Zenoss Service Dynamics
Global Operations Manager

Part Number: 35-092011-4.1-v01

1. About

Global Operations Manager enables Resource Manager to consolidate events from one or more Resource Manager servers, with support for per-source filtering and synchronization options. This allows for a consolidated view of events, in a single event console, from multiple Resource Manager systems.

Features provided by Global Operations Manager include:

- Support for adding other Resource Manager instances as incoming event sources. Events received on the source instance are forwarded and processed on the target Resource Manager instance.
- Configurable criteria for event sources to filter events forwarded from a particular source to the target Resource Manager instance.
- Support for two-way synchronization of management activities (closing, acknowledging, re-opening, and adding notes to events) between the source Resource Manager instance and the target Resource Manager instance.
- Consolidated event console, with direct links to devices, components, groups, locations, systems, and device classes, on the corresponding source instance.
- Multi-level aggregation of events from Resource Manager instances.
- Per-source event clearing (clear events from one source will not clear events from other sources).
- Support for lightweight synchronization of model data on the target system, which enables contextual event consoles on devices and "event rainbows" for devices, event organizers, and device organizers.

2. Prerequisites

Global Operations Manager is enabled by a ZenPack, which must be installed on source and target Resource Manager instances.

Prerequisite	Restriction
Product	Resource Manager 4.1 or later version
Required ZenPacks	ZenPacks.zenoss.GOM

Table 1. Datacenter View Prerequisites

The target Resource Manager instance requires network access to two ports on each source Resource Manager instance. The following table shows default port numbers:

Resource Manager Source Network Service	Port (Protocol)
Zope (HTTP)	8080 (TCP)
RabbitMQ (AMQP)	5672 (TCP)

Table 2. Default Port Numbers

3. Configuring Global Operations Manager

To configure Global Operations Manager, select Events > Global Operations Manager. The view shows the configured event sources that are forwarding events to this Resource Manager instance, and any event targets to which this Resource Manager instance is forwarding.

From here, you can:

- View event sources
- Add an event source
- Remove an event source
- Display event targets

3.1. Viewing Event Sources

Configured event sources appear in the top panel of the Global Operations Manager view. The event sources view shows these columns:

Column Name	Description
Enabled	Yes, if the event source is enabled and events are being forwarded from the source to this system.
Name	Description of the event source.
Host	HTTP connection information for the event source.
Username	User name (with ZenAdmin permission) used to perform actions on the event source.
Cascade Updates	Yes, if updates to events forwarded from this source are synchronized between the source and target systems.
Apply Transforms	Yes, if transforms on the local system are applied to forwarded events from this source.

Column Name	Description
Update Model	Yes, if device and organizer information from forwarded events are created on this system.
Filtered	Yes, if criteria is defined for filtering forwarded events from the event source.

Table 3. Event Sources View

3.2. Adding an Event Source

To forward events from one Resource Manager instance to another, perform these steps on the target Resource Manager instance:

1. Select Events > Global Operations Manager.
2. Under Sources, click **Add**.

   The Add Source dialog appears.

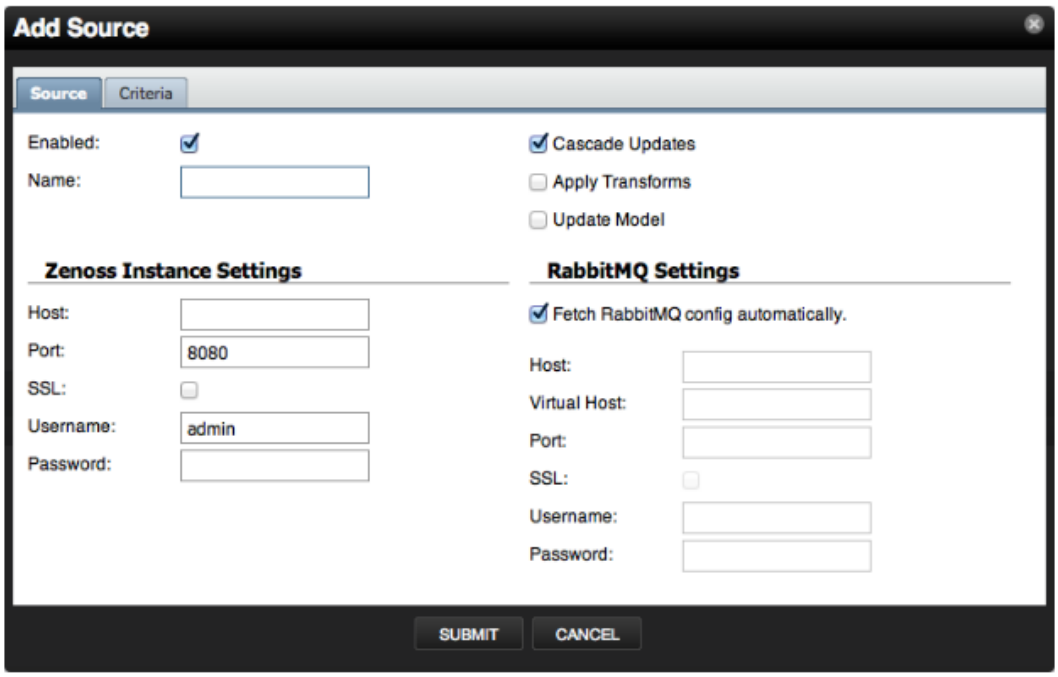

Figure 1. Add Source

3. Enter values or make selections to add the event source:

Field Name	Description
Enabled	If selected, events (and updates, if Cascade Updates is enabled) from the system are forwarded to this system.
Name	Description of the event source.
Cascade Updates	If selected, then any modifications to events made on the source are replicated to this instance, and any modifications made on this instance are replicated to the source.

Field Name	Description
Apply Transforms	If selected, then locally defined event transforms are run on forwarded events.
Update Model	If selected, then devices, event classes, device classes, and device organizers (Locations, Systems, and Groups) are created on the target system from forwarded events. This enables contextual event consoles and event rainbows on the target; however, they are disabled by default for performance reasons.
Resource Manager Instance Settings	
Host	Host name of the Resource Manager instance that will forward events to this system.
Port	Port number of the Resource Manager instance. Typically, this is 8080, but it may differ if Resource Manager is behind an HTTP proxy.
SSL	Select to use SSL when communicating with the Resource Manager instance.
Username	User with ZenAdmin permission on the source Resource Manager instance.
Password	Password for the user on the source Resource Manager instance.
RabbitMQ Settings	
Fetch RabbitMQ config automatically	If selected, then the the RabbitMQ configuration used on the source system is determined automatically.
Host	Host name of the RabbitMQ server on the source system.
Virtual Host	Virtual host of the RabbitMQ server on the source system. The default value is /zenoss.
Port	Port number of the RabbitMQ server on the source system. The default value is 5672.
SSL	If selected, then SSL is used when connecting to the RabbitMQ server on the source system. The default value is False.
Username	User name used to authenticate to the source RabbitMQ server.
Password	Password used to authenticate to the source RabbitMQ server.

Table 4. Add Event Source

4. By default, the event source forwards all events. Optionally, select the **Criteria** tab to specify which events are forwarded from the source. To define one or more rules:
   a. De-select the Forward all events option.
   b. Select All or Any from the list to specify whether an event will be forwarded based on all, or any one, of the rules.
   c. Define the rule by making selections from each list of options. To add a rule, click  (Add).

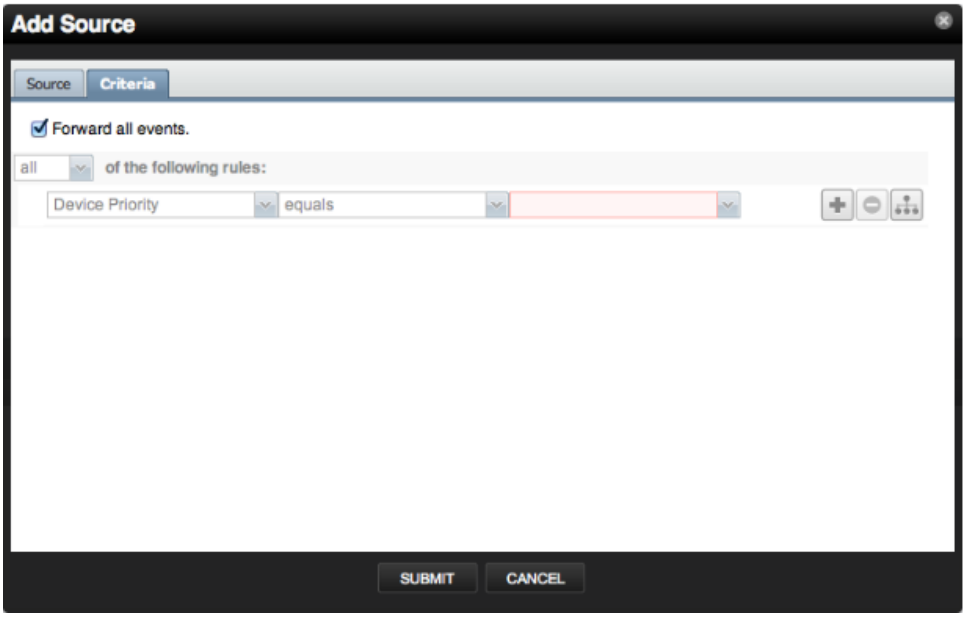

Figure 2. Add Source - Criteria

5. Click **Submit** to create the event source.

3.3. Removing an Event Source

To remove an event source, click **Delete** in the event sources list. The event source is removed from the Resource Manager source and target instances.

3.4. Viewing Event Targets

Configured event targets (Resource Manager instances to which Global Operations Manager is forwarding events) appear in the lower panel of the Global Operations Manager view.

Note

Event targets are shown for informational purposes only. All Global Operations Manager configuration should be performed on the target Resource Manager instance. Changes made on the target instance are automatically replicated on the source Resource Manager instance.

The event targets view shows these columns:

Name	Description
Enabled	Yes, if the event target is enabled and events and updates are being forwarded to the target.
Resource Manager ID	The instance identifier of the target Resource Manager system. (Configure this by editing the "instance identifier" setting in Advanced > Settings.)
Host	Fully qualified host name of the target Resource Manager system.
Filtered	Yes, if criteria is defined to filter events forwarded from this system to the target system.

Name	Description
Messages in Queue	Shows the number of messages (events and updates) waiting to be forwarded from this system to the target system. A large backlog of messages in this column may indicate a connection problem between the source and target system.

Table 5. View Event Targets

3.4.1. Removing Event Targets

Event targets can be removed from the event targets view; however this is not recommended unless the target Resource Manager instance is known to no longer exist (it has been reinstalled or reconfigured). Typically, all configuration should take place on the target Resource Manager instance or instances.

4. Using the Consolidated Event Console

Global Operations Manager extends the event console to enable support for linking to the resources from the source Resource Manager instance (resource, component, and device organizers). In addition, the consolidated event console adds two columns to the event console with more information about forwarded events.

Columns added are:

- **Source** - Event source where the event originated. (Events collected on the local system show no value in this column.)

  To filter events from one or more sources, select the sources to display in the event console from the list of options on the Source column.
- **Source Event** - Unique event identifier on the event source. Click this column in the event console to view the event details page on the Resource Manager source system.

The ▶ indicator links to the corresponding resource on the source Resource Manager instance. You can use this to distinguish between events occurring on the local system and events forwarded from an event source.

5. Troubleshooting

Global Operations Manager provides the `zengomd` daemon, which runs on the source and target Resource Manager instances. To diagnose problems on the source or target systems, view the event console and locate events with the ‘zengomd’ component. Alternatively, view the `$ZENHOME/logs/zengomd.log` file.