

Oracle® Hospitality Cruise Fleet Management

FMS and ResOnline Hardware Specifications



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ORACLE®

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Preface

This document contains the general recommendations for customer's using physical and virtualized environments to run its applications. It further clarifies Oracle Hospitality's position with regard to running Oracle products in a virtualized environment, specifically that provided by VMware®.

Oracle Hospitality suggest varying degrees of server specifications upon which to run its Oracle Hospitality Fleet Management System platform. Oracle Hospitality keeps such configurations flexible to accommodate the customer's needs in consideration of ship size, anticipated transactional volume, overall scope of applications involved in the provided solutions, budget, and preferred level of redundancy.

Audience

This document is intended for the technical personnel involved in installation process of the Fleet Management.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

<https://support.oracle.com>.

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at <https://docs.oracle.com/en/industries/hospitality/cruise.html>.

Revision History

| Date | Description of Change |
|-------------|--|
| August 2019 | <ul style="list-style-type: none">• Initial publication. |
| March 2022 | <ul style="list-style-type: none">• Updated content to HTML format |

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Virtual Server Guidelines and Specification

A virtual environment represents one type of setting for which Oracle Hospitality Cruise has provided specifications in order to support its FMS/ResOnline platform. Given the increasing interest its customers have displayed in virtualized settings, Oracle Hospitality Cruise has since developed a suggested guideline based on the VMware® product line. Adherence to the guidelines in this document will facilitate Oracle Hospitality Cruise supporting the customer's FMS/ResOnline database.

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Virtualization Warnings/Disclaimers

Oracle Hospitality Cruise warns the reader that at the time of issuing this position document, Oracle Corporation has not issued any formal certification concerning the use of its products on VMware virtualized environments. In a November 16th, 2007 Metalink article entitled, "Support Position for Oracle Products Running on VMware Virtualized Environments" (document i.d. 249212.1), the company states:

Oracle has not certified any of its products on VMware virtualized environments. Oracle Support will assist customers running Oracle products on VMware in the following manner: Oracle will only provide support for issues that either are known to occur on the native OS, or can be demonstrated not to be as a result of running on VMware.

If a problem is a known Oracle issue, Oracle support will recommend the appropriate solution on the native OS. If that solution does not work in the VMware virtualized environment, the customer will be referred to VMware for support. When the customer can demonstrate that the Oracle solution does not work when running on the native OS, Oracle will resume support, including logging a bug with Oracle Development for investigation if required.

If the problem is determined not to be a known Oracle issue, we will refer the customer to VMware for support. When the customer can demonstrate that the issue occurs when running on the native OS, Oracle will resume support, including logging a bug with Oracle Development for investigation if required.

In consideration of Oracle's stated support position, Oracle Hospitality Cruise, as a software vendor with solutions predicated on the Oracle database, will work within this same framework established by Oracle should any support issue surface associated with Oracle running on VMware.

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FMS and ResOnline Server Sizing

Depending on the SPMS modules used and how much data external system send to Oracle Hospitality Cruise SPMS, our estimation of the data a customer will be storing and processing and our recommendation for the resources is described below. Per ship, per year storage requirement, we have determined this to be 50GB per ship approximately.

Table 3-1 Total Cores Needed

| Total Passengers | 1 to 5 Ships | 6 to 10 Ships | 11 to 15 Ships | 16 to 20 Ships | 21 to 25 Ships |
|------------------|--------------|---------------|----------------|----------------|----------------|
| 0 < 10000 | 4 | 8 | | | |
| 10001 to 20000 | 4 | 8 | | | |
| 20001 to 30000 | | 8 | 12 | 12 | |
| 30001 to 40000 | | | 12 | 16 | 16 |
| 40001 to 50000 | | | 12 | 16 | 20 |

Table 3-2 Total RAM Needed in GB

| Total Passengers | 1 to 5 Ships | 6 to 10 Ships | 11 to 15 Ships | 16 to 20 Ships | 21 to 25 Ships |
|------------------|--------------|---------------|----------------|----------------|----------------|
| 0 < 10000 | 4 | 8 | | | |
| 10001 to 20000 | 4 | 8 | | | |
| 20001 to 30000 | | 12 | 12 | 12 | |
| 30001 to 40000 | | | 12 | 16 | 16 |
| 40001 to 50000 | | | 24 | 24 | 24 |

Table 3-3 RAC Sizing

| Cores | RAC Nodes | Cores per Node | Usable Total Cores | Usable Cores with 1 node down |
|-------|-----------|----------------|--------------------|-------------------------------|
| 4 | 2 | 4 | 6 | 4 |
| 8 | 2 | 8 | 14 | 8 |
| 12 | 2 | 12 | 22 | 12 |
| 16 | 2 | 16 | 30 | 16 |
| 24 | 3 | 16 | 45 | 30 |

Table 3-4 RAM Sizing

| RAM | RAC Nodes | RAM per Node | Usable Total RAM | Usable RAM with 1 node down |
|------------|------------------|---------------------|-------------------------|------------------------------------|
| 4 | 2 | 4 | 4 | 4 |
| 8 | 2 | 8 | 12 | 8 |
| 12 | 2 | 12 | 20 | 12 |
| 16 | 2 | 16 | 28 | 16 |
| 20 | 3 | 16 | 42 | 28 |
| 24 | 3 | 16 | 42 | 28 |

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Machine Requirement for IIS Server

One machine is required to host IIS Server for installing the Shore side Security Service and web services/applications.

The minimum requirements for IIS Server:

- 2.2 GHz or greater processor.
- 16 GB RAM minimum (64 bit).
- Microsoft Windows 2012 R2 / Microsoft Windows 2016 Standard
- 512 GB Hard Drive
- 1 Gbit Network Interface

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Minimum Requirements for Interface Machines

The minimum requirements for ship side for FMS Sender, FMS Receiver, and DGS Interfaces:

- 2.2 GHz or greater processor
- 16 GB RAM minimum (64 bit)
- Windows 10
- 80 GB Hard Drive
- 1 Gbit Network Interface

Minimum requirement for shore side interfaces:

- FMS Sender (for ResOnline data transfer to the ship), FMS Receiver (to process data received from the ships).
 - 1 machine per four ships
 - * 2.2 GHz or greater processor.
 - * 16 GB RAM minimum (64 bit).
 - * Windows 10
 - * 80 GB Hard Drive
 - * 1 Gbit Network Interface
- CDTI to import Reservation data into ResOnline and to export data from FMS to 3rd party systems.
 - 1 machine per four ships
 - * 2.2 GHz or greater processor
 - * 16 GB RAM minimum (64 bit)
 - * Windows 10
 - * 80 GB Hard Drive
 - * 1 Gbit Network Interface
- ResOnline processing interface
- 1 machine per four ships
 - 2.2 GHz or greater processor.
 - 16 GB RAM minimum (64 bit).
 - Windows 10
 - 80 GB Hard Drive
 - 1 Gbit Network Interface

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FMS Database Support Task

Table 6-1 FMS Database Support Tasks

| Database Support Task | Description | Risk | Customer Managed | Oracle Hospitality Cruise Managed | Oracle Hospitality Cruise Managed Access Required | Oracle Hospitality Cruise Managed Requirement |
|---|---|--|------------------|-----------------------------------|---|--|
| Performance tuning | Investigating and resolving performance issues as reported by the customer. | Slow performance | Shared | Oracle Hospitality Cruise | Full database, O/S, ESX | Technical architecture if customer supplied environment. |
| Resolving database errors | Researching and providing solutions for database errors as reported by the customer. | Performance issues or downtime depending on severity of the problem. | Shared | Oracle Hospitality Cruise | Full database, O/S | |
| Adding storage to database | Adding tablespaces or providing scripts to onboard IT to add tablespaces. | Downtime until storage is added. | Customer | Oracle Hospitality Cruise | Full database, O/S | O/S access is for disk storage free space only. |
| Troubleshooting Sql*net connection errors | Investigating and resolving connection issues as reported by the customer. | Downtime as clients are unable to connect, sporadic connection problems. | Customer | Shared | Full database, O/S, specific clients with issues. | |
| Proactive performance tuning | Routine checking of performance statistics and implementing tuning modifications when necessary | Slow performance. | Customer | Oracle Hospitality Cruise | Full database, O/S, ESX | |

Table 6-1 (Cont.) FMS Database Support Tasks

| Database Support Task | Description | Risk | Customer Managed | Oracle Hospitality Cruise Managed | Oracle Hospitality Cruise Managed Access Required | Oracle Hospitality Cruise Managed Requirement |
|--|---|--|-------------------------|--|--|--|
| Proactive monitoring of database space usage. | Routine checking storage of objects in the database, the tablespaces, and database data file sizing. Ensuring enough space is available for database objects to grow. | Unplanned downtime as a result of the database unable to extend. Emergency storage requests. | Customer | Oracle Hospitality Cruise | Full database, O/S | |
| Proactive monitoring Operating System space usage. | Routine checking storage of objects in the database, the tablespaces, and database datafile sizing. Ensuring enough space is available for database objects to grow. | Unplanned downtime as a result of the database unable to extend. Emergency storage requests. | Customer | Oracle Hospitality Cruise | Full database, O/S | |

Table 6-1 (Cont.) FMS Database Support Tasks

| Database Support Task | Description | Risk | Customer Managed | Oracle Hospitality Cruise Managed | Oracle Hospitality Cruise Managed Access Required | Oracle Hospitality Cruise Managed Requirement |
|--|--|--|------------------|-----------------------------------|---|--|
| Proactive monitoring Operating System space usage. | Routine checking physical storage on the server and virtual machine. Ensuring that operating system and oracle installation drives have sufficient space for normal operations. Ensuring database drives have adequate room for expanding the database if necessary. | Downtime as a result of the database unable to extend or unable to log activity or write archive logs. | Customer | Oracle Hospitality Cruise | Full database, O/S | |
| Monitoring export backups | Routine checking that database exports are being performed successfully and are suitable for recovery of the database (if the primary recovery is export file). | Inability to recover the database from media failure. Data loss and downtime. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of database exports. |

Table 6-1 (Cont.) FMS Database Support Tasks

| Database Support Task | Description | Risk | Customer Managed | Oracle Hospitality Cruise Managed | Oracle Hospitality Cruise Managed Access Required | Oracle Hospitality Cruise Managed Requirement |
|--|---|---|------------------|-----------------------------------|---|--|
| Monitoring hot RMAN backups | Routine checking that hot RMAN backups are being performed successfully and are suitable for recovery of the database if necessary. | Inability to recover the database from media failure. Data loss and downtime. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of RMAN hot backups and archive logging. |
| Monitoring archive log space | Routine checking of archive log storage space and that backup procedures are successfully removing obsolete archive logs. | Unplanned downtime as a result of the database unable to write archive logs. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of RMAN hot backups and archive logging. |
| Proactive monitoring and resolving database errors | Routine checking for database errors, searching and providing solutions for database errors. | Performance issues or downtime depending on severity of the problem. | Customer | Oracle Hospitality Cruise | Full database, O/S | |
| Monitoring Data guard | Routine checking of data guard server to ensure logs are consistently applied to data guard and the standby database is up to date. | Data guard not functional and no redundancy if primary host is lost. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of data guard standby database. |

Table 6-1 (Cont.) FMS Database Support Tasks

| Database Support Task | Description | Risk | Customer Managed | Oracle Hospitality Cruise Managed | Oracle Hospitality Cruise Managed Access Required | Oracle Hospitality Cruise Managed Requirement |
|---|--|--|-------------------------|--|--|--|
| Database recovery after media loss using export file. | Creating a new database and restoring the database from the latest export. | Downtime and lost data. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of database exports. |
| Database recovery after media loss using hot RMAN backup. | Restoring a new database from the backup files and recent archive logs. Recovery to point in time just before failure. | Downtime and lost data. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of RMAN hot backups and archive logging. |
| Switchover to Data guard standby | Performing switchover from primary database to data guard standby database. | Downtime while primary database is unavailable. | Customer | Oracle Hospitality Cruise | Full database, O/S | Oracle Hospitality Cruise setup and configuration of data guard standby database. |
| Forecasting future storage requirements | Routine analysis of storage usage and identifying future physical storage required. | Downtime as a result of the database unable to extend. Emergency storage requests. | Customer | Oracle Hospitality Cruise | Full database, O/S | |
| Managing and Installing Oracle Critical Patch Updates | Installing latest tested Oracle Critical Patch Upgrades. | Exposure to audits requiring patches are up to date. | Customer | Oracle Hospitality Cruise | Full database, O/S | On-site upgrades |