

## Red Hat Enterprise Linux 7, new features for administrators



EP-62 2 Days (14 Hours)

### Description

This training will provide you with the essential knowledge to install and administer RHEL 7 on a daily basis. You will understand the major changes (GRUB2, SystemD, FirewallD, storage, resource management) and will be able to carry out the migration from RHEL 6 to RHEL 7.

### Who is this training for ?

#### For whom

Administrators and systems engineers wishing to upgrade their knowledge of RHEL and integrate the new features of the Red Hat Enterprise Linux 7 distribution.

#### Prerequisites

Aucune

### Training objectives

- Master the changes made by the Red Hat Enterprise Linux 7 distribution compared to previous versions
- Install, configure and configure a RHEL 7 server with the new tools
- Perform common administration tasks on RHEL 7
- Understand the new GRUB2 boot system /SystemD
- Update a Red Hat Linux 6 infrastructure to RHEL 7

### Training program

#### Introduction et installation

- Overview of changes, new services, new tools.
- Prerequisite, two-step installation.
- A new approach to partitioning.
- Installation of Red Hat Linux with Kickstart.
- Practical work Install, configure Red Hat Linux.

## Le démarrage et les services

- Boot details, boot manager.
- GRUB2, getting started and configuration.
- Systemd: features and configuration.
- Control Systemd services with systemctl.
- Optimize startup with Systemd-analyze.
- Snapshots, logs (journal, journalctl).
- Practical work Analyze and optimize system startup.

## Noyau, mémoire, ressources, performances

- Dynamic Kernel patching: kpatch.
- Swap compression.
- Memory state.
- The Performance Co-Pilot.
- Resource management with control groups.
- Practical work Monitoring process activity.
- Monitor system load and server status .

## Stockage et systèmes de fichiers

- Changes in the tree: directory merges, use of /run, the private "/tmp".
- File systems: Btrfs, Gfs2, ext4, Xfs .
- XFS, features and administration.
- LVM cache.
- SCSI targets: from tgt to LIO Kernel target.
- Work practices Management of XFS filesystems.

## Réseau, haute disponibilité et sécurité

- Naming and configuring interfaces.
- The ip command and the new configuration files.
- Bonding, Teaming.
- Load balancing and high availability with Keepalived.
- Firewall: administer the firewall, zones, services, ports with firewall-cmd.
- SSH: chroot and multiple authentication.
- Fail2ban and ipsets.
- Practical work Using the ip command.
- Implementing Fail2ban and handling the firewall with Firewall.

## Virtualisation

- Introduction to containers and Docker.
- Evolutions of libvirt.
- New features concerning KVM.
- Practical work Deployment of a Docker container.

## Migration : de RHEL 6 à RHEL 7

- Migration procedure, postmigration.
- Support and lifecycle.
- RedHat and CentOS: merger/absorption.