

Linux Foundation Certified Engineer (LFCE)

Domains & Competencies

Essential Commands 5%

- Use version control tools
- Manipulate file content programmatically
- Run commands on many systems simultaneously
- Install Linux Distribution Essential Commands

Operation of Running Systems 18 %

- Monitor, tune and troubleshoot system performance
- Update operating systems to provide required functionality and security
- Update the kernel and ensure the system is bootable
- Script automation tools to make work faster and more accurate
- Train team members on new technology or changes to existing systems
- Maintain systems via configuration management tools
- Maintain the integrity and availability of hardware
- Develop and test disaster recovery plans
- Support incident management for outages/trouble
- Produce and deliver reports on system use (processor, memory, disk, and network), outages, and user requests
- Monitor security and conduct audits
- Manipulate Linux system during the recovery process
- Use udev for device detection and management
- Configure and modify SELinux/AppArmor policies

User and Group Management 10%

- Connect to an external authentication source
- Configure advanced PAM

Networking 15%

- Monitor, tune and troubleshoot network performance
- Configure network traffic tunneling
- Configure a system to perform Network Address Translation
- Dynamically route IP traffic
- Implement advanced packet filtering

Service Configuration 17%

- Implement and configure an HTTP server
- Implement and configure time synchronization server
- Implement and configure network logging server
- Configure a DHCP server
- Implement and configure an SMTP service
- Implement and configure the HTTP proxy server
- Configure host-based and user-based security for a service
- Implement and configure a centralized authentication server
- Implement and configure a PXE Boot server
- Implement and configure an authoritative DNS server

Storage Management 10%

- Manage advanced LVM configuration
- Identify storage devices using block device attributes
- Manage Linux file system features and flags
- Implement and configure remote block storage devices
- Implement and configure network shares

System Design and Deployment 25%

- Define a capacity planning strategy
- Conduct post deployment verifications
- Create and maintain software packages
- Create, configure and maintain containers
- Deploy, configure, and maintain high availability/clustering/replication