Readme File for IBM® Spectrum Symphony 7.2.0.2 RFE 118451

Readme file for: IBM Spectrum Symphony
Product/Component Release: 7.2.0.2
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This enhancement enables you to control the default priority (rank) for consumers in your cluster by introducing the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter in the `ego.conf` file.

Currently, new consumers in IBM Spectrum Symphony start with a default priority of "0" (indicating the highest priority). When many consumers share this default high priority, any advantage of setting a consumer rank is nullified. As a result, a consumer with time-sensitive workload but low demand is blocked until other consumers (such as those with a high share ratio and high demand) finish their workload.

This update enables you to change the default priority for all consumers in your cluster from "0" to another value (for example, 10000) to indicate a different default priority. You can then manually update the rank for consumers that host critical workload as required, enabling those consumers to receive slots based on priority.

1. Scope

Before you install this enhancement in your cluster, note the following requirements:

Applicability

Operating system	RHEL 6 or 7, 64-bit
Product version	IBM Spectrum Symphony 7.2.0.2

2. Installation

Follow the instructions in this section to download and install this enhancement in your cluster.

Prerequisites

IBM Spectrum Symphony 7.2.0.2 must be installed on Linux hosts in your cluster.

Packages

Name	Description
`sym-7.2.0.2_x86_64-build497490.tar.gz`	Package for Linux management hosts.

Installing on Linux management hosts

a. Log on to the master host as the cluster administrator, disable all applications, and shut down the cluster:

```
$ soamcontrol app disable all
$ egosh service stop all
$ egosh ego shutdown all
```

b. On each management host, back up the following files:

```
$EGO_TOP/3.6/linux-x86_64/etc/vemkd
$EGO_TOP/3.6/linux-x86_64/lib/libvem.so.3.6.0
```

c. On each management host, copy the `sym-7.2.0.2_x86_64-build497490.tar.gz` package to the `$EGO_TOP` directory and decompress it:

```
$ tar zxof sym-7.2.0.2_x86_64-build497490.tar.gz -C $EGO_TOP
```

d. Configure the new consumer priority default value as described in "Configuration and usage", then start the cluster.

3. Configuration and usage

Update the default priority for consumers in your cluster by manually adding the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter to the `ego.conf`. The value of this parameter

then takes effect for all new consumers and existing consumers that do not have a priority set. If you want to update the current default priority for existing consumers, run the `egoupdateconsumers.sh` script included with this update.

- To set the default priority for new consumers and for existing consumers in `ConsumerTrees.xml` that do not have a priority, add the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter in `ego.conf`:

  a. Edit the `$EGO_CONFDIR/ego.conf` file.

  b. Add the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter and set its value to any positive integer greater than 0, for example:

  ```
  EGO_CONSUMER_PRIORITY_DEFAULT=10000
  ```

  If this parameter is not defined, the default consumer priority takes effect as `0`.

  c. Save your changes.

  d. Start the cluster and enable your applications:

  ```
  $ egosh ego start
  ```

  ```
  $ soamcontrol app enable app_name
  ```

- To update the current default priority for existing consumers, run the `egoupdateconsumers.sh` script included with this update. The script adds the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter to `ego.conf`, backs up the current `ConsumerTrees.xml` file for recovery purposes, then updates the default priority for consumers in the file to the new `EGO_CONSUMER_PRIORITY_DEFAULT` value.

  a. Source the host environment.

     a. For csh, enter:

     ```
     $ source cshrc.platform
     ```

     b. For bash, enter:

     ```
     . profile.platform
     ```

  b. Run the `egoupdateconsumers.sh` script with the new default consumer priority specified as an argument. Valid value is any positive integer greater than 0.

  ```
  $ egoupdateconsumers.sh [positive_integer]
  ```

  For example:

  ```
  $ egoupdateconsumers.sh 10000
  ```

  If you don't specify arguments, the default priority for consumers in `ConsumerTrees.xml` file is updated with the `EGO_CONSUMER_PRIORITY_DEFAULT` value in `ego.conf`. If a valid value is not defined in `ego.conf`, the script exits without updating `ConsumerTrees.xml`.

  c. Start the cluster and enable your applications:

  ```
  $ egosh ego start
  ```

  ```
  $ soamcontrol app enable app_name
  ```

  d. Create a new consumer either from the cluster management console at **Resources > Consumers** or from the "egosh" command line, for example:

  ```
  $ egosh consumer add /LOB1_consumer -g ComputeHosts,ManagementHosts
  -e root
  Consumer </LOB1_consumer> added.
  ```

    e.   Check whether the new consumer uses the new default priority:

```
$ egosh consumer view LOB1_consumer
```

This enhancement only impacts consumers whose default priority is currently set to 0. If consumers are configured with a priority other than the default (for example, "1" or "2"), those values are not changed. When you update the default priority to a high value (for example, "10000"), consumers that are set to "1" or "2" get priority over those that are set to the default "10000"; however, the priority order of existing consumers is preserved and is not affected by any newly added consumers.

4. Uninstallation

If required, follow these instructions to uninstall this enhancement in your cluster:

a.   Log on to the master host as the cluster administrator, disable all applications, and shut down the cluster:

```
$ soamcontrol app disable all
```

```
$ egosh service stop all
```

```
$ egosh ego shutdown all
```

b.   If you want to reverse the default consumer priority in `ConsumerTrees.xml` to your original configuration, run the `egoupdateconsumers.sh` script with the default priority as 0:

```
$ egoupdateconsumers.sh 0
```

c.   On each management host, restore the following files from your backup:

```
$EGO_TOP/3.6/linux-x86_64/etc/vemkd
```

```
$EGO_TOP/3.6/linux-x86_64/lib/libvem.so.3.6.0
```

d.   On each management host, remove the `egoupdateconsumers.sh` script:

```
$ rm –rf $EGO_TOP/3.6/linux-x86_64/bin/egoupdateconsumers.sh
```

e.   Edit the `$EGO_CONFDIR/ego.conf` file to remove the `EGO_CONSUMER_PRIORITY_DEFAULT` parameter.

f.   Start the cluster and enable your applications:

```
$ egosh ego start
```

```
$ soamcontrol app enable app_name
```

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