

Oracle 10g
Configuration Guide

Overview

This document provides instructions for implementing Oracle 10g as the backend database for CRYPTO-Server 6.3

Installing Oracle

1. Insert the Oracle 10g installation CD/DVD in CD-ROM Drive. The installer should startup automatically. Select Install/Deinstall. Install Oracle 10g with following options:
 - a. *Select Basic Installation*
 - b. *Select Enterprise Edition*
 - c. *Enter a name for Global Database Name. For example CRYPTOCARD*
 - d. *Enter a password for Password field and confirm.*
 - e. *Select default installation directory*

Post Oracle Installation and Configuration

2. Create cryptoadmin6 database using Database Configuration Assistant utility under Start|Programs|OraDb10g_home1|Configuration and Migration Tool.
 - a. Click next
 - b. Select Create database and click next
 - c. Select Custom database and click next
 - d. Database Identification page appears. In Global Database Name field, enter: cryptoadmin6.domain_name
 - e. The SID field is automatically named after the name entered above. Click next.
 - f. The Management Options page, select the default and click next.
 - g. Database Credentials page appears. Enter a password for system user, confirm and click next.
 - h. Storage Options page appears, select the default of "File System" for storage mechanism. Click next.
 - i. Click next in Database File Locations page to accept the default of "Use Database File Locations from Template".
 - j. Select the default in Recovery Configuration page and click next.
 - k. Select the default or choose the components that you wish to install and click next.

Note: It is recommended that you select Enterprise Manager Repository.

- l. Select the default in Initialization Parameters page or modify it to suit your needs for Shared Pool, etc. Click next.
- m. Database Storage page appears. Click next.
- n. Click Finish on creation Options page to Create the database.

Installation begins and if everything is ok it creates the database and starts the oracle instance for the database and other related services.

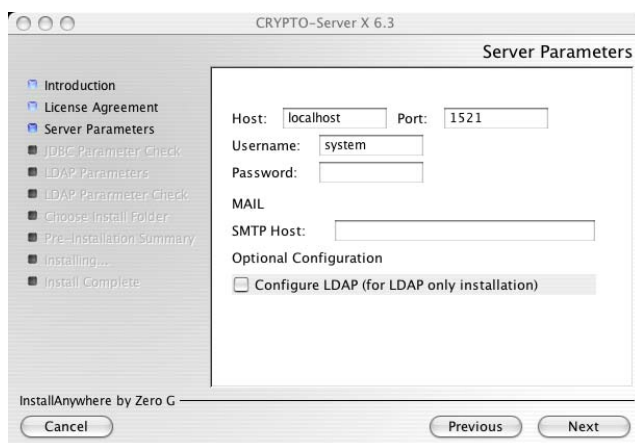
- 3. Create a user in oracle that will be used during CRYPTO-Server 6.3 installation. Use Enterprise Manager which is a web-based utility to manage and administer the oracle database. Login with system as username. The URL is:

`http://<server_name>.<Domain_name>:5502/em`

- 4. Grant "Connect" and "Resources" privileges to the user created in previous step. This allows the user to connect and write to the database as required by CRYPTOCARD components. To grant the user, use Enterprise manager to connect to the database. Navigate to Administration| Users under Security. Select the user and click Edit. Select Roles and then modify. Add Connect and Resources to Selected Roles column.

CRYPTO-Server 6.3 Installation:

- 5. Start CRYPTO-Server 6.3 installer. Click next.
- 6. Accept the License Agreement and click next.
- 7. Select "Use Existing Oracle" and click next.
- 8. Server Parameters page appears. Enter the required data:



- a. Host: The hostname or IP-Address of the Oracle server.
- b. Port: The default is 1521
- c. Username: This is the user you created in Oracle db in step 3 above.

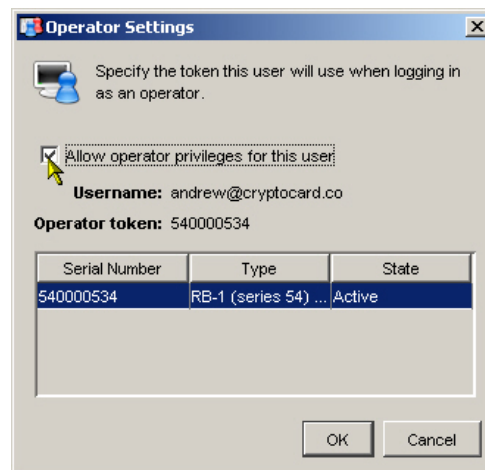
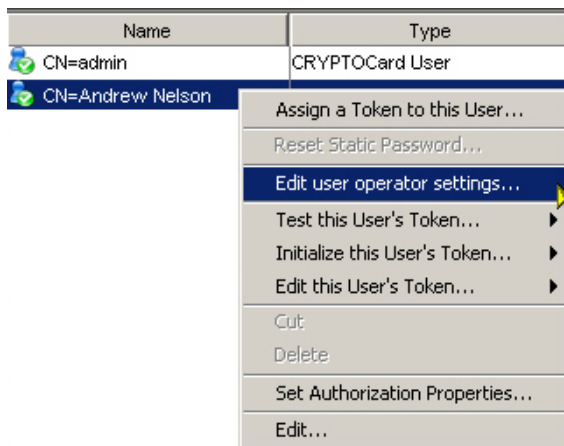
- d. Password: Enter the password for above user.
 - e. SMTP Host: Enter the hostname or IP-address of your smtp server.
 - f. If you are using LDAP, check the box: "Configure LDAP (for LDAP only installation).
Click Next.
9. If you selected Configure LDAP, the LDAP Parameters page appears. Follow the rest of the instructions provided in Administrator Guide to install CRYPTO-Server 6.3.
 10. Install CRYPTO-Console and then register the product.
- This completes installation of a Primary CRYPTO-Server using Oracle 10g.

Configuring Primary and Replica Servers for Replication

This section assumes a primary CRYPTO-Server has been installed with Oracle as described in the previous section.

Primary Server Configuration

1. Select or create a user account in the console and promote to Operator status with Super-operator permissions. (This account will be used to logon to the replica server). To do so, right-click on a user, assign a token to the user, then select "Edit User Operator Settings". Place a check mark in "Allow operator privileges for this user". Highlight a token from the list assigned to this user and click "OK".



IMPORTANT: If assigning a software token to this operator, the token must not have been installed on the Primary CRYPTO-Server EUS. This token will be installed later on the Replica CRYPTO-Server.

- Open the \CRYPTOCARD\CRYPTO-Server\capserver.properties file. Edit the Replica.EJB.Url and Replica.JMS.Url entries to reflect the DNS name of the Replica CRYPTO-Server.

Example:

Key: Replica.EJB.URL

Value: http://<Replica.CRYPTO-Server.DNS.Name>:8080/invoker/JNDIFactory

Key: Replica.JMS.Url

Value: http://<Replica.CRYPTO-Server.DNS.Name>:8080/invoker/JNDIFactory

- Open the CRYPTO-Console and connect to the Primary CRYPTO-Server. Click on Server, System Configuration. For each "Entity" in the table, locate the indicated "Key". Right-click and select Edit. Modify the Value to reflect the DNS Name of the Replica CRYPTO-Server.

Example:

http://<Replica.CRYPTO-Server.DNS.Name>:8080/invoker/JNDIFactory

Entity	Key	Value
CapProtocol	Replica.EJB.Url Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory
HttpProtocol	Replica.EJB.Url Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory
HttpsProtocol	Replica.EJB.Url Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory
PtclServer	Replica.EJB.Url Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory
RadiusProtocol	Replica.EJB.Url Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory

Entity	Key	Value
VegaProtocol	Replica.EJB.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory
	Replica.JMS.Url	http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory

4. Using Oracle manager, detach the CRYPTOAdmin6 database.
5. Copy the detached database files to the replica server.
6. Reattach the database on the primary server.

Replica Server Configuration

The following steps are to be completed on the Replica CRYPTO-Server:

7. Perform a default CRYPTO-Server and CRYPTO-Console installation. Stop all CRYPTOCARD NT Services. Detach the newly installed CRYPTOAdmin6 database and replace it with a copy of the copy of the primary CRYPTO-Server CRYPTOAdmin6 database.
8. Configure Oracle replication between the Primary and Replica using native Oracle tools and procedures taking care to ensure that all tables EXCEPT for the ccstatus are replicated. Replicating the ccstatus table will ultimately cause replication to fail.
9. Start the NT services.
10. On the Replica CRYPTO-Server, open the \CRYPTOCARD\CRYPTO-Server\capsrvr.properties file.

Locate the:

server.identification = PtcIserver string and modify it to:
server.identification = PtcIserver.Replica

Edit the Replica.EJB.Url and Replica.JMS.Url entries to reflect the DNS name (FQDN) of the Primary CRYPTO-Server.

Example:

Key: Replica.EJB.URL

Value: http://<Primary.CRYPTO-Server.DNS.Name>:8080/invoker/JNDIFactory

Key: Replica.JMS.Url

Value: http://<Primary.CRYPTO-Server.DNS.Name>:8080/invoker/JNDIFactory

11. If the Replica Operator was configured to use a software token, copy the token file to this server and install it on this system's EUS before log on. (Double click the token file and go through the Activate Token Wizard.)

12. Extract PctlConfigWin utility to the //cryptocard/crypto-server/jre/bin directory.
13. Open a Command Prompt and browse to the //cryptocard/crypto-server/jre/bin directory. Type the following command:

ptclServerConfig.bat 127.0.0.1 Replica

14. Open the CRYPTO-Console and connect to the Replica CRYPTO-Server using the previously created/installed operator. Click on Server, System Configuration. For each "Entity" in the table, locate the indicated "Key". Right-click and select Edit. Modify the Value to reflect the **DNS Name** of the Replica CRYPTO-Server.

Example:

http://Replica.CRYPTO-Server.DNS.Name:8080/invoker/JNDIFactory

Entity	Key	Value
CapProtocol.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory
HttpProtocol.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory
HttpsProtocol.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory
PctlServer.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory
RadiusProtocol.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory
VegaProtocol.Replica	Primary.EJB.Url Primary.JMS.Url	http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory http://Replica.CRYPTO-Server:8080/invoker/JNDIFactory

15. Restart the CRYPTO-Server, CRYPTO-Protocol, and CRYPTO-Log NT Services on the Primary and Replica CRYPTO-Server.