

Scheduler Configuration

This section provides examples and instructions on how to schedule cron and subscription jobs.

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Scheduler Overview

The Scheduler performs two types of scheduling jobs:

- Cron job—A time-based job scheduler that allows certain operations to run at a specific date and time. For example, you can schedule collections to run periodically.
- Subscription job—An event-based job scheduler that listens to event notifications defined by triggers from specified sources; for example, network model changes that are pushed to the Scheduler.

Configure the Scheduler

This procedure describes how to schedule cron and subscription-based jobs using the Expert Mode.

Note Scheduler configurations using the Expert Mode or Cisco WAE CLI will not appear in the Cisco WAE UI. To schedule network collections and agents to run using the Cisco WAE UI, see Schedule Jobs Using the Network Model Composer.

Before you begin

Configuration of any dependent actions or events must be completed before adding them to the Scheduler.

Procedure

Step 1 From the Expert Mode, in **Configuration editor**, navigate to **wae:wae** > **components** tab > **scheduler** > **task**.

Step 2 Click the plus (+) icon and enter a Scheduler job name.

Step 3 Click **Add**.

Step 4 Define what action to take when the Scheduler job is enabled:

a) From the **action** tab, click the plus (+) icon and enter the action name.

b) Click **Add**.

c) From the **Choice-action** drop-down list, choose **rpc**.

d) Click **rpc** and enter the path name. The path name designates the operation to invoke. For example, to invoke a network collection, enter the following path:
/wae:networks/network{*<network_model_name>*}/nimo/*<nimo_name>*/run-collection

e) (Optional) If certain parameters must be met to invoke the action, click the **params** tab and add the parameters in order of requirement.

Value for RPC params of type **ENUMERATION** must be specified with a fully qualified path.

Example:

```
admin@wae# show running-config wae components scheduler tasks task filter
wae components scheduler tasks task filter
action filter
  order 1
  rpc path /wae:networks/network{node-filter}/opm/node-filtering:node-filtering/run
  rpc params 1
   key   delimiter
   value /wae:networks/network{node-filter}/opm/node-filtering:node-filtering/run/delimiter/COMMA

   type  ENUMERATION
  !
```

Step 5 Identify what type of event(s) trigger the action. (If there are multiple triggers, the action is executed if any trigger is invoked.)

a) From the **trigger** tab, click the plus (+) icon and enter the trigger name.

b) Click **Add**.

c) From the **Choice-trigger-spec** drop-down list, choose the trigger type: **cron** or **subscription**.

Step 6 If you are configuring a subscription-based job, click the **subscription** link and do the following:

a) Enter the source path of the trigger. For example, if the source of the event is a circuit change, enter
/wae:networks/network{*<network_model_name>*}/model/circuits/circuit

b) From the **subscription-type** drop-down list, choose one of the following:

- **operational**—Applies to any operational (read-only) changes, such as traffic polling. These changes are not user initiated.
- **configuration**—Applies to any configuration changes (addition, deletion, or modification in the network), such as user-initiated LSP configuration changes.

Step 7 If you are configuring a cron-based job, click the **cron** link and enter the applicable parameters that define when to run the action.

Step 8 To add more triggers, repeat the preceding steps. (If there are multiple triggers, the action is executed if any trigger is invoked.)

Step 9 Click **Commit**.

Configure a Trigger for Topology Collection to Run Example

This example configures a subscription-based job that triggers the topology collection to run. The following procedure configures the Scheduler to run BGP-LS collection when a change occurs in the network model. For more information, see Topology Collection Using XTC.

Procedure

Step 1 From the Expert Mode, in **Configuration editor**, navigate to **wae:wae** > **components** tab > **scheduler** > **task**.

Step 2 Click the plus (+) icon and enter **run-topo-bgpls** as the Scheduler job name.

Step 3 Click **Add**.

Step 4 Define what action to take when the Scheduler job is enabled:

a) From the **action** tab, click the plus (+) icon and enter **run-xtc-topo** as the action name.
b) Click **Add**.
c) From the **Choice-action** drop-down list, choose **rpc**.
d) Click **rpc** and enter the path name. The path name designates the operation to invoke. For example, to invoke a network collection, enter the following path:
/wae:networks/network{NetworkABC_topo-bgpls-xtc-nimo}/nimo/topo-bgpls-xtc-nimo/run-collection

Step 5 Identify what type of event triggers this action:

a) From the **trigger** tab, click the plus (+) icon and enter **xtc-objects** as the trigger name.
b) Click **Add**.
c) From the **Choice-trigger-spec** drop-down list, choose **subscription**.

Step 6 Click the **subscription** link and do the following:

a) Enter the source path (in this example, it is where the XTC link status changes):
/wae/agents/xtc/xtc{TTE-xtc11}/pce/xtc-topology-objects/xtc-links
b) From the **subscription-type** drop-down list, choose **operational**.

Step 7 Click **Commit**.

Example

If using the WAE CLI (in config mode), enter:

```
# wae components scheduler tasks task run-topo-bgpls action run-xtc-topo rpc path
"/wae:networks/network{NetworkABC_topo-bgpls-xtc-nimo}/nimo/topo-bgpls-xtc-nimo/run-xtc-collection"
# wae components scheduler tasks task run-topo-bgpls triggers trigger xtc-objects subscription
 node "/wae/agents/xtc/xtc{TTE-xtc11}/pce/xtc-topology-objects/xtc-links"
# wae components scheduler tasks task run-topo-bgpls triggers trigger xtc-objects subscription
 subscription-type operational
# commit
```