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Unlocking Data with a Hybrid Cloud Database

IDC Doc # US47699821

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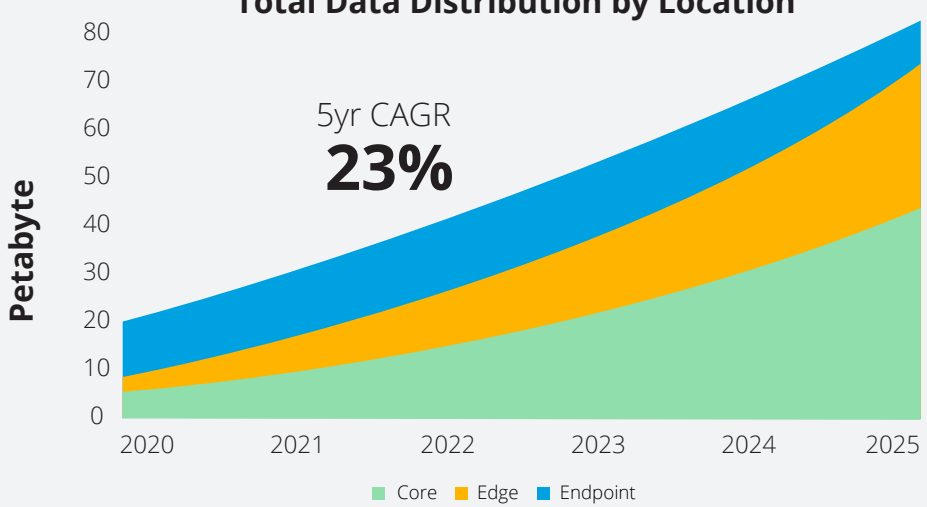
AN IDC INFOBRIEF | JUNE 2021

The Growth of Edge Compute and Devices

80% of enterprises will run varying levels of data processing at the IoT edge. In tandem, organizations will spend over US$6.2 billion on IoT edge Infrastructure by 2022.

Source: IDC Cloud FutureScape, 2020



Source: IDC's Global DataSphere, 2021

Nearly 70% of total data created and consumed happens **outside the CORE**

Edge is increasingly a part of business strategies — to bring compute closer to the source of data.

Improved connectivity technologies will drive the reality for an "always connected" business.

Enterprise must extend its reach into the edge with hybrid cloud strategies to facilitate the flow of data across distributed and siloed data sources.

As data volumes increase, the cost and time delay of moving data to the **centralized core** rapidly becomes unacceptable. Moving workloads to the **distributed edge** will allow for local processing and maximize the time to value delivery.

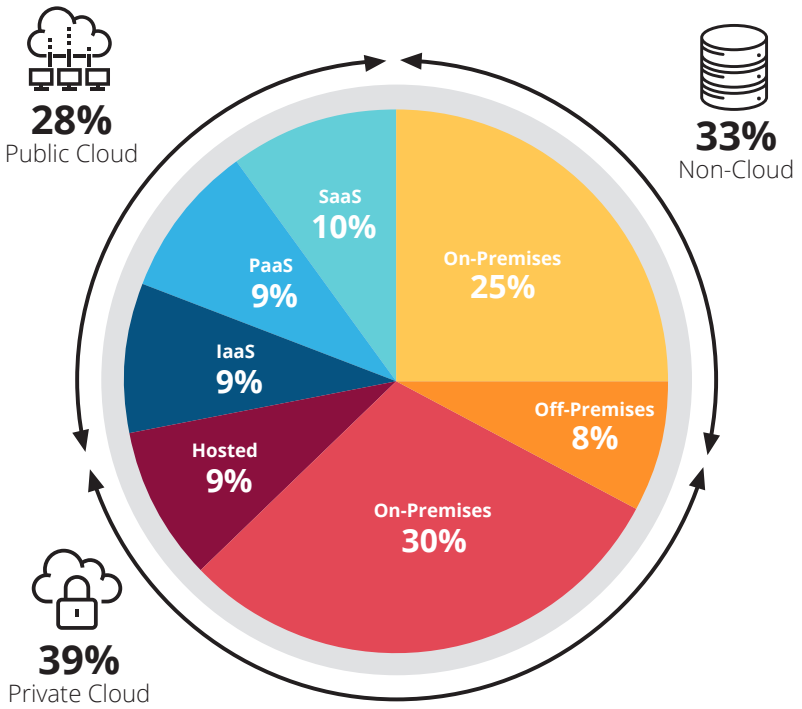
Challenges of Data Management

CHALLENGE #1

Integrate and orchestrate data and workload across different cloud deployment models

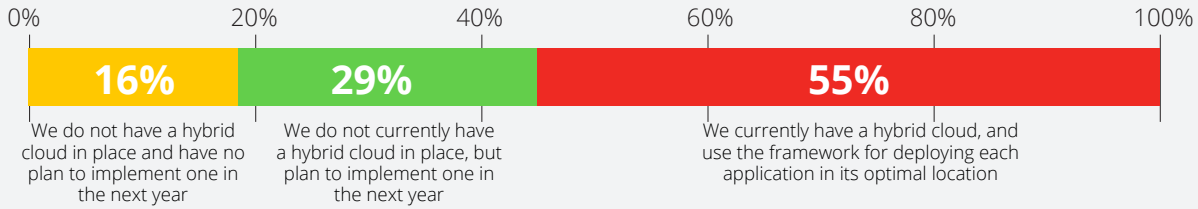
Significant proportion of applications remaining on non-cloud and private cloud infrastructure **at the edge, leading to a hybrid IT environment**. With data living outside the core datacenters, **interdependencies of applications will increase dramatically in the next 2 years**.

Percentage of Application Deployment Model



Source: IDC 1Q20 Cloud Pulse Survey (N=2,000)

Hybrid cloud growth shows steady increase in prevalence



Source: IDC IaaSView 2020 (N=1,500)

Need for Integration and Orchestration

Broad-based cloud consumption demands a myriad of cloud services to run effectively, leading to customers leveraging on multiple cloud service providers to support their growth.

Increasing hybrid cloud approach leads to on-premises private cloud solutions having control and data plane living outside customers' core datacenters.

Growing repatriation of workloads between public and private clouds leads to the movement of applications and data across all cloud/non-cloud environment.

Infrastructure functions such as data processing and storage are no longer limited to a core datacenter. Core and edge infrastructures convergence is required for hybrid cloud data management.

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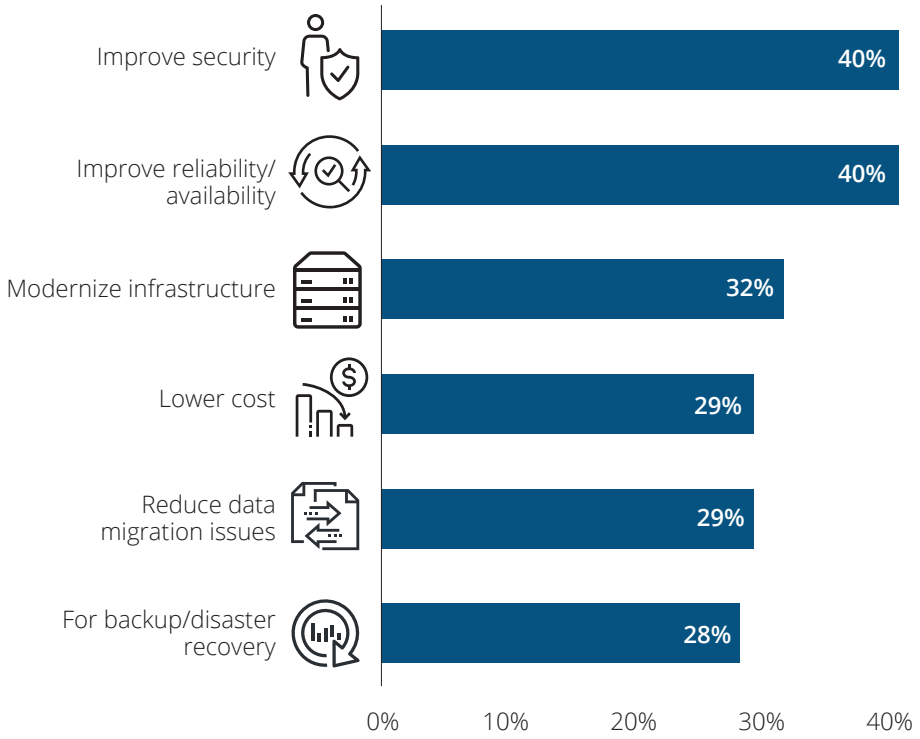
Challenges of Data Management

CHALLENGE #2

Performance of enterprise database in a distributed cloud environment

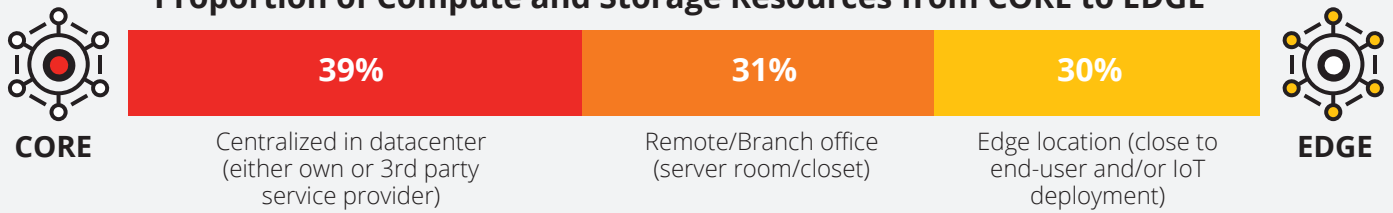
Edge location deployment is required to address the challenges around network latency and data efficiency for real-time insights. This new requirement to store data at the edge will lead to the evolution of a new model of multi-locational hybrid data architectures.

Top Drivers for Edge Location Deployment



Source: IDC 1Q20 Cloud Pulse Survey (N=1,757)

Proportion of Compute and Storage Resources from CORE to EDGE



Source: IDC 1Q20 Cloud Pulse Survey (N=2,000)

Performance

Need for Multi-locational Hybrid Data Architecture

Consistent performance and availability experiences across on-premises and off-premises private and public cloud deployment for all workloads.

Consolidation of datacenters to support hybrid workloads could enable high-bandwidth and low latency connectivity to one or more cloud providers.

Scalable database platform to run all types of database workloads including online transaction processing (OLTP), data warehousing (DW), in-memory analytics and consolidation of mixed workloads.

Unified database platform for all workloads ensure smooth transition from core to edge and an efficient hybrid cloud strategy.

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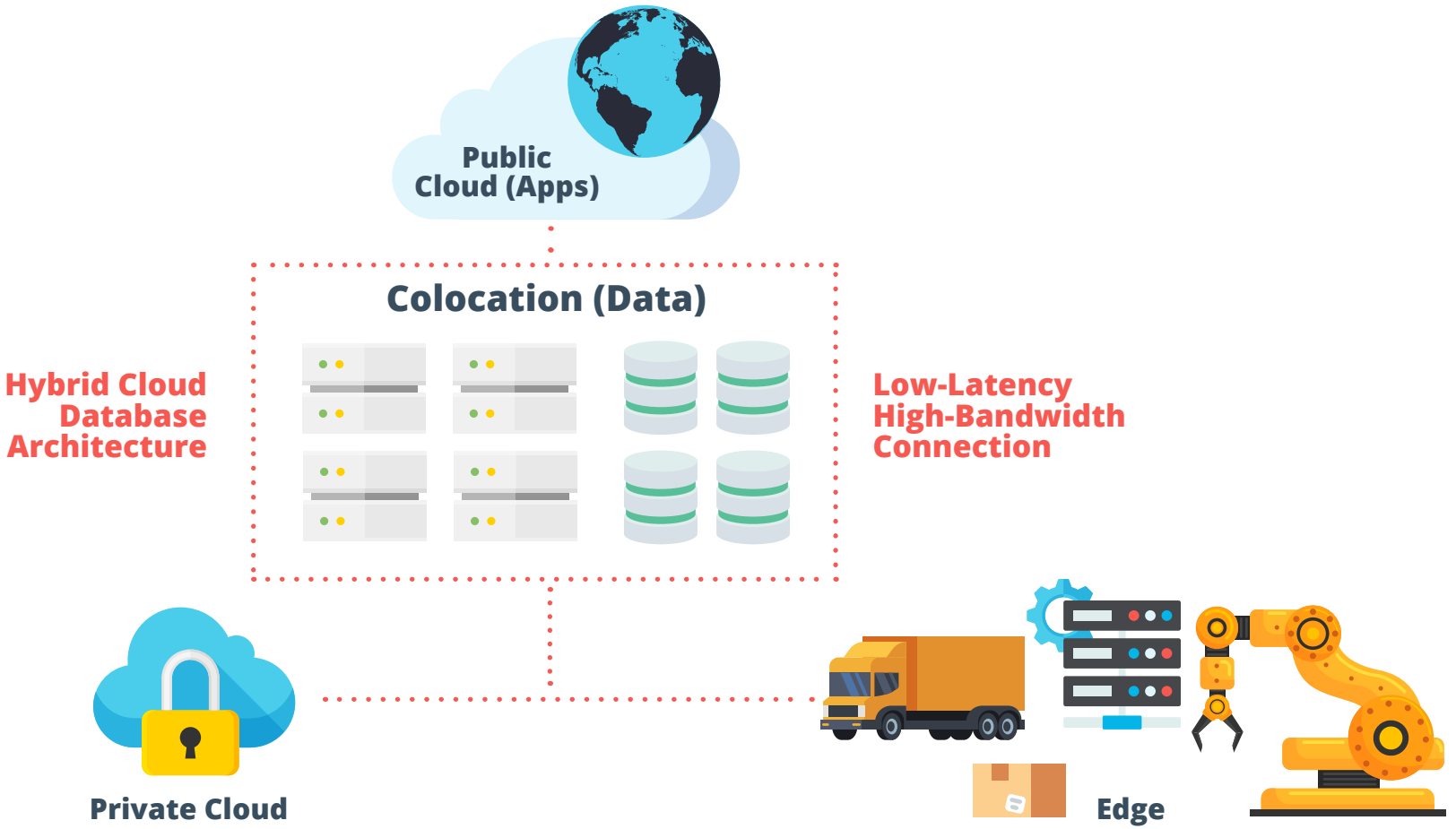
Hybrid Cloud Database Architecture



What is Hybrid?

Common architecture maintained between on-premises/private cloud and public cloud for ease of integration and orchestration

Storage and compute decoupled for running to move workload, not data, for regulatory compliance

Interconnection to public cloud compute and storage is needed for low-latency performance in hybrid cloud environment

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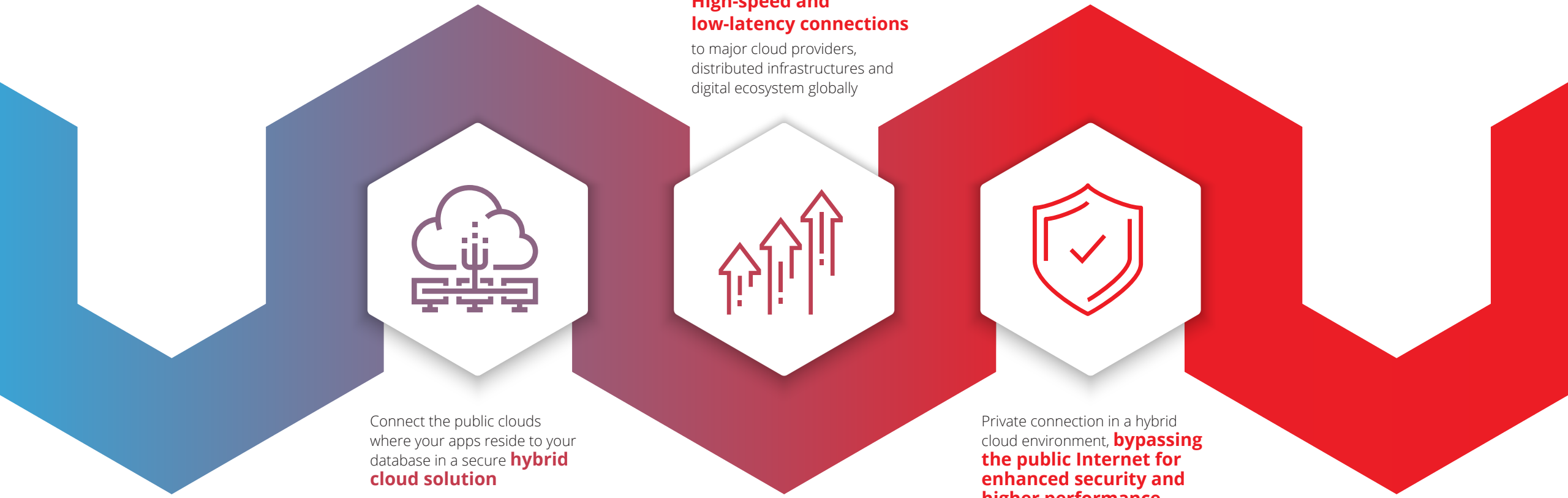
Key Takeaways

Building a Hybrid Cloud Database Architecture



Connect the public clouds where your apps reside to your database in a secure **hybrid cloud solution**

High-speed and low-latency connections to major cloud providers, distributed infrastructures and digital ecosystem globally

Private connection in a hybrid cloud environment, **bypassing the public Internet for enhanced security and higher performance**

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ORACLE Cloud Infrastructure

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Message from the sponsor

Cloud Adjacent Database with Equinix and Oracle

The ideal joint solution for hybrid cloud

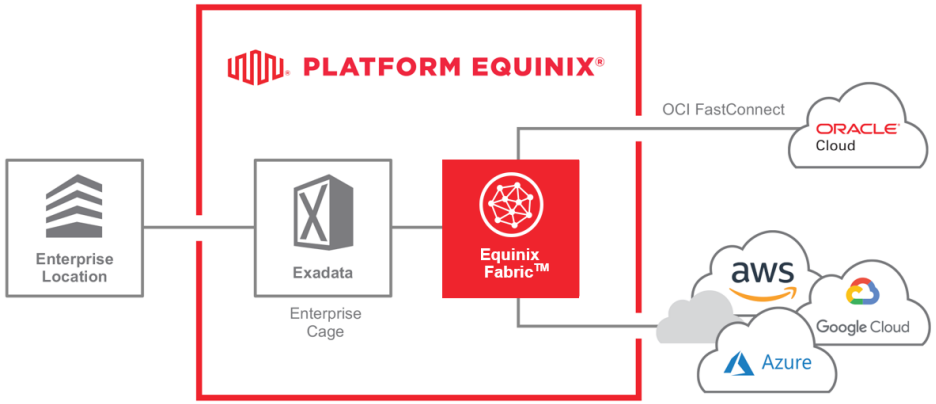
Placing Oracle databases next to cloud data centers in a cloud adjacent architecture with Oracle Exadata Cloud@Customer provides enterprises with the best of both worlds – the security and control of private IT infrastructure with the flexibility of cloud.

Equinix and Oracle offer a hybrid cloud solution for Oracle Database customers on Platform Equinix. This enables enterprise companies to interconnect an Oracle Database securely, with low-latency and high-performance, to the cloud data centers where its apps reside.

Key Solution Benefits:

For customers that cannot place their database in the cloud:

- Equinix data centers are the best place to operate an Oracle Exadata Cloud@Customer with industry leading reliability with >99.9999+% uptime
- With Equinix Fabric™ you get reliable, high-performance connectivity from your database to apps in the public clouds
- Bypass the internet with secure, direct connections via Equinix Fabric™ to public clouds
- This solution meets data sovereignty and industry compliances while helping meet your corporate cloud mandates
- This solution also helps to reduce on-prem data center footprint



See Cloud Adjacency in Action
Connect your oracle database securely to the public clouds where your apps reside

Customer Success Story
See how Fung Group has deployed this hybrid cloud solution realizing the high-performance, reliability, and security of private IT infrastructure with multi-cloud agility

Optimize your Oracle Database Migration
Reduce cost, increase performance with cloud solutions from Oracle and Equinix

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