

Oracle® Adaptive Access Manager
Database Installation Guide for Oracle
10g (10.1.4.3.0)

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ORACLE®

Oracle Adaptive Access Manager Database Installation Guide for Oracle, 10g (10.1.4.3.0)

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Preface

The Oracle® Adaptive Access Manager Database Installation Guide (Oracle) provides information about installing the Adaptive Access Manager schema into an Oracle database. Access to the Adaptive Access Manager schema is a requirement of the Adaptive Access Manager Application Server, which hosts the Adaptive Strong Authenticator and the Adaptive Risk Manager.

Note that the Adaptive Manager Access Manager schema needs to be installed into the Oracle database before proceeding to the installation of the proxy.

Documentation

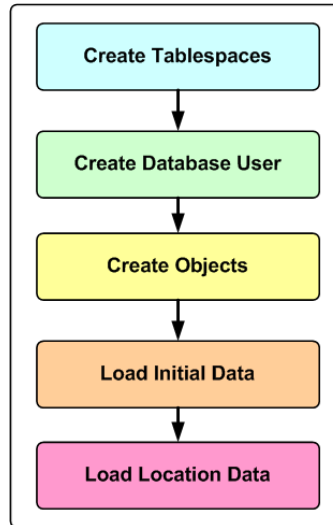
The Oracle Adaptive Access Manager 10g documentation includes the following:

- The Oracle® Adaptive Access Manager API Integration Guide, which provides information on natively integrating the client portion of the Adaptive Access Manager solutions. In an API integration, the client application invokes the Oracle Adaptive Access Manager APIs directly and manages the authentication and challenge flows.
- The Oracle® Adaptive Access Manager Database Installation Guide (Oracle), which provides information about installing the Adaptive Access Manager schema into an Oracle database. Access to the Adaptive Access Manager schema is a requirement of the Adaptive Access Manager Application Server, which hosts the Adaptive Strong Authenticator and the Adaptive Risk Manager. Note that the Adaptive Manager Access Manager schema needs to be installed into the Oracle database before proceeding to the installation of the proxy.
- The Oracle® Adaptive Access Manager Database Installation Guide for SQL Server 2005, which provides information about installing the Adaptive Access Manager schema into SQL Server 2005. Access to the Adaptive Access Manager schema is a requirement of the Adaptive Access Manager Application Server, which hosts the Adaptive Strong Authenticator and the Adaptive Risk Manager. Note that the Adaptive Manager Access Manager schema needs to be installed into SQL Server 2005 before proceeding to the installation of the proxy.
- The Oracle® Adaptive Access Manager Proxy Integration Guide, which provides programming information and instructions on the installation of the Adaptive Access Manager proxy, one of the components in the Adaptive Access Manager UIO deployment. The Oracle Adaptive Access Manager's Universal Installation Option (UIO) offers multi-factor authentication to Web applications without requiring any change to the application code. The Oracle® Adaptive Access Manager Proxy and The Oracle® Adaptive Access Manager Proxy Web Publishing Configuration are guides specific to the UIO deployment.
- The Oracle® Adaptive Access Manager Proxy Web Publishing Configuration, which provides information on creating web publishing rules and listeners so that Web applications and the WebUIO can be accessible from the Internet. The Oracle Adaptive Access Manager's Universal Installation Option (UIO) offers multi-factor authentication to Web applications without requiring any change to the application code. The Oracle® Adaptive Access Manager Proxy and The Oracle® Adaptive Access Manager Proxy Web Publishing Configuration are guides specific to the UIO deployment.

- The Oracle® Adaptive Risk Manager Online Installation Guide, which provides information on the installation of the administration user interface of Oracle Adaptive Access Manager. Adaptive Risk Manager Online is the administration user interface of Oracle Adaptive Access Manager, a set of web-based administration tools that provides sophisticated fraud monitoring, analysis, and tracking by user location, device, time of day, type of transaction, as well as a host of other factors, and evaluates these factors against a set of customizable rules.
- The Oracle® Adaptive Access Manager LDAP Configuration Guide, which provides information on how to configure the Oracle Adaptive Access Manager Application Server to allow a user to be authenticated via a user identifier and password. The intended audience of this manual are users of WebLogic and Tomcat who want to use LDAP to set up users instead of the functionality in WebLogic and Tomcat.
- The Oracle® Adaptive Access Manager Import/Export Manual, which provides information importing groups, rule templates, and models from the Adaptive Access Manager schema.
- The Oracle® Adaptive Risk Manager Online Customer Care API Guide, which provides information about the Adaptive Risk Manager Online Customer Care API and provides the XML definition for each of the APIs.
- The Oracle® Adaptive Access Manager Database Tables Archiving and Purging Procedure, which provides information on the purge and archive scripts in the Oracle Adaptive Access Manager Database Tables of Microsoft SQL Server 2005. The procedure to trigger the scripts and information on verification and validation of script results are also provided.
- The Oracle® Adaptive Access Manager SQL Server Maintenance Guide, which provides instructions to set up The Oracle Adaptive Access Manager Maintenance Plan to purge and archive scripts in the Oracle Adaptive Access Manager database tables of Microsoft SQL Server 2005. The manual also discusses in detail how to trigger the scripts and provides information on the verification and validation of script results.
- The Oracle® Adaptive Risk Manager™ Administrator's Guide, which provides step-by-step instructions for creating and managing groups, creating models that contain rules, and customizing and managing rules.
- The Oracle® Adaptive Risk Manager™ Dashboard and Reporting Guide, which provides detailed instructions on how to use the dashboard and reporting functionality within the Oracle® Adaptive Risk Manager Online. The Oracle® Adaptive Risk Manager Online includes a dashboard that provides a high-level overview of users and devices that have generated alerts and the alerts themselves, and it contains a comprehensive collection of reports on users, locations, devices, and security alerts.
- The Oracle® Adaptive Risk Manager™ Customer Care Administration Guide, which provides information on creating new customer cases and administering them.

Overview

This document contains the steps needed to create the Adaptive Access Manager schema in an Oracle Database. The database used must be Oracle 9.2.0.4 or higher.



Oracle Init Parameter

Ensure that the appropriate initialization parameters are set before you create your database schema within the Oracle database. For your reference, information is provided below for the parameters in Oracle9i and Oracle 10g databases.

See the *Oracle Database SQL Reference* for information about making changes to the server parameter file (SPFILE) or follow the helpful hint below.

Editing the SPFILE (Helpful Hint)

1. Create a pfile from the SPFILE:

```
create pfile = 'initorcl.ora' from SPFILE
```

2. Edit the initialization parameters with a text editor.

3. Create an SPFILE from the init.ora file:

```
create SPFILE = 'spfileorcl.ora' from pfile
```

For Oracle 9i

The Oracle9i init.ora settings must be change as shown below:

```
Processes= 500
shared_pool_size=350M
db_cache_size= 500M
session_cached_cursors=500
undo_retention=900 (Please adjust this value as per UNDO tablespace size and
FLASH recovery)
sga_target=700M
pga_aggregate_target=512M
open_cursors= 2000
hash_join_enabled =TRUE
location.loader.database.commit.batch.size=2500
location.loader.database.pool.size=2
```

For Oracle 10g

The Oracle10g init.ora settings must be change as shown below:

```
*.db_writer_processes=4
*.fast_start_mttr_target=300
*._hash_join_enabled=TRUE
*.open_cursors=2000
*.pga_aggregate_target=512M
*.processes=500
*.query_rewrite_enabled='FALSE'
*.Sessions=500
*.shared_pool_size=500M
*.star_transformation_enabled='FALSE'
*.timed_statistics=TRUE
*.undo_management='AUTO'
*.undo_retention=900 (Please adjust this value as per UNDO tablespace size and
FLASH recovery)
*.session_cached_cursors=500
*.commit_write='BATCH,NOWAIT'
* location.loader.database.commit.batch.size=2500
* location.loader.database.pool.size=2
```

Running the Scripts

To create the Adaptive Access Manager tables and populate the schema with the required objects, follow the procedures provided below.

Windows

1. Start SQL*Plus.
`Start > Programs > Oracle_Database_Edition > Run SQL Command Line.`
2. When the SQL*Plus Command Line appears, enter `connect`.
3. When prompted, enter the user name and password of a DBA privileged user.
For example, enter the user name, `system`, and password, `manager`.
4. Run the `db_setup.sql` database script from the location of the scripts.
For example,
`SQL > @E:/installs/OAAM_Demo/oracle_fa_database_setup/db_setup.sql`

UNIX

1. Login to your server.
2. Run the following command:
`sqlplus "/as sysdba"`
3. Run the `db_setup.sql` database script from the location of the scripts.
For example,
`SQL > @db_setup`

Scripts

The following scripts will be run.

`db_setup.sql`

When you run this script, it will run all the other scripts.

The `db_setup.sql` script prompts for:

- the data file location `BRSADATA`
- the data file location for `BRSAINDX`
- the username
- the password

Note: If you are using the Oracle PARTITION option, execute following step before running **db_setup.sql**.

Rename cr_vcrypt_tbs_partition.sql to cr_vcrypt_tbs.sql

For 10g: Rename cr_vcrypt_obj_10g_partition.sql to cr_vcrypt_obj.sql

For 9i: Rename cr_vcrypt_obj_9i_partition.sql to cr_vcrypt_obj.sql

Please refer to Appendix A for more information on the Oracle PARTITION option.

cr_vcrypt_tbs.sql

This script creates two tablespaces (BRSADATA, BRSAIDX) required for Adaptive Access Manager.

Depending on the volume of transactions expected, this script needs to be updated for the tablespace size.

cr_vcrypt_usr.sql

This script is called by **db_setup.sql** to create the OAAM repository user and grants it the appropriate privileges.

This scripts prompts for

- a password for the database user
- the temporary tablespace to be used. For example, `TEMP`.

cr_vcrypt_obj.sql

This script is called by **db_setup.sql** to create the objects in the OAAM repository such as tables, sequences and constraints.

Seed Data Initialization Steps

The initialization process involves the scripts listed below.

- oracle_user_init.sql
- oracle_policy_init.sql
- oracle_default_questions.sql
- oracle_answerhints.sql
- oracle_bharosaconfig.sql
- oracle_scoringpolicy.sql
- oracle_validations.sql

oracle_user_init.sql

The oracle_user_init.sql script will populate the default data set.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_policy_init.sql

The oracle_policy_init.sql script will populate the default data set.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_default_questions.sql

Note: Please comment out this script if you have your own set of questions

Modify the script if changes are needed. Default questions are listed in the script.

The oracle_default_questions.sql script will populate the default questions set.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_answerhints.sql

The oracle_answerhints.sql script will populate the default answer hints set.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_bharosaconfig.sql

The oracle_bharosaconfig.sql script will populate the OAAM configuration table with the OAAM configuration.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_scoringpolicy.sql

The oracle_scoringpolicy.sql script will populate the seed data for challenge question scoring.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

oracle_validations.sql

The oracle_validations.sql script will populate the seed data for the validation of the challenge questions.

Run this script using the OAAM repository user. For example, BRSAADMIN.

Do not run this script on other nodes if Streams is enabled.

Appendix A

Partition Details

Database tables in the Oracle Adaptive Access Manager database are divided into three different categories. The composite partition (RANGE,HASH) is in all the tables. The Range partition is created using CREATE_TIME while the HASH key is defined as per application logic.

Tables

The following are the details of partitioned and non-partitioned tables.

- **Static Partition Tables.**

Frequency: Monthly

Table : VT_USER.

- **Transactional Partition Tables**

Frequency: Monthly

Tables: VCRYPT_TRACKER_NODE_HISTORY
VCRYPT_TRACKER_USERNODE_LOGS
VCRYPT_TRACKER_NODE
VT_USER_DEVICE_MAP
V_MONITOR_DATA

Frequency: Weekly

Tables: VR_POLICYSET_LOGS
VR_POLICY_LOGS
VR_RULE_LOGS
VR_RULE_LOGS

Other than the tables mentioned above, all other tables are non-partitioned.

Partition Maintenance scripts

After the initial Oracle Adaptive Access Manager Repository setup, use the following scripts to maintain the partition.

[Add_Monthly_Partition_tables.sql](#)

This script should be used to add partition for tables with the Monthly frequency. Script should run at the end of each month to create partitions for the following month. If you fail to do so, database errors are encountered, forcing the Oracle Adaptive Access Manager application to stop.

[Add_Weekly_Partition_tables.sql](#)

This script should be used to add partitions for tables with the Weekly frequency. Script should run at the end of every seventh day from the start of the Oracle database creation to the creation of the partition for the following week. If you fail to do so, database errors will be encountered, forcing the Oracle Adaptive Access Manager application to stop.

Drop_Monthly_Partition_tables.sql

This script should be used to drop partitions for tables with the Monthly frequency. This script should run at the end of each month to drop partitions older than six months as per the Oracle Adaptive Access Manager Application requirement. Eventually, these tables will have six partitions at any point of time.

Drop_Weekly_Partition_tables.sql

This script should be used to drop partitions for tables with the Weekly frequency. This script should run at the end of every fourteenth day from the start of the Oracle database creation to the dropping of partitions older than two weeks as per Oracle Adaptive Access Manager application requirement.