ORACLE

Autonomous DataBase

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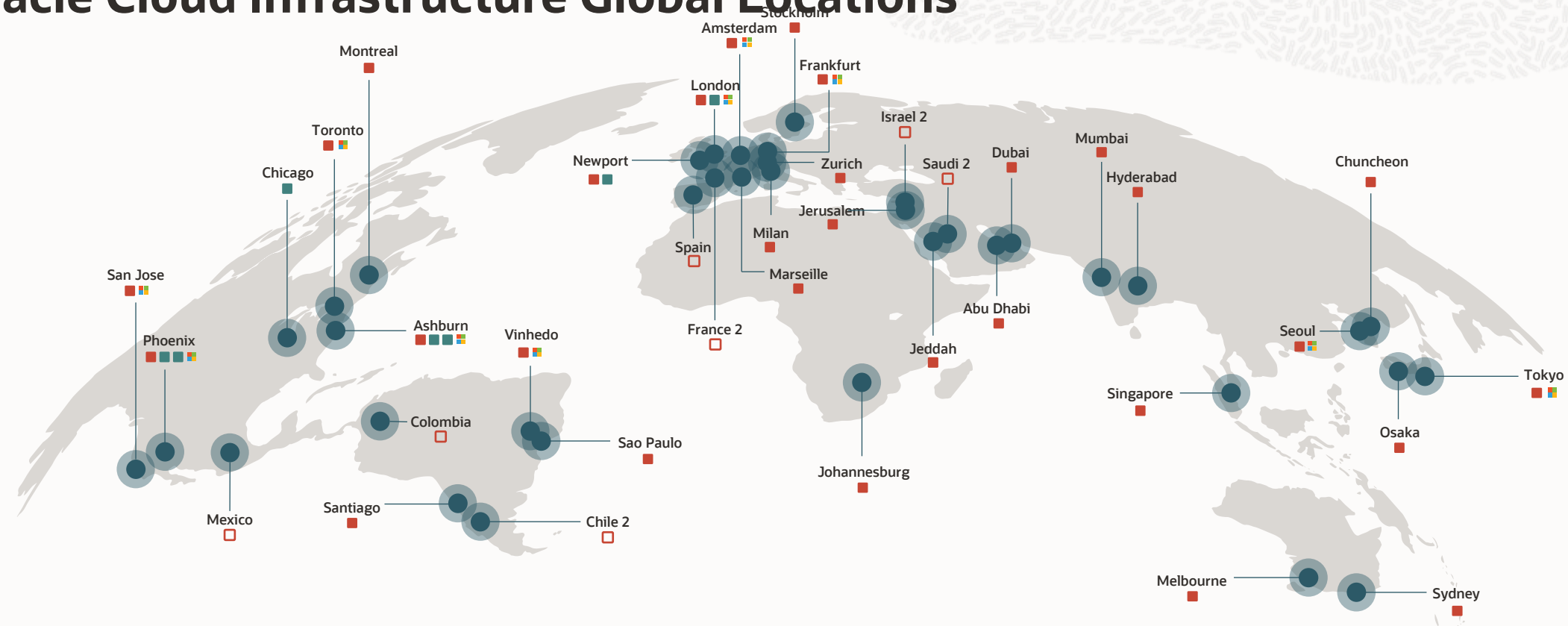
Tech Cloud

Septiembre, 2022

Oracle Cloud Infrastructure Global Locations

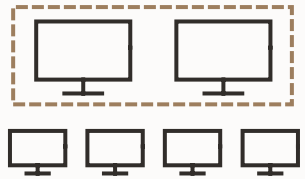


January 2022

37 regions; 7 more planned by end of 2022

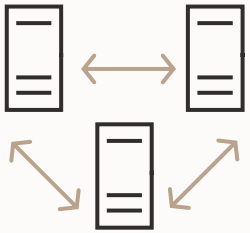
10 Azure Interconnect Regions

High Availability Design



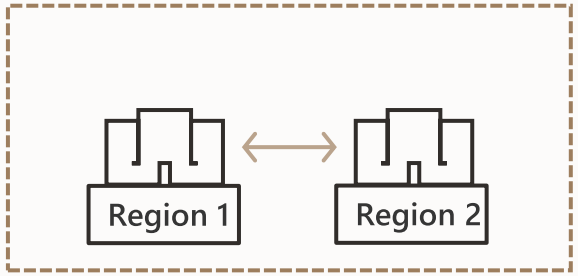
Fault Domains

Protection against failures within datacenters



Availability Domains

Protection from entire datacenter failures

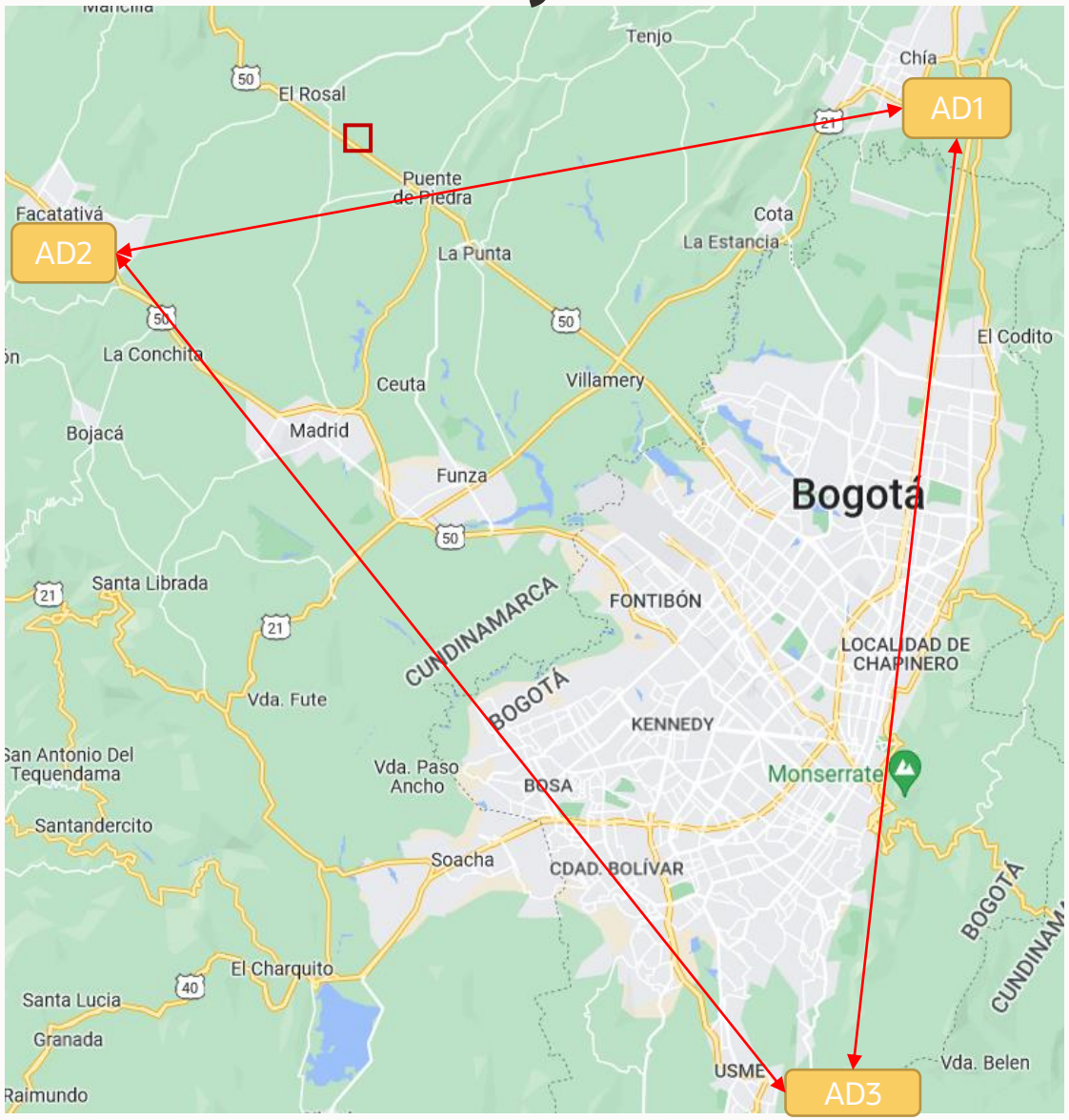


Regions

Protection from disaster with Data Residency compliance

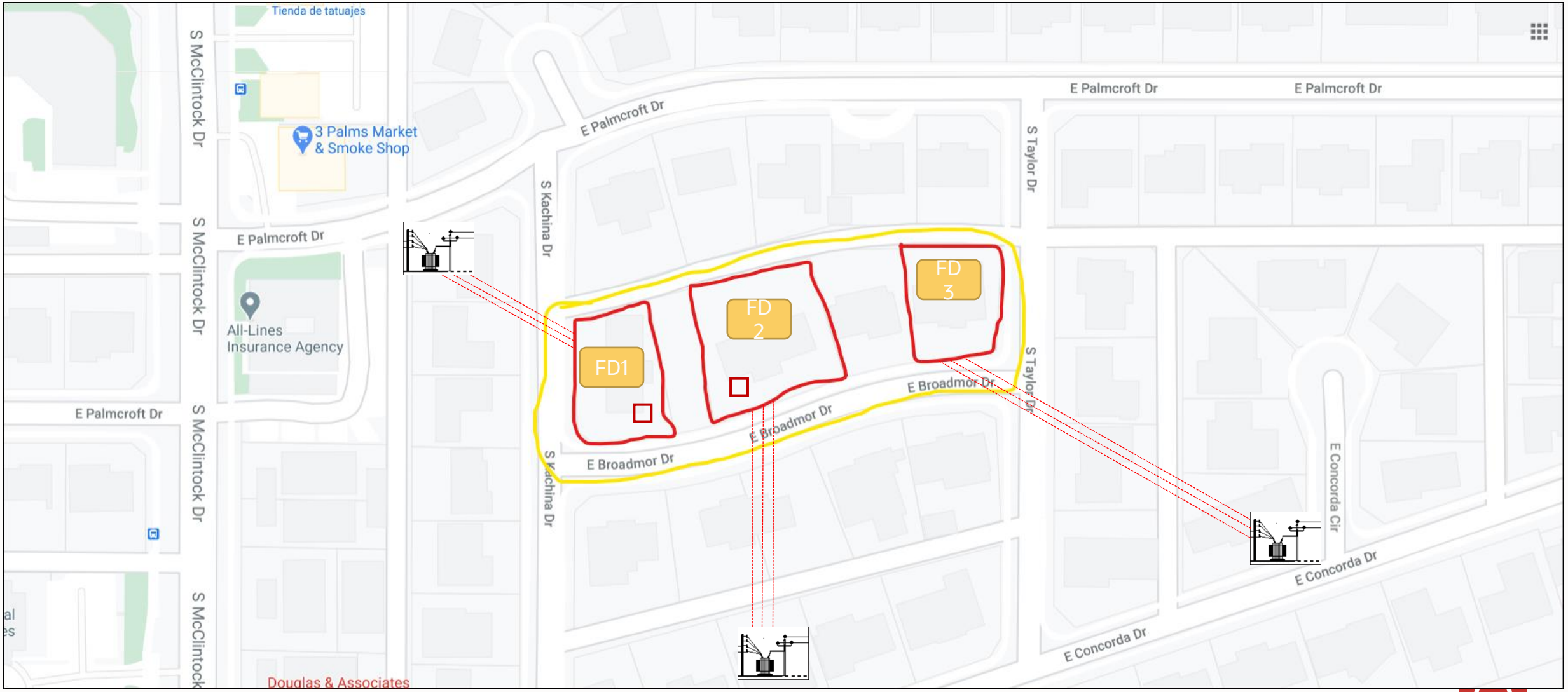
SLAs on Performance, Management and Availability

Availability Domains



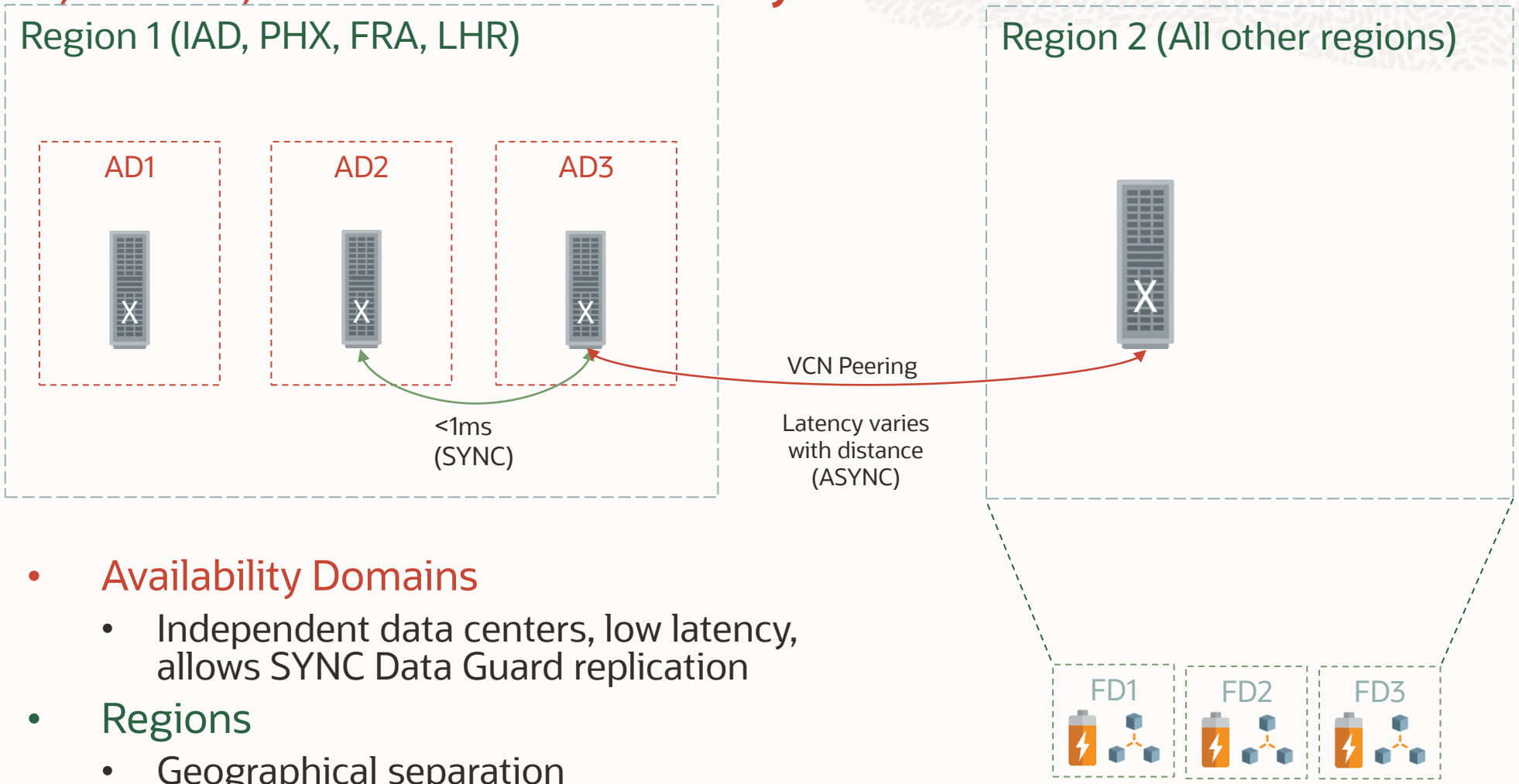
Fault Domains

(Phoenix, AD2)

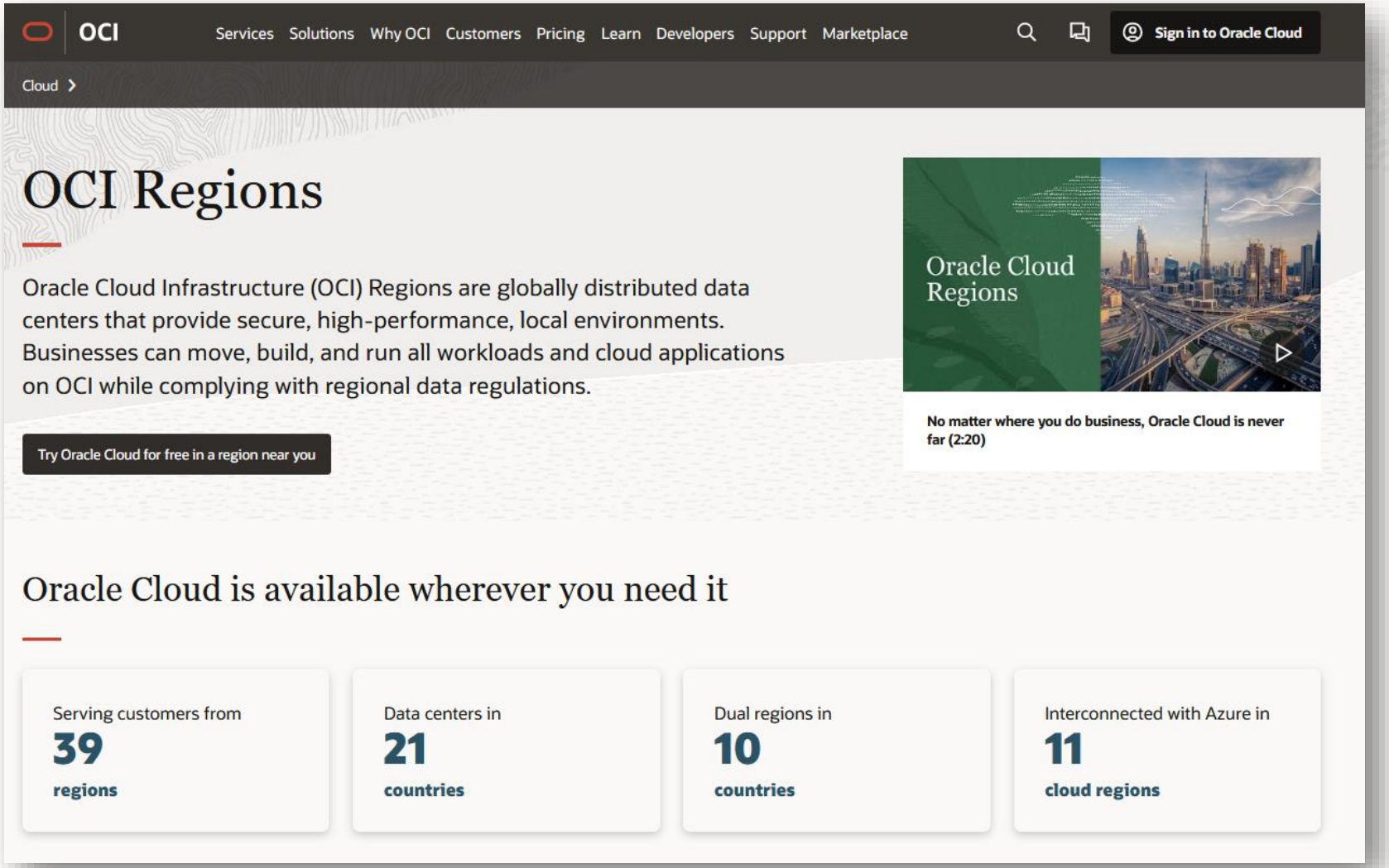


Oracle Cloud Infrastructure Topology

Ashburn, Phoenix, Frankfurt and London only



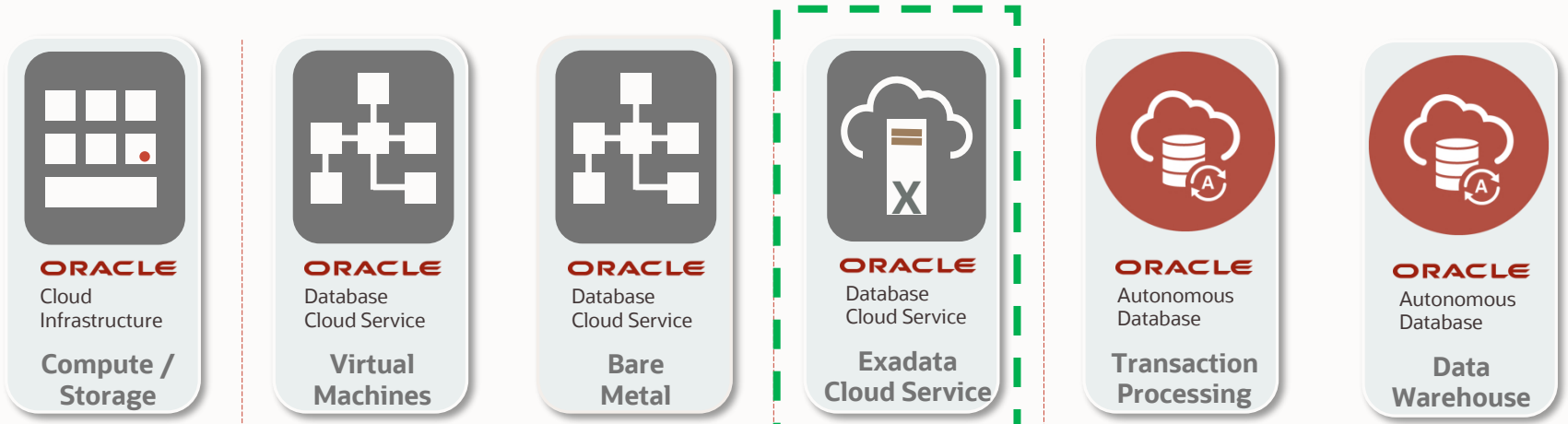
- Availability Domains
  - Independent data centers, low latency, allows SYNC Data Guard replication
- Regions
  - Geographical separation



https://www.oracle.com/cloud/cloud-regions/

Oracle Cloud Database

Range of options



The Right Cloud Database for Every Use Case

100% Administrator Operated	Economic, Managed DB Service, 100% Configurable	Max Performance & Consolidation, Integrated Database HW/SW	Fully Autonomous Operation, Dynamic Scalability

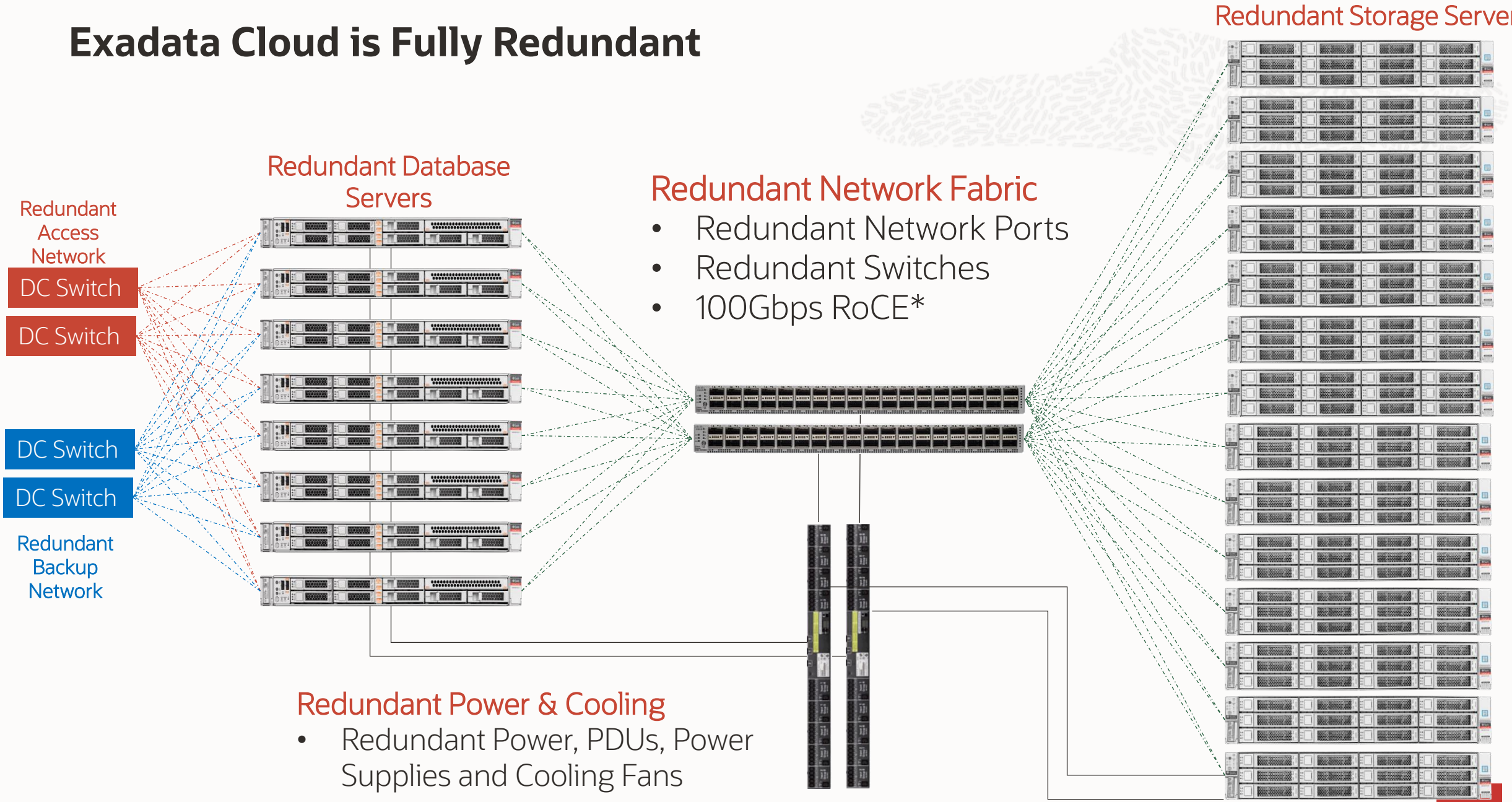
Exadata Vision

Extreme Performance and Availability at Lowest Cost

- Ideal Database Hardware – scale-out, database optimized compute, networking, and storage for fastest performance and lowest cost
- Database Aware System Software – specialized algorithms vastly improve OLTP, Analytics, Consolidation
- Automated Management – fully automated and optimized configuration, performance, fault-tolerance, updates

Identical On-Premises and in the Cloud

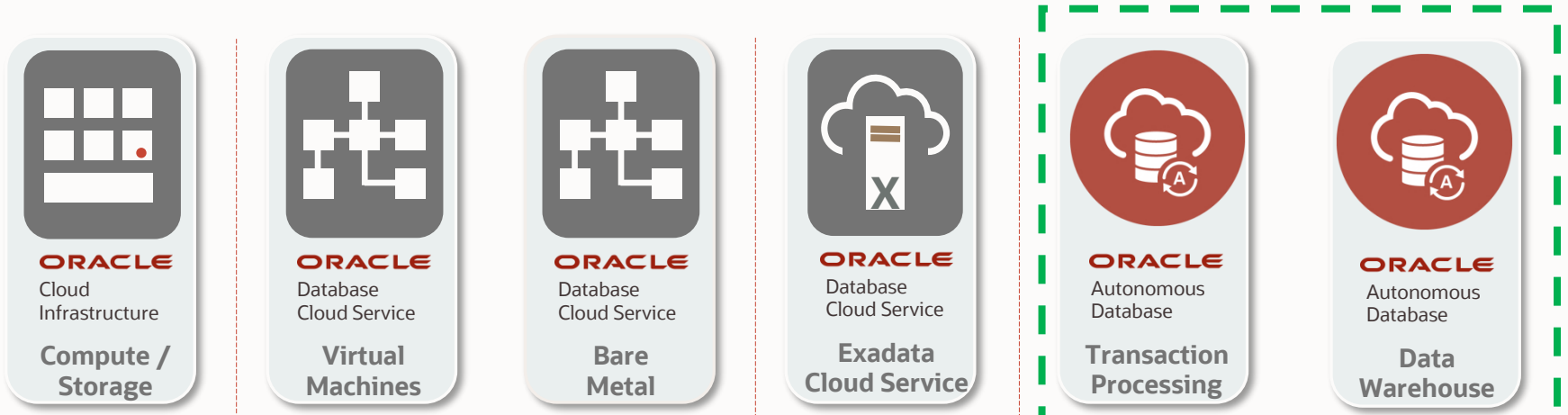
Exadata Cloud is Fully Redundant



*RDMA over Converged Ethernet

Oracle Cloud Database

Range of options



The Right Cloud Database for Every Use Case

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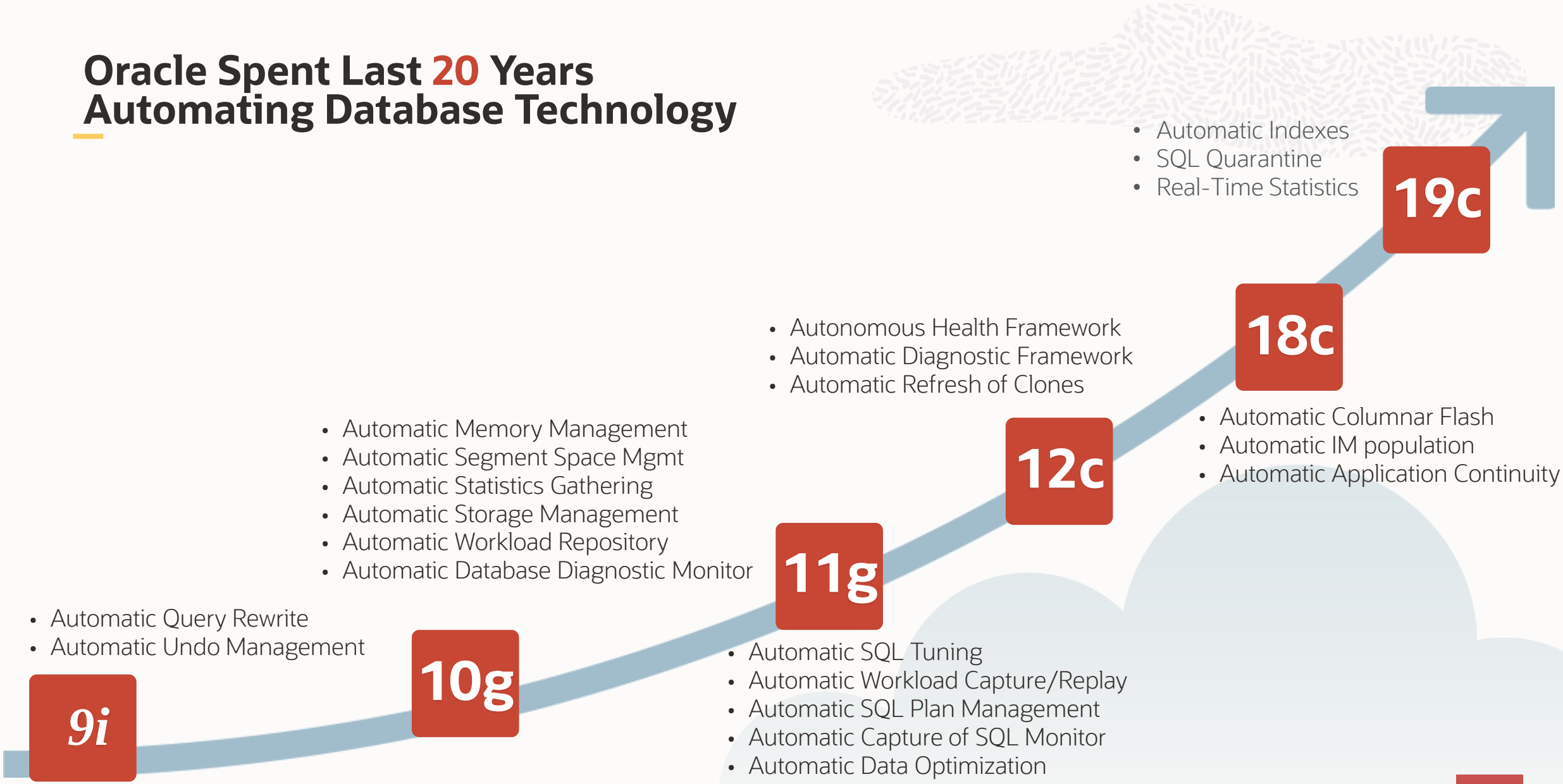
Oracle Spent Last 20 Years Automating Database Technology



Oracle Spent Last 15 Years Automating Infrastructure Technology

2020

- Exadata Cloud Service
- In-Memory Columnar in Flash
- Smart Fusion Block Transfer
- Direct-to-wire Protocol
- JSON and XML offload
- Instant failure detection
- Network Resource Mgmt
- Prioritized File Recovery
- IO Priorities
- Data Mining Offload
- Offload Decryption
- Database Aware Flash Cache
- Storage Indexes
- Hybrid Columnar Data
- Smart Scan
- Infiniband Scale-Out

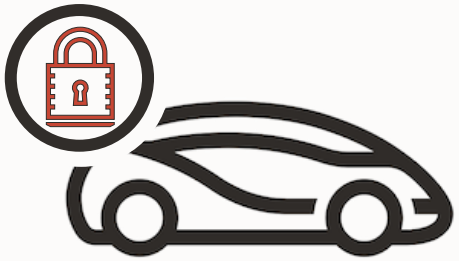
2008

What is an Oracle Autonomous Database

Oracle Autonomous Database

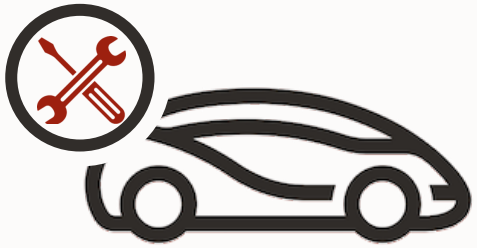
Self-Driving

Automates all database and infrastructure management, monitoring, tuning



Self-Securing

Protects from both external attacks and malicious internal users



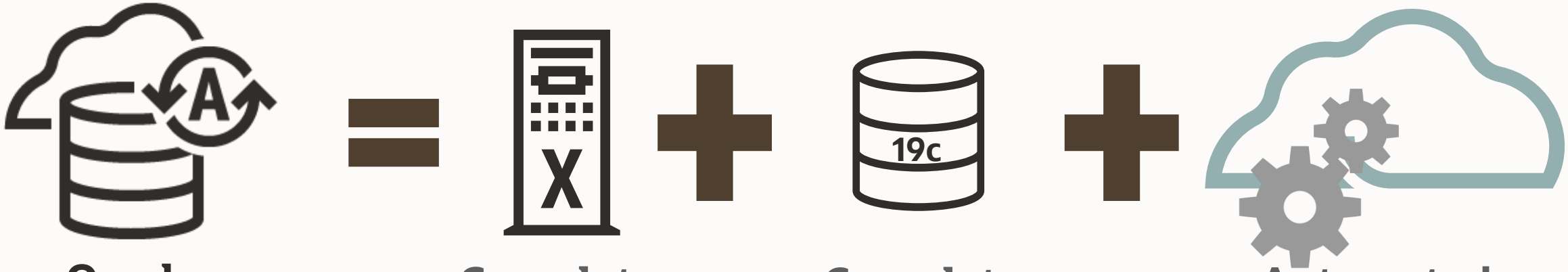
Self-Repairing

Protects from all downtime including planned maintenance

Spend Less, Reduce Risk, Innovate More

Oracle Autonomous Database | What's Inside?

Eliminates All Database & Infrastructure Complexity



Oracle Autonomouss Database = **Complete Infrastructure Automation** + **Complete Database Automation** + **Automated Data Center Operations and Machine Learning**

Self-Driving | Auto Scaling

Pay for exactly what you use

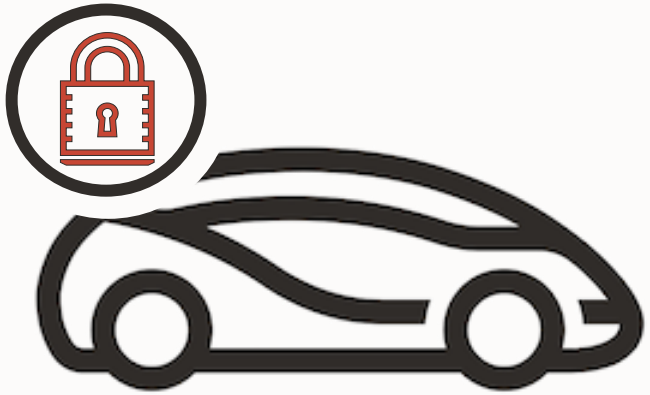
- Enables the database to use up to 3x CPU/IO resources immediately when needed
- Helps CPU or IO bound workloads
- Does not scale up other resources
  - Number of sessions
  - Concurrency
  - PGA, SGA, etc.

- Need to provision more OCPUs to scale up these resources

Self-Securing

Only Databases are exposed to users – SQL access only

- No highly privileged access – no SYSDBA access
- No login allowed to CDB - only login to PDB
- No callouts to OS allowed



Database Vault's Automatic protects customer data from Oracle operations staff

Oracle automatically applies security updates for the entire stack

Self-Securing | Encryption by Default

Secure by default

Encryption for Data at Rest

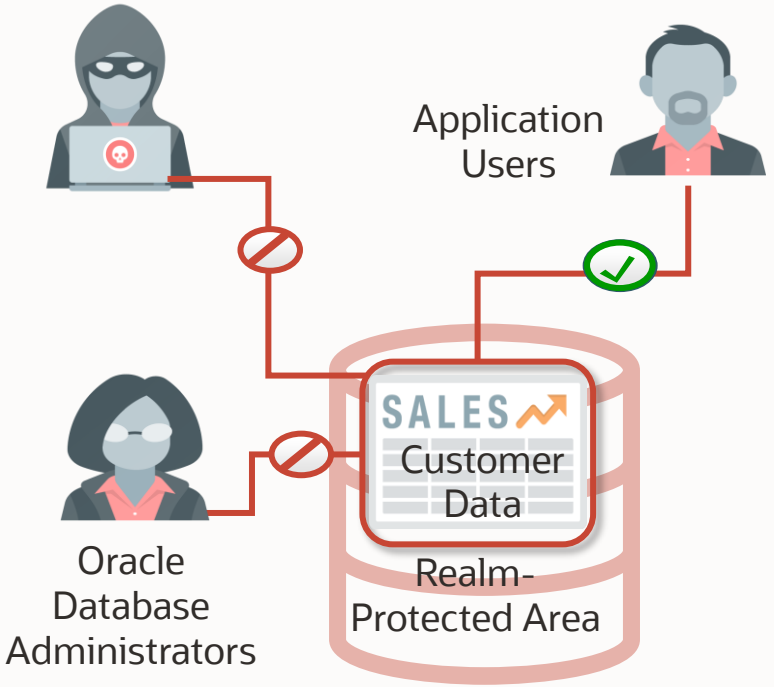
- Automatically configured
- All application data is encrypted within the database at the tablespace level
- Database Backups are also encrypted

Encryption for Data in Motion

- Automatically configured
- All network access is encrypted to and from the database
- Choice of two methods
  - Oracle Native Network Encryption
  - Transport Layer Security (TLS) v1.2 (default)
- Oracle client credentials can be downloaded via encrypted wallet files

Self-Securing | Oracle Database Vault

Mitigate Risks Posed by Misuse Privileged Database Accounts



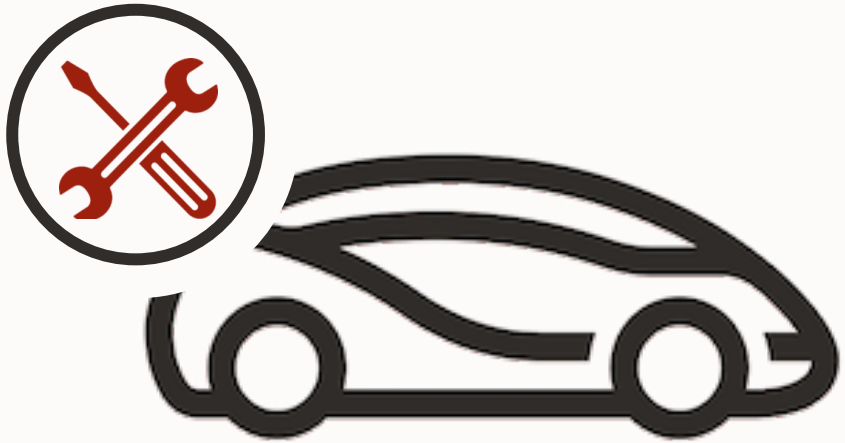
Oracle Database Vault controls privileged users' access to customer data

- All Customer data is stored in a realm-protected area
- Restricts privileged users’ access to realm-protected data
- Attempts to bypass realms are audited
- Enforces enterprise data governance, separation of duties, and least privilege

Self-Repairing

Automatically protects from **all** types of downtime:

- Failures
- Site Outages
- Maintenance
- Changes
- User Errors



Self-Repairing | Auto Backup

Automatically backup your database daily or on-demand

Automatic nightly RMAN backups

Backups are kept online for up to 60 days

Additional manual backups possible via UI or APIs

Point in time recovery to anytime in last 60 days

- Either to a specific automatic or manual backup
- Or combination of backups and archive logs used for point in time

Self-Repairing | Automated cloud operations

Pro-active detection and resolution of incidents

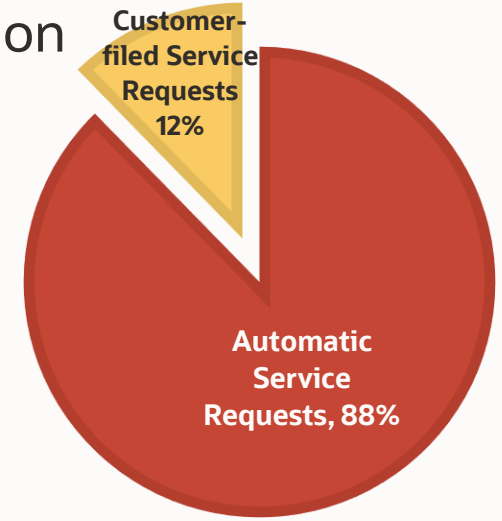
Autonomous Database detects over 85% of issues before customer

Continuous monitoring for each database: 8000+ metrics and 1500+ alarms

- Much broader than many on-premises customers
- Consolidated monitoring of entire stack: infrastructure, load balancer, connection manager, database, ORDS, APEX, OML

Automatic service requests (SRs) are generated for each deviation

- Immediate investigation and resolution by cloud ops
- Root cause analysis for every issue
- Zero customer actions required



7 out of every 8 issues are automatically resolved with zero customer actions required

Summary

Spend Less

Innovate More

Reduce Risk

1

World's Best Database Cloud Automation

- Automate everything for DBAs, developers, & business analysts, lowering admin and runtime costs

2

Developers Focused on Innovation

- Simply invoke UI or SQL to run reports, ML, graph, spatial, blockchain, IoT, etc. in a converged database

3

Proven Protection Reduces Risk

- Automate everything for DBAs, developers, & business analysts

For More Information Please Visit Oracle.com/autonomous

Thank you!

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you can use for unlimited time

www.oracle.com/cloud/free/