Oracle Linux 6 Implementation Essentials Exam Study Guide

Manish Kapur
Senior Manager, Systems Partner Enablement
WWA&C Partner Enablement
Objective & Audience

Objective
Help you prepare to take the Oracle Linux 6 Implementation Essentials (1Z0-460) Exam by providing pointers to resources that you can use in your preparation.

Targeted Audience

- Technical Consultants
- Systems Integrators
- Functional Implementers
- Strong foundation and expertise in implementing Linux based solutions
- Candidates must also have knowledge of general infrastructure topics like networking and storage
- Up-to-date training and field experience are recommended
Exam Topics & Objectives

Exam Topics
The Oracle Linux 6 Implementation Essentials exam consists of twelve topics:

1. Introduction to Oracle Linux
2. Installing Oracle Linux 6
3. Linux Boot Process
4. Oracle Linux System Configuration and Process Management
5. Oracle Linux Package Management
6. Ksplice Zero Downtime Updates
7. Automate tasks and System Logging
8. User and Group Administration
9. Oracle Linux File Systems and Storage Administration
10. Network Administration
11. Basic Security Administration
12. Oracle Linux System Monitoring and Troubleshooting
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: Introduction to Oracle Linux

Objectives

- Describe the Oracle Linux Product
- Describe the relationship between Oracle Linux and Red Hat Enterprise Linux (RHEL)
- Describe Oracle Linux strategy and Oracle’s commitment to Linux
- Describe Oracle's Unbreakable Enterprise Kernel
- Describe the key differences between Unbreakable Enterprise Kernel and Red Hat Compatible Kernel

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration

- Boot Camp
  - Oracle Linux 6 Implementation

- Online Training
  - Oracle Linux 6: Product Overview
  - Oracle Linux 6: Essentials for Pre-Sales and Consultants

Sample Questions:

Which two statements are true about the Oracle’s Unbreakable Enterprise Kernel (UEK)?

a) To use UEK, you need to upgrade to Oracle Linux 6 operating system
b) Both Oracle Linux 5 and Oracle Linux 6 ship with UEK
c) UEK is certified only for use with Oracle Server systems
d) UEK is based on the mainline Linux kernel
Topic 2: Installing Oracle Linux 6

Objectives

- Describe how to obtain Oracle Linux Operating System software
- Describe Oracle Linux Install options
- Describe automating installs with kickstart
- Perform an installation of Oracle Linux 6
- Perform post installation steps and verification
- Describe all key Oracle Linux related sites like edelivery, ULN, oss, public-yum etc.

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration

- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

Which two options are available as the boot menu options during installation of Oracle Linux?

- a) Install or upgrade an existing system
- b) Run media test on the hard drive
- c) Rescue installed system
- d) Format the hard drive
Topic 3: Linux Boot Process

Objectives

- Describe the Linux boot process
- Configure the GRand Unified Bootloader (GRUB) bootloader
- Configure kernel boot parameters
- Boot different kernels (Red Hat Compatible Kernel and Unbreakable Enterprise Kernel)
- Describe the /sbin/init program, Linux runlevels and runlevel scripts
- Examine the /etc/rc.d directory

Level

Learner
Practitioner
Practitioner
Learner
Practitioner

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration

- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

Which two directives are present for a valid bootable kernel entry in the grub configuration file?

a) Title
b) Install
c) Ramdisk
d) Kernel
Topic 4: Oracle Linux System Configuration and Process Management

Objectives

• Describe the /etc/sysconfig directory
• Examine the /proc file system
• Describe the sysfs file system
• Use the sysctl utility
• Display and change the current values of kernel parameters using sysctl
• Use the ulimit command and the set parameters
• Find and control running programs with ps, top, kill, and nice
• Use the jobs, fg and bg commands to view and access several tasks

Training Options

• Instructor-Led Training
  – Oracle Linux System Administration

• Boot Camp
  – Oracle Linux 6 Implementation

Sample Questions:

You have to determine the CPU information of your Oracle Linux system. Which file can you examine to find this information?

a) /proc/cpu
b) /proc/processors
c) /proc/cpuinfo
d) /proc/sysinfo
Topic 5: Oracle Linux Package Management

Objectives

- Describe Oracle Linux package management
- Use the RPM utility
- Describe the Oracle Public YUM Server
- Describe and configure YUM repositories
- Use the YUM utility
- Describe the Unbreakable Linux Network (ULN)
- Switch from Red Hat Network (RHN) to ULN
- Install the Oracle RDBMS Server 11gR2 Pre-install RPM package for Oracle Linux 6
- Set up a local YUM repository

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration

- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

What are the two repositories that can be used to obtain Oracle Linux packages?

a) Oracle OTN server
b) Oracle public yum server
c) ULN
d) RHN
Topic 6: Ksplice Zero Downtime Updates

Objectives

- Describe the purpose of Ksplice
- Describe the benefits of Ksplice
- Describe how Ksplice works
- Configure and use Ksplice
- Manage Ksplice systems

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration
- Boot Camp
  - Oracle Linux 6 Implementation
- Online Training
  - Getting Started with Ksplice Zero Downtime Updates

Sample Questions:

Which Ksplice command below can you use to install Ksplice updates?

a) update-ksplice
b) uptrack --install
c) yum
d) uptrack-upgrade
Topic 7: Automate tasks and System Logging

Objectives

• Describe available automated tasks utilities
• Configure cron jobs and use crontab utility
• Configure anacron jobs
• Observe contents of rsyslog configuration file
• Describe rsyslog actions and templates
• Configure rsyslog to log debug messages

Training Options

• Instructor-Led Training
  – Oracle Linux System Administration

• Boot Camp
  – Oracle Linux 6 Implementation

Sample Questions:

Which command can you use to schedule a recurring job on Oracle Linux?

a) at
b) batch
c) cron
d) system-scheduler
Topic 8: User and Group Administration

Objectives

- Create users and groups
- Create users and groups using command-line utilities
- Use the id command to verify user information and manually review passwd and group files
- Configure password aging
- Use the User Manager GUI tool
- Describe LDAP and NIS authentication options
- Perform basic Pluggable Authentication Modules (PAM) configuration and configure LDAP authentication

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration
- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

Which of the following statements are true for user accounts created on Oracle Linux?

a) User account information is stored in /etc/passwd file
b) User password aging information is stored in /etc/passwd file

c) Default settings for a new user are stored in /etc/default/useradd file

d) User password aging can be configured using chpasswd command
# Topic 9: Oracle Linux File Systems and Storage Administration

## Objectives

- Describe disk partitioning and disk partitioning utilities
- Describe supported file system types (ext2, ext3, ext4, Vfat, btrfs, ocfs2, nfs)
- Perform file system creation, mounting and maintenance
- Manage swap space
- Use archiving and compression tools like tar, cpio, zip and gzip
- Describe ASMLib package
- Describe Clusterware add-on package

## Level

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## Training Options

- **Instructor-Led Training**
  - Oracle Linux System Administration

- **Boot Camp**
  - Oracle Linux 6 Implementation

## Sample Questions:

You have made changes to the partition table of your Oracle Linux system. Which command can you use to make the operating system re-read the partition table?

a) diskprobe  
b) sysctl  
c) cfdisk  
d) partprobe
Topic 10: Network Administration

Objectives

- Describe network interface configuration files
- Use command line network interface utilities
- Use the NetworkManager tool to configure network connections
- Use the system-config-network utility
- Examine files in /etc/sysconfig/network-scripts
- Set up bonding
- Set up a VLAN and a bonded VLAN
- Configure Iptables and routing

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration
- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

Which of the following commands can be used to display the routing table of your Oracle Linux system?

a) routeinfo
b) ifconfig -a

c) netstat -r

d) showroute
Topic 11: Basic Security Administration

Objectives

- Describe SELinux modes, policies, booleans, and contexts
- Enable and disable SELinux configuration
- Manage access to system services using Service configuration tool
- Use the Firewall configuration tool
- Configure iptables rules
- Verify Common Vulnerabilities and Exposures (CVE) security updates are up to date

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration
- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:
You have been asked to check the status of SELinux on your Oracle Linux system. Which two commands can you use to check the status of SELinux?

a) sestatus
b) getenforce
c) selstatus
d) chkconfig --list selinux
Topic 12: Oracle Linux System Monitoring and Troubleshooting

Objectives

- Use OSWatcher tool and configure to start at boot time
- Use sosreport
- Use sar, strace, iostat, tcpdump and ethereal tools
- Use vmstat and top
- Describe DTrace tool
- Set up kdump / netconsole
- Verify proper creation of vmcore by kdump using crash
- Describe OS management capabilities of both EM Ops Center and EM management for Oracle Linux

Training Options

- Instructor-Led Training
  - Oracle Linux System Administration

- Boot Camp
  - Oracle Linux 6 Implementation

Sample Questions:

You need to look at the performance statistics of all CPUs on your Oracle Linux system. Which command can you use to collect this data?

a) cpustat  
b) mpstat  
c) vmstat  
d) psrinfo
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.