

FY23 OCI Positioning

OCI JAPAC


Jason Grogan

Director – CE Infrastructure And Security Specialists

OCI Regions – Global Footprint

June 2022: Global: 37 Regions Live

100% renewable energy used for Oracle Cloud data centers in Europe (today); All regions (by 2025)



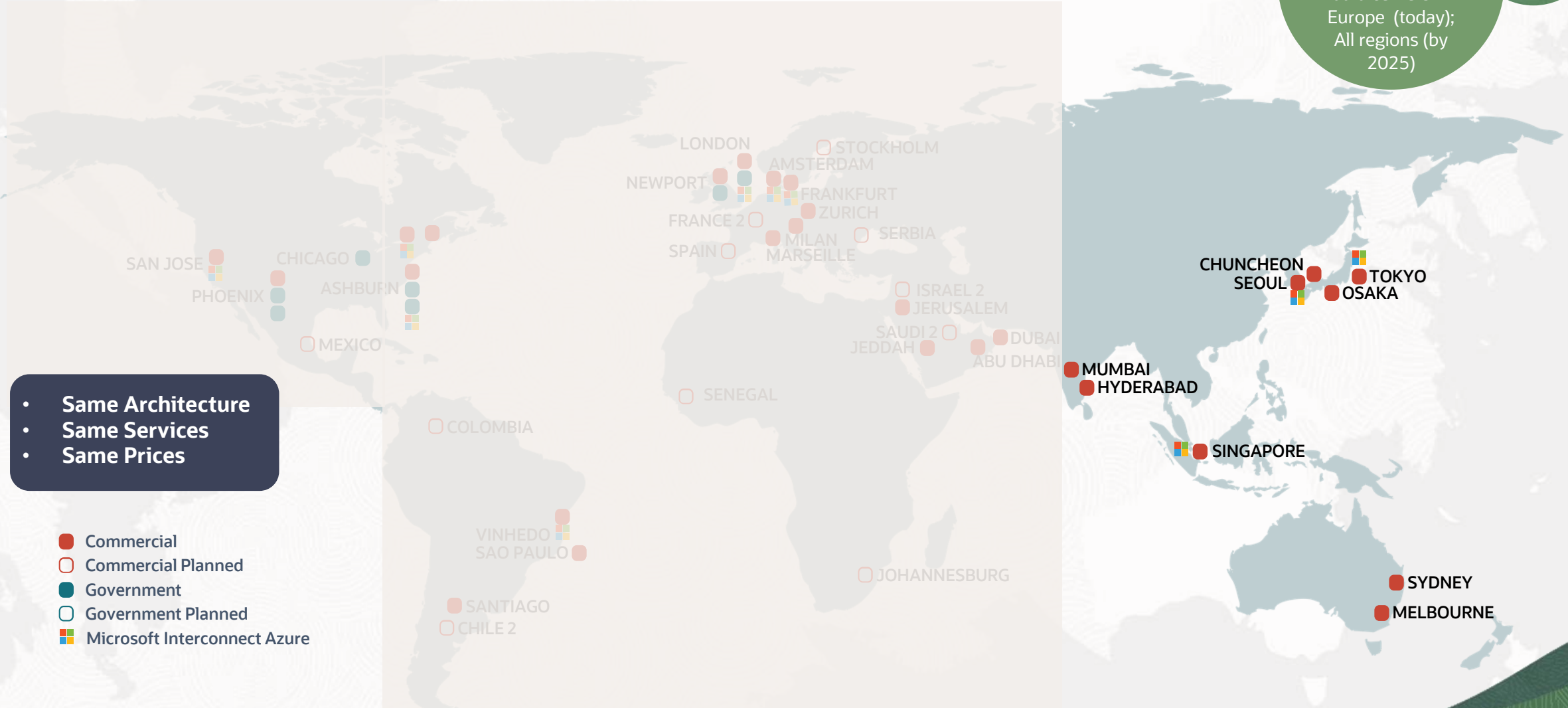
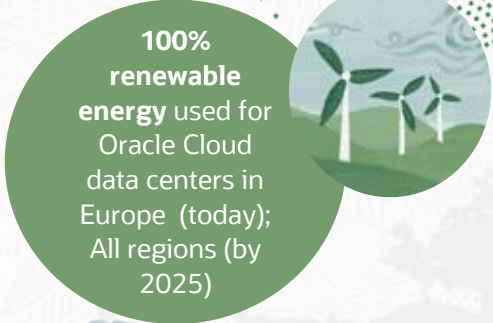

- Same Architecture
- Same Services
- Same Prices

- Commercial
- Commercial Planned
- Government
- Government Planned
- Microsoft Interconnect Azure



OCI Regions – JAPAC Footprint

June 2022: JAPAC: 9 Regions Live



- Same Architecture
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- Same Prices

- Commercial
- Commercial Planned
- Government
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OCI Customer Adoption Patterns

Move Applications To Cloud

Mission Critical Apps



(Korea)



(India)



(Japan)



(Japan)

Packaged / ISV Apps



(India)



(Thailand)



(Australia)



Prophecy

(Australia)



TOFFS Technologies

where speed and security matters

(Singapore)



voiteck

(Australia)

Custom Apps



Custella

(Malaysia)



(Japan)



FOCUS EDUMATICS

ACCELERATING TRANSFORMATION

(India)



PASONA

TECH

(Japan)



QBS

(Hong Kong)

VMWare Estate



(Myanmar)



(Hong Kong)



(Japan)



Prophecy

(Australia)



TODA

(Japan)

Oracle Database Estate



(Australia)



(Japan)



(Thailand)



(Japan)

OCI Customer Adoption Patterns

Derive More Value From Your Data

Analytic Dashboard



Data Warehouse & Marts



Data Integration



Machine Learning



OCI Customer Adoption Patterns

Accelerate Innovation

Build Cloud Native Apps



(Philippines)

COEX CONTAINER EXCHANGE

(Australia)



(Korea)



(Korea)

Build Low Code Apps



(Singapore)



(Australia)



(India)



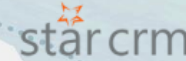
(India)



(Japan)



(India)

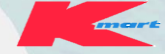


(Malaysia)

Digital Assistant



(Philippines)



(Australia)



(Fiji)



(India)

Application Integration

AVATACK

(Taiwan)



(India)



(Australia)

Rinnai

(Australia)



(Australia)

Blockchain



(Hong Kong)



(Korea)



(Australia)



(Japan)

Why OCI ?



Read More:
oracle.com/cloud/why-oci/

OCI Advantage

1. Easier To Migrate Enterprise Applications

Designed for Mission-Critical Workloads

- [Isolated network virtualisation](#)
- [L2 network virtualisation](#)
- RAC and [Exadata support](#)
- [Native VMW support](#)
- [Ultra-High-Performance Storage](#) (300 K IOPS)
- [Comprehensive SLAs](#)

Oracle Cloud Lift Service

[Read More](#)

- Accelerate OCI adoption at no-cost and minimal risk
- Defined scope and assured outcomes
- Services delivered by experienced technical specialists
- Project Management and Go-live assurance
- Best practices based on real world implementations
- Knowledge transfer to your teams

Database Migration Made Easy

[Read More](#)

- [Database Cloud Migration Advisor](#) recommends most appropriate migration tools
 - Online / offline
 - Physical / logical
- Comprehensive DB Migration tools
 - [Zero Downtime Migration](#) , [Golden Gate](#), [RMAN](#), [Data Pump](#), [SQL Developer](#)

Application Migration Made Easy

[Read More](#)

- Purpose built application migration tools
 - E-Business Suite : [EBS Cloud Manager](#)
 - PeopleSoft: [PeopleSoft Cloud Manager](#)
 - JD Edwards: [JDE One-Click Provisioning](#)
 - WebLogic : [WebLogic Deployment Tool](#)
- Migration Partners:
 - [RackWare](#), [Coriolis](#), [VMWare](#)
- Containers : Portable by design

OCI Advantage

2. Easier To Build New Applications



Artificial Intelligence & ML

[Read More](#)

- Pre-trained ML models: Language, Speech, Vision, Anomaly Detection, Forecasting
- ML Ops: Enable Pervasive ML adoption



Blockchain

[Read More](#)

- Hyperledger based. Smart Contracts
- Simple management, Better performance
- Decentralised topology & multi-cloud interoperability



Cloud Native

[Read More](#)

- Managed [Kubernetes](#), [Registry](#), [Streams](#), [Notifications](#), [Events](#), [Functions](#), [Service Mesh](#), [API Management](#)
- Multicloud Support with [Verrazano](#), Interconnects & multi-cloud [observability and management](#) capabilities



DevOps

[Read More](#)

- Pre-Integrated CI/CD with OCI services
- Modular. Enables mix and match with other preferred tools – eg. GitLab, HashiCorp, Jenkins, GitHub, DataDog



APEX - LOW CODE APP DEV

[Read More](#)

- APEX - Low Code dev of Web / Mobile Apps
- Inherit all Oracle Database benefits



Business Process

[Read More](#)

- Ready to connect with all mainstream SaaS
- Quick outcome with accelerators & recipes



Content Management

[Read More](#)

- Manage Video, Graphic, Documents Lifecycle
- Headless content management system
- Enable Digital Experience & Enterprise use cases



Digital Assistant


[Read More](#)

- Enable user interaction with chat / voice
- Connect with your audience through messaging platform of choice

[Read More](#)

OCI Advantage

3. Comprehensive Deployment Choice



[Read More](#)

Oracle Public Regions

37 cloud regions. Dual region in country to support DR use case.



[Read More](#)

Dedicated Regions


All OCI services, running in your data center



[Read More](#)

Exadata Cloud@Customer


OCI Database Cloud Services, running in your data center



[Read More](#)

Roving Edge Infrastructure

OCI compute and storage for remote, disconnected use



[Read More](#)

Microsoft Azure Interconnect

Pre-built low-latency interconnect. Ready for multi-cloud use case



[Read More](#)

Oracle Cloud VMware Solution

Native VMware on OCI. New workload, DR or DC exit use case.

Support Cloud, Edge, On Premises & Multi-Cloud Computing Scenarios

OCI Advantage

4. Open & Portable

Open-Source Initiatives Supported

[Read More](#)

The image displays a collection of logos for various open-source initiatives supported by OCI. The logos are arranged in a grid-like fashion. At the top left is the Kubernetes logo. To its right is the MySQL logo. Below these are the Cloud Native Computing Foundation logo and the fn logo. Further down are the HashiCorp Terraform logo and the kafka logo. At the bottom center is the OpenAPI Initiative logo. A dotted line graphic curves across the bottom of the logos.

Open-Standards ensure portability

<i>Technology</i>	<i>Oracle Cloud</i>	<i>Elsewhere</i>
Language	Java	
OS	Autonomous Linux + OSMS	Autonomous Linux
Containers	Docker/Kubernetes	
Serverless	Fn-based Functions	Fn
Database	Oracle Database/MySQL	
Data processing	Oracle Database/Spark	
Automation	Terraform	
Events	CNCF Events	
Streaming	Kafka-compatible	Kafka
Gateway	API Gateway	
APM	Monitors cloud and on-prem	
Identity	SAML Federation, OAuth, OpenID	
Multi-cloud	Azure Interconnect	



OCI Advantage

4. Open & Portable

Operating Systems

OCI Images



Oracle Enterprise Linux
- 100% Redhat Compatible
- Free Support with Compute

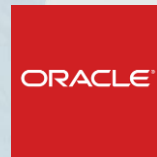
Bring Your Own Image



Red Hat

Databases

OCI Native Services



OCI Marketplace



VMWare

[Read More](#)

Oracle Cloud VMWare Solution

- Run VMware Workloads Natively on OCI
- Dedicated, Full Customer Control
- Use same VMware Tooling
- VMware Verified.

OCVS

10's to 1,000's of VMs

vmware®



3-64 node bare metal compute clusters

OCI Advantage

5. Stronger Security

OCI takes Greater Responsibility for Security



Autonomous Database

- More security by default
- [Isolated Network Virtualization](#)
- Bootstrap to immutable components in compute using Hardware-based Root of Trust
- Self-securing Autonomous services



ZERO-TRUST SECURITY with OCI



[Read More](#)

Delivers Operational Simplicity



Maximum Security Zone



Cloud Guard



Compartments



IAM



- Simple, Prescriptive & Integrated Security
- Auto detection and remediation
- Access control using simple English-like policies
- Most security services built-in at no extra cost. Eliminating cost vs. security trade-offs

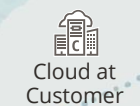
Provides Flexible Control & Custody



Hybrid Multi-cloud Security



Marketplace



Cloud at Customer

- Customer choice - level of control. (full, managed, autonomous)
- Hybrid & Multi-cloud support with security services like OCI IAM, Data Safe, WAF.
- Supports third-party security tools via OCI Marketplace

Ensures Utmost Data Safety & Privacy



Data safe



Encryption



COMPLIANCE

- Simple, tool to perform database security assessments, user assessments, activity audits, sensitive data discovery & masking
- Always-on encryption for data at rest & in-transit. Always-on auditing
- Comprehensive Compliance



OCI Advantage

6. Comprehensive Regional, Global & Industry Compliance

REGIONAL

- Australia**
 - IRAP
 - APRA
 - Certified Strategic (DTA)
- India**
 - MeitY
 - RBI/IRDAI
- Singapore**
 - MTCS
 - MAS TRM
 - ABS
- South Korea**
 - FSI
 - ISMS
- Japan**
 - ISMAP
 - FISC
 - NISC
 - Three Ministries
 - My Number Act

GLOBAL



SOC 1 : SOC 2 : SOC 3



9001 : 27001 : 27017 :
27018 : 27701: 20000-1



Level 2
CSA STAR

[Read More](#)

INDUSTRY

Government

- MeitY [India]
- IRAP [Australia]
- NISC [Japan]
- ISMS [Korea]
- My Number [Japan]
- Singapore MTCS
- DoD DISA SRG IL5
- JAB P-ATO
- G-Cloud 12
- Cyber Essentials Plus [UK]
- CJIS
- NIST
- Canada Protected B

Financial


- PCI DSS COMPLIANT
- FIEC
- PCI DSS – Level 1
- FISC [Japan]
- RBI Guidelines [India]
- APRA CPS 231, SPS 231, HPS 231 [Australia]
- ABS Guide [Singapore]
- MAS Guidelines [Singapore]
- IRDAI /5/142/2017 [India]
- EBA

Others

- HIPAA
- HITRUST CSF Certified
- HIPAA
- HITRUST CSF
- TISAX
- GxP

OCI Advantage

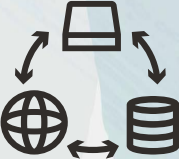
7. Better Performance



[Read More](#)

Latest Generation Infrastructure


Intel, AMD, [ARM](#) shapes
Bare Metal and VM
deployments as needed.



[Read More](#)

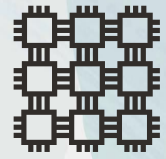
Lowest Network Latency

Non-Blocking flat Network
[RDMA clusters](#).



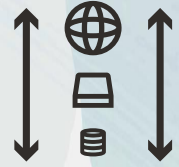
No Hypervisor Tax

Hypervisor in separate,
off-box virtualization,
dedicated hardware.



No Over Subscription

Dedicated Threads servicing
your workloads.
No Network Oversubscription
No noisy neighbours – very
predictable.



[Read More](#)

High Performance Storage

Unique ability to dynamically
add performance units to
storage layer.
[Ultra-High-Performance Storage](#)

OCI Advantage

7. Better Performance

Compute - Intel

- Spec Integer Performance : **OCI is 33% higher** than AWS

	OCI X9 Optimized	AWS r5.4xlarge	OCI Performance Gain
Core	8	8	-
Mem	112GB	128GB	-
Spec Int	76	57	33% gain
Spec FP	99	67	47% gain
Stream (Triad)	95	70	35% gain

Compute - AMD

- Spec Integer Performance : **OCI is 72% higher** than AWS

	OCI E4.2	AWS r5a.xlarge	OCI Performance Gain
Core	2	2	-
Mem	32GB	32GB	-
Spec Int	17.7	10.3	72% gain
Spec FP	26.2	13.7	91% gain
Stream (MB/s)	48,598	27,459	77% gain

Block Storage

- IOPS: **OCI offers 50% more IOPS per volume** than AWS

Capacity (GB)	OCI Block Volume – Balanced	AWS gp3	OCI Performance Gain
100	6k IOPS	3k IOPS	2X of AWS
500	25k IOPS	16k IOPS	1.5X of AWS
1000	25k IOPS	16k IOPS	1.5X of AWS

OCI Advantage

8. Lower Cost

Simplified, everyday low pricing

[Read More](#)

OCI Vs. AWS Mumbai region Cost

- *Compute*: Intel. 42% lower. AMD 31 % Lower
- *Storage*: 53% Lower
- *Network Egress*: Free for first 10 TB. 69% Lower thereafter.

Same price for every region

Lower Cost of Security and Operations by design

Included for Free

- [Kubernetes management](#)
- [Data security](#)
- [Infrastructure security advisor](#)
- [Support](#)

Simpler Operations with Autonomous Services. (OS, Database, DR)

Ability to Right Size

[Flex VM shapes](#) : Custom CPU and RAM configuration

[Storage Performance](#):

Dynamically configure the performance level for block volumes and boot volumes

[Flexible Load Balancing](#):

Auto-scale bandwidth based on traffic up to the defined maximum bandwidth

Usage based Rewards

[Read More](#)

For all UC customers:
Published usage-based discounts

For Oracle Tech License Support customers: 25c reward for every \$1 consumed on OCI

For Oracle Tech ULA customers: 33c reward for every \$1 consumed on OCI

OCI Advantage

8. Lower Cost – AWS*

Compute - Intel

- OCI is **42% lower** than AWS

	OCI X9 Optimized3	AWS* r5.4xlarge	OCI Saving
Core	8	8	-
Mem	112GB	128GB	-
List Price	0.6	1.04	42% less

Compute - AMD

- OCI is **31% lower** than AWS

	OCI E4.2	AWS* r5a.xlarge	OCI Saving
Core	2	2	-
Mem	32GB	32GB	-
List Price	0.098	0.143	31.4% less

Block Storage

- OCI is **53% lower** than AWS

Capacity (GB)	OCI Block Volume Balanced	AWS* gp3	OCI Saving
100	\$4.25	\$9.12	53% less
500	\$21	\$124	83% less
1000	\$42	\$181	77% less
5000	\$212	\$546	61% less
10000	\$425	\$1002	58% less

Network Egress

- Compare with AWS Lowest Cost Tier
- OCI is **69% lower** than AWS in JAPAC

Region	OCI	AWS* Lowest Cost Tier	OCI Saving
Asia, Japan, S. America	\$0.0250	\$0.0800	69% less
N. America / Europe	\$0.0085	\$0.0500	83% less
Middle East	\$0.0500	\$0.0650	23% less

* All AWS price assume Mumbai region, usually the lowest cost region in JAPAC

Thank You

OCI Advantage

8. Lower Cost – Azure*

Compute - Intel

- OCI is **40% lower** than Azure

	OCI X9 Optimized3	Azure* E16 v5	OCI Saving
Core	8	8	-
Mem	128GB	128GB	-
List Price	0.624	1.04	40% less

Compute - AMD

- OCI is **31% lower** than Azure

	OCI E4.2	Azure* E4as v5	OCI Saving
Core	2	2	-
Mem	32GB	32GB	-
List Price	0.098	0.143	31.4% less

Block Storage

- OCI is **63% lower** than Azure

Capacity (GB)	OCI Block Volume Balanced	Azure* Premium SSD	OCI Saving
128	\$5.44	\$19.71	72%
512	\$21.76	\$73.22	70%
1024	\$43.52	\$135.17	68%
4096	\$174.08	\$495.56	65%
8192	\$348.16	\$946.08	63%

Network Egress

- Compare with Azure Lowest Cost Tier
- OCI is **58% lower** than Azure in JAPAC

Region	OCI	Azure* Lowest Cost Tier	OCI Saving
Asia, Japan, South America	\$0.0250	\$0.06	58%
North America / Europe	\$0.0085	\$0.04	79%
Middle East	\$0.0500	\$0.06	17%

* All Azure price assume Central India region, usually the lowest cost region in JAPAC

OCI Advantage

8. Lower Cost – GCP*

Compute - Intel

- OCI is **50% lower** than GCP

	OCI X9 Optimized3	GCP* n2-highmem-16	OCI Saving
Core	8	8	-
Mem	128GB	128GB	-
List Price	0.624	1.258	50% less

Compute - AMD

- OCI is **34% lower** than GCP

	OCI E4.2	GCP* n2d-highmem-4	OCI Saving
Core	2	2	-
Mem	32GB	32GB	-
List Price	0.098	0.15	34.7% less

Block Storage

- OCI is **79% lower** than GCP

Capacity (GB)	OCIBlock Volume Balanced	GCP* SSD PD	OCI Saving
100	\$4.25	\$20.4	79%
500	\$21.25	\$102	79%
1000	\$42.5	\$204	79%
5000	\$212.5	\$1020	79%
10000	\$425.0	\$2040	79%

Network Egress

- Compare with GCP Lowest Cost Tier
- OCI is **69% lower** than GCP in JAPAC

Region	OCI	GCP* Lowest Cost Tier	OCI Saving
Asia, Japan, South America	\$0.0250	\$0.0800	69%
Australia	\$0.0250	\$0.15	83%
North America / Europe	\$0.0085	\$0.0800	83%
Middle East	\$0.0500	\$0.0800	23%

* All GCP price assume Mumbai region, usually the lowest cost region in JAPAC

ORACLE

Autonomous Database

Autonomous operations automatically secure, tune, and scale your apps, reducing cost and complexity



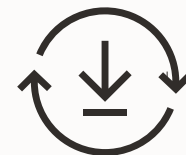
Automatic provisioning



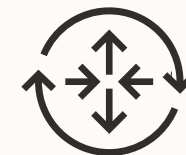
Automatic configuration



Automatic encryption



Automatic online patching and updating



Automatic elastic scaling



Automatic tuning



Eliminates human labor



Eliminates human error



Eliminates downtime



Eliminates scaling complexity



Eliminates performance tuning

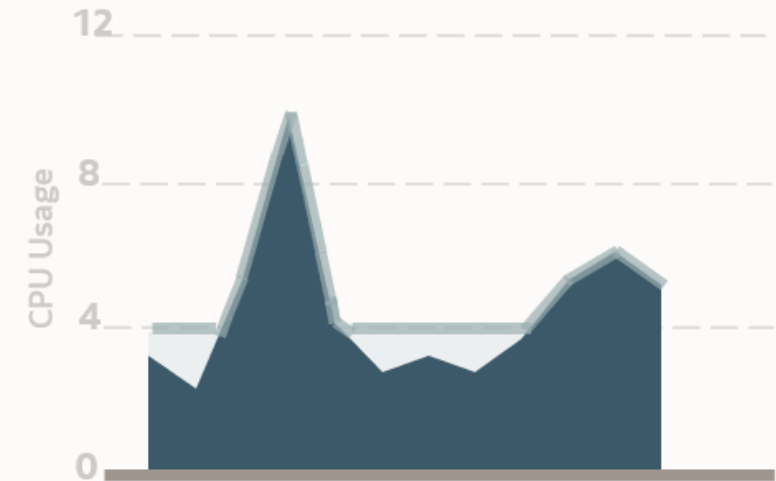
Focus on improving the top line, while your infrastructure takes care of the bottom line



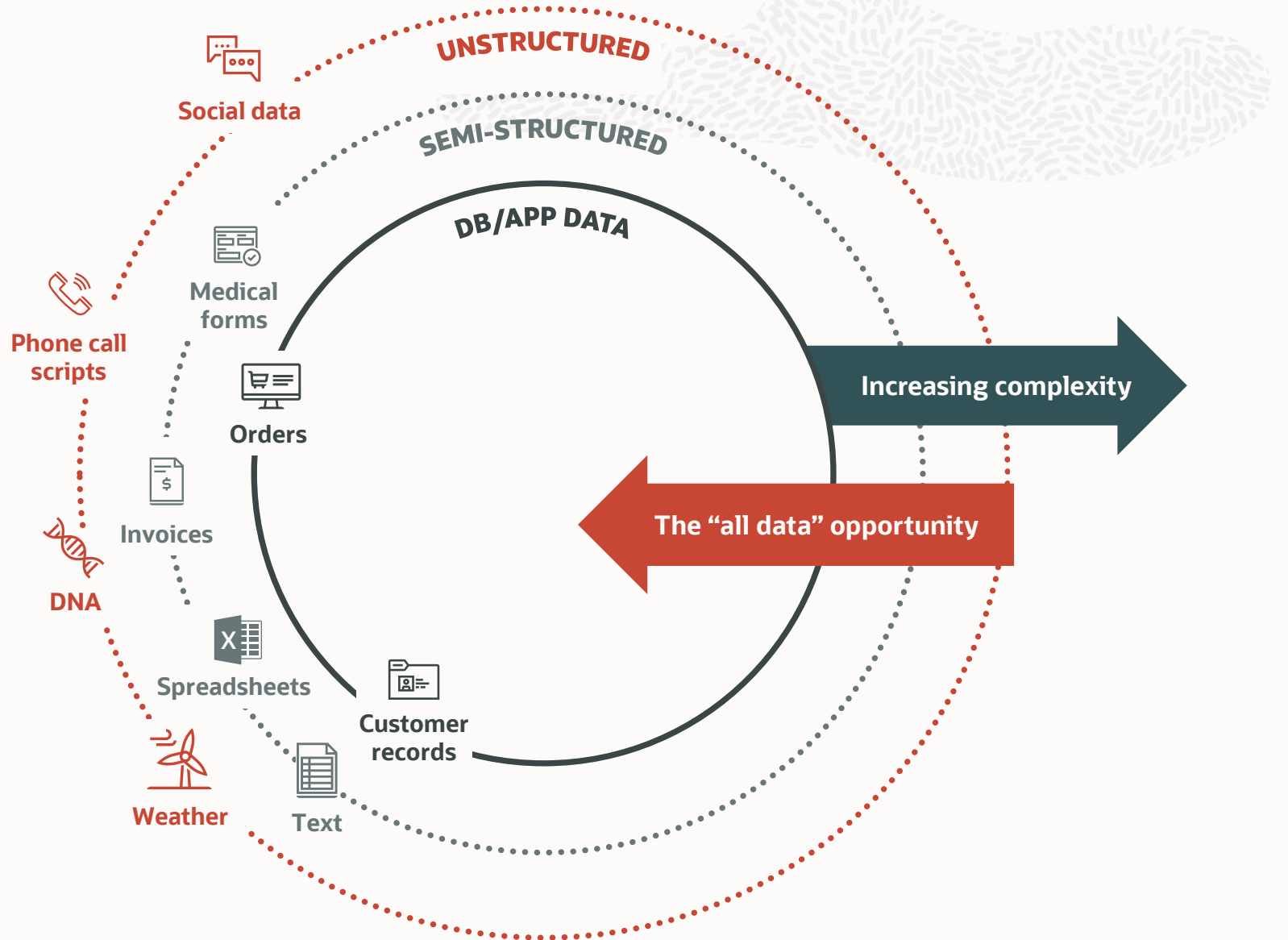
Lower Costs with Autoscaling

Pay for what you need, when you need it

- Automatically scales CPUs up and down to match workloads
- Dynamic; eliminates problem of high-cost, static/sizing for peak configurations
- Allows your application to respond to business surges & seasonality, capturing revenue
 - ISVs can pursue high customer growth strategy without worry
- No downtime; reduce cloud costs while maintaining performance goals

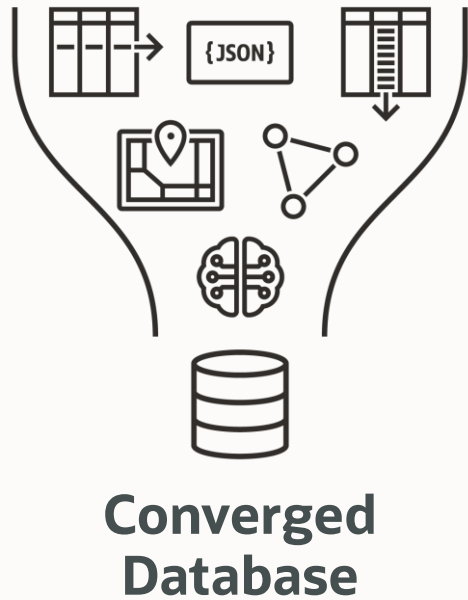


Evolving data types and sources



Complete support for all modern data types and workloads

Single unified platform for all data types and workloads; simple to create and extend modern apps



Any structured / semi-structured data

Relational	Graph	Blockchain	Text	XML	JSON

Any analytical workloads

Multi-Dimensional	OLTP	Data Warehouse	Data Lake	Machine Learning	Real-Time Analytics

Converged support for all modern data simplifies app dev and eliminates data and app fragmentation

Unique ability to run any combination of workloads on any data, further simplifying development

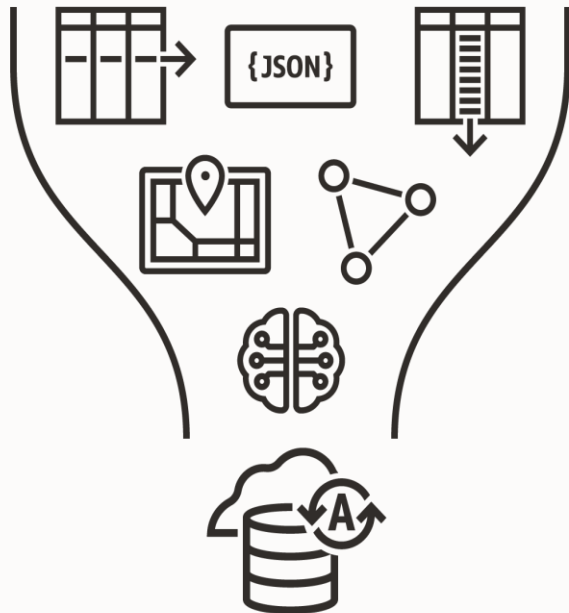


Converged Database Simplifies Applications

“Specialized” databases that fragment the architecture create endless Dev and Ops Challenges

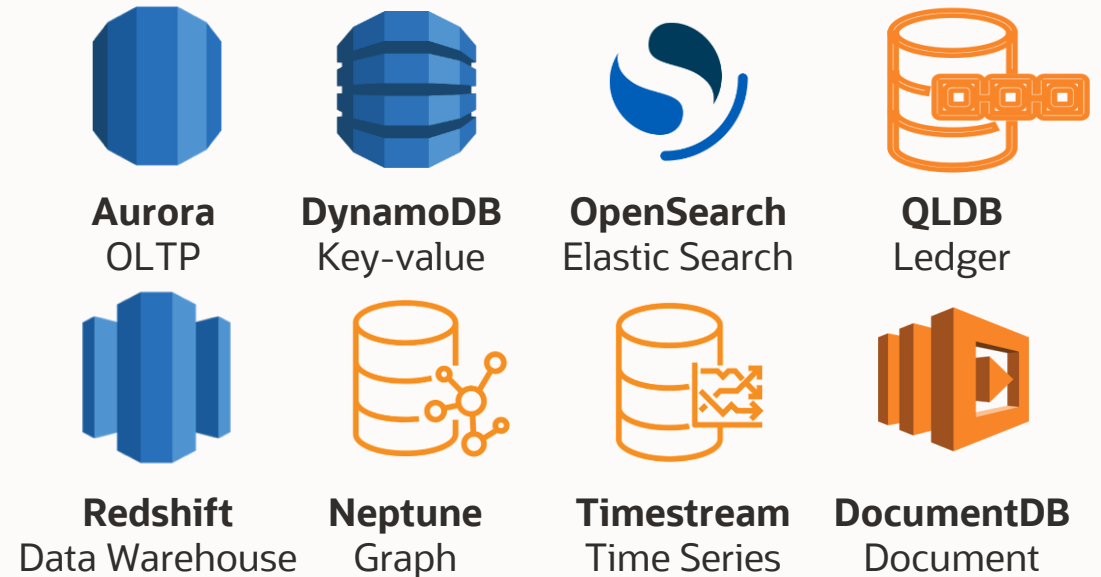
Oracle Autonomous Database

Allows Developers to Focus on Innovation



Other Cloud Vendors

Requires Developers to Focus on Integration



Building apps using specialized databases forces developers to use many moving parts that must be learned, synchronized, secured, maintained, and governed



Broad range of self-service tools

Oracle APEX



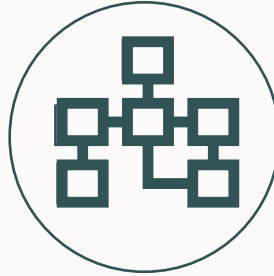
Low-code app development

Machine Learning



Runs ML in the database, where the data lives

Data Tools



Data load, transform, modeling & auto insight

Spatial Analysis



Geolocation and mapping analytics

Graph Analysis



Visualize relationships in data

The most complete support for any data management strategy



Oracle Public Regions

Hyperscale cloud regions in 30 worldwide locations



Dedicated Regions

All OCI services, running in customer data centers



OCI-Azure Interconnect

Low latency, secure connection for running workloads across OCI and Azure



Exadata Cloud@Customer

Cloud autonomous databases, running in your data center



Roving Edge Infrastructure

OCI compute and storage for remote, disconnected scenarios

Worldwide or exactly where you need it, with scale and control

Oracle Autonomous Database

Auto-provisioning

Deploys mission-critical databases which are fault-tolerant and highly available

Auto-configuration

Automatically configures the database to optimize for data warehouse workloads

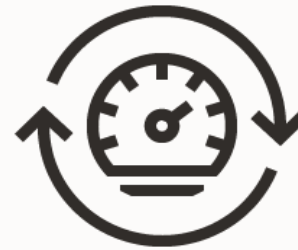
Auto-scaling

Automatically scales compute resources when needed and enables true pay-per-use

Automated security

Automatic encryption for the entire database, backups and all network connections

Autonomous Functions



With true cloud-elasticity for low cost

Most Productive



Converged Database plus self-service tools for business analysts, developers and more

Enterprise-Class



Security, availability, scalability, and performance

Business advantages only available on Oracle Cloud Infrastructure (OCI)

Unique capabilities and benefits when running Oracle Database on OCI



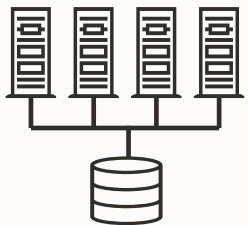
Autonomous Database

- Self-driving, repairing and securing database
- 99.95% availability
- Eliminates cost of idle vCPU
- 80% less DBA admin tasks



Exadata

- Reduce vCPU spend using 20-30% less vCPU for same workloads
- Increases in-memory capacity using DRAM and lower-cost shared flash
- Better performance than other clouds:
 - ✓ 25x better latency
 - ✓ 384x more SQL throughput
 - ✓ 22x more SQL read IOPS



Real Application Clusters (RAC)

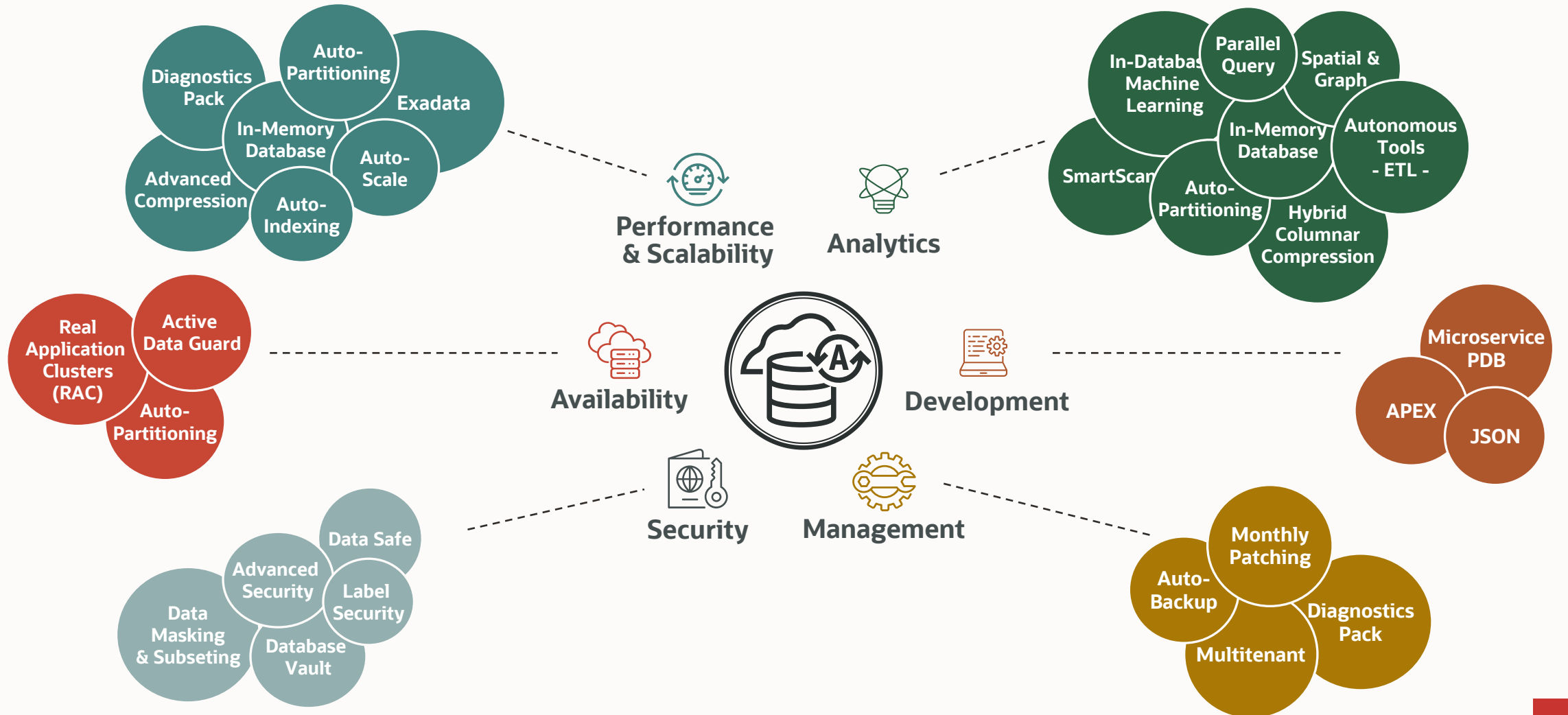
- Zero downtime maintenance
- Non-disruptive, online scaling
- Linear increase in performance with server scale-out



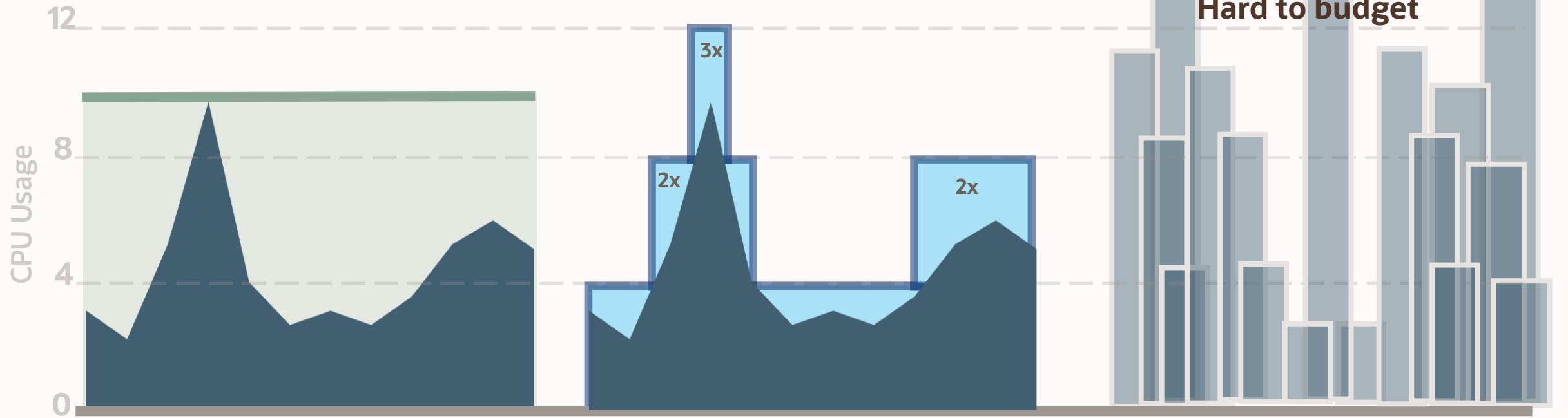
Cost-effective, value-packed subscriptions

- Support all all Oracle Database features
- Bring-your-own-license (BYOL) subscriptions include:
 - ✓ Transparent Data Encryption (TDE)
 - ✓ Data Masking and Subsetting pack
 - ✓ Real Application Testing option
 - ✓ Diagnostics & Tuning Pack

ADB includes Oracle's most advanced database technologies



How do you budget costs to run your application?



Static

Pay for CPUs + software licenses for highest projected peak load

Scale In Fixed-Sizes

Scaling causes over-provisioning
Latency and lag in scaling

Open-Ended

scaling based purely on data volumes being accessed and complexity of query



Significant benefits: Five-year ROI of 417%

The real-world business value of Oracle Autonomous Data Warehouse

417% five-year ROI

63% reduced total cost of operations

Five months to payback

68% more efficient database administrators

84% more efficient IT infrastructure management

45% reduction in IT infrastructure costs

94% reduction in unplanned downtime

27% more productive



TABLE 8
Five-Year ROI Analysis

	Per Organization	Per Database
Benefit (discounted)	\$7.42M	\$536.9K
Investment (discounted)	\$1.44M	\$103.8K
Net Present Value	\$5.99M	\$433.9K
ROI (NPV/Investment)	417%	417%
Payback (Months)	5 months	5 months
Discount Factor	12%	12%

n = 7, Source: IDC In-depth Interviews, December 2020

[IDC: The Real-World Business Value of Oracle Autonomous Data Warehouse](#)

