

Course 705: Solaris 10 Update (5 days)

Sun Microsystems has made multiple changes in the Solaris 10 OS including a new service management facility, containers, Dtrace, a new TCP/IP stack, and a new filesystem zfs. Thru hands-on exercises, this course explores the major new features of the Solaris 10 OS. After completing the program, attendees will understand and be able to design, install, and manage the new features of Solaris 10.

Who should attend...

If you are an experienced system administrator working on Solaris 8 or 9 and want to work with the changes incorporated into Solaris 10, this is an ideal course. If you are a manager who needs hands-on understanding of the new features of Solaris 10 this program is of value to you as well.

Prerequisites...

A minimum of two years experience in working with Solaris 8 or 9 is mandatory.

Course Outline

Unit 1 – The New TCP/IP Stack (FireEngine)

- Review: STREAMS and The Network Stack
- The New Solaris Stackframe
- Device Driver Framework:GLDv3
- The new Interrupt Model
- How this Affects Performance

Unit 2 – The System Management Agent (SMA)

- The New SMA
- Configuration of snmpd
- USM for Authentication and Privacy
- VACM for Access Control
- Creating Traps
- Accessing and Using the Daemon

Unit 3 – Other Networking Changes

- IP Quality of Service (IPQoS)
- Multi-data Transmission (MDT)
- Changes to DHCP
- Zebra Multiprotocol Routing
- Stream Control Transmission Protocol (SCTP)



Unit 4 – Review of Tools for Observation

- Kernel Tools
- Process Tools
- Disk Tools
- File System Tools
- Memory Tools
- Network Tools

Unit 5 – Understanding Dtrace

- Dtrace Introduction
- Dtrace as a Scripting Language
- The Provider sysinfo
- The Provider vminfo
- The Provider io

Unit 6 – Services – Not Daemons in SMF

- Daemons, Services, and Instances
- Run Levels and Milestones
- init to svc.startd
- Service Details
- Legacy Daemons
- Installing, Modifying, and Deleting a Service
- inetd Services
- Restoring a Corrupt Repository

Unit 7 – zfs File System

- What is zfs?
- Simple Work
- Lab: Setting up a zfs System
- File System Properties
- Self-healing
- Backups
- Sharing

Unit 8 – NFS Changes

- Basic Structure of NFS 4
- CacheFS is Back
- The Default Files
- The nfsmapid Daemon
- The nfs4cbd Daemon
- Mount Options
- NFS Over RDMA



Unit 9 – Containers: Projects and Extended Accounting

- Creating Projects
- Modifying Projects
- Destroying Projects
- What is Extended Accounting
- How to Setup Extended Accounting

Unit 10 – Containers: Resource Management and Scheduling

- Resource Controls
- Resource Caps
- All About Process Scheduling
- Dynamic Resource Pools

Unit 11 – Containers: Zones

- What Is and Is Not a Zone
- Creating a Zone
- Software Maintenance
- Modify a Zone
- Zones, Resource Management, and Scheduling
- Removing a Zone

Unit 12 – Odds and Ends

- logadm
- Burning CDROMS
- Watchdog Timeouts
- Volume Manager

Unit 13 – Security Changes

- POSIX Access Control Lists (ACLs)
- Passwords
- Review PAM
- Overview of Cryptographic Services
- IP Filters

Unit 14 – Predictive Self-Healing

- Review: Solaris Service Manager
- Solaris Fault Manger
- A Hardware Example
- A Software Example

Please contact your ROI representative to discuss course tailoring!!!