Oracle Exalogic Elastic Cloud 2014 Implementation Essentials Exam Study Guide

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Objective & Audience

Objective
Help you prepare to take the Oracle Exalogic Elastic Cloud 2014 Implementation Essentials (1Z0-491) Exam by providing pointers to resources that you can use in your preparation.

Targeted Audience

• Technical Consultants who can install, design, configure, deploy, administer, troubleshoot and maintain Exalogic Elastic Cloud systems.
• Candidates must also have knowledge of general infrastructure topics like networking and storage.
• Up-to-date Exalogic Elastic Cloud X3-2 product training is strongly recommended.
Exam Topics & Objectives

Exam Topics
The Oracle® Exalogic Elastic Cloud 2014 Implementation Essentials exam consists of eleven topics:

1. Exalogic Fundamentals
2. Introduction to Virtual Data Centers
3. Fusion Middleware Fundamentals
4. Storage Configuration
5. Network Configuration
6. User and Account Management
7. Virtual Network Management
8. Virtual Storage Management
9. Virtual Server Management
10. Virtual Server Templates
11. Traffic Director Fundamentals
Exam Objectives

The exam objectives are defined by learner or practitioner level of knowledge:

- **Learner-level:** questions require the candidate to recall information to determine the correct answer.

  Example: Define the term network.

- **Practitioner-level:** questions require the candidate to derive the correct answer from the application of their knowledge, which can only be attained by extensive experience with the product.

  Example: The client requests xyz functionality, would you recommend a, b or c?
Training Options

For each exam topic there have been identified alternative training options that are available at Oracle. The training options are divided into three categories:

• **Boot Camps**
  The Boot Camps are designed as a "jump start" training to enhance your skills by providing role-based training on industry-leading Oracle solutions and services. The boot camps are built as concise, intensive, and real-time training to give partners a competitive advantage as they prepare to build powerful solutions for their own customer base. Partners can choose to attend these boot camps in class or in a live virtual class format to maximize the effectiveness and the time allocated to training.

• **Instructor-Led Training (delivered by Oracle University)**
  Partners can take any publicly-scheduled Oracle University courses at steep discounts. Benefit from hands on experience to gain real working skill and work toward Oracle certifications.

• **Online Training**
  Oracle Partners are entitled free access to the Oracle Knowledge Center (OUKC), a vast library of recorded product courses. New courses are regularly added to the library, providing partners with the latest information and training to master new products or to increase proficiency on the new releases.

  **OPN Competency Center** is an intelligent training tool that allows partners to manage their Oracle training with role-focused guided learning paths and measure their achievement toward Specialization:
Topic 1: Exalogic Fundamentals

Objectives

- Explain major features of Exalogic
- Describe Exalogic’s hardware and software
- Describe components of an Exalogic rack
- Compare available hardware packages
- Describe WebLogic Server optimizations for Exalogic
- Describe the key differences between physical and virtual Exalogic environments

Training Options

- **Boot Camps**
  - OPN Only Oracle Exalogic Elastic Cloud 2014 Implementation Boot Camp – Coming Soon

- **Instructor-Led Training**
  - Oracle Exalogic Elastic Cloud 2.0: System Administration New
  - Oracle Exalogic Elastic Cloud 2.0: Cloud Management New

- **Online Training**
  - OPN Competency Center

Sample Questions

- How many solid-state disks does each Exalogic compute node contain?
  - A. 2
  - B. 6
  - C. 1
  - D. 4

- Which four software components have been specifically optimized to run on the Exalogic hardware?
  - A. WebLogic Server
  - B. Coherence
  - C. Enterprise Manager
  - D. Oracle Database
  - E. Oracle VM
  - F. Tuxedo
Topic 2: Introduction to Virtual Data Centers

Objectives

• Describe benefits of Virtualization and Cloud Computing
• Describe Exalogic's Cloud Architecture and Life Cycle Management
• Describe Several Exalogic Cloud Roles
• Explain the capabilities of Exalogic Control
• Install the Exalogic Control
• Describe a Typical Cloud Provisioning Workflow

Level

Training Options

• Boot Camps
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• Instructor-Led Training
  – Oracle Exalogic Elastic Cloud 2.0: Cloud Management New

• Online Training

• OPN Competency Center

Sample Questions:

• Name three tabs in the Virtual Data Center dashboard.
  A. Network
  B. Storage
  C. Server pools
  D. Actions
  E. Deployment
  F. Domains

• In a reference Exalogic topology, all compute nodes _____.
  A. use locally installed application binaries for execution
  B. are subdivided using InfiniBand partitions based on the application deployment topology
  C. remotely access software binaries installed on the shared Sun ZFS storage
  D. use SDP for all interprocess communication
Topic 3: Administration & Configuration

Objectives

• Describe an Exalogic configured environment
• Describe WebLogic’s domain architecture
• Scale the deployment topology
• Configure the web tier to proxy for a cluster
• Enable WebLogic Server optimizations for Exalogic
• Configure WebLogic Server to access Exadata

Level

Learner

Practitioner

Training Options

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• Instructor-Led Training
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  – Oracle Learning Library – Exalogic Elastic Cloud Demonstrations

• OPN Competency Center

Sample Questions:

• Managed servers in a cluster _____.
  A. Must all reside in the same domain because you cannot split a cluster over multiple domains
  B. Can have different deployments from their peers
  C. Must all be deployed on the same operating system
  D. Must be able to communicate with the node manager in order for clustering to function properly

• In a WebLogic domain running on Exalogic, which two statements below are true?
  A. Each domain requires its own dedicated node manager.
  B. On Exalogic, the node manager can automatically be started using xinetd.
  C. Each compute node hosting a WebLogic server or a Coherence server runs an instance of Node Manager.
  D. A node manager is not required for life cycle management on Exalogic because the Exalogic Elastic Cloud Software provides all scaling functionality.
Topic 4: Storage Configuration

Objectives

• List major storage appliance capabilities
• Describe storage/server head clusters
• Describe the backup and disaster recovery capabilities of Exalogic
• Perform basic administration and maintenance tasks
• Configure appliance access services
• Create pools, projects and shares
• Mount a shared file system using NFS
• Configure NIS on Exalogic to support NFS v4

Training Options

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Sample Questions:

• Select the location where server transaction logs should be stored in an Exalogic machine.
  A. Local storage on one of the compute nodes hosting managed servers in the WebLogic cluster
  B. Local storage on all of the compute nodes hosting managed servers in the WebLogic cluster
  C. A location on the shared storage appliance that is accessible to compute nodes hosting all managed servers in the WebLogic cluster
  D. A location on the shared storage appliance that is accessible to at least one of the compute nodes hosting managed servers in the WebLogic cluster

• Which are true about the ZFS storage appliance used in Exalogic? (choose two)
  A. It offers both graphical and command-line interfaces.
  B. It includes 4 SSDs devoted to read cache.
  C. It includes no SAS HDD as it is completely supported by flash technology.
  D. It includes multiple disk shelves.
Topic 5: Network Configuration

Objectives

- Describe Exalogic’s highly available network
- Access InfiniBand switch from the command line
- Compare various InfiniBand communication methods
- Describe the purpose of bonded network interfaces or IPMP groups
- Isolate application networks using VLAN, IB Partitions, subnets
- Describe the different types of networks in Exalogic
- Identify and set up IPoIB and EoIB network interfaces
- Monitor the InfiniBand fabric from the command line
- Create and configure floating IPs, virtual network interfaces and IPMP groups
- Create and set up Solaris zones

Training Options

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- **Online Training**

- **OPN Competency Center**

Sample Questions:

- In a single Exalogic machine rack, the Sun Datacenter InfiniBand Switch 36 is used for _____.
  A. connecting leaf switches together
  B. connecting multiple racks
  C. providing HA benefits
  D. improving the performance of the InfiniBand fabric

- Which statement is true about a zone’s default network interfaces when a zone is configured?
  A. The IPoIB network interface is configured as an IPMP group.
  B. The EoIB network interface is configured as an IPMP group.
  C. The management network is configured as an IPMP group.
  D. None of the interfaces are configured as IPMP groups.
Topic 6: User and Account Management

Objectives

- Integrate Exalogic Control with a Directory Server  
- Create Cloud Administration Users  
- Control Administrative Privileges  
- Create Cloud Users  
- Define Virtual Data Center Accounts  
- Monitor Resource Usage for an Account

Level

Practitioner  
Practitioner  
Practitioner  
Practitioner  
Learner  
Practitioner

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Sample Questions:

- Identify three account resources where you can set a limit?
  - A. Number of Cloud User Accounts  
  - B. CPU  
  - C. Memory  
  - D. Storage
Topic 7: Virtual Network Management

Objectives

- Describe Exalogic network fabrics
- Compare public and private virtual networks
- Create public and private vNets
- Monitor custom vNets

Training Options

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- OPN Competency Center

Sample Questions:

- What three actions can a Cloud user perform with virtual networks management?
  - A. Allocate a vIP to a vServer
  - B. Update a public network
  - C. Create a private network
  - D. Assign a partition key to a private network
  - F. View the allocated vIPs in their account
Topic 8: Virtual Storage Management

Objectives

- Explain Exalogic's virtual storage architecture
- Create and initialize a storage volume
- Attach a volume to a virtual server
- Capture a volume snapshot

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Sample Questions:

- Name three options to create a volume.
  
  A. Create a volume from an existing ZFS storage share
  B. Create a new empty volume
  C. Create a volume from a snapshot
  D. Import volume from another location in a file of the format .img.
  E. Import volume from another location in a file of the format .vol.
Topic 9: Virtual Server Management

Objectives

- Explain Exalogic’s virtual server architecture
- Enumerate vServer concepts Including over-subscription and High Availability
- Compare vServer types and templates
- Create a custom vServer type
- Start and Stop vServers
- Distribute vServers across multiple nodes

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- **Boot Camps**
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- **Instructor-Led Training**
  - [Oracle Exalogic Elastic Cloud 2.0: Cloud Management New](#)

- **Online Training**
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- **OPN Competency Center**

Sample Questions:

- Which three actions can a Cloud user perform to manage a vServer?
  
  A. **Start and stop a vServer**
  B. Increase the number of vCPUs for a vServer
  C. **Shutdown all vServers in their account**
  D. Change the IP address of a vServer
  E. **Attach a volume to a vServer**
  F. Create a template from a vServer
Topic 10: Virtual Server Templates

Objectives

- Explain the need for custom templates
- Clone an existing template
- Convert a vServer to a template
- Modify virtual disk contents
- Use the ModifyJeOS tool
- Upload a template to Exalogic Control

Training Options

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- Identify three changes that you can perform to a vServer template with the modifyjeos tool.

A Cloud user can create a shared volume from which three types of disk created as snapshots?

A. Resize the JVM heap
B. **Resize the root file system,**
C. Resize the swap space
D. Add an OS user
E. **Add an RPM**
Topic 11: Traffic Director Fundamentals

Objectives

- Describe the relationships between nodes, configurations, and instances
- Install OTD and create admin nodes
- Start and Stop nodes and instances
- Configure virtual servers and routing rules
- Configure a WLS origin server pool
- Configure and locate log files
- Define OTD failover groups
- Optimize OTD for Exalogic deployments

Training Options

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Sample Questions:

- Which describes the relationship between a Traffic Director node, configuration and instance?
  
  **A. An instance is a configuration that is deployed to a node**
  
  **B. A node is an instance of one or more configurations**
  
  **C. An instance is a component of a node's configuration**
Exam Registration

• **How to register for the exam?**
  You can register for all Oracle certification exams with Pearson VUE. Before a registration can be submitted, a Pearson VUE profile must be created using your Company ID. Your Company ID can be obtained by contacting your local Oracle Partner Business Center or by signing in to your OPN account. Your Company ID is located in the section on the right under "Company information".

  Please follow these instructions in order to properly set-up your Pearson VUE account for the first time.

• **Have you completed an Oracle Certification Exam in the past?**
  Due to systems enhancements, each partner who has completed an Oracle Certification Exam will need to update their Pearson VUE profile in order to receive credit and for those records to appear in the OPN Competency Center.

• **How to get full recognition as Certified Implementation Specialist?**
  To get full recognition as a Certified Implementation Specialist you need to:
  A. Update your Pearson VUE profile with your Company ID
  B. Activate your Certview Account

  Please follow these instructions and your records will be properly recorded.
SOFTWARE. HARDWARE. COMPLETE.