[EMPOWER 3] Chromatography Data Software

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Frequently Asked Questions Waters Empower 3 Enterprise High Availability Option: Oracle RAC & Data Guard

Q. What is the Empower 3 Enterprise High Availability Option?
A. The Empower 3 Enterprise Availability Option is an option that Waters can sell to customers who meet specific pre-requisites outlined in this document. This option provides a software license which allows users of Oracle Data Guard with/without RAC to use a replicate Empower 3 database.

Q. How does Oracle Data Guard work?

A. Data Guard maintains standby databases copies of the production database. These standby databases can be located at remote disaster recovery sites thousands of miles away from the production data center, or they may be located in the same city, same campus, or even in the same building. If the production database becomes unavailable because of a planned or an unplanned outage, Data Guard can switch any standby database to the production role, thus minimizing the downtime associated with the outage, and preventing any data loss. Data Guard supports as many as 9 standby databases.

Q. How does RAC work?

A. Oracle Real Application Cluster (RAC) allows multiple computers to run Oracle RDBMS software simultaneously while accessing a single database, thus providing a clustered database. In a non-RAC Oracle database, a single instance accesses a single database. The database consists of a collection of data files; control files, and redo logs located on disk. The instance comprises the collection of Oracle-related memory and operating system processes that run on a computer system. In an Oracle RAC environment, two or more computers (each with an instance) concurrently access a single database. This allows an application or user to connect to either computer and have access to a single coordinated set of data.

Q. Why would a company want to do this?

A. To insure availability of the application in case of a Disaster. This would be part of a Disaster Recovery / Business Continuity plan.

Customer Pre-Requisites

Q. What are the customer's responsibilities for Waters to sell the Empower 3 High Availability Option?

A. For RAC Only: The customers must supply the following Oracle licenses:

- Oracle Database Enterprise Edition Full Use or Oracle Database Enterprise Edition Full Use Named User licenses (with the appropriate number of Named User Licenses equivalent to the number of Empower 3 Named User Licenses loaded on the primary database).
- Database Lifecycle Management Pack
- OEM Grid Control (Comes with database)
- RAC Option

For Data Guard* Only: The customers must supply the following Oracle licenses:

- Oracle Database Enterprise Edition Full Use or Oracle Database Enterprise Edition Full Use Named User licenses (with the appropriate number of Named User Licenses equivalent to the number of Empower 3 Named User Licenses loaded on the primary database).
- Database Lifecycle Management Pack
- OEM Grid Control (Comes with database)
- Active Data Guard
- Advanced Compression (required for Active Data Guard)

* Data Guard customers must also purchase the Waters Empower 3 High Availability Option (see ordering information).

In addition, the customer's IT staff must have the necessary training to install and support Oracle RAC & Data Guard. These requirements must be met for each standby database.

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Q. Who would the customer contact to purchase the required Oracle software and named user licenses?

A. The customer would contact Oracle directly for the purchase of the Oracle software and named user licenses.

Q. If a customer (or Waters representative) wants to deploy this option using the **Waters Embedded Oracle License**, can they do so?

A. No, The customer must supply their own Oracle licenses as stated above and Waters representatives cannot deploy this option under the Waters Embedded Software License.

Q. Can customers operate in a mixed mode licensing environment?A. No, customers are not allowed to use the Empower 3 Embedded Software License in conjunction with their own Oracle Licenses.

Installation, Configuration and Support

Q. Who would be responsible for the installation and configuration of the RAC & Data Guard components?

A. The customer's IT Staff is responsible for the installation and configuration of the RAC or Data Guard components. The customer should have at least one Oracle DBA on staff that has received Oracle training on RAC and standby databases prior to selling this option.

Q. Who would be responsible for the maintenance services for the RAC & Data Guard components?

A. The customer's IT Staff is responsible for the maintenance services of the RAC or Data Guard components.

Q. What level of training or experience should the customer IT staff have to successfully install and support RAC & Oracle Data Guard?

A. The customer should have at least one DBA that has successfully completed Oracle training on standby databases, and Grid Control Manager. Oracle Data Guard requires an advanced level of understanding of the application as well as the database components to successfully install and maintain Oracle Data Guard.

Q. Who would the customer contact for support of their RAC or Data Guard configuration?

A. The customer would contact Oracle for any questions related to their RAC and Data Guard configuration. Waters is only responsible to answer questions related to the operation of the Empower 3 software.

Q. Should the Waters Informatics Specialist install and configure RAC or Oracle Data Guard for the customer?

A. No, the Waters Informatics Specialists should not install and configure Oracle RAC or Data Guard for the customer.

It is the responsibility of the customer's IT staff to install and configure Oracle RAC or Data Guard. Customers, who do not have the appropriately trained IT staff to install, configure and support Oracle RAC & Data Guard should not purchase this option.

Ordering information

Q. What does the customer purchase from Waters for Empower 3 Enterprise High Availability Option?

A. The customer would purchase the Empower 3 Enterprise High Availability Option (Part Number 667003951). This option contains a Software License for use with an Empower 3 Replicated database for Oracle RAC and Data Guard. This option must be purchased for each standby database.

Q. What is the price for Empower 3 Enterprise High Availability Option?A. The list price is \$25,000 USD.

Q. Is this the only recommended High Availability option available for Empower 3?

A. Yes, this is the only recommended High Availability option for the Empower 3 Software.

Q. Once the customer purchases and installs the Empower 3 Enterprise Data Guard Option can they transfer the option to another server?

A. Each Empower 3 Enterprise High Availability Option is specific to a single instance and single replica of the Empower 3 database. An Empower 3 Enterprise High Availability Option may be transferred to another database instance or node only if the Empower 3 Software is first removed from the node on which it is currently installed.

Additional Services provided by Waters

Q. If a customer requests additional services around the installation of Empower 3 in a RAC or Data guard environment can we provide this?

A. Yes, Waters can be contracted to perform additional services, these must be detailed as part of a Statement of Work (SOW). Please contact your local Enterprise Software Solution sales representative, to help scope this request. **Remember: Waters is only responsible to answer questions related to the operation of the Empower 3 software**.