Oracle EBS Technical Managed Services

24x7x365 Production Support

Rackspace's Oracle EBS Technical Managed Support Service provides Customer with 24x7x365 support for the supported Customer environment. All events initiated by the monitoring environment will be handled by the Rackspace database administrator ("DBA"). The DBA will have access to Customer application support personnel, if needed, to support timely troubleshooting and resolution activities.

When a critical event and/or a "down" environment occurs, Rackspace will begin the support process immediately upon notification of such event, which is defined as an "acknowledgement" by a Rackspace DBA through a ticket update and/or "callback", either to occur within the SLA of any such event. Rackspace will adhere to a 24x7 escalation and response plan SOP as defined by Customer and Rackspace.

Non-critical support requiring downtime must be scheduled and approved by the Customer in writing. All support requests must come through the Rackspace ticket system and off-hours maintenance must be scheduled through Rackspace Primary DBA(s) during normal business hours, M-F 8:30am – 5:30pm EST. Tickets that are not scheduled during these times will be handled on the next business day.

Monitoring

Rackspace will proactively monitor all critical services necessary to keep the Oracle Applications/E-Business Suite environments available for users and performing optimally. This is accomplished through the use of Oracle Enterprise Manager Grid Control (OEM) along with custom scripts tailored to the specific Customer's needs. Rackspace's 24x7 Proactive Applications Monitoring includes:

- SOP for all monitored events
- Oracle Application Server services
- Concurrent Manager services
- JVM services
- Oracle HTTP Server
- Oracle Forms Server
- Oracle Reports Server
- Oracle Network Services
- Oracle Workflow Mailer
- Space allocation and management

Database Maintenance

Rackspace will perform all tasks necessary to keep the database up and running for end users/application access and use. Rackspace will perform all updates and changes to the database as per an agreed upon change control process. Rackspace will create and follow SOPs for all routine tasks. Rackspace's database maintenance includes:

- SOP for startup/shutdown of all databases
- SOP for change management of database configuration
- Startup/shutdown of all databases
- Management of all database initialization and configuration parameters
- Troubleshooting of database issues

Database Tuning

Rackspace will perform a tuning assessment of the Customer's production database and will provide tuning recommendations. The tuning assessment will include all aspects of:

- Database memory management
- File I/O statistics
- Process wait statistics
- Database initialization and configuration parameters (init.ora)
- Identification of IO/CPU/Memory intensive SQL statements
- Identification and remediation of data file, redo log, control file, lock and latch contention

Patching

Rackspace will apply, upon Customer request, any Oracle Applications/E-Business Suite patches along with their associated prerequisite patches. Rackspace will maintain a patch history file which will be provided to the Customer upon request based on mutually agreed retention policy. Rackspace will provide to Customer either upon request or quarterly a listing of any missing critical patch updates (cpu)/patch set update (psu) along with a report showing their current patchset version compared to the latest available patchset. Rackspace's Oracle Applications/E-Business Suite patching includes:

- SOP for Patching Protocol
- Point release fixes and patches
- Prerequisite patches
- Notification of quarterly critical patch updates

Major or Minor Upgrade Releases

Major Upgrade Releases will be performed via a separate SOW. Minor Upgrade Releases will be included in current Oracle EBS Technical Managed Services support. See matrix below for examples.

Software	Major Release Upgrade	Minor Release Upgrade
EBS	11.5.X to 12.X 12.1.X to 12.2.X	12.1.X to 12.1.X 12.2.X to 12.2.X
Database	11.1.X to 11.2.X 11.X to 12.X 11.X to 19.X 12.1.X to 12.2.X 12.X to 19.X	11.1.X to 11.1.X 11.2.X to 11.2.X 12.1.X to 12.1.X 12.2.X to 12.2.X 19.1.X to 19.1.X

Cloning/Refreshes

Rackspace will perform full clones (Database, Software) of Oracle Applications/E-Business Suite instances or Database-Only refreshes upon Customer request. Oracle best-practice methodologies will be used for all clones and refreshes. Rackspace cloning service includes a SOP for the Cloning and Refresh process.

Space Management

Rackspace will manage utilization of storage resources within the database and at the file system level for all managed products. Rackspace will be responsible for:

- Determining and implementing optimal table space model
- Determining optimal contiguous space
- Setting auto extend parameters
- Determining ideal layout for data files on the file system
- Monitoring free space and free contiguous space/largest extent
- Managing segments including table, index, temporary and undo/rollback segments

Change Control / Code Migration

Changes recommended by Rackspace will be submitted to Customer, via the Rackspace ticket system, for Customer specific change control requirements and approvals. Approved changes will be scheduled at a mutual agreed upon time. All requests submitted by Customer users of the Rackspace ticket system are presumed to have completed Customer change control processes and have all the necessary approvals.

Rackspace will manage the migration of specified code into the Customer's environment. Rackspace will work with Customer to develop a code migration SOP and Rackspace will deploy code as defined in the SOP. Customer is responsible for providing detailed installation documents/instructions for code deployment, validating the deployment, and for all changes to the code and data as a result of a code deployment request.

Database Schema Management

Rackspace will work with Customer to define and integrate the following database schema elements on an "as needed" basis:

- Creation and maintenance of new schema objects (tables, indexes, sequences, etc)
- Creation and maintenance of db links, user privileges, roles, synonyms, grants, etc.
- Object storage clause definition for space management

Database Backup Management

Rackspace will work with Customer to define and implement a database backup strategy that meets the business requirements for recovery. Rackspace will develop, test, deploy and maintain database backup scripts. Oracle best-practice methodologies will be used for all database backups. Rackspace's backup management includes:

- Creating, testing, deploying and maintaining all database backup scripts
- Monitoring database backup jobs to ensure successful completion
- Testing database backups to ensure successful recovery with minimal data loss
- Documenting the backup and recovery strategy and process in the Backup and Recovery SOP

Concurrent Manager

Rackspace will provide maintenance and tuning for Oracle Applications/E-Business Suite Concurrent Managers. These services include:

- Startup/shutdown of concurrent manager servers
- Troubleshooting
- Tuning
- Purge operations including table and file system maintenance

Application Maintenance

Rackspace will perform all tasks necessary to keep Oracle Applications/E-Business Suite up and running for end users/application access and use. Rackspace will perform all updates and changes to the application as per an agreed upon change control process. Rackspace will create and follow SOPs for all routine tasks. Rackspace's Oracle Applications/E-Business Suite maintenance includes:

- SOP for startup/shutdown of all application services
- SOP for Change Management
- Startup/Shutdown of all application services
- Management of all initialization and configuration parameters
- Maintenance of Forms and Web Services
- Troubleshooting Applications Technology Stack Components
- Tuning JVM and application components

Customer Obligations for Oracle Administration Managed Services

- Customer will allow Rackspace to post all necessary information to Oracle support services for Oracle's "My Oracle Support".
- Provide Rackspace a list of users that need access to and what access to the environment.
- Provide Rackspace a list of contacts and escalation procedures for the environment.
- Customer to provide hardware for Oracle Enterprise Manager and/or other Rackspace monitoring tools when remotely managed and not hosted in a Rackspace data center.
- If remotely managed, customer is responsible for all system level backups, including all software and administration of the backup tools, their successful completion, storage of media, and recoverability to the target host when remotely managed and not hosted in a Rackspace data center.

The Services described in this Service Order (the "**Rackspace Application Services**") are subject to the following Rackspace Application Services Product Terms found at https://www.rackspace.com/information/legal/RASTerms.