

OCljp

Oracle Cloud Infrastructure
User Community

夏休み自由研究成果発表③

～Oracle Database Service for Azure～

Fullenergy

Akishi Matsumoto

2022/09/06 ocijp#33

Oracle Cloud Infrastructure
User Community

本日の内容

1. 所属会社紹介
2. 自己紹介
3. ODSA (Oracle Database Service for Azure) とは？
4. ODSAって何が嬉しい？
5. さっそくODSA使ってみた！
6. 今後の検証課題

株式会社フルエナジー

- クラウドインテグレーター
- 2007年9月14日設立(16年目)
- 東京都港区南青山2-22-17 4F/5F
- **エンジニア率 88%**

- **AWS契約** 9社 29アカウント
- **OCI契約** **40社** **47テナンシー**
- **Fastly契約** 5社 32システム

- **事業内容: クラウド戦略立案/設計/構築/移行・リモート運用支援 (24x365監視)**

- Oracle Cloud 実績:

2015.11 Database Public Cloud Service/Java Cloud Service導入

2016.12 Exadata Express Cloud Service導入

2017.05 OCI Classic導入 (再販ビジネス開始)

2018.07 OCI/Autonomous Database導入 (再販ビジネス拡張)

2021.12 Exadata Cloud Service 設計構築運用支援 (運用支援メニュー拡張)



自己紹介（松本 昭史）

ocijp発起人の一人です

<職歴>

- 1997.04 サポートエンジニア（シリコングラフィックス・クレイ）
- 2001.05 データベースエンジニア[Oracle]（フリーランス）
- 2014.04 クラウドアーキテクト[AWS]（フルエナジー）
- **2018.11 クラウドアーキテクト[OCI]**（フルエナジー）
- **2022.02 CCoEリーダー**（フルエナジー）



<OCI関連の登壇>

- 2018.07 NTTオンラインセミナー
- 2018.07 Fujitsu Forum 2018
- 2019.02 Oracle Cloud 九州
- **2019.07~ ocijpユーザグループ**
- 2019.08 Shing Star
- 2020.10 しゃちほこオラクル倶楽部
- **2022.05 Cloud Integrator Talk#2**



ā'pěks
(#orclapex)



ODSA (Oracle Database Service for Azure) とは？

■ 2022年7月21日発表 (日本時間)



The screenshot shows the Microsoft News Center website. At the top, there is a navigation bar with the Microsoft logo and links for 'News Center', 'マイクロソフトについて', '製品情報', 'ブログ & コミュニティ', and '報道資料'. The main content area features a large headline in Japanese: 'Oracleとマイクロソフト、Oracle Database Service for Microsoft Azure の提供開始を発表'. Below the headline, it says '2022年7月21日 | Japan News Center'. A sub-headline reads: 'Oracleとマイクロソフトが提携し、Azure のお客様に Oracle Cloud Infrastructure 上のOracleのデータベースへの直接的かつ効率的なアクセスを提供'. At the bottom of the content area, the Microsoft and Oracle logos are displayed side-by-side.

出典: <https://news.microsoft.com/ja-jp/2022/07/21/220721-oracle-database-service-for-microsoft-azure/>

ODSA (Oracle Database Service for Azure) とは？

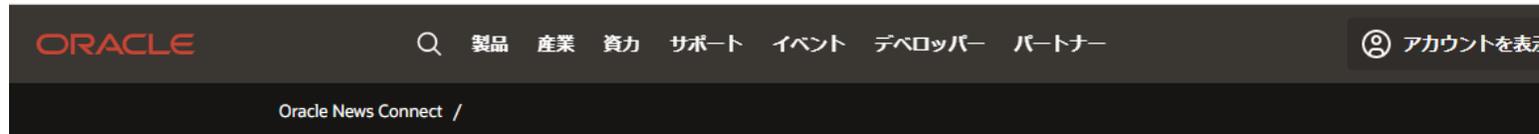
- たぶん、このYouTubeを見るだけで、伝わるとは思いますが。。。

<https://www.youtube.com/watch?v=2M6l72Zxkn4>

- 本日は、日本語でお伝えしていきたいと思えます。

ODSA以前は？（Cross Cloud Interconnect）

■ 2019年6月5日発表（US時間） ※機械翻訳



プレスリリース

Microsoft と Oracle が Microsoft Azure と Oracle Cloud を相互接続

2019年6月5日、ワシントン州レッドモンド、およびカリフォルニア州レッドウッドショアーズ

Microsoft Corp. と Oracle Corp. は水曜日、顧客が Microsoft Azure と Oracle Cloud 間でミッションクリティカルなエンタープライズワークロードを移行して実行できるようにする、クラウドの相互運用性パートナーシップを発表しました。企業は、



Analytics や AI などの Azure サービスを Autonomous Database などの Oracle Cloud サービスにシームレスに接続できるようになりました。ワークロードの一部を Azure 内で実行し、同じワークロードの別の部分を Oracle Cloud 内で実行できるようにすることで、このパートナーシップは、高度に最適化された両方のクラウド エクスペリエンスを提供します。Azure と Oracle Cloud を組み合わせると、ビジネス全体を実行するために必要なすべてのクラウド サービスとアプリケーションのワンストップ ショップが顧客に提供されます。

出典: <https://www.oracle.com/corporate/pressrelease/microsoft-and-oracle-to-interconnect-microsoft-azure-and-oracle-cloud-060519.html>

当時のブログなど

- Microsoft Azure と Oracle CloudをCross-Cloud接続してみた (@shirok 2019/06/06)
- Microsoft Azure と Oracle Cloud の相互接続を試してみた ([s-oomori](#) 2019/06/11)
- Oracle Cloud(Fastconnect)とMicrosoft Azure(Express Route)との接続 (FE松本 2019/07/02 [OCI初心者支部#1](#))
- ステップ・バイ・ステップ設定手順: Oracle Cloud Infrastructure - Microsoft Azure インターコネクト (Oracle近藤さん 2020/06/20)
- OCIとAzureの相互接続を試してみた ([テクバン](#)Oracle Cloud Infrastructure(OCI) 担当 2020/05/16)
- Azure OCI Interconnect (相互接続)でつないでみた (@takeokams(Microsoft) 2020/09/20)

ODSAって何が嬉しい？

- ネットワーク系のコストが削減できるらしい
 - Fastconnect費用（約19,000円）
 - ExpressRoute費用（50Mbps:\$55, 1Gbps:\$436）
 - 仮想ネットワークゲートウェイ費用（1Gbps:\$139）
 - アウトバウンドネットワーク転送料（\$50/TB）
- 簡単に接続ができるらしい
- Azureからも管理ができる
- これからの広がりが期待できる

さっそくODSA使ってみた！

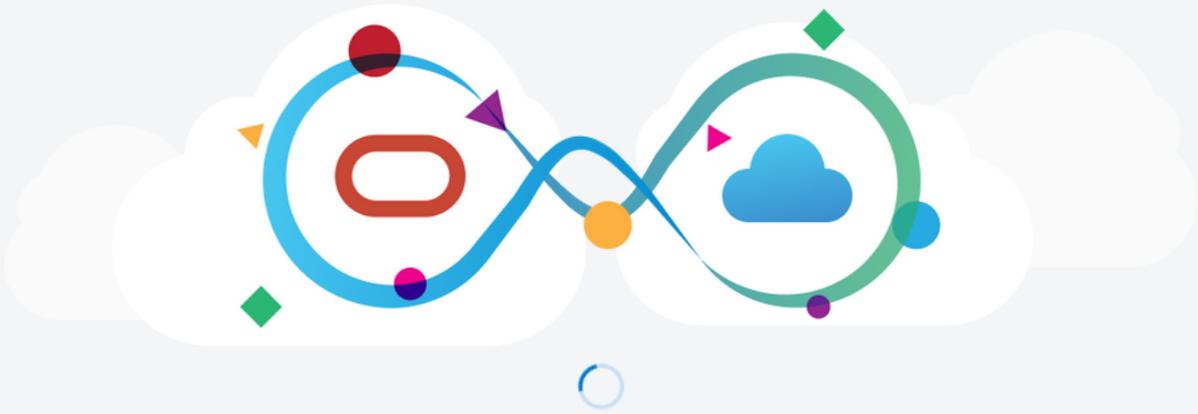
- ① アカウトリンク
- ② Oracle Base Database作成
- ③ Autonomous Database作成
- ④ Autonomous Database管理（停止操作）
- ⑤ Ping疎通確認
- ⑥ sqlplus接続確認
- ⑦ [追加] OCIからAzureのSQL Databaseへ sqlcmd接続確認

アカウントリンクに必要な情報

OCI tenancy管理者 : ID/PW
IAM Identity Domain名 :

Azure Subscription管理者 : ID/PW
サブスクリプション名 :
リソースグループ名 :

Oracle Database Service for Azure



<https://signup.multicloud.oracle.com/azure>

684d0d4b.akstat.io に要求を送信しています...



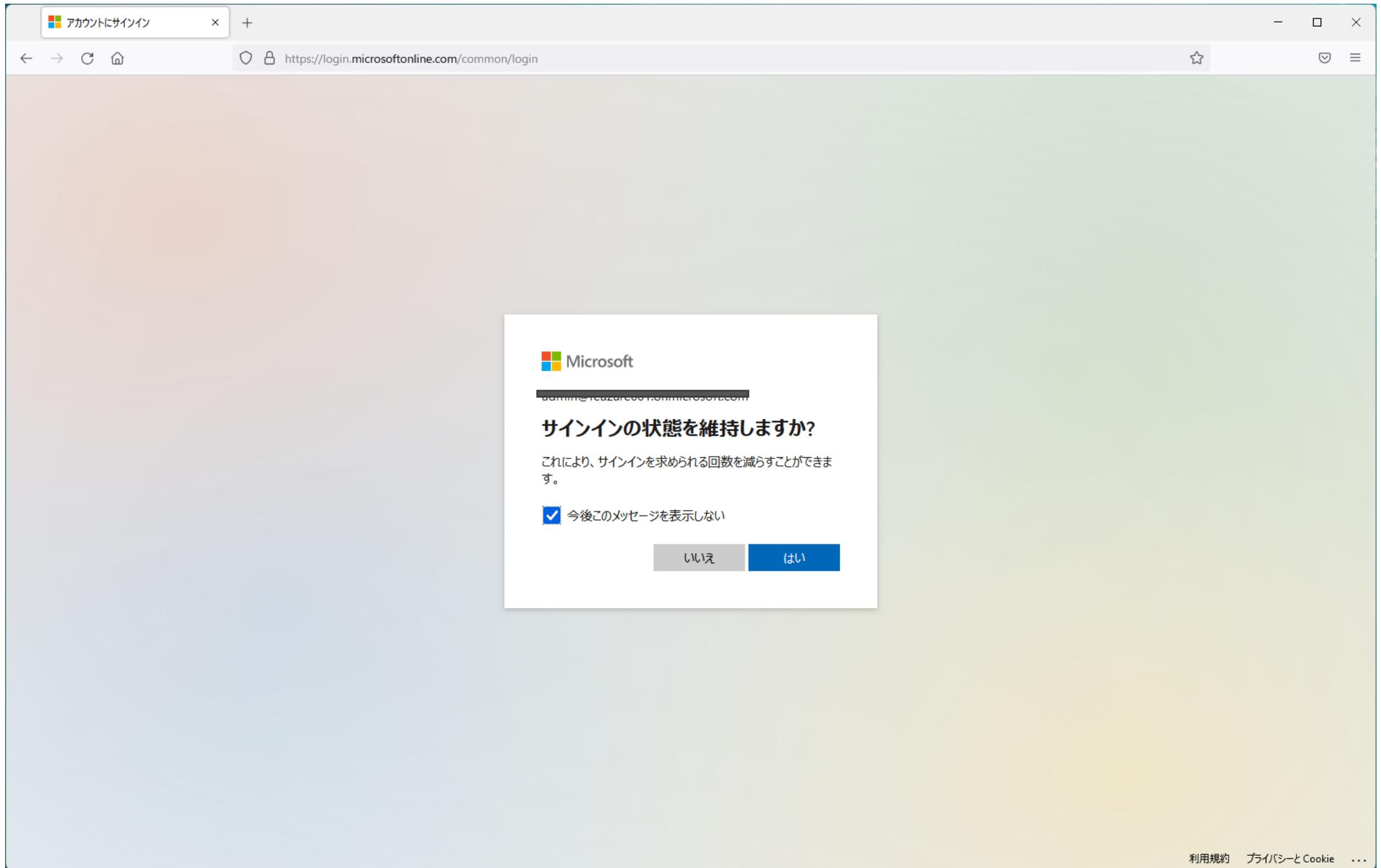
サインイン

電子メールアドレスまたは電話番号

[アカウントにアクセスできない場合](#)

次へ

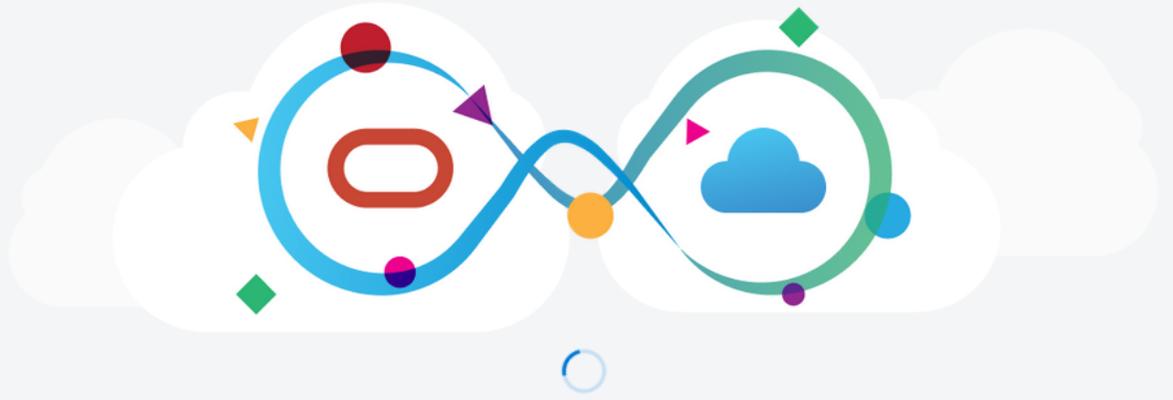
🔍 サインイン オプション



• Oracle Database Service for Azure X +

← → × 🏠 <https://signup.multicloud.oracle.com/azure> ☆ 🛡️ ☰

Oracle Database Service for Azure



684d0d4b.akstat.io に要求を送信しています...

Oracle Database Service for Azure

Welcome to Oracle Database Service for Azure

Before you can use the Oracle Database Service for Azure (ODSA) with your Azure applications, you must first complete several configuration steps that connect your Azure environment to Oracle Cloud Infrastructure (OCI). The configuration steps are:

- Account Linking** – Connects your Azure and OCI accounts. This is required to use ODSA.
- Subscription Linking** – Links ODSA to one or more Azure subscriptions so ODSA can provision resources in those subscriptions. This is required to use ODSA.
- Identity Federation** – Enables Azure users to authenticate to the OCI Console using their Azure Active Directory credentials. To access the ODSA portal, you will always use your Azure credentials. This step is included in the fully automated configuration option discussed below. This step is optional if you use the guided account linking option discussed below.

The account linking step links your Azure and OCI accounts. It is automated for your safety and convenience in both of the sign up options. If you don't have an Oracle Cloud account, you can create one during this step. The subscription linking and identity federation steps that follow can be automated or performed manually, depending on the sign up option you choose.

Sign Up Options

You can choose either **fully automated configuration** or **guided account linking**. Fully automated configuration is faster a permissions to set up the service. Note that fully automated configuration performs all three configuration steps listed above.

If you prefer to grant ODSA only the minimum set of permissions required to get started, and do not want automated configuration, you will need to do a few manual configuration steps in your Azure account after the initial account linking, and will take more time and security requirements.

Start by validating that your Azure environment and your Azure account meet the following prerequisites. Then, choose a configuration option below.

Fully Automated Configuration Details

When you choose this option, you will grant ODSA the Azure permissions needed to automate the three configuration steps listed above. During the fully automated configuration, we will ask for the following Azure permissions:

- Access Azure Service Management as you (preview)
- Manage permission grants and app role assignments
- Read and write all groups
- Read and write all user's full profiles
- Read and write applications
- Read and write your organization's application configuration policies
- Read directory RBAC settings
- Read your organization's policies
- Sign you in and read your profile

When the account linking and automated ODSA configuration is complete, the

[Start fully automated configuration](#)

Guided Account Linking Details

This option links your Azure and Oracle accounts automatically, then redirects you to the ODSA portal. There, you'll see instructions for how to manually link your Azure subscriptions to ODSA. You will also see instructions for identity federation, which is optional with guided account linking.

[Start guided account linking](#)

Start fully automated configuration

Oracle Database Service for Azure X +

← → ↻ 🏠 🔒 https://signup.multicloud.oracle.com/azure/linking/automated ☆ 🛡️ ☰

Cloud Infrastructure

Welcome

Thanks for signing into your Azure account. Let's set up your Oracle Cloud account and then link it to your Azure account.

Already have an Oracle Cloud account?

- 1 Select Azure subscriptions
- 2 Sign in to your Oracle Cloud account
- 3 Select a primary region for ODSA
- 4 Link your Oracle Cloud and Azure accounts

Not an Oracle Cloud customer yet?

- 1 Select Azure subscriptions
- 2 Sign up for a new Oracle Cloud account
- 3 Link your Oracle Cloud and Azure accounts

Select Azure Subscriptions

<input checked="" type="checkbox"/> Subscription Name ↑↓	Subscription ID ↑↓
<input checked="" type="checkbox"/> WVD_PoC	XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX

[Continue](#) [Use another Azure account](#)

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Oracle Database Service for Azure X +

← → ↻ 🏠 🔒 📄 🌐 https://signup.multicloud.oracle.com/azure/linking/automated ☆ 📄 ☰

Cloud Infrastructure

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- 4 Link your Oracle Cloud and Azure accounts

 **Not an Oracle Cloud customer yet?**

- 1 Select Azure subscriptions
- 2 Sign up for a new Oracle Cloud account
- 3 Link your Oracle Cloud and Azure accounts

Sign in to your Oracle Cloud account

Enter your Oracle Cloud account name to sign in to your account.

Oracle Cloud account name

I have read and agreed to the terms of [Linking Azure and Oracle Cloud accounts](#)

Continue [Use another Azure account](#)

Not an Oracle Cloud customer yet?

Sign Up

Cloud Account Name

The cloud account name will be assigned to your company's or organization's environment and used when signing into the OCI console. You can always rename your account later using the console.

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fe2 [Change tenancy](#)

Single Sign-On (SSO)

We have detected that your tenancy has been federated to another Identity Provider.

Select your Identity Provider below.

oracleidentitycloudservice

[Continue](#)

Oracle Cloud Infrastructure Direct Sign-In ⓘ

ORACLE Cloud

fe3

Oracle Cloudアカウントのサインイン

ドメイン ⓘ

Default

ユーザー名

fe-oci-isy007@fullenergy.com

パスワード

●●●●●●●●●●

[Forgot Password?](#)

サイン・イン

[サインインにお困りですか。](#)

[プライバシー](#) | [Cookieの設定](#)

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Oracle Database Service for Azure X

https://signup.multicloud.oracle.com/azure/linking/automated

Cloud Infrastructure

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- 2 Sign in to your Oracle Cloud account
- 3 Select a primary region for ODSA
- 4 Link your Oracle Cloud and Azure accounts

Not an Oracle Cloud customer yet?

- 1 Select Azure subscriptions
- 2 Sign up for a new Oracle Cloud account
- 3 Link your Oracle Cloud and Azure accounts

Select Region

Oracle Database for Azure (ODSA) is available in OCI regions that offer a high-performance cross-cloud connection between OCI and Azure data centers. Select the primary region where you will deploy ODSA resources.

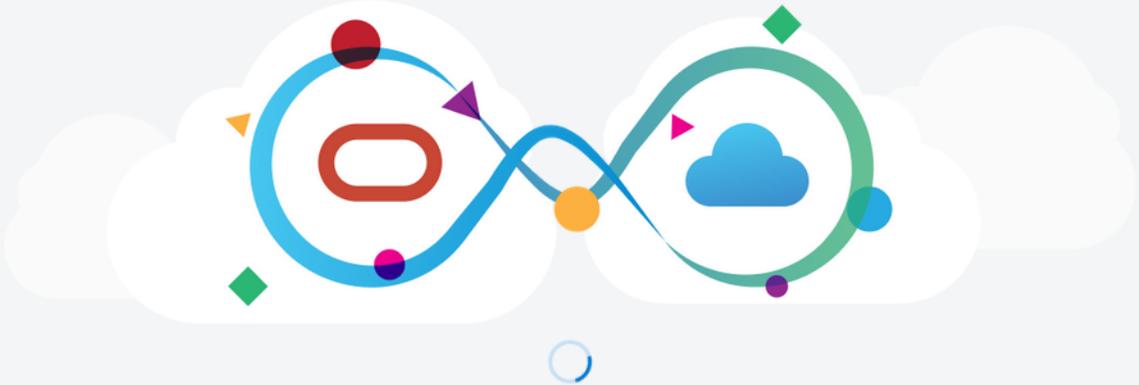
Region
Japan East (Tokyo)

Continue

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Oracle Database Service for Azure



Please wait while we link your accounts. This can take up to 5 minutes.

Once the linking is complete, we will take you to Oracle Database Service for Azure portal.

https://console.multicloud.oracle.com/azure/home

The screenshot shows the Oracle Cloud console interface for Azure. The browser address bar displays the URL `console.multicloud.oracle.com/azure/home`. The page features a blue header with the text "e for Azure" and a settings icon. A left-hand navigation menu includes options like "Create a resource", "Home", "Autonomous Database", "Exadata Database", "Base Database", "Deployments", "Billing", "Subscription Management", and "Support". The main content area is divided into three sections: "Oracle services" with a "Create a resource" button (highlighted by a red box) and icons for "Autonomous Database", "Exadata Database", and "Base Database"; "Navigate" with icons for "Deployments", "Billing", "Subscription Management", and "Support"; and "Useful links" with text links for "Getting started with Autonomous Database", "Getting started with Exadata Database", "Getting started with Base Database", and "All ODSA Database documentation".



[Home](#) >

Create a resource

Recently created

Categories

Databases

Popular products



Autonomous Databases

[Create](#) | [Learn more](#)



Exadata Databases

[Create](#) | [Learn more](#)



Exadata VM Clusters

[Create](#) | [Learn more](#)



Exadata Infrastructures

[Create](#) | [Learn more](#)



Exadata Systems

[Create](#) | [Learn more](#)



Base Databases

[Create](#) | [Learn more](#)

Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics Configuration Networking Security Management Tags Review + create

Project details

Subscription * ⓘ WVD_PoC

Resource group * ⓘ tpoc-rg01

Instance details

Name * odsa01 ✓

Region * ⓘ Japan East

Review + create < Previous Next: Configuration >

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Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics **Configuration** Networking Security Management Tags Review + create

Database system details

Shape Selection * ⓘ

Total node count *

Available data storage (GB) *

Software edition *

License type *

Database details

Database version * ⓘ 19.0.0.0

Database name * ⓘ odsac01 ✓

Pluggable database name ⓘ odsap01 ✓

Review + create < Previous Next: Networking >

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Select VM shape
Configure DB system shape

Select VM shape

VM shape * ⓘ
VM.Standard.E4.Flex

OCPU count per node * ⓘ

1

OK Discard

Select VM shape

i License included - Subscribe to new Oracle Database software licenses and the Database service.
Bring your own license (BYOL) - Bring my organization's Oracle Database software license to the Database service. [Learn more](#)

Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics **Configuration** Networking Security Management Tags Review + create

Database system details

Shape Selection * ⓘ **VM.Standard.E4.Flex**
1 OCPU count per node
[Configure DB system shape](#)

Total node count *
 1
 2

Available data storage (GB) *
256

Software edition *
Standard Edition

License type *
License included

i License included - Subscribe to new Oracle Database software licenses and the Database service.
Bring your own license (BYOL) - Bring my organization's Oracle Database software license to the Database service. [Learn more](#)

Database details

Database version * ⓘ 19.16.0.0

Database name * ⓘ odsac01 ✓

Pluggable database name ⓘ odsap01 ✓

Review + create < Previous Next: Networking >

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Create Base Database x +

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbContextDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics Configuration **Networking** Security Management Tags Review + create

Database system networking

Hostname prefix *

Network peering

Virtual networks *

OCI CIDRs * Addresses

[Review + create](#) [< Previous](#) [Next: Security >](#)

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Create Base Database x +

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics Configuration Networking Security Management Tags Review + create

Database system authentication

SSH public key source *

Database administrator credentials

Username

Password * ✓

Confirm password * ✓

Use another password for the TDE wallet

[Review + create](#) [< Previous](#) [Next: Management >](#)

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Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics Configuration Networking Security **Management** Tags Review + create

Backup

Enable automatic backups

i All prerequisites for backing up to Oracle Cloud Infrastructure Object Storage must be met in the local and remote regions for automatic and remote backups to work.

Backup retention period* 30 days

Backup scheduling (UTC)* 16:00 - 18:00

Review + create < Previous Next: Tags >

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Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Basics Configuration Networking Security Management **Tags** Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name [ⓘ] Value [ⓘ] Resource

:

[Review + create](#) [< Previous](#) [Next: Review + create >](#)

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Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Validation passed.

Basics Configuration Networking Security Management Tags Review + create

Basics

Subscription	WVD_PoC
Resource group	tpoc-rg01
Base database name	odsa01
Region	Japan East

Configuration

Shape Selection	VM.Standard.E4.Flex (1 OCPU count per node)
Node count	1
Available data storage (GB)	256
Software edition	Standard Edition
License type	License included
Database version	19.16.0.0
Database name	odsac01
Pluggable database name	odsap01

Networking

Hostname prefix	odsasubnet
Virtual networks	tpoc-vnet01 (10.179.0.0/22)
Address range	10.160.0.0/16 [10.160.0.0 - 10.160.255.255 (65536 addresses)]

Security

SSH public key	Generated
----------------	-----------

Create < Previous Next >

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Create Base Database x +

← → ↻ 🏠 🔒 https://console.multicloud.oracle.com/azure/create/Oracle.VmdbContext

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

✔ Validation passed.

Basics Configuration Networking Security Management Tags Review + create

Basics

Subscription	WVD_PoC
Resource group	tpoc-rg01
Base database name	odsa01
Region	Japan East

Configuration

Shape Selection	VM.Standard.E4.Flex (1 OCPU count per node)
Node count	1
Available data storage (GB)	256
Software edition	Standard Edition
License type	License included
Database version	19.16.0.0
Database name	odsac01
Pluggable database name	odsap01

Networking

Hostname prefix	odsasubnet
Virtual networks	tpoc-vnet01 (10.179.0.0/22)
Address range	10.160.0.0/16 [10.160.0.0 - 10.160.255.255 (65536 addresses)]

Security

SSH public key	Generated
----------------	-----------

Generate new key pair

Download the private key while opting to generate the ssh key so that you can connect to the database system using SSH. It will not be shown again.

[Download private key and create resource](#)

[Return to create resource](#)

[Create](#) < Previous Next >

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Create Base Database

https://console.multicloud.oracle.com/azure/create/Oracle.VmdbDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Base Database

Validation passed.

Base database name	odsa01
Region	Japan East

Configuration

Shape Selection	VM.Standard.E4.Flex (1 OCPU count per node)
Node count	1
Available data storage (GB)	256
Software edition	Standard Edition
License type	License included
Database version	19.16.0.0
Database name	odsac01
Pluggable database name	odsap01

Networking

Hostname prefix	odsasubnet
Virtual networks	tpoc-vnet01 (10.179.0.0/22)
Address range	10.160.0.0/16 [10.160.0.0 - 10.160.255.255 (65536 addresses)]

Security

SSH public key	Generated
Username	SYS
Use the administrator password for the TDE wallet	false

Management

Enable automatic backups	true
Backup retention period	30 days

Create < Previous Next >

Notifications

Dismiss all

Base database deployment

Deployment of Base database 'odsa01' failed to start. Additional details from the underlying API that might be helpful: Bad Gateway

a minute ago

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Create Base Database x Create Autonomous Database x +

← → ↻ 🏠 🔒 https://console.multicloud.oracle.com/azure/create/Oracle.AdbsDatabase ☆ 📄 ⌵ ☰

☰ Oracle Database Service for Azure 🔔 ⚙️ ⓘ 🗨️ 株式会社フルエナジー A

Home > Create a resource >

Create Autonomous Database ✕

Basics Configuration Networking Security Tags Review + create

Project details

Subscription * ⓘ WVD_PoC ▾

Resource group * ⓘ tpoc-rg01 ▾

Instance details

Name * odsaatp1 ✓

Region * ⓘ Japan East ▾

[Review + create](#) < Previous Next: Configuration >

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Create Base Database x Create Autonomous Database x +

← → ↻ 🏠 🔒 https://console.multicloud.oracle.com/azure/create/Oracle.AdbsDatabase ☆ 🛡️ ⬇️ ☰

Oracle Database Service for Azure 🔔 ⚙️ ? 🗨️ admin@fullenergy001.com 株式会社フルエナジー

Home > Create a resource >

Create Autonomous Database ✕

Basics Configuration Networking Security Tags Review + create

Workload type * Transaction Processing ▾

OCPU count * 1

OCPU auto scaling

i Allows system to use up to three times the number of cores specified by the OCPU count as the workload increases.

Storage (TB) * 1

License type * License included ▾

i **License included** - Subscribe to new Oracle Database software licenses and the Database service.
Bring your own license (BYOL) - Bring my organization's Oracle Database software license to the Database service. [Learn more](#)

Database details

Database version * 19c ▾

Database name * osdap01 ✓

[Review + create](#) < Previous Next: Networking >

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Create Base Database x Create Autonomous Database x +

← → ↻ 🏠 🔒 https://console.multicloud.oracle.com/azure/create/Oracle.AdbsDatabase ☆ 📄 ⬇️ ☰

Oracle Database Service for Azure 🔔 ⚙️ ? 🗨️ admin@feature001.com 🌐 株式会社フルエナジー

Home > Create a resource >

Create Autonomous Database ✕

Basics Configuration Networking Security Tags Review + create

Access type

Secure access from everywhere

Secure access from allowed IP addresses

i **Secure access from everywhere** - Allow users with database credentials to access the database from the internet.
Secure access from allowed IP addresses - Restrict access to specified IP addresses.

⚠️ You must enable Internet access to the database in your Azure environment to make this database resource visible publicly.

Require mutual TLS (mTLS) authentication

i If you select this option, mTLS will be required to authenticate connections to your Autonomous Database.

[Review + create](#) [< Previous](#) [Next: Security >](#)

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Create Base Database x Create Autonomous Database x +

← → ↻ 🏠 🔒 https://console.multicloud.oracle.com/azure/create/Oracle.AdbsDatabase ☆ 📧 📄 ☰

☰ Oracle Database Service for Azure 🔔 ⚙️ ? 🗨️ admin@fullenergy001.com 🇯🇵 株式会社フルエナジー

Home > Create a resource >

Create Autonomous Database ✕

Basics Configuration Networking Security Tags Review + create

Database administrator credentials

Username

Password* ⓘ ✓

Confirm password* ✓

[Review + create](#) [< Previous](#) [Next: Tags >](#)

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Create Base Database x Create Autonomous Database x +

https://console.multicloud.oracle.com/azure/create/Oracle.AdsDatabase

Oracle Database Service for Azure

Home > Create a resource >

Create Autonomous Database

Validation passed.

Basics Configuration Networking Security Tags Review + create

Basics

Subscription	WVD_PoC
Resource group	tpoc-rg01
Name	odsaatp1
Region	Japan East

Configuration

Workload type	Transaction Processing
OCPU count	1
OCPU auto scaling	true
Storage (TB)	1
License type	License included
Database version	19c
Database name	osdap01

Networking

Access type	Secure access from everywhere
Require mutual TLS (mTLS) authentication	true

Security

Username	ADMIN
----------	-------

Tags

Create < Previous Next >

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Oracle Database Service for Azure

Home > **odsaatp1** 
 Autonomous Database

Database Actions Metrics Scale Start Stop Restart Download wallet Rotate wallet Refresh Change password Delete

Essentials

Resource group	: tpoc-rg01	OCI resource	: -
Status	: Provisioning 	Database name	: (Edit)
Location	: Japan East	Workload type	:
Subscription	: WVD_PoC	Open mode	:
Subscription ID	: [REDACTED]	OCPU count	: 1
Tags (Edit)	: Click here to add tags	OCPU auto scaling	: Disabled
		Storage (TB)	: 1
		License (Edit)	: License included

Connection strings

 You must enable Internet access to the database in your Azure environment to make this database resource visible publicly.

TNS name	Type	Connection string
No results		

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Oracle Database Service for Azure

Home > **odsaatp1**
Autonomous Database

Database Actions Metrics Scale Start Stop Restart Download wallet Rotate wallet Refresh Change password Delete

Essentials

Resource group : tpoc-rg01	OCI resource : odsaatp1
Status : Active ✔	Database name (Edit) : osdap01
Location : Japan East	Workload type : Transaction Processing
Subscription : WVD_PoC	Open mode : Read/Write
Subscription ID : [REDACTED]	OCPU count : 1
Tags (Edit) : Click here to add tags	OCPU auto scaling : Enabled
	Storage (TB) : 1
	License (Edit) : License included

Connection strings

⚠ You must enable Internet access to the database in your Azure environment to make this database resource visible publicly.

TNS name	Type	Connection string
osdap01_high	mTLS	(description= (retry_count=20)(retry_delay=3)(address=(protocol=tcps)(port=1522)(host=adb.ap-tokyo-1.oraclecloud.com))(connect_data=(service_name=gfa2a317710433b_osdap01_high.adb.oraclecloud.com))(security=(ssl_server_cert_dn="CN=adb.ap-tokyo-1.oraclecloud.com, OU=Oracle ADB TOKYO, O=Oracle Corporation, L=Redwood City, ST=California, C=US")))
osdap01_low	mTLS	(description= (retry_count=20)(retry_delay=3)(address=(protocol=tcps)(port=1522)(host=adb.ap-tokyo-1.oraclecloud.com))(connect_data=(service_name=gfa2a317710433b_osdap01_low.adb.oraclecloud.com))(security=(ssl_server_cert_dn="CN=adb.ap-tokyo-1.oraclecloud.com, OU=Oracle ADB TOKYO, O=Oracle Corporation, L=Redwood City, ST=California, C=US")))
osdap01_medium	mTLS	(description= (retry_count=20)(retry_delay=3)(address=(protocol=tcps)(port=1522)(host=adb.ap-tokyo-1.oraclecloud.com))(connect_data=(service_name=gfa2a317710433b_osdap01_medium.adb.oraclecloud.com))(security=(ssl_server_cert_dn="CN=adb.ap-tokyo-1.oraclecloud.com, OU=Oracle ADB TOKYO, O=Oracle Corporation, L=Redwood City, ST=California, C=US")))
osdap01_tp	mTLS	(description= (retry_count=20)(retry_delay=3)(address=(protocol=tcps)(port=1522)(host=adb.ap-tokyo-1.oraclecloud.com))(connect_data=(service_name=gfa2a317710433b_osdap01_tp.adb.oraclecloud.com))(security=(ssl_server_cert_dn="CN=adb.ap-tokyo-1.oraclecloud.com, OU=Oracle ADB TOKYO, O=Oracle Corporation, L=Redwood City, ST=California, C=US")))
osdap01_turgent	mTLS	(description= (retry_count=20)(retry_delay=3)(address=(protocol=tcps)(port=1522)(host=adb.ap-tokyo-1.oraclecloud.com))(connect_data=(service_name=gfa2a317710433b_osdap01_turgent.adb.oraclecloud.com))(security=(ssl_server_cert_dn="CN=adb.ap-tokyo-1.oraclecloud.com, OU=Oracle ADB TOKYO, O=Oracle Corporation, L=Redwood City, ST=California, C=US")))

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Autonomous Database | Oracle Cloud | <https://gfa2a317710433b-osdap1...>

cloud.oracle.com/db/adb/ocid1.autonomousdatabase.oc1.ap-tokyo-1.anxhiljryuqpsqaxqqbc44lsa6wl3h3q47vt7dl62idaiupv74beez4doq?region=ap-tokyo-1

ORACLE Cloud | odsaatp | Japan East (Tokyo)

Overview > Autonomous Database > Autonomous Database Details

AVAILABLE

odsaatp1

Database Actions | DB Connection | Performance Hub | Manage Scaling | More actions

Autonomous Database Information | Tools | Tags

General Information

Database name: osdap01

Workload type: Transaction Processing

Compartment: ocid1.compartment.oc1..aaaaaaaaknch3zdtrak7vkqgxrzcp756ofxudorf4h3aqaa6prqvxmirtiga

OCID: ...ez4doq [Show](#) [Copy](#)

Created: Thu, Sep 1, 2022, 15:53:07 UTC

OCPU count: 1

OCPU auto scaling: Enabled ⓘ

Storage: 1 TB

Storage auto scaling: Disabled ⓘ

License type: License included

Database version: 19c

Lifecycle state: Available [Check database availability](#)

Instance type: Paid

Character set: AL32UTF8

National character set: AL16UTF16

Auto Start/Stop schedule: Disabled [Schedule](#)

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.

Manual backup store: Not Configured

Network

Access type: Allow secure access from everywhere

Access control list: Disabled [Edit](#)

Mutual TLS (mTLS) authentication: Required [Edit](#) ⓘ

Maintenance ⓘ

Patch level: Regular ⓘ

Next maintenance: Sat, Sep 3, 2022, 06:00:00 UTC - 08:00:00 UTC [View History](#)

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Autonomous Database | Oracle Cloud | Oracle Database Actions | Oracle APEX Administration Service

cloud.oracle.com/db/adb/ocid1.autonomousdatabase.oc1.ap-tokyo-1.anxhiljryuqpkqsaxqqbc44lsa6wl3h3q47vt7dl62idaiupv74beez4doq?region=ap-tokyo-1

ORACLE Cloud odsaatp Japan East (Tokyo)

Overview > Autonomous Database > Autonomous Database Details

ATP

STOPPED

odsaatp1

Database Actions DB Connection Performance Hub Manage Scaling More actions

Autonomous Database Information Tools Tags

General Information

Database name: osdap01

Workload type: Transaction Processing

Compartment: ocid1.compartment.oc1..aaaaaaaaknch3zdrak7vkgxerzcp756ofxudorf4h3aqaa6prqvxmirtlga

OCID: ...ez4doq [Show](#) [Copy](#)

Created: Thu, Sep 1, 2022, 15:53:07 UTC

OCPU count: 1

OCPU auto scaling: Enabled ⓘ

Storage: 1 TB

Storage auto scaling: Disabled ⓘ

License type: License included

Database version: 19c

Lifecycle state: Stopped [Check database availability](#)

Instance type: Paid

Character set: AL32UTF8

National character set: AL16UTF16

Auto Start/Stop schedule: Disabled [Schedule](#)

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.

Manual backup store: Not Configured

Network

Access type: Allow secure access from everywhere

Access control list: Disabled [Edit](#)

Mutual TLS (mTLS) authentication: Required [Edit](#) ⓘ

Maintenance ⓘ

Patch level: Regular ⓘ

Next maintenance: Sat, Sep 3, 2022, 06:00:00 UTC - 08:00:00 UTC [View History](#)

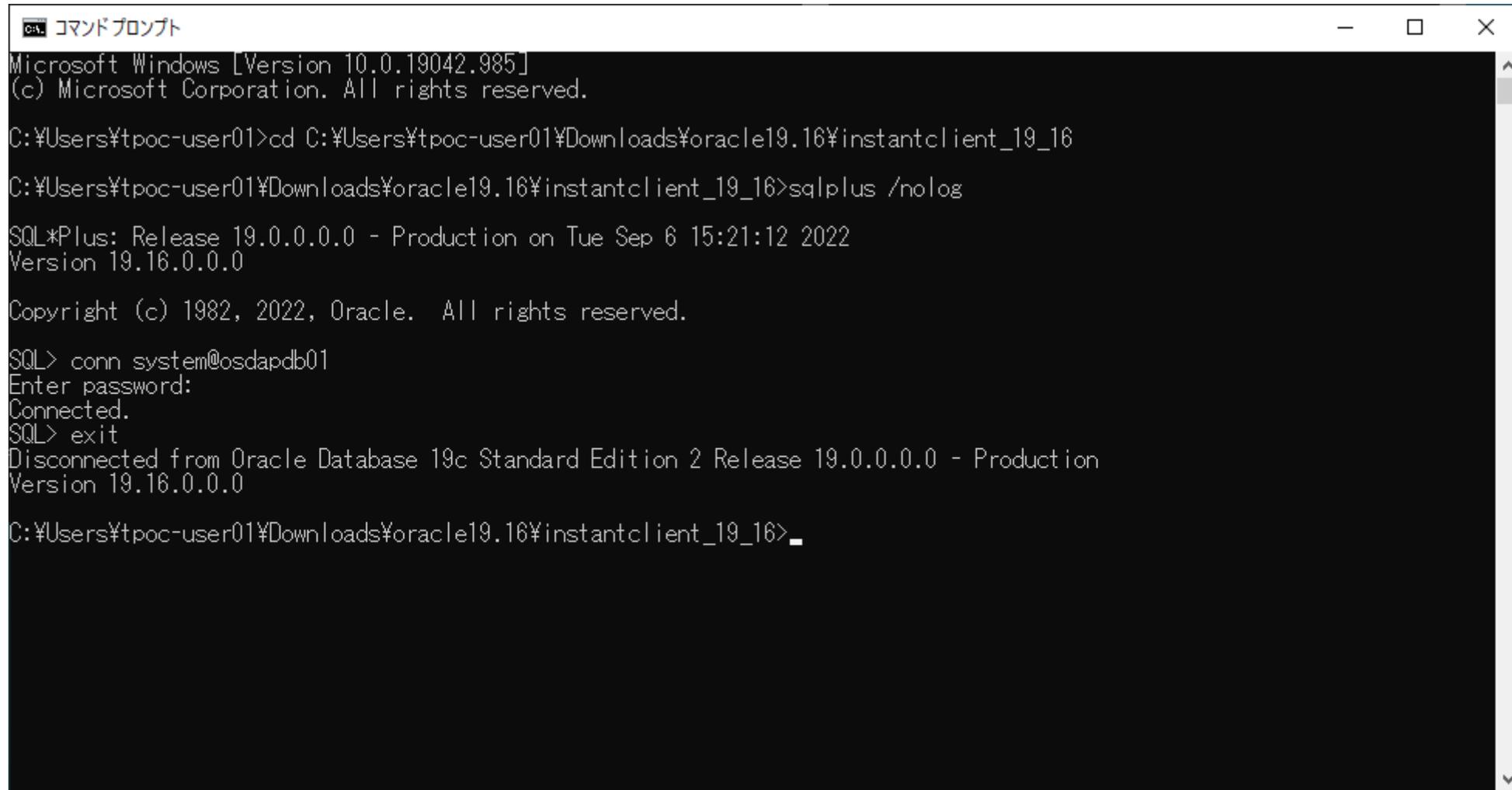
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Ping疎通確認結果

```
RLogin - feadm@odsatest01:~  
64 bytes from 10.160.0.190: icmp_seq=307 ttl=61 time=5.45 ms  
64 bytes from 10.160.0.190: icmp_seq=308 ttl=61 time=4.72 ms  
64 bytes from 10.160.0.190: icmp_seq=309 ttl=61 time=4.65 ms  
64 bytes from 10.160.0.190: icmp_seq=310 ttl=61 time=4.29 ms  
64 bytes from 10.160.0.190: icmp_seq=311 ttl=61 time=4.50 ms  
64 bytes from 10.160.0.190: icmp_seq=312 ttl=61 time=4.11 ms  
64 bytes from 10.160.0.190: icmp_seq=313 ttl=61 time=4.34 ms  
64 bytes from 10.160.0.190: icmp_seq=314 ttl=61 time=3.82 ms  
64 bytes from 10.160.0.190: icmp_seq=315 ttl=61 time=4.14 ms  
64 bytes from 10.160.0.190: icmp_seq=316 ttl=61 time=4.05 ms  
64 bytes from 10.160.0.190: icmp_seq=317 ttl=61 time=4.48 ms  
64 bytes from 10.160.0.190: icmp_seq=318 ttl=61 time=4.31 ms  
64 bytes from 10.160.0.190: icmp_seq=319 ttl=61 time=4.56 ms  
64 bytes from 10.160.0.190: icmp_seq=320 ttl=61 time=4.24 ms  
64 bytes from 10.160.0.190: icmp_seq=321 ttl=61 time=4.93 ms  
64 bytes from 10.160.0.190: icmp_seq=322 ttl=61 time=4.23 ms  
64 bytes from 10.160.0.190: icmp_seq=323 ttl=61 time=5.00 ms  
64 bytes from 10.160.0.190: icmp_seq=324 ttl=61 time=3.90 ms  
64 bytes from 10.160.0.190: icmp_seq=325 ttl=61 time=4.20 ms  
64 bytes from 10.160.0.190: icmp_seq=326 ttl=61 time=4.37 ms  
64 bytes from 10.160.0.190: icmp_seq=327 ttl=61 time=4.07 ms  
64 bytes from 10.160.0.190: icmp_seq=328 ttl=61 time=8.62 ms  
64 bytes from 10.160.0.190: icmp_seq=329 ttl=61 time=4.57 ms  
64 bytes from 10.160.0.190: icmp_seq=330 ttl=61 time=4.09 ms  
64 bytes from 10.160.0.190: icmp_seq=331 ttl=61 time=4.18 ms  
64 bytes from 10.160.0.190: icmp_seq=332 ttl=61 time=4.19 ms  
64 bytes from 10.160.0.190: icmp_seq=333 ttl=61 time=4.55 ms  
64 bytes from 10.160.0.190: icmp_seq=334 ttl=61 time=4.09 ms  
64 bytes from 10.160.0.190: icmp_seq=335 ttl=61 time=5.26 ms  
64 bytes from 10.160.0.190: icmp_seq=336 ttl=61 time=4.17 ms  
64 bytes from 10.160.0.190: icmp_seq=337 ttl=61 time=4.14 ms  
64 bytes from 10.160.0.190: icmp_seq=338 ttl=61 time=4.69 ms  
64 bytes from 10.160.0.190: icmp_seq=339 ttl=61 time=4.59 ms  
64 bytes from 10.160.0.190: icmp_seq=340 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=341 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=342 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=343 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=344 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=345 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=346 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=347 ttl=61 time=4.12 ms  
64 bytes from 10.160.0.190: icmp_seq=348 ttl=61 time=4.11 ms  
64 bytes from 10.160.0.190: icmp_seq=349 ttl=61 time=4.02 ms  
64 bytes from 10.160.0.190: icmp_seq=350 ttl=61 time=4.10 ms  
64 bytes from 10.160.0.190: icmp_seq=351 ttl=61 time=5.42 ms  
C  
-- 10.160.0.190 ping statistics --  
351 packets transmitted, 351 received, 0% packet loss, time 350496ms  
rtt min/avg/max/mdev = 3.726/4.478/11.976/0.868 ms  
[feadm@odsatest01 ~]$
```

Azure VDから SqlplusでのDBCS接続テスト



```
コマンドプロンプト
Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

C:¥Users¥tpoc-user01>cd C:¥Users¥tpoc-user01¥Downloads¥oracle19.16¥instantclient_19_16
C:¥Users¥tpoc-user01¥Downloads¥oracle19.16¥instantclient_19_16>sqlplus /nolog

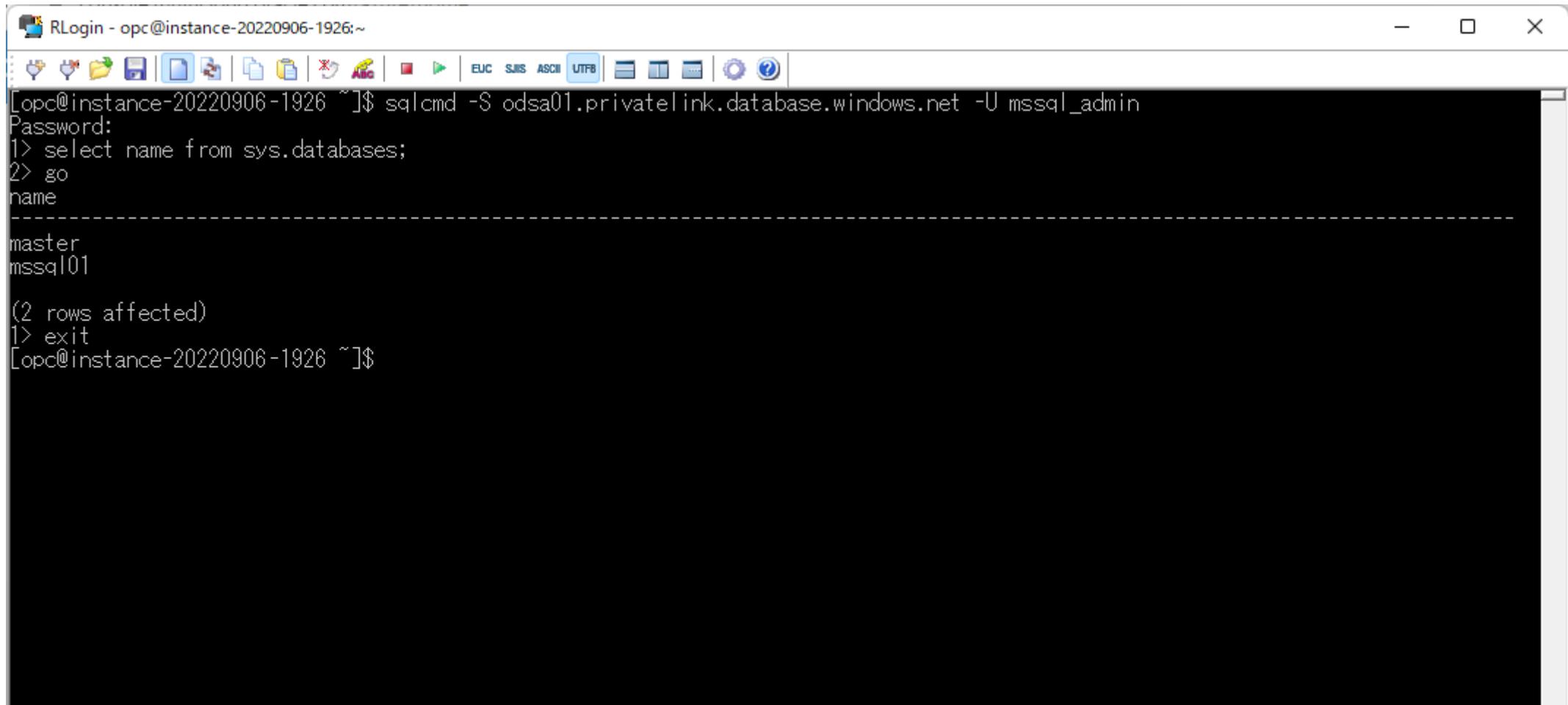
SQL*Plus: Release 19.0.0.0.0 - Production on Tue Sep 6 15:21:12 2022
Version 19.16.0.0.0

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SQL> conn system@osdapdb01
Enter password:
Connected.
SQL> exit
Disconnected from Oracle Database 19c Standard Edition 2 Release 19.0.0.0.0 - Production
Version 19.16.0.0.0

C:¥Users¥tpoc-user01¥Downloads¥oracle19.16¥instantclient_19_16>_
```

OCI上のLinux からsqlcmdでSQL Databaseへ接続



```
RLogin - opc@instance-20220906-1926:~  
Lopc@instance-20220906-1926 ~]$ sqlcmd -S odsa01.privatelink.database.windows.net -U mssql_admin  
Password:  
1> select name from sys.databases;  
2> go  
name  
-----  
master  
mssql01  
  
(2 rows affected)  
1> exit  
Lopc@instance-20220906-1926 ~]$
```

(注) IDCS/OCI IAM統合前のテナンシーではリンク不可

Azure and Oracle Cloud accounts linking failed

To sign up for ODSA, your OCI tenancy must support identity domains. See [Troubleshooting](#) for information on making identity domains available to your Oracle Cloud account.

Contact Support

今回の検証のまとめ

- アカウトリンクができるか？
⇒ 簡単にできた！
- DBCS (Oracle Base Database) が作成できるか？
⇒ 簡単にできた！
- Autonomous Databaseが作成できるか？
⇒ 簡単にできた！
- Azure Virtual DesktopからDBCSへ接続ができるか？ (同サブネットにOCIコンソールで作成したものも)
⇒ 簡単にできた！
- VCNで閉じたAutonomous Databaseが作成できるか？
⇒ 選択肢がなかった！
- ODSAコンソールから管理操作ができるか？
⇒ 簡単にできた！ が、ちょっと遅い。

OCIjp#33懇親会後に実施した検証

- Azure利用料の確認（ホントに無料？）
 - ⇒ Virtual Network Private Linkという項目で、**¥32.8/日**の課金があった
- OCIからのAzure SQL Databaseへの接続
 - ⇒ **簡単にできた！**
- Azureコンソール上からの削除
 - ⇒ **簡単にできた！** DBCSでは、PDBを削除したらCDBが追って削除された。。

今後の確認・検証課題

- Azure利用料の確認（ホントに無料？）
- OCI利用料のレートカードディスクカウントは、適用されるのか？OSRの対象になるのか？
- マニュアルでのアカウントリンク（今回は、fully automated configuration）
- アカウントリンクの解除
- ソウルリージョンとのDR構成（たぶん、Site recoveryの対象サービスではないと思うが）

ご清聴ありがとうございました。



ご参加、LT登壇、セッション登壇も随時、募集中です！

We're Hiring!

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To: akishi@fullenergy-i.com ^



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