



# Delta course for Fundamentals of OpenStack Technology H8Q18S

This half-day course will bring administrators and users of the OpenStack® up to speed with Kilo release for April 2015. Course addresses at the high level new features, changes and improvements across all key OpenStack® components.

<b>HPE course number</b>	H8Q18S
<b>Course length</b>	4 hours
<b>Delivery mode</b>	ILT
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## Audience

- System Administrators, engineers and consultants who need to understand the key new features introduced in Kilo

## Prerequisites

Attendance of, or the equivalent skills

- Fundamentals of OpenStack® Technology (H6C68S)

## Course objectives

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

- Describe major differences between OpenStack® Kilo and Juno releases
- Discuss new features in Kilo release
- Understand the implication of changed and new features on OpenStack® configuration and administration

## Benefits to you

- Get up to speed with new features of OpenStack® Kilo release
- Understand how changes will impact your current OpenStack® deployment
- Plan migration from legacy (Juno) to current (Kilo) OpenStack® release

## Detailed course outline

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### Module 1: Neutron—What is new in Kilo

- What is done for Neutron in Kilo release?
- Nova L2 and L3 Agent Refactoring in Kilo
- Advanced Neutron Services Split in Kilo
- Neutron security and reliability improvements
- IPv6 support in Kilo
- Multiple IPv6 Prefixes and Addresses
- IPv6 Prefix Delegation
- IPv6 Router in OpenStack®
- Subnet allocation
- New plugins supported in Kilo
- Floating IP address and MTU in Kilo
- DVR support for VLANs
- ML2: Hierarchical Port Binding

### Module 2: Keystone—What is new in Kilo

- Keystone priorities for Kilo release
- Keystone Continued Stability and Functionality
- Keystone Federated Identity
- Hierarchical Multitenancy in Keystone
- Other improvements in Keystone Kilo release
- Keystone tokens
- Keystone LDAP and Authorization

### Module 3: Glance—What is new in Kilo

- New Glance functionality in Kilo
- Image Introspection and Conversion

### Module 4: Nova—What is new in Kilo

- Nova news in Kilo
- Kilo Hyper-V support
- Kilo libvirt (KVM) I/O (PCIe) based NUMA scheduling
- Virt driver pinning guest vCPUs to host pCPUs
- Virt driver large page allocation for guest RAM
- Support for QEMU built-in iSCSI initiator
- QEMU snapshot support
- Kilo VMware support
- Nova various changes

### Module 5: Swift—What is new in Kilo

- What is new for Swift in Kilo release
- Swift Erasure Codes
- Object Storage Encryption: Volume Encryption
- Object Storage Encryption: Ephemeral Disk Encryption
- Fast POST and Efficiency Improvements
- Cinder: What is new in Kilo
- Cinder news in Kilo release
- HP 3PAR StoreServ support in Kilo
- HP 3PAR retype implementation in Kilo

### Module 6: Trove—What's new in Kilo

- Significant updates to Trove in Kilo release: Neutron support, Replication, Clustering, Configuration Groups Enhancements

## Course data sheet

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**Module 7: Heat—What's new in Kilo**

- Configuration option to enable Convergence
- Decouple Nested Stacks from parents
- Pausing the Stack
- Multi Region Support for Heat

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**Module 8: Ceilometer—What's new in Kilo**

- OpenStack Telemetry in Kilo
- Richer Configuration of Tenant/Role Segregation

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**Module 9: Ironic—What's new in Kilo**

- Ironic—bare metal deployment
- Images and Local Booting
- New Ironic Operations
- Hardware Inspection
- Various changes to Ironic in Kilo release

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**Module 10: Sahara—What's new in Kilo**

- Sahara news in Kilo Release
  - MapR Distribution Plugins
  - Sahara Plugins in Kilo
  - Various changes to Sahara in Kilo release
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