



EMC® Watch4net®

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Oracle Database Connector Admin guide

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EMC²

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Contents

Preface	iii
Document Organization	iii
Where to get help	v
1 Overview	1
2 Schema information	3
3 Installing the schema	5
4 Configuring APG modules	7
5 Updating the schema	9

Preface

Document Organization

1. Overview	This section provides a quick overview of the new features provided by the Oracle connector in <i>APG</i>
2. Schema information	This section defines the requirements for the user and schema for Oracle.
3. Installing the schema	This section provides the steps to follow and the information needed to create the new user and install the new schema in a production environment.

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

Overview

APG support for multiple databases was introduced in 2006. Support for Oracle is a major requirement for some customers.

APG requires at least Oracle 10.1 Enterprise Edition Edition (Oracle 10.2 and 11.2 are also supported), as support for partitioning is required by the application.

Schema information

The schema and user for Oracle have been designed for ease of management and use. The schema uses 6 predefined tablespaces for all the data and indexes. This schema contains all the information pertaining to tables and partitioning within itself. This allows the DBA to adapt table / partition creation to fit corporate standards, if need be.

APG requires the following 6 tablespaces to work in production :

- APG_DATA
- APG_INDEX
- APG_TOPOLOGY_DATA
- APG_TOPOLOGY_INDEX
- APG_FLAT_TOPOLOGY_DATA
- APG_FLAT_TOPOLOGY_INDEX

Watch4Net provides SQL scripts (**createBackend.sql** and **createFrontend.sql**) to create all these tablespaces, but a DBA will need to edit it to assign tablespaces to valid datafiles. The scripts are

located in <APG directory>/Backends/APG-Backend/<Instance>/ misc/oracle/ directory.

The user doesn't create a tablespace per partition, but instead creates all partitions within the six tablespaces cited above. This results in simpler management for both the DBA and the application.

Also, the partitions are pruned out automatically by the application, so space recycling happens without DBA intervention.

In addition, the script provided will create the user with its assigned privileges. The following rights and privileges are necessary for APG's database user :

- connect
- dba
- create any table
- drop any table
- create any index
- drop any index

The script that creates tablespaces and sets the privileges to the user is **createApgUser.sql**.

The first line of this script defines the directory to use for temporary files to push in the database. This directory configuration, APG_DATA_DIR, will need to be configured according to your corporate standard. APG_DATA_DIR configuration is found on the first line of the script.

The script **createBackend.sql** will create a job that recreate the DATA_PROPERTY_FLAT table once per day. You can also recreate the table manually by executing the PL/SQL procedure REFRESH_PROPERTY_TABLE. On a fresh installation, it is a good practice to execute that script after a few collects, to make sure that the flat table is up to date.

Installing the schema

The database schema creation is located in the files **createBackend.sql** and **createFrontend.sql**. The script will create the tables and procedures needed to use APG with Oracle. Before executing the schema creation script, a user will need to be created for the schema script to be run into.

As a reference, Watch4Net provides the script **createApgUser.sql** that will create a user (apg) with the all the necessary rights needed for the application. Please refer to section [2](#) for information about the rights and privileges of the database user. This file *will* need to be edited by a DBA to change the data directory to point to the proper folder. Similarly, this script cannot run unmodified as there are datafiles to set for the tablespaces. However, once modified, **createApgUser.sql** can be run in sqlplus as sysdba to create the user.

After the apg user is created, connect to sqlplus as apg and run the schema creation scripts **createBackend.sql** and **createFrontend.sql**. Then, you need to configure APG to use the new database (please refer to the Backend and the Web Portal documentation for more information).

4

Configuring APG modules

Once Oracle is setup, you need to update the configuration files of some APG modules to make sure they use Oracle instead of MySQL(Default).

Here is a list of the most common used modules that need to be configured:

- APG Backend:
 - `<APG directory>/Backends/APG-Backend/<Instance>/conf/config.xml`
 - `<APG directory>/Backends/APG-Backend/<Instance>/conf/oracle.xml`
- Tomcat (includes all web applications):
 - `<APG directory>/Web-Servers/Tomcat/<Instance>/conf/server.xml`
 - `<APG directory>/Web-Servers/Tomcat/<Instance>/conf/Catalina/localhost/ directory for web applications dedicated configuration files.`
- Frontend Search:
 - `<APG directory>/Tools/Frontend-Search/<Instance>/conf/frontend-search.xml`

- Frontend Report Generator:
 - <APG directory>/Tools/Frontend-Report-Generator/<Instance>/conf/
report-generation-config.xml

5

Updating the schema

After an APG update and after all modules are configured properly to use the Oracle database, you need to run the `update-frontend-database` script to make sure the schema is up to date.