



Exadata Database Service

User-Managed Maintenance Tasks

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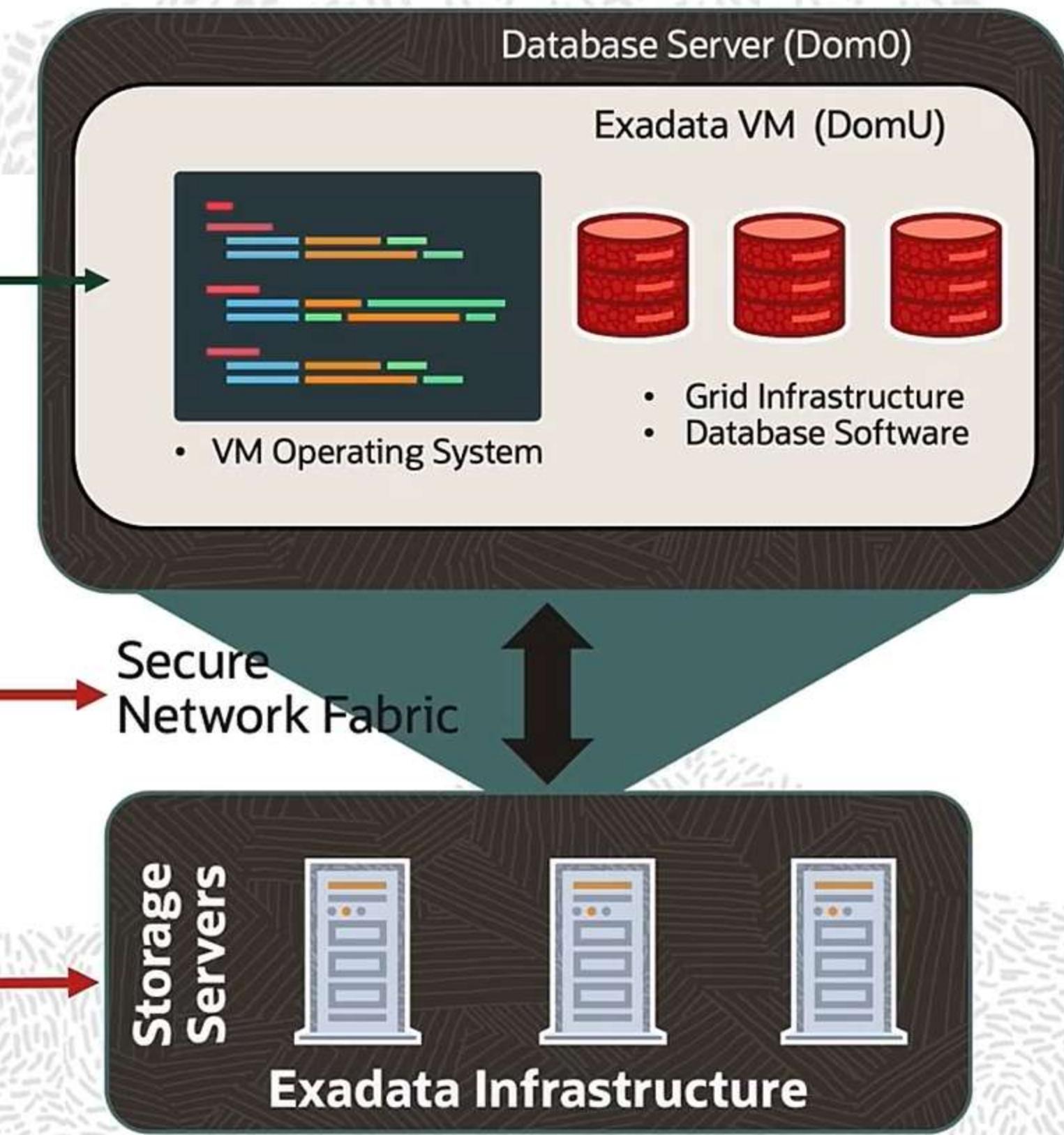
Customer Responsibility

Exadata Database Service

Managing Maintenance Updates

User-Managed Maintenance Updates

- Patch Database Home Software
- Patch Oracle Grid Infrastructure (GI)
- Update Operating System of the VM



Oracle-Managed Infrastructure Maintenance Updates

- Apply Quarterly Infrastructure Updates to:
 - Physical Compute and root VM on Database Server
 - Exadata Storage Servers
 - Internal Network Switches
 - Power Distribution Units (PDU)
 - ILOM Interfaces
 - All Firmware & BIOS

Exadata Database Service

Prerequisites & Best Practices for Applying Updates & Patches

- Back up your databases before you apply any updates to the DB Home
- Move the database to a new DB Home if possible instead of updating the DB Home
- Update Grid Infrastructure before updating or creating a DB Home
- Before you apply any update, run the precheck operation
- Ensure all servers and database instances are up and running
- Ensure /u01 (**GI Home directory**) has 15GB of free space before a Grid Infrastructure update
- Ensure /u02 (**DB Home directory**) has 15GB free space before a DB Home update
- Use the OCI Management Interfaces to perform the update & patching operations

Exadata Database Service

**Finding Available Updates & Patches,
& Viewing Update History**

Customer
Responsibility



Find Current Patch Levels

Overview > Oracle Exadata Database Service on Dedicated Infrastructure > Exadata VM Clusters > Exadata VM Cluster Details

MyDemoVMCluster

Scale VM cluster Add SSH keys Update license type Enable IORM More actions ▾

VM Cluster Information Tags

General information

Compartment: ocidbaaspmt (root)/lbednar/MyDemo
Availability domain: vPAy:EU-FRANKFURT-1-AD-1
OCID: ...whkhra Show Copy
Created: Wed, Sep 27, 2023, 19:23:39 UTC
Cluster name: MyDemoClus
Time zone: UTC
License type: Bring Your Own License (BYOL)
Lifecycle state: Available
IORM status: Disabled
Diagnostics collection: Disabled Edit

Resource allocation

VM Count: 2
Enabled OCPUs: 8
Memory: 240 GB
Local storage (/u02) (GB): 480 GB
Local storage (additional file systems) (GB): 886 GB
Exadata storage: 2 TB
Storage for local backups: Not enabled
Storage for Exadata sparse snapshots: Not enabled

Infrastructure

Exadata cloud infrastructure: MyExaInfra

Resources

Databases (7)

Create database

Name	State	Database unique name	Database version	Data guard role	Created
MyExaDB	● Available	MyDemoDB	19.20.0.0.0	—	Mon, May 20, 2024, 17:32:22 UTC
MyRCVCDB	● Available	MyDemoRCVBkpCDB	19.20.0.0.0	—	Tue, Feb 6, 2024, 18:44:26 UTC
MyCDB02	● Available	MyCDB02_MyExaCDB04	19.20.0.0.0	—	Mon, Oct 9, 2023, 05:14:45 UTC

Network

Virtual cloud network: MyDemoVCN
Client subnet: private subnet-MyDemoVCN
Backup subnet: MyPrivateBackup01
Hostname domain name: sub04142120101... Show Copy
SCAN DNS name: myexademohost-5quwb-scan... Show Copy
SCAN IP address: 10.0.1.148, 10.0.1.40, 10.0.1.146
Client network security groups: None Edit
Backup network security groups: None Edit
SCAN listener port: 1521
Private view: MyDemoVCN
Private zone: sub04142120101.mydemovcn.oraclevcn.com

Version

Exadata image version: 22.1.13.0.0.230818
Grid infrastructure version: 19.19.0.0.0
Grid Infrastructure software image: Oracle supplied
Updates available: 16 View updates

Find Available Updates & Patches

The screenshot displays three panels of the Oracle Exadata Database Service on Dedicated Infrastructure interface:

- Updates (Exadata VM Cluster: MyDemoVMCluster):** This panel shows OS updates for the selected cluster. The table includes columns for Update description, State, Component, Type, Version, Last Successful Precheck, and Release date. The table shows 10 items, with the first item being "Virtual Machine OS Update to 22.1.22.0.0.240410.1" which is available.
- Grid Infrastructure updates:** This panel shows Oracle Grid Infrastructure software images. The table includes columns for Update description, State, Component, Type, Version, Last Successful Precheck, and Release date. The table shows 5 items, with the first item being "23.4 Grid Infrastructure upgrade" which is available.
- Database Home: My19cDBhome3:** This panel shows Oracle Database Software Images. The table includes columns for Patch description, State, Version, and Release date. The table shows 3 items, with the first item being "Apr 2024 19c Database patch" which is available.

View Update & Patch History

Overview > Oracle Base Database > Exadata VM Clusters > Exadata VM Cluster Details > Update History

Oracle Base Database **Update History**

Updates

Update History

Description	State	Version	Component	Operation Type	Started	Ended
Virtual Machine OS Update to 22.1.8.0.0.230211	Applied	22.1.8.0.0.230211	Exadata Image	Rolling Apply	Tue, Mar 7, 2023, 15:58:17 UTC	Tue, Mar 7, 2023, 17:02:39 UTC
Virtual Machine OS Update to 22.1.8.0.0.230211	Precheck Passed	22.1.8.0.0.230211	Exadata Image	Precheck	Tue, Mar 7, 2023, 15:30:04 UTC	Tue, Mar 7, 2023, 15:47:15 UTC
Jan 2023 19c Db System patch	Applied	19.18.0.0.0	Grid Infrastructure	Rolling Apply	Mon, Mar 6, 2023, 22:38:55 UTC	Mon, Mar 6, 2023, 22:23:24 UTC
Jan 2023 19c Db System patch	Precheck Passed	19.18.0.0.0	Grid Infrastructure	Precheck	Mon, Mar 6, 2023, 19:30:01 UTC	Mon, Mar 6, 2023, 19:37:10 UTC

Showing 4 Items < 1 of 1 >

Exadata VM Cluster: MyExaVMCluster

Scope

Exadata VM Clusters

MyExaVMCluster

Database Home

My19Cdbhome

Database Home: My19Cdbhome

Name	State	Version	Operation type	Started	Ended
Jan 2023 19c Database patch	Applied	19.18.0.0.0	Apply	Tue, Mar 7, 2023, 03:11:30 UTC	Tue, Mar 7, 2023, 03:41:12 UTC
Jan 2023 19c Database patch	Precheck Passed	19.18.0.0.0	Precheck	Tue, Mar 7, 2023, 02:03:00 UTC	Tue, Mar 7, 2023, 02:11:10 UTC

Showing 2 Items < 1 of 1 >

Exadata Database Service

Guest VM OS Image Updates

Customer Responsibility



Exadata VM OS Image Update

Exadata Image contains the virtual machine OS (Oracle Linux) updates

- Provides **precheck** function to ensure virtual machine update readiness
- Option to rollback in case any issues are encountered during the update process
- Minor & Major version updates to OS image version can be done from the UI and REST APIs
- To maintain secure systems, only the 4 latest Exadata Image minor version updates are available in the console

Exadata VM OS Image Update

OS updates

Update description	State	Component	Type	Version	Last Successful Precheck	Release date	⋮
Virtual Machine OS Update to 22.1.22.0.0.240410.1	● Available	Exadata Image	Update	22.1.22.0.0.240410.1	NA	Mon, Apr 29, 2024, 03:21:50 UTC	Run Precheck
Virtual Machine OS Update to 23.1.13.0.0.240410.1	● Available	Exadata Image	Update	23.1.13.0.0.240410.1	NA	Wed, Apr 24, 2024, 03:38:43 UTC	Apply Exadata OS Image Update
Virtual Machine OS Update to 22.1.21.0.0.240308	● Available ⓘ	Exadata Image	Update	22.1.21.0.0.240308	NA	Mon, Apr 15, 2024, 03:49:28 UTC	Copy OCID
Virtual Machine OS Update to 23.1.12.0.0.240322	● Available	Exadata Image	Update	23.1.12.0.0.240322	NA	Tue, Apr 2, 2024, 01:53:02 UTC	⋮
Virtual Machine OS Update to 23.1.11.0.0.240208	● Available	Exadata Image	Update	23.1.11.0.0.240208	NA	Mon, Feb 19, 2024, 10:28:04 UTC	⋮
Virtual Machine OS Update to 22.1.20.0.0.240201	● Available ⓘ	Exadata Image	Update	22.1.20.0.0.240201	NA	Wed, Feb 14, 2024, 00:48:48 UTC	⋮
Virtual Machine OS Update to 23.1.10.0.0.240119	● Available	Exadata Image	Update	23.1.10.0.0.240119	NA	Mon, Jan 29, 2024, 05:27:41 UTC	⋮
Virtual Machine OS Update to 22.1.19.0.0.240119	● Available	Exadata Image	Update	22.1.19.0.0.240119	NA	Mon, Jan 29, 2024, 05:20:15 UTC	⋮
Virtual Machine OS Update to 23.1.9.0.0.231215.1	● Available	Exadata Image	Update	23.1.9.0.0.231215.1	NA	Thu, Jan 4, 2024, 08:26:44 UTC	⋮
Virtual Machine OS Update to 22.1.18.0.0.231208	● Available	Exadata Image	Update	22.1.18.0.0.231208	NA	Thu, Jan 4, 2024, 08:24:20 UTC	⋮

Showing 10 items < 1 of 1 >

Update Exadata VM OS Image:

- Update OS Image using OCI Console or REST APIs
- Choose desired OS Image version
- Run **Precheck for update** prior to maintenance window to validate system readiness

Apply Exadata OS Image Update

[Help](#)

Exadata OS image updates are applied to the VM cluster's virtual machines in a rolling manner. Databases remain available during the update operation.

Do you want to update the OS image of VM cluster **MyDemoVMCluster** from version 22.1.13.0.0.230818 to version 22.1.23.0.0.240501.1?



Last successful precheck was run at Thu, May 23, 2024, 08:31:13 UTC.

[Apply Exadata Image Update](#) [Cancel](#)

Exadata Database Service

Patch Grid Infrastructure Software

Customer
Responsibility



Grid Infrastructure (GI) Patching

Update Grid Infrastructure (GI):

- Update GI using OCI Console or REST APIs
- Choose desired Grid Infrastructure version
- Run **Precheck for update** prior to maintenance window to validate system readiness

The screenshot shows a table of available updates for Oracle Grid Infrastructure. The columns include Update description, State, Component, Type, Version, Last Successful Precheck, and Release date. A red box highlights the 'Run Precheck' button at the bottom right of the table area.

Update description	State	Component	Type	Version	Last Successful Precheck	Release date
23.4 Grid Infrastructure upgrade	Available	Grid Infrastructure	Upgrade	23.4.0.24.05	NA	Wed, May 15, 2024, 01:57:37 UTC
Apr 2024 19c Db System patch	Available	Grid Infrastructure	Patch	19.23.0.0.0	NA	Sun, Apr 28, 2024, 07:33:04 UTC
Jan 2024 19c Db System patch	Available	Grid Infrastructure	Patch	19.22.0.0.0	NA	Mon, Jan 29, 2024, 12:08:00 UTC
Grid Infrastructure Release Update - 19.21.0.0.0 (Oct 2023)	Available	Grid Infrastructure	Patch	19.21.0.0.0	NA	
Jul 2023 19c Db System patch	Available	Grid Infrastructure	Patch	19.20.0.0.0	NA	

Run Precheck

Apply Grid Infrastructure Patch

Copy OCID

GI Update is performed in a rolling fashion

- Database instances in the virtual machine undergoing a GI update will not be available