

# SELinux Training Outline

## Course Description

Our two-day, hands-on training courses will teach you how SELinux can bolster the security of your data, your systems, and your organization. Topics include:

- An overview of its access control architecture
- The specific security challenges it was developed to address
- The differences between SELinux and other access control or security mechanisms
- An understanding of Type Enforcement concepts
- The fundamentals of SELinux policy language and how to write and analyze an SELinux policy
- Load SNTS and v.7 driver on Servers
- Pass some test traffic across OPDS platforms and Servers

## 2 Day Course Content

### Introduction to SELinux

- Benefits
- References

### Access Control Overview

- Access Control Concepts
- Standard Linux access control
- SELinux access control
- Access control policies (DAC, MAC)
- Linux and SELinux comparison

### SELinux Policy High Level Concepts

- Policy enforcement decisions
- SELinux modes
- Security attributes and contexts
- Type Enforcement Access Control
  - Types
  - Classes
  - Permissions
- Privilege Levels
- Benefits and Challenges of Type Enforcement

### Solving Security Challenges using SELinux

- System Integrity
- Application Integrity
- Least Privilege
- Controlled Information Flow
- Assured Pipelines
- Domain Isolation
- System Hardening

### Implementation Strategies

- Security Planning
- Choosing an SELinux platform
- Security Evaluation and Accreditation
- SELinux Policy Configuration and Development
- SELinux Policy Analysis
- Maintenance Planning

### SELinux Policy Language

- Types and Attributes
- Access Vector Rules
- Type Transition Rules
- Conditional Policy
- Roles
- Users
- Multi-Level Security
- Network Access Control

### SELinux Policy Development

- Policy Development Steps
  - Workflow
  - Reading Audit Messages

### Writing Reference Policy Modules

- Module-related constructs
- Encapsulation
- Interfaces and Abstraction
- Writing Interfaces
- Labeling policy

Write an SELinux policy (for an application) (hands-on exercise)

Perform analysis of an SELinux policy (hands-on exercise)

\*General outline subject to change without notice.  
Contact us for the latest updates.