

## Discovery Workshop for OpenStack (OSDW)

### **COURSE OVERVIEW:**

The Discovery Workshop for OpenStack combines the Essentials, Network Architecture, and Storage Architecture modules into a two-day workshop that will give you the basic tools and experience you need to make key architectural decisions about deploying OpenStack within your organization or recommending solutions for your customers.

### **WHO WILL BENEFIT FROM THIS COURSE?**

This course is designed for Cloud Architects, Data Center Architects, Solution Architects, Systems Engineers, and Pre-Sales Engineers who need to evaluate and recommend OpenStack solutions for their IT organization or for their customers.

### **PREREQUISITES:**

There are no formal prerequisites for this course.

### **COURSE OBJECTIVES:**

Upon completing this course, you will be able to apply these basic tools and have the experience needed to make key architectural decisions about deploying OpenStack within your organization or recommending solutions for your customers.

### **COURSE OUTLINE:**

#### **Day 1 – Essentials for OpenStack**

##### **Module 1: Cutting Through the Hype**

- What is OpenStack?
- A Brief History
- How It's Different than Traditional Virtualization
- Why Cloud-Based Applications Are Driving Adoption Roll Your Own or Run for Cover?

##### **Module 2: Putting It to Work: Designing Cloud Services with OpenStack**

- Private Clouds
- Public Clouds
- Hybrid Clouds
- IaaS, PaaS, SaaS, DRaaS

##### **Module 3: What's Under the Hood: OpenStack Services Overview**

- Compute Services
- Hypervisor and Container Support Storage Services
- Networking Services Management Services
- Application Services

##### **Module 4: Managing OpenStack: Dashboards to DevOps**

- Monitoring
- Metering
- Identity Management
- Orchestration and Automation
- APIs, Programmability, and DevOps

**Module 5: Wading In: Deployment and Operation**

- Criteria for Choosing Deployment Tools
- PuppetLabs
- Chef
- The Foreman
- Triple-O
- Vendor Deployment Tools DevStack

**Hands-On Lab: Provision an All-in-One OpenStack Node with DevStack**

- Installing DevStack
- Join a Compute Node
- Create a Tenant
- Create a Tenant Network
- Deploy a Micro-Instance
- Create a Security Group and Rules
- Monitoring the Deployment
- Creating an Orchestration Workflow

**Day 2 – Network Architecture for OpenStack and Labs****Module 1: Storage Services Overview**

- Ephemeral vs Persistent Storage
- Block Storage Applications
- Object Storage Applications

**Module 2: Block Storage**

- Cinder Architecture
- Storage Array Abstraction
- Commodity Storage Backend Technologies

**Module 3: Object Storage**

- Object Storage Overview
- Swift Architecture
- High Availability Ring Architecture

**Module 4: Ceph**

- Ceph Architecture
- Applications for Ceph

**Hands-On Lab**

- Configure OpenStack Storage Services

**SUNSET LEARNING INSTITUTE (SLI) DIFFERENTIATORS:**

Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

What sets SLI apart is not only our immense selection of trainings options, but our convenient and consistent delivery system. No matter how complex your environment is or where you are located, SLI is sure to have a training solution that you can count on!

**Premiere World Class Instruction Team**

- All SLI instructors have a four-year technical degree, instructor level certifications and field consulting work experience.
- Sunset Learning has won numerous Instructor Excellence and Instructor Quality Distinction awards since 2012

**Enhanced Learning Experience**

- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

**Convenient and Reliable Training Experience**

- You have the option to attend classes at any of our established training facilities or from the convenience of your home or office with the use of our HD-ILT network (High Definition Instructor Led Training)
- All Sunset Learning Institute classes are guaranteed to run – you can count on us to deliver the training you need when you need it!

**Outstanding Customer Service**

- Dedicated account manager to suggest the optimal learning path for you and your team
- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience