# HPE Digital Learner SimpliVity Content Pack

This Content Pack provides knowledge and skills related to using and managing HPE SimpliVity for VMware vSphere® and Microsoft Hyper-V®. It covers the HPE SimpliVity hardware and HPE SimpliVity OmniStack software. The course includes demonstrations, interactions and learning checks, as well as practice through simulation and hands-on labs using live equipment.

## Content Pack Objectives

By the end of the course, you should be able to meet the following objectives:

- Describe hyperconvergence and the functionality of HPE SimpliVity
- Describe the HPE SimpliVity products’ physical characteristics and software architecture
- Describe the functionalities and layers of HPE SimpliVity Data Virtualization Platform
- Explain architectural designs on the node, cluster and federation levels
- Describe architectural concepts of the HPE SimpliVity topologies and datapaths
- Use the HPE SimpliVity vSphere user interface for management tasks
- Use the Virtual Machine Manager with HPE SimpliVity add-in user interface for management tasks
- Use RapidDR to reduce service disruptions by automating remote site recovery
- Run various commands to perform different actions using the HPE SimpliVity CLI
- Use with REST API components and functions
- Get backups and restore virtual machines using the REST API
- Access the interactive REST API reference

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**Why HPE Education Services?**

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- Simplified purchase option with HPE Training Credits

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*Realize Technology Value with Training, IDC Infographic 2017, Sponsored by HPE, October 2017*
Recommended learning:

HPE recommends that students starting this Content Pack have general server industry experience.

Audience:

This Content Pack is recommended for infrastructure administrators and system engineers who need to learn how to administer HPE SimpliVity.
## Detailed course outline

### HPE SimpliVity Overview
This course provides an introduction to hyperconvergence and the functionality of HPE SimpliVity. It also gives an overview of the hardware models and the software used in the solution. Finally, it shows where HPE SimpliVity fits into the bigger picture.

- **Product description**
  - Hyperconvergence, deduplication, resiliency
- **Hardware overview**
  - HPE SimpliVity models, components, accelerator card, configurations
- **Software overview**
  - The Data Virtualization Platform (DVP), HPE OmniStack REST API, OmniWatch and RapidDR

### HPE SimpliVity Theory of Operation
This course provides information about the HPE SimpliVity 380 and 2600 architecture and under the hood operation. It also includes the description of the HPE SimpliVity for Hyper-V solution, federation topologies, OVC failover, Intelligent Workload Optimizer, and the Arbiter.

- **Data Virtualization Platform**
  - Logical layers
- **HPE SimpliVity for VMware and Hyper-V architecture**
  - HPE SimpliVity nodes, clusters, federations, data protection, file shares
- **Federation topologies**
  - HPE SimpliVity ROBO, hub-and-spoke, full-mesh topologies and mixed federations
- **SimpliVity functionality**
  - Data paths, HPE OmniStack Virtual Controller, Intelligent Workload Optimizer, HPE SimpliVity Arbiter

### HPE SimpliVity System Administration for vSphere
This course provides information and hands-on exercises for management of HPE SimpliVity 380 and 2600. It includes the simulated system access procedures and interactive try-its for practice, accompanied by learning checks, followed by hands-on exercises on live HPE SimpliVity equipment. The course covers a range of administration actions executed on HPE SimpliVity system with the SimpliVity for vSphere® and RapidDR user interface.

- **Federation**
  - HPE SimpliVity vSphere user interface, HPE SimpliVity federation
- **Clusters, hosts and datastores**
  - Clusters and datastores UI, host operations
- **VMs and VM templates**
  - Intelligent Workload Optimizer, virtual machines and VM templates
- **Backups**
  - Managing and searching backups, backup operations, backup policies, manual backups
- **Other actions**
  - Restore, Move, Clone, Configuring ESXi access nodes
- **Using the vSphere HTML5 Client**
  - UI introduction and creating backups, clusters, datastores, VM operations
- **Maintenance and support**
  - HPE OmniStack Virtual Controller shutdown
- **HPE SimpliVity Rapid DR**
  - Requirements, configuration, testing
- **Hands-on labs**
  - Using FLEX and HTML5 user interface, working with backups, datastores and clusters, VMs, Support Capture files and RapidDR configurations
HPE SimpliVity System Administration for Hyper-V

This course provides information and hands-on exercises for management of HPE SimpliVity for Hyper-V. It includes the simulated system access procedures and interactive try-its for practice, accompanied by learning checks, followed by hands-on exercises on live HPE SimpliVity equipment. The course covers a range of administration actions executed using the HPE OmniStack Add-in for SCVMM.

- Post-deployment tasks
  - HPE OmniStack Add-In for SCVMM, cluster setup and share paths, witness and HA VMs
  - HPE OmniStack for Hyper-V operations
    - Federation, cluster, hosts, datastores, VM and backups
  - Monitoring and troubleshooting
    - Monitoring performance, log files and troubleshooting, Upgrade Manager for Hyper-V
  - Hands-on labs
    - Accessing SCVMM and OmniStack Add-in, working with backups, datastores and clusters, VMs, monitoring and maintenance

HPE SimpliVity CLI and REST API Operations

The course covers a range of HPE SimpliVity administration actions executed using the CLI and REST API commands and scripts. It also includes interactive demo recordings, learning checks and hands-on exercises on live HPE SimpliVity equipment.

- HPE SimpliVity CLI
  - Accessing the Virtual Controller CLI, user requirements, commands
  - HPE SimpliVity REST API
    - Architecture, commands, object type relationships, authenticating, Interactive REST API reference
  - Hands-on labs
    - Accessing the CLI through vCenter Web Client console and through PuTTY, exploring backup policy, datastore, VM, backup, restore and shutdown commands, the Interactive REST API reference and calls through PowerShell