OER Sizing Guidelines

Following are some guidelines to help you determine the optimum configuration for your OER instance.

1. **OER offers greatest capacity on a 64-bit architecture.** OER is essentially a single Java process. With a 64-bit architecture the processes are limited to the amount of memory in the system and the JDK is more tunable. This will make much larger amounts of memory available to the application server (this includes the cache into which the assets load).

2. **Treat virtualized environments just like actual hardware** when sizing your environment**.**

3. **Minimum Configuration**

    - 64-bit architecture

    - Application Server

        o WLS 12.1.3.0.0

        o Minimum 2GB RAM available for Application Server usage (dependant on the number of assets expected within the Enterprise Repository). Creation of large numbers of assets, and complex taxonomies will consume memory.

        o Initial Disk Space usage for application server: 2.5GB

        o Minimum CPU Speeds: 1.8Ghz (Recommended 2.4Ghz Dual Core processors)

        o Minimum Network Speeds connecting Application Server and Database Server: 100Mbit (Recommended 1Gbit)

4. **Large Configuration**

    - 64-bit architecture

    - Multiple CPU Cluster

    - Isolated test and development environments

5. **Typical Database Configuration**

    - Using Oracle 12c

    - 20MB for Data (including blob data)

- 20MB for Index

- The rule of thumb on DB drive size is 10X physical table and index size for 100K tables and index at 1.1GB; allow 10 to 11 GB for DB drive space, with variation for how the DBA has configured the drives

- A properly configured data base server has enough drives to optimize disk usage. Oracle's performance testing db server for OER has 6 drives.

- **Note**: OER has not been tested with HA databases

6. **The OER design is one of the most important performance components**. The following can impact performance:

   - Number of assets (OER is easily capable of storing hundreds of thousands of assets. However, there are some limitations with the GUI.)

   - Number of asset types

   - Nested taxonomies (Complexity of the taxonomy can have a huge impact on performance, not to mention decrease the usability for asset consumers)

   - Number of relationships

   - Number of active users

License Sales recommends 2-3 OER environments: a sandbox and a production environment, and in some circumstances a development instance.