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Oracle E-Business Suite (EBS)

What is Oracle Applications/Oracle E-Business Suite ?

To facilitate big businesses, Oracle Corporation have created collection of software in the category of ERP (Enterprise Resource Planning) known as modules, that are integrated to talk to each other and known as Oracle Applications or E-Business Suite.

Oracle Inventory Module deals with the items you maintain in stock, warehouse etc.

Oracle Receivables and Oracle Order Management are dealing with customers like orders given by Customers and Money collected from customers.

Oracle General Ledger receives information from all the different transaction modules and summarizes them in order to create profit and loss statements, reports for paying Taxes etc.

Oracle Cost Management helps to maintain the costs of items in your inventory and the immediate modules that it interacts with are **Oracle Inventory, Oracle Bills of Material, Order Management.**

Oracle E-Business Suite Previous Releases

10.7 : Oldest Release of Oracle ERP which is character, thin client based. Oracle has stopped support for this release from year 1998.

11 :

11i :

R12 : Latest Release Of EBS by Oracle .

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Oracle EBS R12 Architecture

Oracle EBS R12 Applications is a three-tiered architecture.

- 1.Desktop Tier
- 2.Application Tier
- 3.Database Tier

The Oracle Applications Architecture is a framework for multi-tiered, distributed computing that supports Oracle Applications products. In this model, various servers or services are distributed among three levels, or tiers.

First we need to know the important points like SERVER, NODE, MACHINE and TIER.

Server : Server is a process or group of processes that run on a single machine and provide a particular functionality.

Tier : A tier is a logical group of services , that spread across more than one physical machine.

Machine or node : A machine is referred to as a node, particularly in the context of a group of computers that work closely together in a cluster.

Desktop Tier :

The Forms client applet must be run within a Java Virtual Machine (JVM) on the desktop client. The Sun J2SE Plug-in component allows use of the Oracle JVM on web clients, instead of the browser's own JVM. This is implemented as a browser plug-in.

Please Note : In 11i , we use Jinitiator for the for the JVM.

The Application Tier :

In Release 12, the application tier contains Oracle Application Server 10g (OAS10g). Three servers or service groups comprise the basic application tier for Oracle Applications:

- Web services

The Web services component of Oracle Application Server processes requests received over the network from the desktop clients.

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- Forms services

Forms services in Oracle Applications Release 12 are provided by the Forms listener servlet or Form Socket mode, which facilitates the use of firewalls, load balancing, proxies, and other networking options.

- Concurrent Processing server

Processes that run on the Concurrent Processing server are called concurrent requests. When you submit such a request, either through HTML-based or Forms-based Applications, a row is inserted into a database table specifying the program to be run. A concurrent manager then reads the applicable requests in the table, and starts the associated concurrent program.

Please Note: There is no concept of an Administration server in Release 12. By default, patching can be undertaken from any application tier node.

Database Tier :

The database tier contains the Oracle database server, which stores all the data maintained by Oracle Applications.

R12 EBS Directory Structure

Techstack Components :

DB_TIER

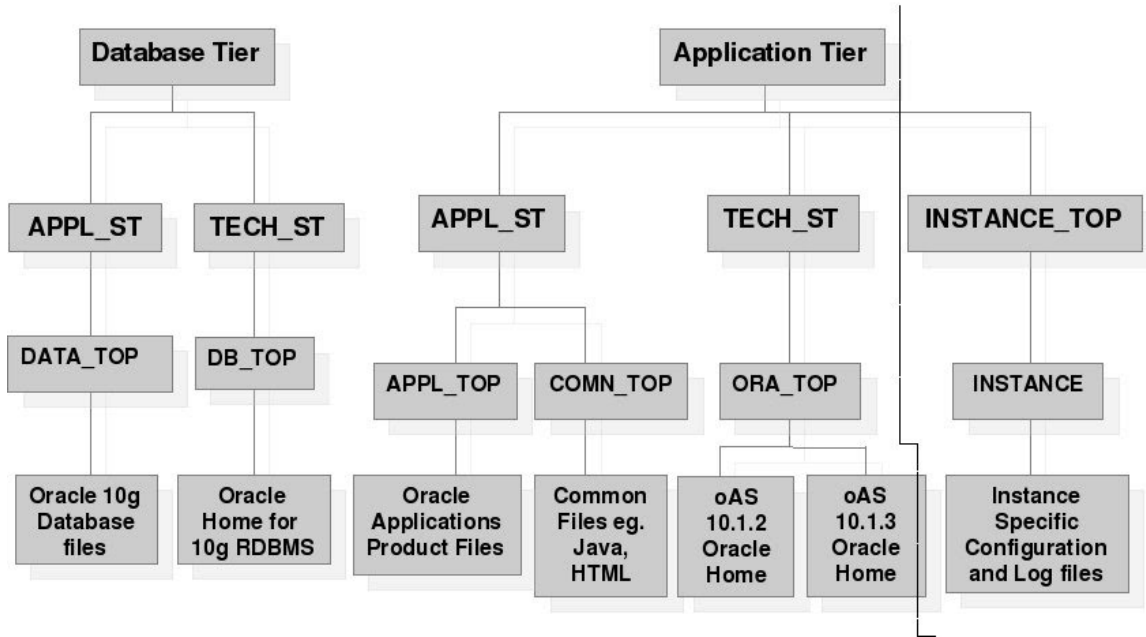
- 10.2.0.2 RDBMS ORACLE_HOME

APPL-TIER

- 10.1.2 C ORACLE_HOME / FORMS ORACLE_HOME (8.0.6 ORACLE HOME as in R11i)
- 10.1.3 Java ORACLE_HOME/OC4J ORACLE_HOME (iAS ORACLE_HOME as in R11i)
- INSTANCE_TOP : Each application tier has a unique Instance Home file system associated

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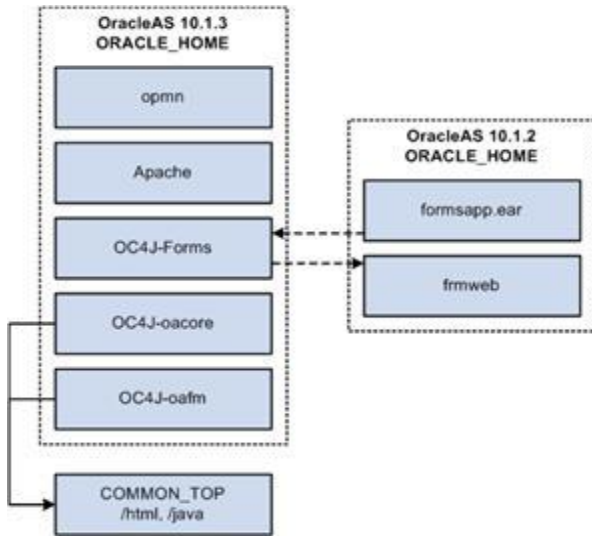
Application Directory Structure



There are two versions of Oracle Application server 10g (OAS10g) used,

- The Oracle Application Server 10.1.2 ORACLE_HOME (sometimes referred to as the Tools, C, or Developer ORACLE_HOME) replaces the 8.0.6 ORACLE_HOME provided by Oracle Application Server 1.0.2.2.2 in Release 11i.
- The Oracle Application Server 10.1.3 ORACLE_HOME (sometimes referred to as the Web or Java ORACLE_HOME) replaces the 8.1.7-based ORACLE_HOME provided by Oracle Application Server 1.0.2.2.2 in Release 11i.

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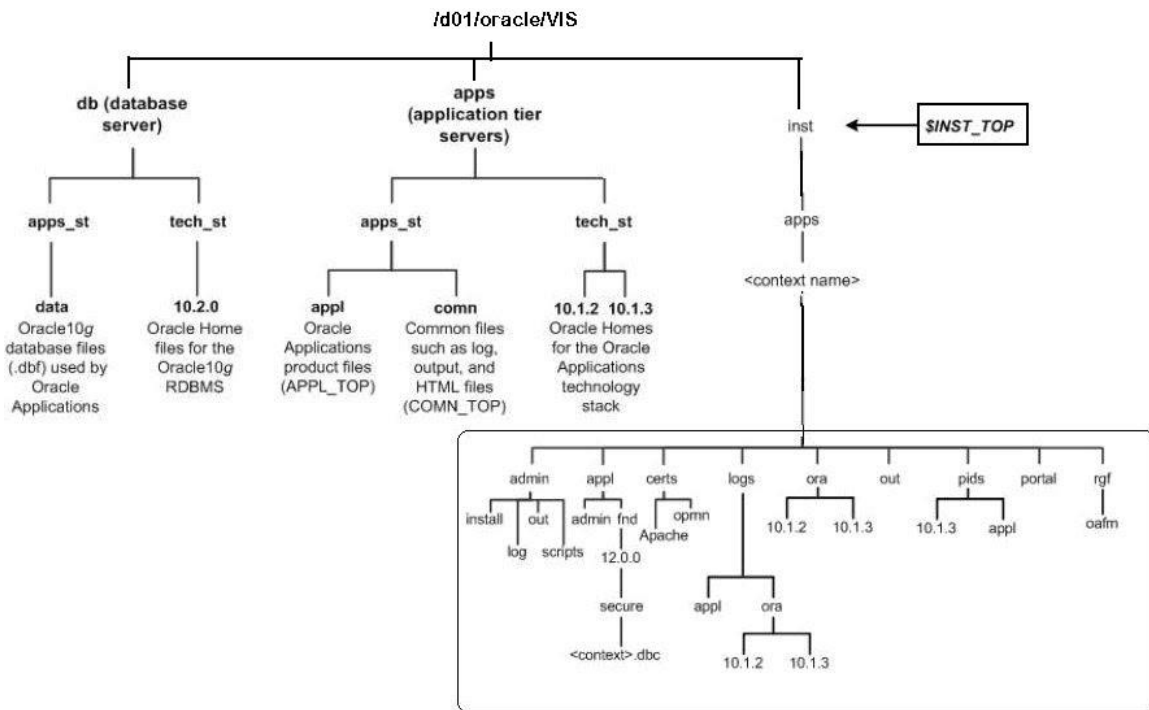


(ORACLE EBS R12 ORACLE_HOMES)

Oracle EBS R12 file system has come up with new model - Code, Data, Configurations are segregated for easy maintenance, to avert NFS mount issues on shared appl tier configuration systems. Auto-config will not write anything in APPL_TOP, COMMON_TOP area in R12. All instance specific configurations, log files are written in INST_TOP area. Instance Home provides the ability to share Applications and technology stack code among multiple instances.

The image shown below describes the complete directory structure for complete e-bs installation i.e. DB_TOP, APPL_TOP and new INST_TOP. If you look into the INST_TOP we will find that it only contains all the configuration files, start-stop scripts, log files, certificate files, pid files etc, so as to make DB_TOP and APPL_TOP untouched for any instance specific changes.

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INSTANCE TOP :

Instance home is the top-level directory for an Applications Instance which is known as Instance Home and is denoted the environment variable \$INST_TOP. This contains all the config files, log files, SSL certificates etc.

Advantages of new INSTANCE HOME:

- The additional Instance Home makes the middle tier easier to manage and organized since the data is kept separate from the config files.
- The Instance Home also has the ability to share the Applications and Technology stack code across multiple instances.
- Another advantage of the Instance Home is that the Autoconfig writes only in INST_TOP so APPL_TOP and ORACLE_HOME can also be made read only file system if required.
- To create a new instance that shares an existing middle-tier, just create a new instance_top with proper config files and NFS Mount the middle tier in the

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INSTANCE TOP – STRUCTURE:

\$INST_TOP: \$APPS_BASE/inst/apps/\$CONTEXT_NAME/
/admin
 /scripts : ADMIN_SCRIPTS_HOME: Find all AD scripts here
/appl : APPL_CONFIG_HOME. For standalone envs, this is set to
\$APPL_TOP
 /fnd/12.0.0/secure : FND_SECURE: dbc files here
 /admin : All Env Config files here
/certs : SSL Certificates go here
/logs : LOG_HOME: Central log file location. All log files are placed
here (except adconfig)

/ora : ORA_CONFIG_HOME
 /10.1.2 : 'C' Oracle home config, Contains tnsnames and forms listener
servlet config files
 /10.1.3 : Apache & OC4J config home, Apache, OC4J and opmn
This is the 'Java' oracle home configuration for OPMN, Apache
and OC4J
/pids : Apache/Forms server PID files here
/portal : Apache's DocumentRoot folder

