[RH358]: Red Hat Services Management and Automation

Length   : 5 days
Delivery Method   : Instructor-led (Classroom)

Course Overview

Learn how to configure, manage, and scale key services used in the data center

Red Hat Services Management and Automation (RH358) is designed for IT professionals with some experience managing Linux® systems and want to learn more about how to manage and deploy network services included with Red Hat® Enterprise Linux which are particularly important in the modern IT data center. You will learn how to install, configure, and manage basic configurations of these services manually, and then use Red Hat Ansible® Engine to automate your work in a scalable, repeatable manner.

This course is based on Red Hat Ansible Engine 2.9 and Red Hat Enterprise Linux 8.1.

Course summary
- Provide key network services using software included with Red Hat Enterprise Linux 8, including DNS with Unbound and BIND9, DHCP and DHCPv6, client e-mail transmission, printing service, NFS and SMB protocol file sharing, SQL database service with MariaDB, and web services using Apache HTTPD, nginx, Varnish, and HAProxy.
- Configure advanced networking for server use cases, including device teaming.
- Use Red Hat Ansible Engine to automate the manual deployment and configuration tasks covered in this course.

Audience Profile

Linux system administrators, site reliability engineers, and other IT professionals with some Ansible experience who are interested in learning how to manage and automate the deployment, configuration, and operation of key network services included with Red Hat Enterprise Linux 8.

Pre-Requisites

Be a Red Hat Certified Engineer (RHCE) on Red Hat Enterprise Linux 8, or demonstrate equivalent skills in Linux system administration and Ansible automation.

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Impact on the organization
This course will help your staff develop key skills in managing and automating common services that support and are used by your business-critical applications. These skills can assist your team in reducing time to deployment, improving reliability, and ensuring architectural compliance, allowing resources to be spent on improving rather than just running your business.

Impact on the individual
In this course, you will learn key system administration skills needed to set up and provide network services that are frequently used by servers and their applications in enterprise data centers. You will gain an understanding of how to manually manage these services, and you will also prepare Ansible playbooks to automate manual configuration tasks and perform them at scale.

Course Outline

Module 1: Manage network services
Discuss and review key tools and skills needed to manage network services.

Module 2: Configure link aggregation
Improve the redundancy or throughput of network connections of servers by configuring Linux network teaming between multiple network interfaces.

Module 3: Manage DNS and DNS servers
Explain the operation of DNS service, troubleshoot DNS issues, and configure servers to act as a DNS caching nameserver or as an authoritative name server.

Module 4: Manage DHCP and IP address assignment
Explain and configure services used for IPv4 and IPv6 address assignment including DHCP, DHCPv6, and SLAAC.

Module 5: Manage printers and printing files
Configure systems to print to a network printer that supports IPP Everywhere, as well as manage existing printer queues.

Module 6: Configure email transmission
Discuss how mail servers operate, then configure a server to use system tools and Postfix to send email messages through an outbound mail relay.

Module 7: Configure MariaDB SQL databases
Discuss the basic operation of SQL-based relational databases, perform basic SQL queries for troubleshooting, and be able to set up a simple MariaDB database service.

Module 8: Configure web servers
Provide web content from Apache HTTPD or Nginx web servers, then configure them with virtual hosts and TLS-based encryption.

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Module 9: Optimize web server traffic
Improve performance of your web servers by using Varnish to cache static content being served and HAProxy to terminate TLS connections and balance load between servers.

Module 10: Provide file-based network storage
Deliver simple file-based network shares to clients using the NFS and SMB protocols.

Module 11: Access block-based network storage
Configure iSCSI initiators on your servers to access block-based storage devices provided by network storage arrays or Ceph storage clusters.

Note: Course outline is subject to change with technology advances and as the nature of the underlying job evolves. For questions or confirmation on a specific objective or topic, please contact enquiries@avantustraining.com.

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