Oracle® Cloud

What's New for Oracle Database Cloud Service

What's New in Database Cloud Service

This document describes what's new in Oracle Database Cloud Service on all platforms where it's available:

- On Oracle Cloud
- On Oracle Cloud at Customer

For each platform, information is organized by the date a specific feature or capability became available. Additionally, the document provides historic "what's new" information for the past 12 months.

How you gain access to a new feature depends on which part of Database Cloud Service the feature is added to, as described in Gaining Access to New Features.

On Oracle Cloud

The following sections describe what's new in Oracle Database Cloud Service on Oracle Cloud in Oracle data centers.

February 2019

Feature	Description
Default behavior of recovery operation changed for `dbaasapi`, `dbaascli`, and `bkup_api` has changed.	The recovery operation for `dbaasapi`, `dbaascli`, and `bkup_api` has changed to return only the data and not the configuration files. Use the new option, `-cfgfiles`, to recover configuration files along with the data. The REST API recovery operation and raccli recovery operation have not changed and continue to work as before. See the following documentation: • User documentation for the recovery operation in *Administering Oracle Database Cloud Service*. • dbaascli Utility Reference in *Administering Oracle Database Cloud Service*.

Feature	Description
New command to list the history of jobs in a scheduled backup and retrieve details of a single job.	The `bkup_api` now has a `list jobs` command. See Retrieve the History of Scheduled Backup Results with the bkup_api Utility in *Administering Oracle Database Cloud Service*.
Function to report current tooling version and image version documented	Using the dbaasapi from the command line, you can get a report on the tooling and image versions. See Cloud Tooling and Image Versions in *Administering Oracle Database Cloud Service*.
Oracle Documaker Enterprise Edition certified for use with Database Cloud Service	Oracle Documaker Enterprise Edition version 12.6.2 has been certified for use with Database Cloud Service deployments created on Oracle Database 12c Release 1 (12.1.0.2 and later) with the following guidelines for each software edition: • Enterprise Edition: for non-load Development and Functionality testing only. • Enterprise Edition - High Performance: for testing environments. This edition includes Partitioning and Advanced Compression; the use of Partitioning is mandatory, the use of Advanced Compression is optional though highly recommended to reduce the consumed storage. • Enterprise Edition - Extreme Performance: for Production. This edition extends the High Performance edition and comes with options to set up a live stand-by database for Disaster Recovery, and to use clustering (RAC - Real Application Clusters).

January 2019

Feature	Description
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.4.5.1 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases. This update is required to apply the January 2019 patches. To apply this update, use the tag `18451` when following the instructions in Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

Feature	Description
January 2019 PSU, BP and RU patches available to apply to existing deployments	The January 2019 Patch Set Update (PSU), Bundle Patch (BP) and Release Update (RU) are now available to patch existing Database Cloud Service database deployments, provided that you use a command-line utility to apply the patch. Which of these patches you apply depends on the Oracle Database version of your deployment.
	Before you apply the appropriate patch, make sure your deployment has the latest version of cloud tooling, as described in Updating the Cloud Tooling on Database Cloud Service in *Administering Oracle Database Cloud Service*.
	For information about using command-line utilities to apply a patch, see these topics in *Administering Oracle Database Cloud Service*:
	• For database deployments hosting a single-instance database, see Applying a Patch by Using the dbaascli Utility.
	• For database deployments hosting an Oracle Data Guard configuration of single-instance databases, see Applying a Patch by Using the dbpatchmdg Utility.
	• For database deployments hosting an Oracle RAC database or Oracle Data Guard configuration of Oracle RAC databases, see Applying a Patch by Using the raccli Utility and provide the tag value for your database version:
	– `29193671` for Oracle Database Release 18c
	– `28828733` for Oracle Database Release 12.2
	– `28833531` for Oracle Database Release 12.1
	– `28813878` for Oracle Database Release 11.2

December 2018

Feature	Description
Updated notices of future deprecations and removals	Soon, **Oracle Database Cloud Service** (**Database Classic** on the **My Services Dashboard**), will drop the option to create database deployments on OCI regions. Oracle recommends creating new database deployments for OCI using the **Oracle Cloud Infrastructure Database** service (**Database** on the **My Services Dashboard**). This service offers database deployments on Bare Metal, VM, and Exadata.
	Cloud support for Oracle Database 12c Release 2 ends July 2020. Cloud support for Oracle Database 11g Release 2 ends December 2020. These actions apply to all cloud services: DBCS, ExaCS, ExaCC, and OCI Database.
	If you are using, or are planning to use, one of the release versions listed above, Oracle recommends that you plan an upgrade to a supported RDBMS release (for example, Oracle Database 18c or Oracle Database 12c Release 1) before services using Oracle Database 12c Release 2 or Oracle Database 11g Release 2 enter the unsupported state.

Feature	Description
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.3.1 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases. To apply this update, use the tag `18331` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

October 2018 PSU, BP and RU patches available to apply to existing deployments	The October 2018 Patch Set Update (PSU), Bundle Patch (BP) and Release Update (RU) are now available to patch existing Database Cloud Service database deployments, provided that you use a command-line utility to apply the patch. Which of these patches you apply depends on the Oracle Database version of your deployment.
	
	Before you apply the appropriate patch, make sure your deployment has the latest version of cloud tooling, as described in Updating the Cloud Tooling on Database Cloud Service in *Administering Oracle Database Cloud Service*.
	
	For information about using command-line utilities to apply a patch, see these topics in *Administering Oracle Database Cloud Service*:
	
	• For database deployments hosting a single-instance database, see Applying a Patch by Using the dbaascli Utility.
	• For database deployments hosting an Oracle Data Guard configuration of single-instance databases, see Applying a Patch by Using the dbpatchmdg Utility.
	• For database deployments hosting an Oracle RAC database or Oracle Data Guard configuration of Oracle RAC databases, see Applying a Patch by Using the raccli Utility and provide the tag value for your database version:
	  – `28659165` for Oracle Database Release 18c
	  – `28672345` for Oracle Database Release 12.2
	  – `28349951` for Oracle Database Release 12.1
	  – `28429134` for Oracle Database Release 11.2

New version for ORDS	A new version of ORDS has been integrated into the base image for single-instance databases: Oracle REST Data Services (ORDS) version 18.2.0

November 2018

Feature	Description
Jul 2018 PSU, BP or RU integrated into base image for single-instance databases	The July 2018 PSU (Patch Set Update), BP (Bundle Patch) or RU (Release Update), depending on Oracle Database version, is now integrated into the base image for new Database Cloud Service database deployments that host single-instance databases and Data Guard configurations with single-instance primary and standby databases. When you create such a database deployment, it will already include the PSU, BP or RU functionality.

Feature	Description
Faster patching	Database Cloud Service patching time is now faster by approximately fifty percent.
New versions for SQL Developer Web, ORDS, APEX and ORE	New versions of several components have been integrated into the base image for single-instance databases: • Oracle SQL Developer Web version 18.2.1 • Oracle REST Data Services (ORDS) version 18.1.0 • Oracle Application Express (APEX) version 18.1.0.00.45 • Oracle R Enterprise (ORE) version 1.5.1

September 2018

Feature	Description
New short name for Oracle Database Cloud Service in My Services	As of late September, 2018, the short name used by the My Services console for Oracle Database Cloud Service changed from **Database** to **Database Classic**. Also, the short name for the Oracle Database cloud service that is specific to Oracle Cloud Infrastructure changed from **Database (OCI)** to **Database**.
Extreme Performance QuickStart option creates a single-instance database	Previously, when you used the Extreme Performance QuickStart option, Oracle Database Cloud Service created a database deployment hosting a clustered database using Oracle Real Application Clusters (Oracle RAC), housed on two compute nodes. Now, when you use the Extreme Performance QuickStart option, Oracle Database Cloud Service creates a database deployment hosting a single-instance database, housed on one compute node. For more information, see the Extreme Performance section of "Creating a QuickStart Database Deployment" in *Administering Oracle Database Cloud Service*.

Consolidated patching commands for deployments hosting an Oracle Data Guard configuration of single-instance databases	Previously, you used different command-line utilities with different subcommands and options to perform patching operations on the cloud tooling, database and OS software on deployments hosting an Oracle Data Guard configuration of single-instance databases.
	
	Now, all the patching operations across all these types of software are consolidated under a single command:
	
	`dbaascli patch software action`
	
	where `software` is `db` (database), `os` (OS) or `tools` (cloud tooling) and `action` is a patching operation like `list` or `apply`.
	
	When you create a new database deployment hosting an Oracle Data Guard configuration of single-instance databases, it will include these consolidated patching commands. To use these new commands in an existing deployment, you must first update the deployment's cloud tooling by running the following, now-obsolete command (as the `root` user) one last time:
	
	`dbaascli dbpatchm --run -toolsinst -rpmversion=LATEST`

August 2018

Feature	Description
"Bring Your Own License" now enabled by default	The "Bring Your Own License" (BYOL) feature is now enabled by default: • When creating a QuickStart database deployment, the "Bring Your Own License" feature is now used. • When creating a customized database deployment, the "Bring Your Own License" option is enabled by default. To create a database deployment that does not use the "Bring Your Own License" feature, you must create a customized database deployment and disable the "Bring Your Own License" option. For more information about the "Bring Your Own License" feature, see FAQ: Oracle BYOL to PaaS.
July 2018 PSU, BP and RU patches available in console	Last month, the July 2018 Patch Set Update (PSU), Bundle Patch (BP) and Release Update (RU) became available if you used a command-line utility to apply the patch. They are now available in the Oracle Database Cloud Service console as well. For information about applying database patches using the console, see Applying a Patch in *Administering Oracle Database Cloud Service*.
Simplified patching of **Database Clustering with RAC and Data Guard Standby** deployments	Previously, to check or apply a database patch to a deployment of two Oracle RAC databases as the primary and standby databases of an Oracle Data Guard configuration, you had to check or apply the patch separately to each of the Oracle RAC databases. Now, the `raccli apply patch` command includes the `-dg` option, which enables you to check or apply a database patch to both the primary and standby Oracle RAC databases. For more information, see raccli apply patch in *Administering Oracle Database Cloud Service*.
Oracle for Insurance Products certified for use with Database Cloud Service	The Oracle for Insurance solutions team has certified the following product components for use with Database Cloud Service deployments created using the **Oracle Database 12c Release 2** software release and the **Enterprise Edition - High Performance** or **Enterprise Edition - Extreme Performance** software edition: • **Oracle Health Insurance** components: OHI Components 2.17.2 and higher • **Oracle Insurance Policy Administration for Life and Annuity**: OIPA 11.1.0 and higher • **Oracle Insurance Policy Administration for Group Benefits**: OIPA 11.1.0 and higher
Fast Recovery Area (FRA) memory usage formula updated	FRA formulas for Single Instance and Single Instance with Data Guard protection have been updated this release. Note that the fast recovery area is used for storing critical files other than just FRA files. See the following documentation: • Single Instance Database: Storage Volumes and File System Layout • Single Instance Database with Data Guard: Storage Volumes and File System Layout

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July 2018

Feature	Description
Consolidated patching commands for single-instance deployments	Previously, you used different command-line utilities with different subcommands and options to perform patching operations on the cloud tooling, database and OS software on deployments of single-instance databases.
	Now, all the patching operations across all these types of software are consolidated under a single command:
	`dbaascli patch software action`
	where *software* is `db` (database), `os` (OS) or `tools` (cloud tooling) and *action* is a patching operation like `list` or `apply`.
	When you create a new database deployment hosting a single-instance database, it will include these consolidated patching commands. To use these new commands in an existing deployment, you must first update the deployment's cloud tooling by running the following, now-obsolete command (as the `root` user) one last time:
	`dbaascli dbpatchm --run -toolsinst -rpmversion=LATEST`
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.3.1 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases.
	To apply this update, use the tag `1831` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

Feature	Description

July 2018 PSU, BP and RU patches available to apply to existing deployments	The July 2018 Patch Set Update (PSU), Bundle Patch (BP) and Release Update (RU) are now available to patch existing Database Cloud Service database deployments, provided that you use a command-line utility to apply the patch. Which of these patches you apply depends on the Oracle Database version of your deployment.
	
	Before you apply the appropriate patch, make sure your deployment has the latest version of cloud tooling, as described in Updating the Cloud Tooling on Database Cloud Service in *Administering Oracle Database Cloud Service*.
	
	For information about using command-line utilities to apply a patch, see these topics in *Administering Oracle Database Cloud Service*:
	
	• For database deployments hosting a single-instance database, see Applying a Patch by Using the dbaascli Utility.
	• For database deployments hosting an Oracle Data Guard configuration of single-instance databases, see Applying a Patch by Using the dbpatchmdg Utility.
	• For database deployments hosting an Oracle RAC database or Oracle Data Guard configuration of Oracle RAC databases, see Applying a Patch by Using the raccli Utility and provide the tag value for your database version:
	
	   – `28297426` for Oracle Database Release 18c
	   – `28297157` for Oracle Database Release 12.2
	   – `27968010` for Oracle Database Release 12.1
	   – `27967757` for Oracle Database Release 11.2

Apr 2018 PSU, BP or RU integrated into base image for single-instance databases	The April 2018 PSU (Patch Set Update), BP (Bundle Patch) or RU (Release Update), depending on Oracle Database version, is now integrated into the base image for new Database Cloud Service database deployments that host single-instance databases and Data Guard configurations with single-instance primary and standby databases. When you create such a database deployment, it will already include the PSU, BP or RU functionality.

June 2018

Feature	Description
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.2.5 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases. To apply this update, use the tag `1825` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

Feature	Description
Apr 2018 BP or RU integrated into base image for Oracle RAC databases	The April 2018 BP (Bundle Patch) or RU (Release Update), depending on Oracle Database version, is now integrated into the base image for new Database Cloud Service database deployments that host Oracle RAC databases and Data Guard configurations with Oracle RAC primary and standby databases. When you create such a database deployment, it will already include the BP or RU functionality.

May 2018

Feature	Description
Database deployments on Oracle Cloud Infrastructure now support 16TB storage volumes	Database Cloud Service now supports the 16TB block storage volumes available on Oracle Cloud Infrastructure.
Oracle SQL Developer Web now included in single-instance deployments instead of Oracle DBaaS Monitor	Oracle DBaaS Monitor is being decommissioned in favor of Oracle SQL Developer Web on Database Cloud Service database deployments whose database type is "Single Instance" or "Single Instance with Data Guard Standby". SQL Developer Web is a new, browser-based application that incorporates features of both Oracle SQL Developer and Oracle DBaaS Monitor. To find out more about it, see Using Oracle SQL Developer Web in Database Cloud Service in *Administering Oracle Database Cloud Service*. When you create a new database deployment, SQL Developer Web is automatically installed. If you have an older database deployment, you can replace DBaaS Monitor with SQL Developer Web by updating your cloud tooling, as described in Updating the Cloud Tooling on Database Cloud Service in *Administering Oracle Database Cloud Service*.
Oracle Application Express 5.1.4 now included in single-instance deployments	Oracle Application Express 5.1.4 is now included by default in new Database Cloud Service deployments whose database type is "Single Instance" or "Single Instance with Data Guard Standby". If you have an older database deployment, you can upgrade to version 5.1.4 by following these instructions in *Administering Oracle Database Cloud Service*: • Upgrading from Oracle Application Express 5.1.0 or 5.1.3 to 5.1.4 for Oracle Database 12c and Oracle Database 18c • Upgrading from Oracle Application Express 5.1.0 or 5.1.3 to 5.1.4 for Oracle Database 11g

Feature	Description
New `bkup_api` subcommands to simplify administering automatic backups	The `bkup_api` command has new subcommands that make managing the automatic backups feature much easier: • To customize settings of your current configuration, see Customizing the Current Backup Configuration on Database Deployments Hosting Single-Instance Databases. • To enable the automatic backups feature or change where automatic backups are stored, see Changing the Backup Configuration on Database Deployments Hosting Single-Instance Databases. • To temporarily disable and then re-enable scheduled backups, see Disabling and Re-enabling Scheduled Backups.
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.2.3 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases. To apply this update, use the tag `1823` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.
Jan 2018 BP or PSU integrated into base image for single-instance databases	The January 2018 BP (Bundle Patch) or PSU (Patch Set Update), depending on Oracle Database version, is now integrated into the base image for new Database Cloud Service database deployments whose database type is "Single Instance" or "Single Instance with Data Guard Standby". When you create such a database deployment, it will already include the BP or PSU functionality.
Apr 2018 BP, RU and PSU patches available to apply to existing deployments	The April 2018 Bundle Patch (BP), Release Update (RU) and Patch Set Update (PSU) are now available to patch existing Database Cloud Service database deployments. Which of these three patches you apply depends on the database type and Oracle Database version of your deployment. For information about applying database patches, see Applying a Patch in *Administering Oracle Database Cloud Service*. To apply this update using the `raccli` utility on a deployment hosting an Oracle RAC database, follow the instructions Applying a Patch by Using the raccli Utility in *Administering Oracle Database Cloud Service* and provide the tag value for your database version: • `27681568` for Oracle Database Release 18c • `27468969` for Oracle Database Release 12.2 • `27486326` for Oracle Database Release 12.1 • `27475913` for Oracle Database Release 11.2

April 2018

Feature	Description
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.2.1.1 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases.
	To apply this update, use the tag `18211` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.
Jan 2018 BP or RU integrated into base image for Oracle RAC databases	The January 2018 BP (Bundle Patch) or RU (Release Update), depending on Oracle Database version, is now integrated into the base image for new Database Cloud Service database deployments that host Oracle RAC databases and Data Guard configurations with Oracle RAC primary and standby databases. When you create such a database deployment, it will already include the BP or RU functionality.

March 2018

Feature	Description
Jan 2018 BP, RU and PSU patches available to apply to existing deployments	The January 2018 Bundle Patch (BP), Release Update (RU) and Patch Set Update (PSU) are now available to patch existing Database Cloud Service database deployments. Which of these three patches you apply depends on the database type and Oracle Database version of your deployment. For information about applying database patches, see Applying a Patch in *Administering Oracle Database Cloud Service*.
	To apply this update using the `raccli` utility on a deployment hosting an Oracle RAC database, follow the instructions Applying a Patch by Using the raccli Utility in *Administering Oracle Database Cloud Service* and provide the tag value for your database version:
	• `27100009` for Oracle Database Release 12.2
	• `27010930` for Oracle Database Release 12.1
	• `27107360` for Oracle Database Release 11.2

February 2018

Feature	Description
Oracle Database 18c now available for database deployments	When you create a Database Cloud Service database deployment, you can now specify Oracle Database 18c as the database release. For information about this release of Oracle Database, see *What's New in Oracle Database 18c*.
	Note: Oracle Database 18c is not available for Hybrid DR deployments or the "Oracle Database Cloud Service - Virtual Image" service level.

Feature	Description
Spectre and Meltdown security vulnerabilities	Oracle has released patches related to the Spectre (CVE-2017-5753, CVE-2017-5715) and Meltdown (CVE-2017-5754) security vulnerabilities.
	Oracle strongly recommends that you apply these patches to existing Oracle Database Cloud Service database deployments created using release 18.1.2 or earlier. See Steps required to patch Spectre and Meltdown security vulnerabilities on existing instances in *Known Issues for Oracle Database Cloud Service*.
	Database deployments created using release 18.1.4 or later already contain the patches.
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.1.3 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases.
	To apply this update, use the tag `1813` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.
Oct 2017 BP, RU and PSU patches available to apply to existing deployments	The October 2017 Bundle Patch (BP), Release Update (RU) and Patch Set Update (PSU) are now available to patch existing Database Cloud Service database deployments. Which of these three patches you apply depends on the database type and Oracle Database version on your deployment. For information about applying database patches, see Applying a Patch in *Administering Oracle Database Cloud Service*.

December 2017

Feature	Description
Steps needed to stabilize Linux OS on existing and newly created deployments	Configuration settings of certain Linux OS features on existing and newly created database deployments can cause noticeably slower I/O, system instability and, in certain extreme cases, system hang.
	Oracle strongly recommends that you correct these settings by following the instructions Steps needed to stabilize Linux OS on existing and newly created deployments in *Known Issues for Oracle Database Cloud Service*.
Cloud tooling update available for deployments hosting Oracle RAC databases	The 17.3.5.2 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases. To apply this update, use the tag `17352` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

Feature	Description
Aug 2017 RU patch available for Release 12.2 Oracle RAC databases	The August 2017 Release Update (RU) is now available to patch existing Database Cloud Service database deployments running Oracle Database Release 12.2, and hosting an Oracle RAC database or an Oracle Data Guard configuration of Oracle RAC databases. To apply this update using the `raccli` utility, use the tag `26645224` when following the instructions Applying a Patch by Using the raccli Utility in *Administering Oracle Database Cloud Service*.
Aug 2017 BP patches available for Release 11.2 and 12.1 Oracle RAC databases	The August 2017 Bundle Patch (BP) is now available to patch existing Database Cloud Service database deployments running Oracle Database Release 11.2 or 12.1, and hosting an Oracle RAC database or an Oracle Data Guard configuration of Oracle RAC databases. To apply this update using the `raccli` utility, use the tag `26610246` for Oracle Database Release 11.2 or the tag `26381494` for Oracle Database Release 12.1 when following the instructions Applying a Patch by Using the raccli Utility in *Administering Oracle Database Cloud Service*.

October 2017

Feature	Description
Aug 2017 RU patch available for Release 12.2 single-instance databases	The August 2017 Release Update (RU) is now available to patch existing Database Cloud Service database deployments running Oracle Database Release 12.2 and hosting a single-instance database or an Oracle Data Guard configuration of single-instance databases, provided that you use a command-line utility to apply the patch. See these topics in *Administering Oracle Database Cloud Service*: • For database deployments hosting a single-instance database, see Applying a Patch by Using the dbpatchm Subcommand. • For database deployments hosting an Oracle Data Guard configuration of single-instance databases, see Applying a Patch by Using the dbpatchmdg Utility.
Jul 2017 PSU and BP patches available for Release 11.2 and 12.1 single-instance databases	The July 2017 Patch Set Update (PSU) and Bundle Patch (BP) are now available to patch existing Database Cloud Service database deployments running Oracle Database Release 11.2 or 12.1 and hosting a single-instance database or an Oracle Data Guard configuration of single-instance databases, provided that you use a command-line utility to apply the patch. See these topics in *Administering Oracle Database Cloud Service*: • For database deployments hosting a single-instance database, see Applying a Patch by Using the dbpatchm Subcommand. • For database deployments hosting an Oracle Data Guard configuration of single-instance databases, see Applying a Patch by Using the dbpatchmdg Utility.

On Oracle Cloud at Customer

This section describes what's new in Oracle Database Cloud Service on Oracle Cloud at Customer in your data center.

Oracle Cloud at Customer delivers Oracle Cloud services in your data center so that you can take advantage of Oracle Cloud while meeting data-residency requirements. Oracle upgrades your Oracle Cloud at Customer environment at regular intervals.

With some exceptions, Database Cloud Service on Oracle Cloud at Customer and on Oracle Cloud share the same features. In the rare cases where a feature is not available on Oracle Cloud at Customer, topics describing the feature are marked as follows in *Administering Oracle Database Cloud Service*:

 This topic does not apply to Oracle Cloud at Customer.

Similarly, in the rare cases where a feature is only available on Oracle Cloud at Customer, topics describing the feature are marked as follows:

 This topic applies only to Oracle Cloud at Customer.

October 2018

Feature	Description
Oracle Cloud at Customer no longer supports RAC deployments	When creating an Oracle Cloud at Customer database deployment, the following database types are no longer supported: • Database Clustering with RAC • Database Clustering with RAC and Data Guard Standby If you would like to create a highly available deployment, Oracle recommends you instead choose the **Single Instance with Data Guard Standby** database type.

August 2018

The following table highlights changes to Database Cloud Service on Oracle Cloud at Customer release 18.1.4 as compared to release 17.2.3.

Feature	Description
Oracle Database 18c now available for database deployments	When you create a Database Cloud Service database deployment, you can now specify Oracle Database 18c as the database release. For information about this release of Oracle Database, see *What's New in Oracle Database 18c*. Note: Oracle Database 18c is not available for Hybrid DR deployments or the "Oracle Database Cloud Service - Virtual Image" service level.

Feature	Description
Spectre and Meltdown security vulnerabilities	Oracle has released patches related to the Spectre (CVE-2017-5753, CVE-2017-5715) and Meltdown (CVE-2017-5754) security vulnerabilities.
	Oracle strongly recommends that you apply these patches to existing Oracle Database Cloud Service database deployments created using release 18.1.2 or earlier. See Steps required to patch Spectre and Meltdown security vulnerabilities on existing instances in *Known Issues for Oracle Database Cloud Service*.
	Database deployments created using release 18.1.4 or later already contain the patches.
Cloud tooling update available for deployments hosting Oracle RAC databases	The 18.1.3 update to cloud tooling is available to apply to existing Database Cloud Service database deployments that host Oracle RAC databases.
	To apply this update, use the tag `1813` when following the instructions Updating the Cloud Tooling by Using the raccli Utility in *Administering Oracle Database Cloud Service*.
Oct 2017 BP, RU and PSU patches available to apply to existing deployments	The October 2017 Bundle Patch (BP), Release Update (RU) and Patch Set Update (PSU) are now available to patch existing Database Cloud Service database deployments. Which of these three patches you apply depends on the database type and Oracle Database version on your deployment. For information about applying database patches, see Applying a Patch in *Administering Oracle Database Cloud Service*.
Steps needed to stabilize Linux OS on existing and newly created deployments	Configuration settings of certain Linux OS features on existing and newly created database deployments can cause noticeably slower I/O, system instability and, in certain extreme cases, system hang.
	Oracle strongly recommends that you correct these settings by following the instructions Steps needed to stabilize Linux OS on existing and newly created deployments in *Known Issues for Oracle Database Cloud Service*.
Universal Credits subscription model	Database Cloud Service now supports the Universal Credits subscription model. In the Universal Credits subscription model, you commit to pay a certain amount up front monthly or annually for a bundle of services. Under this model, you can use any combination of the services such as Oracle Database Cloud Service and Oracle Java Cloud Service in your bundle whenever you need them. For information, see Selecting a Payment Plan in *Getting Started with Oracle Cloud*.
QuickStart templates available to create deployments easily	For new customers with a Universal Credits subscription Database Cloud Service provides three QuickStart templates that create database deployments of commonly used configurations. You simply pick a template and give the deployment a name. Database Cloud Service then uses an Oracle Cloud Stack template to provide all the other configuration information. For details, see Creating a QuickStart Database Deployment in *Administering Oracle Database Cloud Service*.

Feature	Description
Leverage existing licenses when creating database deployments	For new customers with a Universal Credits subscription Database Cloud Service provides a "Bring your own license" feature you can use when creating database deployments. If you have existing perpetual licenses to Oracle Database, you can use one when creating a database deployment to establish the right to use Oracle Database. Then, your Cloud account will be charged a lesser amount for the new deployment because the right to use Oracle Database is covered by your perpetual license agreement.
Linux OS security patching	You can apply Linux OS security patches to compute nodes hosting Database Cloud Service database deployments. See Applying Linux OS Security Patches in *Administering Oracle Database Cloud Service*.
Sparse PDB clones in DBaaS Monitor	(Base image 17.3.3) When you use DBaaS Monitor to clone a pluggable database (PDB), you can now choose to create a sparse clone instead of a full clone. For more information, see "Cloning a Pluggable Database" in *Administering Oracle Database Cloud Service*.
High Performance Block Storage support	If you have a metered subscription and your identity domain is enabled for regions, you can now allocate database block storage on solid state devices. For more information, see the element **Use High Performance Storage** in "Create Instance: Service Page" in *Administering Oracle Database Cloud Service*.
Instructions for upgrading older deployments to Oracle Application Express 5.1	In June 2017, new database deployments of single-instance databases began including Oracle Application Express (APEX) 5.1. Additionally, the installation location of APEX was changed so that you could install other versions of APEX and have different pluggable databases (PDBs) use different versions of APEX. *Administering Oracle Database Cloud Service* now includes instructions for upgrading older database deployments to use APEX 5.1 and the new installation location. See "Using Oracle Application Express in Database Cloud Service".
Mandatory "sync-up" patch available for Release 12.2 databases	Several enhancements and bug fixes have been made to Oracle Database Release 12.2 since its release on Oracle Cloud in November 2016. However, these improvements have not yet been gathered into a PSU. Database Cloud Service is making available a "sync-up" patch (ID 24824889-EE) that includes these many improvements and prepares your database deployment for patching when the first PSU becomes available for Release 12.2. You must apply this patch to bring Database Cloud Service database deployments running Release 12.2 up-to-date and to permit PSUs to be applied later. This patch is only available through command-line tools. To apply it, see the topic in *Administering Oracle Database Cloud Service* for your database type: • **Single Instance**: Applying a Patch by Using the dbpatchm Subcommand. • **Single Instance with Data Guard Standby**: Applying a Patch by Using the dbpatchmdg Utility.

Feature	Description
Oracle Application Express 5.1 now included	(Base image 17.2.5) Oracle Application Express 5.1 (instead of version 5.0) is now included by default in new Database Cloud Service deployments whose database type is "Single Instance" or "Single Instance with Data Guard Standby".

August 2017

With the advent of the Oracle Cloud at Customer 17.2.3 software release in August 2017, Database Cloud Service on Oracle Cloud at Customer offers almost the exact same features as Database Cloud Service on Oracle Cloud in Oracle data centers. The service is so similar on the two "platforms" that the *Public Cloud Machine Using Oracle Database Cloud Service* guide has been retired. Now, the *Administering Oracle Database Cloud Service* guide describes the features and use of Database Cloud Service on both platforms.

Gaining Access to New Features

How you gain access to a new feature depends on which part of Database Cloud Service the feature is added to:

- **Feature added to the Oracle Database Cloud Service console**

  When a new feature is added to the web-based Oracle Database Cloud Service console, you gain immediate access to the feature. The feature is available to existing database deployments and those created after the availability date. You don't need to perform or request an upgrade to be able to use the new feature.

- **Feature added to the cloud tooling available locally on database deployments**

  When a new feature is added to the cloud tooling available locally on database deployments, you do need to update the cloud tooling on existing deployments to take advantage of the new feature. For information about updating this tooling, see "Updating the Cloud Tooling on Database Cloud Service" in *Administering Oracle Database Cloud Service*.

- **Feature added to base image used to create database deployments**

  Some features are available only in database deployments you create after the feature becomes available. For those features the base image that first contained the feature is noted in the item listing in this document. To find out the base image version for a database deployment, follow these instructions:

  1. Click the ≡ icon in the top corner of the Oracle Database Cloud Service console.
  2. Click **Compute Cloud Service** in the list of consoles.
  3. In the list of Compute Cloud instances, locate and click the instance whose name starts with the Database Cloud Service database deployment's name.

4. Look at the value of the **Image** field for a sequence of five numbers separated by periods; for example, 17.2.3.0.0. This is the base image version that was used to create the database deployment.

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