



HP Serviceguard on Linux H4C12S

This course is designed for experienced Linux system and network administrators implementing HP Serviceguard A.12.00. Topics include the basic requirements of a highly available system and progress through to the configuration of a Serviceguard cluster/packages, culminating in using both NFS and Oracle 11gR2 toolkit packages along with using the cluster simulator and analytics utilities. The course is 50 percent lecture and 50 percent hands-on labs using RHEL 6.4.

HP Serviceguard on Linux

Price USD \$4,000

Links to local schedules, pricing and registration [US/Canada](#) [Mexico/Latin America](#) [Brazil](#)

HP course # H4C12S

Category HP-UX / HP Integrity

Duration 5 days

Audience

- Linux system and network administrators who currently, or soon will, develop, design, implement, and monitor Serviceguard (SG) clusters on Linux

Prerequisites

- Background in Linux system and network administration including Logical Volume Manager (LVM) and/or Veritas Volume Manager (VxVM)

Course objectives

At the conclusion of this course you should be able to:

- Configure, implement, and manage an HP SG cluster and packages
- Install HP Serviceguard A.12.00 and Serviceguard Manager
- Using 'cmeasyinstall'
- Utilize basic troubleshooting techniques
- Install and configure NFS and Oracle packages using the toolkits
- Use Live Application Detach and 'rolling upgrade'
- Configure generic resources
- Use the SG simulator and SG cluster analytics

Benefits to you

- Protect mission critical applications against a variety of hardware and software failures through effective use of Serviceguard on Linux
- Reduce application downtime by learning how to configure Serviceguard cluster and using Serviceguard's rolling upgrade facility
- Minimize, and in some instances eliminate, your application downtime by learning how to automate the detection of failures and restoration of application service

Course outline

Introduction to High Availability

- What is high availability and reducing the risk
- Storage technologies and HA network design

High Availability with Serviceguard (SG)

- SG features and benefits and SG packages
- Minimizing planned downtime
- Installing prerequisite software
- Serviceguard Manager

Storage for Serviceguard

- Volume management
- Persistent reservation overview
- Review of LVM and VxVM concepts
- Configure a shared LVM volume and VxVM data group
- Using hosttags

Cluster Concepts and Configuration

- Describe the difference between heartbeat, stationary, and standby LAN interfaces
- Configure active/standby LAN interfaces using channel bonding
- Cluster arbitration using a LockLUN and Quorum server
- Steps to configure a Serviceguard cluster
- View the status of the cluster and log file

Additional Cluster Features

- Test the local LAN failover
- Node failures and cluster reformation
- Node joining and leaving a cluster
- Basic cluster management

Packages and Services

- Configure a basic Serviceguard package
- The package configuration file
- Package and node switching management
- Interpret package status from cmviewcl
- Package log file

Package Policies

- Package FAILOVER and FAILBACK policies
- Package access control
- Using package dependencies, priorities, and weights

Application Monitoring Scripts and Toolkits

- Writing and using an application monitor
- The package control script
- Application integration toolkits

Cluster Troubleshooting

- Test clusters and packages for problems
- Using the log files
- Using Serviceguard commands for troubleshooting
- Approaches to troubleshooting

Cluster and Package Online Reconfiguration

- Cluster modifications online and online package modifications
- Storage reconfiguration
- Add and remove a node or package while the cluster is running

Highly Available NFS

- Install the NFS server toolkit
- Configure an NFS server package using the NFS toolkit
- Configure an NFS client package
- Test the NFS server package for various failures

Highly Available Oracle Database

- Install the Oracle database toolkit
- Configure an Oracle 11gR2 database package using the Oracle toolkit
- Check the operation of the Oracle database and failover

Cluster and Package Maintenance

- Rolling upgrade of Serviceguard
- Kernel parameter change using Live Application Detach
- Package partial startup

Generic Resources

- Configure and use generic resources in a package

Cluster Simulation

- Investigate the simulator interface and actions

Cluster Analytics

- Install the Analytics utility
- Display data collected by Serviceguard Cluster Analytics

Serviceguard Manager

- Discuss the components of Serviceguard Manager
- Navigate the Serviceguard Manager interface

Learn more at

[**hpe.com/us/training/hpux**](http://hpe.com/us/training/hpux)

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