



Overview of Autonomous Database Refreshable Clones

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About me....



Keith Laker

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Oracle

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Agenda

1. What is a refreshable clone?
2. Points to remember
3. Key use cases for refreshable clones
4. Demo flow
 - Scenario overview
 - Create a new refreshable clone
 - Add new data to source database
 - Refresh clone with new data
 - Query new data using SQL Developer Web



Agenda

What Is A Refreshable Clone



What Is A Clone And What Makes It Refreshable

Cloning replicates an existing ADB instance

Options are:

Full clone

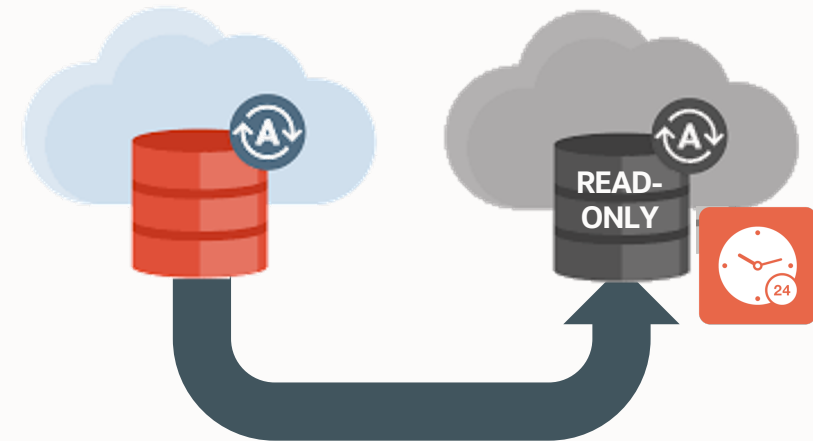
- *Creates a new database with the source database's data and metadata.*

Metadata-only clone

- Creates a new database that includes all of the source database schema metadata, but not the source database data.

Refreshable clone

- Creates a read-only full clone that can be easily refreshed with the data from the source database.



New

Notes – Key Points to Consider

Refreshable clones have a **one-week refresh age limit**.

If you do not perform a refresh within a week, then the refreshable clone is no longer refreshable.

After a refreshable clone passes the refresh time limit, you can use the instance as a read only database or you can disconnect from the source to make the database a read/write (standard) database.



Refresh your clone before Wed, Aug 19, 2020, 17:54:12 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours).

Refresh Clone

Refreshable Clones – Key Points to Consider

1. Not available on ADB Always Free
2. Not available on Autonomous JSON Database.
3. Cannot create cascading refreshable clones.
4. APEX URLs do not work in a refreshable clone
 - APEX URLs are disabled in the Oracle Cloud Infrastructure console
 - APEX URLs are re-enabled when a refreshable clone is disconnected from its source
5. Oracle Machine Learning is disabled
6. OML user admin URL is disabled
7. Rename operation not available on a refreshable clone
 - Rename cannot be used on a database that is the source for a refreshable clone
8. AWR data and reports are not available for refreshable clones.

Agenda

Key Use Cases For Refreshable Clone



Use Case For Refreshable Clones

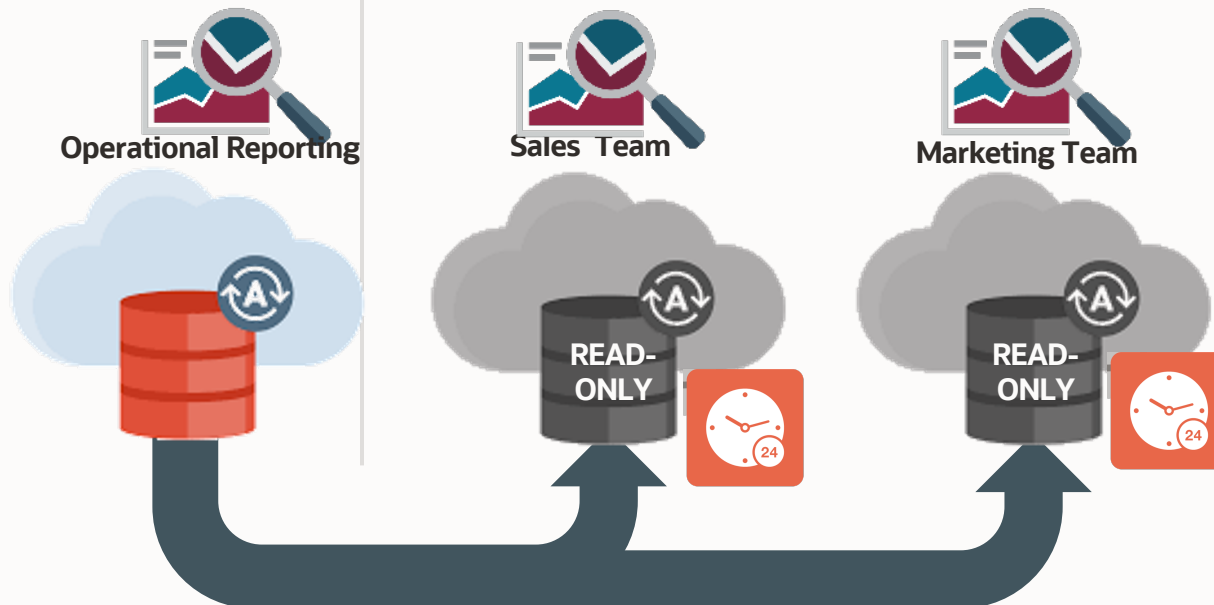
Read-Only Reporting Clones

Use a read-write ADB instance for data loading and transformation workloads.

Provide business users with read-only refreshable clone for reporting whilst new data is being loaded, transformed and aggregated.

Reporting workloads are isolated from data loading workloads

Allows you to spread the cost of database usage across multiple business units
Bill different units separately, based on usage of one or more refreshable clones



Agenda

Refreshable Clones Demo

Scenario



Use Case Scenario



Production instance acts as source for new refreshable clone

- Uses demo-user database account

- Show no data in demo-user schema

- Create a new refreshable clone

Load new data into demo-user schema in production (source) instance clone

- Add a new table and data for entity “reporting_channels”

Manually refresh clone instance

- Use the OCI console to manually refresh the clone

Query new data from within the read-only clone

- Use SQL Developer Web to query new data in demo-user schema

Agenda

Refreshable Clones Demo

Click-Through Demo



Autonomous Database

Autonomous Database

Dedicated Infrastructure 

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

Compartment

PMDEMO 

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

All 

State

Any state 





Tag Filters

[add](#) | [clear](#)

no tag filters applied

Autonomous Databases *in PMDEMO Compartment*

Create Autonomous Database

| Display Name | State | Dedicated | OCPUs | Storage (TB) | Workload Type | Autonomous Data Guard | Created  |
|--|--|-----------|-------|--------------|----------------|-----------------------|---|
| GKL Demo - Production Database | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:00:20 UTC  |
| DBStaffDemo | ● Available | No | 1 | 1 | Data Warehouse | Enabled | Thu, May 14, 2020, 01:55:56 UTC  |
| db4Thomas | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Fri, Jan 24, 2020, 00:25:40 UTC  |

Displaying 3 Autonomous Databases < 1 of 1 >

Autonomous Database

Autonomous Database

Dedicated Infrastructure ⓘ

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

Compartment

PMDEMO

r1atpdemo5 (root)/PMDEMO

Filters

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Any state

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[add](#) | [clear](#)

no tag filters applied

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[Create Autonomous Database](#)

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Displaying 3 Autonomous Databases < 1 of 1 >



Production database that will act as the source for the refreshable clone created during this demo

Autonomous Database

Autonomous Database

Dedicated Infrastructure 

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

Compartment

PMDEMO 

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

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Displaying 3 Autonomous Databases < 1 of 1 >



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: No active backups exist for this database.

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Resources

Metrics

Start time: Sep 1, 2020 1:14:07 PM 📅 End time: Sep 1, 2020 2:14:07 PM 📅 Quick Selects: Last hour ⌵

[Reset charts](#)



AVAILABLE

GKL Demo - Production Database

- DB Connection
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- Scale Up/Down
- More Actions [dropdown]

- Autonomous Database Information
- Tools**
- Tags

Database administration and developer tools for Autonomous Database

SQL Developer Web

Oracle SQL Developer Web provides an integrated development environment and a database administration interface for Oracle Database. [Learn more.](#)

Open SQL Developer Web

Oracle Application Express

Oracle Application Express (APEX) is a low-code development platform that enables you to build scalable, secure enterprise apps that can be deployed anywhere. [Learn more.](#)

Open APEX

Oracle ML User Administration

Oracle Machine Learning is a development environment that uses a web-based interface to enable you to perform data analytics, data discovery and data visualizations. [Learn more.](#)

Open Oracle ML User Administration

SODA Drivers

Simple Oracle Document Access (SODA) is a set of APIs that let you work with JSON documents managed by the Oracle Database without needing to use SQL. SODA drivers are available for REST, Java, Node.js, Python, PL/SQL, and C. [Learn more.](#)

Download SODA Drivers

Resources

Metrics

Backups (0)

Refreshable Clones (0)

Work Requests (1)

Metrics

Start time: Sep 1, 2020 1:18:02 PM [calendar icon] End time: Sep 1, 2020 2:18:02 PM [calendar icon] Quick Selects: Last hour [dropdown] [Reset charts]





AVAILABLE

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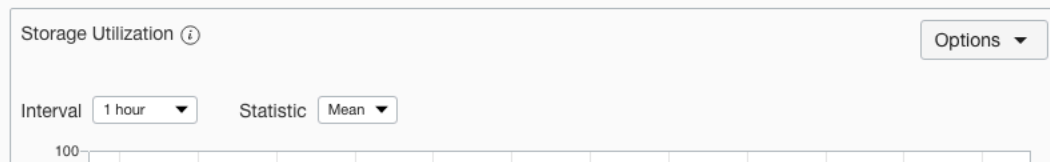
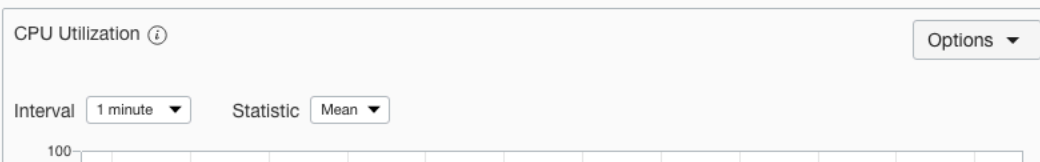
Backups (0)

Refreshable Clones (0)

Work Requests (1)

Metrics

Start time: Sep 1, 2020 1:18:02 PM [calendar icon] End time: Sep 1, 2020 2:18:02 PM [calendar icon] Quick Selects: Last hour [dropdown] [Reset charts]



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Metrics

Start time: Sep 1, 2020 1:18:02 PM [calendar icon]

End time: Sep 1, 2020 2:18:02 PM [calendar icon]

Reset charts

CPU Utilization [info icon]

Interval: 1 minute [dropdown] Statistic: Mean [dropdown]

Interval: 1 hour [dropdown] Statistic: Mean [dropdown]

Options [dropdown]

We will now use SQL Developer Web to view our demo-user schema and check there is no data in the schema



AVAILABLE

Resources

Metrics

Backups (0)

Refreshable Clones (0)

Work Requests (1)



Username

Password

[Sign in](#)



Username
GKLEMO

Password
.....

Sign in

Note – to access a non-Admin user you will need to tweak the URL to point to the demo-user schema and not the admin URL.

For more information about setting up non-admin user access to SQL Developer Web [click here](#).



Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

```
1
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Search...

No data load history was found, drag a new file to start we support XLS, XLSX, CSV, XML, JSON, and AVRO

Navigator Worksheets

GKLEMO
Tables
Search...

[Worksheet]*

```
1
```

SQL Developer Web worksheet, viewing the demo-user schema (GKLEMO)

Query Result Script Output DBMS Output

Search...





No data load history was found, drag a new file to start we support XLS, XLSX, CSV, XML, JSON, and AVRO

Navigator Worksheets

GKLDEMO

Tables

Search...  



[Worksheet]*        Aa 

```
1 select * from user_tables;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

    Download

Navigator Worksheets

GKLEMO
Tables
Search...  

[Worksheet]*        Aa 

```
1 select * from user_tables;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

    Download Execution time: 0.237 seconds

No items to display.

Navigator Worksheets



GKLEMO



Tables



Search...



[Worksheet]*



1 select * from user_tables;

Currently there are no tables in our demo user schema

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading



Download



Execution time: 0.237 seconds

No items to display.



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

- Autonomous Database Information
- Tools
- Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Switch back to the OCI Console for the production instance that is going to be the source for the refreshable clone

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Metrics

Start time: Sep 1, 2020 1:34:17 PM [calendar icon]
 End time: Sep 1, 2020 2:34:17 PM [calendar icon]
 Quick Selects: Last hour [dropdown]

[Reset charts](#)



AVAILABLE

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Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: No active backups exist for this database.

Network

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- Stop
- Restart
- Restore
- Create Clone
- Update Network Access
- Admin Password
- Update License Type
- Rename Database
- Move Resource
- Add Tags
- Terminate

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Dedicated Infrastructure: No

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Status: Disabled [Enable](#)

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ADW AVAILABLE

Metrics

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 Quick Selects: Last hour [dropdown]

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AVAILABLE

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Status: Disabled [Enable](#)

Backup

Last Automatic Back

Network

Access Type: Allow

Access Control List

Maintenance ⓘ

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Data Safe ⓘ

Status: Not registered [Register](#)

Use the "More Actions" button to reveal the menu containing the "Create Clone" option



AVAILABLE

Metrics

Start time: Sep 1, 2020 1:34:17 PM [calendar icon]
End time: Sep 1, 2020 2:34:17 PM [calendar icon]
Quick Selects: Last hour [dropdown arrow]

Create Autonomous Database Clone

[Help](#)

Choose a clone type

Full Clone

Creates a new database with source database's data and metadata.



Refreshable Clone

Creates a read-only full clone that can be easily refreshed with source database data. Must be refreshed within 7 days (168 hours) to remain connected to the source database.

Metadata Clone

Creates a new database that includes all source database schema metadata, but not the source database data.

Provide basic information for the Autonomous Database clone

Create in compartment

PMDEMO



r1atpdemo5 (root)/PMDEMO

Source database name READ-ONLY

GKLPROD

Display name

Clone of GKL Demo - Production Database

A user-friendly name to help you easily identify the resource.

Database name

DB202009011534

The name must contain only letters and numbers, starting with a letter. 14 characters max.

Configure the database

OCPU count

1

The number of OCPU cores to enable. Available cores are subject to your tenancy's service limits.

Auto scaling

Allows system to use up to three times the provisioned number of cores as the workload increases. [Learn more](#)

Create Autonomous Database Clone

[Cancel](#)

Create Autonomous Database Clone

[Help](#)

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Create in compartment

PMDEMO

r1atpdemo5 (root)/PMDEMO

Source database name READ-ONLY

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Display name

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A user-friendly name to help you easily identify the resource.

Database name

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The name must contain only letters and numbers, starting with a letter. 14 characters max.

Here is the list of types of clones that can be created:

Full Clone
Refreshable Clone
Metadata Clone

Configure the database

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Create in compartment

PMDEMO

r1atpdemo5 (root)/PMDEMO

Source database name READ-ONLY

GKLPROD

Display name

GKL Demo - Reporting Database

A user-friendly name to help you easily identify the resource.

Database name

DB202009011535

The name must contain only letters and numbers, starting with a letter. 14 characters max.

Note - we can place this new clone in a separate compartment if required but for this demo we are using the same compartment as the source

Configure the database

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[Cancel](#)

Create Autonomous Database Clone


[Help](#)

Choose a clone type

Full Clone

Creates a new database with source database's data and metadata.

Refreshable Clone

Creates a read-only full clone that can be easily refreshed with source database data. Must be refreshed within 7 days (168 hours) to remain connected to the source database. 

Metadata Clone

Creates a new database that includes all source database schema metadata, but not the source database data.

Provide basic information for the Autonomous Database clone

Create in compartment

PMDEMO 

r1atpdemo5 (root)/PMDEMO

Source database name *READ-ONLY*

GKLPROD

Display name

GKL Demo - Reporting Database

A user-friendly name to help you easily identify the resource.

Database name

GKLREPORTRC|

The name must contain only letters and numbers, starting with a letter. 14 characters max.

We will use the term "Reporting" to help identify this new instance as being a read-only, refreshable clone,

Configure the database

OCPU count

1

The number of OCPU cores to enable. Available cores are subject to your tenancy's service limits.

Auto scaling

Allows system to use up to three times the provisioned number of cores as the workload increases. [Learn more](#)

[Create Autonomous Database Clone](#)

[Cancel](#)

Create Autonomous Database Clone

[Help](#)

Database name

The name must contain only letters and numbers, starting with a letter. 14 characters max.

Configure the database

OCPU count

The number of OCPU cores to enable. Available cores are subject to your tenancy's service limits.

 Auto scaling

Allows system to use up to three times the provisioned number of cores as the workload increases. [Learn more.](#)

Choose network access

 Allow secure access from everywhere

You can restrict access to specific IP addresses and VCNs.

 Virtual cloud network

Private access only, using a VCN.

 Configure access control rules [i](#)

Choose a license type

Bring Your Own License (BYOL)

Bring my organization's Oracle Database software licenses to the Database service.

[Learn more.](#)



License Included

Subscribe to new Oracle Database software licenses and the Database service.

 [Show Advanced Options](#)

[Create Autonomous Database Clone](#)[Cancel](#)

Create Autonomous Database Clone

[Help](#)

Database name

GKLREPORTRC

The name must contain only letters and numbers, starting with a letter. 14 characters max.

Configure the database

OCPU count

1

The number of OCPU cores to enable. Available cores are subject to your tenancy's service limits.

 Auto scalingAllows system to use up to three times the provisioned number of cores as the workload increases. [Learn more.](#)

Choose network access

 Allow secure access from everywhere

You can restrict access to specific IP addresses and VCNs.

 Virtual cloud network

Private access only, using a VCN.

 Configure access control rules ⓘ

Note – we can independently set the number of OCPUs used by this refreshable clone and we can use auto scaling.

But we can't change the storage because this is controlled by the source instance

Choose a license type

Bring Your Own License (BYOL)

Bring my organization's Oracle Database software licenses to the Database service.

[Learn more.](#)

License Included

Subscribe to new Oracle Database software licenses and the Database service.

[Show Advanced Options](#)[Create Autonomous Database Clone](#)[Cancel](#)

Create Autonomous Database Clone

[Help](#)

Database name

GKLREPORTRC

The name must contain only letters and numbers, starting with a letter. 14 characters max.

Configure the database

OCPU count

1

The number of OCPU cores to enable. Available cores are subject to your tenancy's service limits.

 Auto scalingAllows system to use up to three times the provisioned number of cores as the workload increases. [Learn more.](#)

Choose network access

 Allow secure access from everywhere

You can restrict access to specific IP addresses and VCNs.

 Virtual cloud network

Private access only, using a VCN.

 Configure access control rules ⓘ

All that is left is to click “Create Autonomous Database Clone”. Nothing easier than that!

Choose a license type

Bring Your Own License (BYOL)

Bring my organization's Oracle Database software licenses to the Database service.

[Learn more.](#)

License Included

Subscribe to new Oracle Database software licenses and the Database service.

[Show Advanced Options](#)[Create Autonomous Database Clone](#)[Cancel](#)



PROVISIONING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Provisioning...
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: - ⓘ

Resources

Metrics

Backups (0)

Refreshable Clones (0)

Work Requests (1)

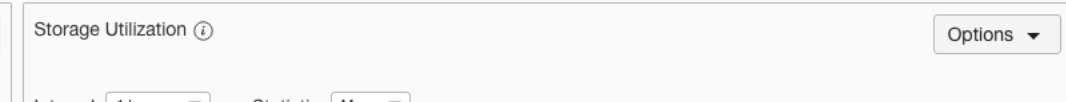
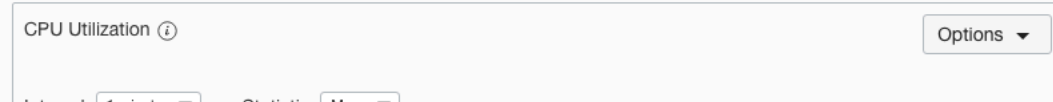
Metrics

Start time: [calendar icon]

End time: [calendar icon]

Quick Selects: [dropdown]

[Reset charts](#)





PROVISIONING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Provisioning...
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: - ⓘ

Resources

- [Metrics](#)
- [Backups \(0\)](#)
- [Refreshable Clones \(0\)](#)
- [Work Requests \(1\)](#)

Work Requests

| Operation | Status | % Complete | Accepted | Started | Finished |
|--|--|------------|--------------------------------|--------------------------------|----------|
| Create Autonomous Database | ● In Progress... | 82% | Tue, Sep 1, 2020, 14:36:08 UTC | Tue, Sep 1, 2020, 14:36:29 UTC | |

Displaying 1 Work Request < 1 of 1 >



PROVISIONING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Provisioning...
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

We can track the progress of the cloning operation via the Work Requests panel

Work Requests

| Operation | Status | % Complete | Accepted | Started | Finished |
|--|--|------------|--------------------------------|--------------------------------|----------|
| Create Autonomous Database | ● In Progress... | 82% | Tue, Sep 1, 2020, 14:36:08 UTC | Tue, Sep 1, 2020, 14:36:29 UTC | |

Displaying 1 Work Request < 1 of 1 >

Resources

- Metrics
- Backups (0)
- Refreshable Clones (0)
- Work Requests (1)**



IN PROGRESS...

Create Autonomous Database

Work Request Information



Operation Type: Create Autonomous Database

Accepted: Tue, Sep 1, 2020, 14:36:08 UTC

OCID: ...uefkga [Show](#) [Copy](#)

Started: Tue, Sep 1, 2020, 14:36:29 UTC

Compartment: PMDEMO

Resources

[Log Messages \(2\)](#)

[Error Messages \(0\)](#)

[Associated Resources \(2\)](#)

Log Messages

| Message | Timestamp (UTC) |
|------------------------------|--------------------------------|
| Initializing database clone. | Tue, Sep 1, 2020, 14:36:28 UTC |
| Cloning database. | Tue, Sep 1, 2020, 14:36:30 UTC |

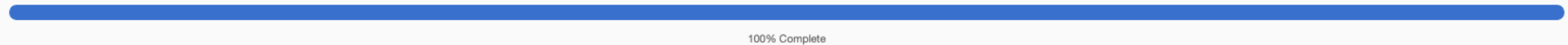
Showing 2 Items



SUCCEEDED

Create Autonomous Database

Work Request Information



100% Complete

Operation Type: Create Autonomous Database

Accepted: Tue, Sep 1, 2020, 14:36:08 UTC

OCID: ...uefkga [Show](#) [Copy](#)

Started: Tue, Sep 1, 2020, 14:36:29 UTC

Compartment: PMDEMO

Finished: Tue, Sep 1, 2020, 14:43:56 UTC

Resources

[Log Messages \(3\)](#)

[Error Messages \(0\)](#)

[Associated Resources \(2\)](#)

Log Messages

| Message | Timestamp (UTC) |
|------------------------------|--------------------------------|
| Initializing database clone. | Tue, Sep 1, 2020, 14:36:28 UTC |
| Cloning database. | Tue, Sep 1, 2020, 14:36:30 UTC |
| Finalizing database clone. | Tue, Sep 1, 2020, 14:43:56 UTC |

Showing 3 Items

ⓘ Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▼

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone
Source Database: [GKL Demo - Production Database](#)
Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ



AVAILABLE

Metrics

Start time End time Quick Selects



AVAILABLE

i Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show](#) [Copy](#)

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance i

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

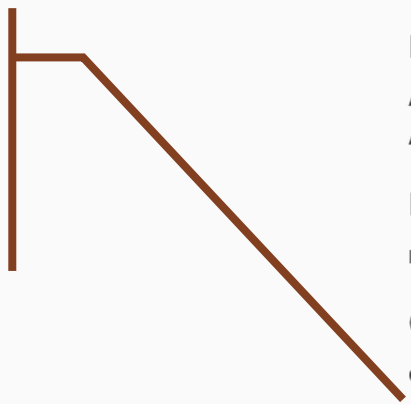
Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC i

The console gives us important information about this refreshable clone: It's source and it's refresh point



Autonomous Database

Autonomous Database

Dedicated Infrastructure 

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

Compartment

PMDEMO 

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

All 

State

Any state 

Tag Filters

[add](#) | [clear](#)

no tag filters applied

Autonomous Databases in PMDEMO Compartment

Create Autonomous Database

| Display Name | State | Dedicated | OCPUs | Storage (TB) | Workload Type | Autonomous Data Guard | Created |
|--|--|-----------|-------|--------------|----------------|-----------------------|---------------------------------|
| GKL Demo - Reporting Database <small>Refreshable Clone</small> | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:36:08 UTC |
| GKL Demo - Production Database | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:00:20 UTC |
| DBStaffDemo | ● Available | No | 1 | 1 | Data Warehouse | Enabled | Thu, May 14, 2020, 01:55:56 UTC |
| db4Thomas | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Fri, Jan 24, 2020, 00:25:40 UTC |

Displaying 4 Autonomous Databases < 1 of 1 >

Autonomous Database

Autonomous Database

Dedicated Infrastructure ⓘ

[Autonomous Container Database](#)[Autonomous Exadata Infrastructure](#)

List Scope

Compartment

PMDEMO

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

All

State

Any state

Tag Filters

[add](#) | [clear](#)

no tag filters applied

Autonomous Databases in PMDEMO Compartment

[Create Autonomous Database](#)

| Display Name | State | Dedicated | OCPUs | Storage (TB) | Workload Type | Autonomous Data Guard | Created | |
|--|-------------|-----------|-------|--------------|----------------|-----------------------|---------------------------------|---|
| GKL Demo - Reporting Database <small>Refreshable Clone</small> | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:36:08 UTC | ⋮ |
| GKL Demo - Production Database | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:00:20 UTC | ⋮ |
| DBStaffDemo | ● Available | No | 1 | 1 | Data Warehouse | Enabled | Thu, May 14, 2020, 01:55:56 UTC | ⋮ |
| db4Thomas | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Fri, Jan 24, 2020, 00:25:40 UTC | ⋮ |

Displaying 4 Autonomous Databases < 1 of 1 >

On the main console page, all refreshable clones are clearly tagged in the UI



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: No active backups exist for this database.

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Resources

Metrics

Start time: Sep 1, 2020 1:46:15 PM 📅 End time: Sep 1, 2020 2:46:15 PM 📅 Quick Selects: Last hour ⌵

[Reset charts](#)



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Now switch back to the production database and add some new data to our demo-schema

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Metrics

Start time: Sep 1, 2020 1:46:15 PM [calendar icon]
 End time: Sep 1, 2020 2:46:15 PM [calendar icon]
 Quick Selects: Last hour [dropdown]

[Reset charts](#)



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: No active backups exist for this database.

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Metrics

Start time: Sep 1, 2020 1:46:15 PM 📅 End time: Sep 1, 2020 2:46:15 PM 📅 Quick Selects: Last hour ⌵

[Reset charts](#)



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

- Autonomous Database Information
- Tools**
- Tags

Database administration and developer tools for Autonomous Database

SQL Developer Web

Oracle SQL Developer Web provides an integrated development environment and a database administration interface for Oracle Database. [Learn more.](#)

Open SQL Developer Web

Oracle Application Express

Oracle Application Express (APEX) is a low-code development platform that enables you to build scalable, secure enterprise apps that can be deployed anywhere. [Learn more.](#)

Open APEX

Oracle ML User Administration

Oracle Machine Learning is a development environment that uses a web-based interface to enable you to perform data analytics, data discovery and data visualizations. [Learn more.](#)

Open Oracle ML User Administration

SODA Drivers

Simple Oracle Document Access (SODA) is a set of APIs that let you work with JSON documents managed by the Oracle Database without needing to use SQL. SODA drivers are available for REST, Java, Node.js, Python, PL/SQL, and C. [Learn more.](#)

Download SODA Drivers

Resources

Metrics

Backups (0)

Refreshable Clones (1)

Work Requests (2)

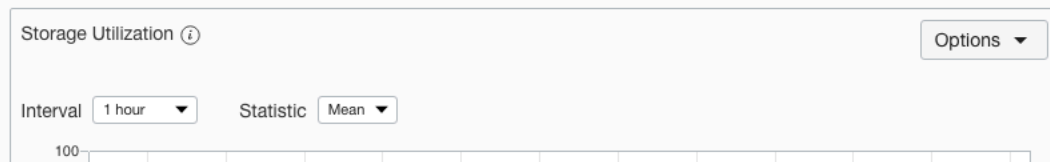
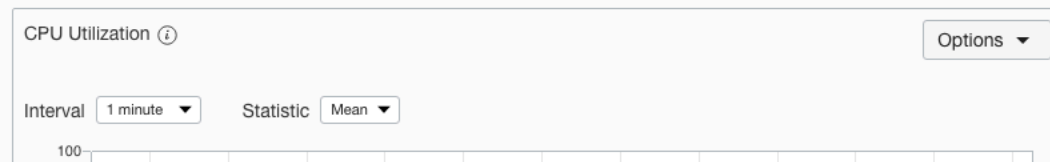
Metrics

Start time: Sep 1, 2020 1:46:15 PM [calendar icon]

End time: Sep 1, 2020 2:46:15 PM [calendar icon]

Quick Selects: Last hour [dropdown]

Reset charts





AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

- Autonomous Database Information
- Tools**
- Tags

Database administration and developer tools for Autonomous Database

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Open APEX

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Open Oracle ML User Administration

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Download SODA Drivers

Resources

Metrics

Backups (0)

Refreshable Clones (1)

Work Requests (2)

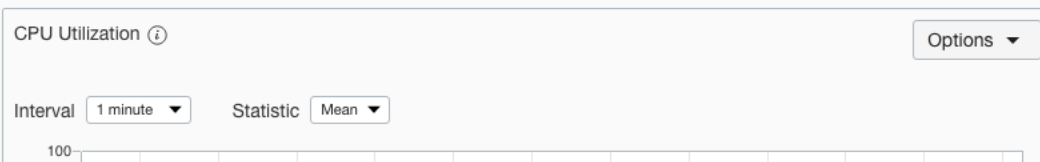
Metrics

Start time: Sep 1, 2020 1:46:15 PM [calendar icon]



End time: Sep 1, 2020 2:46:15 PM [calendar icon]

Quick Selects: Last hour [dropdown]

Reset charts



Navigator Worksheets

GKLEMO
Tables
Search...  

[Worksheet]*      Aa 



```
1
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

    Download Execution time: 0.237 seconds

No items to display.

Navigator Worksheets

GKLEMO
Tables
Search...  

[Worksheet]*        Aa 

```
1 create table reporting_channels as select * from sh.channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

    Download

Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

```
1 create table reporting_channels as select * from sh.channels;
```

To simulate a data load we will copy a table (CHANNELS) from an existing schema (SH) into this demo schema and name it *reporting_channels*

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Da

Download

Navigator Worksheets ?

GKLDEMO ▾

Tables ▾

Search...  

[Worksheet]*        Aa ▾ 

 ?

```
1 create table reporting_channels as select * from sh.channels;
```



Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading ?









    Download ▾

Navigator Worksheets ?

GKLDEMO ▾

Tables ▾

Search...  

[Worksheet]*        Aa ▾ 

```
1 create table reporting_channels as select * from sh.channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading ?





 

Table REPORTING_CHANNELS created.

Elapsed: 00:00:00.652

Navigator Worksheets



GKLEMO



Tables



Search...



[Worksheet]*



```
1 create table reporting_channels as select * from sh.channels;  
2  
3 select * from reporting_channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading





Table REPORTING_CHANNELS created.

Elapsed: 00:00:00.652

Navigator Worksheets ?

GKLDEMO ▾

Tables ▾

Search...  

[Worksheet]*        Aa ▾ 

```
1 create table reporting_channels as select * from sh.channels;
2
3 select * from reporting_channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading ?

    Download ▾ Execution time: 0.061 seconds

| | channel_id | channel_desc | channel_class | channel_class_id | channel_total | channel_total_id |
|---|------------|--------------|---------------|------------------|---------------|------------------|
| 1 | 3 | Direct Sales | Direct | 12 | Channel total | 1 |
| 2 | 9 | Tele Sales | Direct | 12 | Channel total | 1 |
| 3 | 5 | Catalog | Indirect | 13 | Channel total | 1 |
| 4 | 4 | Internet | Indirect | 13 | Channel total | 1 |
| 5 | 2 | Partners | Others | 14 | Channel total | 1 |

Navigator Worksheets



GKLEMO



Tables



Search...



[Worksheet]*



Aa



```
1 create table reporting_channels as select * from sh.channels;  
2  
3 select * from reporting_channels;
```

Now we have some new data in our demo schema

Query Result

Script Output

DBMS Output

Explain Plan

Autotrace

SQL History

Data Loading



Download



Execution time: 0.061 seconds

| | channel_id | channel_desc | channel_class | channel_class_id | channel_total | channel_total_id |
|---|------------|--------------|---------------|------------------|---------------|------------------|
| 1 | 3 | Direct Sales | Direct | 12 | Channel total | 1 |
| 2 | 9 | Tele Sales | Direct | 12 | Channel total | 1 |
| 3 | 5 | Catalog | Indirect | 13 | Channel total | 1 |
| 4 | 4 | Internet | Indirect | 13 | Channel total | 1 |
| 5 | 2 | Partners | Others | 14 | Channel total | 1 |

[Overview](#) » [Autonomous Database](#) » Autonomous Databases

Autonomous Database

Autonomous Database

Dedicated Infrastructure ⓘ

[Autonomous Container Database](#)[Autonomous Exadata Infrastructure](#)

List Scope

Compartment

PMDEMO

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

All

State

Any state

Tag Filters

[add](#) | [clear](#)

no tag filters applied

Autonomous Databases *in PMDEMO Compartment*[Create Autonomous Database](#)

| Display Name | State | Dedicated | OCPUs | Storage (TB) | Workload Type | Autonomous Data Guard | Created | |
|--|-------------|-----------|-------|--------------|----------------|-----------------------|---------------------------------|---|
| GKL Demo - Reporting Database <small>Refreshable Clone</small> | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:36:08 UTC | ⋮ |
| GKL Demo - Production Database | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:00:20 UTC | ⋮ |
| DBStaffDemo | ● Available | No | 1 | 1 | Data Warehouse | Enabled | Thu, May 14, 2020, 01:55:56 UTC | ⋮ |
| db4Thomas | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Fri, Jan 24, 2020, 00:25:40 UTC | ⋮ |

Displaying 4 Autonomous Databases < 1 of 1 >

Autonomous Database

Autonomous Database

Dedicated Infrastructure 

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

Compartment

PMDEMO 

r1atpdemo5 (root)/PMDEMO

Filters

Workload Type

All 

State

Any state 

Tag Filters

[add](#) | [clear](#)

no tag filters applied

Autonomous Databases *in PMDEMO Compartment*

[Create Autonomous Database](#)

| Display Name | State | Dedicated | OCPUs | Storage (TB) | Workload Type | Autonomous Data Guard | Created |
|--|--|-----------|-------|--------------|----------------|-----------------------|---------------------------------|
| GKL Demo - Reporting Database <small>Refreshable Clone</small> | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:36:08 UTC |
| GKL Demo - Production Database | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Tue, Sep 1, 2020, 14:00:20 UTC |
| DBStaffDemo | ● Available | No | 1 | 1 | Data Warehouse | Enabled | Thu, May 14, 2020, 01:55:56 UTC |
| db4Thomas | ● Available | No | 1 | 1 | Data Warehouse | Disabled | Fri, Jan 24, 2020, 00:25:40 UTC |

Displaying 4 Autonomous Databases < 1 of 1 >



AVAILABLE

ⓘ Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▾

Autonomous Database Information

Tools

Tags

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Resources

Metrics

| Start time End time Quick Selects



AVAILABLE

Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). [Refresh Clone](#)

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

- Autonomous Database Information
- Tools**
- Tags

Database administration and developer tools for Autonomous Database

The following tools are not currently supported for Autonomous Databases running as a refreshable clone or running in read-only mode: Oracle Application Express and Oracle Machine Learning User Administration.

SQL Developer Web

Oracle SQL Developer Web provides an integrated development environment and a database administration interface for Oracle Database. [Learn more.](#)

[Open SQL Developer Web](#)

Oracle Application Express

Oracle Application Express (APEX) is a low-code development platform that enables you to build scalable, secure enterprise apps that can be deployed anywhere. [Learn more.](#)

[Open APEX](#)

Oracle ML User Administration

Oracle Machine Learning is a development environment that uses a web-based interface to enable you to perform data analytics, data discovery and data visualizations. [Learn more.](#)

[Open Oracle ML User Administration](#)

SODA Drivers

Simple Oracle Document Access (SODA) is a set of APIs that let you work with JSON documents managed by the Oracle Database without needing to use SQL. SODA drivers are available for REST, Java, Node.js, Python, PL/SQL, and C. [Learn more.](#)

[Download SODA Drivers](#)

Resources

Metrics

Backups (0)

Refreshable Clones (0)

[Terms of Use and Privacy](#) [Cookie Preferences](#)

Start time:

End time:

Quick Selects:

[Reset charts](#)



AVAILABLE

i Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

- Autonomous Database Information
- Tools**
- Tags

Database administration and developer tools for Autonomous Database

i The following tools are not currently supported for Autonomous Databases running as a refreshable clone or running in read-only mode: Oracle Application Express and Oracle Machine Learning User Administration.

SQL Developer Web

Oracle SQL Developer Web provides an integrated development environment and a database administration interface for Oracle Database. [Learn more.](#)

Open SQL Developer Web

Oracle Application Express

Oracle Application Express enables you to build scalable, secure web applications for Oracle Database. [Learn more.](#)

Oracle ML User Administration

Oracle Machine Learning is a development environment that uses a web-based interface to enable you to perform data analytics, data discovery and data visualizations. [Learn more.](#)

Open Oracle ML User Administration

Simple Oracle Document Access (SODA)

Simple Oracle Document Access (SODA) is a set of APIs that let you work with JSON documents managed by the Oracle Database without needing to use SQL. SODA drivers are available for REST, Java, Node.js, Python, PL/SQL, and C. [Learn more.](#)

Download SODA Drivers

But if we check in our refreshable clone we will see that the new data does not exist!

Resources

Metrics

Backups (0)

Refreshable Clones (0)

[Terms of Use and Privacy](#) [Cookie Preferences](#)

Metrics

Start time: Sep 1, 2020 1:46:15 PM calendar icon

End time: Sep 1, 2020 2:46:15 PM calendar icon

Quick Selects: Last hour dropdown arrow

Reset charts



Username

GKLEMO

Password



••••••••••

Sign in

Navigator Worksheets

GKLEMO

Tables


Search...  

[Worksheet]         Aa 

```
1
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Search...    





No data load history was found, drag a new file to start we support XLS, XLSX, CSV, XML, JSON, and AVRO

Navigator Worksheets

GKLEMO





Tables


Search...  

[Worksheet]*         Aa 

```
1 select * from user_tables;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Search...    





No data load history was found, drag a new file to start
we support XLS, XLSX, CSV, XML, JSON, and AVRO

Navigator Worksheets

GKLEMO





Tables


Search...  

[Worksheet]*         

```
1 select * from user_tables;
```



Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Search...    



No data load history was found, drag a new file to start
we support XLS, XLSX, CSV, XML, JSON, and AVRO

Navigator Worksheets

GKLEMO
Tables
Search...  

[Worksheet]*        Aa 

```
1 select * from user_tables;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

    Download Execution time: 0.429 seconds

No items to display.

Navigator Worksheets



GKLEMO



Tables



Search...



[Worksheet]*



1 select * from user_tables;

Our new table reporting_channels does not exist even though the schema GKLEMO exists!

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading



Download



Execution time: 0.429 seconds

No items to display.

i Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▾

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled i
Lifecycle State: Available
Instance Type: Paid
Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance i

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC i

Metrics

Start time End time Quick Selects



AVAILABLE

i Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▾

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled **i**
Lifecycle State: Available
Instance Type: Paid
Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance **i**

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone
Source Database:
Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC **i**



AVAILABLE

Metrics

Start time End time Quick Selects

i Refresh your clone before Tue, Sep 8, 2020, 14:36:08 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▾

- Autonomous Database Information
- Tools
- Tags



AVAILABLE

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled (i)

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

To see our new table reporting_channels and its data we need to refresh our clone...

Maintenance (i)

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC (i)

Metrics

Start time End time Quick Selects



AVAILABLE

Refresh your clone to a specified point in time using data from the source database.

GKL Demo - R

DB Connection Perform

Autonomous Databas

General Information

- Database Name:** GKLREPORTRC
- Workload Type:** Data Warehouse
- Compartment:** r1atpdemo5 (root)/PMDEMO
- OCID:** ...3642bq [Show](#) [Copy](#)
- Created:** Tue, Sep 1, 2020, 14:36:08 UTC
- OCPU Count:** 1
- Storage:** 1 TB
- License Type:** Bring Your Own License (BYOL)
- Database Version:** 19c
- Auto Scaling:** Enabled ⓘ
- Lifecycle State:** Available
- Instance Type:** Paid
- Mode:** Read Only [Edit](#)

Metrics

Start time End time Quick Selects

Refresh Clone [Help](#) [Cancel](#)

Refresh your clone to a specified point in time using data from the source database.

Refresh point timestamp

Select timestamp ⓘ

Timestamp can be a minimum of 1 minute in the past and a maximum of 7 days in the past. Timestamp must be later than the last refresh point.

[Refresh Clone](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Refresh Clone



AVAILABLE

Refresh your clone to a specified point in time using data from the source database.

GKL Demo - R

DB Connection Perform

Autonomous Databases

General Information

Database Name: GKLREPO

Workload Type: Data Warehouse

Compartment: r1atpdemo5

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Metrics

Start time End time Quick Selects

Refresh Clone [Help](#) [Cancel](#)

Refresh your clone to a specified point in time using data from the source database.

Refresh point timestamp

days in the past. Timestamp must be later than the last refresh point.

| September 2020 | | | | | | | Time |
|----------------|----|----|----|----|----|----|--------------|
| Su | Mo | Tu | We | Th | Fr | Sa | |
| | | 1 | 2 | 3 | 4 | 5 | 14:30:00 UTC |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 15:00:00 UTC |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 15:30:00 UTC |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 16:00:00 UTC |
| 27 | 28 | 29 | 30 | | | | 16:30:00 UTC |
| | | | | | | | 17:00:00 UTC |
| | | | | | | | 17:30:00 UTC |

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ



AVAILABLE

Refresh your clone to a specified point in time using data from the source database.

GKL Demo - R

DB Connection Perform

Autonomous Databases

General Information

Database Name: GKLREPC

Workload Type: Data Warehouse

Compartment: r1atpdemo5

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Metrics

Start time

Refresh Clone [Help](#) [Cancel](#)

Refresh your clone to a specified point in time using data from the source database.

Refresh point timestamp

days in the past. Timestamp must be later than the last refresh point.

| September 2020 | | | | | | | Time |
|----------------|----|----|----|----|----|----|--------------|
| Su | Mo | Tu | We | Th | Fr | Sa | |
| | | 1 | 2 | 3 | 4 | 5 | 13:30:00 UTC |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14:00:00 UTC |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 14:30:00 UTC |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 15:00:00 UTC |
| 27 | 28 | 29 | 30 | | | | 15:30:00 UTC |
| | | | | | | | 16:00:00 UTC |
| | | | | | | | 16:30:00 UTC |

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ



AVAILABLE

Refresh Clone [Help](#) [Cancel](#)

Refresh your clone to a specified point in time using data from the source database.

Refresh point timestamp

Sep 1, 2020 15:00:00 UTC

Days in the past. Timestamp must be later than the last refresh point.

| September 2020 | | | | | | | Time |
|----------------|----|----|----|----|----|----|--------------|
| Su | Mo | Tu | We | Th | Fr | Sa | |
| | | 1 | 2 | 3 | 4 | 5 | 13:30:00 UTC |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14:00:00 UTC |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 14:30:00 UTC |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 15:00:00 UTC |
| 27 | 28 | 29 | 30 | | | | 15:30:00 UTC |
| | | | | | | | 16:00:00 UTC |
| | | | | | | | 16:30:00 UTC |

General Information

Database Name: GKLREPC

Workload Type: Data Warehouse

Compartment: r1atpdemo5

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPUs: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

[Refresh Clone](#) (168 hours)

There is granular control over the point-in-time for the refresh process - we can select a specific point in time to control which new data points and schema changes are pushed to the refreshable clone



AVAILABLE

[info icon] Refresh your clone to a specified point in time using data from the source database.

GKL Demo - R

DB Connection Perform

Autonomous Databases

Refresh Clone [Help](#) [Cancel](#)

Refresh your clone to a specified point in time using data from the source database.

Refresh point timestamp

[calendar icon]

Timestamp can be a minimum of 1 minute in the past and a maximum of 7 days in the past. Timestamp must be later than the last refresh point.

[Refresh Clone](#)

[refresh icon] (168 hours). [Refresh Clone](#)

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPUs Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Available

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database:

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Metrics

Start time End time Quick Selects



UPDATING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions ▾

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Updating...

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Resources

Metrics

Backups (0)

Metrics

Start time

End time

Quick Selects

Sep 1, 2020 2:10:40 PM 📅

Sep 1, 2020 3:10:40 PM 📅

Last hour ⌵

🔄 Reset charts



UPDATING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Updating...
Instance Type: Paid
Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Resources

Metrics

Backups (0)

Metrics

Start time: Sep 1, 2020 2:10:40 PM [calendar icon]

End time: Sep 1, 2020 3:10:40 PM [calendar icon]

Quick Selects: Last hour [dropdown]

Reset charts



UPDATING...

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information

Tools Tags

General Information

Database Name: GKLREPORTRC

Workload Type: Data Warehouse

Compartment: r1atpdemo5 (root)/PMDEMO

OCID: ...3642bq [Show](#) [Copy](#)

Created: Tue, Sep 1, 2020, 14:36:08 UTC

OCPU Count: 1

Storage: 1 TB

License Type: Bring Your Own License (BYOL)

Database Version: 19c

Auto Scaling: Enabled ⓘ

Lifecycle State: Updating...

Instance Type: Paid

Mode: Read Only [Edit](#)

Infrastructure

The state of the refreshable clone now changes to “Updating” which means it is still available for users who need to run queries whilst the clone is updated with any schema changes and new data

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone

Source Database: [GKL Demo - Production Database](#)

Refresh Point: Tue, Sep 1, 2020, 14:33:40 UTC ⓘ

Resources

Metrics

Backups (0)

Metrics

Start time: Sep 1, 2020 2:10:40 PM [calendar icon]

End time: Sep 1, 2020 3:10:40 PM [calendar icon]

Quick Selects: Last hour [dropdown arrow]

Reset charts

i Refresh your clone before Tue, Sep 8, 2020, 15:12:14 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- [Service Console](#)
- Scale Up/Down
- More Actions ▾

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled **i**
Lifecycle State: Available
Instance Type: Paid
Mode: Read Only [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: -

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance **i**

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone
Source Database: [GKL Demo - Production Database](#)
Refresh Point: Tue, Sep 1, 2020, 15:00:00 UTC **i**



AVAILABLE

Metrics

Start time End time Quick Selects

i Refresh your clone before Tue, Sep 8, 2020, 15:12:14 UTC to keep the clone connected to the source database. The clone must be refreshed a minimum of once every 7 days (168 hours). Refresh Clone

GKL Demo - Reporting Database Refreshable Clone

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions

Autonomous Database Information Tools Tags

General Information

Database Name: GKLREPORTRC
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...3642bq [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:36:08 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled **i**
Lifecycle State: Available
Instance Type: Paid
Mode: Read Only [Edit](#)

The refresh is complete so our new table and its data should now be available

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance **i**

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Clone Information

Clone Type: Refreshable Clone
Source Database: [GKL Demo - Production Database](#)
Refresh Point: Tue, Sep 1, 2020, 15:00:00 UTC **i**

AVAILABLE

Metrics

Start time End time Quick Selects

Navigator Worksheets ?

GKLEMO

Tables

Search... [Refresh] [More]

[Worksheet]* [Save] [Run] [Undo] [Redo] [Download] [Print] [Font]

```
1 select * from user_tables;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading ?

[Refresh] [Copy] [Info] [Share] Download Execution time: 0.429 seconds

No items to display.

Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

Run Save Undo Redo Print Download Print All Font

1 select * from user_tables;

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Download Execution time: 0.509 seconds

| | table_name | tablespace_name | cluster_name | iot_name | status | pct_free | pct_used | ini_trans | max_trans | initial_extent |
|---|------------------|-----------------|--------------|----------|--------|----------|----------|-----------|-----------|----------------|
| 1 | REPORTING_CHA... | DATA | (null) | (null) | VALID | 10 | (null) | 10 | 255 | 655 |

Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

```
1 select * from user_tables;
2
3 select * from reporting_channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Download Execution time: 0.509 seconds

| | table_name | tablespace_name | cluster_name | iot_name | status | pct_free | pct_used | ini_trans | max_trans | initial_extent |
|---|------------------|-----------------|--------------|----------|--------|----------|----------|-----------|-----------|----------------|
| 1 | REPORTING_CHA... | DATA | (null) | (null) | VALID | 10 | (null) | 10 | 255 | 655 |

Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

```
1 select * from user_tables;
2
3 select * from reporting_channels;
```

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Download Execution time: 0.246 seconds

| | channel_id | channel_desc | channel_class | channel_class_id | channel_total | channel_total_id |
|---|------------|--------------|---------------|------------------|---------------|------------------|
| 1 | 3 | Direct Sales | Direct | 12 | Channel total | 1 |
| 2 | 9 | Tele Sales | Direct | 12 | Channel total | 1 |
| 3 | 5 | Catalog | Indirect | 13 | Channel total | 1 |
| 4 | 4 | Internet | Indirect | 13 | Channel total | 1 |
| 5 | 2 | Partners | Others | 14 | Channel total | 1 |

Navigator Worksheets

GKLEMO

Tables

Search...

[Worksheet]*

```
1 select * from user_tables;  
2  
3 select * from reporting_channels;
```

Now we can see our new table reporting_channels exists in our demo schema along with its data

Query Result Script Output DBMS Output Explain Plan Autotrace SQL History Data Loading

Download Execution time: 0.246 seconds

| | channel_id | channel_desc | channel_class | channel_class_id | channel_total | channel_total_id |
|---|------------|--------------|---------------|------------------|---------------|------------------|
| 1 | 3 | Direct Sales | Direct | 12 | Channel total | 1 |
| 2 | 9 | Tele Sales | Direct | 12 | Channel total | 1 |
| 3 | 5 | Catalog | Indirect | 13 | Channel total | 1 |
| 4 | 4 | Internet | Indirect | 13 | Channel total | 1 |
| 5 | 2 | Partners | Others | 14 | Channel total | 1 |



AVAILABLE

GKL Demo - Production Database

- DB Connection
- Performance Hub
- Service Console
- Scale Up/Down
- More Actions [dropdown]

- Autonomous Database Information
- Tools
- Tags

General Information

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

How can we find out if this ADB instance is the source for any refreshable clones?

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Metrics

Start time: Sep 2, 2020 10:10:08 AM [calendar icon]
 End time: Sep 2, 2020 11:10:08 AM [calendar icon]
 Quick Selects: Last hour [dropdown]



AVAILABLE

Autonomous Database Information

Tools Tags

General Information

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Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
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Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: Tue, Sep 1, 2020, 19:46:07 UTC

Network

Access Type: Allow secure access from everywhere
Access Control List: Disabled [Edit](#)

Maintenance ⓘ

Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe ⓘ

Status: Not registered [Register](#)

Resources

Metrics

Backups (2)

Refreshable Clones (1)

Work Requests (0)

Metrics

Start time:
 End time:
 Quick Selects: [dropdown]

CPU Utilization ⓘ

Interval: [dropdown] Statistic: [dropdown]

Storage Utilization ⓘ

Interval: [dropdown] Statistic: [dropdown]



AVAILABLE

Autonomous Database Information

Tools Tags

General Information

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Infrastructure

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: Tue, Sep 1, 2020, 19:46:07 UTC

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Under **Resources**, select
 “Refreshable Clones”

Note – that the UI tells us this
 instances is the source for 1
 refreshable clone

Resources

- Metrics**
- Backups (2)
- Refreshable Clones (1)
- Work Requests (0)

Metrics

Start time: Sep 2, 2020 10:16:09 AM [calendar icon]
 End time: Sep 2, 2020 11:16:09 AM [calendar icon]
 Quick Selects: Last hour [dropdown]

Reset charts


CPU Utilization ⓘ Options ▾

Interval: 1 minute ▾ Statistic: Mean ▾

Storage Utilization ⓘ Options ▾

Interval: 1 hour ▾ Statistic: Mean ▾

AVAILABLE

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
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Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Dedicated Infrastructure: No

Autonomous Data Guard

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: Tue, Sep 1, 2020, 19:46:07 UTC

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Maintenance


Next Maintenance: Thu, Sep 3, 2020, 19:40:00 UTC - 23:40:00 UTC

Data Safe

Status: Not registered [Register](#)

Refreshable Clones *in PMDEMO Compartment*

[Create Refreshable Clone](#)

| Display Name | Database name | State | Last Refresh | Refresh Point  |
|---|---------------|--|--------------------------------|--|
| GKL Demo - Reporting Database | GKLREPORTRC | ● Available | Tue, Sep 1, 2020, 15:12:14 UTC | Tue, Sep 1, 2020, 15:00:00 UTC ⋮ |

Displaying 1 Autonomous Database < 1 of 1 >

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Requests (0)

cope

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EMO 

mo5 (root)/PMDEMO

AVAILABLE

Database Name: GKLPROD
Workload Type: Data Warehouse
Compartment: r1atpdemo5 (root)/PMDEMO
OCID: ...j5cr5a [Show](#) [Copy](#)
Created: Tue, Sep 1, 2020, 14:00:20 UTC
OCPU Count: 1
Storage: 1 TB
License Type: Bring Your Own License (BYOL)
Database Version: 19c
Auto Scaling: Enabled ⓘ
Lifecycle State: Available
Instance Type: Paid
Mode: Read/Write [Edit](#)

Dedicated Infrastructure: No

Autonomous Data Guard ⓘ

Status: Disabled [Enable](#)

Backup

Last Automatic Backup: Tue, Sep 1, 2020, 19:46:07 UTC

Network

Access Type: Allow secure access from everywhere

Access Control List: Disabled [Edit](#)

Here is the list of refreshable clones associated with this instance

Refreshable Clones *in PMDEMO Compartment*

[Create Refreshable Clone](#)

| Display Name | Database name | State | Last Refresh | Refresh Point ⓘ |
|---|---------------|-------------|--------------------------------|--------------------------------|
| GKL Demo - Reporting Database | GKLREPORTRC | ● Available | Tue, Sep 1, 2020, 15:12:14 UTC | Tue, Sep 1, 2020, 15:00:00 UTC |

Displaying 1 Autonomous Database < 1 of 1 >

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Requests (0)

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EMO

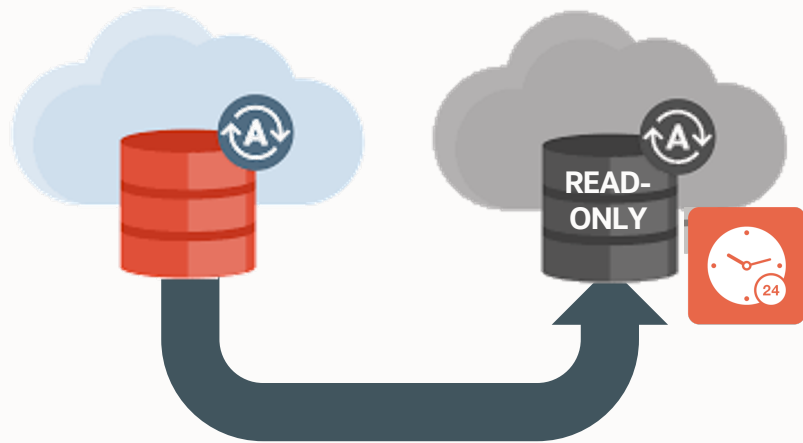
mo5 (root)/PMDEMO

Agenda

Conclusion



Conclusion – Refreshable Clones



- Simple** – Easy to create through OCI console and/or scripting
- Scalable** – Each clone can scale its own CPU resources as usage grows
- Grow** – No limit to number of refreshable clones associated with a source
- Manage costs** – Bill different units separately based on their usage of one or more refreshable clones
- Secure** – Automatically inherits data security features from source instance, such as data masking, with option of additional control over network settings (ACLs , VCNs etc)

Where To Get Additional Information

Autonomous Data Warehouse:

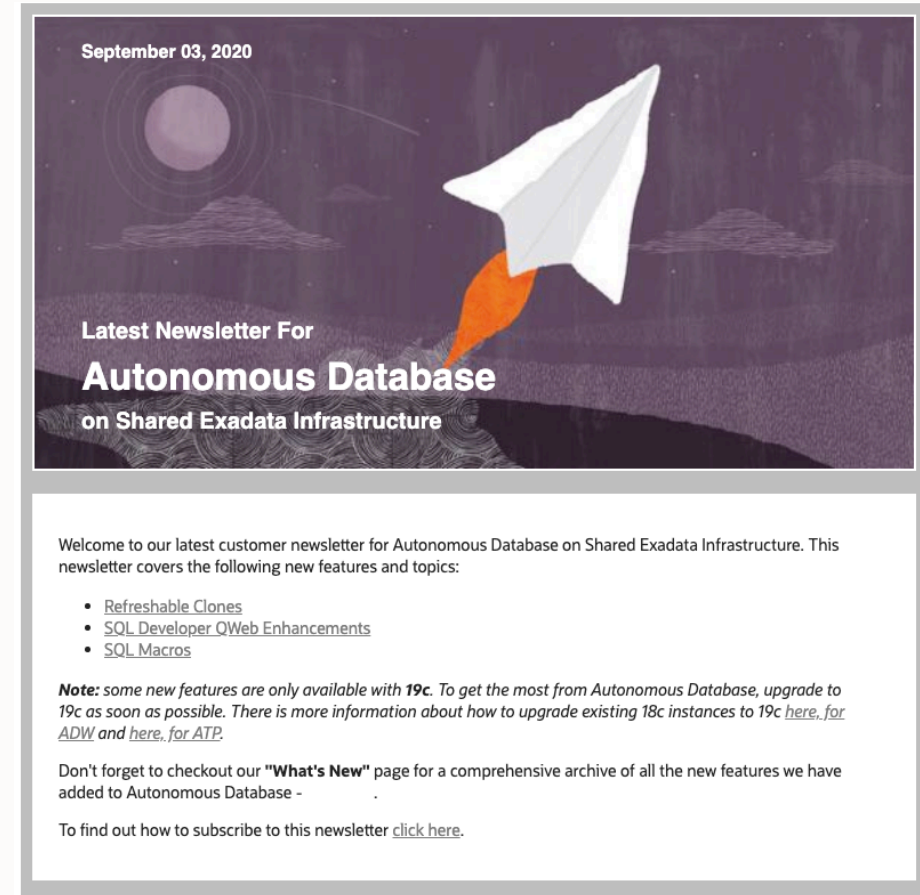
About Refreshable Clones for ADW [click here](#).

Refreshable Clone notes for ADW [click here](#).

Autonomous Transaction Processing:

About Refreshable Clones for ATP [click here](#).

Refreshable Clone notes for ATP [click here](#).



<https://blogs.oracle.com/datawarehousing/newsletter>

Thank you

