

CompTIA

Exam Questions XK0-006

CompTIA Linux+ Exam



NEW QUESTION 1

Which of the following is a protocol for accessing distributed directory services containing a hierarchy of users, groups, machines, and organizational units?

- A. SMB
- B. TLS
- C. LDAP
- D. KRB-5

Answer: C

Explanation:

Directory services are a key part of enterprise Linux environments and are covered under the Security domain in Linux+ V8. The Lightweight Directory Access Protocol (LDAP) is specifically designed to access and manage distributed directory information. LDAP directories store structured, hierarchical data such as users, groups, computers, and organizational units. Linux systems commonly use LDAP for centralized authentication, authorization, and identity management. LDAP is also the foundation for services like Active Directory and FreeIPA. The other options are incorrect. SMB is a file and printer sharing protocol. TLS is an encryption protocol used to secure communications. Kerberos (KRB-5) is an authentication protocol often used alongside LDAP but does not store directory information itself. Linux+ V8 documentation highlights LDAP as the primary protocol for directory-based identity services. Therefore, the correct answer is C.

NEW QUESTION 2

A systems administrator is reconfiguring existing user accounts in a Linux system. Which of the following commands should the administrator use to include "myuser" in the finance group?

- A. groupadd finance myuser
- B. groupmod finance myuser
- C. useradd -g finance myuser
- D. usermod -aG finance myuser

Answer: D

Explanation:

Comprehensive and Detailed Explanation: From Exact Extract:
To add an existing user (myuser) to an existing group (finance) without removing them from other groups, the correct command is usermod -aG finance myuser. The -aG option appends the user to the supplementary group (s) specified.
Other options:

- A. groupadd is for creating new groups, not adding users to groups.
- B. groupmod is for modifying group properties, not user membership.
- C. useradd creates new users; not applicable to existing users.

Reference:

CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 6: "User and Group Management", Section: "Modifying Group Membership"
CompTIA Linux+ XK0-006 Objectives, Domain 1.0: System Management

=====

NEW QUESTION 3

A Linux administrator needs to create and then connect to the app-01-image container. Which of the following commands accomplishes this task?

- A. docker run -it app-01-image
- B. docker start -td app-01-image
- C. docker build -ic app-01-image
- D. docker exec -dc app-01-image

Answer: A

Explanation:

Comprehensive and Detailed 250 to 350 words of Explanation: From Linux+ V8 documents:
Container lifecycle management is a core topic within the Automation, Orchestration, and Scripting domain of CompTIA Linux+ V8. Administrators must understand the difference between creating containers, starting containers, and executing commands within running containers. The correct command is docker run -it app-01-image. The docker run command performs three actions at once: it creates a new container from the specified image, starts the container, and optionally attaches the administrator's terminal to it. The -i option keeps standard input open, while the -t option allocates a pseudo-terminal (TTY). Together, these options allow the administrator to interactively connect to the container immediately after it is created. The other options are incorrect for the following reasons. docker start is used only to start an existing stopped container and does not create a new container from an image. Additionally, -t and -d are not valid options for attaching an interactive terminal during container startup. docker build is used to build a Docker image from a Dockerfile and cannot be used to create or connect to a container. docker exec is used to run commands inside an already running container and therefore cannot be used to create a container. Linux+ V8 documentation emphasizes that docker run is the primary command used when administrators want to instantiate containers from images and interact with them. This command is commonly used during testing, development, and troubleshooting workflows.

NEW QUESTION 4

A systems administrator is creating a backup copy of the /home/ directory. Which of the following commands allows the administrator to archive and compress the directory at the same time?

- A. cpio -o /backups/home.tar.xz /home/
- B. rsync -z /backups/home.tar.xz /home/
- C. tar -cJf /backups/home.tar.xz /home/

D. `dd of=/backups/home.tar.xz if=/home/`

Answer: C

Explanation:

Creating backups is a core responsibility in Linux system management, and the Linux+ V8 objectives emphasize proper use of archiving and compression tools. The tar utility is the standard Linux tool for creating archive files, and it also supports compression through various options.

The command `tar -cJf /backups/home.tar.xz /home/` correctly combines both archiving and compression in a single step. The `-c` option creates a new archive, `-J` specifies XZ compression, and `-f` allows the administrator to define the output file name. This results in a compressed archive of the entire `/home/` directory, which is efficient for storage and transfer.

The other options are incorrect. `cpio` is an archiving tool but does not perform compression by itself without additional commands or pipelines. `rsync -z` compresses data during transfer but does not create an archive file. The `dd` command performs low-level copying of raw data and is not suitable for directory-based backups.

Linux+ V8 documentation highlights tar as the preferred utility for filesystem backups due to its flexibility, reliability, and support for multiple compression algorithms. Therefore, the correct answer is C.

NEW QUESTION 5

Which of the following most accurately describes a webhook?

- A. An authentication method for web-server communication
- B. An SNMP-based API for network device monitoring
- C. A means to transmit sensitive information between systems
- D. An HTTP-based callback function

Answer: D

Explanation:

Webhooks are commonly used in automation and DevOps workflows, which are emphasized in the Linux+ V8 objectives. A webhook is best described as an HTTP-based callback mechanism that allows one system to notify another when a specific event occurs.

Option D correctly defines a webhook. Instead of polling an API at regular intervals, a webhook allows an application to automatically send an HTTP request—typically a POST—to a predefined URL when an event happens. This makes webhooks efficient, event-driven, and well-suited for automation pipelines, CI/CD systems, and monitoring integrations.

The other options are incorrect. Option A confuses webhooks with authentication mechanisms. Option B incorrectly associates webhooks with SNMP, which is a separate protocol. Option C is misleading because webhooks are not inherently designed for transmitting sensitive data and require additional security measures such as TLS and authentication.

Linux+ V8 documentation highlights webhooks as a key integration method in automated environments, enabling systems to react in real time to changes or triggers.

Therefore, the correct answer is D.

NEW QUESTION 6

Which of the following best describes a use case for playbooks in a Linux system?

- A. To provide a set of tasks and configurations to deploy an application
- B. To provide the instructions for implementing version control on a repository
- C. To provide the security information required for a container
- D. To provide the storage volume information required for a pod

Answer: A

Explanation:

In the context of Linux automation and orchestration, playbooks are most commonly associated with configuration management tools such as Ansible, which is explicitly referenced in the CompTIA Linux+ V8 objectives. Playbooks are written in YAML and are designed to define a series of tasks, configurations, and desired system states that should be applied to one or more Linux systems in a repeatable and automated manner.

A primary use case for playbooks is application deployment and system configuration automation. Playbooks allow administrators to specify tasks such as installing packages, configuring services, managing users, setting permissions, deploying application files, and starting or enabling services. This aligns directly with option A, which accurately describes playbooks as a method to provide a set of tasks and configurations required to deploy an application consistently across environments.

The remaining options are not accurate representations of playbook functionality. Option B refers to version control implementation, which is handled by tools like Git and is not the purpose of playbooks themselves, although playbooks may be stored in version control systems. Option C describes container security information, which is typically managed through container runtime configurations, secrets, or security policies rather than playbooks. Option D refers to storage volume information for a pod, which is specific to Kubernetes manifests and not a general Linux playbook use case.

According to Linux+ V8 documentation, automation tools and playbooks help reduce human error, improve consistency, and support Infrastructure as Code (IaC) practices. Playbooks are a key mechanism for orchestrating multi-step operations across multiple systems, making them essential for modern Linux system administration.

Therefore, the correct answer is A, as it best describes the practical and documented use case for playbooks in a Linux system.

NEW QUESTION 7

A systems administrator needs to open the DNS TCP port on a Linux system from network 10.0.0.0/24. Which of the following commands should the administrator use for this task?

- A. `ufw allow dns/tcp to 10.0.0.0/24`
- B. `ufw enable 53/tcp from 10.0.0.0/24`
- C. `ufw allow 53/tcp from 10.0.0.0/24`
- D. `ufw disable from 10.0.0.0/24`

Answer: C

Explanation:

Firewall configuration is a key topic in the Security domain of CompTIA Linux+ V8. DNS primarily uses UDP port 53, but TCP port 53 is also required for zone transfers, large responses, and certain reliability scenarios. In this case, the administrator explicitly needs to allow DNS over TCP from a specific network.

The correct command is `ufw allow 53/tcp from 10.0.0.0/24`. This rule allows incoming TCP traffic on port 53 only from the specified subnet, following the principle

of least privilege. Linux+ V8 documentation emphasizes restricting firewall rules by source network whenever possible to minimize attack surfaces. Option A is incorrect because UFW service aliases like dns are not always guaranteed to map explicitly to TCP, and the syntax is incomplete. Option B is invalid because ufw enable is used to enable the firewall globally and does not define rules. Option D disables firewall protections and introduces a major security risk. Linux+ V8 best practices stress precise, minimal firewall rules instead of broad or disabling actions. Therefore, C is the correct and secure choice.

NEW QUESTION 8

An administrator added a new disk to expand the current storage. Which of the following commands should the administrator run first to add the new disk to the LVM?

- A. vgextend
- B. lvextend
- C. pvcreate
- D. pvresize

Answer: C

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

To add a new physical disk to LVM, the disk must first be initialized as a physical volume using the pvcreate command. This prepares the new disk for use by the LVM subsystem. After initializing with pvcreate, you would use vgextend to add the new physical volume to an existing volume group.

Other options:

* A. vgextend adds a physical volume to a volume group, but you must use pvcreate first.

* B. lvextend is used to increase the size of a logical volume, not to add a new disk.

* D. pvresize is used to resize an existing physical volume, not to create one.

[Reference: , CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 7: "Managing Storage", Section: "Managing Logical Volumes", CompTIA Linux+ XK0-006 Objectives, Domain 4.0: Storage and Filesystems, ,]

NEW QUESTION 9

Which of the following is a characteristic of Python 3?

- A. It is closed source.
- B. It is extensible through modules.
- C. It is fully backwards compatible.
- D. It is binary compatible with Java.

Answer: B

Explanation:

Python 3 characteristics are part of Linux+ V8 scripting objectives. One of Python's most important features is its modular and extensible architecture.

Option B is correct because Python 3 supports extensibility through modules and packages. Python includes a large standard library and allows developers to extend functionality using third-party modules or custom code. This makes Python highly adaptable for automation, system management, and DevOps tasks.

The other options are incorrect. Python is open source, not closed source. Python 3 is not fully backwards compatible with Python 2, which is a major distinction emphasized in Linux+ V8. Python is also not binary compatible with Java.

Linux+ V8 documentation highlights Python's extensibility as a key reason it is widely used in Linux automation. Therefore, the correct answer is B.

NEW QUESTION 10

A Linux systems administrator is running an important maintenance task that consumes a large amount of CPU, causing other applications to slow. Which of the following actions should the administrator take to help alleviate the issue?

- A. Increase the available CPU time with pidstat.
- B. Lower the priority of the maintenance task with renice.
- C. Run the maintenance task with nohup.
- D. Execute the other applications with the bg utility.

Answer: B

Explanation:

Process scheduling and resource management are essential Linux administration skills covered in Linux+ V8. When a process consumes excessive CPU resources, it can negatively impact overall system performance.

The correct solution is to lower the priority of the CPU-intensive task using the renice command. Niceness values influence how much CPU time a process receives relative to others. Increasing the niceness value reduces the process's priority, allowing other applications to receive CPU resources more fairly.

Option B directly addresses the issue. The other options do not. pidstat monitors processes but does not modify CPU allocation. nohup allows a process to continue running after logout but does not affect scheduling priority. bg resumes a stopped job in the background but does not reduce CPU usage.

Linux+ V8 documentation explicitly references nice and renice for managing CPU contention. Therefore, the correct answer is B.

NEW QUESTION 10

A systems administrator wants to review the amount of time the NetworkManager service took to start. Which of the following commands accomplishes this goal?

- A. resolvectl
- B. journalctl
- C. systemctl daemon-reload
- D. systemd-analyze blame

Answer: D

Explanation:

System boot performance analysis is an important system management task included in Linux+ V8. When administrators need to determine how long services take to start during boot, systemd analysis tools are required.

The correct command is systemd-analyze blame. This command lists all systemd services and shows how long each one took to initialize during the boot process.

It is commonly used to identify slow-starting services that may impact system startup performance, including NetworkManager. The other options are incorrect. resolvectl is used for DNS resolution management and provides no service timing information. journalctl can display logs but does not provide a clear, summarized service startup timing report. systemctl daemon-reload only reloads systemd unit files and does not perform analysis. Linux+ V8 documentation explicitly references systemd-analyze blame as the correct tool for diagnosing service startup delays. Therefore, the correct answer is D.

NEW QUESTION 11

A Linux administrator is making changes to local files that are part of a Git repository. The administrator needs to retrieve changes from the remote Git repository. Which of the following commands should the administrator use to save the local modifications for later review?

- A. git stash
- B. git pull
- C. git merge
- D. git fetch

Answer: A

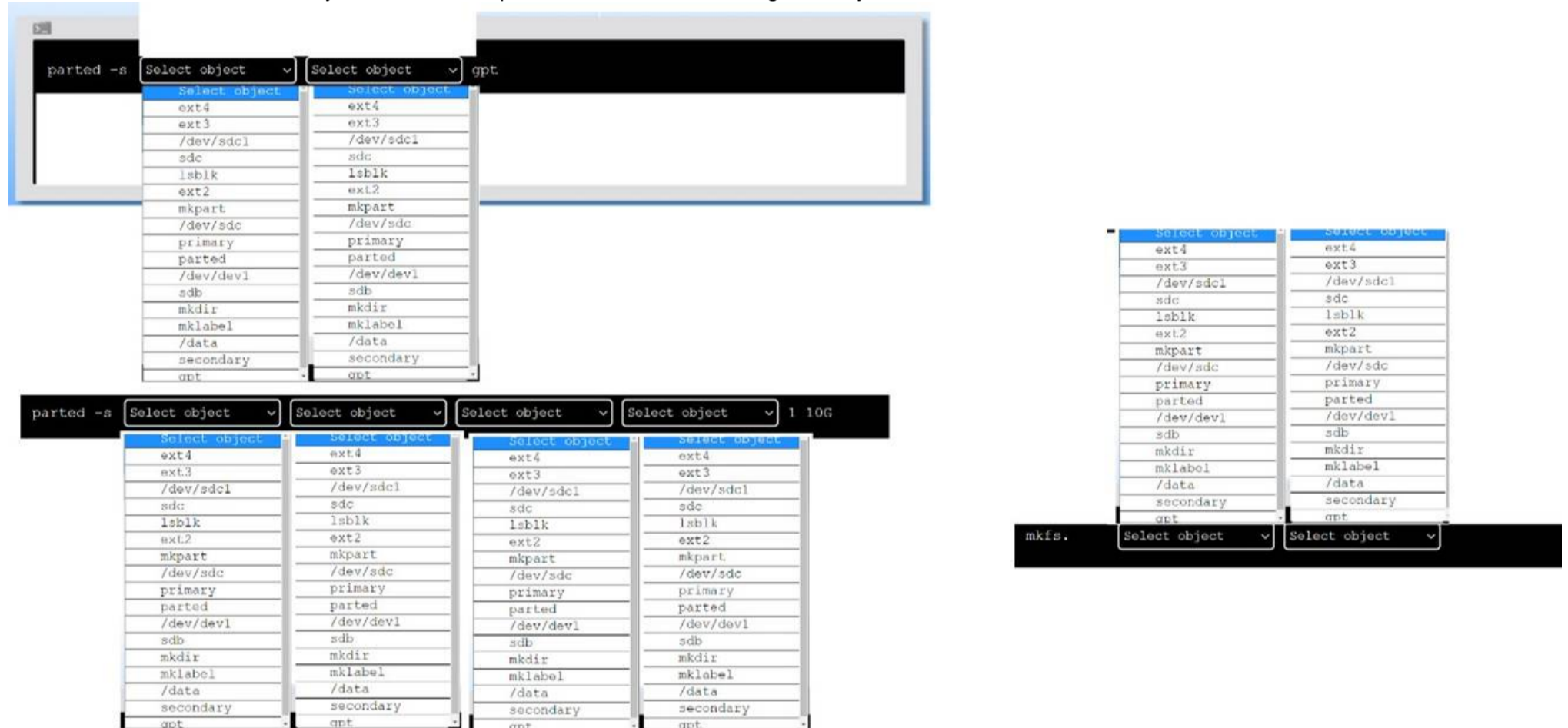
Explanation:

In Git-based workflows, especially those used in DevOps environments, it is common for administrators to have uncommitted local changes while needing to retrieve updates from a remote repository. Linux+ V8 emphasizes understanding how to safely manage local modifications during synchronization operations. The command git stash is specifically designed for this scenario. It temporarily saves (or ??stashes??) local changes in a stack-like structure and reverts the working directory to a clean state that matches the current HEAD. This allows the administrator to perform operations such as git pull without conflicts. Later, the stashed changes can be reapplied using git stash apply or git stash pop. The other options are incorrect. git pull retrieves and merges remote changes but will fail or cause conflicts if local modifications exist. git merge combines branches and does not save uncommitted changes. git fetch downloads remote references but does not address local working directory changes. Linux+ V8 documentation highlights git stash as a safe and reversible way to protect local work during repository updates. Therefore, the correct answer is A.

NEW QUESTION 12

A new drive was recently added to a Linux system. Using the environment and tokens provided, complete the following tasks:

- Create an appropriate device label.
- Format and create an ext4 file system on the new partition. The current working directory is /.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

To create an appropriate device label, format and create an ext4 file system on the new partition, you can use the following commands:
 To create a GPT (GUID Partition Table) label on the new drive /dev/sdc, you can use the parted command with the -s option (for script mode), the device name (/dev/sdc), the mklabel command, and the label type (gpt). The command is:
`parted -s /dev/sdc mklabel gpt`
 To create a primary partition of 10 GB on the new drive /dev/sdc, you can use the parted command with the -s option, the device name (/dev/sdc), the mkpart command, the partition type (primary), the file system type (ext4), and the start and end points of the partition (1 and 10G). The command is:
`parted -s /dev/sdc mkpart primary ext4 1 10G`
 To format and create an ext4 file system on the new partition /dev/sdc1, you can use the mkfs command with the file system type (ext4) and the device name (/dev/sdc1). The command is:
`mkfs.ext4 /dev/sdc1`
 You can verify that the new partition and file system have been created by using the lsblk command, which will list all block devices and their properties.

NEW QUESTION 15

A user states that an NFS share is reporting random disconnections. The systems administrator obtains the following information

```
#df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/mapper/fedora-
root           15G   15G   204K  100% /
devtmpfs        4.0M   0    4.0M   0%  /dev
tmpfs           2.0G   0    2.0G   0%  /dev/shm
tmpfs           783M   816K  782M   1%  /run
tmpfs           2.0G   0    2.0G   0%  /tmp
/dev/vda2       960M   481M  480M   51%  /boot
10.0.0.1:/nfsdata 4T    3.8T  200G   95%  /share

$ ip -s link show
2: enp1s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode DEFAULT group default qlen
link/ether 52:5a:00:f7:27:23 brd ff:ff:ff:ff:ff:ff
RX:  bytes      packets  errors  dropped  missed  mcast
    108487310  149198   9584    40721    0        0
TX:  bytes      packets  errors  dropped  carrier  collsns
    3015941    33656   12780    7854     0         0
```

Which of the following best explains the symptoms that are being reported?

- A. The mount point is incorrect for the NFS share.
- B. The IP address of the NFS share is incorrect.
- C. The filesystem is nearly full and is reporting errors.
- D. The interface is reporting a high number of errors and dropped packets.

Answer: D

Explanation:

This issue is best analyzed using a layered troubleshooting approach, as recommended in the Troubleshooting domain of CompTIA Linux+ V8. The reported symptom is intermittent or random disconnections from an NFS share, which commonly indicates a network reliability issue rather than a configuration or filesystem problem.

The most critical evidence comes from the output of `ip -s link show`. The network interface `enp1s0` is reporting significant numbers of errors and dropped packets on both the receive (RX) and transmit (TX) paths. High packet loss at the network interface level directly affects protocols like NFS, which rely on stable, continuous TCP/IP communication. When packets are dropped or corrupted, NFS clients may experience timeouts, retransmissions, and apparent disconnections. Although the `df -h` output shows that the NFS filesystem is 95% full, this alone does not typically cause random disconnections. A nearly full filesystem may lead to write failures or performance degradation, but it does not explain intermittent connectivity loss. Linux+ V8 documentation notes that filesystem capacity issues usually present as I/O errors, not transport-layer disconnects.

Options A and B can also be ruled out. If the mount point or IP address were incorrect, the NFS share would fail consistently rather than intermittently. The fact that the share is mounted and accessible confirms that the mount configuration and IP addressing are correct.

Linux+ V8 emphasizes that NFS performance and reliability are highly sensitive to network quality. Packet errors, drops, faulty NICs, cabling issues, duplex mismatches, or driver problems commonly result in unstable NFS behavior.

Therefore, the best Explanation for the reported random disconnections is D. The interface is reporting a high number of errors and dropped packets.

NEW QUESTION 18

A Linux administrator updates the DNS record for the company using:

```
cat /etc/bind/db.abc.com
```

The revised partial zone file is as follows:

```
ns1 IN A 192.168.40.251
```

```
ns2 IN A 192.168.40.252
```

```
www IN A 192.168.30.30
```

When the administrator attempts to resolve `www.abc.com` to its IP address, the domain name still points to its old IP mapping:

```
nslookup www.abc.com
```

```
Server: 192.168.40.251
```

```
Address: 192.168.40.251#53
```

```
Non-authoritative answer
```

```
Name: www.abc.com
```

```
Address: 199.168.20.81
```

Which of the following should the administrator execute to retrieve the updated IP mapping?

- A. `systemd-resolve query www.abc.com`
- B. `systemd-resolve status`
- C. `service nslcd reload`
- D. `resolvectl flush-caches`

Answer: D

Explanation:

This scenario represents a classic DNS troubleshooting situation covered in the Troubleshooting domain of the CompTIA Linux+ V8 objectives. Although the DNS zone file has been updated correctly on the BIND server, the system continues to resolve the domain name to an outdated IP address. This behavior strongly indicates DNS caching rather than a configuration error in the zone file itself.

Modern Linux systems that use `systemd-resolved` cache DNS responses locally to improve performance and reduce external queries. Even after a DNS record is updated on the authoritative server, cached results may persist until the cache expires or is manually cleared. The `nslookup` output showing a non-authoritative answer further confirms that the response is being served from a cache rather than directly from the updated zone data.

The correct solution is to flush the local DNS cache so the system can retrieve the updated record from the DNS server. The command `resolvectl flush-caches` clears all cached DNS entries maintained by `systemd-resolved`, forcing fresh queries to authoritative name servers. This aligns directly with Linux+ V8 documentation for resolving name resolution inconsistencies caused by stale cache entries.

The other options are incorrect for the following reasons. `systemd-resolve query www.abc.com` performs a DNS lookup but does not clear cached entries. `systemd-resolve status` only displays resolver configuration and statistics. `service nslcd reload` reloads the Name Service LDAP daemon and is unrelated to DNS resolution or caching.

Linux+ V8 emphasizes identifying whether issues originate from services, configuration, or cached data. In this case, flushing the DNS cache is the correct and least disruptive corrective action.
Therefore, the correct answer is D. resolvectl flush-caches.

NEW QUESTION 20

A systems administrator is writing a script to analyze the number of files in the directory /opt/application /home/. Which of the following commands should the administrator use in conjunction with ls -l | to count the files?

- A. less
- B. tail -f
- C. tr -c
- D. wc -l

Answer: D

Explanation:

Explanation

Comprehensive and Detailed Explanation From Exact Extract:

wc -l counts the number of lines of input provided to it, which is commonly used to count the number of files when used with ls -l (excluding the header line). For example, ls -l /opt/application/home/ | wc -l gives the total count of lines, which corresponds to the number of files and directories (including the total line at the top).

Other options:

- * A. less is a pager utility.
- * B. tail -f shows the end of a file in real time.
- * C. tr -c translates or deletes characters, not for counting lines.

Reference:

CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 4: "Working with the Command Line", Section: "Text Processing Commands"

CompTIA Linux+ XK0-006 Objectives, Domain 1.0: System Management

NEW QUESTION 22

A DevOps engineer made some changes to files in a local repository. The engineer realizes that the changes broke the application and the changes need to be reverted back. Which of the following commands is the best way to accomplish this task?

- A. git pull
- B. git reset
- C. git rebase
- D. git stash

Answer: B

Explanation:

Version control rollback operations are a core DevOps skill covered in the Linux+ V8 objectives. When changes in a local Git repository break an application and must be reverted, the administrator must choose a command that directly undoes those changes.

The command git reset is the most appropriate option in this scenario. It allows the engineer to move the current branch pointer (HEAD) to a previous commit, effectively discarding or undoing local changes. Depending on the reset mode (--soft, --mixed, or --hard), the engineer can control whether changes are preserved in the staging area or working directory. This flexibility makes git reset the primary tool for reverting problematic local changes.

The other options are not suitable. git pull fetches and merges changes from a remote repository and does not revert local modifications. git rebase rewrites commit history and is used to reapply commits on top of another base, not to undo broken changes. git stash temporarily saves uncommitted changes for later use but does not revert the repository to a stable state.

Linux+ V8 documentation emphasizes that git reset is commonly used during local development when changes need to be undone quickly before being shared with others. Therefore, the correct answer is B.

NEW QUESTION 24

Which of the following describes how a user's public key is used during SSH authentication?

- A. The user's public key is used to hash the password during SSH authentication.
- B. The user's public key is verified against a list of authorized key
- C. If it is found, the user is allowed to log in.
- D. The user's public key is used instead of a password to allow server access.
- E. The user's public key is used to encrypt the communication between the client and the server.

Answer: B

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

During SSH public key authentication, the server checks if the user's public key is present in the ~/.ssh

/authorized_keys file. If the key is found, the server uses it to verify the user's identity by sending a challenge that can only be answered by the corresponding private key. This process does not involve password hashing or using the public key directly for encryption of the communication stream. Instead, the public key is simply used as a reference for authentication.

Reference:

CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 11: "Securing Linux", Section: "SSH Key- Based Authentication"

CompTIA Linux+ XK0-006 Objectives, Domain 3.0: Security

=====

NEW QUESTION 26

A Linux administrator just finished setting up passwordless SSH authentication between two nodes. However, upon test validation, the remote host prompts for a password. Given the following logs:

```
-rw-----. 1 root root 588 Apr 3 2022 authorized_keys

avc: denied { read } for pid=xxxx comm="sshd" name="authorized_keys" dev="dm-5" ino=xxxx scontext=system_u:system_r:sshd_t:s0-s0:c0.c1
tcontext=unconfined_u:object_r:home_root_t:s0 tclass=file
[...]

SELinux status: enabled
SELinuxfs mount: /sys/fs/selinux
SELinux root directory: /etc/selinux
Loaded policy name: targeted
Current mode: enforcing
Mode from config file: enforcing
Policy MLS status: enabled
Policy deny_unknown status: allowed
Max kernel policy version: 31
```

Which of the following is the most likely cause of the issue?

- A. The SELinux policy is incorrectly targeting the unconfined_u context.
- B. The administrator forgot to restart the SSHD after creating the authorized_keys file.
- C. The authorized_keys file has the incorrect root permissions assigned.
- D. The authorized_keys file does not have the correct security context to match SELinux policy.

Answer: D

Explanation:

This issue is directly related to SELinux enforcement, which is a key topic in the Security domain of CompTIA Linux+ V8. The logs clearly indicate that SSH key-based authentication is failing due to an SELinux access control violation rather than a traditional file permission or SSH configuration problem. The most important clue is the AVC denial message, which shows that the sshd process is being denied read access to the authorized_keys file. The security context of the file is listed as unconfined_u:object_r:home_root_t:s0. Under a targeted SELinux policy, SSH is only permitted to read authorized_keys files that are labeled with the correct SELinux type, typically ssh_home_t. Because SELinux is running in enforcing mode, it actively blocks access that violates policy rules, even if standard UNIX permissions are correct. Although the file permissions (600) are acceptable for an authorized_keys file, SELinux does not rely solely on traditional permissions. The mismatch between the expected SELinux context and the actual context prevents sshd from accessing the file, causing SSH to fall back to password authentication. Option D correctly identifies the root cause: the authorized_keys file does not have the correct SELinux security context. This is a well-documented Linux+ V8 troubleshooting scenario, commonly resolved by restoring the correct context using commands such as restorecon or by ensuring the file resides in a properly labeled home directory. The other options are incorrect. Restarting sshd does not fix SELinux labeling issues. The policy itself is functioning as intended, and file ownership alone does not override SELinux access controls. Linux+ V8 documentation emphasizes that SELinux denials must be addressed by correcting file contexts rather than weakening security controls. Therefore, the correct answer is D.

NEW QUESTION 30

Users cannot access a server after it has been restarted. At the server console, the administrator runs the following commands;

```
$ ss -lnt
State Recv-Send- LocalAddress:Port PeerAddress:Port Process
      Q      Q
LISTEN 0    32    0.0.0.0:53    0.0.0.0:*
LISTEN 0   128    0.0.0.0:22    0.0.0.0:*
LISTEN 0  1024    0.0.0.0:443    0.0.0.0:*
LISTEN 0  4096    0.0.0.0:5355    0.0.0.0:*
LISTEN 0     5127.0.0.1:4711 0.0.0.0:*

$ sudo firewall-cmd --list-all
FedoraServer (active)
target: default
icmp-block-inversion: no
interfaces: enp3s0
sources:
services: cockpit dhcp dhcpv6-client dns dns-over-tls https
[...]

$ uptime
14:52:35 up 1 day, 3:08, 1 user, load average: 0.05, 0.07, 0.07

$ ping server1 -c 5
PING server1 (192.168.0.2) 56(84) bytes of data.
64 bytes from server1 (192.168.0.2): icmp_seq=1 ttl=64 time=0.436 ms
64 bytes from server1 (192.168.0.2): icmp_seq=2 ttl=64 time=0.644 ms
...
```

Which of the following is the cause of the issue?

- A. The DNS entry does not have a valid IP address.
- B. The SSH service has not been allowed on the firewall.
- C. The server load average is too high.
- D. The wrong protocol is being used to connect to the web server.

Answer: B

Explanation:

This issue is a classic example of post-reboot connectivity troubleshooting, which falls under the Troubleshooting domain of CompTIA Linux+ V8. The administrator has correctly gathered evidence using multiple diagnostic tools, allowing the root cause to be identified through correlation. The `ss -lnt` output confirms that the SSH daemon is running and listening on TCP port 22. This eliminates the possibility that the SSH service failed to start after reboot. Additionally, the uptime output shows a very low load average, indicating that system performance is not a limiting factor. The successful ping test confirms that the server is reachable at the network layer and that DNS resolution and basic connectivity are functioning correctly. The critical clue comes from the firewall configuration. The output of `firewall-cmd --list-all` shows that only specific services are allowed through the firewall, such as https, dns, and cockpit. The SSH service is notably absent. On systems using `firewalld`, services must be explicitly allowed, even if the daemon itself is running and listening on the correct port. As a result, incoming SSH connection attempts are being blocked by the firewall, preventing users from accessing the server remotely after reboot. This aligns precisely with option B. The other options are incorrect. DNS is functioning, as shown by successful ping responses. System load is low and not contributing to the issue. There is no indication that users are attempting to access the web server using an incorrect protocol. Linux+ V8 documentation emphasizes that administrators must verify both service status and firewall rules when diagnosing access issues. In this case, allowing SSH with a command such as `firewall-cmd --add-service=ssh --permanent` followed by a reload would resolve the problem.

NEW QUESTION 35

A Linux administrator attempts to log in to a server over SSH as root and receives the following error message: Permission denied, please try again. The administrator is able to log in to the console of the server directly with root and confirms the password is correct. The administrator reviews the configuration of the SSH service and gets the following output:

```
Port 22
PermitRootLogin prohibit-password
PasswordAuthentication yes
PermitEmptyPassword no
Use PAM no
MaxSessions 1
MaxAuthTries 3
```

Based on the above output, which of the following will most likely allow the administrator to log in over SSH to the server?

- A. Log out other user sessions because only one is allowed at a time.
- B. Enable PAM and configure the SSH module.
- C. Modify the SSH port to use 2222.
- D. Use a key to log in as root over SSH.

Answer: D

Explanation:

The SSH configuration option `PermitRootLogin prohibit-password` prevents the root user from logging in with password authentication. This setting means root cannot use a password to log in via SSH; only key-based authentication is permitted for root. The administrator can still log in as root locally, which is not affected by this SSH configuration. To allow SSH access as root, the administrator must use an SSH key instead of a password.

Other options:

- * A. `MaxSessions` controls the number of simultaneous SSH sessions but is not causing the login denial here.
- * B. PAM (Pluggable Authentication Modules) is disabled, but enabling it is not required for basic SSH authentication.
- * C. Changing the SSH port is unrelated to the authentication method issue.

Reference:

CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 11: "Securing Linux", Section: "Securing SSH Access"
CompTIA Linux+ XK0-006 Objectives, Domain 3.0: Security

NEW QUESTION 39

Which of the following Ansible components contains a list of hosts and host groups?

- A. Fact
- B. Inventory
- C. Playbook
- D. Collection

Answer: B

Explanation:

Ansible architecture and core components are part of the Automation, Orchestration, and Scripting domain in CompTIA Linux+ V8. Among these components, the inventory plays a foundational role in defining the infrastructure Ansible manages.

An Ansible inventory is a file (or set of files) that contains a list of managed hosts and optionally organizes them into logical groups. These hosts can be defined by IP address, fully qualified domain name (FQDN), or hostname. Inventories may be written in INI, YAML, or dynamically generated formats. Grouping hosts allows administrators to apply configurations, roles, and tasks to multiple systems simultaneously.

Option B, Inventory, is correct because it explicitly defines which systems Ansible will target. Without an inventory, Ansible does not know where to execute tasks. Linux+ V8 documentation emphasizes inventories as the starting point for all Ansible operations.

The other options are incorrect. Facts are system variables automatically collected by Ansible about managed hosts, such as OS version or IP address. Playbooks define what actions to perform but rely on the inventory to know where to perform them. Collections are distribution units that package roles, modules, and plugins, not host definitions.

Therefore, the correct answer is B. Inventory.

NEW QUESTION 42

A Linux administrator wants to add a user to the Docker group without changing the user's primary group. Which of the following commands should the administrator use to complete this task?

- A. `sudo groupmod docker user`
- B. `sudo usermod -g docker user`
- C. `sudo usermod -aG docker user`
- D. `sudo groupmod -G docker user`

Answer: C

Explanation:

User and group management is a core System Management topic in CompTIA Linux+ V8. When adding a user to an additional group—such as the docker group—care must be taken not to alter the user's primary group.

The correct command is `sudo usermod -aG docker user`. The `-G` option specifies a supplementary group, and the `-a` (append) option ensures the user is added to the group without removing existing group memberships. This is especially important because omitting `-a` would overwrite the user's supplementary groups.

Option B, `usermod -g docker user`, changes the user's primary group, which is not desired. Options A and D misuse `groupmod`, which is intended for modifying group properties, not user membership.

Linux+ V8 documentation explicitly warns that failing to use `-a` with `-G` can unintentionally remove a user from all other supplementary groups, potentially causing access issues.

Therefore, the correct and safe command is `C. sudo usermod -aG docker user`.

NEW QUESTION 46

Which of the following can reduce the attack surface area in relation to Linux hardening?

- A. Customizing the log-in banner
- B. Reducing the number of directories created
- C. Extending the SSH startup timeout period
- D. Enforcing password strength and complexity

Answer: D

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

Reducing the attack surface area in Linux hardening refers to limiting possible points of unauthorized access. According to the CompTIA Linux+ Official Study Guide (Exam XK0-006), enforcing strong password policies is a critical aspect of security hardening. This practice ensures that user accounts are protected by passwords that are difficult to guess or crack, thus minimizing the risk of successful brute-force attacks. Implementing password complexity requirements (such as minimum length, use of uppercase, lowercase, numbers, and special characters) directly addresses one of the primary vectors for unauthorized access.

Other options do not have a direct impact on reducing the attack surface:

* A. Customizing the log-in bannerserves as a legal notification and does not affect system vulnerabilities.

* B. Reducing the number of directories createdis not related to hardening or access control.

* C. Extending the SSH startup timeout periodmay give attackers more time to attempt a connection and does not increase security.

[Reference:., CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 11: "Securing the System", Section: "Implementing Password Policies", CompTIA Linux+ XK0-006 Exam Objectives, Domain 3.0: Security, , ,]

NEW QUESTION 47

A Linux systems administrator needs to extract the contents of a file named `/home/dev/web.bkp` to the `/var/www/html/` directory. Which of the following commands should the administrator use?

- A. `cd /var/www/html/ && gzip -c /home/dev/web.bkp | tar xf -`
- B. `pushd /var/www/html/ && cpio -idv < /home/dev/web.bkp && popd`
- C. `tar -c -f /home/dev/web.bkp /var/www/html/`
- D. `unzip -c /home/dev/web.bkp /var/www/html/`

Answer: B

Explanation:

Comprehensive and Detailed 250 to 350 words of Explanation From Linux+ V8 documents:

File extraction and backup restoration are fundamentalSystem Managementtasks covered in CompTIA Linux+ V8. In this scenario, the administrator must extract the contents of an existing backup file into a target directory.

The correct command isoption B, which uses `cpio` in extract mode. The command changes into the destination directory (`/var/www/html/`) using `pushd`, extracts the archive contents with `cpio -idv`, and then returns to the original directory with `popd`. This ensures that files are restored into the correct location without modifying paths inside the archive.

The `cpio` utility is commonly used for backups created with `cpio -o` and supports reading archive data from standard input. Linux+ V8 documentation includes `cpio` as a valid and supported archive format for backup and restore operations.

The other options are incorrect. OptionAincorrectly assumes the backup is a gzip-compressed tar archive. OptionCcreates a new archive instead of extracting one. OptionDassumes the file is a ZIP archive, which is not indicated by the `.bkp` extension.

Linux+ V8 emphasizes using the correct tool based on the archive format and restoring files into the intended directory. Therefore, the correct answer isB.

NEW QUESTION 52

Which of the following commands should an administrator use to convert a KVM disk file to a different format?

- A. `qemu-kvm`
- B. `qemu-ng`
- C. `qemu-io`
- D. `qemu-img`

Answer: D

Explanation:

Virtualization management is part of Linux system administration and is included in Linux+ V8 objectives. KVM virtual machines commonly use disk image formats such as `qcow2`, `raw`, or `vmdk`. Converting between these formats is a routine administrative task.

The correct tool for disk image conversion is`qemu-img`. This utility allows administrators to create, convert, resize, and inspect virtual disk images. For example, converting a `qcow2` image to `raw` format can be accomplished using `qemu-img convert`. This capability is explicitly referenced in Linux+ V8 documentation related to virtualization tooling.

The other options are incorrect. `qemu-kvm` refers to the hypervisor component, not disk manipulation. `qemu-ng` is not a valid QEMU utility. `qemu-io` is used for low-level I/O testing and debugging, not image format conversion.

Therefore, the correct answer isD. `qemu-img`.

NEW QUESTION 55

A systems administrator needs to set the IP address of a new DNS server. Which of the following files should the administrator modify to complete this task?

- A. `/etc/whois.conf`
- B. `/etc/resolv.conf`
- C. `/etc/nsswitch.conf`
- D. `/etc/dnsmasq.conf`

Answer: B

Explanation:

DNS client configuration is a foundational Linux networking task covered in Linux+ V8 system management objectives. When an administrator needs to specify the IP address of a DNS server that the system should use for name resolution, the correct file to modify is `/etc/resolv.conf`. The `/etc/resolv.conf` file defines DNS resolver settings, including one or more nameserver entries that specify the IP addresses of DNS servers. Applications and system services rely on this file to resolve hostnames to IP addresses. The other options are incorrect. `/etc/whois.conf` configures WHOIS queries. `/etc/nsswitch.conf` controls the order of name resolution sources but does not define DNS server IP addresses. `/etc/dnsmasq.conf` configures a local DNS caching service, not the system-wide resolver directly. Linux+ V8 documentation highlights `/etc/resolv.conf` as the authoritative DNS client configuration file, though it may be dynamically managed by tools such as NetworkManager or `systemd-resolved`. Therefore, the correct answer is B. `/etc/resolv.conf`.

NEW QUESTION 59

Which of the following describes the method of consolidating system events to a single location?

- A. Log aggregation
- B. Health checks
- C. Webhooks
- D. Threshold monitoring

Answer: A

Explanation:

Comprehensive and Detailed 250 to 350 words of Explanation From Linux+ V8 documents:

Consolidating system events from multiple sources into a single, centralized location is a key concept in Linux system administration and is explicitly covered under logging and monitoring topics in the CompTIA Linux+ V8 objectives. This method is known as log aggregation, making option A the correct answer.

Log aggregation refers to the practice of collecting logs generated by operating systems, services, applications, and network devices and storing them in a centralized repository. In Linux environments, logs may originate from `systemd-journald`, `syslog`, application-specific log files, containers, and cloud-based workloads. Aggregating these logs allows administrators to analyze events more efficiently, correlate issues across systems, and improve troubleshooting, auditing, and security monitoring.

Linux+ V8 documentation emphasizes centralized logging as a best practice in environments with multiple servers. Without log aggregation, administrators would need to log in to each system individually to inspect logs, which is inefficient and error-prone. Centralized solutions such as `syslog` servers, ELK/EFK stacks, and SIEM platforms enable real-time analysis, long-term retention, and alerting based on log data.

The other options do not describe log consolidation. Health checks are used to verify whether services or systems are operational but do not collect or store event data. Webhooks are HTTP-based callbacks used for event-driven automation and notifications, not for storing logs. Threshold monitoring involves generating alerts when metrics exceed defined limits, such as CPU or memory usage, but it does not centralize system event records.

Linux+ V8 stresses that effective log aggregation improves incident response, supports compliance requirements, and enhances system visibility. It is especially important for detecting security incidents, diagnosing failures, and performing root-cause analysis across distributed systems.

NEW QUESTION 63

Following the completion of monthly server patching, a Linux administrator receives reports that a critical application is not functioning. Which of the following commands should help the administrator determine which packages were installed?

- A. `dnf history`
- B. `dnf list`
- C. `dnf info`
- D. `dnf search`

Answer: A

Explanation:

Package management troubleshooting is a critical Linux administration skill addressed in CompTIA Linux+ V8. After system patching, identifying which packages were installed, updated, or removed is often the first step in diagnosing application failures.

The `dnf history` command is specifically designed for this purpose. It displays a chronological list of all DNF transactions, including installations, upgrades, downgrades, and removals. Each transaction is assigned an ID and includes timestamps, affected packages, and actions taken. This allows administrators to correlate application failures with recent changes.

Option A is correct because it provides historical context rather than just current package state. Linux+ V8 documentation highlights `dnf history` as an essential auditing and rollback tool.

The other options are insufficient. `dnf list` shows installed or available packages but does not indicate when they were installed. `dnf info` displays metadata for a specific package but does not show transaction history. `dnf search` is used to find packages by name or description.

By reviewing recent transactions with `dnf history`, administrators can quickly identify problematic updates and take corrective action, such as rolling back a package.

Therefore, the correct answer is A.

NEW QUESTION 64

To perform a live migration, which of the following must match on both host servers? (Choose two)

- A. USB ports
- B. Network speed
- C. Available swap
- D. CPU architecture
- E. Available memory
- F. Disk storage path

Answer: DE

Explanation:

Comprehensive and Detailed 250 to 350 words of Explanation From Linux+ V8 documents:

Live migration is a virtualization feature that allows a running virtual machine to be moved from one host to another with minimal or no downtime. This topic falls under System Management in the CompTIA Linux+ V8 objectives, particularly in the areas of virtualization and resource management.

For a live migration to succeed, the CPU architecture must match between the source and destination hosts. This is critical because the running virtual machine??s

CPU state, instruction set, and registers must be compatible with the destination system. Migrating between different CPU architectures (for example, x86_64 to ARM) is not supported and would cause the virtual machine to fail. Therefore, option Dis required. Additionally, the destination host must have sufficient available memory to accommodate the virtual machine being migrated. During live migration, the memory contents of the running VM are copied from the source host to the destination host while the VM continues to run. If enough memory is not available, the migration cannot complete successfully. This makes option E mandatory. The other options are not strict requirements. USB ports do not need to match for live migration. Network speed may affect migration performance but does not need to be identical. Available swap space is not directly required for migration. Disk storage paths do not need to match as long as shared storage or compatible storage access is available. Linux+ V8 documentation emphasizes CPU compatibility and memory availability as core prerequisites for live migration. Therefore, the correct answers are D and E.

NEW QUESTION 68

An administrator receives the following output while attempting to unmount a filesystem:

```
umount /data1: target is busy.
```

Which of the following commands should the administrator run next to determine why the filesystem is busy?

- A. ps -f /data1
- B. du -sh /data1
- C. top -d /data1
- D. lsof | grep /data1

Answer: D

Explanation:

Filesystem unmount failures are common troubleshooting scenarios covered in Linux+ V8. When the error "target is busy" appears, it means one or more processes are actively using files or directories within the mount point.

The correct diagnostic command is `lsof | grep /data1`. The `lsof` (list open files) utility displays all open files and the processes using them. Filtering the output with `grep /data1` identifies exactly which processes are holding file descriptors on the filesystem, preventing it from being unmounted.

The other options are incorrect. `ps -f` displays process information but does not show open file usage. `du -sh` calculates disk usage and does not identify active processes. `top` monitors system performance but cannot pinpoint filesystem locks.

Linux+ V8 documentation emphasizes using `lsof` or `fuser` to identify resource locks before unmounting filesystems. Therefore, the correct answer is D.

NEW QUESTION 71

An administrator logs in to a Linux server and notices the clock is 37 minutes fast. Which of the following commands will fix the issue?

- A. hwclock
- B. ntpdate
- C. timedatectl
- D. ntpd -q

Answer: B

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

The `ntpdate` command synchronizes the system clock with a remote NTP server immediately, correcting any significant time drift. This is ideal for one-time corrections.

For example:

```
bash
CopyEdit
ntpdate pool.ntp.org
```

Other options:

* A. `hwclock` reads or sets the hardware clock, but does not sync with network time.

* C. `timedatectl` can set the time manually or manage time settings, but does not immediately sync with a remote NTP server.

* D. `ntpd -q` can also sync the clock once, but `ntpdate` is designed specifically for immediate synchronization and is more straightforward for one-time corrections.

[Reference:., CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 5: "System Management", Section: "Time Synchronization", CompTIA Linux+ XK0-006 Objectives, Domain 1.0: System Management, =====]

NEW QUESTION 72

A systems administrator receives reports about connection issues to a secure web server. Given the following firewall and web server outputs:

Firewall output:

```
Status: active
```

```
To Action From
```

```
443/tcp DENY Anywhere
```

```
443/tcp (v6) DENY Anywhere (v6)
```

Web server output:

```
tcp LISTEN 0 4096 *:443 :
```

Which of the following commands best resolves this issue?

- A. `ufw disable`
- B. `ufw allow 80/tcp`
- C. `ufw delete deny https/tcp`
- D. `ufw allow 4096/tcp`

Answer: C

Explanation:

This scenario involves firewall configuration and service accessibility, which falls under the Security domain of the CompTIA Linux+ V8 objectives. The key to resolving this issue is interpreting both the firewall output and the web server status correctly.

The web server output shows that the service is actively listening on TCP port 443, which is the standard port for HTTPS (secure web traffic). The line `tcp LISTEN 0 4096 *:443 *` confirms that the web server is running properly and is ready to accept incoming connections on port 443 from any interface. This indicates that

the problem is not with the web server configuration itself.

However, the firewall output clearly shows that incoming connections to port 443 are being blocked. The rules 443/tcp DENY Anywhere and 443/tcp (v6) DENY Anywhere (v6) indicate that the Uncomplicated Firewall (UFW) is explicitly denying HTTPS traffic for both IPv4 and IPv6. As a result, external clients cannot establish a secure connection to the server, even though the service is running correctly.

To resolve this issue securely and correctly, the administrator must remove the firewall rule that denies HTTPS traffic. Option C, `ufw delete deny https/tcp`, directly removes the blocking rule while preserving the rest of the firewall configuration. This aligns with Linux+ best practices, which emphasize making precise firewall changes rather than disabling security controls entirely.

The other options are incorrect. Option A, `ufw disable`, would completely turn off the firewall, creating a significant security risk. Option B, `ufw allow 80/tcp`, only opens HTTP traffic on port 80 and does not resolve HTTPS connectivity issues. Option D, `ufw allow 4096/tcp`, incorrectly attempts to open an internal socket backlog value rather than a valid service port.

Therefore, the correct and most secure solution is C.

NEW QUESTION 76

A technician wants to temporarily use a Linux virtual machine as a router for the network segment 10.10.204.0/24. Which of the following commands should the technician issue? (Select three).

- A. `echo "1" > /proc/sys/net/ipv4/ip_forward`
- B. `iptables -A FORWARD -j ACCEPT`
- C. `iptables -A PREROUTING -j ACCEPT`
- D. `iptables -t nat -s 10.10.204.0/24 -p tcp -A PREROUTING -j MASQUERADE`
- E. `echo "0" > /proc/sys/net/ipv4/ip_forward`
- F. `echo "1" > /proc/net/tcp`
- G. `iptables -t nat -s 10.10.204.0/24 -A POSTROUTING -j MASQUERADE`

Answer: ABG

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

To temporarily configure a Linux virtual machine as a router, the technician must enable IP forwarding and set up iptables rules to allow and masquerade traffic:

* A. `echo "1">/proc/sys/net/ipv4/ip_forward`: Enables IPv4 forwarding in the Linux kernel, allowing the VM to forward packets between interfaces.

* B. `iptables -A FORWARD -j ACCEPT`: Adds a rule to the iptables firewall to accept all forwarded packets (allows traffic to be routed).

* G. `iptables -t nat -s 10.10.204.0/24 -A POSTROUTING -j MASQUERADE`: Sets up network address translation (NAT) for outgoing packets from the 10.10.204.0/24 subnet, masquerading them as if they are coming from the VM's external IP.

Other options:

* C and H are not relevant for routing/NAT in this context (PREROUTING is generally used for DNAT, not for standard source NAT).

* D is syntactically incorrect and mixes PREROUTING with MASQUERADE, which is not the proper combination for SNAT.

* E disables forwarding.

* F is not related to IP forwarding.

[Reference: CompTIA Linux+ Study Guide: Exam XK0-006, Sybex, Chapter 9: "Networking", Section: "Configuring Linux as a Router", CompTIA Linux+ XK0-006 Objectives: Domain 2.0 – Networking, Official CompTIA Linux+ Cert Guide, Chapter 12: "Firewall and NAT configuration",]

NEW QUESTION 77

A Linux software developer wants to use AI to optimize source code used in a commercial product. Which of the following steps should the developer take first?

- A. Research which available AI chatbots are best at optimizing source code.
- B. Verify that the company has a policy governing the use of AI in software development.
- C. Install a private LLM to use on the internal network for source code optimization.
- D. Use open-source LLMs that undergo regular security reviews by the community.

Answer: B

Explanation:

Linux+ V8 emphasizes security, compliance, and governance when introducing new automation technologies, including AI. Before using AI tools to optimize commercial source code, the developer must ensure that such usage complies with organizational policies.

Option B is correct because verifying company policy is the first and most critical step. AI tools may introduce risks such as intellectual property leakage, licensing conflicts, or regulatory violations. Many organizations restrict how source code can be shared with external systems, including AI services.

The other options are premature. Selecting tools or deploying models should only occur after policy approval. Linux+ V8 highlights governance-first approaches when adopting automation technologies.

Therefore, the correct answer is B.

NEW QUESTION 79

A Linux administrator needs to securely erase the contents of a hard disk. Which of the following commands is the best for this task?

- A. `sudo rm -rf /dev/sda1`
- B. `sudo shred /dev/sda1`
- C. `sudo parted rm /dev/sda1`
- D. `sudo dd if=/dev/null of=/dev/sda1`

Answer: B

Explanation:

Secure data destruction is an important security requirement addressed in Linux+ V8 objectives. When data must be permanently erased, standard file deletion commands are insufficient because they do not overwrite the data on disk.

The `shred` command is specifically designed to securely erase files or block devices by overwriting them multiple times with random data. Using `sudo shred /dev/sda1` overwrites the entire partition, making data recovery extremely difficult or impossible. This aligns directly with Linux+ V8 best practices for secure data sanitization.

The other options are incorrect. `rm -rf` removes directory entries but does not overwrite disk data. `parted rm` deletes partition entries but leaves the underlying data intact. `dd if=/dev/null of=/dev/sda1` writes zero bytes and does not overwrite existing data blocks.

Linux+ V8 documentation identifies `shred` as the most appropriate tool for secure erasure when compliance or confidentiality is required. Therefore, the correct answer is B.

NEW QUESTION 80

A systems administrator is having issues with a third-party API endpoint. The administrator receives the following output:

```
# curl https://comptia.com/endpoint
curl: (6) Could not resolve host: comptia.com

# dig comptia.com
; <<>> <<>> comptia.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 14031
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; QUESTION SECTION:
;comptia.com. IN A
;; AUTHORITY SECTION:
com. 900 IN SOA a.gtld-servers.net. nstld.verisign-grs.com. 1720473015 1800 900 604800 86400
;; Query time: 159 msec
;; SERVER: 10.255.255.254#53(10.255.255.254) (UDP)
;; WHEN: Mon Jul 08 15:10:45 CST 2024
;; MSG SIZE rcvd: 117
```

Which of the following actions should the administrator take to resolve the issue?

- A. Open a secure port in the server's firewall.
- B. Request a new API endpoint from a third party.
- C. Review and fix the DNS client configuration file.
- D. Enable internet connectivity on the host.

Answer: C

NEW QUESTION 83

A systems administrator wants to prevent the current contents of a file from being overwritten and wants to allow new additions at the end of the file. Which of the following commands should the administrator use?

- A. setenforce file
- B. setfacl -m m::t file
- C. chattr +a file
- D. chmod +t file

Answer: C

NEW QUESTION 86

Which of the following best describes journald?

- A. A system service that collects and stores logging data
- B. A feature that creates crash dumps in case of kernel failure
- C. A service responsible for keeping the filesystem journal
- D. A service responsible for writing audit records to a disk

Answer: A

NEW QUESTION 90

A systems administrator is configuring new Linux systems and needs to enable passwordless authentication between two of the servers. Which of the following commands should the administrator use?

- A. ssh-keygen -t rsa && ssh-copy-id -i ~/.ssh/id_rsa.pub john@server2
- B. ssh-keyscan -t rsa && ssh-copy-id john@server2 -i ~/.ssh/key
- C. ssh-agent -i rsa && ssh-copy-id ~/.ssh/key john@server2
- D. ssh-add -t rsa && scp -rp ~/.ssh john@server2

Answer: A

NEW QUESTION 91

.....

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

XK0-006 Practice Exam Features:

- * XK0-006 Questions and Answers Updated Frequently
- * XK0-006 Practice Questions Verified by Expert Senior Certified Staff
- * XK0-006 Most Realistic Questions that Guarantee you a Pass on Your FirstTry
- * XK0-006 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

100% Actual & Verified — Instant Download, Please Click
[Order The XK0-006 Practice Test Here](#)