MA'ADEN معـادن

Saudi Arabian Mining Company "MA'ADEN"

Journey to Oracle Cloud

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Bander Awad Al-Habshan
Chief Information Officer

Saudi Arabian Mining Company MA'ADEN

- **Vision**
  - To be a "Sustainable mining champion with global presence"

- **Mission**
  - To lead the development of the mining industry in Saudi Arabia, by maximizing the value of the mineral resources, while developing to be a Saudi Global Mining Giant.

- **About MA'ADEN**
  - Among the fastest growing mining companies in the world.
  - MA'ADEN is ranked among the top 10 global mining companies based on market capitalization.
  - The largest multi-commodity mining and metals company in the Middle East.

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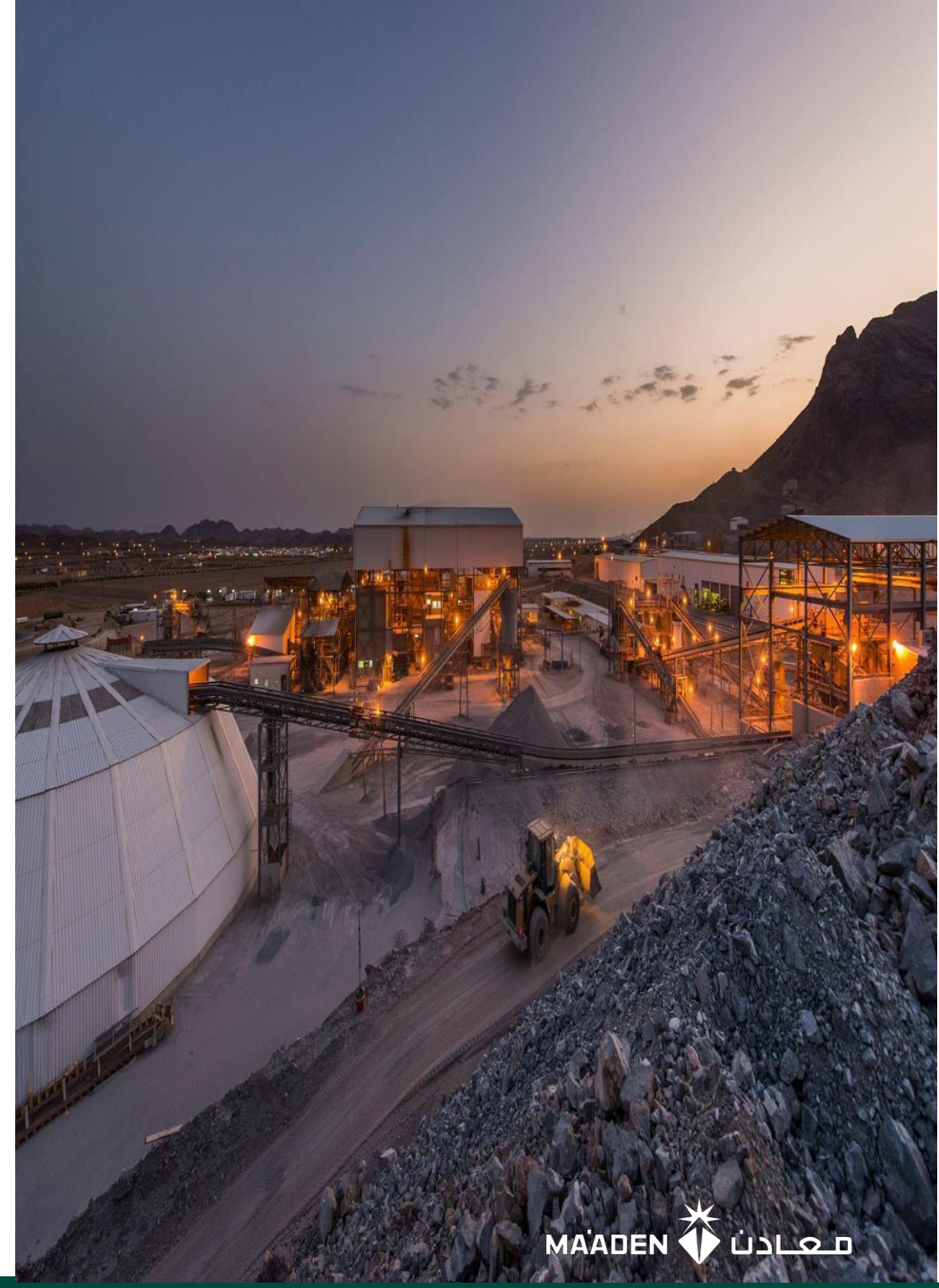
MA'ADEN Moves to Oracle Cloud and Achieved Business Efficiency

- ## Challenges
  - Running Oracle E-Business Suite (EBS) and Oracle DB on a 6-year-old Oracle Exadata machine on-premises
  - Embarking on a long-term SaaS (HCM) transformation project
  - Need for an immediate interim Cloud Solution and reap instant cost savings

- ## Solution
  - **April 2020: 6 months phasing approach for infrastructure modernization:**
    - **Move EBS (in 2 months), Hyperion, BI, Middleware** to OCI on **ExaCS** as an interim solution to the SaaS transformation project
    - **Move MS Workload from On-Prem/Azure to OCI**
    - Moved documents from **MS OneDrive** to **OCI Content**
    - **Third Party Solutions (FortiNET, Manifacturing)**
    - **OCI Edge Services (WAF, DNS)**
    - OCI becomes an extended DC to Ma'aden
  - **Sep 2020: go live with Oracle HCM SaaS (7,000+ employees)**
  - **Develop future roadmap for Oracle cloud journey**

CUSTOMER PERSPECTIVE

Cloud led transformation is an imperative for our organization to scale operations swiftly, drive innovation, create a real-time view of all our resources and projects, ensure cost efficiency and implement robust security measures for business continuity

Bander Awad Al-Habshan

CIO, Maaden

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KPIs Accomplished (1/2)

- **Optimized Investment – COST** : 34% direct cost saving and 65% considering the added benefits.

- **Security** : Data Encryption for Production & Non-Production info is accomplished by default in OCI @ no extra cost along with Native Security controls (Firewall, Security Lists , etc …) Provided natively to secure Ma'aden information

- **Resource Availability** : OCI DB Computing Power significantly increased by 25% Compared to On-Premise with 5X more storage capacity on Production Database . OCI also supports CPU Scale Up / Down to accommodate variant workloads

- **Backup & Recovery** : Dramatically reducing administration efforts for EBS Backup / maintenance from 4.5 Hours / day to an incremental backup accomplished in 40 Min / day after an initial back accomplished

Benefits
- Scale operations swiftly
- Drive innovation
- Create a real time view of business KPIs
- Cost efficiency
- Stronger security posture
- Better business continuity plan

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KPIs Accomplished (2/2)

- **Business Continuity - High Availability** : Automated HA for Apps running in OCI with no modifications & Zero Data Loss with a highly compelling SLA addressing during Planned and Unplanned Outage

- **Service Level Agreement SLA** : Oracle is offering a highly compelling SLA Coverage for Availability , Manageability & Performance on OCI Solution implemented

Benefits
- Scale operations swiftly
- Drive innovation
- Create a real time view of business KPIs
- Cost efficiency
- Stronger security posture
- Better business continuity plan

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MA'ADEN Journey to Oracle Cloud

- **Ongoing project**

  Ma'aden has kicked off "**Ma'aden Transformation Program**" to develop new Business Processes capitalizing on Oracle Fusion standard processes that will cover **Finance, procurement, maintenance, manufacturing, sales and logistics**

  - Analytics

  - Cloud Integration

- **Future projects**
  - Disaster Recovery

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Thank You

JOPACC

Oracle Global Leaders
Virtual Meeting - MEA

Oracle Cloud Infrastructure

March 2021

Introduction: JOPACC

- Based in Jordan, established in 2017 with the high-level goal to *"having Comprehensive and innovative digital payments benefiting all and contributing to the financial inclusion in the kingdom and to achieving a digital economy"*

- Fall under the supervision of the Central Bank of Jordan.

- Owner and operator of digital payment systems and infrastructure on the national level.

Innovation. Excellence. Agility. Collaboration. Commitment.

JOPACC
WE INNOVATE & CONNECT
DIGITAL PAYMENTS

Major Challenges – on premises

▸ Inflexible traditional infrastructure that does not meet Business requirements.

▸ Time needed to procure new infrastructure.

▸ Multi-vendor contracts and SLAs.

▸ Relatively high initial investments (CAPEX)

▸ Technology team is occupied with keeping the underlying infrastructure up and running.

Out of Control!!!!!

Major Tasks – on premises

- Location for the Datacenter (Main and DR) – owned or rental
- Size of the Datacenter.
- Power Supply (including UPS) and Racks.
- Cooling Systems.
- Network and Security Layer (cabling, firewalls, routers, switches, WAFs, HSMs, IPS, IDS…etc).
- Servers, Storage and Backups.
- Databases, Operating Systems and Virtualization.
- Access (physical/logical) and communication
- Access Controls and authorization
- Design (infrastructure and application)

CAPEX and OPEX

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~~Motivational~~ Triggering Terms

- Security
- Compliance
- Efficiency
- Agility
- Performance
- Manageability

- Business Continuity
- Control
- Reachability
- Data Privacy
- Scalability
- SLAs

A TABOO....

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WE INNOVATE & CONNECT
DIGITAL PAYMENTS

Cloud Provider Selection...

JoPACC's Cloud Policy...

- ▸ Regulatory Requirements.

- ▸ Business Requirements.

- ▸ Technology Requirements.

- ▸ Finance Requirements.

On a side note... we operate two INSTANT payment systems...
On a 24/7 basis!
Production, Testing and DR are running on Oracle Cloud!

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The Selection...

> Instant Payments Systems

> Up and running 24/7

> Banks and Non-Banks (20+)

> Highly Regulated

MISSION-CRITICAL APPLICATION!

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Why Oracle ~ The Checklist!

Provisioning Capabilities	Great!
Ease of Management	If I could do it.. Then anyone can!
Scalability (Time and effort)	Minimal
Control over provisioned instances	Full control based on JoPACC's design
Applying our own IT and security design	Done!
Location of Data Centers	Separate Geographical areas
Data Privacy	Sound and Clear!
Performance	Latest hardware and technology made available
Service Level and Support team	99.95% with 24/7 support
Connectivity	Fast Connect
Subscription and Pricing	Published online
Cost Analysis (OPEX)	Precise
Reputation and Financial Stability	Well…

Our Experience...

Implementation Approach

▶ Migration from on-premises to Oracle cloud (Jan, 2019).
▶ New complete deployment.

Achievements

▶ First "*Fast Connect*" in Jordan.
▶ Improved performance based on participants' feedback.
▶ Fully operational with extraordinary Business Continuity during COVID-19.
▶ Installation, testing, accepting and going live with the latest payments system (CliQ) during the pandemic

Cloud Myths
- IT Employees are no longer needed.
- Cloud is not secure.
- Automatically saves money.

Going Forward

Trying out Oracle Cloud Analytics...Let's see where that leads us!

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DIGITAL PAYMENTS

ALJOMAIH AUTOMOTIVE
BUSINESS OVERVIEW

- Established in 1967, Aljomaih Automotive Company (AAC) is the leading GM dealer in all of the Middle East

- Complementing AAC core line business are **ACDelco Services Centers**, **ACDelco Parts** and **Middle East Battery Company**

- With its 2015 appointment as the **Enterprise Rent-A-Car Master Franchisee** for the Middle East, the Aljomaih automotive footprint continues to expand and generate new vehicle sales opportunities

- AAC has also introduced **GAC Motors** in Saudi Arabia since 2018 as the sole-distributer in the kingdom.

- AAC's automotive retail and fleet operations is support by sister company **TAYSEER Financing** which provides B2B and B2C financing solutions towards automotive ownership.
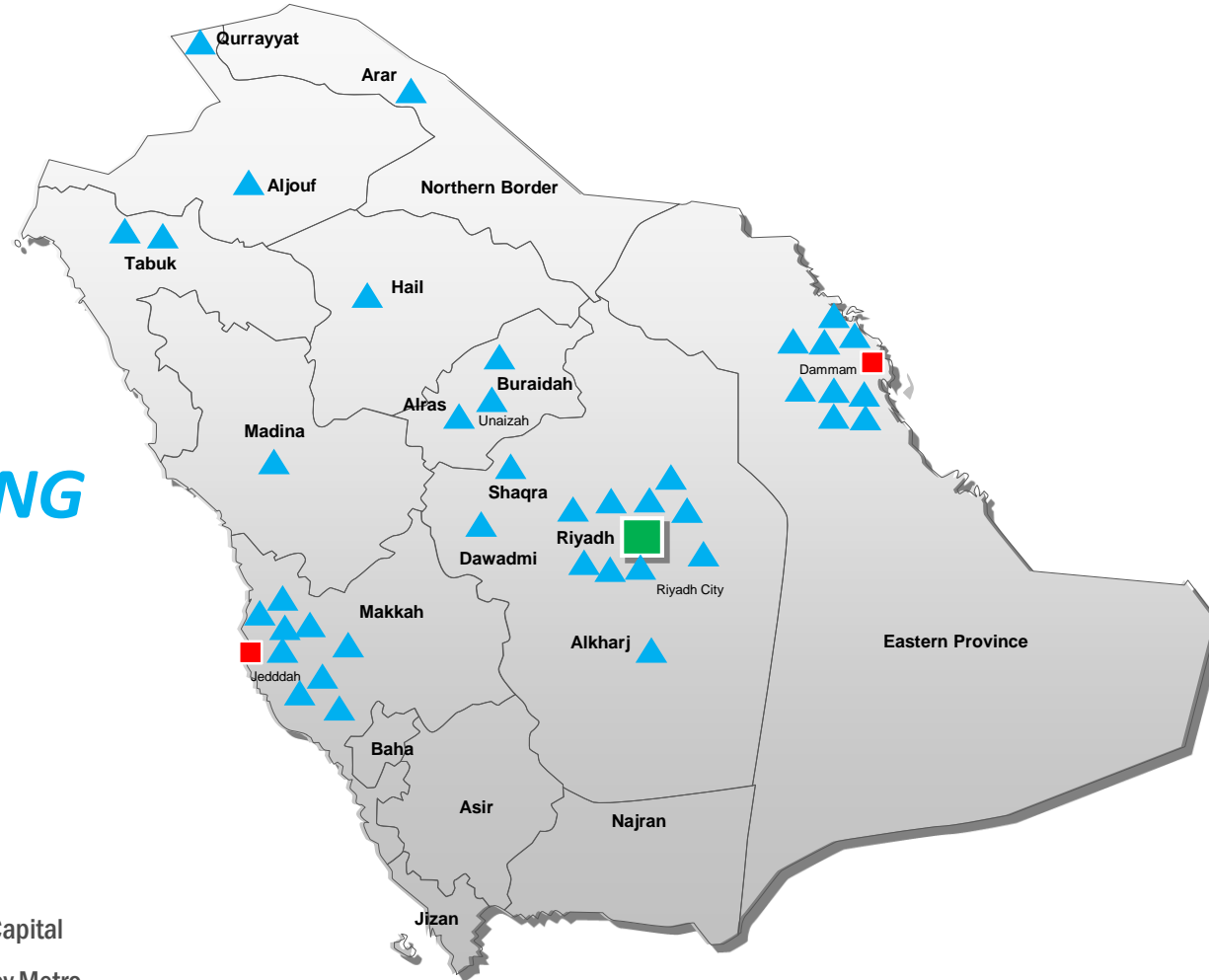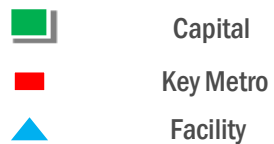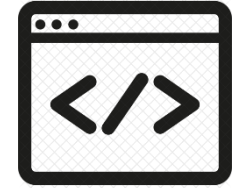
ALJOMAIH AUTOMOTIVE
IT OVERVIEW

Overview
- IT @ AAC is the backbone and major business driving factor with many custom-built applications and supporting hardware.
- AAC has always been a reference customer with most our vendors.

2005: Shift to Oracle E-Business Suite
- From legacy in-house systems, AAC decided to shift to Oracle E-Business Suite 11i in 2005.
- The deployment was on HP-UX: PA-RISC platform with hardware clustering using HP-Serviced Guard.
- Two Node Database System, and Two Node Application Environment.

2011: Move to Engineered Systems:
- for performance and better vendor management , we decided to go with Oracle Engineered Systems, **EXADATA database Machine** for database.
- The experience with Exadata was **successful** and delivered business objectives.
- Next: we moved all application nodes to **X2-2 Machine EXALOGIC elastic cloud**.
- With this we had an **optimal performance** and a good scalable system in place with cloud feel.

ALJOMAIH AUTOMOTIVE

IT CLOUD JOURNEY

2017: Issue with On-Premises Infrastructure Setup:

- Ever increasing operational and support **expenses** (reaching almost 30% year-on-year).

- Equipment reaching out of extended Support, with capacity limitations.

- Support for older version with **less performance** was increasing.

- Pressure for manpower cost reduction, with demand on better performance.

- Provisioning for; new Product requirements , temporary setups were **cumbersome** and occasionally not available.

- Managing and administering all these deployments along with other datacenter requirements with **newer technologies** and **upgrades** were challenging.

2018: Exploring Options including:

- Upgrade current Oracle Engineered Systems

- Look into Oracle Private Cloud Appliance

- Shift Completely to Public Cloud (Oracle or other vendors)
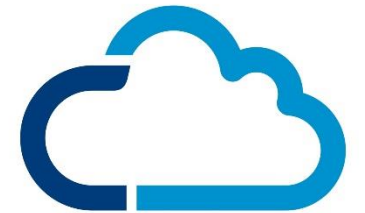
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IT CLOUD JOURNEY - CONTINUED

2018: Decision to go with Oracle Public Cloud: Reasons

- We were using one of excellent available system and wanted to further improve performance and scalability.

- We didn't want to worry about the fast pace of changing technology with **upgrades** coming out on very frequent intervals.

- A great trend setting future technologies with better **price**, **security** and **scalability** available at cloud were the reasons for us to opt for OCI.

- **Faster provisioning** and almost no time for adding or removing resources for permanent and temporary use.

- Greater **level of support**

ORACLE®
Cloud Infrastructure

ALJOMAIH AUTOMOTIVE

IT CLOUD JOURNEY – IMPLEMENTED SOLUTIONS

Infrastructure-as-a-Service (IaaS)

- Computes for EBS AppsTier

- Back Office

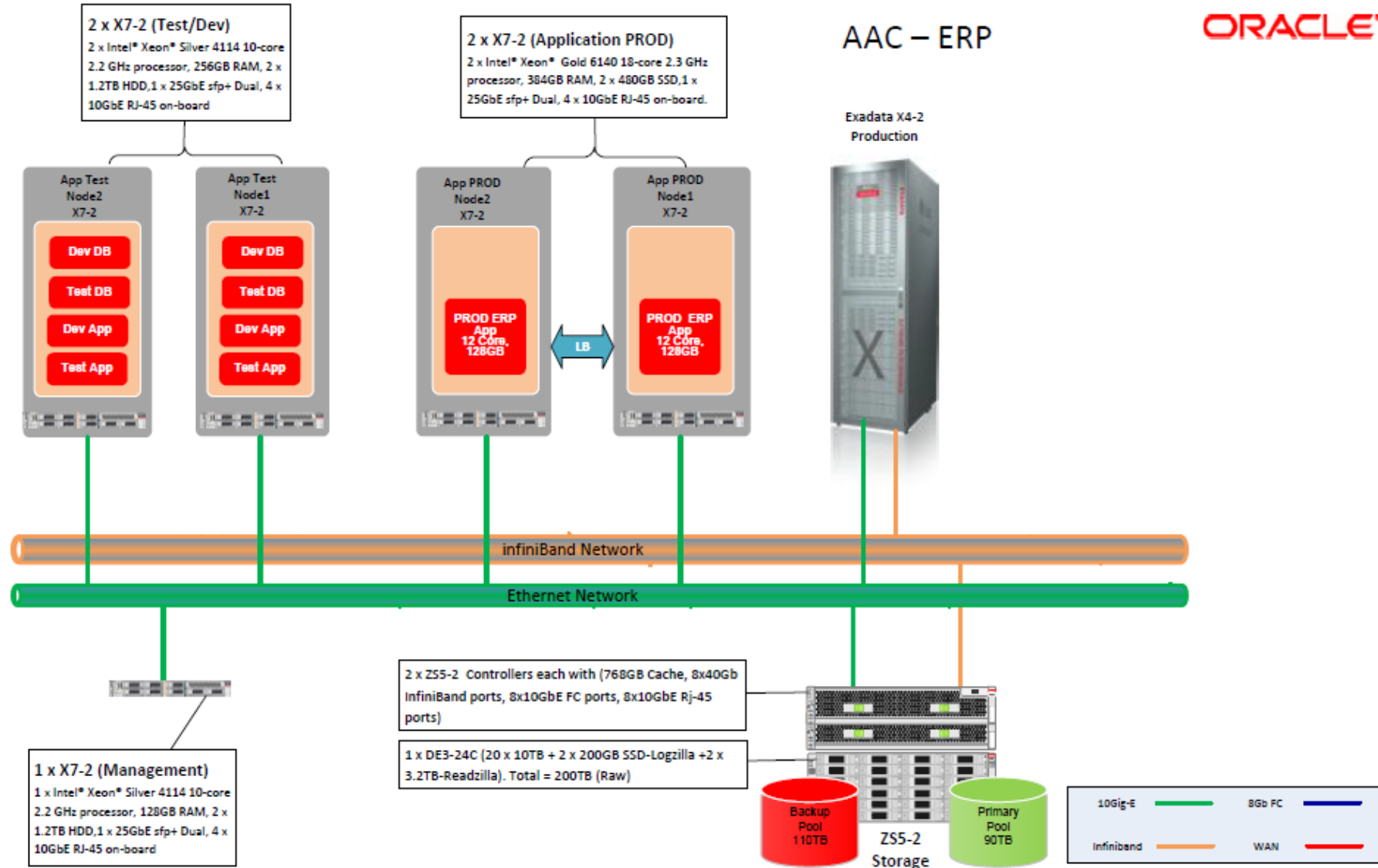- Non-Oracle applications and Partner application.

Platform-as-a-Service (PaaS)

- Oracle Database on EXADATA Cloud Service.

Software-as-a-Service (SaaS)

- Oracle Customer Engagement Cloud (CX)

HIGH LEVEL ARCHITECTURE

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ORACLE

2 x X7-2 (Test/Dev)
2 x Intel® Xeon® Silver 4114 10-core
2.2 GHz processor, 256GB RAM, 2 x
1.2TB HDD,1 x 25GbE sfp+ Dual, 4 x
10GbE RJ-45 on-board

2 x X7-2 (Application PROD)
2 x Intel® Xeon® Gold 6140 18-core 2.3 GHz
processor, 384GB RAM, 2 x 480GB SSD,1 x
25GbE sfp+ Dual, 4 x 10GbE RJ-45 on-board.

AAC – ERP

Exadata X4-2
Production

App Test Node2 X7-2	App Test Node1 X7-2	App PROD Node2 X7-2	App PROD Node1 X7-2
Dev DB	Dev DB		
Test DB	Test DB		
Dev App	Dev App	PROD ERP App 12 Core, 128GB	PROD ERP App 12 Core, 128GB
Test App	Test App		

LB

infiniBand Network

Ethernet Network

2 x ZS5-2 Controllers each with (768GB Cache, 8x40Gb
InfiniBand ports, 8x10GbE FC ports, 8x10GbE Rj-45
ports)

1 x DE3-24C (20 x 10TB + 2 x 200GB SSD-Logzilla +2 x
3.2TB-Readzilla). Total = 200TB (Raw)

1 x X7-2 (Management)
1 x Intel® Xeon® Silver 4114 10-core
2.2 GHz processor, 128GB RAM, 2 x
1.2TB HDD,1 x 25GbE sfp+ Dual, 4 x
10GbE RJ-45 on-board

Backup
Pool
110TB

Primary
Pool
90TB

ZS5-2
Storage

10Gig-E		8Gb FC	
Infiniband		WAN	

ALJOMAIH AUTOMOTIVE

IT CLOUD JOURNEY - BENEFITS

- No strains of maintaining of licenses, machines and the data center cost with improved performance and easy to scale up and scale down.

- Better control infrastructure cost, especially after shifting all applications (Oracle and non-Oracle) to the cloud.

- Faster to provision and work with production environments and temporary test environments, as well as non-Oracle environment.

- Higher level of out-of-the-box Security, with much higher availability levels.

- Easy to securely connect from anywhere through internet, which helped AAC keep business running during extensive lock-downs from COVID-19.

- Easier to deploy and integrate to new technologies based on the current solid platform.

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THANK YOU