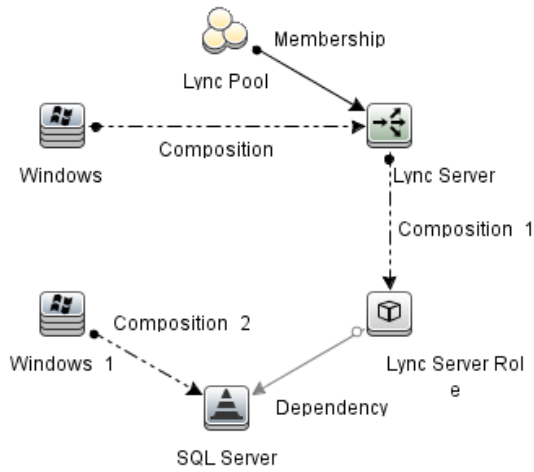
- Lync_NetworkL2_View



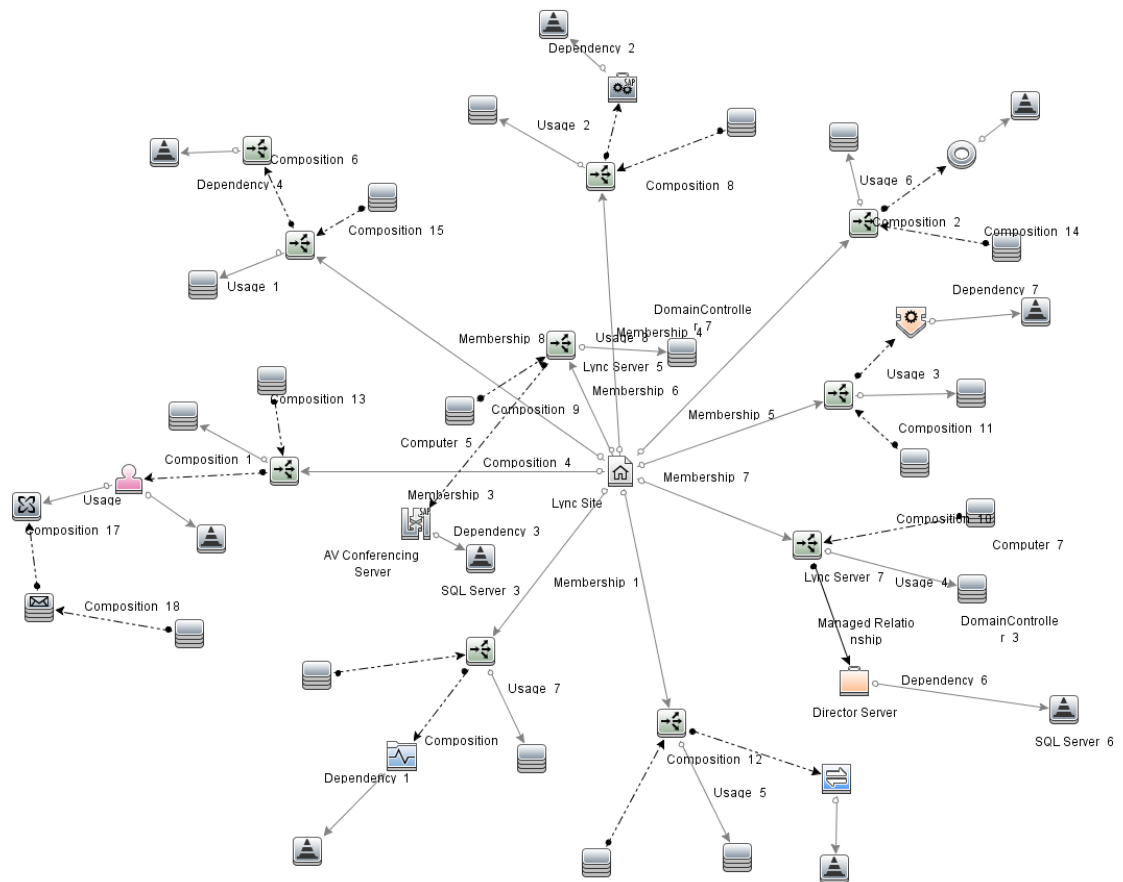
- Lync_Org_View



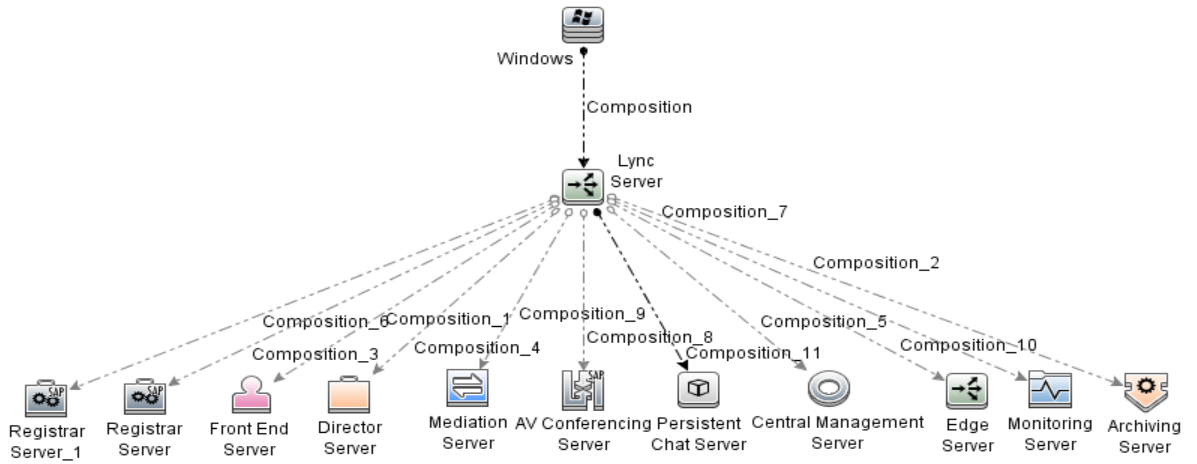
• Lync_Pool_View



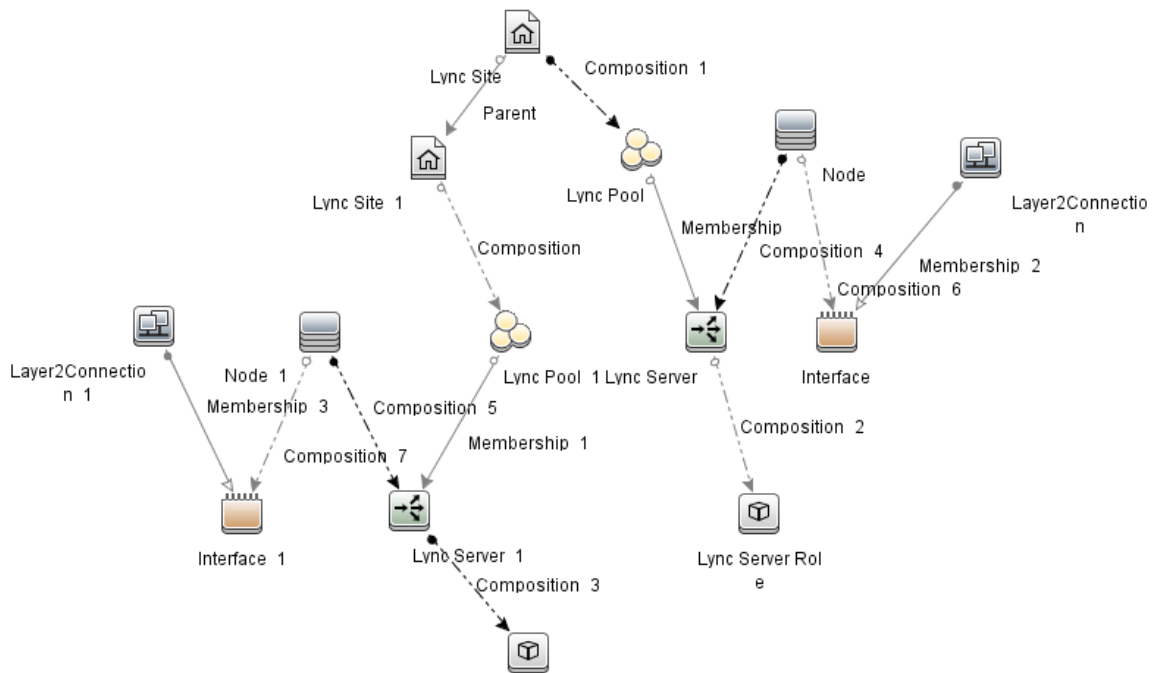
• Lync_Role_View



- Lync_Server_View



- Lync_Site_View



Enrichment Rules

Enrichment rules can be used for several purposes, including:

- Adding new CIs and relationships to the RTSM
- Deleting specific CI instances from the RTSM
- Updating the attribute values of specific CI instances in the RTSM

How to Access Enrichment Rules

1. Open the Enrichment manager pane:

On BSM 9.2x, click **Admin > RTSM Administration > Modeling > Enrichment manager**.

On OMi 10.x, click **Administration > RTSM Administration > Modeling > Enrichment manager**.

2. Click **Operations Management > Lync Server 2010 > <select the required rule>**.

The OMi MP for Microsoft Skype for Business Server includes the following Enrichment Rules:

- CentralSite_Parent_BranchSite
- FrontEndServer_Uses_ExchangeUMServer
- LyncServer_Uses_DomainController
- LyncServerRole_Depends_SqlServer

Health Indicators (HIs)

HIs analyze the events that occur in Microsoft Skype for Business Server CIs and report the health of the Microsoft Skype for Business Server CIs. The OMi MP for Microsoft Skype for Business Server includes the following HIs to monitor the Microsoft Skype for Business Server-related events:

How to Access HIs

1. Open the Indicators pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Indicators**.

On OMi 10.x, click **Administration > Service Health > CI Status Calculation > Health- and Event Type Indicators**.

2. In the CI Type pane, click **Configuration Item > InfrastructureElement >**
3. To check health of Lync Server CI, click **RunningSoftware > Communication Server > Lync Server**.
4. To check the health of remaining CI, click **Application Resource > Lync Resource**.

CI Type	HI	Description	Value/Severity
edgeserver	DOSAttack	Indicates whether the Edge Server is under Denial of Service Attack	Normal/NORMAL, Attacked/CRITICAL
directorserver	Sproc Latency	Indicates the latency of processing a request in director server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
registrarserver	Throttling Rate	Indicates the rate at which the registrar server is throttling requests.	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL
frontendserver	Conf Announcement Service Status	Indicates the status of Conference Announcement Service	Up/NORMAL, Down/CRITICAL
avconferencingserver	Number of Failed conference	Indicates the number of failed conference	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
lyncserverrole	Replication Status	Indicates the status of replication from	Success/NORMAL, Failed/CRITICAL

CI Type	HI	Description	Value/Severity
		Central Management Server to other Lync Server roles	
registrarserver	User Authentication Failure Rate	Indicates the rate of User Authentication failures in registrar	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
frontendserver	Front End Service Status	Indicates the status of the Front End Service	Up/NORMAL, Down/CRITICAL
avconferencingserver	AV Conf Service Status	Indicates the status of AV conference service	Up/NORMAL, Down/CRITICAL
mediationserver	OutboundCallConnectivity	Indicates the connectivity status of outbound calls	Up/NORMAL, Down/CRITICAL
mediationserver	Inbound Call Connectivity	Indicates the connectivity status for inbound calls	Up/NORMAL, Down/CRITICAL
avconferencingserver	Concurrent Conferences	Indicates the number of Concurrent Conference happening	Normal/NORMAL, High/MINOR, VeryHigh/WARNING
frontendserver	IM Conferencing Service Status	Indicates the status of IM Conferencing Service	Up/NORMAL, Down/CRITICAL
monitoringserver	QoE Monitoring Service Status	Indicates the status of QOE Monitoring Service	Up/NORMAL, Down/CRITICAL
lyncserverrole	LDAP Latency	Indicates the Latency in LDAP Queries	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
directorserver	Director Service Status	Indicates the status of Director Service	Up/NORMAL, Down/CRITICAL
registrarserver	AD Connectivity Failure	Indicates the rate	Normal/NORMAL,

CI Type	HI	Description	Value/Severity
	Rate	of failures in AD Connectivity	High/WARNING, VeryHigh/MAJOR
mediationserver	Number of Call Failures	Indicates the rate of call failures in Mediation server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
frontendserver	Request Processing Latency	The average processing time taken by the server for one request.	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL
frontendserver	Response Group Service Status	Indicates the status of Response Group Service	Up/NORMAL, Down/CRITICAL
directorserver	Federation logon failures	Indicates the logon failure rate of federated users	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
frontendserver	Cal Park Service Status	Indicates the Call Park Service for Health Performance.	Up/NORMAL, Down/CRITICAL
edgeserver	Edge Access Service Status	Indicates the status of Edge Access Service	Up/NORMAL, Down/CRITICAL
lyncserverrole	AD Connectivity	Indicates the status of AD connectivity	Up/NORMAL, Down/CRITICAL
lyncpool	Replication Service Status	Indicates the status of the Replication Service	Up/NORMAL, Down/CRITICAL
monitoringserver	Monitoring Server Load	Indicates the load on Monitoring Server	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR, Bottlenecked/CRITICAL
edgeserver	Edge Connectivity	Indicates the connectivity of Edge Server with that of front end server or director	Up/NORMAL, Down/CRITICAL

CI Type	HI	Description	Value/Severity
		server	
edgeserver	AuthenticationFailures	Indicates the rate of User Authentication Failures in Edge Server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
lyncpool	Server Load	Indicates if the Lync Server is undergoing heavy processing load	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR, Bottlenecked/CRITICAL
edgeserver	Edge AV Service Status	Indicates the status of AV service in Edge server	Up/NORMAL, Down/CRITICAL
archivingserver	Archiving Service Status	Indicates the Status of Archiving Service	Up/NORMAL, Down/CRITICAL
frontendserver	Application Sharing Service Status	Indicates the status of Application Sharing Service	Up/NORMAL, Down/CRITICAL
lyncserverrole	Queue Depth	Indicates the Queue Depth specific to particular role	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
avconferencingserver	AV Conferencing Health	Indicates the health of AV Conferencing Server	Normal/NORMAL, Overloaded/CRITICAL, Loaded/WARNING
archivingserver	Archiving DB Queue	Indicates the depth of DB Queue in Archiving Server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
frontendserver	Web Conferencing Service Status	Indicates the status of Web Conferencing Service	Up/NORMAL, Down/CRITICAL
avconferencingserver	Conference Login Latency	Indicates the latency in logging in to conference	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR

CI Type	HI	Description	Value/Severity
edgeserver	Edge AV Auth Service Status	Indicates the status of AV Authentication Service in edge server	Up/NORMAL, Down/CRITICAL
mediationserver	PSTN Connectivity	Indicates the status of connectivity with PSTN gateway	Up/NORMAL, Down/CRITICAL
mediationserver	Voice Quality	Indicates the Quality of voice in mediation Server	Normal/NORMAL, Low/MAJOR, VeryLow/CRITICAL
mediationserver	Mediation Server Health	Indicates the Mediation Server for KHI Performance Counters.	Normal/NORMAL, Loaded/MAJOR, Overloaded/CRITICAL
frontendserver	Outbound Tasks Queued	This policy monitors the number of outbound requests and responses queued.	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL
avconferencingserver	AVConf Server Load	Indicates the current load on AV Conferencing Server	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR, Bottlenecked/CRITICAL
frontendserver	Conf Attendant Service Status	Indicates the status of Conference Attendant Service	Up/NORMAL, Down/CRITICAL
frontendserver	Exchange UM Connectivity	Indicates the status of Connectivity to Exchange Unified Messaging Server	Up/NORMAL, Down/CRITICAL
registrarserver	Registrar Server Load	Indicates the load on registrar server	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR,

CI Type	HI	Description	Value/Severity
			Bottlenecked/CRITICAL
avconferencingserver	AV Connectivity	Indicates the connectivity of AV conference	Up/NORMAL, Down/CRITICAL
mediationserver	Exchange UM Calls Failure rate	Indicates the rate of failure of UM Calls	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL
archivingserver	Archiving Server Load	Indicates the load on Archiving Server	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR, Bottlenecked/CRITICAL
archivingserver	Archiving DB Latency	Indicates the queue latency in Archiving server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
monitoringserver	CDR Monitoring Service Status	Indicates the status of CDR monitoring service	Up/NORMAL, Down/CRITICAL
mediationserver	Mediation Server Load	Indicates the load on Mediation Server	Normal/NORMAL, Busy/INFORMATIONAL, Constrained/MINOR, Overloaded/MAJOR, Bottlenecked/CRITICAL
frontendserver	Mediation Service Status	Indicates the status of Mediation Service	Up/NORMAL, Down/CRITICAL
frontendserver	IM Conferencing Status	Status of IM Conferencing Availability	Up/NORMAL, Down/CRITICAL
mediationserver	Mediation Service Status	Indicates the service status of Mediation Service	Up/NORMAL, Down/CRITICAL
lyncpool	Central Mgmt Service Status	Indicates the status of the Central Management Service	Up/NORMAL, Down/CRITICAL
lyncpool	User Registration Latency	Indicates the User Registration	Normal/NORMAL, High/WARNING,

CI Type	HI	Description	Value/Severity
		Latency for synthetic transactions.	VeryHigh/MAJOR
frontendserver	IM Conferencing Latency	Indicates the IM Conferencing Latency for synthetic transactions.	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL
registrarserver	DataCenter Resiliency	Indicates the data center resiliency status	Up/NORMAL, Down/MAJOR
avconferencingserver	AV Latency	Indicates the latency of AV Conference	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
registrarserver	User Registration Status	Indicates the status of user registration	Success/NORMAL, Failure/CRITICAL
lyncserverrole	Resource Usage	Indicates the resource usage of a Lync Server	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
lyncserverrole	Backend Connectivity	Indicates the status of connectivity between the Lync Server and the back end SQL Server	Up/NORMAL, Down/CRITICAL
lyncserverrole	Queue Latency	Indicates the Queue Length specific to particular role	Normal/NORMAL, High/WARNING, VeryHigh/MAJOR
edgeserver	Edge Web Conferencing ServiceStatus	Indicates the status of Web Conference Service in Edge Server	Up/NORMAL, Down/CRITICAL
lyncpool	SIPLoad	Indicates the load on the server due to SIP transactions	Normal/NORMAL, High/MAJOR, VeryHigh/CRITICAL

Event Type Indicators (ETIs)

ETIs are categorization of events based on the type of occurrence. The OMi MP for Microsoft Skype for Business Server includes the following ETIs to monitor Microsoft Skype for Business Server-related events

How to Access ETIs

1. Open the Indicators pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Indicators**.

On OMi 10.x, click **Administration > Service Health > CI Status Calculation > Health- and Event Type Indicators**.

2. In the CI Type pane, click **Configuration Item > InfrastructureElement > Application Resource > Lync Resource**.

CI Type	ETI	Description	Value/Severity
frontendserver	Operations	Indicates the Operations for KHI Performance Counters.	Normal/NORMAL, Minor/MAJOR
frontendserver	Physical Disk	Indicates the Physical Disk for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR
lyncserver	Network_Interface	This indicator gives the of network interface queue length	Normal/NORMAL, Major/MAJOR
lyncserver	Memory	This indicator gives the total memory utilization	Normal/NORMAL, Major/MAJOR
edgeserver	Queue Performance	Indicates the Average Outgoing Message Queue of	Normal/NORMAL,

CI Type	ETI	Description	Value/Severity
		Health Performance .	Major/MAJOR
frontendserv er	MSSQL	Indicates the MSSQL for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR
frontendserv er	Network Interface	Indicates the Network Interface for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR
frontendserv er	AppSharingJitterPoorCallsPercentage	Indicates the Application Sharing Jitter Poor Calls Percentage related to Quality of Experience.	Normal/NORMAL, Warning/WARNING, Major/MAJOR
frontendserv er	MCU Health Performance	Indicates the MCU Health Performance for Health Performance.	Normal/NORMAL, Warning/WARNING
lyncpool	AVEdgeConnectivityLatency	Indicates the AVEdgeConnectivity Latency for synthetic transactions.	Normal/NORMAL, Minor/MINOR
frontendserv er	Conference Mcu Allocator	Indicates the Conference Mcu Allocator for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR
frontendserv er	File Transfer Agent Service Status	Indicates the status of File Transfer Agent Service	Up/NORMAL, Down/CRITICAL
edgeserver	Streams	Indicates the connectivity of Edge Server	Normal/NORMAL, Minor/MINOR
frontendserv er	VISSvc	Indicates the Total Calls declined due to load.	Normal/NORMAL, Major/MAJOR

CI Type	ETI	Description	Value/Severity
			R
frontendserv er	Audio Test Service Status	Indicates the status Of Audio Test Service	Up/NORMAL, Down/CRITICAL
edgeserver	Failedoutboundstreamestablishespersec	Indicates the per-second number of outbound stream establishment failures.	Normal/NORMAL, Minor/MINOR
frontendserv er	Join Failure Performance	Indicates the Join Failure Performance for Health Performance.	Normal/NORMAL, Critical/CRITICAL
frontendserv er	BandWidth Policy Service Core Status	Indicates the status of BandWidth Policy Service Core	Up/NORMAL, Down/CRITICAL
lyncpool	Peer2PeerInstantMessaging	Indicates the Peer to Peer Instant Messaging for synthetic transactions.	Up/NORMAL, Down/CRITICAL
frontendserv er	VideoPacketLossPoorCallsPercentage	Indicates the Video Packet Loss Poor Calls Percentage related to Quality of Experience.	Normal/NORMAL, Warning/WARNING, Major/MAJOR
frontendserv er	Credential Authentication	Indicates the Credential Authentication for Health Performance.	Normal/NORMAL, Major/MAJOR
frontendserv er	AudioVideoCallFailurePercentage	Indicates the Audio Video Call Failure Percentage related to Call Details Record.	Normal/NORMAL, Warning/WARNING, Major/MAJOR
lyncpool	XMPPInstantMessagingFederation Latency	Indicates the XMPPInstantMessagingFeder	Normal/NORMAL,

CI Type	ETI	Description	Value/Severity
		ation Latency for synthetic transactions.	Minor/Minor
lyncpool	Address Book Service Latency	Indicates the Address Book Service Latency of synthetic transactions.	Normal/Normal, Minor/Minor
frontendserv er	Load Management	Indicates the Load Management for KHI Performance Counters.	Normal/Normal, Minor/Minor
avconferenci ngserver	Bandwidth Availability	Indicates the bandwidth available for AV conference	Normal/Normal, Low/Warning, VeryLow/Major
frontendserv er	Auth Provider related calls	Indicates the Auth Provider related calls for KHI Performance Counters.	Normal/Normal, Minor/Minor
lyncpool	RegistrationLatency	Indicates the Registration Latency for synthetic transactions.	Normal/Normal, Major/Major
frontendserv er	Memory	Indicates the Memory for KHI Performance Counters.	Normal/Normal, Major/Major
frontendserv er	Web Conference Compatibility Service Status	Indicates the status of Web Conferencing Compatibility Service	Up/Normal, Down/Critical
frontendserv er	REGDBStoreThrottledrequests	Indicates the number of requests that were rejected with a retry since the database queue latency was high.	Normal/Normal, Major/Major
lyncpool	JoinLauncherScheduledMeetings	Indicates the JoinLauncher Scheduled Meetings for synthetic transactions.	Normal/Normal, Up/Normal

CI Type	ETI	Description	Value/Severity
			L, Down/MAJ OR
frontendserv er	URLWatcherDialin	Indicates the state of Simple URL for Dialin.	Normal/NO RMAL, Minor/MINO R
lyncpool	PersistentChatLatency	Indicates the PersistentChat Latency for synthetic transactions.	Normal/NO RMAL, Minor/MINO R
lyncpool	ExchangeUnifiedMessageConnectivityVoiceMailLatency	Indicates the ExchangeUnifiedMessageConnectivityVoiceMail Latency for synthetic transactions.	Normal/NO RMAL, Minor/MINO R
frontendserv er	DB Store	Indicates the DB Store for KHI Performance Counters.	Normal/NO RMAL, Major/MAJO R
edgeserver	Credential Authentication	Indicates the Credential Authentication for Health Performance.	Normal/NO RMAL, Major/MAJO R
frontendserv er	TotalInteropLegCallFailures	Indicates the total number of interop leg call failures.	Normal/NO RMAL, Major/MAJO R
lyncpool	PSTNPeer2PeerCallLatency	Indicates the PSTNPeer2PeerCall Latency for synthetic transactions.	Normal/NO RMAL, Minor/MINO R
lyncpool	NetPartDepend	Indicates the Network and Partner Dependency for synthetic transactions.	Normal/NO RMAL, Up/NORMA L, Down/WAR NING
frontendserv er	Emergency Call Routing	Indicates the Emergency Call Routing for KHI Performance	Normal/NO RMAL,

CI Type	ETI	Description	Value/Severity
		Counters.	Major/MAJOR
lyncpool	Address Book Web Query Latency	Indicates the Address Book Web Query Latency of synthetic transactions.	Normal/NORMAL, Minor/MINOR
frontendserv er	IncomingRequestsDropped	Indicates the per-second rate of incoming requests dropped because they could not be processed	Normal/NORMAL, Major/MAJOR
lyncpool	PersistentChat	Indicates the PersistentChat for synthetic transactions.	Normal/NORMAL, Up/NORMAL, Down/MAJOR
frontendserv er	Subscribed User	Indicates the Subscribed User for Health Performance.	Normal/NORMAL, Critical/CRITICAL
lyncpool	PresenceLatency	Indicates the Presence Latency for synthetic transactions.	Normal/NORMAL, Major/MAJOR
frontendserv er	SHAREDDBStoreSprocLatency	Indicates the average time it takes to execute a sproc call against RTCShared database.	Normal/NORMAL, Major/MAJOR
frontendserv er	DNS Resolution	Indicates the DNS Resolution for Health Performance.	Normal/NORMAL, Critical/CRITICAL
lyncpool	Peer2PeerMobileIMLatency	Indicates the Peer2PeerMobileIM Latency for synthetic transactions.	Normal/NORMAL, Major/MAJOR
frontendserv er	REG DBStore	Indicates the REG DBStore for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR

CI Type	ETI	Description	Value/Severity
			R
frontendserv er	TotalProxyLegCallFailures	Indicates the total number of Proxy leg call failures.	Normal/NO RMAL, Major/MAJO R
lyncserver	PacketsOutboundDiscarded	This indicator gives the total Packets Outbound that are discarded	Normal/NO RMAL, Major/MAJO R
frontendserv er	Network and Partner Dependencies	Indicates the Network and Partner Dependencies for Synthetic Transactions.	Normal/NO RMAL, Up/NORMA L, Down/MAJ OR
frontendserv er	SIP Instant Messaging	Indicates the SIP Instant Messaging for KHI Performance Counters.	Normal/NO RMAL, Minor/MINO R
lyncpool	Presence	Indicates the Presence for Synthetic transactions.	Normal/NO RMAL, Up/NORMA L, Down/MAJ OR
lyncserver	PacketsReceivedDiscarded	Indicates packet loss indicator	Normal/NO RMAL, Major/MAJO R
frontendserv er	AppSharingCallFailurePercentage	Indicates the Application Sharing Call Failure Percentage related to Call Details Record.	Normal/NO RMAL, Warning/WA RNING, Major/MAJO R
frontendserv er	Distribution List Expansion	Indicates the Distribution List Expansion for KHI Performance Counters.	Normal/NO RMAL, Minor/MINO R

CI Type	ETI	Description	Value/Severity
frontendserv er	Server Connections	Indicates the Server Connections for KHI Performance Counters.	Normal/NO RMAL, Minor/MINO R
frontendserv er	Streams	Indicates the Streams for KHI Performance Counters.	Normal/NO RMAL, Minor/MINO R
lyncpool	PeerToPeerAudioVideoLatency	Indicates the Peer To Peer Audio Video Latency for synthetic transactions.	Normal/NO RMAL, Major/MAJO R
frontendserv er	Conference Processing Performance	Indicates the Credentials Issued Per Second for Health Performance.	Normal/NO RMAL, Warning/WA ARNING, Critical/CRI TICAL
lyncserver	AvgDisksecWrite	This indicator give the Average Disk Writes per Second	Normal/NO RMAL, Major/MAJO R
frontendserv er	ProcessorInformation	Indicates the ProcessorInformation for KHI Performance Counters.	Normal/NO RMAL, Major/MAJO R
lyncpool	UnifiedContactStoreLatency	Indicates the UnifiedContactStore Latency for synthetic transactions.	Normal/NO RMAL, Minor/MINO R
lyncserver	ProcessorInformation	This indicator gives processor utilization	Normal/NO RMAL, Major/MAJO R
lyncpool	DataConferenceLatency	Indicates the DataConference Latency for synthetic transactions.	Normal/NO RMAL, Major/MAJO R
frontendserv	AboveLimitConnectionsDropped	Indicates the total number of	Normal/NO

CI Type	ETI	Description	Value/Severity
er		connections that were dropped because the limit on number of incoming connections from a federated partner or clearinghouse were exceeded .	RMAL, Minor/MINOR
lyncpool	Peer2PeerAudioVideo	Indicates the Peer to Peer Audio Video of Synthetic Transactions .	Normal/NORMAL, Up/NORMAL, Down/MAJOR
lyncpool	JoinLauncherLatency	Indicates the JoinLauncher Latency for synthetic transactions.	Normal/NORMAL, Major/MAJOR
frontendserv er	Collaboration SIP Service	Indicates the Collaboration SIP Service for Health Performance.	Normal/NORMAL, Critical/CRITICAL
frontendserv er	Peers	Indicates the Peers for KHI Performance Counters.	Normal/NORMAL, Minor/MINOR
lyncserver	Physical_Disk	This indicator gives the Physical Disk space usage	Normal/NORMAL, Major/MAJOR
frontendserv er	Cluster Manager	Indicates the Cluster Manager for KHI Performance Counters.	Normal/NORMAL, Minor/MINOR
frontendserv er	Instant Messaging Latency	Indicates the Incoming Messages Timed out.	Normal/NORMAL, Minor/MINOR
lyncpool	Contacts	Indicates the Contacts for synthetic transactions.	Normal/NORMAL, Up/NORMAL, Down/MAJ

CI Type	ETI	Description	Value/Severity
			OR
lyncserver	PacketsReceivedDiscarded	This indicator gives to total Network Packets Received that are discarded	Normal/NO RMAL, Major/MAJOR
frontendserv er	AD Requests Pending	The number of request waiting currently for Active Directory responses	Normal/NO RMAL, High/MINOR, VeryHigh/MAJOR
frontendserv er	AudioPacketLossPoorCallsPercentage	Indicates the Audio Packet Loss Poor Calls Percentage related to Quality of Experience.	Normal/NO RMAL, Warning/WARNING, Major/MAJOR
lyncpool	AudioVideoConferencing	Indicates the AudioVideo Conferencing for synthetic transactions.	Normal/NO RMAL, Up/NORMAL, Down/MAJOR
frontendserv er	REGDBSprocLatency	Indicates the average time it takes to execute a sproc call against RTC database.	Normal/NO RMAL, Major/MAJOR
frontendserv er	Queue Performance	Indicates the Queue Performance for Health Performance.	Normal/NO RMAL, Warning/WARNING, Major/MAJOR
frontendserv er	URLWatcherMeet	Indicates the state of Simple URL for Meet.	Normal/NO RMAL, Minor/MINOR
frontendserv er	ConferenceFailurePercentage	Indicates the Conference Failure Percentage related to Call Details Record.	Normal/NO RMAL, Warning/WA

CI Type	ETI	Description	Value/Severity
			RNING, Major/MAJOR
frontendserv er	Shared DBStore	Indicates the Shared DBStore for KHI Performance Counters.	Normal/NORMAL, Major/MAJOR
frontendserv er	SHAREDDBStoreThrottledrequests	Indicates the number of requests that were rejected with a retry since the database queue latency was high.	Normal/NORMAL, Major/MAJOR
frontendserv er	Conferences Connection	Indicates the Conferences Connection for Health Performance.	Normal/NORMAL, Warning/WARNING, Critical/CRITICAL
lyncpool	AudioVideoConferenceLatency	Indicates the Audio Video Conference Latency of synthetic transactions.	Normal/NORMAL, Major/MAJOR
frontendserv er	BandWidth Policy Service Auth Status	Indicates the status of BandWidth Policy Service Authentication	Up/NORMAL, Down/CRITICAL
frontendserv er	ASP.NET Apps	Indicates the Requests Rejected.	Normal/NORMAL, Major/MAJOR
frontendserv er	External Request	Indicates the External Request for Health Performance.	Normal/NORMAL, Major/MAJOR
frontendserv er	Web Service Performance	Indicates the Failed Search Request of Performance.	Normal/NORMAL, Major/MAJOR
frontendserv er	IncomingResponsesDropped	Indicates the per-second rate of incoming responses	Normal/NORMAL,

CI Type	ETI	Description	Value/Severity
		dropped	Major/MAJOR
lyncpool	Registration	This ETI is used to indicate user registration status	Normal/NORMAL, Up/NORMAL, Down/MAJOR
lyncpool	GroupInstantMessagingLatency	Indicates the Group Instant Messaging Latency for synthetic transactions.	Normal/NORMAL, Major/MAJOR
edgeserver	Server_Connections	Indicates the connectivity of Edge Server	Normal/NORMAL, Minor/MINOR
lyncpool	Peer2PeerMobileIM	Indicates the Peer to Peer Mobile Instant Messaging for synthetic transactions.	Normal/NORMAL, Up/NORMAL, Down/MAJOR
frontendserver	URLWatcherAdmin	Indicates the state of Simple URL for Admin.	Normal/NORMAL, Minor/MINOR
mediationserver	Media_Relay	Media_Relay	Normal/NORMAL, Minor/MINOR
lyncpool	InstantMessageConferencing	Indicates the Instant Messaging Conferencing for synthetic transactions.	Normal/NORMAL, Up/NORMAL, Down/MAJOR
frontendserver	AvgDisksecWrite	Indicates the average time of disk write latency.	Normal/NORMAL, Major/MAJOR

CI Type	ETI	Description	Value/Severity
edgeserver	Conference Processing Performance	Indicates the Conference Processing Performance of Health Performance.	Normal/NORMAL, Warning/WARNING
frontendserver	PacketsOutboundDiscarded	Indicates outbound packet loss	Normal/NORMAL, Major/MAJOR
frontendserver	Media Relay	Indicates the Media stack does not have Media relay candidates.	Normal/NORMAL, Minor/MINOR
registrarserver	External Request	Indicates the load of external request in registrar server	Normal/NORMAL, Major/MAJOR
frontendserver	MCU Request Responses	Indicates the MCU Request Responses for Health Performance.	Normal/NORMAL, Warning/WARNING, Critical/CRITICAL
lyncpool	InstantMessagingLatency	Indicates the Instant Messaging Latency for synthetic transactions.	Normal/NORMAL, Minor/MINOR
frontendserver	Protocol	Indicates the Average Incoming Message Processing Time.	Normal/NORMAL, Major/MAJOR
lyncpool	DataConferencing	Indicates the Data Conferencing for synthetic transactions.	Normal/NORMAL, Up/NORMAL, Down/MAJOR
frontendserver	UCWA	Indicates the UCWA for KHI Performance Counters.	Normal/NORMAL, Minor/MINOR

Topology Based Event Correlation Rules

In event correlation, rules are applied to identify commonly occurring events or combinations of events and helps handling of such events by automatically identifying events that can be withheld, removed or need a new event to be generated and displayed to the operators.

How to Access the TBEC Rules

- Open the Topology Based Event Correlation pane:

On BSM 9.2x, click **Admin > Operations Management > Event Correlation > Topology Based Event Correlation**

On OMi 10.x, click **Administration > Event Correlation > Correlation > Topology Based Event Correlation**

The OMi MP for Microsoft Skype for Business Server includes the following rules to correlate Microsoft Skype for Business Server-related events:

For more information on how the correlation rules work, see the *Operations Manager i Concepts Guide*.

Lync::Interface::Interface Utilization >> AD Connectivity

Description: High Interface utilization in the computer hosting the Lync Server could impact the server's connectivity to Active Directory		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: AV Conferencing Server	ETI:AD Connectivity	Value: Down
Symptom 2		
CIT: AV Conferencing Server	ETI:LDAP Latency	Value: Very High
Symptom 3		
CIT: Central Management Server	ETI:LDAP Latency	Value: Very High
Symptom 4		
CIT: Monitoring Server	ETI:AD Connectivity	Value: Down

Description: High Interface utilization in the computer hosting the Lync Server could impact the server's connectivity to Active Directory		
Symptom 5		
CIT: Registrar Server	ETI:LDAP Latency	Value: Very High
Symptom 6		
CIT: Monitoring Server	ETI:LDAP Latency	Value: Very High
Symptom 7		
CIT: Registrar Server	ETI:AD Connectivity	Value: Down
Symptom 8		
CIT: Front End Server	ETI:LDAP Latency	Value: Very High
Symptom 9		
CIT: Mediation Server	ETI:AD Connectivity	Value: Down
Symptom 10		
CIT: Director Server	ETI:AD Connectivity	Value: Down
Symptom 11		
CIT: Director Server	ETI:LDAP Latency	Value: Very High
Symptom 12		
CIT: Front End Server	ETI:AD Connectivity	Value: Down
Symptom 13		
CIT: Archiving Server	ETI:AD Connectivity	Value: Down
Symptom 14		
CIT: Mediation Server	ETI:LDAP Latency	Value: Very High
Symptom 15		
CIT: Central Management Server	ETI:AD Connectivity	Value: Down
Symptom 16		
CIT: Archiving Server	ETI:LDAP Latency	Value: Very High

Lync::Registrar::ADConnectivity >> UserRegistration

Description: Active Directory Connectivity issues in Registrar impacts User Registration		
Cause		
CIT: Registrar Server	ETI: AD Connectivity	Value: Down
Symptom		
CIT: Registrar Server	ETI:User Registration Status	Value: Failure

Lync::DomainController::Logon Errors >> User Authentication Failures

Description: Logon Errors in Active Directory increases the rate of User Authentication Failures in FrontEnd Server		
Cause		
CIT: DomainController	ETI: Logon Errors	Value: Very High
Symptom		
CIT: Registrar Server	ETI:User Authentication Failure Rate	Value: Very High

Lync::AVConferencingServer::AV Conferencing Service Status >> AV Conf Availability

Description: Status of AV Conference Service impacts availability of AV conferences on AV Conferencing Server		
Cause		
CIT: AV Conferencing Server	ETI: AV Conf Service Status	Value: Down
Symptom 1		
CIT: AV Conferencing Server	ETI:AV Conferencing Health	Value: Overloaded
Symptom 2		
CIT: AV Conferencing Server	ETI:Number of Failed conference	Value: Very High
Symptom 3		
CIT: AV Conferencing Server	ETI:AV Connectivity	Value: Down

Lync::Interface::Interface Utilization >> Director Performance

Description: Network Interface Utilization on the computer hosting the Director role of Lync Server would impact Director's performance		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: Director Server	ETI:Queue Latency	Value: Very High
Symptom 2		
CIT: Director Server	ETI:Queue Depth	Value: Very High
Symptom 3		
CIT: Director Server	ETI:Sproc Latency	Value: Very High

Lync::FrontEndServer::Front End Service Status >> User Connectivity

Description: The status of Front End Service on the Front End Server will impact user connectivity		
Cause		
CIT: Front End Server	ETI: Front End Service Status	Value: Down
Symptom 1		
CIT: Registrar Server	ETI:User Registration Status	Value: Failure
Symptom 2		
CIT: Registrar Server	ETI:User Authentication Failure Rate	Value: Very High

Lync::Interface::Interface Utilization >> Front End Performance

Description: High Network Interface Utilization on the computer hosting the Front End role of Lync Server would impact Front End server's performance		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: Front End Server	ETI:Request Processing Latency	Value: Very High

Description: High Network Interface Utilization on the computer hosting the Front End role of Lync Server would impact Front End server's performance

Symptom 2

CIT: Front End Server	ETI:Queue Depth	Value: Very High
-----------------------	-----------------	------------------

Symptom 3

CIT: Front End Server	ETI:Queue Latency	Value: Very High
-----------------------	-------------------	------------------

Symptom 4

CIT: Front End Server	ETI:Outbound Tasks Queued	Value: Very High
-----------------------	---------------------------	------------------

Lync::SQLServer::SQL Query Performance >> Front End Queue

Description: Performance of SQL Query in SQL Server Impacts Front End Queue in Front End Server

Cause

CIT: SQL Server	ETI: SQL Query Performance	Value: Low
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Symptom 1

CIT: Front End Server	ETI:Queue Latency	Value: Very High
-----------------------	-------------------	------------------

Symptom 2

CIT: Front End Server	ETI:Queue Depth	Value: Very High
-----------------------	-----------------	------------------

Lync::FrontEndServer::IM Conferencing Service Status >> IM Availability

Description: The status of Instant Messaging Conference service impacts ability to host instant messaging by the Lync Server

Cause

CIT: Front End Server	ETI: IM Conferencing Service Status	Value: Down
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Symptom 1

CIT: Front End Server	ETI:IM Conferencing Status	Value: Down
-----------------------	----------------------------	-------------

Symptom 2

CIT: Front End Server	ETI:IM Conferencing Latency	Value: Very High
-----------------------	-----------------------------	------------------

Lync::FrontEndServer::IM Conferencing Service Status >> SIP Load

Description: The status of the IM Conferencing Service in Front End Server impacts SIP load		
Cause		
CIT: Front End Server	ETI: IM Conferencing Status	Value: Down
Symptom		
CIT: Lync Server	ETI:SIPLoad	Value: Very High

Lync::FrontEndServer::Band Width Policy Service Core >> Band Width Policy Service Auth

Description: Status of Bandwidth Policy Service Core in frontend server impacts Bandwidth Policy Service Auth		
Cause		
CIT: Front End Server	ETI: BandWidth Policy Service Core Status	Value: Down
Symptom		
CIT: Front End Server	ETI:BandWidth Policy Service Auth Status	Value: Down

Lync::DomainController::DC LDAP Bind Response Time >> LDAP Latency

Description: DC LDAP Bind Response Time in Active Directory Impacts LDAP Latency on the Lync Server Roles		
Cause		
CIT: DomainController	ETI: DC LDAP Bind Response Time	Value: Very High
Symptom		
CIT: Front End Server	ETI:LDAP Latency	Value: Very High

Lync::Interface::Interface Utilization Next Hop >> Back End Connectivity

Description: Network Interface Utilization on the next hop from the computer hosting the Lync Server could impact ability to connect to the back end		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		

Description: Network Interface Utilization on the next hop from the computer hosting the Lync Server could impact ability to connect to the back end		
CIT: Director Server	ETI:Backend Connectivity	Value: Down
Symptom 2		
CIT: AV Conferencing Server	ETI:Backend Connectivity	Value: Down
Symptom 3		
CIT: Central Management Server	ETI:Backend Connectivity	Value: Down
Symptom 4		
CIT: Front End Server	ETI:Backend Connectivity	Value: Down
Symptom 5		
CIT: Edge Server	ETI:Backend Connectivity	Value: Down
Symptom 6		
CIT: Archiving Server	ETI:Backend Connectivity	Value: Down
Symptom 7		
CIT: Monitoring Server	ETI:Backend Connectivity	Value: Down
Symptom 8		
CIT: Mediation Server	ETI:Backend Connectivity	Value: Down
Symptom 9		
CIT: Registrar Server	ETI:Backend Connectivity	Value: Down

Lync::LyncRole::Back End Connectivity >> Queue Depth

Description: Connectivity to the back end database impacts the various queues on a Lync Server		
Cause		
CIT: Lync Server Role	ETI: Backend Connectivity	Value: Down
Symptom		
CIT: Lync Server Role	ETI:Queue Depth	Value: Very High

Lync::Interface::Interface Utilization Next Hop >> AD Connectivity

Description: Interface Utilization on the next hop from the Lync Server can impact the AD Connectivity		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: Edge Server	ETI:AD Connectivity	Value: Down
Symptom 2		
CIT: Registrar Server	ETI:AD Connectivity	Value: Down
Symptom 3		
CIT: Central Management Server	ETI:AD Connectivity	Value: Down
Symptom 4		
CIT: AV Conferencing Server	ETI:AD Connectivity	Value: Down
Symptom 5		
CIT: Mediation Server	ETI:AD Connectivity	Value: Down
Symptom 6		
CIT: Director Server	ETI:AD Connectivity	Value: Down
Symptom 7		
CIT: Front End Server	ETI:AD Connectivity	Value: Down
Symptom 8		
CIT: Archiving Server	ETI:AD Connectivity	Value: Down
Symptom 9		
CIT: Monitoring Server	ETI:AD Connectivity	Value: Down

Lync::ExchangeUnifiedMessagingServer::Unified Messaging Status >>**ExchangeUMCallsFailureRate**

Description: Unified Messaging Service status in the Unified Messaging role of exchange server impacts the UM Call Failure Rate in Mediation Server role of Lync Server
Cause

Description: Unified Messaging Service status in the Unified Messaging role of exchange server impacts the UM Call Failure Rate in Mediation Server role of Lync Server		
CIT: Exchange Unified Messaging Server	ETI: Unified Messaging Status	Value: Down
Symptom 1		
CIT: Front End Server	ETI:Exchange UM Connectivity	Value: Down
Symptom 2		
CIT: Mediation Server	ETI:Exchange UM Calls Failure rate	Value: Very High

Lync::Interface::Interface Utilization Next Hop >> Server Performance

Description: Network Interface Utilization on the next hop from the computer hosting the Front End role of Lync Server would impact Front End Server's performance		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: Front End Server	ETI:Queue Depth	Value: Very High
Symptom 2		
CIT: Front End Server	ETI:Request Processing Latency	Value: Very High
Symptom 3		
CIT: Front End Server	ETI:Queue Latency	Value: Very High
Symptom 4		
CIT: Front End Server	ETI:Outbound Tasks Queued	Value: Very High

Lync::Interface::Interface Utilization Next Hop >> Director Performance

Description: Network Interface Utilization on the next hop from the computer hosting the Director role of Lync Server would impact Director's performance		
Cause		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		

Description: Network Interface Utilization on the next hop from the computer hosting the Director role of Lync Server would impact Director's performance		
CIT: Director Server	ETI:Queue Latency	Value: Very High
Symptom 2		
CIT: Director Server	ETI:Queue Depth	Value: Very High
Symptom 3		
CIT: Director Server	ETI:Sproc Latency	Value: Very High

Lync::SQLServer::Database Status >> Back End Connectivity

Description: The status of the back end database impacts the status of back end connectivity on the Lync Servers		
Cause		
CIT: SQL Server	ETI: Database Status	Value: Down
Symptom		
CIT: Lync Server Role	ETI:Backend Connectivity	Value: Down

Lync::FrontEndServer::Front End Server Load >> Performance

Description: A load on Front End Server to impacts the performance		
Cause		
CIT: Lync Server	ETI: Server Load	Value: Bottlenecked
Symptom 1		
CIT: Front End Server	ETI:Request Processing Latency	Value: Very High
Symptom 2		
CIT: Front End Server	ETI:Outbound Tasks Queued	Value: Very High
Symptom 3		
CIT: Front End Server	ETI:Resource Usage	Value: Very High

Lync::Interface::Interface Utilization >> Back End Connectivity

Description: High Network Interface Utilization on the computer hosting the Lync Server could impact the back end connectivity of the server		
Cause		

Description: High Network Interface Utilization on the computer hosting the Lync Server could impact the back end connectivity of the server		
CIT: Interface	ETI: Interface Utilization	Value: High
Symptom 1		
CIT: Central Management Server	ETI:Backend Connectivity	Value: Down
Symptom 2		
CIT: Edge Server	ETI:Backend Connectivity	Value: Down
Symptom 3		
CIT: AV Conferencing Server	ETI:Backend Connectivity	Value: Down
Symptom 4		
CIT: Archiving Server	ETI:Backend Connectivity	Value: Down
Symptom 5		
CIT: Monitoring Server	ETI:Backend Connectivity	Value: Down
Symptom 6		
CIT: Front End Server	ETI:Backend Connectivity	Value: Down
Symptom 7		
CIT: Registrar Server	ETI:Backend Connectivity	Value: Down
Symptom 8		
CIT: Director Server	ETI:Backend Connectivity	Value: Down
Symptom 9		
CIT: Mediation Server	ETI:Backend Connectivity	Value: Down

Lync::DomainController::LDAP Connectivity >> AD Connectivity

Description: Status of LDAP Connectivity on the domain controllers impacts Active Directory connectivity in Front End Server		
Cause		
CIT: DomainController	ETI: DC LDAP Bind Response Time	Value: Very High
Symptom		
CIT: Front End Server	ETI:AD Connectivity	Value: Down

Lync::Windows::Memory Load >> Front End Queue

Description: Memory Load on the computer hosting the Lync Front End Server impacts the Front End Queue		
Cause		
CIT: Windows	ETI: Memory Load	Value: Bottleneck
Symptom 1		
CIT: Front End Server	ETI:Queue Depth	Value: Very High
Symptom 2		
CIT: Front End Server	ETI:Queue Latency	Value: Very High

Lync::SQLServer::Database Status >> Front End Performance

Description: The status of the back end database impacts the performance of the Front End Server using the database		
Cause		
CIT: SQL Server	ETI: Database Status	Value: Down
Symptom 1		
CIT: Front End Server	ETI:Outbound Tasks Queued	Value: Very High
Symptom 2		
CIT: Front End Server	ETI:Request Processing Latency	Value: Very High
Symptom 3		
CIT: Front End Server	ETI:Queue Latency	Value: Very High
Symptom 4		
CIT: Front End Server	ETI:Queue Depth	Value: Very High

Graphs Templates

Graphs represent pictorial representation of metrics. The OMi MP for Microsoft Skype for Business Server contains a set of graph templates mapped to the Lync Server CIT.

How to Access Graph Templates

1. Open the Performance Graph Mapping pane:

On BSM 9.2x, click **Admin > Operations Management > Operation Console**.

On OMi 10.x, click **Administration > Operations Console > Performance Graph Mappings**.

2. In the CI Types pane, click **InfrastructureElement > RunningSoftware > Microsoft Lync Server**.

How to View Graphs

Performance Perspective enables you to populate graphs from existing graph templates. You can also plot customized graphs by selecting the required metrics for a selected CI.


To view the Performance Perspective of Skype for Business Server CIs using graphs, follow these steps:

1. Open the Performance Perspective pane:

On BSM 9.2x, click **Applications > Operations Management > Performance Perspective**.

On OMi 10.x, click **Workspaces > Operations Console > Performance Perspective**.

The View Explorer pane appears.

2. In the **Browse Views** tab, select the **Lync_Org_View** View. The default graphs available for the **Lync_Org_View** View appears in the Performance pane.
3. In the **Graphs** tab, select the graph you want to plot, and then click the  **Draw Graphs**. The selected graph is plotted on the right pane.

List of Microsoft Lync Server Graph Template

Graph Template	Description	Metric Name	Table Name/Class Name
Front End Service CPU	This graph shows the CPU statistics	PCTPROCESSORTIME; THREADCOUNT	LYNC:CS_PROCESS

Graph Template	Description	Metric Name	Table Name/Class Name
Statistics	of the front end service compared with overall CPU statistics of the system.		
Web Conferencing Service CPU Statistics	This graph shows the CPU statistics of the web conferencing service compared with overall CPU statistics of the system.		
IM Conferencing Service CPU Statistics	This graph shows the CPU statistics of the IM conferencing service compared with overall CPU statistics of the system.		
Archiving and CDR Service CPU Statistics	This graph shows the CPU statistics of the Archiving and CDR Service compared with overall CPU statistics of the system.		
Mediation Service CPU Statistics	This graph shows the CPU statistics of the Mediation Service compared with overall CPU statistics of the system.		
Access Edge Service CPU Statistics	This graph shows the CPU statistics of the Access Edge Service compared with overall CPU		

Graph Template	Description	Metric Name	Table Name/Class Name
	statistics of the system.		
Audio/Video Edge Service CPU Statistics	This graph shows the CPU statistics of the Access Edge Service compared with overall CPU statistics of the system.		
Audio/Video Authentication Service CPU Statistics	This graph shows the CPU statistics of the Audio/Video Authentication Service compared with overall CPU statistics of the system.		
Web Conferencing Edge Service CPU Statistics	This graph shows the CPU statistics of the Web Conferencing Edge Service compared with overall CPU statistics of the system.		
Front End Service Memory Statistics	This graph shows the memory statistics of the Front End Service.	PAGEFAULTS; WORKINGSET; PRIVATEBYTES	LYNC:CS_PROCESS
Web Conferencing Service Memory Statistics	This graph shows the memory statistics of the Web Conferencing Service.		
IM Conferencing Service Memory Statistics	This graph shows the memory statistics of the IM Conferencing Service.		
Audio/Video	This graph shows		

Graph Template	Description	Metric Name	Table Name/Class Name
Conferencing Service Memory Statistics	the memory statistics of the Audio/Video Conferencing Service.		
Archiving and CDR Service Memory Statistics	This graph shows the memory statistics of the Archiving and CDR Service.		
Mediation Service Memory Statistics	This graph shows the memory statistics of the Mediation Service.		
Audio/Video Conferencing Service CPU Statistics	This graph shows the CPU statistics of the Audio/Video conferencing service compared with overall CPU statistics of the system.	PCTPROCESSORTIME; SYSPCTPROCESSORTIME; THREADCOUNT	LYNC:CS_PROCESS
SQL Back End Latency Experienced by Front End Server	This graph shows the amount of time that a request spent in the queue to the SQL back end and the time taken by the SQL backend to process a request. This graph is to be run on the Front End server.	FEQUEUELATENCY; FESPROCLATENCY	LYNC:LSUSRVDBSTORE
Average Holding Time for Incoming Messages on Front End Server	This graph shows The average amount of time taken by the front end server to process a request.	HOLDINGTIMEFORINCMMSG	LYNC:CS_FELOADMGMT
Front End	This graph shows	LOCAL503RESPONSES;	LYNC:CS_FESIPRESPONSE

Graph Template	Description	Metric Name	Table Name/Class Name
Server Availability and Connectivity	the Local 503 Responses/sec and Local 504 Responses/sec on the front end server. The 503 code indicates that the server is unavailable while the 504 code indicates that there are connectivity problems with other servers.	LOCAL504RESPONSES	

Tools

The OMi MP for Microsoft Lync Server is packaged with tools which enable administering and monitoring the Microsoft Lync Server CIs. It comprises the following tools:

How to Access Tools

- Open the Tools pane:
 - On BSM 9.2x, click **Admin > Operations Management > Operations Console > Tools**.
 - On OMi 10.x, click **Administration > Operations Console > Tools**.
- In the CI Types pane, click **InfrastructureElement > RunningSoftware > Communication Server > Lync Server**.

CI Type	Tool Name	Description
Computer	MSBS Enable Collection Manager Trace	This tool enables the tracing for collection manager components.
	MSBS Disable Collection Manager Trace	This tool disables the tracing for collection manager components.
	MSBS Delete Data Source	This tool will delete the datasources created for monitoring Lync Server.

How to Launch a Tool

To launch a tool at the event level, follow the below steps:

1. Open the Browse Views pane:

On BSM 9.2x, click **Application > Operations Management > Event Perspective > View Explorer > Browse Views**.

On OMi 10.x, click **Workspaces > Operations Console > Event Perspective > View Explorer > Browse Views**.

2. To run a tool, follow one of the following methods:

- a. In the Browse View pane, select view and then in **Event Browser**, select an event.

All the related Tools appear in Action pane.

- b. In the Action pane, click **CI** or **Node** radio button.
- c. Select the tool you want to launch.

Or

- a. In the Browse View pane, select the view and then select an event.
- b. Select an Event and then right-click, navigate to **Launch > Tools > select a tool**.

The Run Tool dialog box opens.

3. Click **Run Tool** to launch the selected tool.

To launch a tool at the CI or node level, follow the below steps:

1. Open the Browse Views pane:

On BSM 9.2x, click **Application > Operations Management > Event Perspective > View Explorer > Browse Views**.

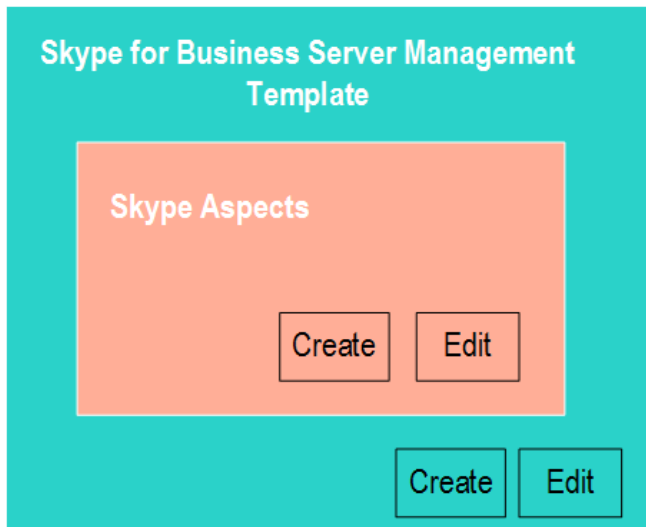
On OMi 10.x, click **Workspaces > Operations Console > Event Perspective > View Explorer > Browse Views**.

2. In the Browse View pane, right-click a CI or node. The Select Tool pane opens.
3. Select the tool that you want to launch and click **Run Tool**.

Chapter 4: Customizing OMi MP for Microsoft Skype for Business Server

OMi MP for Microsoft Skype for Business Server can be customized to suit your monitoring requirements. You can customize the OMi MP for Microsoft Skype for Business Server using the following customization scenarios:

- "Tuning of Components"
- "Creating new Management Template"
- "Creating new Skype for Business Aspect"



Tuning of Components

You can tune the following components:

- Parameters
- Aspects
- Management Template

Tuning Parameters

You can modify the default value of parameters either before or after deploying the Skype Management Templates or Aspects. You can edit parameter value during deployment using Management Templates & Aspects pane. You can provide customized parameter values after (Management Template or Aspects) deployment for each of the assignment using Assignments & Tuning pane.

You can edit the following list of parameters:

Parameters	Default Values
Frequency of Very High Scheduler	5 mins
Frequency of High Scheduler	15 mins
Frequency of Medium Scheduler	30 mins
Frequency of Low Scheduler	1 hour
Frequency of Daily Scheduler	24 hours
Frequency	NA
Threshold	NA
Severity	NA

To modify the frequency of collection, corresponding Schedule Task policy must be modified. To modify the individual policy schedule, corresponding frequency parameters must be modified.

Tuning Aspects

Use Case: You are monitoring the failure of upload activity in the Skype storage that has frequency of 15 minutes. You want to minimize the frequency.

1. Open the Assignments & Tuning pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Assignments & Tuning**.

On OMi 10.x, click **Administration > Monitoring > Assignments & Tuning**.

2. In the **Browse Views** tab, select the **Lync_Deployment_View** that contains the CI for which you want to edit the value.

3. In the list of CIs, select Front End Server CI for which you want to change the frequency. The Assignment Details pane shows the current parameter values.
4. You can change the value of the default parameter values by following these steps:
 - a. Double-click the Threshold Rule parameter. The Edit Parameter dialog box opens.
 - b. Change the value and click **OK**. The updated parameter is assigned to the selected CIs.

Tuning existing Skype Management Template

You can edit the Microsoft Skype for Business Server Management Templates and modify the following components:

- [Parameters](#)
- [Aspects](#)

Editing Parameters

Use Case: You are using the Essential Management Template for Microsoft Skype for Business Server to monitor Lync or Skype for Business Server set up in your environment. You are monitoring the failure of upload activity in the Skype storage that has high threshold. You want to minimize the threshold value.

1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**
2. In the Configuration Folders pane:

Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates
3. Select Essential Management Template for Skype for Business Server, and then click . The Edit Management Template window opens.
4. Select the Skype Storage Service Aspect and click the **Parameters** tab. The parameters list populates.
5. Select the **Failed UploadActivityLog Calls. Threshold Rule 1** parameter you want to modify,

and then click . The Edit Parameter dialog box opens.

6. You can change the default threshold value in the **Constant Value (Numeric)** section. Click **OK**.
7. In the Edit Management Template window, click **OK**.

Editing Aspects

OMi MP for Microsoft Skype for Business Server provides a wide-range of Aspects that are not part of the existing Management Template. You can customize the existing Management Template to monitor these additional features.

Use Case: You are using the Essential Management Template for Microsoft Skype for Business Server to monitor primary components of Lync or Skype for Business Server deployment. If you want to additionally monitor Call Details Record (CDR). In this scenario, you must add all the Aspects listed under CDR to the Management Template. For more information about list of Aspects, see the section "[Grouping of Skype Aspects](#)".

To add Aspects from the Management Template:

1. Open the Management Templates & Aspects pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:
Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates
3. Select the Essential Management Template for Microsoft Skype for Business Server and click . The Edit Management Template appears.
4. Click the **Aspects** tab. The list of Aspects appears.
5. Select the Aspect you want to remove in the Selected Aspects pane and click  to move the aspect to the Available Aspects pane.

Note: Do not remove the Skype Configuration or Skype Base Aspect from the Management Template.

6. Click **OK**.

The version of the Essential Management Template for Microsoft Skype for Business Server is incremented.



Creating new Skype for Business Aspect

You can create a new Skype for Business Aspect either using OOTB policies.

1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In Configuration Folder pane, click **Configuration Folders > Microsoft Application Management > Microsoft Lync Server > Aspects**.
3. In the Management Template & Aspects pane, click , and then click  **Create Aspect**. The Add New Aspect window opens.
4. In the **General** tab, specify a name for the new aspect, and then click **Next**.
5. In **CI type** tab, select the CI Type and click **Next**. For more information about the CI Types, see the section "[Configuration Items and Configuration Item Types](#)".
6. In the **Instrumentation** tab, add **MSBS_Core** and **DCT**. Click **Next**.
7. In the **Aspects** tab, add the **Skype Base** Aspect and click **Next**.



Note: If you are adding existing Aspects within an Aspect, ensure at least one of the CITs of the Aspect that you add must be a CIT or a parent CIT of the existing Aspect.

8. In the **Parameters** tab, you can edit the default values of the parameters.
9. Click **Finish** to save the Aspect.

The new Aspect appears in the Management Template & Aspects pane.

Creating new Management Template

The following section provides information on creating new Management Template:

1. Open the Management Templates & Aspects pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane, select **Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates**.
3. In the Management Templates & Aspects pane, click  and click  **Create Management Template**. The Create Management Template window opens.
4. In the **General** tab, specify a **Name** and a **Version** to the new Management Template and click **Next**.
5. In the **Topology View** tab, select the **Lync_Deployment_View** topology view from the drop-down list.
6. Select the **Lync Site** CI Type from drop-down list and click **Next**.
7. In the **Aspects** tab, select the Windows CI Type and add the **Skype Base** and **Skype Configuration** Aspects to the Management Template. The Lync Site CI Type has several nested CI Type to which Skype Aspects are assigned. Select one CI Type from the Layout, related Aspects are listed, add Aspects as required and click **Next**.
For more information about the list of Aspects available, see the section "[Grouping of Skype Aspects](#)". Add all the Aspects listed under particular group to monitor the specific feature.
8. In the **Parameters** tab, combine the following parameters:
 - Frequency of Daily Scheduler
 - Frequency of High Scheduler
 - Frequency of Low Scheduler
 - Frequency of Medium Scheduler
 - Frequency of Very High Scheduler
9. Click **Finish** in the Create Management Template window.

The new Management Template appears in the Management Templates & Aspects pane.

Remote Monitoring

OMi MP for Microsoft Skype for Business Server enables you to monitor the essential functionality of your environment using a server external to the Microsoft Skype for Business Server/ Lync node as well. These servers must be placed within the domain.

Prerequisite

Hardware Requirements

Components	Minimum requirement
CPU	One of the following: <ul style="list-style-type: none">• 64-bit processor, quad-core, 2.33 GHz or later• 64-bit 2-way processor, dual-core, 2.33 GHz or later
Memory	8 GB
Network	1 network adapter at 1 Gbps
Operating System	One of the following: <ul style="list-style-type: none">• Windows Server 2008 SP2• Windows Server 2008 R2• Windows Server 2012• Windows Server 2012 R2

Software Requirements

- Full version of Microsoft .NET Framework 4.5.

Note: In case of Skype for Business Server 2015, Microsoft .NET version 3.5 is also required.

- Windows Identity Foundation
- Windows PowerShell 3.0 or later

Preparing a Remote Node for Monitoring

Install Lync or Skype for Business Server 2015 Core Files

You must install one of the Lync 2010, Lync 2013, or Skype for Business Server 2015 core files on the remote node. One remote node is required per version of Lync/Skype and per pool. At least three AD users are required per pool.

Remote node with Skype for Business Server 2015 core files can monitor all three versions (Lync - 2010, 2013 and Skype for Business Server 2015) simultaneous. However, Lync 2010 core files cannot be installed on the same remote node where either Lync 2013 or Skype for Business Server 2015 core files are installed.

To install core files:

- Open the command prompt, change directory to the path of Lync or Skype for Business Server setup files and run the following command:

```
Setup.exe /BootstrapLocalMgmt
```

- To verify core file installation, open the Lync or Skype for Business Server Management Shell and run the following command :

```
Get-CsWatcherNodeConfiguration
```

If the command result is without error, then core files are successfully installed.

Configuring Test Users

Create Test users

Create minimum of three test users with valid Active Directory accounts. Enable the test users in the Lync Server Control Panel with valid SIP address. Additionally, enable the user for Enterprise Voice as

this is required to test the peer-to-peer synthetic transaction.

Permissions Required for the Test User

The test users used to run the synthetic transactions tests on the Lync 2010, Lync 2013, and Skype for Business Server 2015 must have the following permissions:

- Member of Local Administrators group - required to permit PowerShell cmdlets to access Lync/Skype Server
- Member of one of: *CsHelpDesk*, *CSAdministrator* or *CSServerAdministrator* security groups - required to permit PowerShell cmdlets to run pool tests.

Configure the Test User Accounts

You can use the following command to configure the test users that are created:

```
Set-CsTestUserCredential -SipAddress "sip:user_name1@domain.com" -UserName "  
<domain\user_name1>" -Password "<password>"
```

To verify the test user credentials, run the following for each test user:

```
Get-CsTestUserCredential -SipAddress "sip:user_name1@domain.com"
```

Create Domain user for Deploying Skype Configuration Aspect

Create a domain user with following privileges to discover the additional CIs such as domain controllers, SQL Servers, Lync roles, and sites:

- CSViewOnlyAdministrator
- RTCUniversalReadOnlyAdminsw

Configuring Remote to Support Synthetic Transactions

Configure Remote Node to use the Authentication

After trusted application pool is created, configure the remote node as a trusted application using the following command:

On Lync 2013 or Skype for Business Server 2015:

```
New-CsTrustedApplicationPool -Identity "<RemoteNode-FQDN>" -Registrar "<Lync FQDN>"  
-ThrottleAsServer $True -TreatAsAuthenticated $True -OutboundOnly $False -  
RequiresReplication $True -ComputerFqdn "<RemoteNode -FQDN>" -Site "<Site name>"
```

On Lync 2010:

```
New-CsTrustedApplicationPool -Identity "<RemoteNode-FQDN>" -Registrar "<Lync FQDN>"  
-ThrottleAsServer $True -TreatAsAuthenticated $True -OutboundOnly $False -  
RequiresReplication $True -ComputerFqdn "<RemoteNode -FQDN>" -Site "<Site ID>"
```

```
New-CsTrustedApplication -ApplicationId "DomainRemoteNode" -  
TrustedApplicationPoolFqdn "<RemoteNode -FQDN>" -Port 5061
```

```
Enable-CsTopology
```

```
Get-CsTrustedApplication -Identity "< RemoteNode -  
FQDN>/urn:application:DomainRemoteNode"
```

Run the following command to assign remote configuration to the Pool:

```
New-CsWatcherNodeConfiguration -TargetFqdn <String> <COMMON PARAMETERS>
```

For more information about setting up remote node for synthetic transaction, see the documentation of *Microsoft*.

Assign Default Certificate

Each remote node must have a Default certificate assigned. You can either request or assign the Default certificate using the Lync Server Deployment Wizard.

Test the Remote Node

To test the configured remote node, run the following command:

```
New-CsHealthMonitoringConfiguration -Identity "<Lync FQDN>" -FirstTestUserSipUri  
"sip:user1@lync.local" -SecondTestUserSipUri "sip:user1@lync.local"
```

Wherein,

<RemoteNode -FQDN>- full hostname of remote monitor node

<Lync FQDN> - Full hostname of Lync FrontEnd Pool

<Site ID> - The Site ID of the site on which this pool is homed. Call the Get-CsSite cmdlet to retrieve the SiteId property of a site. Remember to use the SiteId property rather than the Identity of the site.

Also note that you must not precede the SiteId with the string *site.*, you must enter only the SiteId.

DomainRemoteNode - Any name

Test users SIP would be according to existing test user configuration

Install HPE Operations Agent

Install HPE Operations Agent 11.12 or later on each of the remote node. For more information about how installing Operations Agent, see the chapter *Installing HP Operations Agent 11.12* in the *HP Operations Agent and HP Operations Smart Plug-ins for Infrastructure Installation Guide*.

Install OMi MP for Microsoft Skype for Business Server

Install OMi MP for Microsoft Skype for Business Server on each remote node. For more information about how to install, see the *OMi Management Pack for Microsoft Skype for Business Server-Installation Guide*.

Deploy Skype Aspects on the Remote Node

OMi MP for Microsoft Skype for Business Server provides following Aspects to monitor the essential Skype for Business Server features from the remote node. For more information about how to deploy, see the section "[Tasks](#)" on page 35.

- Skype Test Conferencing Service
- Skype Test Contacts
- Skype Test Enterprise Voice
- Skype Test Network And Partner Dependencies
- Skype Test Peer to Peer Services
- Skype Test Persistent Chat
- Skype Test Presence
- Skype Test User Registration

Chapter 5: Monitoring Composite Applications

This section provides information about monitoring an environment containing - Microsoft Skype for Business Server, domain controller, Microsoft SQL Server, and the underlying infrastructure. Health of the Lync or Skype for Business Server depends on the health and performance of the domain controllers, SQL Servers and infrastructure. OMi MP for Microsoft Skype for Business Server provide an OOTB Management Template to monitor the complete solution.

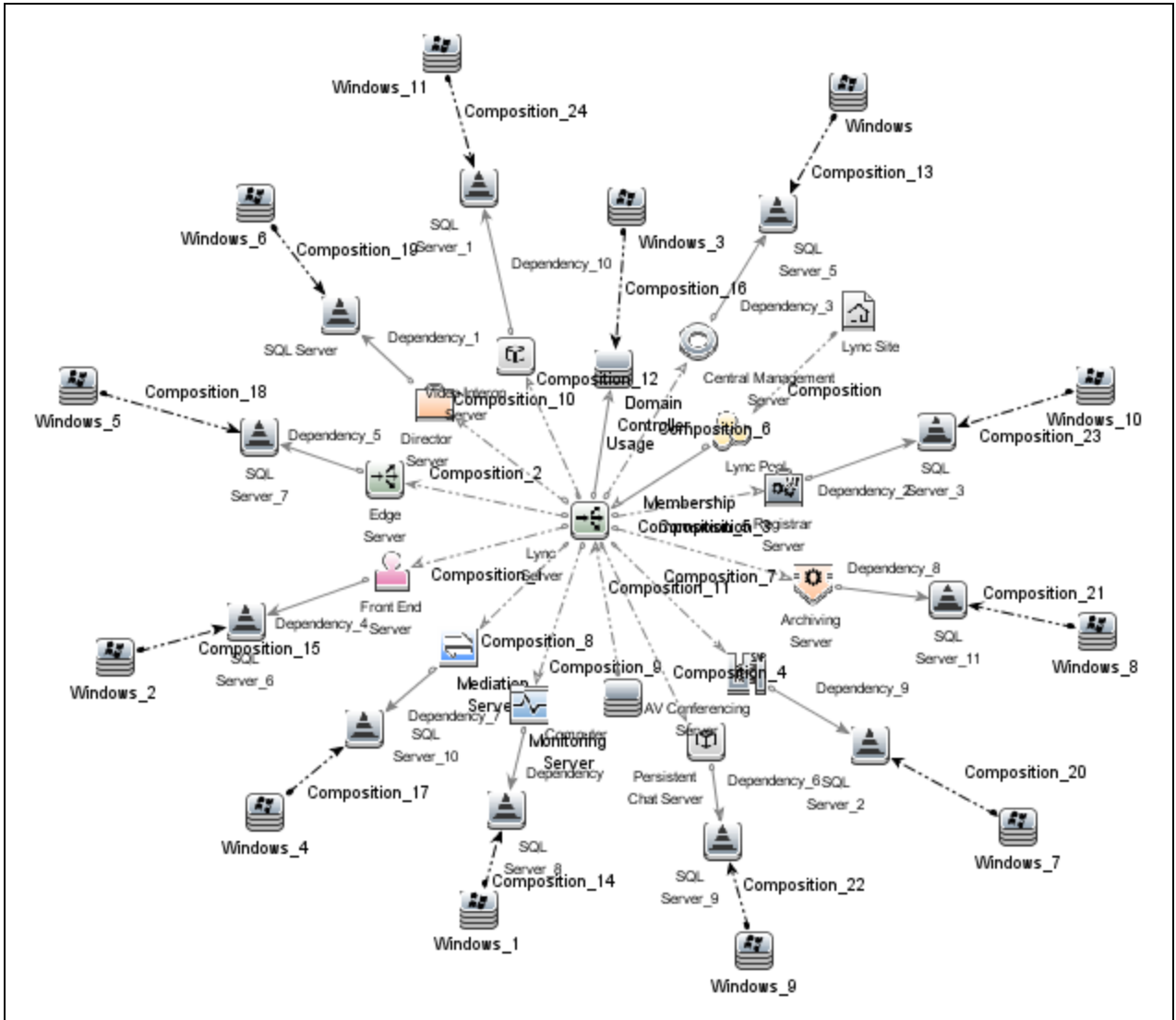
To monitor an instance of a composite application, follow these tasks:

Task 1: Adding Nodes to BSM 9.2x or OMi 10.x Console

Add the nodes that contains all the application.

Task 2: Deploying the Skype Discovery and Skype Configuration Aspects

The Skype Configuration Aspect enables you to discover the Lync Roles and Services, Lync Pool, Lync Site, and other CITs.



Task 3: Verifying Discovery

After you deploy the Skype Discovery Aspect, verify if the CIs are populated in the View Explorer.

For more information about adding nodes, deploying and verifying discovery, see ["Getting Started" on page 10](#).

Task 4: Verifying Installation of OMi Management Packs for Other Applications

Complete the following before deploying the **Skype Solution Management Template for Skype for Business Server**:

1. Install the OMi MP for Microsoft SQL Server version 1.00.
2. Install the OMi MP for Microsoft SQL Server version 1.01.
3. Update the Management Templates and Aspects assignments to the latest version.

For more information about how to update the version, see the *OMi MP for Microsoft SQL Server 1.01 - Installation Guide* or *User Guide*.

4. Install the OMi MP for Microsoft Active Directory version 1.00.
5. Install the OMi MP for Infrastructure 1.10 or later.

For more information about how to update the version, see the *OMi MP for Microsoft SQL Server 1.01 - Installation Guide* or *User Guide*.

Task 5: Deploying the Skype Solution Management Template for Skype for Business Server




You can deploy the Management Templates to the Lync Site CI. The Skype Configuration and Skype Base Aspects are deployed automatically on deploying the Management Template. The Skype Configuration Aspect discovers remaining CI types, creates data sources, deploys instrumentation, and defines schedulers for metric collection.

To deploy the Microsoft Skype for Business Server Management Templates to the Lync Site CI, follow these steps:

1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:
Configuration Folders > Microsoft Application Management > Microsoft Skype for Business Server > Management Templates
3. In the Management Templates & Aspects pane, select the Management Template that you want to deploy, and then click  **Assign and Deploy Item**. The Assign and Deploy wizard opens.
4. In the **Configuration Item** tab, select the CI to which you want to assign the Management Template, and then click **Next**.
5. In the **Required Parameters** tab, to provide values to the required parameters follow these steps:
Make sure the domain user has the following privileges:
 - o CSViewOnlyAdministrator
 - o RTCUniversalReadOnlyAdminsw
 - a. Select the **DISCOVERY_USERNAME** parameter in the list, and then click . The DISCOVERY_USERNAME dialog box opens.
 - b. Specify the value in the `<domain>\<username>` format and then click **OK**.
 - c. Select the **DISCOVERY_PASSWORD** parameter in the list, and then click . The DISCOVERY_PASSWORD dialog box opens.
 - d. Click **Value** and type a value in the **Password** field.
 - e. In the **Verify Password** field and type the same password and then click **OK**.
 - f. Click **Next**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, if you are deploying the Management Template on other server, click **Next**.
7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, follow the step:
On BSM 9.2x, clear the **Enable Assigned Objects** check box.
On OMi 10.x, clear the **Enable Assignment(s)** check box.
You can enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

Chapter 6: Troubleshooting

The following section provides information about troubleshooting scenarios:

Skype Discovery aspect deployment fails

Problem: Discovery fails with the following errors reported in the %ovdatadir%\log\system.txt file. agtrep (6344/912): (agtrep-149) Runtime exception occurred when executing command = C:\Windows\system32\cmd.exe /C ""C:/ProgramData/HP/HP BTO Software/bin/instrumentation/MPDiscoveryLauncher.exe"" : "(xpl-153) LogonUser (domain\exuser1) failed."

0: ERR: Wed Sep 10 14:51:58 2014: agtrep (6344/912): (agtrep-133) No output received from discovery policy action

Solution: Modify the incorrect user credentials specified for the Skype Configuration Aspect by following these steps:

1. Open the Assignments & Tuning pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Assignments & Tuning**.
On OMi 10.x, click **Administration > Monitoring > Assignments & Tuning**.
2. In the **Browse Views** tab, select the **Lync_Org_View**.
3. Expand the view, and select the node hosting the Microsoft Skype for Business Server.
4. In the Assignments pane, select the Skype Configuration Aspect. This shows the parameters and values in the Assignment Details pane.
5. Edit the user name and password to provide the user credentials.
6. Re-deploy the Skype Configuration Aspect to the node.

For more information about how to deploy the Skype Configuration Aspect, see the Task 3: Deploying the Skype Discovery and Skype Configuration Aspects.

Lync Server CIs on a node do not appear on OMi console

Problem: Lync Server CIs are not appearing on the OMi console.

Solution: To verify the discovery, follow these steps:

1. Check if the following Aspects are deployed on the managed node:
 - Skype Discovery
 - Skype Configuration
2. If the Skype Aspects are not deployed, then deploy these Aspects one by one on the managed node.
3. If there are no errors, follow these steps:
 - a. Delete all the files under this folder `%ovdatadir%/tmp/agtrep` except `agtrep` folder.
 - b. On the command prompt, run `ovagtrep -clearall`.
 - c. Redeploy the following aspects on the managed node:
 - Skype Discovery
 - Skype Configuration
4. If the problem persists, check the following log files to check for any reported errors:
 - `%ovdatadir%\bin\MSPS\log\MPDiscoveryLauncher.exe`
 - `%ovdatadir%\bin\MSPS\log\Skype_Basic_Discovery.log`
 - `%ovdatadir%\bin\MSPS\log\Skype_Discovery.log`
 - `%ovdatadir%\log\System.txt`

Multiple entries in the data sources

Problem: There are duplicate entries of LYNC datasource.

Solution: If the node was previously managed by Smart Plug-In for Microsoft Enterprise Servers and the older datasources are not deleted, then you see multiple entries.

To resolve this problem, follow these following steps:

1. You can backup the data to the HP Reporter or any other Reporting solution that you are using.

Example: Run the following command to backup on HP Reporter, `gathercoda -h <SharePoint_hostname>`.

2. On the managed node open the file `%ovdatadir%\conf\perf\datasources` using a text editor.
3. Check if the file contains the following entry:

```
DATASOURCE= SHAREPOINT LOGFILE="C:\ProgramData\HP\HP BTO  
Software\bin\MSBS\dsi\log\LYNC.log"
```

4. If the file contains the preceding entry then perform the following steps else perform step 5:
 - a. Open the `%ovdatadir%\conf\dsi2ddf\nocoda.opt` file. If the file does not exist then create the file. Ensure the file is not saved as text file.
 - b. Add the entry LYNC to this file and save.
 - c. From the command prompt, run the command:

```
ddfutil "C:\ProgramData\HP\HP BTO Software\bin\MSBS\dsi\log\LYNC.log" -rm  
all
```

- d. Remove the entry LYNC from the following file and save:

```
%ovdatadir%\conf\dsi2ddf\nocoda.opt
```

5. Check if the file `%ovdatadir%\conf\dsi2ddf\ddfild.mwc` contains the following entry:

```
DATASOURCE=EXSPI_DATA LOGFILE="C:\ProgramData\HP\HP BTO  
Software\bin\MSBS\dsi\log\LYNC.log"
```

6. If the file contains the preceding entry, then from the command prompt run the command:

```
ddfutil "C:\ProgramData\HP\HP BTO Software\bin\MSBS\dsi\log\LYNC.log" - rm all
```

Data Logging Policies Not Logging Data

Problem: Data is not getting logged for Exchange classes.

Solution: To identify the root cause, perform the following steps:

1. Identify the Class or Table for which data is not getting logged. To identify the associated Aspect and Policy Template for the Class or Table, see the *Appendix: Metrics and Datasources* section.

As an example, let us consider that data is not getting logged for the class SERVSTAT. Based on the section *Appendix: Metrics and Datasources*, we can identify the corresponding Aspect and Policy Template Name as below:

Aspect: Skype Services

Policy Template Name: MSBS_Services_Conf

2. Check if this Aspect is assigned to the node. If not, assign the Aspect to the managed node. This will schedule the data collection. If the Aspect was already assigned, then continue with the next steps.
3. On the managed node from the command prompt, run the command `ovpolicy -list -poltype configfile`. Check if the output has the policy template MSBS_Services_Conf. If not redeploy the Skype Services Aspect. If the policy template is already deployed then continue with the next steps.
4. Check if the Skype Configuration Aspect is deployed to the node with the required credentials. If not, redeploy the Aspect with the correct credentials. If the Aspect was already deployed with the required credentials then continue with the below steps.
5. Run the collection manually by performing the following steps:
 - a. Enable the trace by running the tool **MSBS Enable Collection Manager Trace** on the Microsoft Exchange Server.
 - b. Open the Management Template & Aspect pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Template & Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Template & Aspects**.
 - c. Select the **Skype Services** Aspect.

- d. Select the policy template **MSBS_Services_Conf** from the list of policies grouped in the Skype Services Aspect. This is a ConfigFile policy template.
- e. Open the policy to identify the collections it will schedule. In this case there is one collection with the following details:

Collection name = MSBS_ChkFrontEndApplicationSharingServStat

Collection ID = MSBS_C10001

Collection role = FrontEnd

- f. Log on to the managed node.
- g. On the managed node, from the command prompt, run the following command:

```
%OvDataDir%\bin\instrumentation\MPMSCollectionManager.exe -s MSBS -c C10001 -o p
```
- h. Check the trace file MSBS_C10001_COLL_Trace.log in the directory
%ovdatadir%\bin\MSBS\log for further details.
- i. Disable tracing post analysis by running the tool **MSBS Disable Collection Manager Trace**.

Not Receiving Events

Problem: Events are not received for the Skype Aspect.


Solution: Check the deployment of Aspects on all nodes. To check the deployment, follow these steps:

1. Identify the Lync Server Template for which alerts are not being generated.
2. Run the `ovpolicy -list -all` command at the command prompt. Check if the template is present in the output.
3. If the policy template is not deployed, re-deploy the Aspect.
4. Enable the trace by running the tool **MSBS Enable Collection Manager Trace** on the Microsoft Lync Server. Check the log files created in the folder %ovdatadir%\bin\MSPS\log for further details.
5. Disable tracing post analysis by running the tool **MSBS Disable Collection Manager Trace**.

Unable to view and launch graphs for the Lync Server Configuration Item (CI)

Problem: Management Pack for Microsoft Skype for Business Server graphs do not launch from the assigned **Lync Server** CI. Instead you must assign and launch the graphs from the Windows node CI.

Solution: To resolve this problem, follow these steps:

1. Assign the graph family to the Windows node.
 - a. Open the Performance Graph pane:
click **Administration > Operations Console > Performance Graph Mappings**.
 - b. In the CI Type pane, click **InfrastructureElement > Node > Computer > Windows**.
 - c. In the Performance Graph pane, and click . The Windows Assign Performance Graph window appears.
 - d. In the Available Graph Families pane, select the **Management Pack for Microsoft Skype for Business Server** and click **Add to Assigned Graph Families**.
 - e. Click **OK**.
2. Launch the graph from the Windows node.
 - a. Open the Performance Perspective pane:
On BSM 9.2x, click **Applications > Operations Management > Performance Perspective**.
On OMi 10.01, click **Workspaces > Operations Console > Performance Perspective**.
The View Explorer pane appears.
 - b. In the **Browse Views** tab, select the **Lync_Org_View** View.
 - c. Expand the view and select the **Windows** node.
 - d. In the **Graph** tab, expand the **Management Pack for Microsoft Skype for Business Server**.
 - e. Click the graph you want to plot, and then click  **Draw Graphs**. The selected graph is plotted on the right pane.

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