



EMC[®] Watch4net[®]

Version 6.4u2

Frontend Report Generator Admin Guide

P/N: pending

Rev : 40032

EMC²

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Published October, 2014

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Preface

Overview

The Frontend Report Generator module allows APG's reports to be generated independantly of any APG's web server.

This guide provides configuration information about the Frontend Report Generator module.

Intended Audience

This guide is intended to be read by any *APG* administrator who will configure the Frontend Report Generator module.

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

The Frontend Report Generator is installed automatically with a default installation of APG. Otherwise it can be installed and controlled like all other APG modules. See the ***Module Manager Guide*** for more information.

2

Configuration

The Frontend Report Generator's configuration file is `report-generation-config.xml`, located in the `<APG Root>/Tools/Frontend-Report-Generator/<Instance>/conf` directory. It contains the settings required to access the APG's Master and Timeseries databases and is validated by the XML Schema `report-generation-config.xsd`.

1 Default configuration

The default configuration contains the settings for a Frontend Report Generator connected to a single MySQL database located on the same server.

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration xmlns="http://www.watch4net.com/APG/Frontend/Report-Generation/Config"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.watch4net.com/APG/Frontend/Report-Generation/Config report-
generation-config.xsd">

  <master>
    <!-- Defines the connection to the master database for MySQL. -->
```

```

<datasource driverClassName="com.mysql.jdbc.Driver"
  url="jdbc:mysql://localhost:53306/master?autoReconnect=true"
  username="apg" password="watch4net"
  maxActive="10" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
  timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
  removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true" />

<!-- Example of connection to the master database for Oracle 10g. -->
<!--
<datasource driverClassName="oracle.jdbc.OracleDriver"
  url="jdbc:oracle:thin:@localhost:1521:APG"
  username="apg" password="watch4net"
  maxActive="10" maxIdle="5" validationQuery="SELECT 1 FROM DUAL" testOnBorrow="false"
testWhileIdle="true"
  timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
  removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
  connectionProperties="SetBigStringTryClob=true" />
-->
</master>

<database>
  <!-- Defines the connection to the APG timeseries database for MySQL. -->
  <datasource id="APG-DB:{_cachegrp=DB_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/apg?autoReconnect=true"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

  <!-- Example of connection to the APG timeseries database for Oracle 10g. -->
  <!--
  <datasource id="APG-DB:{ cachegrp=DB }" driverClassName="oracle.jdbc.OracleDriver"
    url="jdbc:oracle:thin:@localhost:1521:APG"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1 FROM DUAL" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait

```

```

="10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true" />
-->

<!-- Example of connection to the APG Traffic Flow data. -->
<!--
<datasource id="FLOW-TF-DATA:{ mapping=FLOW-TF-DATA.xml, table=FLOW_RAW_DATA__SEQ_0_4__
}"
    maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
    maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
<datasource id="FLOW-TF-PROTO:{ mapping=FLOW-TF-PROTO.xml, table=
FLOW_PROTOCOL__SEQ_0_4__}"
    maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
    maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
<datasource id="FLOW-TF-APP:{ mapping=FLOW-TF-APP.xml, table=
FLOW_APPLICATION_TOPN__SEQ_0_4__}"
    maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
    maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
<datasource id="FLOW-TF-SRCADDR:{ mapping=FLOW-TF-SRCADDR.xml, table=
FLOW_SRCADDR_TOPN__SEQ_0_4__}"
    maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"

```

```

        maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
        url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        <datasource id="FLOW-TF-DSTADDR:{ mapping=FLOW-TF-DSTADDR.xml, table=
FLOW_DSTADDR_TOPN__SEQ_0_4__}"
        maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
        maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
        url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        <datasource id="FLOW-TF-CONV:{ mapping=FLOW-TF-CONV.xml, table=
FLOW_CONVERSATION_TOPN__SEQ_0_4__}"
        maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
        maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
        url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        <datasource id="FLOW-TF-HOSTS:{ mapping=FLOW-TF-HOSTS.xml, table=FLOW_HOSTS__SEQ_0_4__
}"
        maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
        maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
        url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        <datasource id="FLOW-TF-NOSNMP:{ mapping=FLOW-TF-NOSNMP.xml, table=
FLOW_NOSNMP__SEQ_0_4__}"
        maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
        maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"

```

```

        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
        url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        <datasource id="FLOW-TF-ALLPORTS:{ mapping=FLOW-TF-ALLPORTS.xml, table=
FLOW_ALLPORTS__SEQ_0_4_}"
            maxActive="10" maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
            validationQueryTimeout="5" timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="60000"
            maxWait="10000" username="flow" password="watch4net" driverClassName="com.watch4net.
x100.jdbc.Driver"
            removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
            url="jdbc:x100://localhost:48443/Databases/APG-Datastore" />
        -->

        <!-- Defines the connections to the APG Event database for MySQL. -->
        <!--
        <datasource id="FLOW-RPE2-ARCH:{ mapping=FLOW-RPE2.xml, table=events_archive }"
driverClassName="com.mysql.jdbc.Driver"
        url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
        username="apg" password="watch4net"
        maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
        <datasource id="FLOW-RPE2-LIVE:{ mapping=FLOW-RPE2.xml, table=events_live }"
driverClassName="com.mysql.jdbc.Driver"
        url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
        username="apg" password="watch4net"
        maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
        -->

        <!-- Defines the connections to the APG Event database for APG Datastore. -->
        <!--
        <datasource id="FLOW-RPE2-ARCH:{ mapping=FLOW-RPE2.xml, table=events_archive }"
url="jdbc:x100://localhost:48443/Databases/APG-Datastore/Default" maxActive="10"
maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false" testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait

```

```

="10000"
    username="admin" password="changeme" driverClassName="com.watch4net.x100.jdbc.Driver
"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true" />
<datasource id="FLOW-RPE2-LIVE:{ mapping=FLOW-RPE2.xml, table=events_live }"
url="jdbc:x100://localhost:48443/Databases/APG-Datastore/Default" maxActive="10"
maxIdle="10" validationQuery="SELECT 1" testOnBorrow="false" testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
    username="admin" password="changeme" driverClassName="com.watch4net.x100.jdbc.Driver
"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true" />
-->

<!-- Defines the connections to the emc-vnx events database for MySQL. -->
<datasource id="FLOW-VNX-LIVE:{ mapping=FLOW-VNX.xml, table=nasusers }" driverClassName
="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

<!-- Defines the connections to the emc-vipr events database for MySQL. -->
<datasource id="FLOW-VIPR-EVENTS:{ mapping=FLOW-VIPR.xml, table=vipr_events }"
driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

<!-- Defines the connections to the vmware events database for MySQL. -->
<datasource id="FLOW-VMWARE-EVENTS:{ mapping=FLOW-VMWARE-EVENTS.xml, table=
vmware_events }" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"

```

```

testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-VMWARE-TASKS:{ mapping=FLOW-VMWARE-TASKS.xml, table=vmware_tasks}"
" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

<!-- Defines the connections to the cisco-ucs-events database for MySQL. -->
<!--
<datasource id="FLOW-UCS-LIVE:{ mapping=FLOW-UCS.xml, table=ucs_live}" driverClassName
="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
-->

<!-- Defines the connections to the emc-prosphere events database for MySQL. -->
<!--
<datasource id="FLOW-PROSPHERE-ARCH:{ mapping=FLOW-UEVENTS.xml, table=
unifiedevents_archive }" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-PROSPHERE-LIVE:{ mapping=FLOW-UEVENTS.xml, table=
unifiedevents_live }" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"

```

```

        maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
        timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
-->

<!-- Defines the connections to the emc-som-events database for MySQL. -->
<!--
<datasource id="FLOW-SOM-ARCH:{ mapping=FLOW-EMC-SOM.xml, table=emcsom_archive }"
driverClassName="com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
username="apg" password="watch4net"
maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-SOM-LIVE:{ mapping=FLOW-EMC-SOM.xml, table=emcsom_live }"
driverClassName="com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
username="apg" password="watch4net"
maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
-->

<!-- Defines the connections to the what-if scenarios database for MySQL. -->
<datasource id="FLOW-WHATIF-SCENARIOS:{ mapping=FLOW-WHATIF-SCENARIOS.xml, table=
whatif_scenarios }" driverClassName="com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
username="apg" password="watch4net"
maxActive="30" maxIdle="5" validationQuery="SELECT 1" testOnBorrow="false"
testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

<!-- Defines the connections to the generic event schema for MySQL. -->
<datasource id="FLOW-EVENTS-GENERIC:{ mapping=FLOW-GENERIC-EVENT.xml, table=

```

```

genericevents_live_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-EVENTS-GENERICARCH:{_mapping=FLOW-GENERIC-EVENT.xml,_table=
genericevents_archive_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/events?autoReconnect=true&tinyInt1isBit=false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>

<!-- Defines the connections to the APG Compliance database for MySQL. -->
<datasource id="FLOW-COMPLIANCE-BREACH:{_mapping=FLOW-COMPLIANCE-BREACH.xml,_table=
breach_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/compliance?autoReconnect=true&tinyInt1isBit=
false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-COMPLIANCE-POLICY:{_mapping=FLOW-COMPLIANCE-POLICY.xml,_table=
policy_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/compliance?autoReconnect=true&tinyInt1isBit=
false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-COMPLIANCE-RULE:{_mapping=FLOW-COMPLIANCE-RULE.xml,_table=rule_}"
driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/compliance?autoReconnect=true&tinyInt1isBit=

```

```

false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
<datasource id="FLOW-COMPLIANCE-CONFIGCHANGE:{_mapping=FLOW-COMPLIANCE-CONFIGCHANGE.xml
,_table=config_change_}" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/compliance?autoReconnect=true&tinyInt1isBit=
false"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"/>
</database>

<topology>
<!-- Defines the connection to the topology database for MySQL. -->
<datasource id="Topo-DB" driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:53306/topology?autoReconnect=true"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait="
10000"
    removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
connectionProperties="cachePrepStmts=true;useServerPrepStmts=false;maintainTimeStats=false;
dontTrackOpenResources=true;enableQueryTimeouts=false;processEscapeCodesForPrepStmts=false;
jdbcCompliantTruncation=false;rewriteBatchedStatements=true;" />

<!-- Example of connection to the topology database for Oracle 10g. -->
<!--
<datasource id="Topo-DB" driverClassName="oracle.jdbc.OracleDriver"
    url="jdbc:oracle:thin:@localhost:1521:APG"
    username="apg" password="watch4net"
    maxActive="30" maxIdle="5" validationQuery="SELECT 1 FROM DUAL" testOnBorrow="false"
testWhileIdle="true"
    timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"

```

```

        removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
connectionProperties="SetBigStringTryClob=true" />
    -->
</topology>

<alerting>
    <!-- Alerting Properties -->
    <manager
        name="LocalManager"
        user="admin"
        pass="changeme"
        url="service:jmx:rmi:///jndi/rmi://localhost:52569/jmxrmi" />
    </alerting>
</configuration>

```

2 Configuration content

- <master> Contains the settings of the Master datasource used for report generation.
 - <datasource driverClassName="*driverClassName*" url="*url*" username="*username*" password="*password*">: the master datasource used by the APG Frontend.
 - * *driverClassName* (required): the fully qualified Java class name of the JDBC driver to be used.
 - * *url* (required): the JDBC connection URL.
 - * *username* (required): the user name used to connect to the database.
 - * *password* (required): the password used to connect to the database.
- <database> Contains the connection parameters for the timeserie, event and flow databases used for report generation.
 - <datasource id="*id*" driverClassName="*driverClassName*" url="*url*" username="*username*" password="*password*">: a datasource used by the APG
 - * *id* (required): the APG datasource ID (<database type>-<database name>, e.g. APG-DB).
 - * *driverClassName* (required): the fully qualified Java class name of the JDBC driver to be used.
 - * *url* (required): the JDBC connection URL.

- * *username* (required): the user name used to connect to the database.
- * *password* (required): the password used to connect to the database.
- <topology> Contains the connection parameters of the topology databases used for report generation. As for the <database> tag, topology datasources are given by a <datasource> tag.
- <alerting> Contains the connection parameters of the alerting managers that may be configured as recipients for generated reports.
 - <manager name="*name*" user="*user*" pass="*password*" url="*url*">
: an alerting manager used by APG
 - * *name* (required): the name of the alerting manager.
 - * *user* (required): the user name used to connect to the alerting manager.
 - * *pass* (required): the password used to connect to the alerting manager.
 - * *url* (required): the URL of the alerting manager.

3 Property-Store

Similarly to the Frontend and other web-applications, report generation may be speed-up in the Frontend Report Generator by taking advantage of the Property-Store module.

The setup of the Property-Store requires the following steps:

- **Property-Store module installation**
During the installation, make sure to enable the `import-properties.task` file when prompted.
- **Datasources configuration update**
In the configuration file (`report-generation-config.xml`), a `cachegrp` attribute must be specified for each Database which will use the Property-Store.
- **import-properties.task configuration**
The Property-Store scheduled a task for periodical import of properties. The file is located in the directory
`<APG>/Tools/Task-Scheduler/<instance>/data/task_repository/property-store/Default/.`

By default the task is configured to work with the Web-Server. To configure it for the Frontend Report Generator only, replace the lines:

```
<parameters>
  <param>--server</param>
  <param>../../../../Web-Servers/Tomcat/Default/conf/server.xml</param>
  <param>--application</param>
  <param>../../../../Web-Servers/Tomcat/Default/conf/Catalina/localhost/APG.xml</param>
</parameters>
```

by (if Default is the Frontend-Report-Generator instance to use):

```
<parameters>
  <param>--application</param>
  <param>../../../../Tools/Frontend-Report-Generator/Default/conf/report-generation-config.xml</param>
</parameters>
```

- **Start the Task Scheduler**
- **Run the import-properties task** (optional)

The task is scheduled to run every hour. To get the properties imported immediately, the task may be executed manually using the Centralized Management, under the `Database` category.

For more details on the Property-Store installation and the configuration of APG datasources, please refer to the *Property-Store Guide*.

4 Additional configurations

The Frontend Report Generator comes with other configuration files located in its `conf` directory.

Additional Java system properties can be given to the JVM generating the reports. They are listed in the `module.properties` file with the syntax `<name>=<value>`, where `<name>` is the name of the property and `<value>` its value.

The logging options of the report generation can also be configured using the `logging.properties` file.

Stored Reports

The Frontend Report Generator is able to store the reports it generates. They are stored in the `data/stored-reports/` directory of the Frontend Report Generator module.

The storage directory can be changed using the `scheduled.report.serializer.root` system property. Changing the directory is however discouraged, as other modules may access the stored reports.

Note: If report storage is used, it is advised to install a Task Scheduler module along with the Frontend Report Generator. This will schedule a maintenance task that automatically removes obsolete or invalid stored reports.

4

Troubleshooting

Each report generation returns an error code depending on the success or failure of the generation. The error code can be found in the log file of the execution. The meaning of error codes are:

0	Scheduled Report was fully generated and sent to recipients
1	Frontend Report Generator configuration file is corrupted or invalid
2	Master database could not be accessed
3	None of the APG databases could be accessed
4	Some, but not all, APG databases could not be accessed
5	One or more Topology databases could not be accessed
6	Scheduled report configuration is corrupted or invalid
7	The user owning the report could not be loaded
8	The user owning the report has been deleted
9	Scheduled Report is broken, its link needs to be fixed
10	Report generation failed
11	Report was generated, but could not be sent by e-mail
12	Report was generated, but its storage failed
13	Report was generated, but could not be sent by remote transfer
14	Report was generated and sent to recipients but the confirmation e-mail could not be sent
15	Unknown error