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# Use

**Operations Bridge Suite 2017.11**

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The Operations Bridge Suite consists of capabilities that can be used individually once the suite has been installed.

Access the latest capability documentation for information about how to use each component:

- [Use Operations Manager i](#)
- [Use Business Value Dashboard](#)
- [Use Cloud Optimizer](#)
- [Use Operations Bridge Analytics](#)
- [Use Operations Bridge Reporter](#)
- [Use Operations Connector](#)

Additionally, you can configure Metric Streaming. This is a feature that multiple Operations Bridge Suite capabilities share.

## Metric Streaming

Metric streaming enables visualization of system, application, and custom metrics in an enterprise environment. The metric streaming configuration policy and data forwarding policy define the metrics (collected by Operations Agent and Connectors) that must be streamed at required intervals. You can then stream the metrics to a central server (target) of your choice, so that critical performance data of all the nodes is available at one place. Use Metric Streaming to monitor critical performance metrics that need to be checked frequently.

For example, you can forward the metrics to a Performance Engine server (target). The [Performance Engine](#) then forwards this data to the [Performance Dashboard](#) where the data is graphically displayed.

You can configure Metric Streaming using any one of the following processes:

- hpsensor - if you want to stream critical metrics in real time.
- opcgeni - if you want to stream and store metrics when the streaming rate is more than 100 data points/second.

The end-to-end work flow for metric streaming consists of several components that work together. The following table lists the components and the supported versions:

Components	Supported Versions
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	For Flow 1 (using hpsensor)	For Flow 2 (for opcgeni)
OMi	10.11 and later	10.61 and later
Operations Agent	12.01 and later	12.03 and later
Performance Engine	10.11 and later	10.61 and later
Management Pack ( <i>Optional</i> ) <ul style="list-style-type: none"> <li>• OMi Management Pack for Docker</li> <li>• OMi Management Pack for Amazon Web Services</li> <li>• OMi Management Pack for Microsoft Azure</li> <li>• OMi Management Pack for Microsoft Exchange</li> </ul>	2.10 1.20 and later 1.10 and later 1.01	2.10 1.20 and later 1.10 and later 1.01
Connectors ( <i>Optional</i> )	All versions	All versions

## Metric Streaming Configuration Work Flow

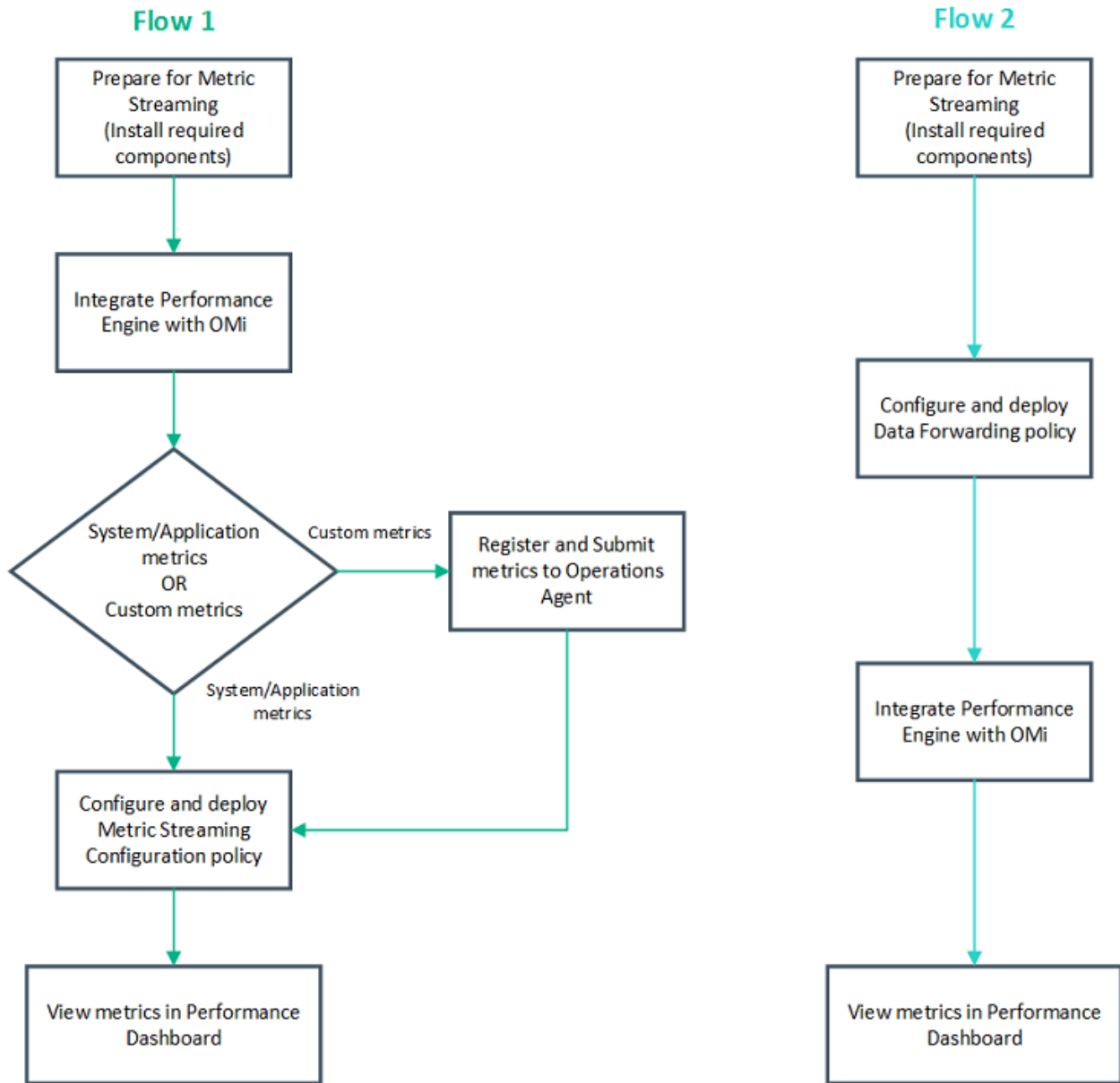
The following flowcharts describe the metric streaming configuration work flows using `hpsensor` and `opcgeni`. Follow Flow 1 and Flow 2 for streaming using `hpsensor` and `opcgeni` respectively.

### Note

In the following flowcharts, it is assumed that metrics are already being collected by using Operations Agent or Connectors.

### Important

If you are using Flow 2, we recommend that you disable data logging into the local store of Operations Agent, to improve performance. To disable local data logging, set the `OPCGENI_DISABLE_LOCAL_STORE` configuration variable in the Operations Agent as `TRUE`. For more information about configuration variables of Operations Agent, see [Configuration variables of Monitoring Component](#).



See [Metric Streaming Configuration Task Flow - Flow 1](#) and [Metric Streaming Configuration Task Flow - Flow 2](#) for more information about the configuration tasks.

### Metric Streaming Configuration Task Flow - Flow 1

The following table describes the configuration tasks for metric streaming using `hpsensor`.

<p>Task 1: <a href="#">Integrate Performance Engine with OMi</a></p>	<p>Perform this task to integrate Performance Engine with OMi.</p> <p>Note By default, the built-in cache of Performance Engine stores data for one hour. If you want to store and visualize data for longer durations, you must configure Vertica with Performance Engine.</p>
<p>Task 2: <a href="#">Register</a> and <a href="#">submit</a> metrics to Operations Agent.</p>	<p><i>Optional.</i> Perform this step if you want to stream custom metrics. This step is not required for streaming system metrics and the application metrics provided by Management Packs.</p>
<p>Task 3: <a href="#">Configure Metric Streaming Configuration policy</a></p>	<p>Metric Streaming Configuration policy defines the metrics that must be collected by Operations Agent or Operations Connector, and the endpoint to which the metrics must be forwarded.</p>
<p>Task 4: <a href="#">Deploy Metric Streaming Configuration Policy</a></p>	<p>Deploy Metric Streaming Configuration Policy to the managed nodes.</p>
<p>Task 5: <a href="#">View metrics in Performance Dashboard</a></p>	<p>View the streamed metrics in Performance Dashboard.</p>

You have successfully configured metric streaming for streaming real-time data using `hpsensor`. For more information about metric streaming using `opcgeni`, see [Metric Streaming Configuration Task Flow - Flow 2](#).

## Metric Streaming Configuration Task Flow - Flow 2

The following table describes the configuration tasks for metric streaming using `opcgeni`.

<p>Task 1: <a href="#">Configure Data Forwarding policy</a></p>	<p>Configure the data forwarding policy to specify the metrics that you want to stream, and the endpoint to which the metrics must be forwarded.</p>
<p>Task 2: <a href="#">Integrate Performance Engine with OMi</a></p>	<p>Performance Engine is considered as the target in this task flow. Perform this task to integrate Performance Engine with OMi.</p> <p>Note Performance Engine must be configured with Vertica.</p>
<p>Task 3: <a href="#">View metrics in Performance Dashboard</a></p>	<p>View the streamed metrics in Performance Dashboard.</p>

You have successfully configured metric streaming using `opcgeni`.

## Streaming agent

Streaming edition is a light weight deployment option (streaming agent) which is a subset of Operations Agent. Streaming agent uses policies to stream metrics, logs, events, and topology to Operations Bridge. You can use out of the box policies available in OMi MP for Infrastructure to stream system metrics and logs. You can also submit metrics, logs, events, and topology from third party domain managers and application monitoring components.

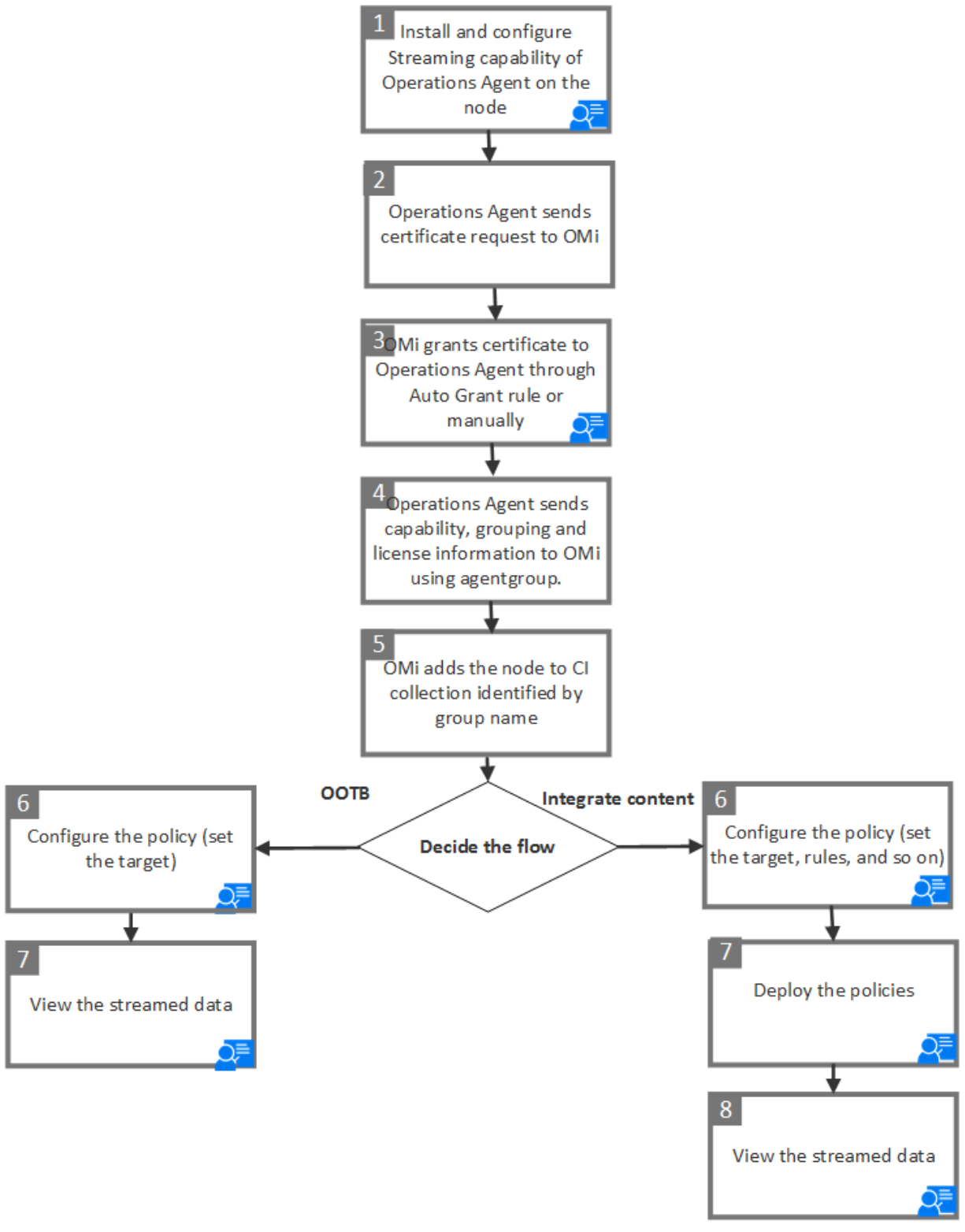
### Stream the content and view the results on the configured end points

To stream metrics, events, logs or topology and view the results in the target end points, you can choose from the following:

- Stream out of the box (OOTB) content from monitoring solutions (for example: OMi MP for Infrastructure)
- Integrate data (metrics/ logs/ events/ topology) from 3rd party domain managers and application monitoring solutions.

Step-wise pictorial representation for OOTB content or Integrate data from application monitoring solutions and 3rd party domain managers.

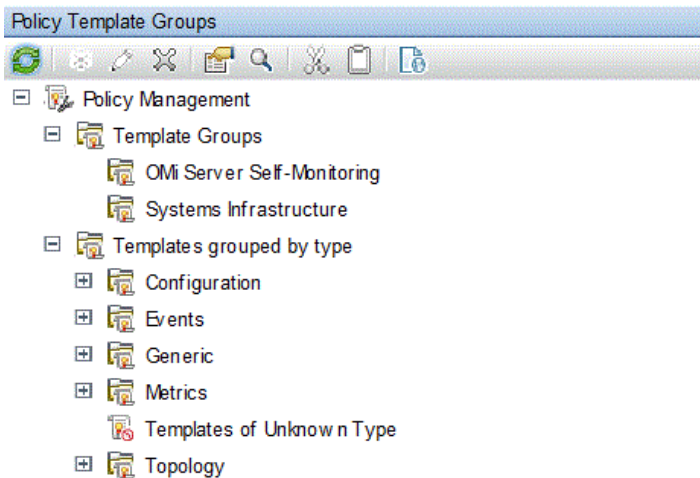
### Step-wise task to stream data





Alternatively, you can follow the steps to stream data (OOTB content )

1. Log on to the node as an administrator.
2. Install and configure streaming agent from the Operations Agent media. For more information, see Operations Agent Install section.
3. Log on to OMi.
4. Check the list of monitored nodes with streaming edition from **Administration > Setup and Maintenance > Monitored Nodes**.
5. Open **CI Type Manager > ConfigurationItem > CI Collection** and verify the default agent group **Operations Agents (streaming edition)** or the agent group name provided at the time of installation.
6. Open the Policy Template Manager, select **Administration > Monitoring > Policy Templates**. For more information about Policy Templates, see *OMi Help: Policy Templates*.



7. Click **Metric Streaming Configuration or Data Forwarding policy type** from **Administration > Monitoring > Policy Templates**, and then do the following:
  - a. Edit the policy ( Sys\_SystMetricStreaming Editor or Sys\_DataForwarding). For more information about editing policy, see *OMi Help: Metric Configuration* or *OMi Help: Configure Data Forwarding Policies*.
  - b. Select the metrics that you want to stream for Sys\_Metricstreaming Policy. For Sys\_DataForwarding policy, complete the configuration as required. For more information, see *OMi Help: Metric Configuration* or *OMi Help: Configure Data Forwarding Policies*.
8. In the Target endpoint, type the details such as Performance Engine server URL.
9. To view the results of metrics, topology, events of the streamed data, open the respective views (performance dashboard, event perspective, topology perspective ) to view graphs and results.

