



OMi Management Pack for SAP Sybase ASE

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Operations Manager i for Linux and Windows® operating systems

User Guide

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Chapter 1: OMi Management Pack for SAP Sybase ASE

The OMi Management Pack for SAP Sybase ASE (OMi MP for SAP Sybase ASE) works with Operations Manager i (OMi) and enables you to monitor SAP Sybase ASE (Adaptive Server Enterprise) Server environments and its underlying infrastructure using the Business Service Management (BSM). It includes Event Type Indicators (ETIs), Health Indicators (HIs), and Key Performance Indicators (KPIs) that analyze the events that occur in the SAP Sybase ASE servers and report the health and performance status. The Management Templates consist of a wide range of Aspects which enable the monitoring the availability and performance of SAP Sybase ASE Servers, Replication Server, Backup Server, and system infrastructure.

These Management Templates can be deployed by administrators for monitoring SAP Sybase ASE servers in an environment. The Subject Matter Experts (SMEs) and developers can easily customize the SAP Sybase ASE Management Templates.

OMi MP for SAP Sybase ASE works with OMi and provides the following additional functionality to support a unified monitoring solution:

- SAP Sybase ASE server instance-based deployment and simplified configuration.
- Supports agent based monitoring of SAP Sybase ASE Server instances.

Chapter 2: Getting Started

The following section provides information about the tasks required to monitor SAP Sybase ASE Servers using OMi MP for SAP Sybase ASE. You can also analyze the status and health of SAP Sybase ASE Configuration Items (CIs) through event, health, and performance perspectives.


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

Console

Note: If the SAP Sybase ASE Server that you want to monitor is already being monitored by Smart Plug-in (SPI) for Sybase Databases, then remove the SPI artifacts and data sources from the managed node hosting the SAP Sybase ASE Server before proceeding.

Note: If the node already exists in Run-time Service Model (RTSM), you can skip this step and proceed to Task 2.

Before you begin monitoring, you need to add the nodes by following these steps:

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 then click  , and then click **Computer > <select required OS type>**. The Create New Monitored Nodes dialog box opens.
3. Specify the Primary DNS Name and verify the IP Address.
4. Specify 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: You must activate the node with Operations Agent on OMi Server and certificate must be granted.

Task 2: Enabling the Enrichment Rule

You must enable the following enrichment rules to populate the SAP Sybase ASE CI's display label with additional information about container or the hostname:

- SoftwareElementDisplayLabelForNewHost
- SoftwareElementDisplayLabelForExistingHost
- SoftwareElementDisplayLabelPopulator

To enable the Enrichment Rule, follow these steps:

1. Open the Enrichment manager:
On BSM 9.2x, click **Admin > RTSM Administration > Modeling > Enrichment manager**.
On OMi 10.x, click **Administration > RTSM Administration > Modeling > Enrichment manager**.
2. In the Enrichment Rules pane, select **SoftwareElementDisplayLabelForNewHost** from the list.
3. Right-click and select **Properties**. The Enrichment Rule Properties window appears.
4. Click **Next**.
5. Select **Rule is Active**.
6. Click **Finish**.
7. In the Enrichment Rules pane, click  to save the changes.
8. Select **SoftwareElementDisplayLabelForExistingHost** and repeat steps 3 to 7.
9. Select **SoftwareElementDisplayLabelPopulator** and repeat steps 3 to 7.

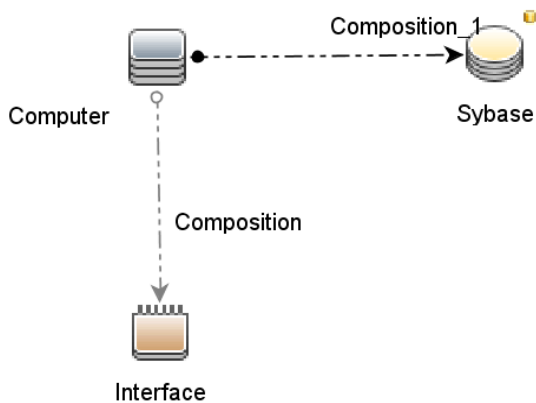
Task 3: Deploying the SAP Sybase ASE Discovery Aspect

Note: If SAP Sybase ASE CIs are already discovered, you can skip this step and proceed to Task 4.

The SAP Sybase ASE Discovery Aspect enables you to discover SAP Sybase ASE Server instances in the environment. To discover both SAP Sybase ASE CIs and SAP Sybase Replication Server CIs on the added managed nodes, you must deploy the SAP Sybase ASE Discovery Aspect to a Computer CI.

The SAP Sybase ASE Discovery Aspect deployment discovers the Configuration Item (CIs) of the following CI types (CITs):

- Sybase (Both SAP Sybase ASE Server and SAP Sybase Replication Server are identified with same CI)
- Computer



To deploy the SAP Sybase ASE Discovery Aspect, 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 > Database Management > SAP Sybase ASE > Aspects.

3. Follow one of the below methods to assign and deploy the Aspect. In the Management Templates & Aspects pane:

- Select the **SAP Sybase ASE Discovery** Aspect, and then click .
- Right-click the **SAP Sybase ASE Discovery** Aspect, and then click **Assign and Deploy Item**.

The Assign and Deploy Wizard appears.

4. In the **Configuration Item** tab, select the required managed node CI and then click **Next**.
5. *(Optional)*. In the **Required Parameters** tab, click **Next**.

Note: SAP Sybase ASE Discovery Aspects do not have mandatory parameters. You will get a notification stating the following message: There are no parameters that require editing for this Assignment.

6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, click **Next**.

Note: SAP Sybase ASE Discovery Aspect do not have any parameters. You will get a notification stating the following message: There is no parameter available for this assignment.

7. *(Optional)*. If you do not want to enable the assignment immediately, perform the following:
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**.

Note: After the SAP Sybase ASE Aspect is 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, click **Admin > Operations Management > Monitoring > Deployment Jobs**.

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

Task 4: Verifying Discovery

After you deploy the SAP Sybase ASE Discovery Aspect, you can 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 **Workspace > Operations Console > Event Perspective**.

2. In the **Browse View** tab, select the **SAPSybaseASE_Deployment** View.

Task 5: Configuring OMi MP for SAP Sybase ASE for Operations Agent running with non-root user

In addition to the tasks mentioned above, the following tasks have to be performed for UNIX nodes that have Operations Agent running with non-root users.

After deploying the SAP Sybase ASE Discovery Aspect, you must follow these steps:

1. Run the following script as a root user under `/var/opt/OV/bin/instrumentation`:

```
# dbspisyb_perl dbspisyb_root.pl
```

The `/var/opt/OV/conf/dbspisyb.su` is created.

2. Edit the `dbspisyb.su` file as a root user by uncommenting the lines or adding new lines in the following format: `<user>:<commands>`

```
root:<SYBINSTPATH>/startserver -f <SYBINSTPATH>/RUN_<SVRNAME>
```

where `<SYBINSTPATH>` is the SAP Sybase ASE install path.

Task 6: Deploying the SAP Sybase ASE Management Templates or Aspects

This section provides information about For more information about deploying Management Template, go to [Task 6a: Identifying and Deploying the SAP Sybase ASE Management Template](#) and for more information about deploying Aspects, go to [Task 6b: Deploying the SAP Sybase ASE Aspects](#).

Management Pack 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 logging data.

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 two 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 the section [Editing Parameters](#).

Required User Privilege






To monitor SAP Sybase ASE Servers, provide a user with credentials and the following privileges: system administrator (sa).


Task 6a: Identifying and Deploying the SAP Sybase ASE Management Template

Before deploying the SAP Sybase ASE Management Templates, you must identify the SAP Sybase ASE Management Template suitable for your environment by following these recommendations:

- If you want to monitor the key performance and availability metrics on an SAP Sybase ASE server, you can deploy the [Essential SAP Sybase ASE Management Template](#).
- If you want to monitor the advance features such as network packets, parallel processing, and so on along with key performance and availability, you can deploy the [Extensive SAP Sybase ASE Management Template](#).

To deploy the SAP Sybase ASE Management Templates to the SAP Sybase ASE 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 > Database Management > SAP Sybase ASE > Management Templates
3. In the SAP Sybase ASE Management Templates folder, 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 enter the required parameters detail follow these steps:
 - a. Select the **SAP Sybase ASE Instance Username** parameter in the list, and then click . The SAP Sybase ASE Instance Username dialog box opens.
 - b. Click **Value** and type the Username. Click **OK**.
 - c. Select the **SAP Sybase ASE Instance Password** parameter, and then click . The SAP Sybase ASE Instance 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, you can change the default values of the parameters. To change the default values of the parameters, follow these steps:
 - a. Select **SAP Sybase ASE Instance Name** parameter and then click . The Edit Instance Parameter window appears.
 - b. Select the parameter from the list and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.


Note: In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not displayed. To display expert parameters, click  **Show Expert Parameters**.

Note: Similarly, you can edit the **SAP Sybase ASE Error Log Frequency** parameter.




- c. Click **Next**.
7. (Optional). In the **Configure Options** tab, if you do not want to enable the assignment immediately, perform the following:
 - 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**.

Task 6b: Deploying the SAP Sybase ASE Aspects



To deploy SAP Sybase ASE Aspects to the SAP Sybase ASE 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 > Database Management > SAP Sybase ASE > Aspects**
3. In the Management Templates & Aspects folder, select the Aspect that you want to deploy, and then click  **Assign and Deploy Item**.
 - Alternately, you can right-click the SAP Sybase ASE Aspect that you want to deploy, and then click **Assign and Deploy Item** to open the Assign and Deploy Wizard.
4. In the **Configuration Item** tab, select the **Sybase** CI to deploy the Aspect and then click **Next**.

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

5. In the **Required Parameters** tab, you must specify the mandatory parameters by following these steps:
 - a. Select the **SAP Sybase ASE Instance Name** parameter in the list, and then click . The SAP Sybase ASE Instance Name dialog box opens.
 - b. Specify the value, and then click **OK**.
 - c. Select the **SAP Sybase ASE Instance Username** parameter in the list, and then click . The SAP Sybase ASE Instance Username dialog box opens.
 - d. Specify the value, and then click **OK**.
 - e. Select the **SAP Sybase ASE Instance Password** parameter in the list, and then click . The SAP Sybase ASE Password dialog box opens.
 - f. Click **Value** and type a value in the **Password** field.
 - g. In the **Verify Password** field and type the same password and then click **OK**.
 - h. 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**.

To change the default values of the parameters, follow these steps:

- a. Select the **SAP Sybase ASE Instance Name** parameter and then click . The Edit Instance Parameter window appears.
- b. Select the parameter from the list and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not displayed. To display expert parameters, click  **Show Expert Parameters**.

Note: Similarly, you can edit the **SAP Sybase ASE Error Log Frequency** parameter.

- c. Click **Next**.

7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, perform the following:
 - 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**.

Task 7: Verifying OMi MP for SAP Sybase ASE Deployment

To verify the deployment of OMi MP for SAP Sybase ASE on the managed node, follow these steps:

1. Open the Browse View pane:
 - On BSM 9.2x, click **Application > Operations Management > View Explorer > Browse View**.
 - On OMi 10.x, click **Workspaces > Operations Console > Event Perspective > View Explorer > Browse View**.
2. In the **Browse View** pane, right-click a node and then click **Launch Tool**. The Select Tool page opens.
3. Select the **Verify SAP Sybase ASE Management Pack Deployment** tool and then click **Run Tool**.

Task 8: Configuring SAP Sybase ASE Error Log Monitoring for non-root Agent User

By default, the non-root agent user does not have permission to read error log file of SAP Sybase ASE Server. Set read permission to enable the error log file monitoring by following these steps:

1. To identify the SAP Sybase ASE server alert log to be monitored, run the following command:

```
/var/opt/OV/bin/instrumentation/dbspicas -l
```

The error log file name appears.

2. To provide read permission to the non-root user for error log monitoring, run the following command as a Sybase user:

```
chmod +r <Sybase-error-logfile>
```

Monitoring SAP Sybase ASE Environment

After you deploy Management Template and Aspects, you can analyze the status and health of the SAP Sybase ASE CIs from the following perspectives:

- [Event Perspective](#)
- [Health Perspective](#)
- [Performance Perspective](#)

Event Perspective

After you deploy the SAP Sybase ASE Discovery Aspect and SAP Sybase ASE Management Template(s), you can view the events of the SAP Sybase ASE CIs that are monitored by OMi MP for SAP Sybase ASE.

To view the Event Perspective of the SAP Sybase ASE 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 **Browse Views** tab.
3. From the drop-down menu, select the **SAPSybaseASE_Deployment** View. Alternatively, you can use **Search** tab to find a SAP Sybase ASE Server CIs .

A list of SAP Sybase ASE Server CIs monitored by OMi MP for SAP Sybase ASE appears.

4. Select the SAP Sybase ASE CI for which you want to view the Event Perspective. A list of events for the selected SAP Sybase ASE 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.

Health Perspective

After you deploy the SAP Sybase ASE Discovery Aspect and SAP Sybase ASE Management Template(s), you can view the events related to the health of the SAP Sybase ASE CIs that are monitored by OMi MP for SAP Sybase ASE.

To view the Health Perspective of the SAP Sybase ASE 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 **Browse Views** tab.
3. From the drop-down menu, select **SAPSybaseASE_Deployment** View. Alternatively, you can use **Search** tab to find a SAP Sybase ASE Server CIs.

A list of SAP Sybase ASE Server CIs monitored by OMi MP for SAP Sybase ASE appears.

4. Select the SAP Sybase ASE CI for which you want to view the Health Perspective. A list of health related events for the selected SAP Sybase ASE 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.

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 SAP Sybase ASE 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 **SAPSybaseASE_Deployment** View. Alternatively, you can use **Search** tab to find a SAP Sybase ASE Server CIs.

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

3. Click the graph you want to plot from the **Graphs** tab, and then click  **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

The OMi MP for SAP Sybase ASE includes the following components for monitoring SAP Sybase ASE Servers in your environment:

- [SAP Sybase ASE Management Templates](#)
- [SAP Sybase ASE Aspects](#)
- [Parameters](#)
- [Configuration Items \(CIs\) and Configuration Item Types \(CITs\)](#)
- [Real-time Service Model \(RTSM\) Views](#)
- [Health Indicators \(HIs\)](#)
- [Event Type Indicators \(ETIs\)](#)
- [Tools](#)
- [Graph Templates](#)

SAP Sybase ASE Management Templates

The Management Templates consists of several Aspects which enables you to monitor SAP Sybase ASE Servers based on the criticality and type of the environment. By default, the OMi MP for SAP Sybase ASE consists of out-of-the-box SAP Sybase ASE Management Templates. You can deploy the out-of-the-box Management Template 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 SAP Sybase ASE Aspects.

Overview

The OMi MP for SAP Sybase ASE comprises the following Management Templates:

- [Essential SAP Sybase ASE Management Template](#)
- [Extensive SAP Sybase ASE Management Template](#)

How to Access SAP Sybase ASE 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 Folder pane, click **Configuration Folders > Database Management > SAP Sybase ASE > Management Templates**.


Tasks






How to Deploy SAP Sybase ASE Management Templates to the CIs


For more information about deploying SAP Sybase ASE Management Templates, see [Task 6: Deploying the SAP Sybase ASE Management Templates or Aspects](#).

How to Automatically Assign SAP Sybase ASE Management Templates or SAP Sybase ASE Aspects to the CIs

To automatically assign SAP Sybase ASE Management Templates or SAP Sybase ASE Aspects, you must specify the required privileges. To automatically assign, follow these steps:

1. Open the Automatic Assignment Rules pane:
On BSM 9.2x, click **Admin > Operations Manager > Monitoring > Automatic Assignment Rules**.
On OMi 10.x, click **Administration > Monitoring > Automatic Assignment Rules**.
Automatic Assignment Rules consists of the Auto-Assignment Rules pane at the top, and a Parameter pane at the bottom
2. In the Auto-Assignment Rules pane, click  and select the appropriate option. The Create Auto-Assignment Rules wizard opens.
3. In the **Select Target View** tab, select the view for which you want to create automatic assignment rules, and click **Next**.
4. In the **Select Item to Assign** tab, click the Management Template or Aspect that you want to automatically assign to all the CIs, and then click **Next**.
5. In the **Required Parameters** tab, you must specify the mandatory parameters by following these steps:

- a. Select the **SAP Sybase ASE Instance Name** parameter in the list, and then click . The SAP Sybase ASE Instance Name dialog box opens.
 - b. Specify the value, and then click **OK**.
 - c. Select the **SAP Sybase ASE Instance Username** parameter in the list, and then click . The SAP Sybase ASE Instance Username dialog box opens.
 - d. Specify the value, and then click **OK**.
 - e. Select the **SAP Sybase ASE Instance Password** parameter in the list, and then click . The SAP Sybase ASE Password dialog box opens.
 - f. Click **Value** and type a value in the **Password** field.
 - g. In the **Verify Password** field and type the same password and then click **OK**.
 - h. Click **Next**.
6. In the **All Parameters** tab on BSM 9.2x and **Parameter Summary** tab on OMi 10.x , you can change the default values of the parameters. To change the default values of the parameters, follow these steps:
- a. Select the **SAP Sybase ASE Instance Name** parameter and then click . The Edit Instance Parameter dialog box appears.
 - i. Select the parameter from the list and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.
 - b. Click **Next**.
7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, clear the **Activate Auto-Assignment Rule** check box. You can then enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

Note: In the **All Parameters** tab on BSM 9.2x and **Parameter Summary** tab on OMi 10.x, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not displayed. To display expert parameters, click  **Show Expert Parameters**.

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.

How to Verify the Creation of Auto-assignment Rules

You can check if the automatic assignment rule successfully created the expected assignments as 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 view you identified while creating your automatic assignment rule.
3. 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 Auto-Assignment 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 & Tuning pane to tune, redeploy, delete, and enable or disable individual assignments.

How to Display an Inventory Report for SAP Sybase ASE Management Template

The Inventory Report displays the Management Templates, Aspects, and Policy Templates that are available on a server. To display an Inventory Report for SAP Sybase ASE Management Template, follow these steps:

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

The pre-configured Assignment Report appears.

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

Note: The list shows only the Management Templates that have a root CIT that appears in the View that you selected or, if an Aspect is auto-assigned, only the compatible Aspects appear.

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 column Version.

Essential SAP Sybase ASE Management Template

The Essential SAP Sybase ASE Management Template can be used to monitor the basic features of SAP Sybase ASE servers in an environment. The Essential SAP Sybase ASE Management Template contains the most essential features for monitoring the availability and performance of SAP Sybase ASE environment.

You have an SAP Sybase ASE server in your environment, and want to check the availability of the SAP Sybase ASE servers and monitor the basic functionality of SAP Sybase ASE features such as availability, disk utilization, memory, performance along with Infrastructure areas of CPU, memory and disk. In such a scenario, you can deploy Essential SAP Sybase ASE on all the SAP Sybase ASE Server CIs. The Essential SAP Sybase ASE Management Template consists of specific Aspects to monitor these features.

How to Access Essential SAP Sybase ASE 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 Folder pane, click **Configuration Folders > Database Management > SAP Sybase ASE > Management Templates**.
3. In the Management Templates & Aspects pane, click **Essential SAP Sybase ASE Management Template**.

User Interface Reference

Management Template - General

UI Element	Description
Name	Essential SAP Sybase ASE Management Template.
Description	Manages monitoring of the primary features of SAP Sybase ASE Server such as availability, disk health, memory, object, cache performance and so on. In addition, critical infrastructure areas such as resource bottleneck diagnosis and system fault are also monitored.
ID	A unique identifier for this version of the Essential SAP Sybase ASE Management Template.
Version	The current version of the Management Template. In this instance, the version of the Management Template is 1.0.
Change Log	Text that describes what is new or modified in this version of the Management Template.

Management Template - Topology View

UI Element	Description
Topology View	SAPSybaseASE_Deployment is the Topology View for Essential SAP Sybase ASE Management Template.
CI Type	The type of configuration items that the Essential SAP Sybase ASE Management Template enables you to manage. This is the type of CI to which the Management Template can be assigned.

Essential Management Template - Aspects

The Essential SAP Sybase ASE Management Template contains the following Aspects:

- **SAP Sybase ASE Aspects**
 - [SAP Sybase ASE Application Performance](#)
 - [SAP Sybase ASE Availability](#)
 - [SAP Sybase ASE Base](#)

- [SAP Sybase ASE Cache Performance](#)
- [SAP Sybase ASE CPU Utilization](#)
- [SAP Sybase ASE Database Space Utilization](#)
- [SAP Sybase ASE Discovery](#)
- [SAP Sybase ASE Disk Health](#)
- [SAP Sybase ASE Index Performance](#)
- [SAP Sybase ASE Lock Performance](#)
- [SAP Sybase ASE Memory Performance](#)
- [SAP Sybase ASE Objects Performance](#)
- [SAP Sybase ASE Process Activity](#)

- **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) Memory bottleneck monitoring is based on memory utilization, free memory available, and memory swap out rate. Filesystem monitoring is based on space utilization level for busiest filesystem on the node. Network monitoring is based on Packet collision rate, packet error rate, and outbound queue length.

- **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.

- **System Infrastructure Discovery**

The System Infrastructure Discovery Aspect discovers and gathers information regarding the system resources, operating system, and applications on a managed node.

Extensive SAP Sybase ASE Management Template

The Extensive SAP Sybase ASE Management Template can be used for monitoring single instance databases and high availability environments. This Management Template comprises complete set of SAP Sybase ASE Aspects and Infrastructure Aspects to monitor the availability, status, and health of the SAP Sybase ASE Server environments.

You want to check the availability and performance of all the servers and monitor the SAP Sybase ASE advanced features - device performance, application performance, parallel processing and also monitor the basic functionality of the SAP Sybase ASE features - query, memory, objects, transactions, sessions, and locks. The advanced Management Template comprises of specific Aspects for monitoring these features.

How to Access Extensive SAP Sybase ASE Management Template

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. In the Configuration Folder pane, click **Configuration Folders > Database Management > SAP Sybase ASE > Management Templates**.
3. In the Management Templates & Aspects pane, click **Extensive SAP Sybase ASE Management Template**.

User Interface Reference

Management Template - General

UI Element	Description
Name	Extensive SAP Sybase ASE Management Template.
Description	Manages monitoring of the primary and advanced features of SAP Sybase ASE such as availability, CPU utilization, parallel processing, network packets and so on. In addition, SAP Sybase ASE Servers performance areas such as device performance, query performance and infrastructure areas such as CPU, memory, network, and disk are also monitored.
Version ID	A unique identifier for this version of the Extensive SAP Sybase ASE Management Template.
Version	The current version of the Management Template. In this instance, the version of the Management Template is 1.0.
Change Log	Text that describes what is new or modified in this version of the Management Template.

Management Template - Topology View

UI Element	Description
Topology View	SAPSybaseASE_Deployment is the Topology View for Extensive SAP Sybase ASE Management Template.
CI Type	The type of configuration items that the Extensive SAP Sybase ASE Management Template enables you to manage. This is the type of CI to which the Management Template can be assigned.

Extensive Management Template - Aspects

The Extensive SAP Sybase ASE Management Template contains the following Aspects:

- **SAP Sybase ASE Aspects**
 - [SAP Sybase ASE Application Performance](#)
 - [SAP Sybase ASE Availability](#)
 - [SAP Sybase ASE Base](#)
 - [SAP Sybase ASE Cache Performance](#)
 - [SAP Sybase ASE CPU Utilization](#)
 - [SAP Sybase ASE Database Space Utilization](#)
 - [SAP Sybase ASE Device Performance](#)
 - [SAP Sybase ASE Discovery](#)
 - [SAP Sybase ASE Disk Health](#)
 - [SAP Sybase ASE Index Performance](#)
 - [SAP Sybase ASE Lock Performance](#)
 - [SAP Sybase ASE Memory Performance](#)
 - [SAP Sybase ASE Network Packets](#)
 - [SAP Sybase ASE Objects Performance](#)
 - [SAP Sybase ASE Parallel Processing](#)
 - [SAP Sybase ASE Process Activity](#)
 - [SAP Sybase ASE Query Performance](#)
- **Infrastructure Aspects**

Memory and Swap Utilization

The Memory and Swap Utilization Aspect monitors memory performance of the system. Memory performance monitoring is based on Memory utilization (in percentage), Swap space utilization (in percentage), Free memory available (in MBs) and Free swap space available (in MBs).

CPU Performance

The CPU Performance Aspect monitors the overall CPU performance like the CPU utilization percentage and spike in CPU usage. Individual CPU performance monitoring is based on total CPU utilization, CPU utilization in user mode, CPU utilization in system mode and interrupt rate.

Space Availability and Disk IOPS

The Space Availability and Disk IOPS Aspect monitors the disk IO operations and space utilization of the system.

Remote Disk Space Utilization

The Remote Disk Space Utilization Aspect monitors space utilization of remote disk.

Bandwidth Utilization and Network IOPS

The Bandwidth Utilization and Network IOPS Aspect monitors IO operations, and performance of the systems in the network. It monitors the network IO operations and performance based on the bandwidth used, outbound queue length and average bytes transferred per second.

System Infrastructure Discovery

The System Infrastructure Discovery Aspect discovers and gathers information regarding the system resources, operating system, and applications on a managed node.

SAP Sybase ASE Aspects

SAP Sybase ASE Aspects can be used to monitor the building blocks or units of SAP Sybase ASE. A SAP Sybase ASE Aspect comprises policy templates, instrumentation, and parameters for monitoring the health and performance of SAP Sybase ASE.

How to Access SAP Sybase ASE 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 > Database Management > SAP Sybase ASE > Aspects**.

Tasks





How to Deploy SAP Sybase ASE Aspects








For more information about deploying SAP Sybase ASE Aspects, see [Task 6: Deploying the SAP Sybase ASE Management Templates or Aspects](#).

How to Create SAP Sybase ASE Aspects


1. Open the Management Templates & Aspects pane:

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

On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects > Configuration Folders**.
2. In the Configuration Folders pane, select the configuration folder in which you want to create the new aspect. If you need to create a new configuration folder, click .
3. In the Configuration Folders pane, click **Database Management > SAP Sybase ASE > Aspects**.
4. In the Management Templates & Aspects pane, click , and then click  **Create Aspect**. The Create Aspect wizard opens.
5. In the **General** tab, type a unique **Name** for the new aspect and then click **Next**.
6. In the **CI type** tab, follow these steps:
 - a. Each aspect enables you to manage one feature or characteristic of one or more types of configuration item. In the **CI Types** tab, select one or more **Available CI Type(s)** to which this Aspect can be assigned, and then click  to add them to the list of assigned CI types. (Press **CTRL** to select several CI types.)
 - b. If you need the aspect to be assignable to a node independent of its CI type, select **Node Compatible** check box.
 - c. Click **Next**.


7. In the **Instrumentation** tab, click  to add instrumentation to the aspect. The Add Instrumentation dialog box opens, that enables you to select the instrumentation that you want to add. Select the instrumentation you want to add and then click **OK**. Click **Next**.
8. *(Optional)*. In the **Aspects** tab, click , and then click  Add Existing Aspect. The Add Existing Aspect dialog box opens, which enables you to select an existing aspect that you want to nest within this aspect. Select an aspect, and then click **OK**. Click **Next**.
9. In the **Policy Templates** tab, click  **Add Policy Templates** on BSM 9.2x and **Add Policy Templates From List** on OMi 10.x. The Add New Policy Template to Aspect dialog box opens. Select the policy templates that you want to add, and then click **OK**. Press **CTRL** or **SHIFT** to select several policy templates.
10. If suitable Policy Templates do not exist, follow these steps to add a new Policy Template:
 - a. Click , and then click  **Add New Policy Template** to create them from here. The Select New Policy Template dialog box opens.
 - b. Select the **Measurement Threshold** policy template from the **Type** drop-down list and click **OK**. The Policy Related Information dialog box opens.
 - c. In the Policy Related Information dialog box, specify a unique policy **Name** and click **OK**. A new Policy Template is added.
11. *(Optional)*. In the **Policy Templates** tab, select the Policy Template to which you want to add a deployment condition, and then click  **Edit Deployment Condition**. The Edit Deployment Condition dialog box opens, that enables you to specify deployment conditions for the selected policy template. Set the condition and then click **OK**.
12. In the **Policy Templates** tab, click **Next**.
13. *(Optional)*. In the **Parameters** tab, you see a list of all the parameters from the policy templates that you added to this Aspect.

To combine parameters:

 - a. Press **CTRL** and select parameters that you want to combine.
 - b. Click . The Edit/Combine Parameters dialog box opens.
 - c. Type a Name for the combined parameters.
 - d. Specify a Description, Default Value, and whether the combined parameter is Read Only, an Expert Setting, or Hidden.

Note: Read Only prevents changes to the parameter value when the aspect is assigned to a configuration item. Hidden also prevents changes, but additionally makes the parameter invisible. Users can choose whether to show expert settings when they make an assignment.

- e. You can set either a specific default value, or you can click **From CI Attribute** and then browse for a CI attribute. When you specify a CI attribute, Operations Management sets the parameter value automatically during deployment of the policy templates, using the actual value of this attribute from the CI. You can also set conditional parameter values.
- f. Click **OK**.

Note: You can also edit the parameters without combining them, to override the defaults in the policy template. Click one parameter, and then click . The Edit/Combine Parameters dialog box opens.

- 14. In the Create Aspect wizard, click **Finish** to save the aspect and close the wizard. The new Aspect appears in the Management Templates & Aspects pane.

Aspects

SAP Sybase ASE Aspects comprises policy templates, instrumentation, and parameters for monitoring the health and performance of SAP Sybase ASE Servers. Each SAP Sybase ASE Aspect can be used to monitor individual units of SAP Sybase ASE server.

User Interface Reference

General	Provides an overview of the general attributes of the SAP Sybase ASE Aspects.
CI Type	The type of CIs that the Aspect can be assigned to. Sybase is the type of CI to which the Aspects can be assigned.
Instrumentation	Provides a single package which contains the binaries for discovery, collection, and data logging.
Aspects	Provides an overview of any Aspects that the SAP Sybase ASE Aspect contains. You can expand each item in the list to see more details about the nested aspect. The SAP Sybase ASE Base Aspect is part of all the other Aspects.
Policy	Provides an overview of the policy templates that the SAP Sybase ASE Aspect

Templates	contains. You can expand each item in the list to see more details about the policy template.
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The OMi MP for SAP Sybase ASE comprises the following SAP Sybase ASE Aspects:

SAP Sybase ASE Application Performance

This Aspect monitors the use of priority switches, blocked processes, about system resources used by particular application and login tasks, or by all users of each application.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2046	SAPSybaseASE_HighPrioritySwitchesPct:High, SAPSybaseASE_HighPrioritySwitchesPct:Normal	This policy monitors the percentage threshold of high priority switches used (S046_HigPrioChngsPct)	Measurement Threshold
Sybase	SAPSybaseASE_2047	SAPSybaseASE_MediumPrioritySwitchesPct:High, SAPSybaseASE_MediumPrioritySwitchesPct:Normal	This policy monitors the percentage threshold of medium priority switches (S047_MedPrioChngsPct)	Measurement Threshold
Sybase	SAPSybaseASE_2048	SAPSybaseASE_LowPrioritySwitchesPct:High, SAPSybaseASE_LowPrioritySwitchesPct:Normal	This policy monitors the percentage threshold of low priority switches (S048_LowPrioChngsPct)	Measurement Threshold
Sybase	SAPSybaseASE_2050	SAPSybaseASE_CpuPctForAppOrLogin:High, SAPSybaseASE_CpuPctForAppOrLogin:Normal	This policy monitors the percentage threshold of CPU utilized by one or more	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			application/login as percent of total CPU (S050_CPUAppLognPct)	
Sybase	SAPSybaseASE_2051	SAPSybaseASE_IOPctForAppOrLogin:High, SAPSybaseASE_IOPctForAppOrLogin:Normal	This policy monitors the percentage threshold of I/O application/login for one or more application/login as percent of total I/O (S051_IOAppLognPct)	Measurement Threshold
Sybase	SAPSybaseASE_2250	NA	This policy monitors the percentage of CPU utilized by a specific application/login as percentage of total - drill down (S250_CPUAppLognPct)	Measurement Threshold
Sybase	SAPSybaseASE_2251	NA	This policy monitors the percentage of I/O for a specific application/login as percentage of total - drill down (S251_IOAppLognPct)	Measurement Threshold

SAP Sybase ASE Availability

This Aspect monitors SAP Sybase ASE connection status, processes, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2002	SAPSybaseASE_DBServerConn:Down, SAPSybaseASE_DBServerConn:Up	This policy monitors the availability of Sybase database server (S002_DatabaseServerMonitor)	Measurement Threshold
Sybase	SAPSybaseASE_2007	SAPSybaseASE_UsrConnPct:High, SAPSybaseASE_UsrConnPct:Normal	This policy checks for the percentage of maximum users connected to process the database query (S007_ConnectUsersPct)	Measurement Threshold
Sybase	SAPSybaseASE_2011	SAPSybaseASE_DataSrvProcStatus:Down, SAPSybaseASE_DataSrvProcStatus:Up	This policy monitors the Database process (S011_ProcessStatus). Checks whether the critical processes are running on a server. This metric reports the name of any missing critical process.	Measurement Threshold
Sybase	SAPSybaseASE_2012	SAPSybaseASE_EnginesOfflineCnt:Down, SAPSybaseASE_EnginesOfflineCnt:Up	This policy check for number of Engines Offline (S012_EnginesOffCnt)*	Measurement Threshold
Sybase	SAPSybaseASE_2020	NA	Monitors the Sybase Backup Server Connectivity (S020_BackupServerStatus)	Measurement Threshold
Sybase	SAPSybaseASE_2061	SAPSybaseASE_ConnPerUserCnt:High, SAPSybaseASE_ConnPerUserCnt:Normal	This policy monitors the average number of connections per user per login ID (S061_ConnectPerUsrCnt)	Measurement Threshold
Sybase	SAPSybaseASE_2206	SAPSybaseASE_DatabaseConn:Down, SAPSybaseASE_DatabaseConn:Up, SAPSybaseASE_DatabaseConn:DownStatus,	This policy checks the database status and connection (S206_DatabaseStatus)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2225	NA	SAP Sybase ASE Availability: Generate reports for the server uptime information.	ConfigFile
Sybase	SAPSybaseASE_2306	NA	This policy checks for database status (S306_DBUseCheck)	Measurement Threshold

*Check maximum online engines configuration value. If necessary, use `dbcc engine` command to bring an engine online.

SAP Sybase ASE Base

This Aspect is the Base Aspect for monitoring SAP Sybase ASE. It contains configuration, error log, schedulers, and logger policies.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_Configuration	NA	The Configuration policy is used to update User configuration for establishing connection with the SAP Sybase ASE Server.	ConfigFile
Sybase	SAPSybaseASE_ErrorLog	NA	This policy monitors the SAP Sybase ASE entries into the error log file.	LogFile Entry
Sybase	SAPSybaseASE_VeryHigh	NA	By default, runs the SAPSybaseASE MP collector/analyzer every 5 minutes. The schedule can be modified as required in the environment.	Scheduled Task
Sybase	SAPSybaseASE_High	NA	By default, runs the SAPSybaseASE MP collector/analyzer every 15 minutes. The schedule can be modified as required in the environment.	Scheduled Task
Sybase	SAPSybaseASE_Medium	NA	By default, runs the SAPSybaseASE MP collector/analyze every 1 hour. The schedule can be modified as required in the environment.	Scheduled Task

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_ Low	NA	By default, runs the SAPSybaseASE MP collector/analyzer once in a day. The schedule can be modified as required in the environment.	Scheduled Task
Sybase	SAPSybaseASE_ Logger	NA	By default, runs SAP Sybase ASE Server Logger Data Feed every 5 minutes.	Scheduled Task
Sybase	SAPSybaseASE_ Messages	NA	This policy intercept the messages submitted by the OMi MP for SAP Sybase ASE programs.	Open Message Interface

SAP Sybase ASE Cache Performance

This Aspect monitors the performance of data caches, procedure caches, resources, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_ 2031	SAPSybaseASE_ DataCachePct:Low, SAPSybaseASE_ DataCachePct:Normal	This policy monitors the percentage of data cache as the percent of total memory (S031_ DataCachePct)	Measurement Threshold
Sybase	SAPSybaseASE_ 2032	SAPSybaseASE_ ProcedureCachePct:High, SAPSybaseASE_ ProcedureCachePct:Normal	This policy monitors the percentage of procedure cache (being read) from the disk (S032_ ProcdreCachePct)	Measurement Threshold
Sybase	SAPSybaseASE_ 2033	SAPSybaseASE_ DataCacheMissPct:High, SAPSybaseASE_ DataCacheMissPct:Normal	This policy monitors the percentage of data cache misses (S033_ DataCachMissPct)	Measurement Threshold
Sybase	SAPSybaseASE_ 2035	SAPSybaseASE_ CacheUtilizationPct:High, SAPSybaseASE_ CacheUtilizationPct:Normal	This policy monitors the percentage of cache utilization for	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			one or more data caches (S035_CacheUtilztnPct)	
Sybase	SAPSybaseASE_2036	SAPSybaseASE_LrgelODeniedPct:High, SAPSybaseASE_LrgelODeniedPct:Normal	This policy monitors the percentage of large I/O denied for the entire server (S036_LrgelODeniedPct)	Measurement Threshold
Sybase	SAPSybaseASE_2235	NA	This policy monitors the percentage of cache utilization for one specific data cache (S235_CacheUtilztnPct)	Measurement Threshold
Sybase	SAPSybaseASE_2236	NA	This policy monitors the percentage of large I/O denied for the cache (S236_LrgelODeniedPct)	Measurement Threshold

SAP Sybase ASE CPU Utilization

This Aspect monitors how busy Adaptive Server engines were during the time the CPU was available to Adaptive Server, how often the CPU yielded to the operating system, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2001	SAPSybaseASE_SrvEngineCPUUtilPct:Critical, SAPSybaseASE_SrvEngineCPUUtilPct:Normal, SAPSybaseASE_SrvEngineCPUUtilPct:Warning, SAPSybaseASE_SrvEngineCPUUtilPct:Normal	This policy monitors the percentage of time, Adaptive Server Engines uses the allotted CPU time interval (S001_UtilByCPUPct)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2003	SAPSybaseASE_TaskContextSwitchPct:High, SAPSybaseASE_TaskContextSwitchPct:Normal	This policy monitors the percentage of task context switching (S003_ContextSwitch)	Measurement Threshold
Sybase	SAPSybaseASE_2203	NA	This policy monitors the percentage of task context switch for specific type (S203_ContextSwitch)	Measurement Threshold

SAP Sybase ASE Database Space Utilization

This Aspect monitors the Database Space Utilization such as segments space, database size and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2004	SAPSybaseASE_TransLogFreeSpacePct:Low, SAPSybaseASE_TransLogFreeSpacePct:Normal	This policy monitors the percentage of space free in transaction log for one or more databases (S004_TransLogFullPct)*	Measurement Threshold
Sybase	SAPSybaseASE_2005	SAPSybaseASE_DBSegmentFreeSpace:Low, SAPSybaseASE_DBSegmentFreeSpace:Normal	This policy monitors the percentage of space free in one or more database segments (S005_SegmentSpacePct)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2204	NA	This policy monitors the percentage of space free in transaction log for a specific database (S204_TransLogFullPct)	Measurement Threshold
Sybase	SAPSybaseASE_2205	NA	This policy monitors the percentage of space remaining on a specific database segments (S205_SegmentSpacePct)	Measurement Threshold
Sybase	SAPSybaseASE_2222	NA	This policy generates reports for allocated and free database size in MB .	ConfigFile
Sybase	SAPSybaseASE_2223	NA	This policy monitors the allocated and free table size in MB .	ConfigFile

* You need to periodically dump (truncate) the transaction log. If you do not truncate, the log will grow unchecked until it fills up. You can either turn on the database option: `sp_dboption database, 'trunc log on chkpt' true`, which is NOT recommended on a production machine, or you can dump the transaction log, which cleans all completed transaction. You should automate cleaning the transaction log on a periodic basis, before the threshold is reached. If you are cleaning the transaction log, but size remains, you have a long-running transaction which is not complete, or you may have an aborted transaction in the database which has not been marked as complete in the log. As a last solution, you can shut down and restart the server. This will mark the incomplete transaction as complete (and rolled back). The automatic action for this metric generates a report showing database name and log percentage for each database.

SAP Sybase ASE Device Performance

This Aspect monitors the activities related to devices such as Mirror status and Virtual Devices space.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2016	SAPSybaseASE_VirtualDeviceSpaceUsed:Low, SAPSybaseASE_VirtualDeviceSpaceUsed:Normal	This policy monitors the percentage of space used on one or more virtual device (S016_SpacedUsedPct)	Measurement Threshold
Sybase	SAPSybaseASE_2017	SAPSybaseASE_MirrorDevicesNotActive:Down, SAPSybaseASE_MirrorDevicesNotActive:Up	This policy monitors the number of Mirror Devices that are not active (S017_MirrDevNoActCnt)	Measurement Threshold
Sybase	SAPSybaseASE_2216	NA	This policy monitors the percentage of memory space used on a specific virtual device (S216_SpacedUsedPct)	Measurement Threshold
Sybase	SAPSybaseASE_2224	NA	SAP Sybase ASE Virtual Device Size: This policy generates a report for the virtual device size that are allocated in MB.	ConfigFile

SAP Sybase ASE Discovery

This Aspect discovers the SAP Sybase ASE Server and SAP Sybase Replication Server deployment topologies and populates the corresponding CIs in the RTSM database.

CI Type	Policy Template	Indicator	Description	Policy Type
Computer	SAPSybaseASE_Discovery	NA	SAP Sybase ASE Discovery policy.	Service Auto-Discovery
Sybase	SAPSybaseASE_Messages	NA	This policy intercept the messages submitted by the OMi MP for SAP Sybase ASE programs.	Open Message Interface

SAP Sybase ASE Disk Health

This Aspect monitors the disk IO activity for the server as a whole and reports on reads, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2013	SAPSybaseASE_DiskIOPct:High, SAPSybaseASE_DiskIOPct:Normal	This policy monitors the percentage of total I/O performed on one or more disks (S013_DiskIOPct)	Measurement Threshold
Sybase	SAPSybaseASE_2075	SAPSybaseASE_CompletDiskIOPct:Low, SAPSybaseASE_CompletDiskIOPct:Normal	This policy monitors the percentage of disk I/O that are completed (S075_CompleteDskIOPct)	Measurement Threshold
Sybase	SAPSybaseASE_2077	SAPSybaseASE_PhysicalReadsRate:High, SAPSybaseASE_PhysicalReadsRate:Normal	This policy monitors the number of physical reads per second (S077_PhysReadsRate)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2078	SAPSybaseASE_LogicalReadsRate:High, SAPSybaseASE_LogicalReadsRate:Normal	This policy monitors the number of logical reads per sec (S078_LogicReadsRate)	Measurement Threshold
Sybase	SAPSybaseASE_2213	NA	This policy monitors the percentage of total I/O performed by specific disks - drill down (S213_DiskIOPct)	Measurement Threshold
Sybase	SAPSybaseASE_2226	NA	SAP Sybase ASE Workload: This policy is used to configure the number of physical reads and writes to the disk since the last collection for each tablespace.	ConfigFile

SAP Sybase ASE Index Performance

This Aspect monitors the index management activity, including non-clustered maintenance.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2015	SAPSybaseASE_OpenIndexesPct:Low, SAPSybaseASE_OpenIndexesPct:Normal	This policy monitors the percentage of Open Indexes * (S015_OpenIndexPct)	Measurement Threshold
Sybase	SAPSybaseASE_2070	SAPSybaseASE_HeapInsertsPct:High, SAPSybaseASE_HeapInsertsPct:Normal	This policy monitors the percentage of heap inserts,	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			that is inserts into the table that do not have clustered indexes (S070_HeapInsertPct)	
Sybase	SAPSybaseASE_2071	SAPSybaseASE_Non-ClstIndexesMaintenanceForInsOrUpdts: High, SAPSybaseASE_Non-ClstIndexesMaintenanceForInsOrUpdts: Normal	This policy monitors the average number of non-clustered indexes (NCIs) requiring maintenance for inserts/updates on tables (S071_NCIxReqMntIU Pct)	Measurement Threshold
Sybase	SAPSybaseASE_2072	SAPSybaseASE_Non-ClstIndexesMaintenanceForDels:High, SAPSybaseASE_Non-ClstIndexesMaintenanceForDels:Normal	This policy monitors the average number of NCIs requiring maintenance for deletes on tables (S072_NCIxReqMntDI Pct)	Measurement Threshold

* To determine optimal number of open indexes, run the following commands:

```
p_countmetadata 'open indexes'
sp_monitorconfig 'open indexes'
```

To configure number of open indexes, run the following command:

```
sp_configure 'number of open indexes'
```

SAP Sybase ASE Lock Performance

This Aspect monitors the information about locks that are held, deadlocks and those that have been

requested, by any process or object.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2029	SAPSybaseASE_AvgLocksByProcessCnt:High, SAPSybaseASE_AvgLocksByProcessCnt:Normal	This policy monitors the average number of locks per process (S029_AvgLksByProcCnt)	Measurement Threshold
Sybase	SAPSybaseASE_2053	SAPSybaseASE_UsrLocksInUsePct:High, SAPSybaseASE_UsrLocksInUsePct:Normal	This policy monitors the percentage of available locks in use (active user locks)(S053_LocksUserPct)	Measurement Threshold
Sybase	SAPSybaseASE_2057	SAPSybaseASE_DeadLockCnt:Low, SAPSybaseASE_DeadLockCnt:Normal	This policy monitors the number of deadlocks (S057_DeadlockCnt)	Measurement Threshold

SAP Sybase ASE Memory Performance

This Aspect monitors the memory of SAP Sybase ASE server such as Spin Lock contention, buffer, cache flushes, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2037	SAPSybaseASE_LargeIOUtilizationPct:Low, SAPSybaseASE_LargeIOUtilizationPct:Normal	This policy monitors the percentage of large I/O utilization (effectiveness) for the entire server (S037_LrgelOUtilPct)	Measurement Threshold
Sybase	SAPSybaseASE_2038	SAPSybaseASE_APFDeniedPercentage:High, SAPSybaseASE_	This policy monitors the percentage of asynchronous pre-	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
		APFDeniedPercentage:Normal	fetch (APF) denied for the server (S038_APFDeniedPct)	
Sybase	SAPSybaseASE_2073	SAPSybaseASE_SpinLockContentionPct:High, SAPSybaseASE_SpinLockContentionPct:Normal	This policy monitors the percentage of spinlock contention by cache for the entire server (S073_SpinLockContPct)	Measurement Threshold
Sybase	SAPSybaseASE_2074	SAPSybaseASE_BuffGrabbedDirtyPct:High, SAPSybaseASE_BuffGrabbedDirtyPct:Normal	This policy monitors the percentage of buffers being grabbed dirty by cache and pool (S074_BuffGrabDrtyPct)	Measurement Threshold
Sybase	SAPSybaseASE_2076	SAPSybaseASE_CacheHitMissesPercentage:High, SAPSybaseASE_CacheHitMissesPercentage:Normal	This policy monitors the percentage of data cache misses (S076_CacheHitMissPct)	Measurement Threshold
Sybase	SAPSybaseASE_2080	SAPSybaseASE_BuffInWashAlreadyInIoPct:High, SAPSybaseASE_BuffInWashAlreadyInIoPct:Normal	This policy monitors the percentage of buffers in wash already in I/O (S080_BferWashInIoPct)	Measurement Threshold
Sybase	SAPSybaseASE_2081	SAPSybaseASE_DirtyBuffWashedPct:High, SAPSybaseASE_DirtyBuffWashedPct:Normal	This policy monitors the percentage of buffer washed dirty for one or more data caches (S081_BferWashDrtyPct)	Measurement Threshold
Sybase	SAPSybaseASE_2237	NA	This policy monitors the percentage of large I/O utilization/effectiveness for a specific data cache (S237_LrgelOUtilPct)	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2273	NA	This policy monitors the percentage of spinlock contention by cache for a specific data cache (2273_SpinLockContPct)	Measurement Threshold
Sybase	SAPSybaseASE_2274	NA	This policy monitors the percentage of buffers being grabbed dirty by cache and pool for a specific cache or pool combination (S274_BuffGrabDrtyPct)	Measurement Threshold
Sybase	SAPSybaseASE_2276	NA	This policy monitors the percentage of cache misses for a specific data cache (S276_CacheHitMissPct)	Measurement Threshold
Sybase	SAPSybaseASE_2280	NA	This policy monitors the percentage of buffers in wash already in I/O (S280_BferWashInIOPct)	Measurement Threshold
Sybase	SAPSybaseASE_2281	NA	This policy monitors the percentage of buffer washed dirty for a specific cache (S281_BferWashDrtyPct)	Measurement Threshold

SAP Sybase ASE Network Packets

This Aspect monitors the network activities such as packet size sent and received.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2044	SAPSybaseASE_AvgNWPckSizeSxInBytes:High, SAPSybaseASE_AvgNWPckSizeSxInBytes:Normal	This policy monitors the average network packet size sent in bytes (S044_AvgPackSizeSnt)	Measurement Threshold
Sybase	SAPSybaseASE_2045	SAPSybaseASE_AvgNWPckSizeRxInBytes:High, SAPSybaseASE_AvgNWPckSizeRxInBytes:Normal	This policy monitors the average network packet size received in bytes (S045_AvgPackSizeRcvd)	Measurement Threshold

SAP Sybase ASE Objects Performance

This Aspect monitors the statistics for objects such as open database count and blocked objects count.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2014	SAPSybaseASE_RemainingOpenedDBCnt:Low, SAPSybaseASE_RemainingOpenedDBCnt:Normal	This policy monitors the number of remaining open databases (S014_OpenDbRemCnt)	Measurement Threshold
Sybase	SAPSybaseASE_2049	SAPSybaseASE_BlckdObjCnt:High, SAPSybaseASE_BlckdObjCnt:Normal	This policy monitors the number of blocked objects (S049_BlockedObjNum)	Measurement Threshold
Sybase	SAPSybaseASE_2054	SAPSybaseASE_OpenObjInUsePct:High, SAPSybaseASE_OpenObjInUsePct:Normal	This policy monitors the percentage of open objects that are used or	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			available (S054_OpnObjctsUsdPct)	

SAP Sybase ASE Parallel Processing

This Aspect monitors the execution of parallel queries. It reports the parallel queries rate, the number of times the number of worker processes that was adjusted at run-time, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2064	SAPSybaseASE_WorkerProcReqRate:High, SAPSybaseASE_WorkerProcReqRate:Normal	This policy monitors the worker process requests per second rate (S064_WorkrProcesRate)	Measurement Threshold
Sybase	SAPSybaseASE_2065	SAPSybaseASE_ParallelQueriesRate:High, SAPSybaseASE_ParallelQueriesRate:Normal	This policy monitors the parallel queries per second rate (S065_ParallelQryRate)	Measurement Threshold
Sybase	SAPSybaseASE_2066	SAPSybaseASE_ESPRequestRate:High, SAPSybaseASE_ESPRequestRate:Normal	This policy monitors the extended stored procedure (ESP) requests per second (S066_ESQRequestRate)	Measurement Threshold
Sybase	SAPSybaseASE_2067	SAPSybaseASE_WorkerProcReqDeniedPct:High, SAPSybaseASE_WorkerProcReqDeniedPct:Normal	This policy monitors the percentage of worker process requests denied	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			(S067_WrkrPrcRqDenPct)	
Sybase	SAPSybaseASE_2068	SAPSybaseASE_WorkerProcMemReqFailedPct:High, SAPSybaseASE_WorkerProcMemReqFailedPct:Normal	This policy monitors the percentage of worker process memory requests failed (S068_WrkrMmRqFailPct)	Measurement Threshold
Sybase	SAPSybaseASE_2069	SAPSybaseASE_ParallelQueryRuntimeAdjstPct:High, SAPSybaseASE_ParallelQueryRuntimeAdjstPct:Normal	This policy monitors the percentage of parallel query runtime adjustments (S069_PQRunTAdjustPct)	Measurement Threshold

SAP Sybase ASE Process Activity

This Aspect monitors the Process activities such as blocked processes, committed transactions, and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2039	SAPSybaseASE_FullUsrLogCacheFlushesPct:High, SAPSybaseASE_FullUsrLogCacheFlushesPct:Normal	This policy monitors the percentage of full user log cache flushes (ULC) caused by full ULC (S039_FullULCFlushPct)	Measurement Threshold
Sybase	SAPSybaseASE_2055	SAPSybaseASE_BlckdPrsCnt:High,	This policy	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
		SAPSybaseASE_ BlckdPracsCnt:Normal	monitors the number of blocked processes (S055_BlockdProcesses)	
Sybase	SAPSybaseASE_2062	SAPSybaseASE_ LogSemaphoresWaitPct:High, SAPSybaseASE_ LogSemaphoresWaitPct:Normal	This policy monitors the percentage log semaphores waited for Transaction Log Semaphore (S062_LogSemaWaitPct)	Measurement Threshold
Sybase	SAPSybaseASE_2079	SAPSybaseASE_ CommitTransCnt:High, SAPSybaseASE_ CommitTransCnt:Normal	This policy monitors the number of committed transactions (S079_CommXactsCnt)	Measurement Threshold
Sybase	SAPSybaseASE_2256	NA	This policy monitors the blocked process and its blocking process (S256_VictimBlocker)	Measurement Threshold

SAP Sybase ASE Query Performance

This Aspect monitors the SQL Query Performance and count.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_	SAPSybaseASE_	This policy	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
	2027	ActiveCursorsCount:High, SAPSybaseASE_ ActiveCursorsCount:Normal	monitors the number of active cursors (S027_ActivCursorsCnt)	Threshold
Sybase	SAPSybaseASE_ 2043	SAPSybaseASE_ HeavySqlStatementsCnt:High, SAPSybaseASE_ HeavySqlStatementsCnt:Normal	This policy monitors the number of heavy SQL statements (S043_HeavySQLNum)	Measurement Threshold

SAP Sybase ASE User Defined Aspect

This Aspect monitors User Defined Aspects for SAP Sybase ASE.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_ UDM	NA	Syntax to create SAP Sybase ASE MP User Defined Metrics.	ConfigFile
Sybase	SAPSybaseASE_ 27XX	NA	UDM monitor metric 27XX	Measurement Threshold

SAP Sybase Replication Server Base

This Aspect is the Base Aspect for monitoring SAP Sybase Replication Server. It contains configuration, schedulers, message and logger policies.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_ RepConfiguration	NA	SAP Sybase Replication Server Configuration policy to update User configuration.	ConfigFile
Sybase	SAPSybaseASE_ VeryHigh	NA	Runs the SAPSybaseASE MP collector or analyzer for every Very High schedule.	Scheduled Task

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_High	NA	Runs the SAPSybaseASE MP collector or analyzer for every High schedule.	Scheduled Task
Sybase	SAPSybaseASE_Medium	NA	Runs the SAPSybaseASE MP collector or analyzer for every Medium schedule.	Scheduled Task
Sybase	SAPSybaseASE_Low	NA	Runs the SAPSybaseASE MP collector or analyzer for every Low schedule.	Scheduled Task
Sybase	SAPSybaseASE_Logger	NA	SAP Sybase ASE Logger Data Feed (every 5 minutes)	Scheduled Task
Sybase	SAPSybaseASE_Messages	NA	Interception of messages submitted by SAPSybaseASE MP programs.	Open Message Interface

SAP Sybase Replication Server Availability

This Aspect monitors the Replication Server activities such as thread status and segments used for all databases configured to use a Replication Server.

CI Type	Policy Template	Indicator	Description	Policy Type
Sybase	SAPSybaseASE_2285	SAPRepServer_ThreadStatus:Down, SAPRepServer_ThreadStatus:Up	This policy monitors the Replication Server thread status (S285_RepThreadStatus)	Measurement Threshold
Sybase	SAPSybaseASE_2286	SAPRepServer_SegmentUsedPct:High, SAPRepServer_SegmentUsedPct:Normal	This policy monitors the percentage of segments used on the Replication Server partitions (S286_RepSegUsedPct)	Measurement Threshold

Parameters

Parameters are variables that are an integral component of SAP Sybase ASE Management Templates, SAP Sybase ASE Aspects, and Policy Templates. Each parameter corresponds to a variable. Parameters contain default values that are used for monitoring the different components of SAP Sybase ASE Servers. You can also modify the values of the variables to suit your monitoring requirements.

Types of Parameters

The parameters are grouped as follows:

- **Instance Parameters** - These parameters are essential for monitoring SAP Sybase ASE CIs. For example, SAP Sybase ASE Server CI name is an Instance Parameter.
- **Mandatory Parameters** - These parameters contain the essential information required by policy templates. For example, SAP Sybase ASE password is a mandatory parameter.
- **Dependent Parameters** - There are some parameters which are a subset of the mandatory parameters. Such parameters are referred to as dependent parameters. For example, Frequency and Threshold are dependent parameters of SAP Sybase ASE Instance Name.
- **Expert Parameters** - These parameters can be used by SMEs and Administrators.

SAP Sybase ASE Parameters

OMi MP for SAP Sybase ASE contains the following parameters:



Parameter	Parameter Type	Description	Default Values
SAP Sybase ASE Instance Name	Instance	SAP Sybase ASE Instance Name that must be monitored.	CI Name
SAP Sybase ASE Instance Username	Dependent/Mandatory	SAP Sybase ASE Server User Name with the required privileges to collect data.	NA

Parameter	Parameter Type	Description	Default Values
SAP Sybase ASE Instance Password	Dependent/Mandatory	Password for SAP Sybase ASE Server User Name.	
Filter	Expert/Dependent	Filter the monitored components. For example, SAP Sybase ASE Server Segment Filter parameter filters the segments for monitoring.	
SAP Sybase ASE Instance Collection	Expert/Dependent	Turn on or off collection for SAP Sybase ASE Server Instance.	ON
SAP Sybase ASE Instance Tracing	Expert/Dependent	Enable Tracing on or off for trace to be captured on node at %ovdatadir%/dbspi/log/trace .	OFF
Frequency of Very High Scheduler	Expert	Frequency for the scheduler which is expected to run for very high intervals (in minutes).	5
Frequency of High Scheduler	Expert	Frequency for the scheduler which is expected to run for high intervals (in minutes).	15
Frequency of Medium Scheduler	Expert	Frequency for the scheduler which is expected to run for medium intervals (in hours).	1
Frequency of Low Scheduler	Expert	Frequency for the scheduler which is expected to run for short intervals (in hours).	24
Frequency	Dependent	<p>Frequency of monitoring by a Policy Template. For example, the frequency of monitoring SAP Sybase ASE Server availability.</p> <p>Note: When the value of Frequency parameter is set to NORUN, that specific Policy Template, Management Template, or Aspect will not be monitored for the duration the Frequency value is NORUN.</p>	NA

Parameter	Parameter Type	Description	Default Values
Threshold	Dependent	Threshold of a policy template. For example, the threshold of monitoring available database nodes.	
Severity	Dependent	Severity level of a policy template. For example, the severity of monitoring critical database nodes count.	

Tuning of Parameters

You can edit the parameters of the SAP Sybase ASE Management Templates or Aspects that are already deployed to the CIs. To edit the parameters, follow 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 **SAPSybaseASE_Deployment** View that contains the CI for which you want to tune parameters. Alternatively, you can use the **Search** tab to find a CI.
3. In the list of SAP Sybase ASE Server CIs, select a CI. The Assignments pane shows details of any existing Aspects assignments for the SAP Sybase ASE Server CI.
4. You can modify the default parameter values by following one of the below methods:
 - In the Assignments pane:
 - i. Select the Aspect for which you want to tune the parameters and then click . The Tune Assignment pane shows the current parameter values.
 - ii. Select the parameter you want to tune and click . The Edit Parameters dialog box opens.
 - In the Assignment Details pane:
 - i. Double-click a parameter in the list. The Edit Parameter dialog box opens.
5. Change the value and click **OK**. The new parameter values are deployed to the relevant CIs.

Configuration Item (CI) and Configuration Item Types (CITs)

CIs are components that have to be managed in order to deliver an IT Service. CIs typically include IT Services, hardware, and software. CIT describes the type of a CI and its attributes. The SAP Sybase ASE CIs that are discovered in an environment are grouped together under the CITs.

The OMi MP for SAP Sybase ASE consists the following CITs:

- Computer
- Sybase

Run-time Service Model (RTSM) Views

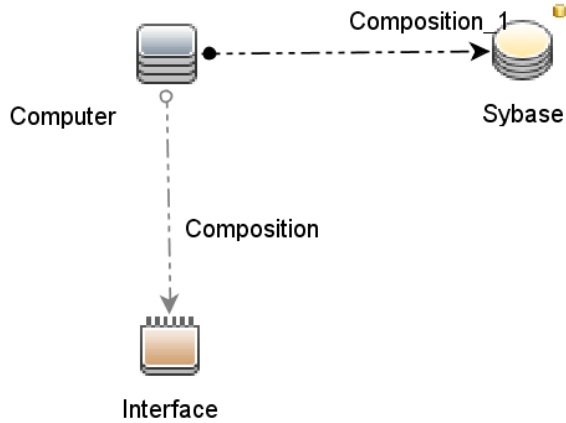
A view enables you to build and visualize a subset of the overall CI model that comprises SAP Sybase ASE CITs related to specific area of interest.

How to Access RTSM Views

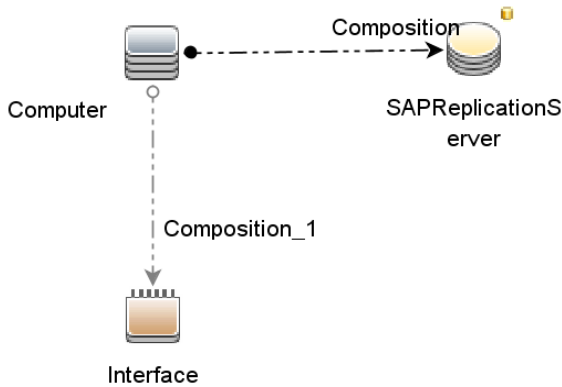
1. Open the Modeling Studio pane:
On BSM 9.2x, click **Admin > RTSM Administration > Modeling > Modeling Studio**.
On OMi 10.x, click **Administration > RTSM Administration > Modeling > Modeling Studio > Resources**.
2. Click **Resource Type** as Views.
3. Click **Operations Management > Databases** from the list.
4. Double-click or you can drag-and-drop the Resource to the modeling canvas.

By default, OMi MP for SAP Sybase ASE includes the following views:

- **SAPSybaseASE_Deployment**: This view shows to the Sybase, Interface, and Computer CI type. The following image shows the relationship among the CI types:



- **SAPSybaseReplicationServer_Deployment:** This view refers to the Sybase (SAP Sybase Replication Server), Interface, and Computer CI type. The following image shows the relationship among the CI types:



Health Indicators (HIs)

Health Indicators (HIs) analyze the events that occur in OMi MP for SAP Sybase ASE CIs and report the health of the OMi MP for SAP Sybase ASE CIs. The SAP Sybase ASE MP includes the following HIs to monitor the OMi MP for SAP Sybase ASE-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**.

- In the CI Type pane, click **InfrastructureElement > RunningSoftware > Database > Sybase**.

CI Type	HI	Description	Value/Severity
Sybase	SAP Sybase ASE Remaining Opened Database Count	Indicates the number of remaining open databases.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Data Cache Percentage	Indicates the percentage of data cache as percentage of total memory.	Normal/NORMAL, Low/WARNING
Sybase	SAP Sybase ASE Worker Process Memory Requests Failed Percentage	Indicates the percentage of worker process memory requests failed.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE User Locks in Use Percentage	Indicates the percentage of user locks in use.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Worker Process Requests Denied Percentage	Indicates the percentage of worker process requests denied.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Blocked Objects Count	Indicates the number of blocked objects.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Database Server Connection	Indicates the database server connection.	Up/NORMAL, Down/CRITICAL
Sybase	SAP Sybase ASE Asynchronous Pre-Fetch (APF) Denied Percentage	Indicates the percentage of asynchronous pre-fetch (APF) denied for the server.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Mirror Devices Not Active	Indicates the number of Mirror Devices not active.	Up/NORMAL, Down/MAJOR
Sybase	AP Sybase ASE Blocked Processes Count	Indicates the number of blocked processes.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Engines Offline Count	Indicates the count of offline engines.	Up/NORMAL, Down/CRITICAL
Sybase	SAP Sybase ASE Dead Lock Count	Indicates the number of dead lock.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Server Engine CPU Utilization Percentage	Indicates the Server Engine CPU utilization percentage.	Normal/NORMAL, Warning/WARNING, Critical/CRITICAL

CI Type	HI	Description	Value/Severity
Sybase	SAP Sybase ASE Data Cache Misses Percentage	Indicates the percentage of data cache misses for server.	Normal/NORMAL, High/MAJOR

Event Type Indicators (ETIs)

ETIs are categorization of events based on the type of occurrence. The SAP Sybase ASE MP includes the following ETIs to monitor OMi Management Pack for SAP Sybase ASE -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 **InfrastructureElement > RunningSoftware > Database > Sybase**.

CI Type	ETI	Description	Value/Severity
Sybase	SAP Sybase ASE Logical Reads Rate	Indicates the number of logical reads per second.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Open Indexes Percentage	Indicates the percentage of open indexes.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Input Output Percentage for Application or Login	Indicates the percentage of Input/Output for one or more applications as a percent of total Input or Output.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Physical Reads Rate	Indicates the number of physical reads per second.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Active Cursors Count	Indicates the number of active cursors.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Average Network Packet Size Sent In Bytes	Indicates the average network packet size sent in bytes.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Transaction Log Free Space	Indicates the percentage of free space in transaction log	Normal/NORMAL, Low/MAJOR

CI Type	ETI	Description	Value/Severity
	Percentage	for one or more databases.	
Sybase	SAP Sybase Replication Server Segment Used Percentage	Indicates the percentage of segments used on a specific disk partition.	Normal/NORMAL, High/MINOR
Sybase	SAP Sybase ASE Connections Per User Count	Indicates the average number of connections per user.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Worker Process Request Rate	Indicates the number of worker process request per second.	Normal/NORMAL, High/MINOR
Sybase	SAP Sybase ASE Low Priority Switches Percentage	Indicates the percentage of low priority switches.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Cache Utilization Percentage	Indicates the percentage of cache utilization.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Buffers in Wash Already in IO Percentage	Indicates the percentage of buffers in wash already in Input Output for one or more data caches.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Medium Priority Switches Percentage	Indicates the percentage of medium priority switches.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Completed Disk Input Output Percentage	Indicates the percentage of completed disk Input or Output.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Full User Log Cache Flushes Percentage	Indicates the percentage of full user log cache flushes (ULC).	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Database Segment Free Space	Indicates the percentage of free space for one or more segments for database.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Virtual Device Space Used	Indicates the percentage of space used on Virtual Device.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Cache Hit Misses Percentage	Indicates the percentage of data cache misses for one or more data caches.	Normal/NORMAL, High/MAJOR

CI Type	ETI	Description	Value/Severity
Sybase	SAP Sybase ASE Disk Input Output Percentage	Indicates the percentage of total Input Output performed by specific disks.	Normal/NORMAL, High/MINOR
Sybase	SAP Sybase ASE Procedure Cache Percentage	Indicates the percentage of procedure cache from disk.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Database Connection	Indicates the database status and connection check.	Up/NORMAL, DownStatus/WARNING, Down/MAJOR
Sybase	SAP Sybase ASE Average Locks By Process Count	Indicates the average number of locks per process.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Buffers Grabbed Dirty Percentage	Indicates the percentage of buffers grabbed dirty for one or more cache or pool.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Log Semaphores Wait Percentage	Indicates the percentage of log semaphores wait.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Users Connected Percentage	Indicates the percentage of maximum users connected.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Extended Stored Procedure (ESP) Request Rate	Indicates the number of Extended Stored Procedure (ESP) request per second.	Normal/NORMAL, High/MINOR
Sybase	SAP Sybase ASE Spin Lock Contention Percentage	Indicates the percentage of spin lock contention for the entire server.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Large Input Output Utilization Percentage	Indicates the percentage of large Input/Output effectiveness (utilization) for the entire server.	Normal/NORMAL, Low/MAJOR
Sybase	SAP Sybase ASE Non-Clustered Indexes Maintenance for Inserts or Updates	Indicates the average number of non-clustered indexes (NCI) requiring maintenance for inserts and updates.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Parallel Query Runtime Adjustments Percentage	Indicates the percentage of worker process requests that are being adjusted at	Normal/NORMAL, High/MAJOR

CI Type	ETI	Description	Value/Severity
		run-time.	
Sybase	SAP Sybase ASE Non-Clustered Indexes Maintenance for Deletes	Indicates the average number of non-clustered indexes (NCI) requiring maintenance for deletes.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Committed Transactions Count	Indicates the number of committed transactions.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Parallel Queries Rate	Indicates the number of parallel queries per second.	Normal/NORMAL, High/MINOR
Sybase	SAP Sybase ASE Heavy Sql Statements Count	Indicates the number of heavy SQL statements.	Normal/NORMAL, High/WARNING
Sybase	SAP Sybase ASE Heap Inserts Percentage	Indicates the percentage of heap inserts.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Large Input Output Denied Percentage	Indicates the percentage of large Input Output denied.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Dirty Buffers Washed Percentage	Indicates the percentage of buffers washed dirty for one or more data caches.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Open Objects in Use Percentage	Indicates the percentage of open objects used to available.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE CPU Percentage for Application or Login	Indicates the percentage of CPU for one or more applications as a percent of total CPU.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Data Server Process Status	Indicates the critical processes running on a data server.	Up/NORMAL, Down/CRITICAL
Sybase	SAP Sybase ASE Average Network Packet Size Received in Bytes	Indicates the average network packet size received in bytes.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE High Priority Switches Percentage	Indicates the percentage of high priority switches.	Normal/NORMAL, High/MAJOR
Sybase	SAP Sybase ASE Task Context Switch Percentage	Indicates the task context switch percentage.	Normal/NORMAL, High/WARNING

Tools

OMi MP for SAP Sybase ASE uses different tools to view and monitor the SAP Sybase ASE environment. Tools enable operators to perform actions in the context of an event from the Event Browser.

Types of Tools

Following are the different types of tools:

- Executable: Native commands that are launched locally on a host through a deployed Operations Manager Agent.
- Scripts: Different kinds of scripts that are executed on a host through a deployed Operations Manager Agent.
- URL: Launch a URL in a browser. For example, use this to cross launch a web-based tool for the related CI of a selected event.

How to Access Tools

1. Open the Tools pane:

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

On OMi 10.x, click **Administration > Operations Console > Tools**.

2. In the CI Types pane:

- For Operational tools, click **InfrastructureElement > RunningSoftware > Database > Sybase**.
- For Administration tools, click **InfrastructureElements > Node > Computer**.

Tool Categories

SAP Sybase ASE tools are grouped into two categories:

- SAP Sybase ASE Management Pack Administration Tools

CI Type	Tool	Description
Computer	Enable SAP Sybase ASE Management Pack Monitoring	Enables SAP Sybase ASE Management Pack collection and alert notification.
Computer	Enable SAP Sybase ASE Management Pack Trace	Turns ON SAP Sybase ASE Management Pack tracing.
Computer	Data Capture Tool for SAP Sybase ASE Management Pack	Collects error and log information that can be sent to HPE support to troubleshoot SAP Sybase ASE Management Pack issues.
Computer	Disable SAP Sybase ASE Management Pack Trace	Turns OFF SAP Sybase ASE Management Pack tracing.
Computer	Display SAP Sybase ASE Management Pack Error file	To view the contents of the SAP Sybase ASE Management Pack error file.
Computer	Disable SAP Sybase ASE Management Pack Monitoring	Disables SAP Sybase ASE Management Pack collection and alert notification.
Computer	Verify SAP Sybase ASE Management Pack Deployment	Shows SAP Sybase ASE MP deployed files, versions, number of policies, defaults file, and performs a connection check.

- SAP Sybase ASE Management Pack Operational Tools

CI Type	Tool Name	Description
Sybase	SAP Sybase ASE Active Cursors Count	Displays the number of active cursors for SAP Sybase ASE.
Sybase	SAP Sybase ASE Asynchronous Pre-Fetch (APF) Denied Percentage	Displays the percentage of asynchronous pre-fetch (APF) denied for the SAP Sybase ASE.
Sybase	SAP Sybase ASE Average Locks By Process Count	Displays the average number of locks per process for SAP Sybase ASE.

CI Type	Tool Name	Description
Sybase	SAP Sybase ASE Average Packet Size Received	Displays the average network packet size received in bytes for SAP Sybase ASE.
Sybase	SAP Sybase ASE Average Packet Size Sent	Displays the average network packet size sent in bytes.
Sybase	SAP Sybase ASE Blocked Processes Count	Displays the number of blocked processes.
Sybase	SAP Sybase ASE Buffer Grabbed Dirty Percentage	Displays the percentage of buffers grabbed dirty for one or more cache or pool.
Sybase	SAP Sybase ASE Buffer Wash Dirty Percentage	Displays the percentage of buffers washed dirty for one or more data caches.
Sybase	SAP Sybase ASE Buffer Wash Input Output Percentage	Displays the percentage of buffers in wash already in Input Output for one or more data caches.
Sybase	SAP Sybase ASE Cache Hit Miss Percentage	Displays the percentage of data cache misses for one or more data caches.
Sybase	SAP Sybase ASE Cache Utilization Percentage	Displays the percentage of cache utilization.
Sybase	SAP Sybase ASE Check Database Connection And Status	Displays the database status and connection check.
Sybase	SAP Sybase ASE Connected Maximum Users Percentage	Displays the percentage of maximum users connected.
Sybase	SAP Sybase ASE Connections Per User Count	Displays the average number of connections per user for SAP Sybase ASE.
Sybase	SAP Sybase ASE Data Cache Misses Percentage	Displays the percentage of data cache misses.
Sybase	SAP Sybase ASE Data Cache Percentage	Displays the percentage of data cache as percentage of total memory.
Sybase	SAP Sybase ASE Free Segment Space Percentage	Displays the percentage of free space for one or more segments for a database.
Sybase	SAP Sybase ASE Inactive Mirror Device Count	Displays devices for which mirroring is enabled, but not active.
Sybase	SAP Sybase ASE Large Input Output Denied Percentage	Displays the percentage of large Input/Output denied.

CI Type	Tool Name	Description
Sybase	SAP Sybase ASE List of Databases	Displays the list of databases in the server.
Sybase	SAP Sybase ASE List of Tables	Displays the list of tables in the server.
Sybase	SAP Sybase ASE Log Size Usage	Displays log size details for the server.
Sybase	SAP Sybase ASE Memory Usage	Displays the memory usage for the server.
Sybase	SAP Sybase ASE Network Communication	Displays Network Communication details for the server.
Sybase	SAP Sybase ASE Offline Engines Count	Check maximum online engines configuration value and status of all engines.
Sybase	SAP Sybase ASE Open Objects Used Percentage	Displays the percentage of open objects used to available.
Sybase	SAP Sybase ASE Parallel Query Run Time Adjustment Percentage	Displays the percentage of worker process requests that are being adjusted at run-time for SAP Sybase ASE.
Sybase	SAP Sybase ASE Procedure Cache Percentage	Displays the percentage of procedure cache from disk.
Sybase	SAP Sybase ASE Physical Resources	Displays the Physical Resources usage for the server.
Sybase	SAP Sybase ASE Server Connection Check	Checks the connection of all SAP Sybase ASE instances on the managed node.
Sybase	SAP Sybase ASE Spin Lock Contention Percentage	Displays the percentage of spin-lock contention for the entire SAP Sybase ASE.
Sybase	SAP Sybase ASE SQL Server Administration	Displays general administration configuration details for the server.
Sybase	SAP Sybase ASE Transaction Log Full Percentage	Displays the percentage of free space in transaction log for one or more databases.
Sybase	SAP Sybase ASE User Locks Percentage	Displays the percentage of user locks in use for SAP Sybase ASE.
Sybase	SAP Sybase ASE Victim	Displays blocked process and its blocking process.

CI Type	Tool Name	Description
Sybase	SAP Sybase ASE Virtual Spaced Used Percentage	Displays the percentage of space used on Virtual Device.
Sybase	SAP Sybase ASE Worker Process Memory Request Failed Percentage	Displays the percentage of worker process memory requests failed.
Sybase	SAP Sybase ASE Worker Process Requests Denied Percentage	Displays the percentage of worker process requests denied for SAP Sybase ASE.
Sybase	SAP Sybase Replication Server Connection Check	Checks the connection of all SAP Sybase Replication Server instances on the managed node.
Sybase	SAP Sybase Replication Server Thread Status	Checks the status of Replication Server thread.

How to Launch a Tool

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

1. Open the Tools pane:

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

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

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

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

All the related Tools appear in the Action pane.

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

Or

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

3. The Preview Tool Execution dialog box opens.
4. 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 Tools pane:

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

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

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

Note: For more information about the description of the tools, see the section "[Tool Categories](#)".

Graph Templates

Graphs represent pictorial representation of metrics. OMi MP for SAP Sybase ASE comprises the following graphs:

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, select **InfrastructureElement > RunningSoftware > Database > Sybase**.

Graph Templates	Description	Metric Name	Table Name/Class Name
Cache	This graph shows SAP Sybase ASE Management Pack data cache metrics.	S031_DATACACHEPCT S032_PROCDRECACHEPCT S033_DATACACHMISSPCT S035_CACHEUTILZTNPCT S036_LRGEIODENIEDPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH

Graph Templates	Description	Metric Name	Table Name/Class Name
Disk Utilization	This graph shows SAP Sybase ASE Management Pack disk utilization metrics.	S016_SPACEDUSEDPCT S029_AVGLKSBYPROCCNT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Parallel Server and Query	This graph shows SAP Sybase ASE Management Pack parallel server and query metrics.	S064_WORKRPROCESRATE S065_PARALLELQRYRATE S066_ESQREQUESTRATE S067_WRKRPRCRQDENPCT S068_WRKRMMRQFAILPCT S069_PQRUNTADJUSTPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Memory Statistics	This graph shows SAP Sybase ASE Management Pack memory statistics metrics.	S037_LRGEIOUTILPCT S038_APFDENIEDPCT S039_FULLLULCFLUSHPCT S073_SPINLOCKCONTPCT S074_BUFFGRABDRTPCT S075_COMPLTEDSKIOPCT S076_CACHEHITMISSPCT S080_BFERWASHINIOPCT S081_BFERWASHDRTPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Disk Index	This graph shows SAP Sybase ASE Management Pack	S015_OPENINDEXPCT S070_HEAPINSERTPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH

Graph Templates	Description	Metric Name	Table Name/Class Name
	disk index metrics	S071_ NCIXREQMNTIUPCT S072_ NCIXREQMNTDLPCT	
CPU Utilization	This graph shows SAP Sybase ASE Management Pack CPU utilization metrics.	S001_UTILBYCPUPCT S003_CONTXTSWITCHPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Process and Application Changes	This graph shows SAP Sybase ASE Management Pack process and application changes metrics.	S046_HIGPRIOCHNGSPCT S047_MEDPRIOCHNGSPCT S048_LOWPRIOCHNGSPCT S050_CPUAPPLOGNPCT S051_IOAPPLOGNPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Database Status	This graph shows SAP Sybase ASE Management Pack database status metrics.	S004_TRANSLOGFULLPCT S007_CONNECTUSERSPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Server Status	This graph shows SAP Sybase ASE Management Pack general server metrics.	S027_ACTIVCURSORCNT S053_LOCKSUSERPCT S054_OPNOBJECTSUSDPCT S055_BLOCKDPROCESSES S057_DEADLOCKCNT S061_CONECTPERUSRCNT S062_LOGSEMAWAITPCT	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH
Network Packets	This graph shows SAP Sybase ASE Management Pack	S044_AVGPACKSIZESNT S045_	DBSPI_SYB_GRAPH:DBSPI_SYB_GRAPH

Graph Templates	Description	Metric Name	Table Name/Class Name
	network packets metrics.	AVGPACKSIZERCVD	

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

Note: For more information about Managing Events, see the *Operations Manager i Concepts Guide*.

Chapter 4: Customizations Scenarios

OMi MP for SAP Sybase ASE can be customized to suit your monitoring requirements. You can edit the existing SAP Sybase ASE Management Templates or create new SAP Sybase ASE Management Templates to monitor any database environment.

Customizing SAP Sybase ASE Management Template before Deployment

You can customize OMi MP for SAP Sybase ASE to optimally and seamlessly monitor the SAP Sybase ASE Servers in your environment. OMi MP for SAP Sybase ASE provides the following customization scenarios:


- [Creating SAP Sybase ASE Management Templates](#)
- [Editing SAP Sybase ASE Management Templates](#)
- [User Defined Metrics \(UDM\)](#)

Creating SAP Sybase ASE Management Templates

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 > Database Management > SAP Sybase ASE
3. Select the SAP Sybase ASE configuration folder and if you need to create a new configuration folder, click . The Create Configuration Folder opens.
4. Type the name of the new configuration folder and the description. For example, you can type the new configuration folder name as Test.

5. Click **OK**. The new configuration folder is created.


Configuration Folders > Database Management > SAP Sybase ASE > Test

6. In the Management Templates & Aspects pane, select the new configuration folder and click  **Management Template**. The Create Management Template wizard opens.
7. In the **General** tab, type a **Name** for the new SAP Sybase ASE Management Template. Click **Next**.
8. A SAP Sybase ASE Management Template enables you to manage SAP Sybase ASE configuration items and all the related dependent CIs. Select **SAPSybaseASE_Deployment** from the list as the Topology View. The SAPSybaseASE_Deployment shows the SAP Sybase ASE CIs and all the related CI types.
9. Select an item in the topology map to select the **CI Type** of the configuration items that this Management Template enables you to manage. This is the type of CI to which the Management Template can be assigned. For example, you can select Sybase to monitor SAP Sybase ASE Servers.
Click **Next**.
10. In the **Aspects** tab, add the Aspects to the Management Template. You must add the **SAP Sybase ASE Base** Aspect to the new Management Template. The **SAP Sybase ASE Base** Aspect contains the config file, open message interface, scheduled task, and log file policy templates, which are essential for data collection.

To add an existing Aspect, follow these steps:

- a. Select the Aspect you want to add from the Available Aspects matching the CI Types pane. You can use CTRL or SHIFT key to select multiple Aspects.
 - b. Click  to move the Aspect to the Selected Aspects pane. The Aspect is added to the Management Template.
 - c. Click **Next**.
11. In the **Parameters** tab, you see a list of all the parameters from the Aspects that you added to this Management Template.

To combine parameters:


- a. Press **CTRL** and click the parameters that you want to combine.
- b. Click . The Edit/Combine Parameters dialog box opens.
- c. Type a Name for the combined parameters.

- d. (*Optional*). Specify a Description, Default Value, and whether the combined parameter is Read Only, an Expert Setting, or Hidden.

You can specify either a specific default value, or you can click From CI Attribute and then browse for a CI attribute. When you specify a CI attribute, Operations Management sets the parameter value automatically during the deployment of the underlying policy templates, using the actual value of this attribute from the CI. You can also change values of conditional parameters. (The conditions are read-only and cannot be changed at Management Template level.)

Read Only prevents changes to the parameter value when the Management Template is assigned to a CI. Hidden also prevents changes, but additionally makes the parameter invisible when the Management Template is assigned, and during parameter tuning. Users can choose whether to show expert settings when they make an assignment.

- e. Click **OK**.

You can also edit the parameters without combining them, to override the defaults in the Aspects or policy templates. Click one parameter, and then click . The Edit/Combine Parameters dialog box opens.

12. In the Create Management Template wizard, click **Finish** to save the Management Template and close the wizard. The new Management Template appears in the Management Templates & Aspects pane.

Editing SAP Sybase ASE Management Templates

You can edit the SAP Sybase ASE Management Templates and modify the following components:

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

Editing Parameters

Use Case: You are using Essential SAP Sybase ASE Management Template to monitor database space utilization in your environment. You are monitoring the Transaction log free space with low free space in the environment and want to modify the parameters corresponding to database space utilization to closely monitor the free space available.

To closely monitor database space utilization in your environment, you must modify the Transaction log free space parameters - Transaction log free space with low free space frequency, Transaction log free space with low free space threshold and Transaction log free space with low free space severity.

To edit the parameters, 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 > Database Management > SAP Sybase ASE > Management Templates > Essential SAP Sybase ASE Management Template

3. In the Management Template & Aspect pane, select the **Essential SAP Sybase ASE Management Template** from the list, and then click . The Edit Management Template dialog box opens.

4. Click the **Parameters** tab. The list of parameters appear.

5. Double-click the **Transaction log free space** parameter. The Edit/Combine Parameters window appears.

In this instance, Transaction log free space parameter is Transaction log free space with low free space frequency, threshold or severity.

6. You can change the default value by using the drop down text. For example, you can change the value of the parameter Transaction log free space with low free space frequency to High from Medium.

7. Click **OK**. The Edit Management Template dialog box opens.

8. Click **OK**. The version of the SAP Sybase ASE Management Template is incremented.

Note: The version number of the SAP Sybase ASE Management Template is incremented when any customizations are made to the SAP Sybase ASE Management Template.



Editing Aspects

Use Case: You are using Essential SAP Sybase ASE Management Template to monitor the database object in the SAP Sybase ASE environment. You want to use some Aspects which are part of the Extensive SAP Sybase ASE Management Template.

To edit the Aspects, 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 > Database Management > SAP Sybase ASE > Management Templates > Essential SAP Sybase ASE Management Template
3. In the Management Template & Aspect pane, select the **Essential SAP Sybase ASE Management Template** from the list, and then click . The Edit Management Template dialog box opens.
4. Click the **Aspects** tab. The list of Aspects appear.
5. In the **Layout** pane, select either Computer or Sybase CI.
6. Select the Aspect that you want to add from the list. For example, you want to add the **SAP Sybase ASE Object Performance** Aspect.
7. Click  to add the selected Aspect. The SAP Sybase ASE Object Performance Aspect is added to the **Selected Aspects** list.
8. Click **OK**. The version of the SAP Sybase ASE Management Template is incremented.

User Defined Metrics (UDM)

You can collect additional data from SAP Sybase ASE Server by creating User Defined Metrics (UDMs). The OMi MP for SAP Sybase ASE enables you to define additional metrics and mechanisms to collect these metric values with the help of SQL codes. You can associate the newly created UDMs to a measurement threshold. You can create reports and graphs from UDMs. By default, the SAPSybaseASE_UDM is part of SAP Sybase ASE User Defined Aspects.

The SAP Sybase ASE User Defined Aspect includes the following policies:

- SAPSybaseASE_27XX - Measurement Threshold policy for monitoring UDM
- SAPSybaseASE_UDM - Config file policy template to create a UDM

Syntax for ConfigFile Policy Template

The OMi MP for SAP Sybase ASE provides you with a UDM configuration file (sybaseaseudm.cfg). You can add SQL codes to the template to define new metrics and the mechanism to collect the metric data.

The template uses the following syntax to define metric name and metric data collection mechanism:

```
SYBASE
METRIC 27XX
COLLECT <OPTIONS> "<sqlcode>"
REPORT 1 "<sqlcode>"
METRIC 27YY
```

The following snippet of code defines the mechanism to collect the SAP Sybase ASE metric 27XX:

```
SYBASE
METRIC 27XX
COLLECT <OPTIONS> "<sqlcode>"
REPORT 1 "<sqlcode>"
```

Where:

- METRIC 27XX is the newly defined metric (you can type a metric name of your choice).
- COLLECT <OPTIONS> “<sqlcode>” is the syntax to define metric data collection mechanism from managed server nodes.
 - <OPTIONS> specifies the mechanism to log and represent the collected data.
 - “<sqlcode>” is the programming code written in SQL to collect metric data from database nodes. It can be a direct stand-alone SQL statement.
 - REPORT 1 “<sqlcode>” is the syntax to define the mechanism to generate reports from the collected metric data.

The OMi MP for SAP Sybase ASE uses SQL utility to collect and report UDM data.

Database	Metric COLLECT utility	Metric REPORT utility
Sybase	Transact-SQL	isql

The SQL codes that you mention in this file are used by the collector/analyzer/script on SAP Sybase ASE Server managed nodes to collect metric data. In the SQL code, you can use the following host variables to facilitate data collection process:

- :dbspi_error
- :dbspi_threshold
- :dbspi_value

Tasks



How to Create User Defined Aspects


To create user defined metrics, follow these steps:

1. To define a new metric, you must create a copy of the measurement threshold template SAPSybaseASE_27XX.
 - a. Open the Policy Template pane:


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

On OMi 10.x, click **Administration > Monitoring > Policy Templates**.
 - b. In the Policy Templates Groups pane:

Click **Templates grouped by type > Measurement Threshold**.
 - c. In Policy Templates pane, click **SAPSybaseASE_27XX**.
 - d. To create a copy of the **SAPSybaseASE_27XX** policy, right-click and then click **Copy Item**. Then click **Paste Item**. Alternately, you can select **SAPSybaseASE_27XX**, click  **Copy Item** and then click  **Paste Item**.
 - e. Rename the policy as **SAPSybaseASE_2700** and click **OK**.


Note: You can rename the SAPSybaseASE_27XX policy in the range from 2700 to 2797.
 - f. To modify parameter names, description, and values, follow these steps:
 - i. In the Policy Template pane, select the **SAPSybaseASE_2700** policy template and then click .

Note: You must edit the policy in raw mode.
 - ii. Click **Policy Data > Policy Parameters**.

- iii. In the **Policy Parameter** tab, select the parameter from the list and then click . The Edit Parameter dialog box opens.
 - iv. Edit the parameter name (Example, modify **UDM Monitor Metric 27XX Severity** to **UDM Monitor Metric 2700 Severity**), description, and the values.
 - v. Click **OK**. The version of the policy template SAPSybaseASE_2700 increments by 0.1.
 2. Define the UDM metric in the SPASybaseASE_UDM policy.
 - a. Open the Policy Template pane:



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



On OMi 10.x, click **Administration > Monitoring > Policy Templates**.
 - b. In the Policy Templates Groups pane:

Templates grouped by type > ConfigFile Templates
 - c. In the Policy Template pane, select **SAPSybaseASE_UDM** policy.
 - d. In the **SAPSybaseASE_UDM**, select 1.0 and then click . Then click **Edit Policy Template (Raw Mode)**.
 - e. Click the **Policy Data** tab. It contains details about defining a user defined metric and a sample example of a user defined metric. You can edit the data and save the policy. The version number of the UDM policy is incremented by 0.1.
 3. To define new SAP Sybase ASE User Defined Aspect, include both **SAPSybaseASE_2700** and latest version of **SAPSybaseASE_UDM** policies.
 - a. 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**.
 - b. In the Configuration Folders pane:

Configuration Folders > Database Management > SAP Sybase ASE > Aspects
 - c. In the Management Templates & Aspects pane, click the **SAP Sybase ASE User Defined Aspect** and select latest version and then click . The Edit Aspect dialog box opens.
 - d. Click the **Policy Templates** tab and select the **SAP Sybase ASE_UDM** policy template (ConfigFile policy). In the Version column, select the latest version of the policy.
 - e. Select the SAPSybaseASE_27XX policy, and click  to delete the generic policy.

- f. To add the policies, click  **Add Policy Template** on BSM 9.2x and **Add Policy Templates From List** on OMi 10.x. The SAP Sybase ASE User Defined Aspect: Edit Aspect window appears. Select the policies and click **OK**.
- g. In the **Parameters** tab, press **CTRL** and select all the instances of **SAP Sybase ASE Instance Name** parameter and then click . Click **OK**.
- h. Click **OK**


How to Deploy SAP Sybase ASE User Defined Aspect

You must deploy the new version of the SAP Sybase ASE User Defined Aspect for monitoring UDM.



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 > Database Management > SAP Sybase ASE > Aspects
3. In the Management Templates & Aspects pane, click the **SAP Sybase ASE User Defined Aspect** and then select the latest version 1.1 and then click  **Assign and Deploy Item**.


Alternately, you can right-click the **SAP Sybase ASE User Defined Aspect** and then click **Assign and Deploy Item** to open the Assign and Deploy Wizard.
4. In the **Configuration Item** tab, select the **Sybase CI** to deploy the Aspect and then click **Next**.

Note: If you want to deploy Aspects to Node CIs, select **Also show CIs of type Node** check box.
5. In the **Required Parameters** tab, you must specify the mandatory parameters by following these steps:
 - a. Select the **SAP Sybase ASE Instance Name** parameter in the list, and then click . The SAP Sybase ASE Instance Name dialog box opens.
 - b. Specify the value, and then click **OK**.
 - c. Select the **SAP Sybase ASE Instance Username** parameter in the list, and then click . The SAP Sybase ASE Instance Username dialog box opens.
 - d. Specify the value, and then click **OK**.

- e. Select the **SAP Sybase ASE Instance Password** parameter in the list, and then click . The SAP Sybase ASE Password dialog box opens.
 - f. Click **Value** and type a value in the **Password** field.
 - g. In the **Verify Password** field and type the same password and then click **OK**.
 - h. Click **Next** to go to **Parameter Summary**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x and **Parameter Summary** tab on OMi 10.x, you can change the default values of the parameters. Else click **Next**.

To change the default values of the parameters, follow these steps:

- a. Select the **SAP Sybase ASE Instance Name** parameter and then click . The Edit Instance Parameter dialog box appears.
- b. Select the parameter from the list and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: In the **All Parameters** tab on BSM 9.2x and **Parameter Summary** tab on OMi 10.x, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not displayed. To display expert parameters, click  **Show Expert Parameters**.

- c. Click **Next**.
7. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, clear the **Enable Assigned Objects** check box on BSM 9.2x and **Enable Assignment(s)** check box on OMi 10.x. You can then enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

Chapter 5: Deployment Scenarios

This section provides information about deploying OMi MP for SAP Sybase ASE for monitoring SAP Sybase ASE servers.

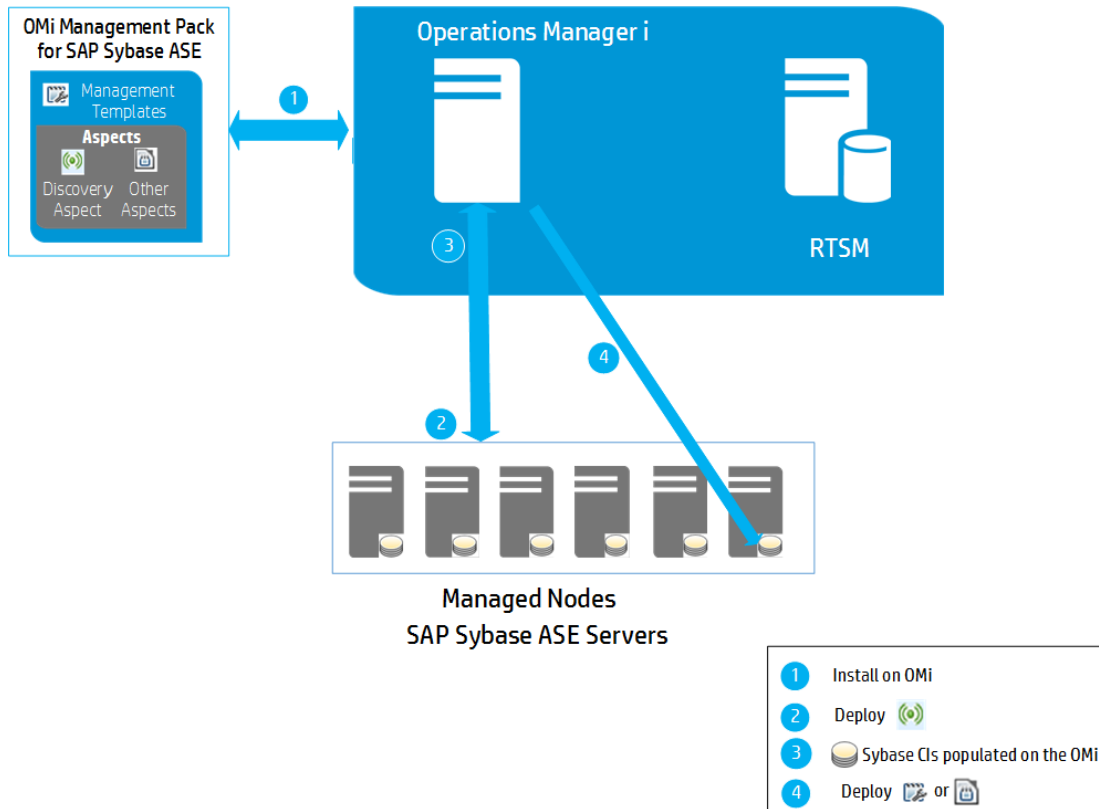
SAP Sybase ASE Servers in a Standard Environment

SAP Sybase ASE Standard environment consists of standalone SAP Sybase ASE Servers monitored by a management server. To deploy OMi MP for SAP Sybase ASE in a standard environment, follow these steps:

1. Add the nodes you want to monitor to the OMi Console.
2. Deploy the **SAP Sybase ASE Discovery** Aspect to discover both SAP Sybase ASE Server CIs and SAP Sybase Replication Server CIs on the managed nodes.
3. Identify and deploy SAP Sybase ASE Management Template as per your monitoring requirement.

For more information about deploying OMi MP for SAP Sybase ASE, see the section "[Getting Started](#)" [Getting Started](#).

The following figure shows a typical deployment scenario where the OMi MP for SAP Sybase ASE is deployed on SAP Sybase ASE Servers in Standard environment:



SAP Sybase in Replication Server Environment

Note: If you want to monitor the third-party Replication Server, you must deploy SAP Sybase ASE Discovery Aspect to discover them in OMi MP for SAP Sybase ASE.

To deploy OMi MP for SAP Sybase ASE in a replication environment, follow these steps:

1. Add the nodes you want to monitor to the OMi Console.
2. Deploy the **SAP Sybase ASE Discovery** Aspect to discover both SAP Sybase ASE Server CIs and SAP Sybase Replication Server CIs on the managed nodes.
3. Deploy the **SAP Sybase Replication Server Availability** Aspect to monitor the SAP Sybase Server for replication of databases.

Chapter 6: Troubleshooting

The following section provides information about troubleshooting scenarios:

Licensing count is not updated

Problem: Licensing count is not updated on License Management


Solution: To resolve this problem, follow these steps:

1. After installing OMi MP for SAP Sybase ASE, make sure that the license is activated by following these steps:

- a. Open the License Management pane:

On BSM 9.2x, click **Admin > Platform > Setup and Maintenance > License Management**.

On OMi 10.x, click **Administration > Setup and Maintenance > License Management**.

- b. Click  and select the license.dat file. The license details appears in the License Management window.

The License Management provides details about the name, license type, days left, expiration date, capacity, and capacity details.

2. To check for the license usage on the managed node, run the following command on the managed node:

For AIX: `/usr/lpp/0V/bin/ovodetect -t`

For UNIX (except AIX): `/opt/0V/bin/ovodetect -t`

For Windows: `ovodetect -t`

If the output of the preceding command is `mpinstance="1"` then SAP Sybase ASE servers are being monitored. If the output of the preceding command is `mpinstance="0"` then SAP Sybase ASE servers are not being monitored.

3. If the license is still not updated in the License Management, restart agent on the managed node by running the following command:

For AIX: `/usr/lpp/0V/bin/ovc -restart opcmsga`

For UNIX (except AIX): `/opt/0V/bin/ovc -restart opcmsga`

For Windows: `ovc -restart opcmsga`

Management Templates and Aspects are not deployed on the Managed Node

Problem: Management Templates and Aspects are not deployed on the managed nodes.

Solution: To resolve this problem, follow these steps:

1. To check the deployment status, open Deployment Jobs pane:

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

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

2. To check the assignment status, open Assignments & Tuning pane:

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

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

3. Check the following OMi log files:

On BSM < or = 9.25

Linux: `/opt/HP/BSM/log/EJBContainer/opr-configserver.log`

Windows: `%TOPAZ_HOME%\log\EJBContainer\opr-configserver.log`

On BSM > or =9.26 and OMi 10.x

Linux: `/opt/HP/BSM/log/jboss/opr-webapp.log`

Windows: `%TOPAZ_HOME%\log\jboss\opr-webapp.log`

SAP Sybase ASE Server monitoring does not start after deploying OMi MP for SAP Sybase ASE

Problem: SAP Sybase ASE Server monitoring is not starting after deployment.

Solution: To resolve this problem, follow these steps:

1. Run the following command to ensure **SAPSybaseASE_Configuration** policy is deployed on the managed node:

```
%OvInstalldir%\bin\ovpolicy -polname "SAPSybaseASE_Configuration" -poltype  
configfile -l
```

2. In case parameter values are modified, follows the below steps to identify the policy ID:
 - a. Open the Policy Templates pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Policy Template**.
On OMi 10.x, click **Administration > Monitoring > Policy Templates**.
 - b. In the Policy Template Groups pane, click **ConfigFile Templates**.
 - c. In the Policy Templates pane, click **SAPSybaseASE_Configuration** Policy Template.
 - d. In the Details pane, note the **ID** value.
3. Navigate to below folder location on the managed node and check if the parameter values are updated in the `<policy id>_params.xml` file for **SAPSybaseASE_Configuration** Policy Template.

For UNIX: `/var/opt/OV/datafiles/policies/configfiletmpl/`

For Windows: `%OvDataDir%\datafiles\policies\configfiletmpl/`

4. Perform similar steps to confirm if the configuration and deployment parameters of other policies are updated.
5. Run the following command to verify `MPSybCfg.pl` has updated the configuration details:

```
dbspisybcfg -e
```

No Data for Performance Manager i (PMi) Graphs or Reports

Problem 1: The information to create graphs or reports is not available from OMi MP for SAP Sybase ASE.

Solution 1: To resolve this problem, follow these steps:

1. Run the following command to check if the graph data sources are created:

```
ovcodautl -obj
```

Verify the list of data sources and ensure DBSPI_SYB_GRAPH and DBSPI_SYB_REPORT data sources are created.

2. If the data sources are not created, run the following command to create the data source:

```
dbspisybgre
```

3. The errors related to data source creation are logged in the Console of command prompt.
4. Make sure that the graph policies are deployed on the nodes and policies log data into the below files:

For UNIX: `/var/opt/OV/conf/SAPSybaseASE/dsi/<instance>.dat`

For Windows: `%OvDataDir%\conf\SAPSybaseASE\dsi\<instance>.dat`

Problem 2: In case you are reusing any of the old nodes with Operations Agent 11.x and PA DSI (Data Source Integration) and if data sources are already created, this impacts data logging.

Solution 2: To resolve this problem, follow these steps:

1. To clean up and delete the old data, run the follow commands:

- a. Clean the old data:

For UNIX: `/var/opt/OV/bin/instrumentation/dbspisyb_mwclup`

For Windows: `%OvDataDir%\bin\instrumentation\dbspisybmwi-cleanup`

- b. To restart data sources, run the command `ovc -restart coda`.

2. Create empty file:

For UNIX: `/var/opt/OV/conf/dsi2ddf/nocoda.opt`

For Windows: `%OvDataDir%\conf\dsi2ddf\nocoda.opt`

3. For creating new CODA data sources and logging data for PMi, run the following commands:

```
dbspisybgre
```

Problem 3: If the managed node is monitored by Smart Plug-in for Sybase Database.

Solution 3: To resolve this problem, follow these steps:

1. You can backup the data of DBSPI_SYB_<data sources> 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 <Sybase_hostname>`.

2. Uninstall the HP Operations Smart Plug-in for Sybase from the managed node.

For more information about uninstalling HP Operations Smart Plug-in for Sybase from managed node, see *HP Operations Smart Plug-in for Databases Installation and Configuration Guide*.

3. To remove the data sources, run the following command:

For UNIX: `dbspi_mwclup`

For Windows: `dbspimwi -cleanup`

Data Logging Policies Not Logging Data

Problem: MP for SAP Sybase ASE Server is not logging data into Report data sources.

Solution: To resolve this problem, follow these steps:

1. Run the following command to check if the report data sources are created:

```
ovcodautl -obj
```

2. If the data sources are not created, run the following command to create the data source:

For UNIX: `dbspisyb_mw_int -osm`

For Windows: `dbspisybmwi -osm`

3. The errors related to data source creation are logged in the console of command prompt.

4. Ensure that the report policies are deployed on the nodes. The report policies directly logs the data for the reports into the data sources.

Server scheduling metrics fails to execute after deploying

Problem: SAP Sybase ASEServer scheduling metrics are not executing after deployment.

Solution: To resolve this problem, follow these steps:

1. Ensure the following four policies are deployed on the managed node by following these steps:
 - a. Open the Policy Templates pane:
On BSM 9.2x, click **Admin > Operations Management > Monitoring > Policy Template**.
On OMi 10.x, click **Administration > Monitoring > Policy Templates**.
 - b. In the Policy Template Groups pane, click **Scheduler Task Templates**.
 - c. Check if these **SAPSybaseASE_High**, **SAPSybaseASE_Low**, **SAPSybaseASE_Medium** and **SAPSybaseASE_Veryhigh** are deployed.
2. Navigate to the following location to check if the respective policy files are valid:
 - o For UNIX: `/var/opt/OV/conf/SAPSybaseASE/xml/`
 - o For Windows: `%OvDataDir%\conf\SAPSybaseASE\xml\`
3. The scheduler XML files are created using the instrumentation file: *MPCConfHandler.pl*
Folder location of the instrumentation file:
 - o For UNIX: `/var/opt/OV/bin/instrumentation/MPSybConfHandler.pl`
 - o For Windows: `%OvDataDir%\bin\instrumentation\`
4. To enable tracing, run the **Enable SAP Sybase ASE Management Pack Trace** tool.
For more information about launching a tool, see the section [Tools](#).
5. The scheduler log file is created at the following paths, after enabling the tracing.
 - o For UNIX: `/var/opt/OV/log/SAPSybaseASE/MPSybConfHandler.pl.log`
 - o For Windows: `%OvDataDir%\log\SAPSybaseASE\MPSybConfHandler.pl.log`
6. If you do not want to monitor specific metric, then set the Frequency parameter of that metric to

“NORUN” value.

For more information about editing the parameter value, see the section "[Tuning of Parameters](#)".


Collection failure does not generate alerts on the Server



Problem: Whenever collector encounters an error, no alerts are generated on the Server.

Solution: To resolve this problem, follow these steps:

1. Enable tracing following one of below methods:
 - a. Tracing can be enabled through Assignment & Tuning pane by following steps:
 - i. 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**.
 - ii. In the **Browse Views** tab, select **SAPSybaseASE_Deployment**. Select the CI with the problem.
 - iii. In the Assignment Item pane, select the **SAP Sybase ASE Base** Aspect.
 - iv. In the Assignment Details pane, click  to view the expert parameters.
 - v. Double-click the **SAP Sybase ASE Instance Tracing** parameter.

The Edit Instance Parameter wizard opens.
 - vi. Click  and then select **SAP Sybase ASE Instance Tracing** parameter and select . Change the value to **ON** and click **OK**.
 - vii. Click **OK**.
 - b. To enable tracing on all instances on the node in the Event Browser, follow these steps:
 - i. 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**.
 - ii. From the **View Explorer**, select a view and then select an event from the **Event**

Browser.

You can view the tools in the Action pane.

- iii. Double-click **Enable SAP Sybase ASE Management Pack Trace** tool. The Run Tool dialog box opens.

Note: Retain the optional parameter blank.

- iv. Click **Run Tool**.

2. Navigate to the following location and ensure files are deployed on the node.

For Windows: *%OvDataDir%\bin\instrumentation*

For UNIX: */var/opt/OV/bin/instrumentation*

3. The `dbspicas` is the collector, which is used to get the SAP Sybase ASE metrics.

- a. To check the connection of the collector, run the command `dpspicas -dpv`.
- b. To verify if the threshold value has exceeded the limit, run the command `dpspicas -pv -m <metric>`.

The metric values is printed on the Command Console.

4. If the threshold value has exceeded the limit, run the following command to generate Alarms:

```
dbspicas -m <metric> -i <Instance name>
```

`-m = (metric)` Specifies the metric numbers or number ranges on which to collect data.

`-i = (instance)` Specifies the database instance (optional)

5. Instrumentation log files for tracing are available at below location:

For Windows: *%OvDataDir%\log\SAPSybaseASE*

For UNIX: */var/opt/OV/log/SAPSybaseASE*

SAP Sybase Replication Server Thread Status tool fails

Problem: The **SAP Sybase Replication Server Thread Status** tool fails. The tool generates the following error:

```
Msg 14125, Level 11, State 0:  
Server 'SAMPLE_RS':
```

Application 'isql' is using character set 'utf8', but the Replication Server is using character set 'iso_1'. Because the character sets are different, character set conversion problems may occur.

Solution: You need to ensure proper LANG setting is done based on the SAP Sybase Replication Server or SAP Sybase ASE Server installed on the managed node.

To resolve this problem, follow these steps:

1. Run the following command to change the agent LANG setting:

```
ovconfchg -ns ctrl.env -set LANG C
```

2. Run the following command to restart agent on the managed node:

For AIX: /usr/lpp/0V/bin/ovc -restart opcmsga

For UNIX (except AIX): /opt/0V/bin/ovc -restart opcmsga

For Windows: ovc -restart opcmsga

3. Run the following command to export the LANG setting onto the console:

```
export LANG=C
```

OMi MP for SAP Sybase ASE does not work with Sybase 64-bit version

Problem: OMi MP for SAP Sybase ASE does not work with Sybase 64-bit version.

Solution: For OMi MP for SAP Sybase ASE to work with a 64-bit version of Sybase, you must install the Open Client 32-bit libraries from Sybase.

To resolve this problem, following these steps:

1. Obtain the Sybase product Open Client/Server product version <xx.y> for <platform>

where

<xx.y> is the version of Sybase (15.7, for example)

<platform> is the managed node platform, either HP-UX 11, Solaris, or AIX.

2. Use the Open Client/Server product installation instructions to install the 32-bit libraries in the default library directory, usually:

`$SYBASE/$SYBASE_OCS/lib`

For example, the path might be `/home/sybase/OCS-15_0/lib` for Sybase 15.7

Note: The 32-bit libraries do not conflict with already installed 64-bit libraries, since both have different file names (For example, `libintl.a` is a 32-bit library; `libintl64.a` is the corresponding 64-bit library; `libintl.sl` is the 32-bit; `libintl64.sl` is the 64-bit, and so on).

Appendix : Metrics and DataSources

The metric data is logged into specific data sources for generating reports and graphs.

Generic Data Source

The generic data source reserves a column for the database instance name, labeled instance name. This column also contains the information that differentiates the data collected for each instance. Other column represents the graphing metrics. The complete list of all the graphing metrics is stored in the `dbspisybg.fm` file located at:

Windows: %0vDataDir%\bin\instrumentation

UNIX: /var/opt/OV/bin/instrumentation

Graph Templates

Graphs represent pictorial representation of metrics. The graphs are generated from the **DBSPI_SYB_GRAPH** data source/class name. For information about creating and viewing graphs, see the Performance Graphing documentation. The OMi MP for SAP Sybase ASE includes the SAP Sybase ASE Server graph family, which is mapped to the SAP Sybase ASE Server CIT.

For more information about metrics for graph, see the section "[Graph Templates](#)"

Reports

The web based reports enable you to check the health and efficiency of specific SAP Sybase ASE Servers. The reports are generated from the **DBSPI_SYB_REPORT** data source/class name. For information about viewing and accessing reports, see the *Operations Bridge Reporter (OBR)* documentation.

The **DBSPI_SYB_REPORT** contains information about the following columns:

- Instance Name
- Value ID
- Value

Metrics

The following table provides information about the Aspect relation with the Metrics and Policy Templates.

Metrics Data Type: Real 64

Aspects	Policy Template / Collection Name	Metrics	Collection Interval
SAP Sybase ASE Application Performance	SAPSybaseASE_2046	S046_HIGPRIOCHNGSPCT	5 mins
	SAPSybaseASE_2047	S047_MEDPRIOCHNGSPCT	5 mins
	SAPSybaseASE_2048	S048_LOWPRIOCHNGSPCT	5 mins
	SAPSybaseASE_2050	S050_CPUAPPLOGNPCT	5 mins
	SAPSybaseASE_2051	S051_IOAPPLOGNPCT	5 mins
SAP Sybase ASE Availability	SAPSybaseASE_2007	S007_CONNECTUSERSPCT	5 mins
	SAPSybaseASE_2012	S012_ENGINESOFFCNT	5 mins
	SAPSybaseASE_2020	S020_BKUPSRVRSTATUS	NORUN
	SAPSybaseASE_2061	S061_CONECTPERUSRCNT	5 mins
SAP Sybase ASE CPU Utilization	SAPSybaseASE_2001	S001_UTILBYCPUPCT	5 mins
	SAPSybaseASE_2003	S003_CONXTSWITCHPCT	5 mins

Aspects	Policy Template / Collection Name	Metrics	Collection Interval
SAP Sybase ASE Cache Performance	SAPSybaseASE_2031	S031_DATACACHEPCT	15 mins
	SAPSybaseASE_2032	S032_PROCDRECACHEPCT	15 mins
	SAPSybaseASE_2033	S033_DATACACHMISSPCT	15 mins
	SAPSybaseASE_2035	S035_CACHEUTILZTNPCT	15 mins
	SAPSybaseASE_2036	S036_LRGEIODENIEDPCT	15 mins
SAP Sybase ASE Database Space Utilization	SAPSybaseASE_2004	S004_TRANSLOGFULLPCT	15 mins
SAP Sybase ASE Device Performance	SAPSybaseASE_2016	S016_SPACEDUSEDPCT	1 hour
	SAPSybaseASE_2017	S017_MIRRDEVNOACTCNT	1 hour
SAP Sybase ASE Disk Health	SAPSybaseASE_2075	S075_COMPLTEDSKIOPCT	15 mins
	SAPSybaseASE_2077	S077_PHYSREADSRATE	15 mins
	SAPSybaseASE_2078	S078_LOGICREADSRATE	15 mins
SAP Sybase ASE Index Performance	SAPSybaseASE_2015	S015_OPENINDEXPCT	15 mins
	SAPSybaseASE_2070	S070_HEAPINSERTPCT	15 mins
	SAPSybaseASE_2071	S071_NCIXREQMNTIUPCT	15 mins
	SAPSybaseASE_2072	S072_NCIXREQMNTDLPCT	15 mins
SAP Sybase ASE Lock Performance	SAPSybaseASE_2029	S029_AVGLKSBYPROCNT	5 mins
	SAPSybaseASE_2053	S053_LOCKSUSERPCT	5 mins

Aspects	Policy Template / Collection Name	Metrics	Collection Interval
	SAPSybaseASE_2057	S057_DEADLOCKCNT	5 mins
SAP Sybase ASE Memory Performance	SAPSybaseASE_2037	S037_LRGEIOUTILPCT	15 mins
	SAPSybaseASE_2038	S038_APFDENIEDPCT	15 mins
	SAPSybaseASE_2073	S073_SPINLOCKCONTPT	15 mins
	SAPSybaseASE_2074	S074_BUFFGRABDRTPCT	15 mins
	SAPSybaseASE_2076	S076_CACHEHITMISSPCT	15 mins
	SAPSybaseASE_2080	S080_BFERWASHINIOPCT	15 mins
	SAPSybaseASE_2081	S081_BFERWASHDRTPCT	15 mins
SAP Sybase ASE Network Packets	SAPSybaseASE_2044	S044_AVGPACKSIZESNT	1 hour
	SAPSybaseASE_2045	S045_AVGPACKSIZERCVD	1 hour
SAP Sybase ASE Objects Performance	SAPSybaseASE_2014	S014_OPENDBREMCNT	15 mins
	SAPSybaseASE_2049	S049_BLOCKEDOBJNUM	15 mins
	SAPSybaseASE_2054	S054_OPNOBJCTSUSDPCT	15 mins
SAP Sybase ASE Parallel Processing	SAPSybaseASE_2064	S064_WORKRPROCESRATE	15 mins
	SAPSybaseASE_2065	S065_PARALLELQRYRATE	15 mins
	SAPSybaseASE_2066	S066_ESQREQUESTRATE	15 mins
	SAPSybaseASE_2067	S067_WRKRPRCRQDENPCT	15 mins

Aspects	Policy Template / Collection Name	Metrics	Collection Interval
	SAPSybaseASE_2068	S068_WKRMMRQFAILPCT	15 mins
	SAPSybaseASE_2069	S069_PQRUNTADJUSTPCT	15 mins
SAP Sybase ASE Process Activity	SAPSybaseASE_2039	S039_FULLLULCFLUSHPCT	15 mins
	SAPSybaseASE_2055	S055_BLOCKDPROCESSES	15 mins
	SAPSybaseASE_2062	S062_LOGSEMAWAITPCT	15 mins
	SAPSybaseASE_2079	S079_COMMXACTSCNT	15 mins
SAP Sybase ASE Query Performance	SAPSybaseASE_2027	S027_ACTIVCURSORSCNT	15 mins
	SAPSybaseASE_2043	S043_HEAVYSQLNUM	NORUN

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Feedback on User Guide (OMi Management Pack for SAP Sybase ASE 1.00)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to docfeedback@hpe.com.

We appreciate your feedback!