

**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