
Oracle Insurance Claims Analytics for Health - Installation Guide

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ORACLE

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1 System Requirements and Supported Platforms for OHI Claims Analytics

This chapter describes the supported platforms and system requirements for Oracle Insurance Claims Analytics for Health version 2.12.3.0.0.

System requirements for Oracle Insurance Claims Analytics for Health are show below.

Product	Version	Options	Patches	Secure Installation Remarks
Oracle Database Enterprise Edition	11.2.0.3	OLAP		Documentation Library http://www.oracle.com/pls/db112/portal.portal_db?selected=25&frame= ¹
Oracle Data Integrator Companion	11.1.1.6.2			Documentation Library http://docs.oracle.com/cd/E23943_01/core.1111/e16453/companion.htm
Oracle Business Intelligence Suite Enterprise Edition	11.1.1.5.0			Oracle Fusion Middleware Security Guide for Oracle Business Intelligence Enterprise Edition (11.1.1) http://docs.oracle.com/cd/E14571_01/bi.1111/e10543/toc.htm
Java Developement Kit	6			For Oracle Data Integrator and Client Install Host
Source Systems				
Oracle Insurance Claims Adjudication for Health *	2.12.3.0.0			(Secure) Installation guide in the Oracle Insurance Claims Adjudication for Health installation package

* See also: "[Source System Requirements](#) (page 12)".

The supported platforms depend on the product, for the Oracle Database see: "[Database 11g Release 2 Certification Highlights](#)", on My Oracle Support (<http://support.oracle.com>)².

See "[System Requirements and Supported Platforms for Oracle Business Intelligence Suite Enterprise Edition 11gR1](#) (xls)"³ under "[Additional Oracle Fusion Middleware 11g Release 1 \(11.1.1.x\) Certifications, for Oracle Business Intelligence](#)".

1. http://www.oracle.com/pls/db112/portal.portal_db?selected=25&frame=
2. <http://support.oracle.com/>
3. <http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

2 Part I Getting Started

2.1 Overview of Oracle Insurance Claims Analytics for Health

2.1.1 What Is Oracle Insurance Claims Analytics for Health?

Oracle Insurance Claims Analytics for Health

assists branch-specialists, branch-analysts, CIO and other executives in decision making and analysis. Oracle Business Intelligence Enterprise Edition provides an out of the box Business Intelligence solution with out of the box analysis and dashboards that enable the user to make decisions. Claims Analytics is a BI solution that focuses on health insurance providers.

The main subject areas of Oracle Insurance Claims Analytics for Health are Claim Process Trends and Open Claims. The Claim Process Trends subject area covers the claim and the flow of the claim throughout the claim procedure. It tracks the history of the claim throughout the process with status changes, messages being send out throughout the procedure. Another area of Claim Process Trends is the coverages of a claim.

Claims Process offers the end user answers to questions like;

- how many claims are not processed automatically and even more important, why not?
- how many finalized claims are there divided by product, procedure, supplier, or medical specialty

Oracle Business Intelligence Enterprise Edition enables users to drill from grand total via a hierarchy to detail.

Open Claims focuses on the current open claims that are claims that are not finalized yet and are still in the claim procedure.

Oracle Insurance Claims Analytics for Health consists of the components show in Table 2.1.

Table 2.1 Oracle Insurance Claims Analytics for Health Components

Component	Description
Oracle Data Integrator	This component provides the ETL solution for Oracle Insurance Claims Analytics for Health
Oracle Business Intelligence Suite EE Pre-built metadata content	This metadata content is contained in the Oracle Insurance Claims Analytics for Health repository file (ClaimsAnalytics_<version>.rpd)
Oracle Business Intelligence Suite EE Pre-built reports and dashboard content	This content is contained in the Oracle BI Presentation Catalog

2.1.2 Oracle Insurance Claims Analytics for Health Warehouse Architecture

High-level analytical queries, like those commonly used in Oracle Business Intelligence, scan and analyze large volumes of data using complex formulas. This process can take a long time when querying a transactional database, which impacts overall system performance.

For this reason, the Oracle Insurance Claims Analytics for Health Warehouse was constructed using dimensional modeling techniques to allow for fast access to information required for decision making. The Oracle Insurance Claims Analytics for Health Warehouse derives its data from operational applications and uses Oracle Data Integrator to extract, transform, and load data from various supported transactional database systems (OLTP) into the Oracle Insurance Claims Analytics for Health Warehouse.

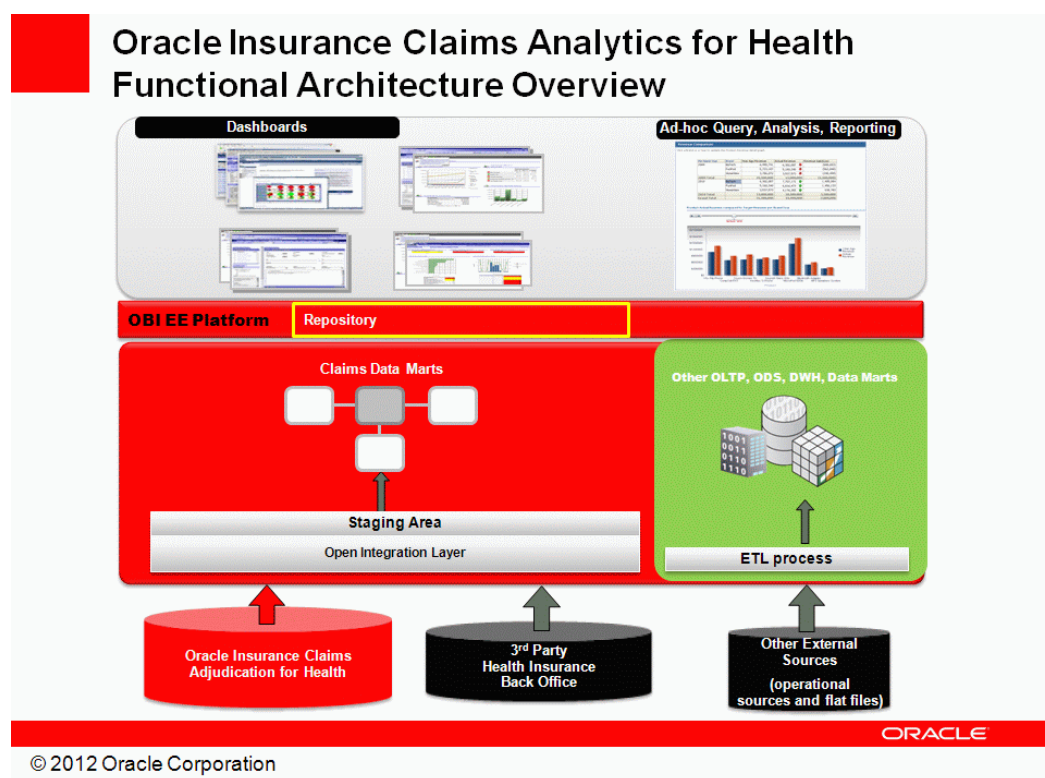
2.1.2.1 Oracle Insurance Claims Analytics for Health Warehouse Overview

The Oracle Insurance Claims Analytics for Health Warehouse is an unified repository for all claim-centric data, and consists of the following:

- A data warehouse data model with pre-built star schemas encompassing many conformed dimensions and fact tables.
- An open architecture to allow organizations to use third-party OLTP systems to be loaded into the Oracle Insurance Claims Analytics for Health Warehouse.
- Pre-built data extractors to incorporate data from external applications into the Oracle Insurance Claims Analytics for Health Warehouse.
- A set of ETL (extract-transform-load) processes that takes data from Oracle Insurance Claims Adjudication for Health and creates the Oracle Insurance Claims Analytics for Health Warehouse tables.

2.1.2.2 Oracle Insurance Claims Analytics for Health Warehouse Architecture Components

Figure 1.1.2.1.1 illustrates the Warehouse Architecture and its components.



- The end user makes use of the OBIEE Presentation Services e.g. the Oracle Business Intelligence Dashboards or the end user may compose a report using Answers.
- The Oracle Business Intelligence repository stores the metadata, used by Oracle BI Server, and is used by the Dashboards and Answers, it is also the place where the definitions of the physical layer, the business model and the definitions of the presentation layer resides.
- OHI BI Datamarts contain the actual data of the data warehouse, it is where the physical layer resides in a dimensional model.
- The data source that is Extracted, Transformed and Loaded into the OHI BI Datamarts is first placed in an Open Integration Point, which enables the Oracle Insurance Claims Analytics for Health Warehouse to connect to several sources, being either Oracle Insurance Claims Adjudication for Health or another 3rd Party Health Insurance OLTP system.

2.1.3 Roadmap to Installing and Configuring Oracle Insurance Claims Analytics for Health

To install Oracle Insurance Claims Analytics for Health, do the following:

1. For the source systems that you are using, follow the appropriate preinstallation steps in Preinstallation and Deployment Requirements for Oracle Insurance Claims Analytics for Health

2.1.4 Using Oracle BI Repository Documentation

When you deploy Oracle Insurance Claims Analytics for Health, you can use the following documentation and tools to manage your metadata:

- Oracle BI Repository Documentation

Using Oracle BI Administration Tool, you can generate repository documentation that lists the mapping from the presentation columns to the corresponding logical and physical columns. You might use this information for gap-analysis, or to create a record of your repository that you can use to compare with other repositories. To generate repository documentation into a text or comma-separated file, log into Oracle BI Administration Tool and choose Tools, then Utilities, then Repository Documentation. For more information about generating repository documentation, see Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition.

- Presentation Catalog

Using the Catalog Manager, you can view the names of the pre-built dashboards and requests in the Presentation Catalog. To view the Presentation Catalog, select Catalog Manager from the Windows\Start\Programs\Oracle Business Intelligence menu.

3 Part II Installation and Set up Steps for Oracle Insurance Claims Analytics for Health

Part II Installation and Set Up Steps for Oracle Insurance Claims Analytics for Health

3.1 Preinstallation and Deployment Requirements for Oracle Insurance Claims Analytics for Health



Some of the information about database platforms and source systems might not apply to this version of Oracle Insurance Claims Analytics for Health. For up-to-date information about supported databases and source systems in this version, make sure you read System Requirements and Supported Platforms for Oracle Insurance Claims Analytics for Health. Also read the Oracle Insurance Claims Analytics for Health Release Notes.

This section provides information about preparing to install and deploy Oracle Insurance Claims Analytics for Health. You should review this information before you begin the installation and deployment process.



For information about database-specific settings, see the Oracle Documentation - "*DBA Essentials - 2 Day + Data Warehousing Guide*" and the "*Data Warehousing Guide*", applicable for the desired database version.

This section contains the following topics:

"*Supported Source Systems*" describes the sources systems that may be used, "*General Guidelines for Setting Up Oracle Insurance Claims Analytics for Health Warehouse*" describe why and how to setup a data warehouse. The next topic is, "*Oracle-Specific Database Guidelines for Oracle Insurance Claims Analytics for Health Warehouse*" the guidelines are mandatory and therefore important to review. In the last topic suggestions for optimizing the data warehouse are mentioned.

3.1.1 Supported Source Systems

Oracle Insurance Claims Analytics for Health supports 3rd party Health Insurance OLTP systems to be loaded into Oracle Insurance Claims Analytics for Health. A standard Extraction process is provided by means of a connector for Oracle Insurance Claims Adjudication for Health.

See "[System Requirements and Supported Platforms](#) (page 4)" for the requirements of the OLTP system, and review "[Mandatory Requirements](#) (page 12)" before entering any install procedure.

3.1.2 General Guidelines for Setting Up Oracle Business Analytics Warehouse

The Oracle Insurance Claims Analytics for Health Warehouse is a database that contains dimensional schemas. Although it is technically possible to put the Oracle Insurance Claims Analytics for Health Warehouse in the same database as the transactional database, if "*Oracle-Specific Database guidelines for Oracle Insurance Claims Analytics for Health Warehouse*" are met, it is not recommended for performance reasons. The transactional database is structured as an online transaction processing (OLTP) database, whereas the Oracle Insurance Claims Analytics for Health Warehouse is structured as an online analytical processing (OLAP) database, each optimized for its own purpose. The reasons for not combining the two databases are:

- The analytical queries interfere with normal use of the transactional database, which is entering and managing individual transactions.
- The data in a transactional database is normalized for update efficiency. Transactional queries join several normalized tables and will be slow (as opposed to pre-joined, de-normalized analytical tables).
- Historical data cannot be purged from a transactional database, even if not required for current transaction processing, because you need it for analysis. (By contrast, the analytical database is the warehouse for historical as well as current data.) This causes the transactional database to further slow down.
- Transactional databases are tuned for one specific application, and it is not productive to use these separate transactional databases for analytical queries that usually span more than one functional application.
- The analytical database can be specifically tuned for the analytical queries and Extract-Transform-Load (ETL) processing. These are quite different from transactional database requirements.

3.1.3 Oracle-Specific Database Guidelines for Oracle Insurance Claims Analytics for Health Warehouse

To configure Oracle Insurance Claims Analytics for Health on Oracle Databases make sure the following parameters are set and correspond with the recommended values. A recent version of the Oracle Database is required, please refer to *System Requirements and Supported Platforms for Oracle Insurance Claims Analytics for Health*.

Oracle Specific Database Guideliness

Parameter	Value
NLS_LENGTH_SEMANTICS	CHAR
NLS_CHARACTERSET	AL32UTF8
NLS_NCHAR_CHARACTERSET	UTF8



Important note: these are required values, if you use other values for NLS_LENGTH_SEMANTICS, NLS_CHARACTERSET or NLS_NCHAR_CHARACTERSET you will not be able to install Oracle Insurance Claims Analytics for Health. This is due to the fact that there are columns defined as NVARCHAR2(4000), since UTF8 uses 1, 2, 3 bytes for 1 char this is a valid definition, if however the database uses AL16UTF16, then one char in a NVARCHAR2 column would always use 2 bytes, which would make a NVARCHAR2(4000) definition invalid (see support.oracle.com note ID 276914.1).

3.1.4 Additional Suggestions for Optimizing Oracle Database Performance in Oracle Business Analytics Warehouse

- Note: Enabling the native full outer join implementation in the RDBMS is discouraged, set it preferably to disabled (FULL_OUTER_JOIN_SUPPORTED) in the rpd.
- Make sure that cost-based optimization is enabled in the Oracle development, test and production databases and that statistics are kept up to date. Otherwise, the rule-based optimizer may be used.
- Analyze application for occurrences of highly skewed data that is indexed. Create histogram statistics for these indexes to enable the optimizer to better perform queries.
- Please review the *"Best Practices Guide for Tuning Oracle® Business Intelligence Enterprise Edition"*.
- Make sure the temporary tablespace has adequate space.
- Set the number of log file groups to 4.

- Set the size of each log file according to note: **General Guideline For Sizing The Online Redo Log Files [ID 781999.1]**. Please note that Oracle Insurance Claims Analytics for Health is a data warehouse system, so the size of the log files will considerably larger than in an OLTP system.

3.1.5 Install client requirements

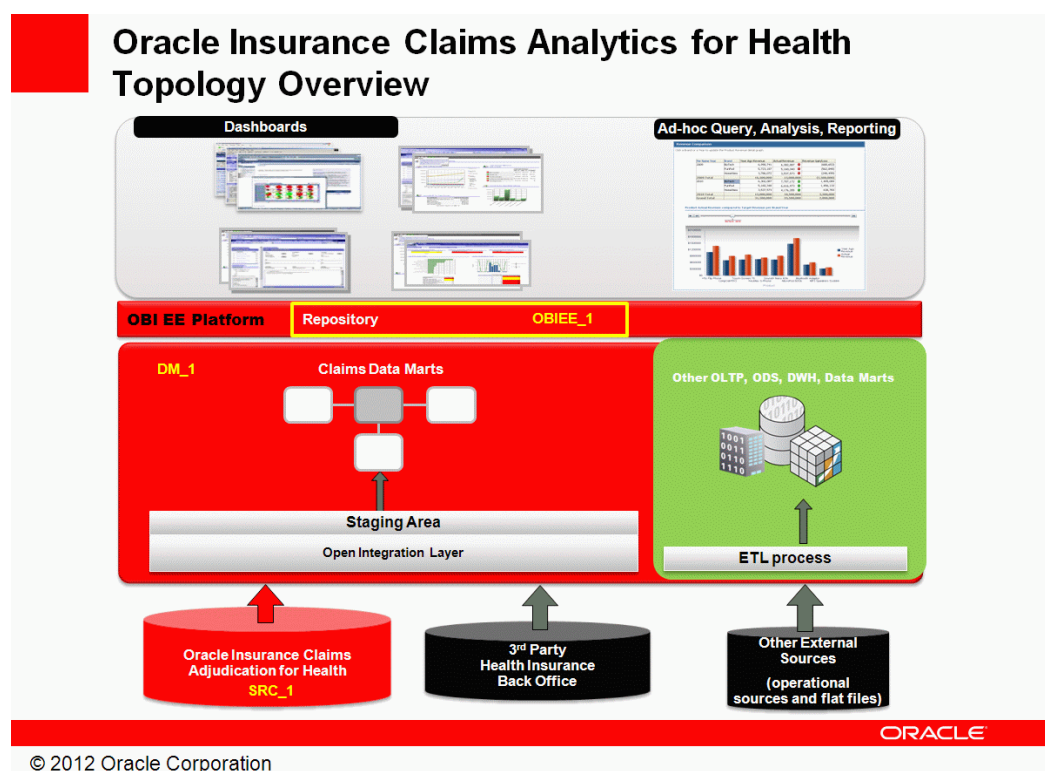
The host on which installation takes place can be but is not necessary the database host. Requirements for the install client include:

- sqlplus should be installed and the PATH environmental variable should include the path to sqlplus
- imp and exp should be installed and the PATH environmental variable should include the path to imp and exp
- A Java Development Kit should be installed (see System Requirements and Supported Platforms for OHI Claims Analytics)

3.2 Installing and Setting Up Oracle Insurance Claims Analytics for Health

3.2.1 About Oracle Insurance Claims Analytics for Health Topologies

This section describes a typical topology that can be used as reference for an Oracle Insurance Claims Analytics for Health deployment.



Installation

- OBIEE_1 is a machine that has installed Oracle Business Intelligence Enterprise Edition. End users are connecting to this server, for example to use Dashboards or Answers.
- DM_1 is the data warehouse, containing the data warehouse Tables and Oracle Data Integrator repositories.

- SRC_1 is the Oracle Insurance Claims Adjudication for Health Machine, on which the Oracle Database of Oracle Insurance Claims Adjudication for Health is running.

Recommendations

- Because of performance reasons it is recommended to install Oracle Data Integrator and Oracle Business Intelligence on different machines.
- Because of performance reasons it is recommended to not install Oracle Data Integrator or Oracle Business Intelligence on the OLTP system machine.

3.2.1.1 Summary of Oracle Home Locations Used in this Guide

The table below defines the Oracle Home locations for the components in an Oracle BI Application deployment.

Summary of Home Locations

Oracle Insurance Claims Analytics for Health Component	Oracle Home Directory	Description
BI Server (e.g. OBIEE_1)	DOMAIN_HOME	Location of the Oracle BI Domain (for example, \MW_HOME\user_projects\domains\bifoundation_domain).
BI Server (e.g. OBIEE_1)	MW_HOME	User-specified location of the Oracle Fusion Middleware home (for example, FM1_11g\).
BI Server (e.g. OBIEE_1)	ORACLE_HOME	Location of the Oracle BI EE Infrastructure home (for example, MW_HOME\Oracle_BI1\).
BI Server (e.g. OBIEE_1)	ORACLE_INSTANCE	Location of the Oracle Instance home (for example, MW_HOME\instances\instance1).
RDBMS Server (e.g. DM_1)	ORACLE_HOME	Location of the Oracle Database Home for example: /u01/app/oracle/product/11.2.0/db_1
RDBMS Server (e.g. DM_1)	ODI_HOME	Location of Oracle Data Integrator for example: /u01/app/oracle/product/11.2.0/odi

3.2.2 High Level Installation and Setup Task List

1. For the source systems that you are using, follow the appropriate pre-installation steps in "[Preinstallation and Deployment Requirements for Oracle Insurance Claims Analytics for Health](#) (page 8)".
2. Verify meeting the "[Mandatory requirements](#) (page 12)".
3. Perform "[Preinstallation Tasks](#) (page 13)".
4. Follow the guidelines in "[Installing the Oracle Insurance Claims Analytics for Health Warehouse](#) (page 14)".
Note: For an example that shows a typical deployment topology for Oracle Insurance Claims Analytics for Health, see Section 4.1, "[About Oracle Insurance Claims Analytics for Health Topologies](#) (page 10)".
5. Follow the configuration steps "[Configuring the Oracle BI Repository Connections](#) (page 18)".
6. Perform "[Deploy the Metadata Repository and Presentation Catalog](#) (page 19)".
7. Read "[Additional Configuration Tasks](#) (page 19)".
8. Before running a Full load of ETL read: "[About Running a Full Load ETL](#) (page 19)".

3.2.3 Mandatory Requirements

3.2.3.1 Source System Requirements

Oracle Insurance Claims Adjudication for Health

1. The CTR area of Oracle Insurance Claims Adjudication for Health is the source for Oracle Insurance Claims Analytics for Health Warehouse, therefore make sure you have configured the Claims Transaction Repository as described in *"OHI Implementation Guide for the Claims Transaction Repository"*, specifically the column CREATION_DATE needs to be populated.
2. As per Design Choice described in *"OHI Implementation Guide for Claims"*, *"Retaining Non-Matched Information"*, Oracle Insurance Claims Analytics for Health Warehouse supports non referential integrity in source system and in Open Interface Layer for the following dimensions:
 - Relations
 - Providers
 - Specialty
 - Procedures
 - Diagnoses
 - Modifiers
 - Messages
 - This implies that it does not support other non referential integrity in the source systems.

3rd Party Health Insurance OLTP system.

1. As described above Design Choice described in *"OHI Implementation Guide for Claims"*, *"Retaining Non-Matched Information"*, also applies to 3rd Party Health Insurance OLTP Systems.

3.2.3.2 Oracle Database Requirements

1. To determine the minimum version of Oracle Database that is supported for this release of Oracle Insurance Claims Analytics for Health, see the *"System Requirements and Supported Platforms for Oracle Insurance Claims Analytics for Health (page 4)"*.
2. The *"Oracle-specific Database Guidelines for Oracle Insurance Claims Analytics for Health Warehouse" (page 9)* need to be met.

3.2.3.3 Oracle Data Integrator Requirements

To determine the minimum version of Oracle Data Integrator that is supported for this release of Oracle Insurance Claims Analytics for Health, see the *"System Requirements and Supported Platforms for Oracle Insurance Claims Analytics for Health (page 4)"*.

3.2.3.4 Oracle Business Intelligence Infrastructure Requirements

To determine the minimum version of Oracle Business Intelligence Enterprise Edition that is supported for this release of Oracle Insurance Claims Analytics for Health, see the *"System Requirements and Supported Platforms for Oracle Insurance Claims Analytics for Health (page 4)"*.

3.2.4 Preinstallation Tasks

3.2.4.1 Create Databases for Oracle Insurance Claims Analytics for Health Components

Before you install Oracle Insurance Claims Analytics for Health, make sure you understand how to install Oracle Data Integrator and Oracle Business Intelligence securely. Configure Oracle Data Integrator and Oracle Business Intelligence, create a database instance to hold the following:

Datamarts

- Oracle Data Integrator repositories
- Datamarts
- Staging Layer
- Open Interface
- Connector

Note the following:

- Read and implement "[General Guidelines for Setting up Oracle Insurance Claims Analytics for Health Warehouse](#) (page 8)".
- Read and implement "[Oracle-Specific Guidelines for Oracle Insurance Claims Analytics for Health Warehouse](#) (page 9)".



As starting point the Data Warehouse Template may be used with modifications as mentioned in "[Oracle-Specific Guidelines for Oracle Insurance Claims Analytics for Health Warehouse](#) (page 9)".

3.2.4.2 Installing and Setting up Oracle Data Integrator

On the client on which installation is performed the ODI SDK needs to be unzipped and the ODI Agent needs to be unzipped and configured.

For Oracle Insurance Claims Analytics for Health the Oracle Data Integrator Companion is required, which can be downloaded from the [Oracle Data Integrator Downloads](#)¹ page on the Oracle Technology Network.

For in depth instructions on how to properly install Oracle Data Integrator and configure the required standalone agent, see http://docs.oracle.com/cd/E23943_01/core.1111/e16453/configure.htm#CHDECFBG.



Make sure to unzip: ODI_HOME\sdk\oracledi-sdk.zip and ODI_HOME\agent_standalone\oracledi-agent-standalone.zip, please make sure unzipping does not result in folders ODI_HOME\sdk\oracledi-sdk\ and ODI_HOME\agent_standalone\oracledi-agent-standalone. It should unzip to: ODI_HOME\sdk and ODI_HOME\agent_standalone.

To check if ODI has been correctly installed you may run the executable encode.bat / sh, navigate to the folder ODI_HOME\agent_standalone\oracledi\agent\bin and execute encode.bat test

```
ODI>encode.bat test
ritwuoau487907q
```

Make sure encode.sh test and encode.bat test does not result in any error messages, if so configure odiparams.sh / odiparams.bat. The odiparams.bat / sh file is a configuration script and contains the parameters for starting Oracle Data Integrator modules



The following example shows a modified `odiparams.bat/sh` file. The parameters that start with `ODI_MASTER` are the master repository connection details. The `ODI_MASTER_DRIVER` specifies which JDBC driver is used. The `ODI_MASTER_URL` is the JDBC connection URL to the master repository. The `ODI_MASTER_USER` is the database user used in connecting to the database. The `ODI_MASTER_ENCODED_PASS` is the database password of the `ODI_MASTER_USER` in encoded form, encoded by `encode.bat / sh`. The `ODI_SECU_WORK_REP` is the name of the workrepository and depends on the version to be installed. The `ODI_SUPERVISOR` is the ODI user that logs on to the repository. The `ODI_SUPERVISOR_ENCODED_PASS` is the password of the `ODI_SUPERVISOR` encoded with `encode.bat / sh`. The `ODI_JAVA_HOME` is a variable that needs to be set to the JDK home of the machine, or the environmental variable `JAVA_HOME` should be set.

```
ODI_MASTER_DRIVER=oracle.jdbc.driver.OracleDriver
ODI_MASTER_URL=jdbc:oracle:thin:@target1:1521/ohicah
ODI_MASTER_USER=MR23_ODI_REPO
ODI_MASTER_ENCODED_PASS=gxfpqkz074jeaCpL4XSEFzxoJ8E0p
ODI_SECU_WORK_REP=WR23
ODI_SUPERVISOR=BATCH
ODI_SUPERVISOR_ENCODED_PASS=fJya.vR5kvNcu9TtV,jVZEt
```

3.2.4.3 Installing and Setting up Oracle Business Intelligence

Before installing Oracle Business Intelligence Enterprise Edition, familiarize yourself with the security aspects of installing Oracle BI and make sure there is a repository or create one, see *"Oracle Fusion Middleware Repository Creation Utility User's Guide"*.

For installation instructions follow the instructions *"Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition"*, *"Oracle Business Intelligence on a Single Host"*, choose either an Enterprise Install type or a Simple Install type.

3.2.5 Installing the Oracle Insurance Claims Analytics for Health Warehouse

Must have completed the steps detailed within ["Installing and Setting up Oracle Data Integrator"](#) (page 13).

Additionally an `tnsnames` entry named `OHICAH` is expected by the installation script. This `tnsnames` should refer to the database within which Oracle Insurance Claims Analytics for Health is to be installed.

3.2.5.1 Installing the OHI Analytics Files

3.2.5.1.1 Introduction

This chapter describes installing Oracle Insurance Claims Analytics for Health. In the example used the database to be installed in is a Exadata Machine

3.2.5.1.2 Configure Local Naming

The release will be installed in the database that has a local naming entry for `OHICAH`. So add or modify `tnsnames.ora` to match something similar to:

On the Client that is used to install Oracle Insurance Claims Analytics for Health, add or modify this entry.

```
OHICAH =
(DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = target1)(PORT = 1521))
  (CONNECT_DATA =
```



```
(SERVER = DEDICATED)
(SERVICE_NAME = ohicah)
)
)
```

This entry is used by sqlplus and imp to install Oracle Insurance Claims Analytics for Health.

On the database server of Oracle Insurance Claims Analytics for Health, add or modify a tnsnames entry for the source system:

```
OHICLA =
(DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = source1)(PORT = 1521))
  (CONNECT_DATA =
    (SERVER = DEDICATED)
    (SERVICE_NAME = ohicla)
  )
)
```

This entry is used in the database link used for Extraction of the source system.



Note: The network Creation Utility can also be used to configure this.

3.2.5.1.3 Unpacking the release file

Unpack the zip file containing the Oracle Insurance Claims Analytics for Health release

```
$ unzip ohicah_release_2.12.3.0.0.zip
```

3.2.5.1.4 Installing the release

To start the installation process execute the following command on Unix

```
$ sh ./install.sh
```

or on Windows

```
install.bat
```

The installation procedure will prompt for the following list of elements;

Parameter	Suggested Value / Example	Description
SYS password		Password of the database user SYS of the database used to install Oracle Insurance Claims Analytics for Health
Location for datafiles	+DATA_01 or /ozg/oradata/<ORACLE_SID>	The location of the datafiles to be created by the installer of the Oracle Insurance Claims Analytics for Health database. For Automatic Storage Management (ASM) it is for example: +DATA_01 for regular storage on Linux it is something like: /ozg/oradata/bdts/
Does the target database use ASM	Y	Y/N indicator for using Oracle Automatic Storage Management
Password for DWH schemas (all expect the datamart) and ODI repository		Unencoded passwords for the OHICAH_CON, OHICAH_CON_OHICLA, OHICAH_STI, OHICAH_STO and MR23_ODI_REPO database user

Password for datamart DWH schema		Unencoded password for the OHICAH_DMT database user
ODI Home	/ozg/app/oracle/product/11.1.1.6.2/odi or C:\ozg\app\oracle\product\11.1.1.6.2\odi	Location of the unzipped ODI Companion CD, on the client filesystem used to install Oracle Insurance Claims Analytics for Health
Location for encode.sh/bat (ODI Standalone Agent)	/ozg/app/oracle/product/11.1.1.6.2/odi/ agent_standalone/oracledi/agent/bin or C:\product\11.1.1.6.2\odi\agent_standalone \oracledi\agent\bin	Location of the executable encode.bat / encode.sh, used for encoding the passwords of ODI for security reasons. Please run it as a test first by navigating to the encode.bat / encode.sh folder and run on windows: encode.bat test or on linux ./encode.sh test the output should on Linux be something like: batch> ./encode.sh test gPyHzYWxLjv0td8WXZF1Ny
ODI Master Repo URL	jdbc:oracle:thin:@<hostname>:<port>/ <service_name> or jdbc:oracle:thin:@<hostname>:<port>:<sid>	A JDBC database connection string to the repository e.g. jdbc:oracle:thin:@target1:1521/ohicah this is the same database in which Oracle Insurance Claims Analytics for Health is installed.
Password for ODI BATCH user		The new password for the ODI BATCH user, this password is also prompted for when running run_etl.bat / run_etl.sh
ODI JDBC String Oracle Health Insurance Claims Analytics for Health	jdbc:oracle:thin:@<hostname>:<port>/ <service_name> or jdbc:oracle:thin:@<hostname>:<port>:<sid>	A JDBC database connection string to the e.g. jdbc:oracle:thin:@target1:1521/ohicah this is the database in which Oracle Insurance Claims Analytics for Health and Master Repository are installed to.
ODI JDBC String Oracle Health Insurance Claims Adjudication (OHICLA)	jdbc:oracle:thin:@<hostname>:<port>/ <service_name> or jdbc:oracle:thin:@<hostname>:<port>:<sid>	A JDBC database connection string to the source database e.g. jdbc:oracle:thin:@source1:1528/ohicla this is the same in which Oracle Insurance Claims Adjudication for Health is installed.
tnsnames entry for Oracle Health Insurance Claims Adjudication	ohicla	Tnsnames.ora entry on the database server e.g. ohicla
Current password OHI_CLAIMS_OWNER		Password of the source system Oracle Insurance Claims Adjudication for Health for database user OHI_CLAIMS_OWNER; this password is used to create the database link to perform ETL. This is the unencoded password of the user.
ODI Agent URL	http://<hostname>:<port>/oraclediagent	The ODI agent URL on which the agent can be reached E.g. http://hostnameodiagent:20910/ oraclediagent
Context for Oracle Data Integrator	PRODUCTION_OHICAH	Either DEVELOPMENT_OHICAH or TEST_OHICAH or PRODUCTION_OHICA

Below you will find the output of an installation on a linux host: *target1* to target database ohicah
with ohicla as source database.

In this case the Agent is started on host *hostnameodiagent*

```
batch:/scratch/batch/release :> sh install.sh
```

```

This script will install Oracle Health Insurance Claim Analytics for
Health.
This will be installed in the database with tnsnames.ora entry: OHICAH.
Make sure to unzip: ODI_HOME\sdk\oracledi-sdk.zip
and ODI_HOME\agent_standalone\oracledi-agent-standalone.zip
Make sure encode.sh does not throw an error by testing it.
E.g. encode.sh test
Next you will be prompted for the password of the SYS account
Password sys account:
Datafile location with trailing slash:
+DATA_01
Does target database use ASM? (Y/N):
Y
Which passwords should be set for data warehouse schemas and repository
schema
MR23_ODI_REPO?
Which password should be set for the data warehouse schema OHICAH_DMT?
Location of odi home
E.g. /ozg/app/oracle/product/11.1.1.6.2/odi_1
/scratch/batch/odi/11.1.6.2
Location of encode.sh
E.g. /scratch/batch/odi/11.1.6.2/agent_standalone/oracledi/agent/bin
/scratch/batch/odi/11.1.6.2/agent_standalone/oracledi/agent/bin
ODI Master Repo URL
e.g. jdbc:oracle:thin:@target_host_name:port_number/target_service_name
jdbc:oracle:thin:@target1:1521/ohicah
Which password should be set for the ODI BATCH user?
Next the dataserver of the target system needs to be updated
ODI DataServerName ORACLE_OHICAH_DEV
ODI JDBCString Oracle Health Insurance Claims Analytics for Health
E.g. jdbc:oracle:thin:@target_hostname:port_name/target_service_name
jdbc:oracle:thin:@target1:1521/ohicah
Next the dataserver of the source system needs to be updated
ODI DataServerName ORACLE_OHICLA_DEV:
ODI JDBCString Oracle Health Insurance Claims Adjudication (OHICLA)
E.g. jdbc:oracle:thin:@source_hostname:port_number/source_service_name
jdbc:oracle:thin:@source1:1521/ohicla
Tnsnames entry of Oracle Health Insurance Claims Adjudication (OHICLA)
ohicla
Current password OHI_CLAIMS_OWNER
ODI Agenturl
E.g. http://your_local_host:20910/oraclediagent
http://hostnameodiagent:20910/oraclediagent

```

When the installation exists with either of the following responses, please review the section ["Oracle-Specific Database Guidelines for Oracle Insurance Claims Analytics for Health Warehouse \(page 9\)"](#)

```

OHICAH requires the database parameter NLS_LENGTH_SEMANTICS to be set to
CHAR
OHICAH requires the database parameter NLS_CHARACTERSET to be set to
AL32UTF8
OHICAH requires the database parameter NLS_NCHAR_CHARACTERSET to be set
to UTF8

```

During the installation process the following message will appear

```
Please configure and start the Agent. [ENTER]
```

Start the standalone agent which has been installed and configured (see [Installing and Setting up Oracle Data Integrator \(page 13\)](#)).

To start the Agent on Windows in a command prompt navigate do the following:

```
cd C:\product\11.1.1.6.2\odi\agent_standalone\oracledi\agent\bin
agent.bat -NAME=OHICAH_20910
```

On Linux in a command prompt type

```
cd /ozg/app/oracle/product/11.1.1.6.2/odi/agent_standalone/oracledi/
agent/bin
./agent.sh -NAME=OHICAH_20910
```

The example below indicates a successful start of the agent.

```
batch:/scratch/batch/odi/11.1.6.2/agent_standalone/oracledi/agent/
bin :> ./agent.sh -NAME=OHICAH_20910
2012-10-16 10:59:39.687 NOTIFICATION ODI-1128 Agent OHICAH_20910 is
starting. Application Server: STANDALONE.
Agent Version: 11.1.1.6.0 - 27/02/2012. Port: 20910. JMX Port: 21910.
2012-10-16 10:59:45.686 NOTIFICATION ODI-1136 Starting Schedulers on
Agent OHICAH_20910.
2012-10-16 10:59:46.295 NOTIFICATION ODI-1111 Agent OHICAH_20910 started.
Agent version: 11.1.1.6.0 - 27/02/2012. Port: 20910. JMX Port: 21910.
2012-10-16 10:59:46.295 NOTIFICATION ODI-1137 Scheduler started for work
repository WR23 on Agent OHICAH_20910.
```

After the agent has been started press the Enter-key to continue the rest of the installation.

When the installation has been completed the following message will appear on screen

```
Installation completed
```

3.2.6 Configuring the Oracle BI Repository Connections

When you first install and setup Oracle Insurance Claims Analytics for Health, you must configure the predefined repository connections and variables in the RPD file (ClaimsAnalytics_2.12.3.0.0.rpd). This section explains the predefined connection pools and variables, and how to configure them using Oracle BI Administration Tool, and contains the following sections:

- About the Predefined connection Pools in the Oracle Insurance Claims Analytics for Health Warehouse
- Uploading the Repository
- Unarchiving the Oracle Insurance Claims Analytics for Health Catalog

3.2.6.1 About the Predefined Connection Pools in the Oracle Insurance Claims Analytics for Health Warehouse

The Oracle BI repository contains the following predefined database node:

- **OHICAH_DMT**
The *OHI Claims Analytics Connection Pool* is the main connection pool in the Oracle BI Repository. The *OHI Claims Analytics Language Connection Pool* is used for external metadata strings. Both need to be configured to connect to your physical data warehouse.
- The connection pools for databases in the Physical layer can be configured in Oracle BI Administration Tool. For instructions see "*Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition*", "*Creating or Changing Connection Pools*".

3.2.6.2 Uploading The repository

After modifying the connection pool the repository needs to be uploaded in Fusion Middleware Control, for an extensive how to, see "*Using Fusion Middleware Control to Upload a Repository and Set the Oracle BI Presentation Catalog Location*" in "*Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*". Please refer to "*Oracle Insurance Claims Analytics for Health - Configuration Guide*" for the catalog password.

3.2.6.3 Unarchiving the Oracle Insurance Claims Analytics for Health Catalog

Oracle Insurance Claims Analytics for Health comes with predefined dashboards and reports, unarchive the catalog file ClaimsAnalytics_2.12.3.0.0.catalog using the instructions in "Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition", "Archiving and Unarchiving Using Catalog Manager". Use the "Shared Folders" Catalog as unarchive location.

3.2.7 Deploying the Metadata Repository and Presentation Catalog

See "Using Fusion Middleware Control to Upload a Repository and Set the Oracle BI Presentation Catalog Location" in the Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition.

3.2.8 Additional Configuration Tasks

For an overview of Additional Configuration Tasks see: "Oracle Insurance Claims Analytics for Health - Configuration Guide".

For example for an overview of setting the repository variable URL_SOURCE.

3.2.9 About Running a Full Load ETL

The section below describes how a full load of ETL is to be performed and how the status of the run may be monitored.

- Please make sure there are no invalid objects by executing this query under the OHICAH_CON and OHICAH_SYS user:

```
select * from user_objects where status = 'INVALID';
```

To perform a Full Load of ETL execute the following command on Unix

```
sh run_etl.sh
```

or on Windows

```
run_etl.bat
```

The script will prompt for the following list of elements;

Parameter	Suggested Value / Example	Description
ODI Home	/scratch/batch/odi/11.1.6.2 or C:\ozg\app\oracle\product\11.1.1.6.2\odi	Location of the unzipped ODI Companion CD, on the client filesystem used to install Oracle Insurance Claims Analytics for Health
Context for Oracle Data Integrator	PRODUCTION_OHICAH	DEVELOPMENT_OHICAH, TEST_OHICAH, PRODUCTION_OHICAH
Agent URL	http://<hostname_of_agent>:20910/ oraclediagent	Agent URL of ODI the hostname_of_agent is the hostname of the server on which the agent was started. E.g. http://hostnameodiagent:20910/oraclediagent
ODI User	BATCH	Odi user used to login to the ODI Agent
ODI Password		Password of the ODI user to login to the ODI Agent, please note this is the unencoded password.

See the output from the script below:

```

batch:/scratch/batch/release :> sh run_etl.sh
ODI_HOME location:
/scratch/batch/odi/11.1.16.2
Context for Oracle Data Integrator
PRODUCTION_OHICAH
AgentUrl:
http://hostnameodiagent:20910/oraclediagent
ODI User:
BATCH
ODI Password:
batch:/scratch/batch/release :>

```



Please note that a new ETL run cannot be started while another one is still in progress

When the script returns to the console the ETL run has started, please note it does not mean the ETL run is finished or that it ran without errors. To confirm the ETL load was run successfully, the status in ODI may be monitored, to do so a connection to the Work repository is required. Then login to the work repository and monitor the ETL run.



To define two new odi logins (WR23_BATCH and MR23_BATCH) refer to "*Oracle® Fusion Middleware Getting Started with Oracle Data Integrator*" "*Defining a new Getting Started Login*", with the values as provided below.

Oracle Data Integrator Connection

Login Name: WR23_BATCH (for workrepository, depends on the release)
MR23_BATCH (for master repository, depends on release)

User: BATCH

Database Connection (Master Repository)

Password: as per installation prompt

User: MR23_ODI_REPO

Password: as per installation prompt

Driver list: Oracle JDBC Driver

Driver name: oracle.jdbc.OracleDriver

Url: jdbc:oracle:thin:@target1:1521/ohicah (example)

Work Repository: WR23 (for workrepository, depends on the release) or
Master Repository only

To monitor the ETL, login to the work repository (WR23_BATCH), open Operator / Agent / OHICAH_20910 and expand the node. Confirm the INSTALL package executed successfully, and the RUN_ETL package executed successfully.

Configuring contexts.

To support *Development Test Acceptance Production (DTAP)* environments, the appropriate context may be configured.



As default all contexts (`DEVELOPMENT_OHICAH` / `TEST_OHICAH` / `PRODUCTION_OHICAH`) point to the same physical servers: `ORACLE_OHICAH_DEV` and `ORACLE_OHICLA_DEV`, in a real life scenario this should be altered, read the documentation "*Oracle Fusion Middleware Getting Started with Oracle Data Integrator*", the next paragraph describe configuring contexts.



To create a new physical data server read the "*Oracle Fusion Middleware Developer's Guide for Oracle Data Integrator*", "*Create a Data Server*" and create a data server, example values are provided below for the Oracle Insurance Claims Analytics for Health (OHICAH) server. In this example the Test OHICAH Context is configured, and a connection to the Master Repository (MR23_BATCH) has been made.

Data Server

Name: `ORACLE_OHICAH_TST`

Technology: Oracle

Instance / dblink (Data Server): OHICAH

Connection

User: `OHICAH_CON_OHICLA`

Password:

JDBC

JDBC Driver: `oracle.jdbc.driver.OracleDriver`

JDBC Url: `jdbc:oracle:thin:@target1:1521/ohicah` (example)

Make sure to test your connection.



Create the following schemas using "*Oracle Fusion Middleware Developer's Guide for Oracle Data Integrator*", "*Creating a Physical Schema*".

Schema and Work Schema: OHICAH_CON Logical Schema: ORACLE_OHICAH_CON
Context: Test OHICAH Context

Schema and Work Schema: OHICAH_CON_OHICLA Logical
Schema: ORACLE_OHICAH_CON_OHICLA Context: Test OHICAH Context

Schema and Work Schema: OHICAH_DMT Logical Schema: ORACLE_OHICAH_DMT
Context: Test OHICAH Context

Schema and Work Schema: OHICAH_OIL Logical Schema: ORACLE_OHICAH_OIL
Context: Test OHICAH Context

Schema and Work Schema: OHICAH_STI Logical Schema: ORACLE_OHICAH_STI
Context: Test OHICAH Context

Schema and Work Schema: OHICAH_STO Logical Schema: ORACLE_OHICAH_STO
Context: Test OHICAH Context

Schema and Work Schema: OHICAH_SYS Logical Schema: ORACLE_OHICAH_SYS
Context: Test OHICAH Context



To create a new physical data server read the "*Oracle Fusion Middleware Developer's Guide for Oracle Data Integrator*", "*Create a Data Server*" and create a data server, example values are provided below for the Oracle Insurance Claims Adjudication for health server.

Data Server

Name: ORACLE_OHICLA_TST

Technology: Oracle

Instance / dblink (Data Server): OHICLA (This is the tnsnames entry of the Oracle Insurance Claims Adjudication For Health Server, configured on the database server)

Connection

User: OHI_CLAIMS_OWNER

Password:

JDBC

JDBC Driver: oracle.jdbc.driver.OracleDriver

JDBC Url: jdbc:oracle:thin:@source1:1528/ohicla (example)

Make sure to test your connection.



Create the following schemas using "*Oracle Fusion Middleware Developer's Guide for Oracle Data Integrator*", "*Creating a Physical Schema*"

Schema and Work Schema: OHI_CLAIMS_OWNER Logical Schema:
ORACLE_OHI_CLAIMS_OWNER Context: Test OHICAH Context



In ODI go to Topology / Logical Architecture and edit the following Logical Schemas to match the Context to the Physical Schema, values as per below

Logical Schema: ORACLE_OHICAH_CON Context: Test OHICAH Physical Schema:
ORACLE_OHICAH_TST.OHICAH_CON

Logical Schema: ORACLE_OHICAH_CON_OHICLA Context: Test OHICAH Physical
Schema: ORACLE_OHICAH_TST.OHICAH_CON_OHICLA

Logical Schema: ORACLE_OHICAH_DMT Context: Test OHICAH Physical Schema:
ORACLE_OHICAH_TST.OHICAH_DMT

Logical Schema: ORACLE_OHICAH_OIL Context: Test OHICAH Physical Schema:
ORACLE_OHICAH_TST.OHICAH_OIL

Logical Schema: ORACLE_OHICAH_STI Context: Test OHICAH Physical Schema:
ORACLE_OHICAH_TST.OHICAH_STI

Logical Schema: ORACLE_OHICAH_STO Context: Test OHICAH Physical Schema:
ORACLE_OHICAH_TST.OHICAH_STO

Logical Schema: ORACLE_OHICLA_OHI_CLAIMS_OWNER Context: Test OHICAH
Physical Schema: ORACLE_OHICLA_TST.OHI_CLAIMS_OWNER



In ODI go to Topology / Logical Architecture / Agents and set for Logical Agent OHICAH in Context Test OHICAH the Physical Agent to OHICAH_20910.

This concludes configuring different context, now execute run_etl.bat or run_etl.sh as described in "About Running a Full Load ETL" using the newly configured context

Sizing

As default tablespaces are created with 1 datafile in the datafile location prompted in the installer. The size of the datafiles are default 1GB, consult your database administrator and add or resize datafiles depending on the size of Oracle Insurance Claims Adjudication for Health.

3.3 Uninstalling Oracle Insurance Claims Analytics for Health

To uninstall Oracle Insurance Claims Analytics for Health run the sql script uninstall.sql as sys user to the database on which Oracle Insurance Claims Analytics for Health is installed.

```
sqlplus sys/password@ohicah as sysdba @uninstall.sql
```

Please note that this script drops users and tablespaces used by Oracle Insurance Claims Analytics for Health, and therefore this process is irreversible.

1. <http://www.oracle.com/technetwork/middleware/data-integrator/downloads/index.html>