

**Oracle® Hospitality Cruise Fleet
Management**

OHC FMS and ResOnline Hardware Specifications

Release 1.00

E95182-01

September 2018

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Preface

This document represents Oracle Hospitality general recommendations for a customer's physical and virtualized environments upon which 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®. Depending upon the customer's specific requirements, these recommendations may be further refined.

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/team who/whom are involved in setting up hardware configuration.

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 <http://docs.oracle.com>

Revision History

Date	Description of Change
June 2010	<ul style="list-style-type: none">• Initial publication.
August 2011	<ul style="list-style-type: none">• Updated text.
September 2012	<ul style="list-style-type: none">• Updated tables.
March 2013	<ul style="list-style-type: none">• Added/Modified tables.
November 2014	<ul style="list-style-type: none">• Added text.
February 2015	<ul style="list-style-type: none">• Updated publication.
February 2016	<ul style="list-style-type: none">• Updated publication.
September 2018	<ul style="list-style-type: none">• Updated formatting and branding.

1 Virtual Server Guidelines and Specifications

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.

2 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.

3 OHC FMS & OHC 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 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 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 - 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

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

4 Machine Requirement for IIS Server

One machine is required to host IIS Server for using the Oracle Emergency Response System web application.

5 Minimum Requirements for Interface Machines

Minimum requirement for ship side for OHC FMS Sender, OHC FMS Receiver, and OHC DGS Interfaces:

- 2.2 GHz or greater processor.
- 3 GB RAM minimum (32 bit), 4GB RAM minimum (64 bit).
- Windows 7
- 80 GB Hard Drive
- 1 Gbit Network Interface

Minimum requirement for shore side interfaces:

- OHC FMS Sender (for OHC ResOnline data transfer to the ship), OHC FMS Receiver (to process data received from the ships)
 - 1 machine per four ships
 - 2.2 GHz or greater processor.
 - 3 GB RAM minimum (32 bit), 4GB RAM minimum (64 bit).
 - Windows 7
 - 80 GB Hard Drive
 - 1 Gbit Network Interface
- OHC CDTI to import Reservation data into OHC ResOnline and to export data from OHC FMS to 3rd party systems
 - 1 machine per four ships
 - 2.2 GHz or greater processor.
 - 3 GB RAM minimum (32 bit), 4GB RAM minimum (64 bit).
 - Windows 7
 - 80 GB Hard Drive
 - 1 Gbit Network Interface
- OHC ResOnline processing interface
 - 1 machine per four ships
 - 2.2 GHz or greater processor.
 - 3 GB RAM minimum (32 bit), 4GB RAM minimum (64 bit).
 - Windows 7
 - 80 GB Hard Drive
 - 1 Gbit Network Interface

6 OHC FMS Database Support Tasks

Table 4 - OHC 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	

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	

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.

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.

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

7 Definitions, Acronyms, and Abbreviations

Table 5 - Definitions, Acronyms, and Abbreviations

Term	Description
DGS	Data Gateway Shipboard
FMS	Fleet Management System
vCPU	Virtual CPU
VM	Virtual Machine
VMDK	Virtual Machine Disk File