



Innosoft Linux System Administration III (IN255)

Course Description

Innosoft Linux System Administration III (IN255), relates to Red Hat Enterprise Linux 7, and is designed for experienced Linux system administrators who hold a Red Hat Certified System Administrator (RHCSA) certification or equivalent skills and who want to broaden their ability to administer Linux systems at an enterprise level. The course is focused on deploying and managing network servers running caching Domain Name Service (DNS), MariaDB, Apache HTTPD, Postfix SMTP nullclients, network file sharing with Network File System (NFS) and Server Message Block (SMB), iSCSI initiators and targets, advanced networking and firewalls configurations, and the use of Bash shell scripting to help automate, configure, and troubleshoot the system. Through lectures and hands-on labs, students who have already earned the RHCSA certification will be exposed to all competencies covered by the Red Hat Certified Engineer (RHCE) exam.

Duration

4 days

Audience

- Senior Linux system administrators who require networking and security administration skills
- Linux IT professionals who currently have RHCT/RHCSA certification, and are interested in earning an RHCE certification
- Linux IT professionals that can demonstrate the competencies needed to earn an RHCT/RHCSA, but have not passed the RHCSA exam provided with the Red Hat System Administration II course



Prerequisites

- RHCSA Rapid Track Course (RH200) or Innosoft Linux System Administration I & II
- Equivalent experience to the RHCSA Rapid Track Course
- Skills required to earn an RHCT/RHCSA certification

Course Topics

Unit 1 - Control services and daemons

- Review how to manage services and the boot-up process using systemctl.

Unit 2 - Manage IPv6 networking

- Configure and troubleshoot basic IPv6 networking on Red Hat Enterprise Linux systems.

Unit 3 - Configure link aggregation and bridging

- Configure and troubleshoot advanced network interface functionality including bonding, teaming, and local software bridges.

Unit 4 - Control network port security

- Permit and reject access to network services using advanced SELinux and firewalld filtering techniques.

Unit 5 - Manage DNS for servers

- Set and verify correct DNS records for systems and configure secure DNS caching.

Unit 6 - Configure email delivery

- Relay all email sent by the system to an SMTP gateway for central delivery.



Unit 7 - Provide block-based storage

- Provide and use networked iSCSI block devices as remote disks.

Unit 8 - Provide file-based storage

- Provide NFS exports and SMB file shares to specific systems and users.

Unit 9 - Configure MariaDB databases

- Provide a MariaDB SQL database for use by programs and database administrators.

Unit 10 - Provide Apache HTTPD web service

- Configure Apache HTTPD to provide Transport Layer Security (TLS)-enabled websites and virtual hosts.

Unit 11 - Write Bash scripts

- Write simple shell scripts using Bash

Unit 12 - Bash conditionals and control structures

- Use Bash conditionals and other control structures to write more sophisticated shell commands and scripts.

Unit 13 - Configure the shell environment

- Customize Bash startup and use environment variables, Bash aliases, and Bash functions.

Unit 14 - Linux containers preview

- Preview the capabilities of Linux containers, Docker, and other related technologies in Red Hat Enterprise Linux 7.

Unit 15 - Comprehensive review

- Practice and demonstrate knowledge and skills learned in this course.