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New Features of WebLogic and WLS on OCI

Sid Joshi

EMEA Director
Cloud Strategy & OCI Centre of Excellence

www.linkedin.com/in/sid-joshi
@SidJoshi_uk

Jan Leemans

EMEA Director
Technology Software Engineering

www.linkedin.com/in/janleemans1
@JanLeemans

Safe harbor statement

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.

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WebLogic Roadmap

What's New & Where are we heading

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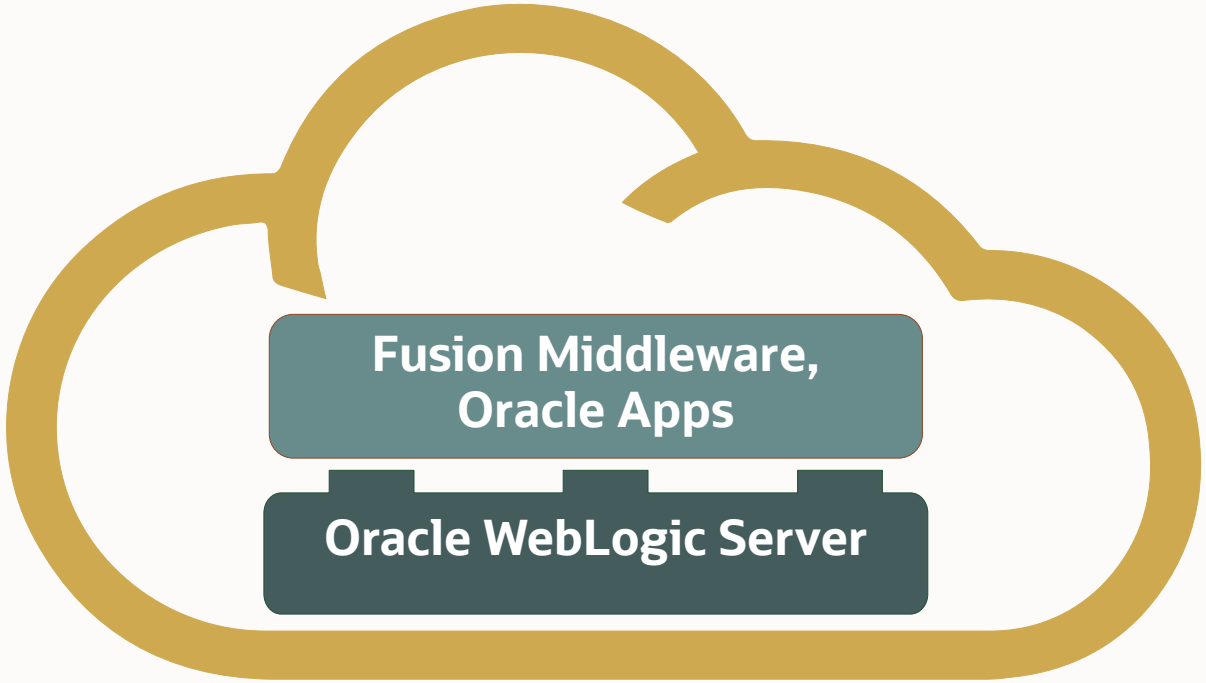
Oracle WebLogic Server
Proven, Industry-Leading Application Server

- Standards – Thru Jakarta EE 8 and Java 8/11
- Core – Performance, Data Integrity, Upgrade
- Data Tier Support – RAC, EBR, Coherence
- Manageability – Console, WLST, REST, WLDF
- Availability – Clusters, DR, Migration, ZDT
- Modernization – Kubernetes, Cloud, Migration



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WebLogic Server

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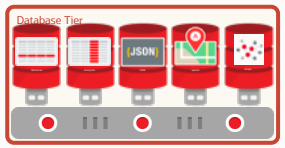
The WebLogic Product Roadmap has continued to evolve

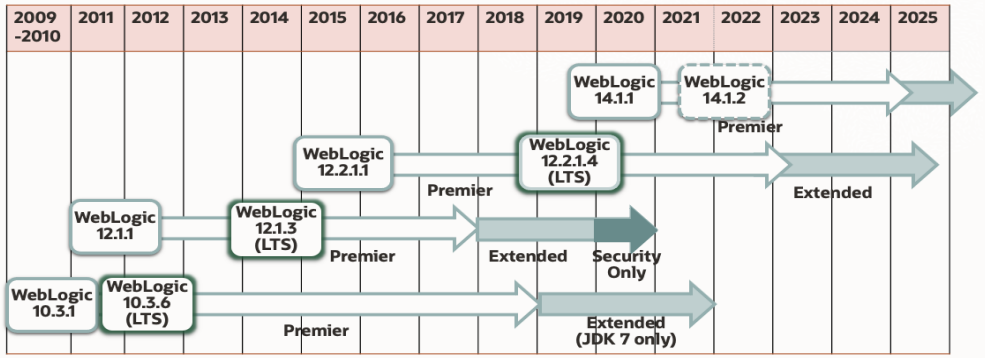
- **Embrace Cloud Native**
  - Key trend in Application Development
  - Modernize your existing applications without code changes
  - Large toolset to embrace modern development automation (CI/CD)
  - Enable Modern Monitoring and Logging tooling

- **Ongoing evolution in 14.1.x**
  - WebLogic Java EE 8 and Jakarta EE 8 Support
  - Coherence, Tracing, GraalVM polyglot
  - Java SE 8 and Java SE 11 Support
  - Generic, slim and quick installers



- **Micro Service Ready**
  - Easy adoption of Java Microservices with Helidon
  - Hybrid applications: WebLogic + Helidon combined
  - Coherence: interaction between microservices
- **Converged Database**
  - Relational, Columnar, JSON, Spatial, …

- **Extensive (long-term) Support Roadmap**



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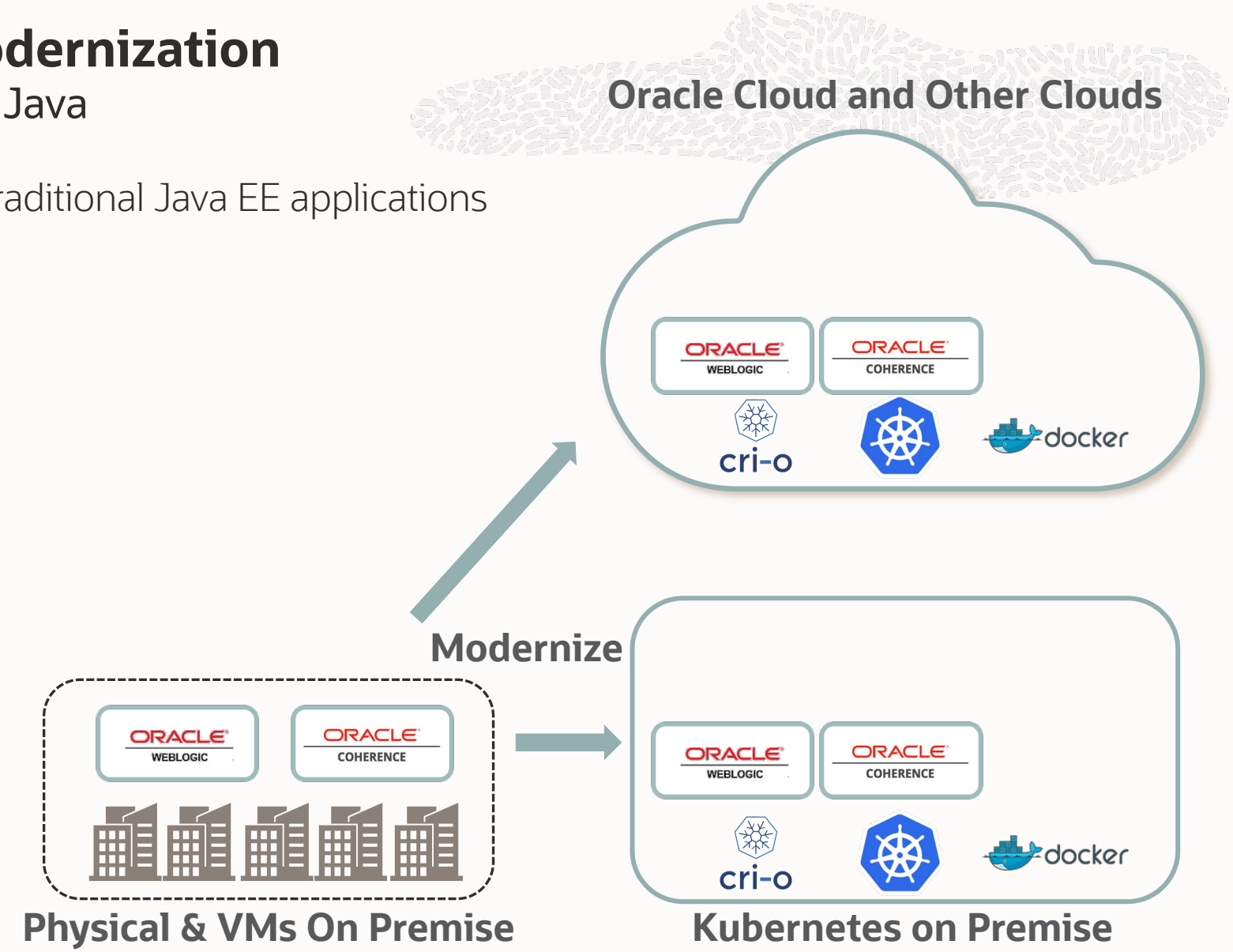
Enabling Application Modernization

Oracle Enterprise Cloud Native Java

- Build and deploy containerized traditional Java EE applications



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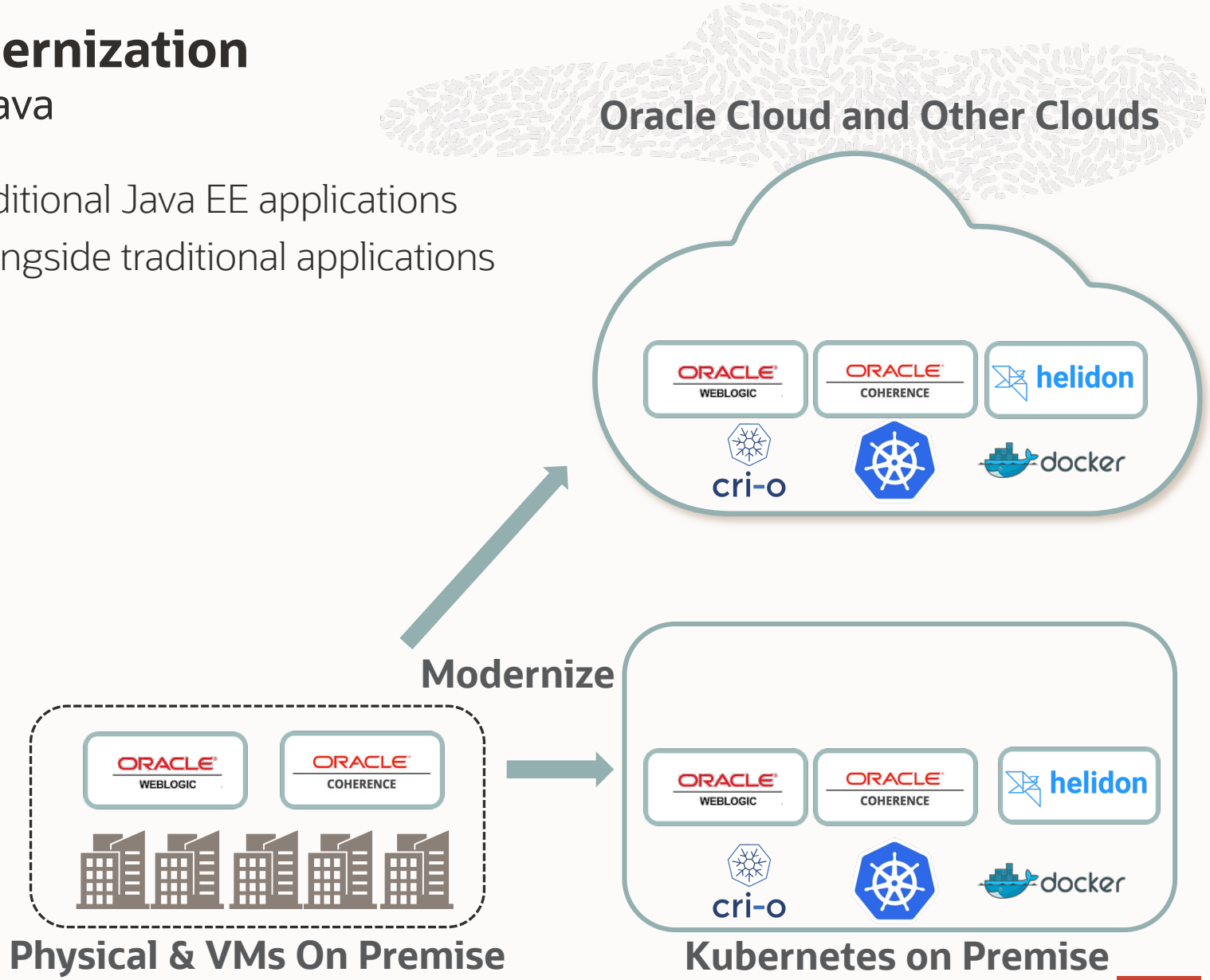
Enabling Application Modernization

Oracle Enterprise Cloud Native Java

- Build and deploy containerized traditional Java EE applications
- Build and deploy microservices alongside traditional applications



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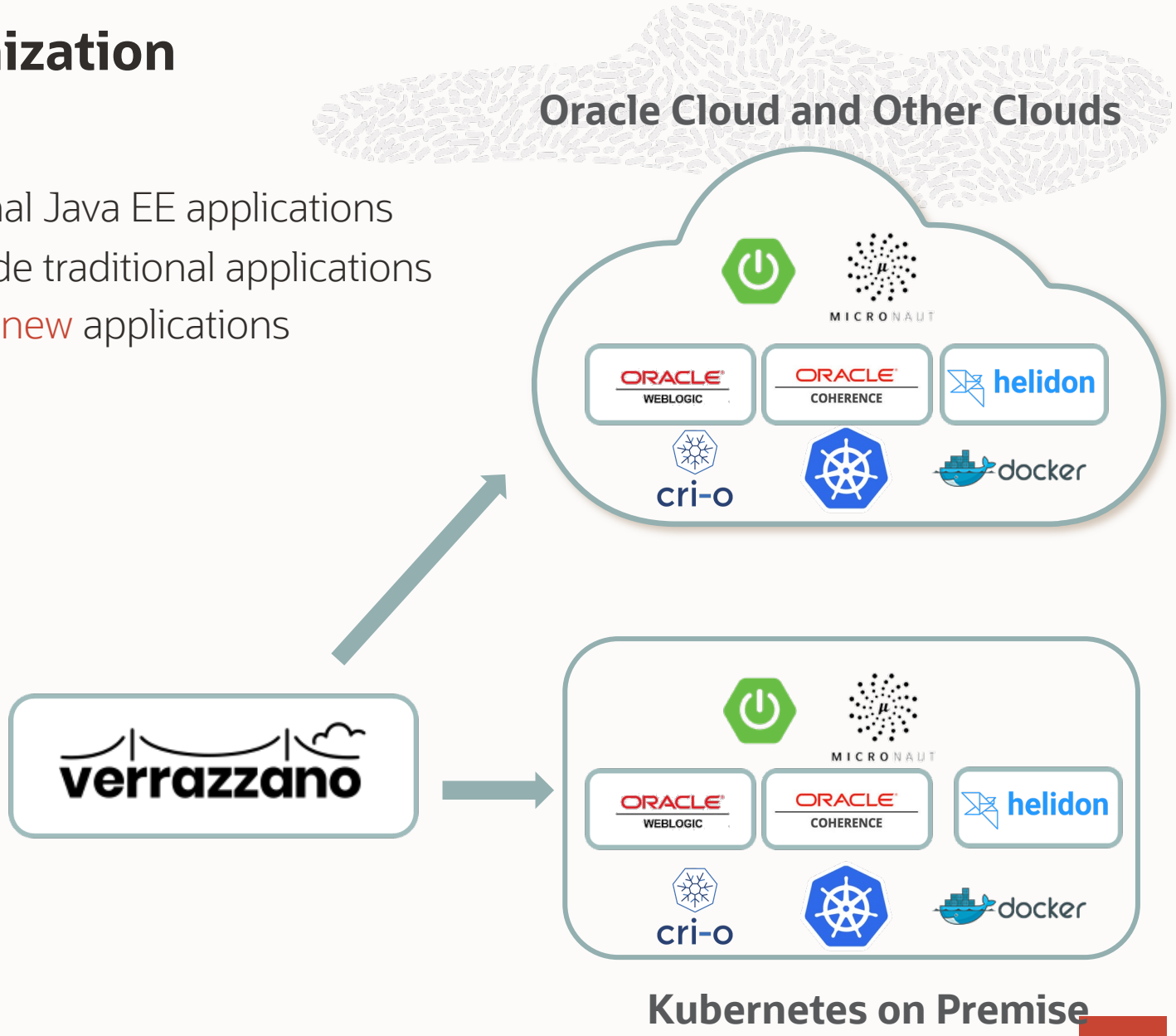
Enabling Application Modernization

Oracle Enterprise Cloud Native Java

- Build and deploy containerized traditional Java EE applications
- Build and deploy microservices alongside traditional applications
- Unify management across existing and new applications
- With multi-cloud support



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WebLogic Server and Coherence 14.1.1

WebLogic Java EE 8 and Jakarta EE 8 Support

- New HTTP/2, REST, JSON, CDI, Security features
- Passes Java EE 8 and Jakarta EE 8 compatibility tests
- Microservices integration

Coherence Topics, Tracing, GraalVM polyglot support

Java SE 8 and Java SE 11 Support

- TLS 1.3, new JDK 11 features

Database Edition Based Redefinition (EBR) Support

Available on premises, on Kubernetes, in the cloud

Generic, slim and quick installers

Compatible with prior versions

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Roadmap

WebLogic Server 14.1.2 Release Themes

Oracle Enterprise Cloud Native Java integration

WebLogic Server for Oracle Cloud Infrastructure

Oracle integration – FMW, Apps, SaaS, Linux, DB

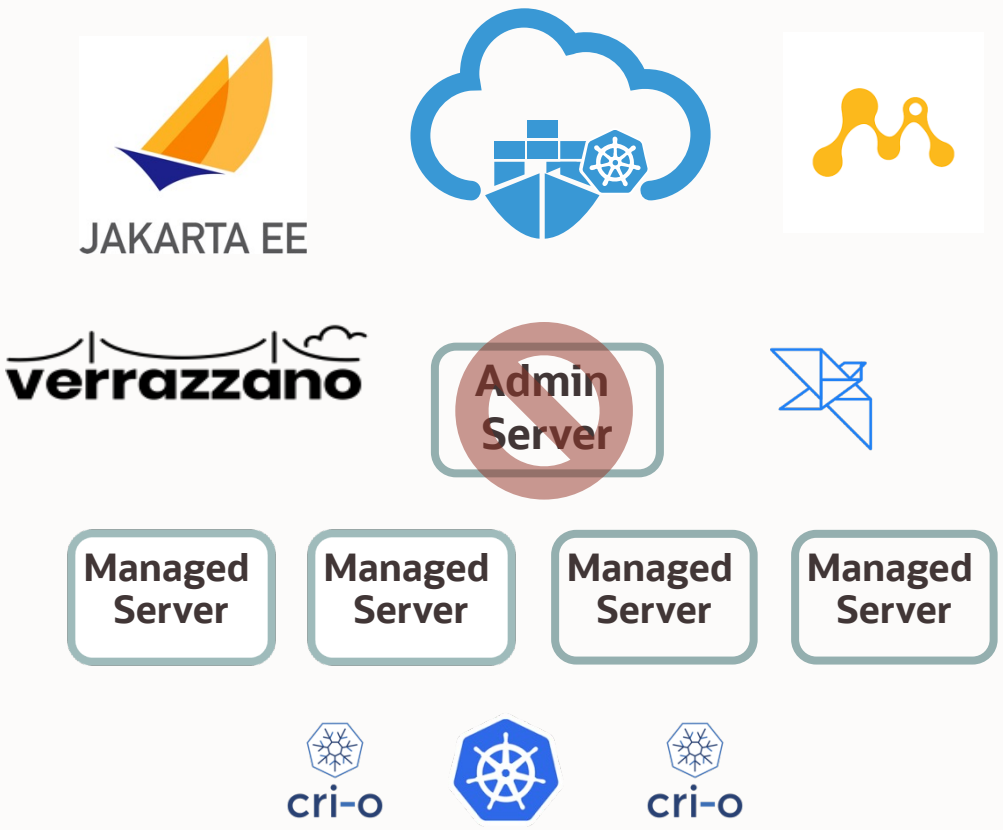
WebLogic “Slim”

- Remote console, “no admin server” architectures
- WebLogic MicroProfile w/Helidon

Container-focused DevOps

- Built-in development for containers

- Microservices integration
  - Kubernetes enhancements, gRPC, tools integration
- Continued support for Java SE 8 and 11: Java SE 17 TBD



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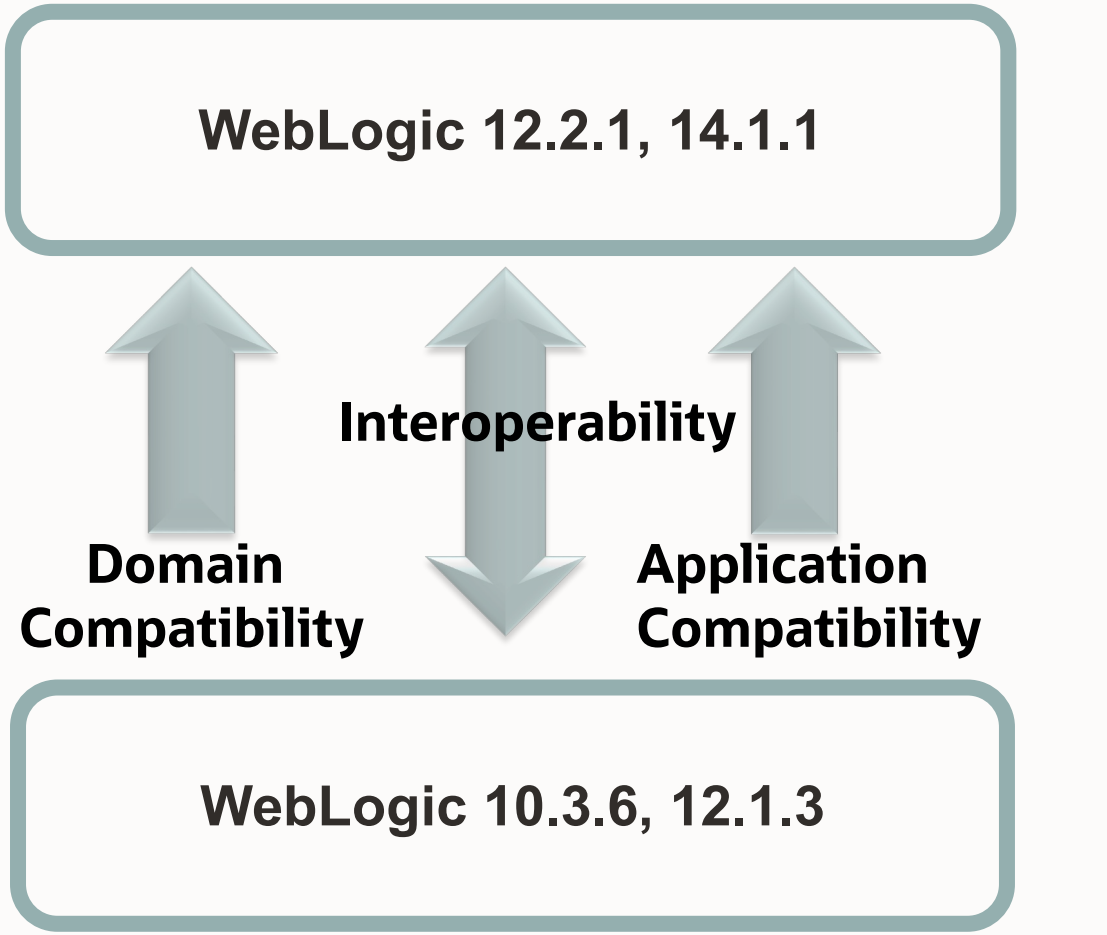
Upgradeability and Compatibility

- Long-term commitment
- Domain Compatibility
  - Upgrade configurations, scripts, provisioning process
- Application Compatibility
  - Upgrade applications using non-deprecated APIs
- Interoperability
  - With applications on prior versions



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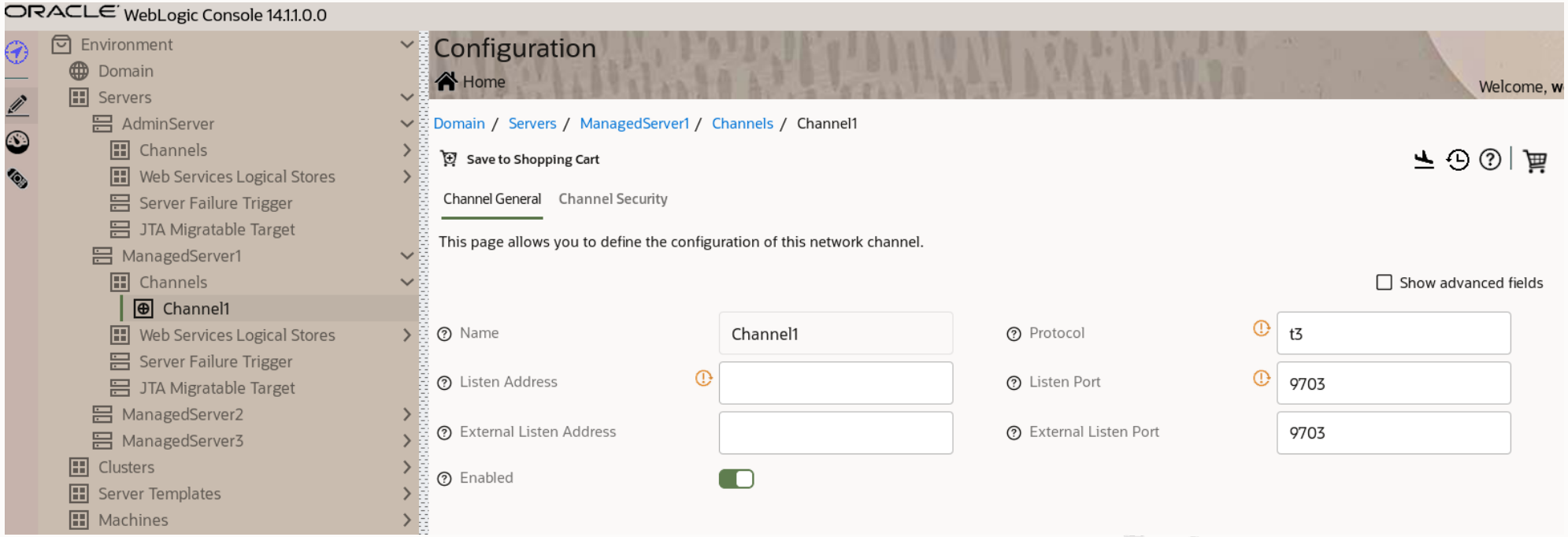
Remote Console For Weblogic Server



- Modern look and feel
- Redwood-compliant via JET
- Uses WebLogic Management REST API
- Multi-release support
- Reduce size of WebLogic installers and images

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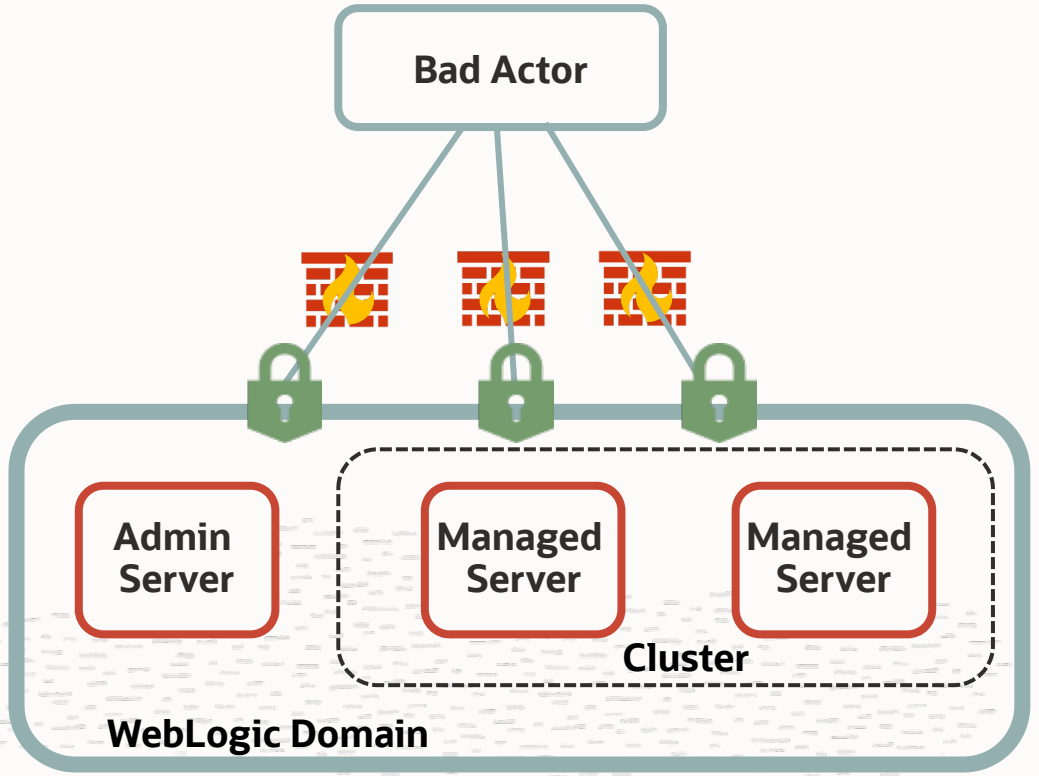
WebLogic Security Strengthening

1. Ongoing PSU/CPU program
2. Updates to security best practices documentation
3. Important Security Updates for [12.2.1.3, 12.2.1.4, 14.1.1]
   - April PSU
     - Simplified PSUs – Stack Patch Bundle
     - Block unauthenticated T3/IIOP access
     - “Dynamic blocklists”
   - July PSU
     - Security validation in WebLogic console
     - “Allow lists”
4. Best practices adoption in WebLogic for OCI/OKE



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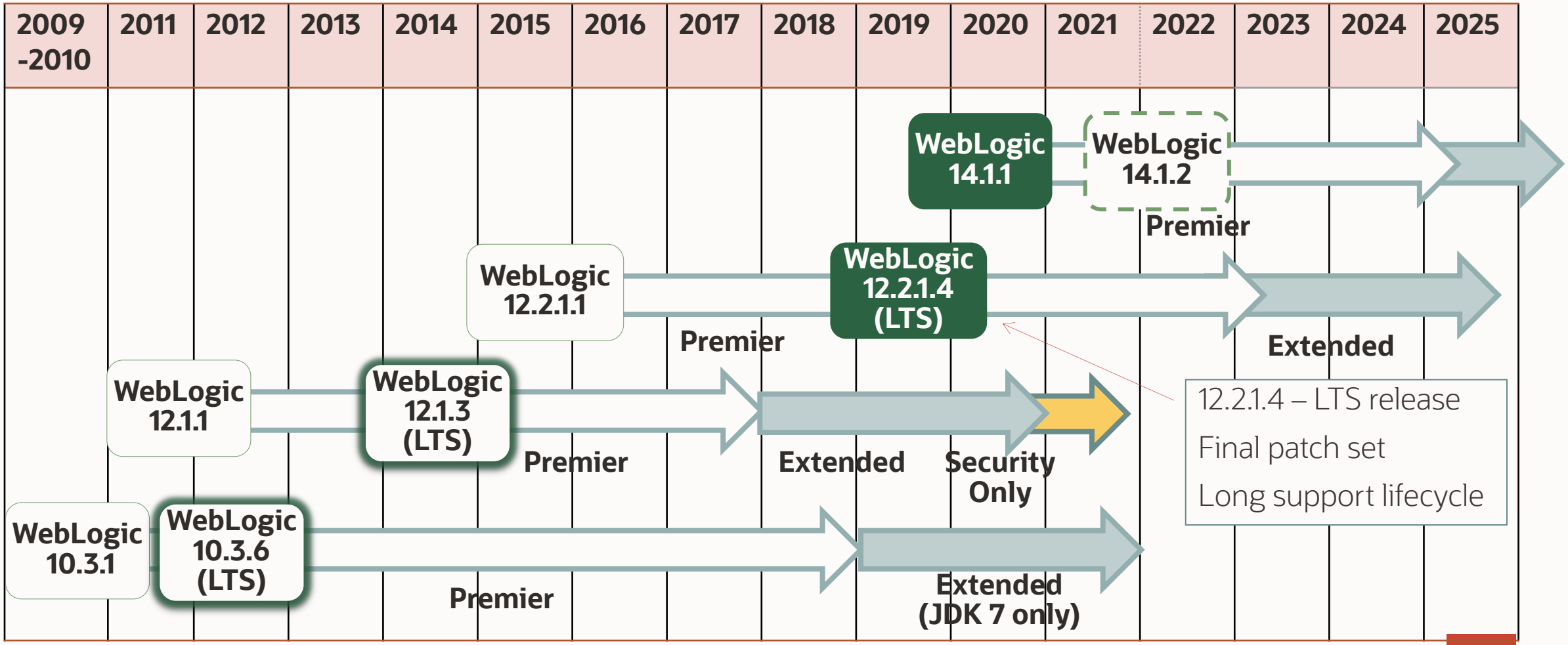
WebLogic, Coherence Version Support

Leverage WebLogic, Coherence 12.2.1.4 Error Correction Through 2025



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WebLogic for OCI

Updates

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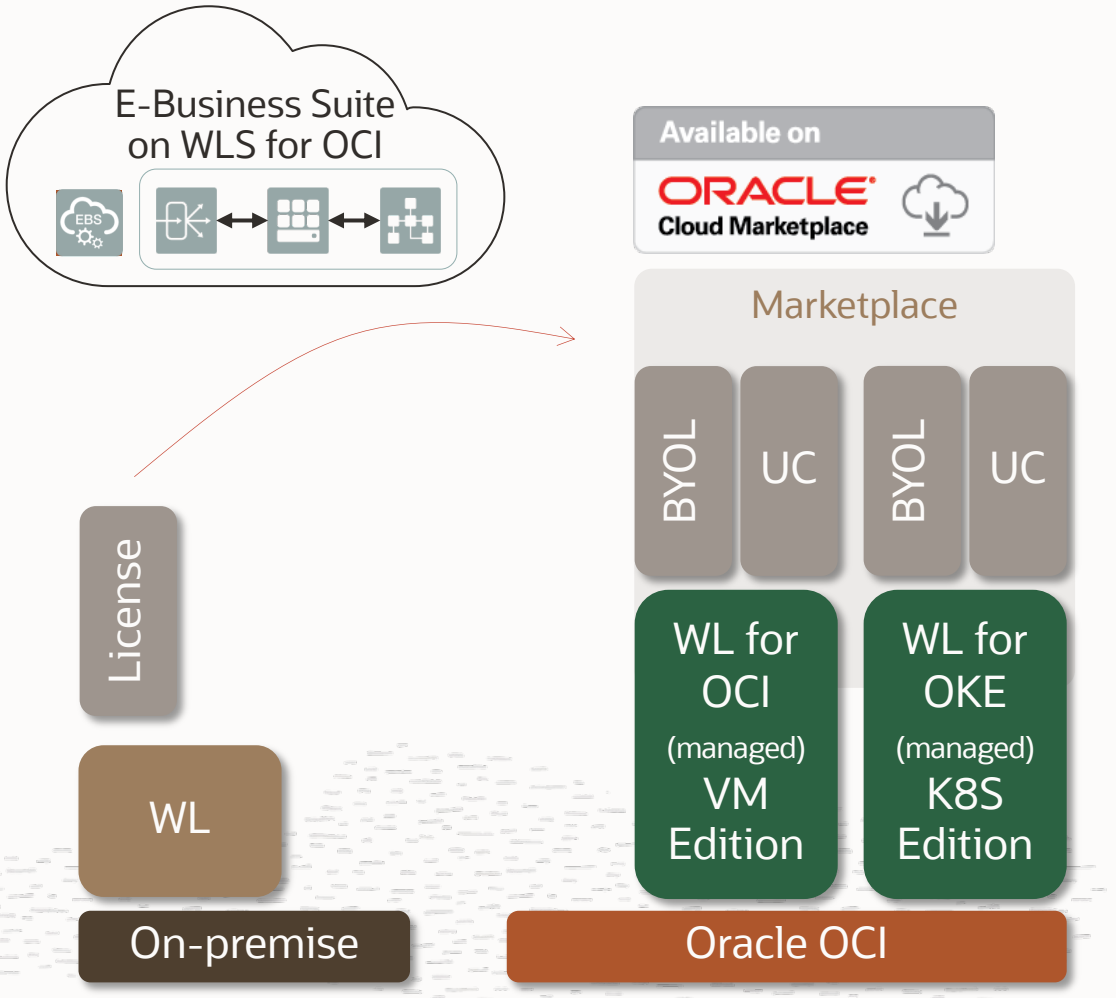
Oracle WebLogic Server for OCI

- Preferred solution for OCI deployments of WLS
- BYOL and Universal Credits pricing models
- Simplified provisioning – GUI and Terraform
- Integration with OCI
  - Services: Compute, Load Balancer, Database, Storage, Vault, Identity, Management
  - Benefits: High performance, low cost, hybrid architectures, autonomous, enterprise migration
- Security, scaling, patching, backup, cloning
- High Availability and Disaster Recovery
- JRF and Non-JRF domains
- WebLogic 10.3.6, 12.2.1.3, 12.2.1.4, 14.1.1
- Full compatibility with WLS on-premises



More information – WLS for OCI, WLS for OKE

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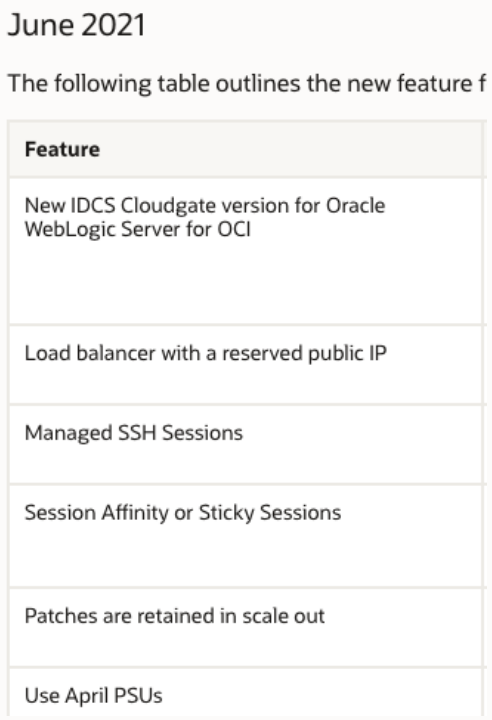
WebLogic for OCI

WLS on OCI VM

1. E-Business Suite certified on WLS for OCI
2. Domain Cloning
3. Domain Backup & Recovery

Latest Update Link



June 2021

The following table outlines the new feature f

Feature
New IDCS Cloudgate version for Oracle WebLogic Server for OCI
Load balancer with a reserved public IP
Managed SSH Sessions
Session Affinity or Sticky Sessions
Patches are retained in scale out
Use April PSUs

WLS on OKE

1. Support for Model in Image
2. OKE Control Pane & Worker Nodes on Private network
3. Bastion Service

Latest Update Link

June 2021

The following table outlines the new

Feature
Update the Repository Schema Utility Password using Secrets
Managed SSH Sessions
Use April PSUs

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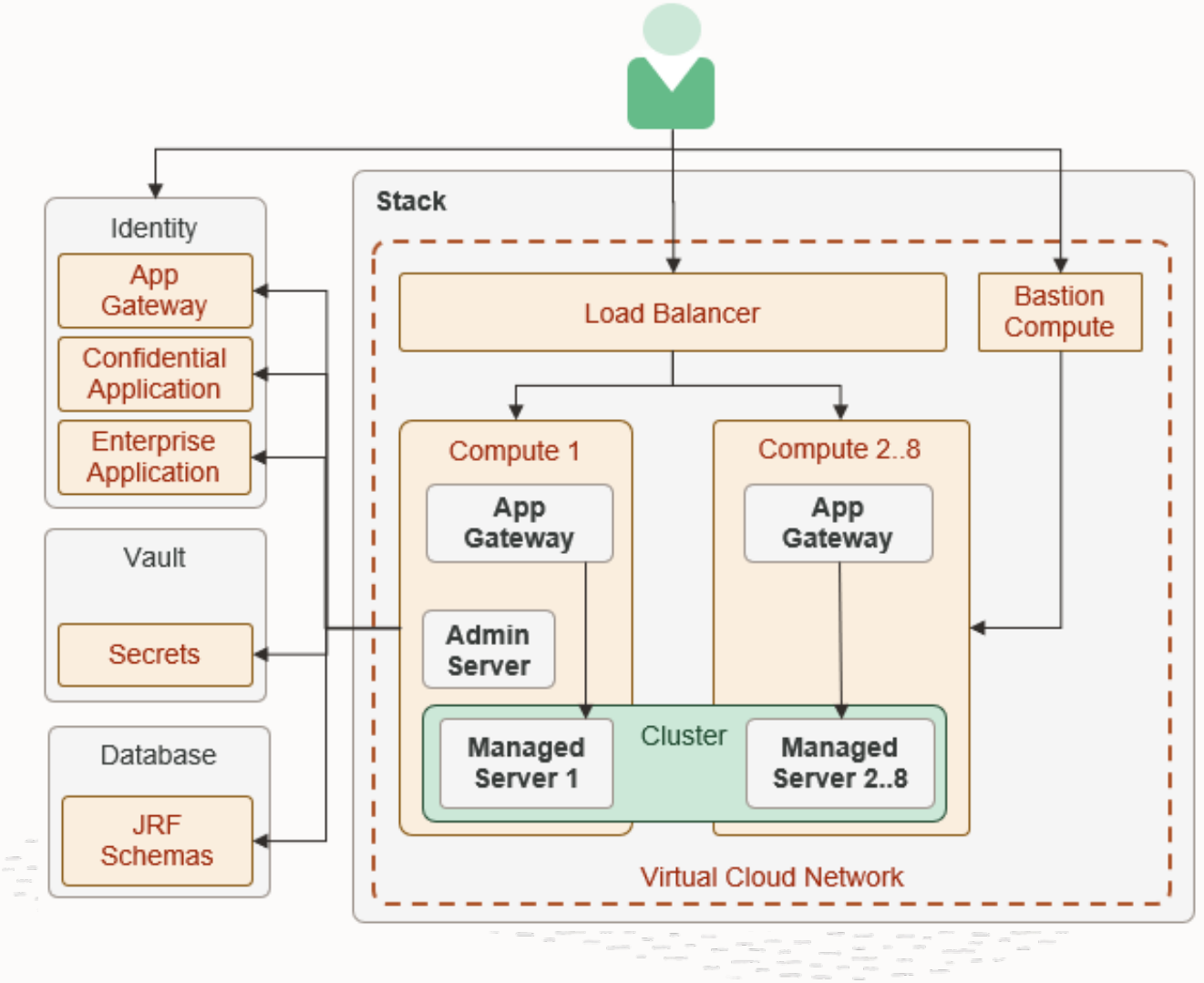
OCI

1. Flexible Compute Shapes
2. Flexible / Dynamic Load balancer
3. Secured Architecture
4. Secured Password Management
5. Identity Managment
6. Database Options [DBaaS, Oracle RAC, Exa CS, Autonomous DB]
7. Management Solutions
   - OS
   - Java
   - WLS



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Securely Architected

1. Important Security Updates for [12.2.1.3, 12.2.1.4, 14.1.1]
   - April PSU
     - Simplified PSUs – Stack Patch Bundle
     - Block unauthenticated T3/IIOP access
     - “Dynamic blocklists”
   - July PSU
     - Security validation in WebLogic console
     - “Allow lists”
2. Private Subnets
3. Secure Routing Rules
4. Bastion Service
5. Oracle Managed Kubernetes using Private secured control pane

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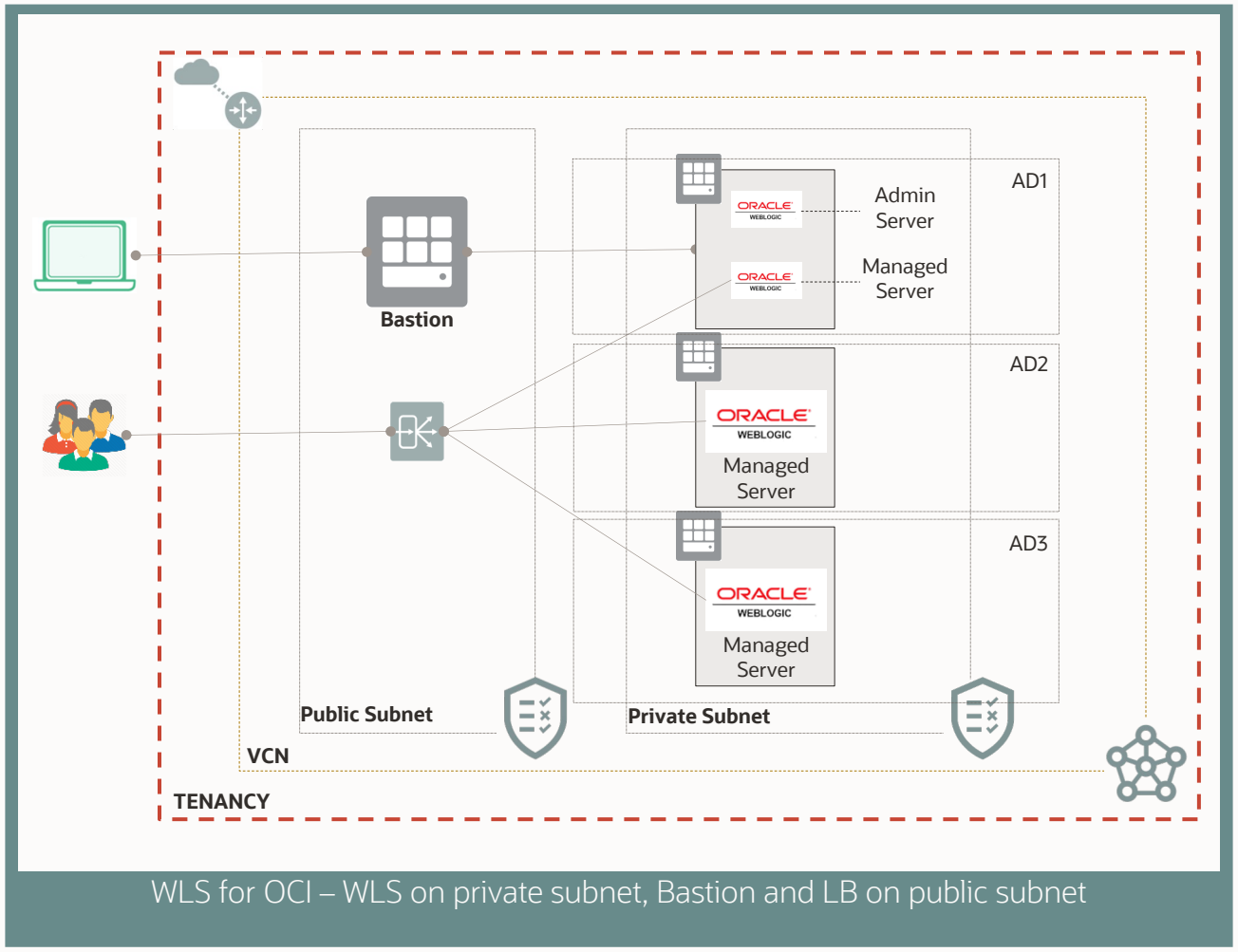
Secure deployment and posture management



WLS for OCI – WLS on private subnet, Bastion and LB on public subnet

+

Maximum Security Zone

ORACLE Cloud Infrastructure

Cloud Guard

Pervasive Watch

Hunt & Detect

Kill Threats

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DDoS Protection

DNS

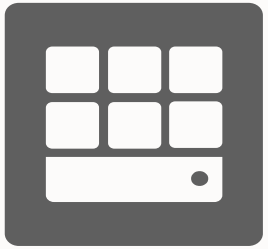
Too much bandwidth
Too many packets

How can OCI help?

***OCI DNS** Service as your primary or secondary DNS services*

Application

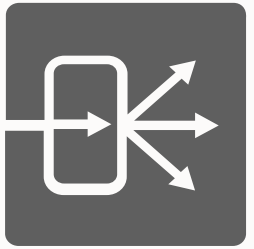
Attack on server itself
Too many requests
Too many connections



***OCI WAF** to provide threat protection, access controls, and bot management*

Network

Too many packets



*OCI provided DDoS protection, **as standard**, for all OCI customers*

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A range of patching capabilities

WLS Patching

patch-utils

- Built-in utility
- Simple tooling

JVM

Java Management Service

- Vulnerability Visibility

OS Patching

OS Management Service

- Vulnerability Visibility
- Automated Patch Mgmt

Automated Patching

Autonomous Database

- Known exploit detection
- Zero downtime patching

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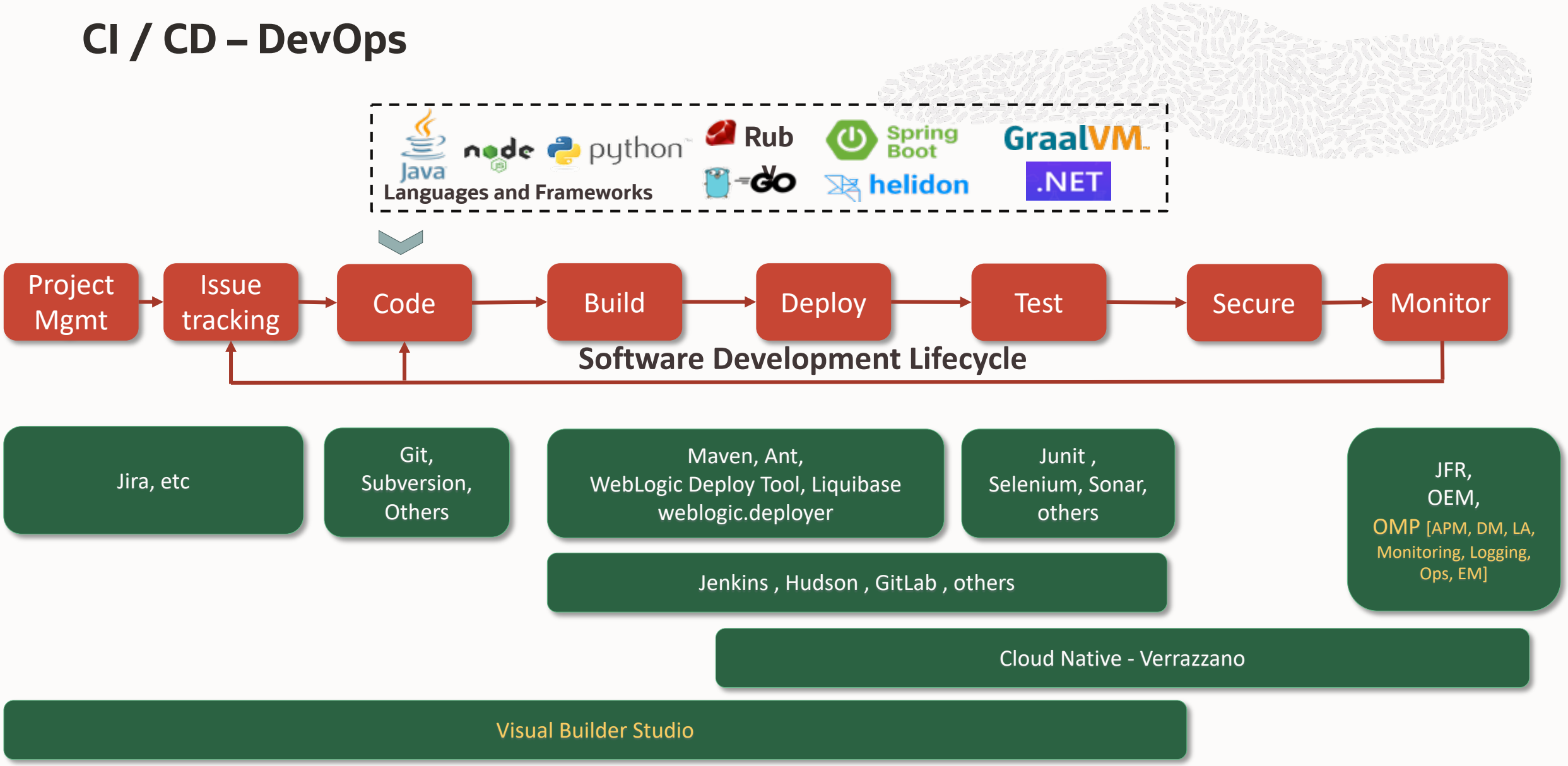
CI / CD – DevOps



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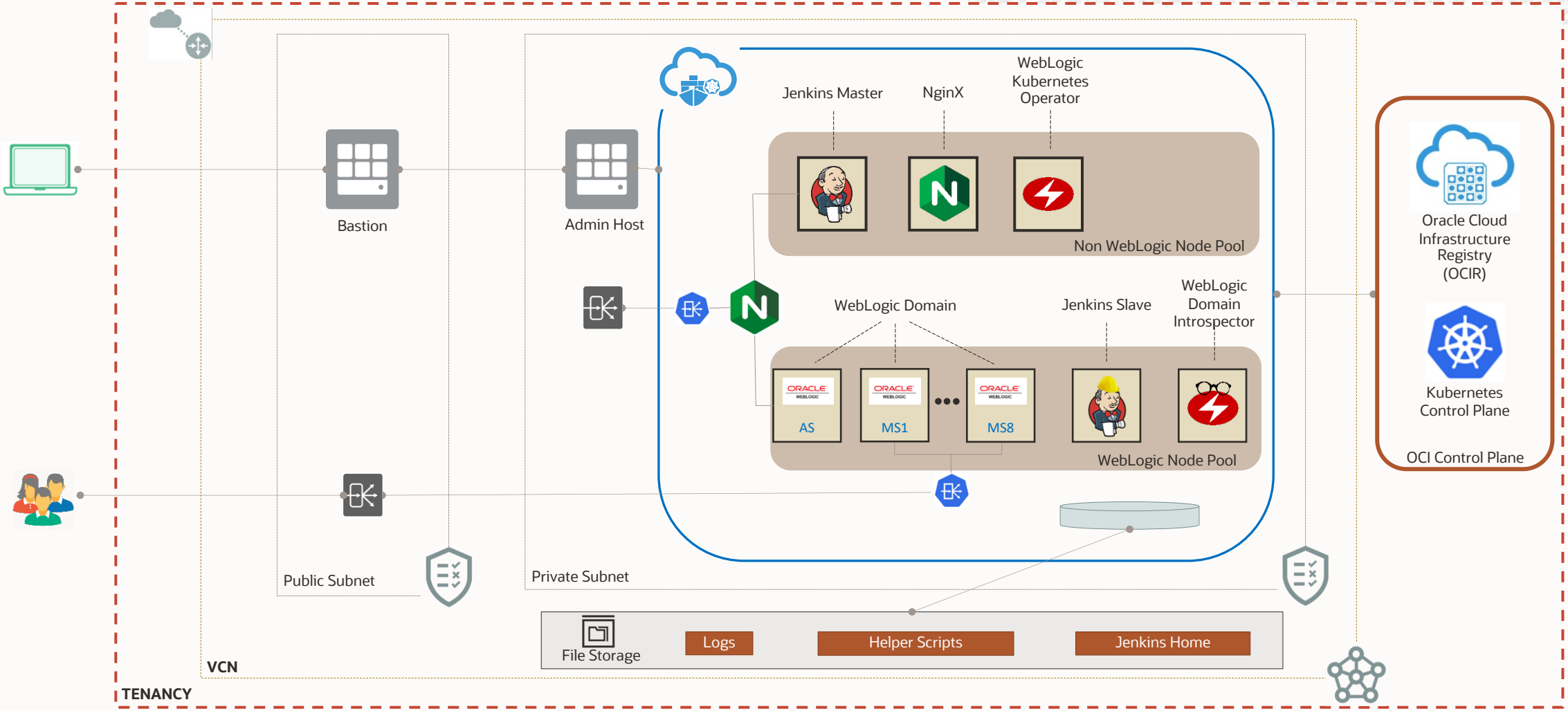
WebLogic for OKE

Topology



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Oracle WebLogic Server for OCI Benefits

Repeatable: Full Stack Automation

- Provision in 15 min
- Automated patching
- Infrastructure as Code
- Standarization

Resilience: Operational Excellence

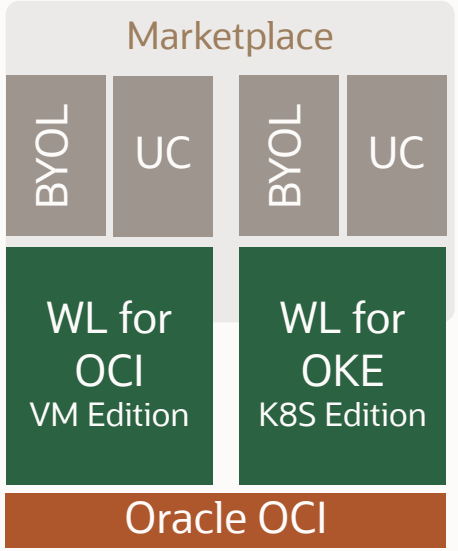
- Faster time to market
- Always secure platform
- Highly resilient architecture
- DevOps enabled
- Low-cost Disaster Recovery

Agility: Instant Access To Cloud Capacity

- Short lead time
- Self Service
- On demand consumption model
- Automated scaling

True Cost Control: Lower TCO

- Elastic configurations
- Lower Operational cost
- Existing license with BYOL
- Pay for what you use with UCM



UC : Cloud Economics

Constant Load:

6X Cheaper for 1 year

2X Cheaper over 5year

Improve your deal with

Variable Load:

10X Cheaper over 1 year

3.5X Cheaper over 5year

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Verrazzano Project

Hybrid Cloud Native Container Management

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Verrazzano

Multi-cloud application container management

Complete opinionated secure container platform

- Kubernetes, Istio, Rancher, Keycloak, monitoring stack, other CNCF components
- Oracle custom resources and operators
- Curated stack

Simplified, automated, rapid movement of WebLogic applications to Kubernetes

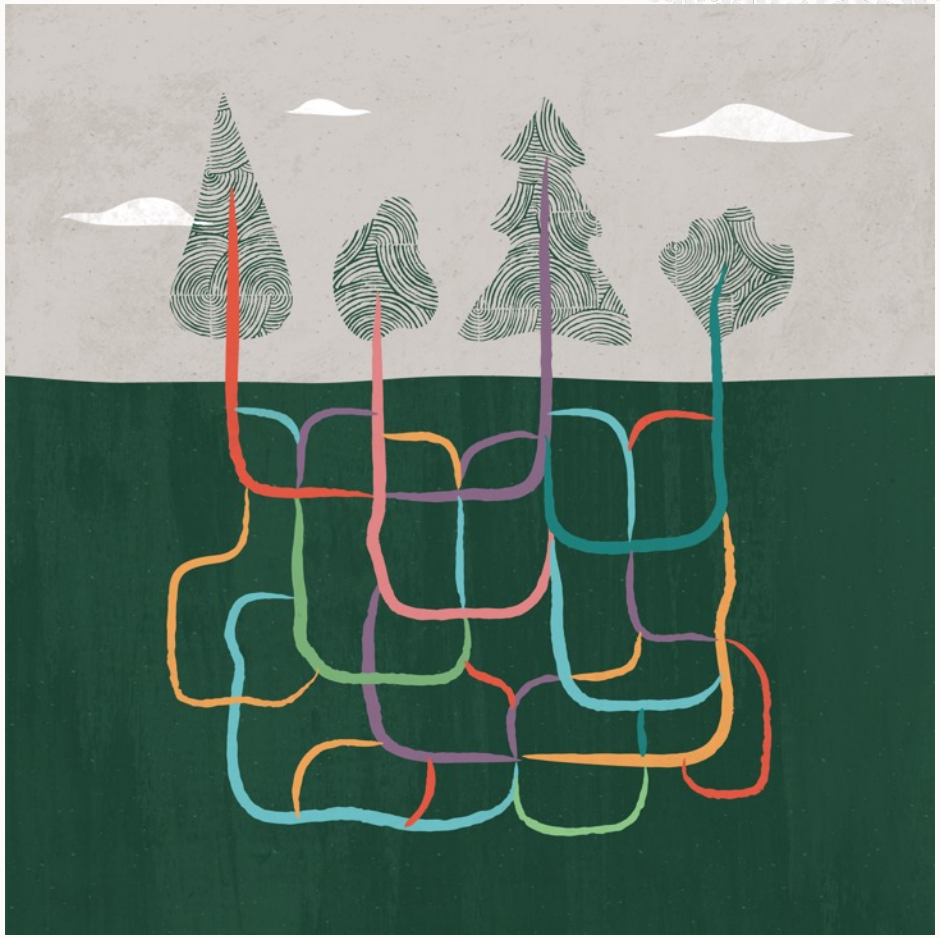
- Day 1 and Day 2 automated management
  - Flexible application lifecycle management
  - Enhanced observability, pre-wired and pre-configured
  - Reliability, scalability
- WebLogic, Coherence, Helidon, GraalVM

Microservices/polyglot/any container workload

Security best practices out of the box

Multi Cluster/Multi Cloud/Cloud neutral

- Can run on premises or on any cloud



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Workload Management Across Environments + Integrated, Pre-Wired Observability + Application Lifecycle Management + Integrated Security + Multi-Cluster Infrastructure Management

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verrazzano

Traditional Applications

Java Microservices

Polyglot Microservices

Kubernetes	Kubernetes	Kubernetes
Public Cloud	Private Cloud	Multi-Cloud

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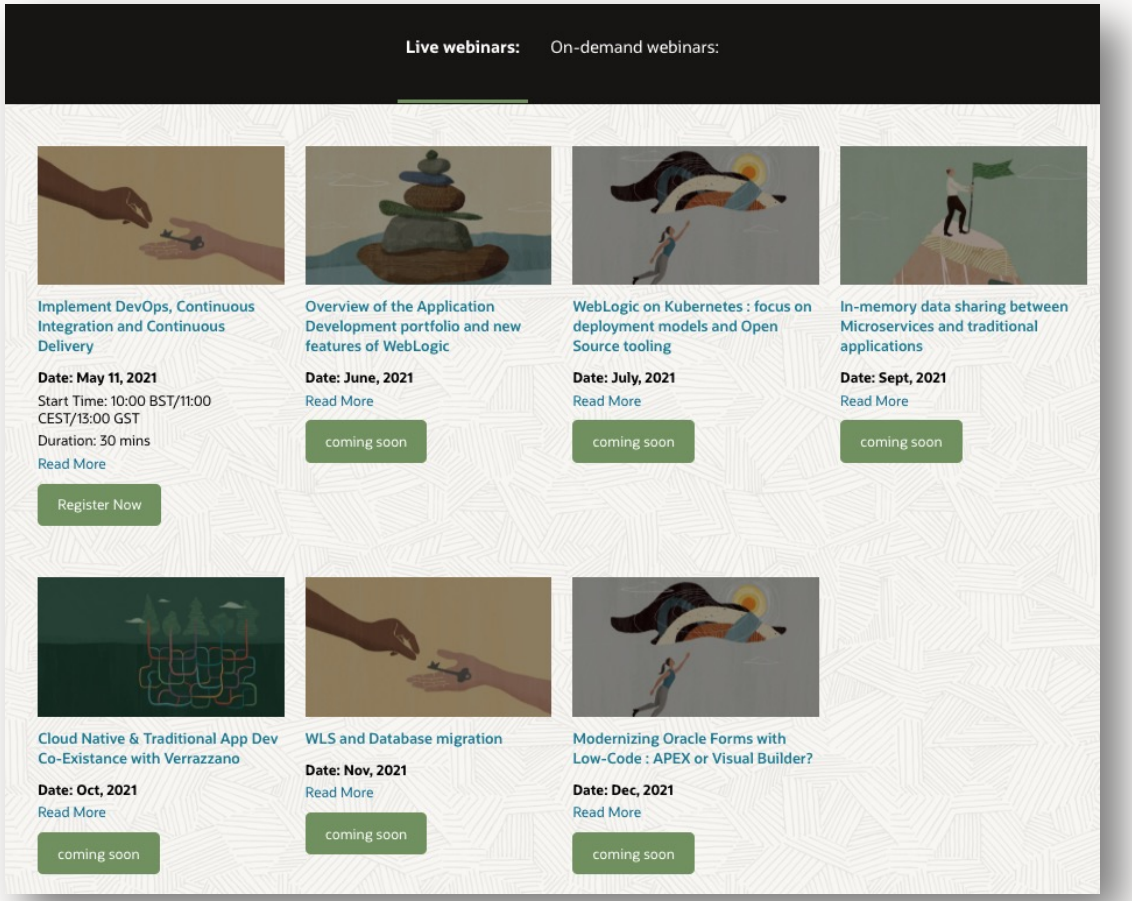
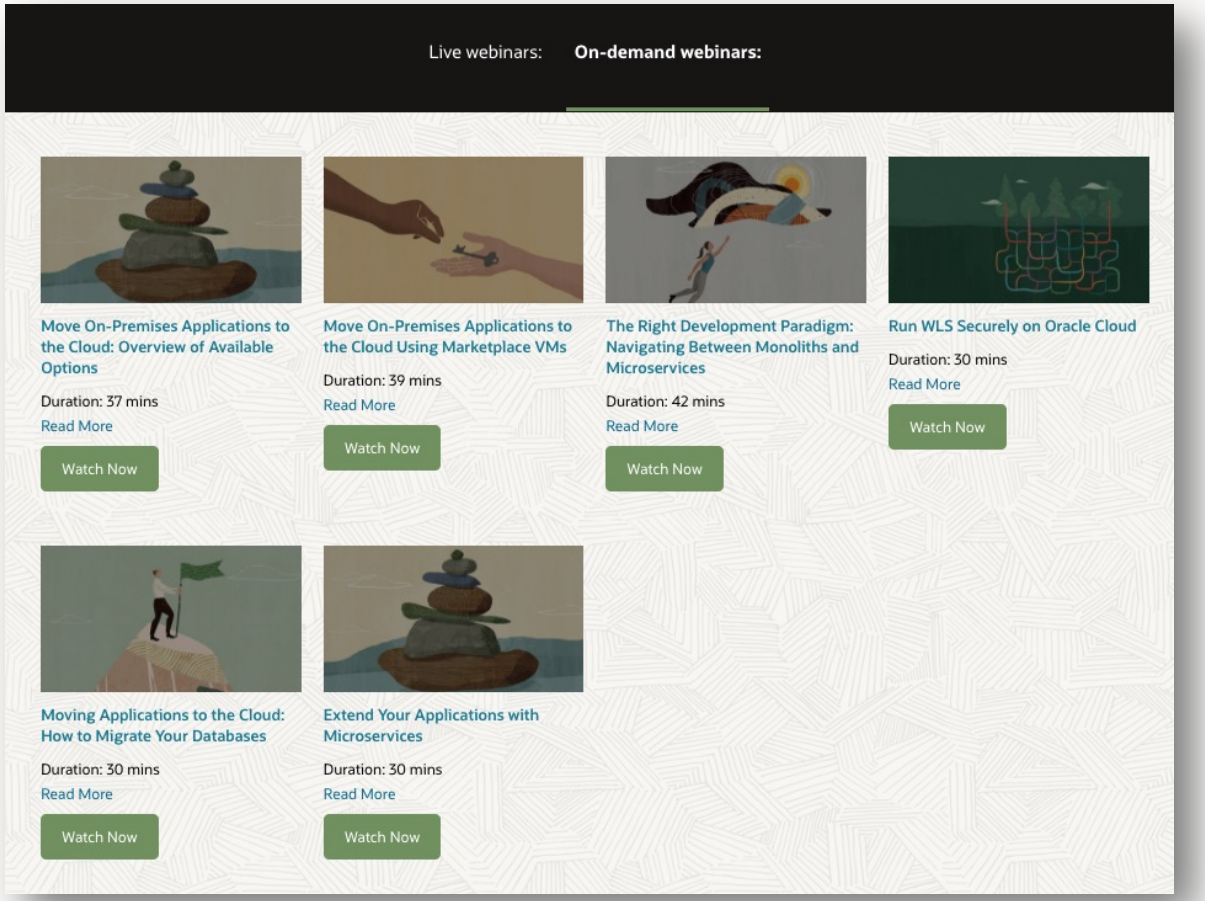
Upcoming Events : http://bit.ly/AppDevWebcast

Modernise WebLogic Webinars





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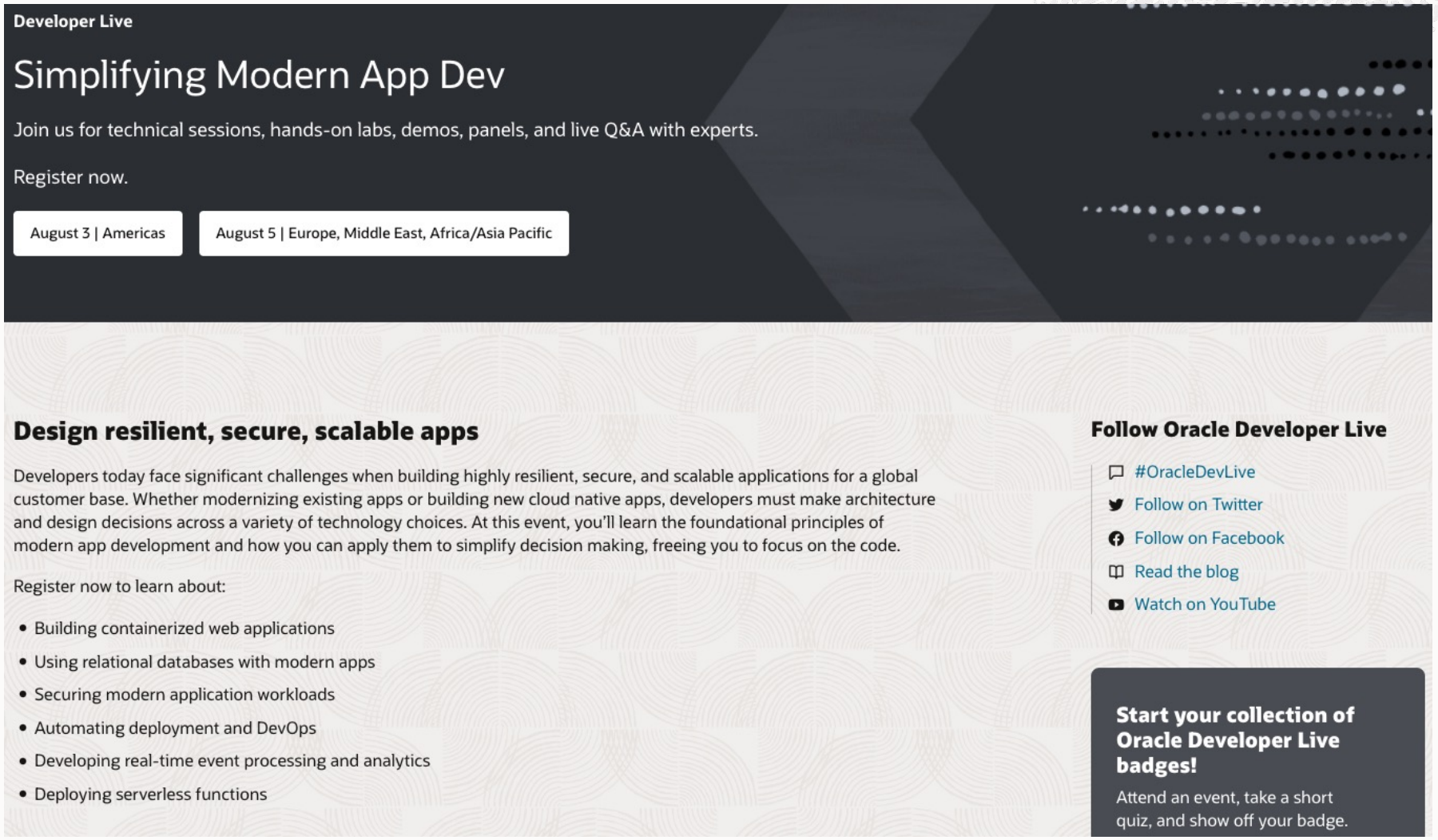
Developer Live : Simplifying Modern App Dev

https://developer.oracle.com/developer-live/simplifying-modern-app-dev/



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Q & A

Thank You!

Sid Joshi

EMEA Director
Cloud Strategy & OCI Centre of Excellence

www.linkedin.com/in/sid-joshi
@SidJoshi_uk

Jan Leemans

EMEA Director
Technology Software Engineering

www.linkedin.com/in/janleemans1
@JanLeemans

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