

**Beginning OpenStack**

**Course Number:** OPNSTK-100
**Duration:** 3 days

**Overview**

Accelebrate's Beginning OpenStack training teaches IT professionals the essentials of the OpenStack open-source platform for cloud computing. After completing this OpenStack course, attendees will have the foundational knowledge they need to begin implementing OpenStack in their workplace.

**Prerequisites**

Students must have prior experience in either virtualization, Linux command line skills, and networking experience. The course is suitable for Linux/VM/Server/Network Administrators and Engineers, Datacenter Architects, and DevOps Engineers.

**Materials**

All OpenStack Training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Accelebrate will provide a remote hosted environment for each class participant that contains the OpenStack environment for the class
* Attendees will just need a computer with a modern web browser and SSH client, as well as reliable broadband Internet service

**Objectives**

* Learn about the OpenStack Foundation Community and Software
* Describe the IaaS functionality of an OpenStack installation
* Describe the mechanisms and services that provide functionality to OpenStack
* Identify the use cases plan a production deployment
* Perform basic service level troubleshooting
* Manage identity task in OpenStack
* Get hands-on experience in creating and deploying instances, managing users, roles, projects, etc., through Dashboard GUI and CLI

**Outline**

* Introduction
* OpenStack IaaS Components Overview
	+ Keystone, Horizon, Nova, Neutron, Glance, Cinder, and Swift
	+ Architecture and authentication
	+ Database
	+ Message Queue
	+ Authentication flows
* Component Interaction and Workflow
* Higher Level \*aaS Program
	+ Heat, Ceilometer
* OpenStack Networking Concepts
	+ OpenStack Networking History
	+ Neutron networking concepts and plugins
	+ Virtualizing networks with OpenVSwitch
* OpenStack Storage Concepts
	+ Cinder Volume Concepts
	+ Swift Object Storage
* OpenStack Deployment
	+ Deployment Scenarios
	+ Deployment Tools
	+ Production Grade Considerations
* Troubleshooting and Discussion
	+ Troubleshooting Overview
	+ Discussion on Client-related Topics
* Conclusion