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ReportPack For Events Guide

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Preface

Purpose

This guide will walk you through all the necessary steps to perform a basic *ReportPack For Events* installation for *APG*. A basic installation implies that all components are installed on the same server.

All the path specified in this document are relative to the *APG* installation directory.

Document Organization

1. Installation	This section describes a step-by-step basic installation of <i>ReportPack For Events</i>
2. Common Settings - Customizations	This section describes the most commonly used settings for <i>ReportPack For Events</i>

Where to get help

EMC support, product, and licensing information can be obtained as follows:

PRODUCT INFORMATION - For documentation, release notes, software updates, or information about EMC products, go to EMC Online Support at:

<https://support.emc.com>

TECHNICAL SUPPORT - Go to EMC Online Support and click Service Center. You will see several options for contacting EMC Technical Support. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

1

Installation

1. Make sure that the following packages are installed with their dependencies (a *default* installation should already have installed them):
 - `license-manager`
 - `tomcat`
 - `frontend`
 - `mysql`
 - `mysql-data`
2. Install licenses for these following products:
 - EMC Smarts Listener
 - Web Portal
 - Event Adapter
 - APG Datastore (*64bits only, with APG Datastore*)

3. Install these additional packages:

- event-processing-manager
- active-cache
- smarts-listener
- datastore-writer (64bits only, with APG Datastore)
- generic-live-writer
- datastore (64bits only, with APG Datastore)
- event-processing-utils

4. If you are using the 64 bits version of *APG* with the *APG* Datastore, you can go directly to step 5. If you are using the 32 bits version of *APG* or you are not using the *APG* Datastore, uncomment the relevant section in:

```
Event-Processing/Event-Processing-Manager/<Instance-Name>/conf/processing.xml
```

```
<!-- MySQL Databases (use only if not using APG Datastore) -->
<!--
<processing-element name="DW-A" config="Generic-Live-Writer/Default/conf/my-smarts-
archive.xml" />
<processing-element name="EVENT-VALIDATOR" config="Event-Processing-Utils/Default/conf/
rpe-event-validator.xml" type="EventValidator" data="DW-A" />
<processing-element name="DW-L" config="Generic-Live-Writer/Default/conf/my-smarts-live.
xml" command="AC" data="EVENT-VALIDATOR AC[command]" />
-->
```

Don't forget to comment or remove the section dedicated to the *APG* Datastore:

```
<!-- APG Datastore (default) -->

<!-- IMPORTANT -->
<!-- If using more than 1 APG-Datastore-Writer, make sure that they are using different
temporary batching folders. -->
<!-- This setting can be changed in their respective configuration files. -->
<processing-element name="DW-A" config="APG-Datastore-Writer/Default/conf/ds-smarts-
archive.xml" />
<processing-element name="EVENT-VALIDATOR" config="Event-Processing-Utils/Default/conf/
rpe-event-validator.xml" type="EventValidator" data="DW-A" />
```

```
<processing-element name="DW-L" config="Generic-Live-Writer/Default/conf/ds-smarts-live.xml" command="AC" data="EVENT-VALIDATOR_AC[command]" />

...

<!-- Event trails (disabled by default, only available on APG Datastore) -->
<!-- Enabling the event trails will insert every single update in a separate table. Use this to keep logs of event field modifications. -->
<!-- The ResyncBlocker element makes sure that resync signals, which are useful only when communicating with the ActiveCache, are ignored by the data store writer. -->
<processing-element enabled="false" name="DW-T" config="APG-Datastore-Writer/Default/conf/ds-smarts-trails.xml" />
<processing-element enabled="false" name="RSYNC-BLK" config="Event-Processing-Utils/Default" type="ResyncBlocker" data="DW-T" />
```

And finally, adjust the Smarts Listener declaration to work with MySQL only:

```
<processing-element name="Smarts" config="Smarts-Listener/Default/conf/smarts-listener.xml" data="AC" />
```

5. Edit the Smarts Listener configuration file

```
Event-Processing/Smarts-Listener/<Instance-Name>/conf/smarts-listener.xml
```

- Configure the primary source to match your primary SAM (between the <primary></primary> tags)
 - Set the hostname or IP address in <broker-hostname>
 - Set the port in <broker-port>
 - If needed, set the broker username in <broker-username>. If no authentication is required for the broker, delete or comment out this element.
 - If needed, set the broker password in <broker-password>. If no authentication is required for the broker, delete or comment out this element.
 - Set the domain manager username in <username>
 - Set the domain manager password in <password>
 - Set the domain name in <domain-name>
 - Set the notification lists to which the listener must subscribe. Each notification list must be in separate <notification-list> tags.

- If needed, configure failover sources (in <failover></failover> tags). There can be as many failover sources as necessary. If no notification lists are specified, the ones provided for the primary source will be used.

6. Stop the web server if it is running

```
bin/manage-modules.sh service stop tomcat
```

7. If you are using the 64 bits version of *APG* with the *APG* Datastore, enable it in the web server configuration file by uncommenting the following section and go to step 9:

```
Web-Servers/Tomcat/<Instance-Name>/conf/server.xml
```

```
<!-- Defines the connections to the APG Event database for APG Datastore. -->
<!--
<Resource name="jdbc/FLOW-RPE2" auth="Container" type="javax.sql.DataSource" maxActive
="30" maxIdle="5"
    validationQuery="SELECT 1" testOnBorrow="false" testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000"
    minEvictableIdleTimeMillis="60000" maxWait="10000" username="apg" password="watch4net"
" driverClassName="com.mysql.jdbc.Driver"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
url="jdbc:mysql://localhost:53307/events?autoReconnect=true&tinyInt1isBit=false"
/>
-->
```

8. If you are using the 32 bits version of *APG* or you are not using the *APG* Datastore, enable the MySQL Database in the web server configuration file by uncommenting the following section:

```
Web-Servers/Tomcat/<Instance-Name>/conf/server.xml
```

```
<!-- Defines the connections to the APG Event database for MySQL. -->
<!--
<Resource name="jdbc/FLOW-RPE2" auth="Container" type="javax.sql.DataSource" maxActive
="30" maxIdle="5"
    validationQuery="SELECT 1" testOnBorrow="false" testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000"
    minEvictableIdleTimeMillis="60000" maxWait="10000" username="apg" password="watch4net"
" driverClassName="com.mysql.jdbc.Driver"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
```

```
url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
/>
-->
```

9. Enable the event database in the APG web application configuration file by uncommenting the following section:

```
Web-Servers/Tomcat/<Instance-Name>/conf/Catalina/localhost/APG.xml
```

This file is extracted only when the *APG* Web Portal is launched for the first time. If you can't find it, start the web server first, make sure the file got extracted and stop the web server.

```
<!-- Gives access to the events database. -->
<!--
<ResourceLink name="jdbc/FLOW-RPE2-ARCH:{ mapping=FLOW-RPE2.xml, table=events_archive }"
  global="jdbc/FLOW-RPE2" type="javax.sql.DataSource" />
<ResourceLink name="jdbc/FLOW-RPE2-LIVE:{ mapping=FLOW-RPE2.xml, table=events_live }"
  global="jdbc/FLOW-RPE2" type="javax.sql.DataSource" />
-->
```

10. Start the required services

```
bin/manage-modules.sh service start datastore
bin/manage-modules.sh service start event-processing-manager
bin/manage-modules.sh service start mysql
bin/manage-modules.sh service start tomcat
```

11. Import the *ReportPack For Events*

- Using an internet browser, log into *APG* as a user which has *admin* privileges
- In the *Administration* section, click on *Report Packs*
- Click on *Upload a Report Pack*
- Click on the *Browse...* button and select the *ReportPack For Events* arp file (Event-Processing/Smarts-Listener/Default/reportpack/ReportPack for EMC2 Smarts Events.arp)
- Once selected, click on *Ok* to complete the upload

12. New events coming from the Smarts console should gradually start appearing in *APG*.

2

Common Settings - Customizations

1 Smarts Listener

The configuration file to edit is:

```
Event-Processing/Smarts-Listener/<Instance-Name>/conf/smarts-listener.xml
```

- To force the listener to synchronize with the SAM console more frequently (default is once a day), change the `resync-period` parameter. This could be useful if the connection between the listener and the broker drops frequently, causing mismatches between the events that are displayed in the console and those in *APG*. Be careful not to force resync operations too often, as it is a relatively costly operation, especially on large installations.
- To allow more time for a connection to the SAM to be established, you can change the `connection-timeout` value. This can be useful if for some reason the SAM accepts connections rather slowly.
- By default, if the listener receives no event for 5 minutes, it will reset its connection with the SAM as a sanity measure. It might be necessary to change this behavior if it is normal for 5 minutes to pass by without receiving any event, To change this, modify the `idle-timeout` value.

2 Active Cache

The configuration file to edit is:

```
Event-Processing/Active-Cache/<Instance-Name>/conf/active-cache.xml
```

- By default, if an event disappears from the SAM console but, for some reason, the close notification was not received, the active cache will automatically close this event after 7 days. To change this, modify the timeout attribute of the auto-close parameter.

3 Generic Live Writer (*live database*)

The configuration file to edit is for 64 bits installation with the *APG* Datastore:

```
Event-Processing/Generic-Live-Writer/<Instance-Name>/conf/ds-smarts-live.xml
```

or, using MySQL:

```
Event-Processing/Generic-Live-Writer/<Instance-Name>/conf/my-smarts-live.xml
```

- An event will be archived 1 day after it is closed. This can be changed by modifying the timeout value of the moveout parameter.

4 APG Datastore Writer (*archive database, 64 bits only, with APG Datastore*)

The configuration file to edit is:

```
Event-Processing/APG-Datastore-Writer/<Instance-Name>/conf/ds-smarts-archive.xml
```

- Raw data is archived for a full year. To modify this, change the timeout value of the expiration parameter.
- Timings for tasks that push data in batch files or in the database can also be modified as such:
 - `event-timeout`: as soon as the specified lapse of time passes between two incoming events, the current batch file will be pushed into the database.
 - `file-timeout`: the batch file will be pushed automatically after this period of time.
 - `max-file-size`: the batch file will be pushed automatically if the batch file reaches this size.
 - `connection-retry-period`: if the push operation fails, the writer will retry at this rate.

5 Generic Live Writer (*archive database, without APG Datastore*)

The configuration file to edit is:

```
Event-Processing/Generic-Live-Writer/<Instance-Name>/conf/my-smarts-archive.xml
```

- Raw data is archived for a full year. To modify this, change the `timeout` value of the `expiration` parameter.