Our mission is to help people see data in new ways, discover insights, unlock endless possibilities.

使用混合雲策略架構企業資料平台

Modernize Your Data Platform – A Hybrid Approach

Choosing the right architecture and platform

Matthew Huang

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Hybrid Cloud Systems, Oracle Taiwan

Safe harbor statement

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

LIQUID NATURE OF DATA
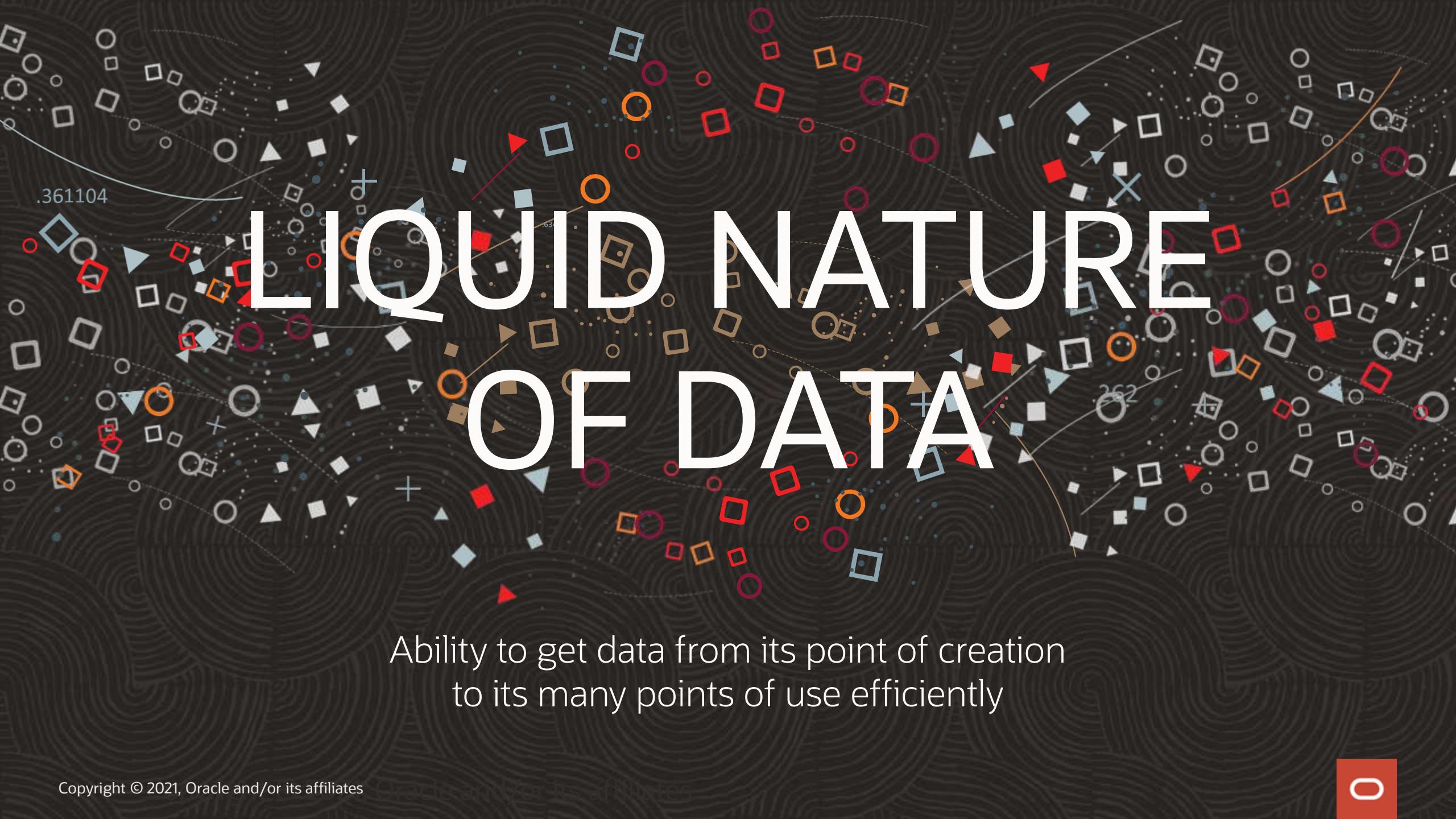
Ability to get data from its point of creation
to its many points of use efficiently

LIQUID NATURE OF DATA

Build scalable data-driven apps

Derive value from data

Leverage modern data infrastructure

Modern Data Management
Architecture and Platform Considerations
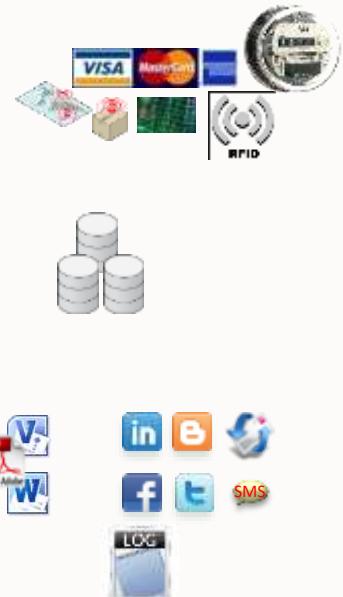
| Data Sources	Data Types	Developers	Workloads	Data Access	Deployment
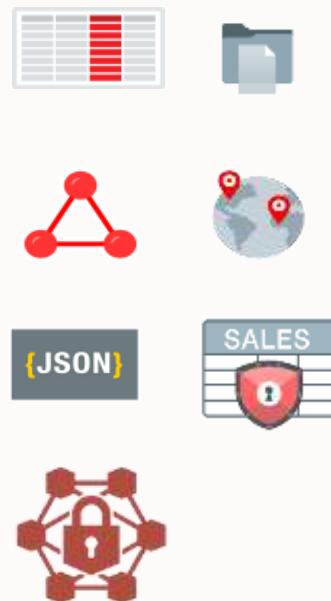
Data Access:
- REST API
- SQL API
- Python, node.js drivers

Deployment:
- Private
- Hybrid
- Public
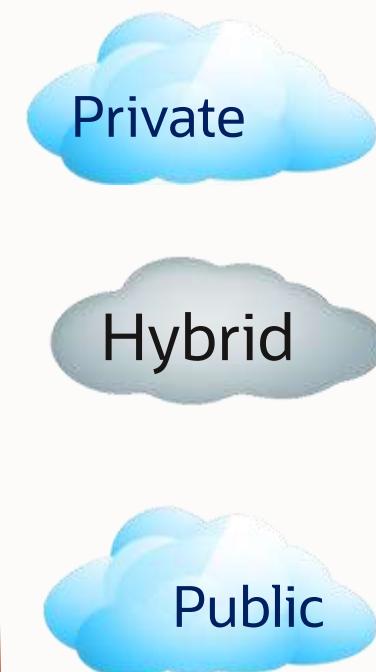
Security

Resilience and availability

Manageability

Data Driven Apps Can be
Complex to Develop, Deploy and Manage
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- Developer fragmentation due to proprietary APIs

- Data consistency fragmentation as change propagation is difficult

- Fragmented security and management across databases

Management

Security

ETL REPLICATION DB LINKS

ETL REPLICATION DB LINKS

ETL REPLICATION DB LINKS

ETL REPLICATION DB LINKS

{JSON}

Document DB　　　**Key-Value DB**　　　**Analytics DB**　　　**Relational DB**　　　**Graph DB**
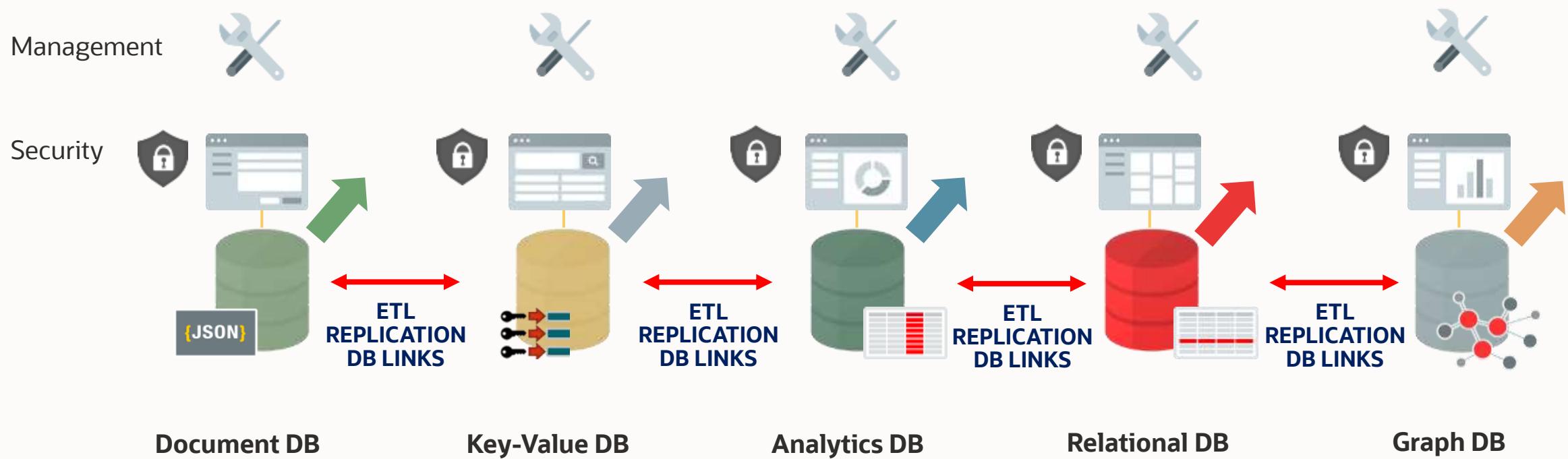
Fragmentation vs. Convergence
Single Purpose versus Multiple Purpose devices

Single Model vs Multi-Model Database
Fragmentation vs Convergence

Today's Enterprise Architectures are Generic in Nature.
Complex, Expensive, Slow & Unreliable.

Exact Cloud Equivalents Should Need Arise
Cloud insurance enables you to move forward today with confidence

**Database Tier**   **Application Tier**   **Big Data and Analytics**   **Data Protection**

Oracle Exadata: The Best Platform for the Oracle Database

A converged database on a single platform dramatically reduces complexity and cost

JSON

RDBMS

XML

Graph

Time Series

Warehouse

PCI Flash

HCC

10:1

I/O I/O I/O

PRIORITY LANE

On-Premise   Cloud@Customer   Oracle Cloud
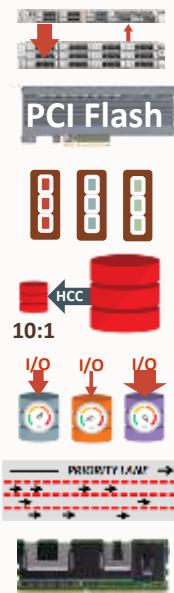
- Uniquely optimized for multi-model applications and analytics
- Built-in ML/AI,
  - Run ML algorithms inside the database
  - AI automated performance management
- Extreme performance, availability and security
- Scale out design
- Perfect platform for database consolidation
- Available on premise, Cloud@Customer and Oracle public cloud

Exadata in Oracle Cloud

Transform using the most cost-optimized and easiest to use Exadata ever

- Same extreme performance, security, availability and scalability as on-premises

  - Same Exadata Hardware

- Standardize with converged Oracle Database

  - 100% compatible with on-premises

- Cloud economics, automation, and operations

- In Oracle Public Cloud or in your Data Center

- Co-managed or fully autonomous

  - Exadata Database

  - Autonomous Database

Exadata In OCI
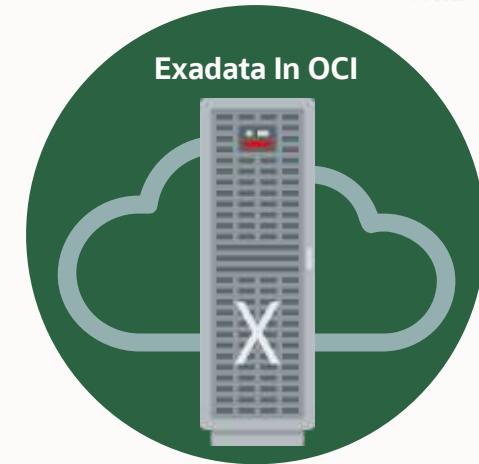
Exadata Cloud@Customer

Exadata – Choice of deployment

On-Premises Traditional	Cloud at Customer	Public Cloud
Exadata Database Machine	**Exadata Cloud@Customer**	**Exadata Cloud Service**
Customer Data Center Purchased Customer Managed	**Customer Data Center Subscription Oracle Managed**	**Oracle Cloud Subscription Oracle Managed**

IDC Research Confirms
Exadata Cloud@Customer
Business Value
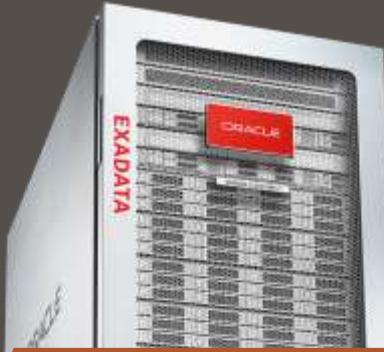
256% return on investment (5-year period)

73% less unplanned downtime

47% reduced total cost of operations

40% faster time-to-market
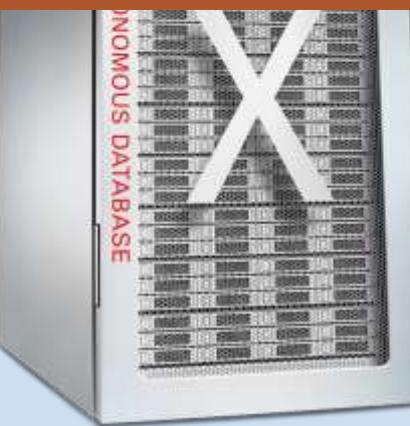
... We moved on from day-to-day troubleshooting to more strategic projects.

Oracle Customer

🔗 IDC White Paper

🔗 IDC Business Value Snapshot

Exadata Platform Global Fortune 100 Adoption

Exadata Platform	**87%**
Exadata	**86%**
Exadata Cloud	**44%**

Fortune-100 – August 2021 update

A Modern Data Platform

Development Services

Node.js, **Python**, .NET, **Java**, PHP, Ruby, PL/SQL, C, C++, Perl, Go, EBR, REST Services, **Micro services**, **APEX**, SODA, Docker

Platform Services

Cloud to On-Prem, Clustering, Sharding, **Security**, High Availability, **Zero Data Loss**, Administration

Analytical Services

SQL, R, Columnar In-Memory, Advanced Analytics, **Machine Learning**, AI

Data Support

Relational, JSON, XML, **Spatial**, Graph, RDF, **Text**, Binary, Object Stores, HDFS, Kafka, **NoSQL Stores**

Infrastructure Services

Public Cloud, Cloud at Customer, **Exadata**, BDA, ZDLRA

ORACLE

Next Generation Data Management Platform

Thank You

Matthew Huang

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Hybrid Cloud Systems, Oracle Taiwan

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