

EXAM OBJECTIVE: DESCRIBE INSTALLATION NEW FEATURES SUPPORT

Some of the new features introduced in Oracle 10g:

Grid Control

The Oracle grid architecture is a new revolutionary concept that pools large numbers of servers, storage, and networks into a flexible, on-demand computing resource for enterprise computing needs.

The grid computing infrastructure continually analyzes demand for resources and adjusts supply accordingly.

For example, you could run different applications on a grid of several linked database servers. When reports are due at the end of the month, the database administrator could automatically provision more servers to that application to handle the increased demand. During the installation you are given the option to choose between Database Control and Grid control of the database.

Proactive management

During the installation of Oracle 10g, a DBA can be proactive by configuring the database to send you email notifications for various alert situations such as out-of-space errors. The option is available when you choose to control the database using the Enterprise Manager Console.

Automatic Storage Management (ASM)

While performing the installation the user has the ability to select a storage mechanism for the datafiles of the datafiles. In addition to the traditional file system, the DBA can choose to use the Automatic Storage Management for storing files. This new feature greatly simplifies database storage administration and optimizes database layout for I/O performance. During the installation you are given the option of using ASM, while specifying the location of the datafiles as well as for the location of automated backups.

Automated Backups

As part of the installation, the DBA can choose to enable automated backups for the database. If the Backup job is selected, then you can choose to use the flash recovery area which is also new in Oracle 10g and discussed as part of the Backup and Recovery enhancements module.

EXAM OBJECTIVE: DESCRIBE INSTALLATION PERFORMANCE ENHANCEMENTS

Oracle Database 10g has significantly improved its installation, configuration and upgrade. The installation is faster, smaller in footprint and more user-friendly. Oracle uses a fast lightweight install process, with major redesign of the installation process.

- The most common installs (such as a typical install) can be performed from a single CDROM in less than 20 minutes.
- CPU, Memory, disk space consumption has also been greatly reduced. A standard installation of the database requires only 256 MB of memory and about 1GB of disk space.
- A light-weight client install uses just 3 files, using the Oracle Instant client can be performed in about one minute and consumes only about 70MB of disk space.
- The Oracle installer automatically performs pre-installation checks to ensure that the Operating system has been configured properly, the correct patches have been applied, admin privileges, and enough resources such as physical memory are available to guarantee the success of the installation. Further, if any problems are detected, the installer recommends corrective steps.
- The installation process is self-contained and automatically sets up the required infrastructure for routine monitoring and administration.
- The Oracle 10g installation and configuration can operate in a silent, unattended mode for developers and Independent Software Vendors (ISVs) who develop software they want to embed into Oracle such that application can kick off as part of the installation.
- All components such as listeners, database, agents, Oracle Management server, Oracle Internet Directory can be configured during post-installation for automatic startup and shutdown.
- A fully functional feature rich Enterprise Manager Database Control console is now automatically configured to allow administrators to manage right out of the box. In Oracle 10g, the scope of Enterprise Manager has been extended to include more Oracle products as well as to managing

software deployment and configuration. These capabilities pertain to patching, mass cloning, generating compliance reports, analyzing and comparing installations, and tracking configuration changes. The EM console provides all essential functionality for managing a single database; including alert notification, job scheduling and software management.

- To say broadly, anyone with a basic familiarity with computers should be able to install and get started with Oracle 10g.