



Exadata Database Service

User-Managed Maintenance Tasks

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ORACLE

Customer Responsibility

Exadata Database Service

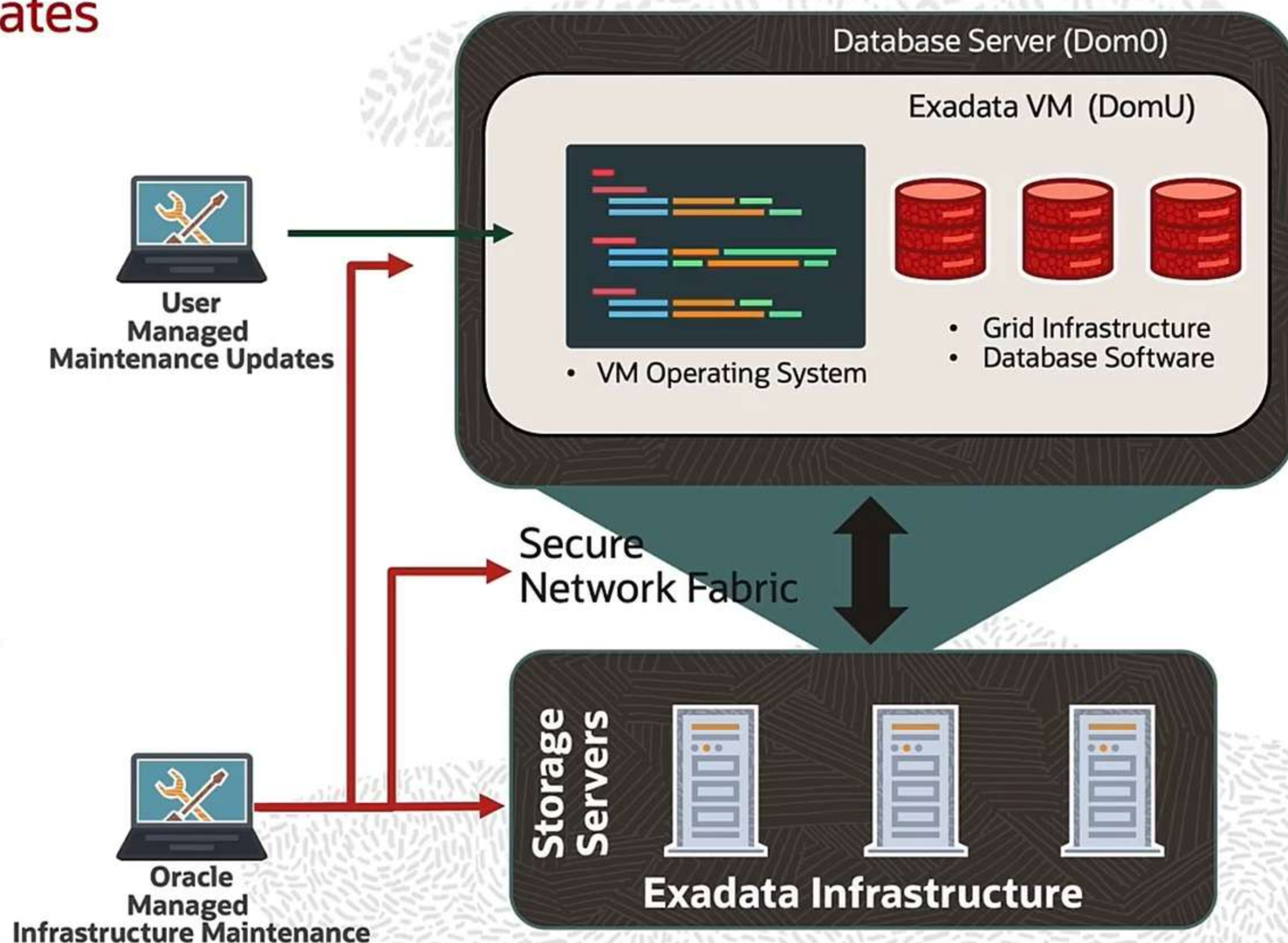
Managing Maintenance Updates

■ 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



4:50 / 12:25

1x   HD 

Find Available Updates & Patches

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

Oracle Exadata Database Service on Dedicated Infrastructure

Updates

Update History

Scope

Exadata VM Clusters

MyDemoVMCluster

Database Home

My19cDBhome3

Announcements

Exadata Fleet Update orchestrates your software updates across multiple database cloud resources in a single operation. [Try out Exadata Fleet Update here.](#)

Updates

Exadata VM Cluster: [MyDemoVMCluster](#)

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
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
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
Virtual Machine OS Update to 23.1.12.0.0.240302	Available	Exadata Image	Update	23.1.12.0.0.240302	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 >

Grid Infrastructure updates

Oracle Grid Infrastructure software images

Custom Grid Infrastructure software images

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	Mon, Oct 23, 2023, 09:22:04 UTC
Jul 2023 19c Db System patch	Available	Grid Infrastructure	Patch	19.20.0.0.0	NA	Tue, Jul 25, 2023, 02:58:55 UTC

Showing 5 items < 1 of 1 >

Database Home: [My19cDBhome3](#)

Oracle Database Software Images

Custom Database Software Images

Patch description	State	Version	Release date
Apr 2024 19c Database patch	Available	19.23.0.0.0	Sun, Apr 28, 2024, 07:29:03 UTC
Jan 2024 19c Database patch	Available	19.22.0.0.0	Mon, Jan 29, 2024, 12:05:22 UTC
Oct 2023 19c Database patch	Available	19.21.0.0.0	Mon, Oct 23, 2023, 09:19:22 UTC

Showing 3 items < 1 of 1 >

View Update & Patch History

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

Oracle Base Database

Update History

Exadata VM Cluster: [MyExaVMCluster](#)

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, 21:38:55 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 >

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 >

Updates

Update History

Scope

Exadata VM Clusters

MyExaVMCluster

Database Home

My19Cdbhome

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	⋮
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	⋮
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	⋮
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 >

Run Precheck

Apply Exadata OS Image Update

Copy OCID

Update 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

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

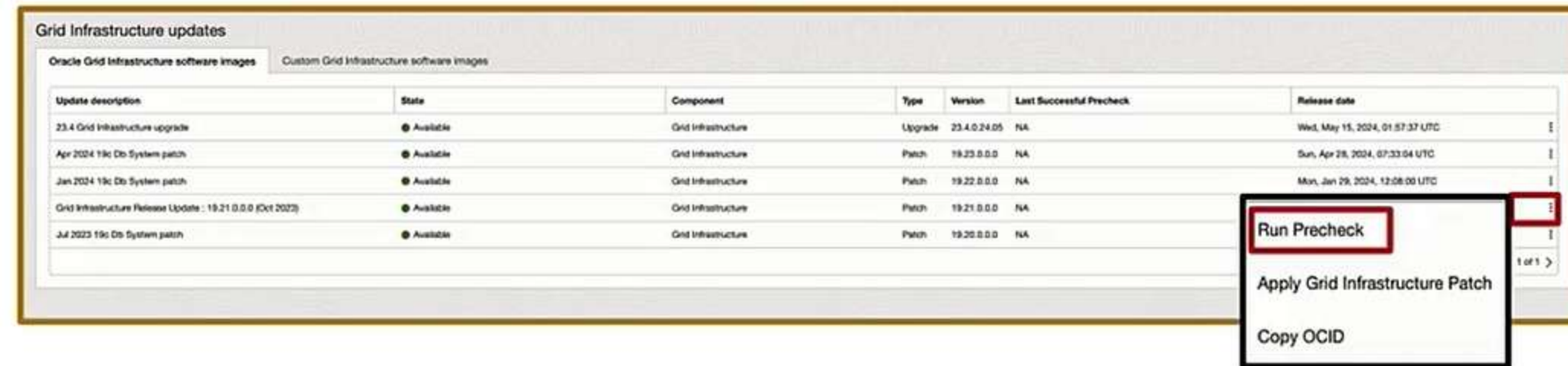
Customer
Responsibility



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 displays the 'Grid Infrastructure updates' section of the OCI console. It features two tabs: 'Oracle Grid Infrastructure software images' (selected) and 'Custom Grid Infrastructure software images'. Below the tabs is a table listing available updates. The table has columns for 'Update description', 'State', 'Component', 'Type', 'Version', 'Last Successful Precheck', and 'Release date'. The 'State' column shows 'Available' for all listed updates. To the right of the table, there is a 'Run Precheck' button, which is highlighted with a red box. Below this button are two other options: 'Apply Grid Infrastructure Patch' and 'Copy OCID'.

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	

GI Update is performed in a rolling fashion

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