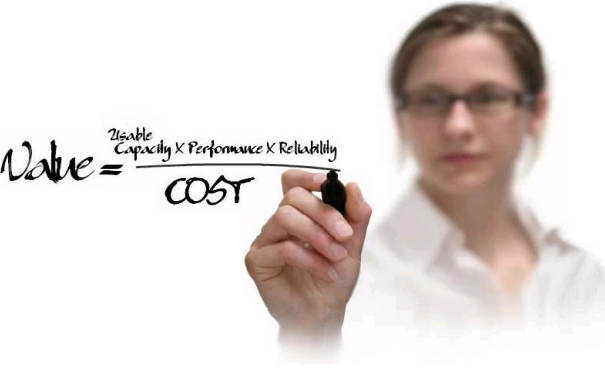


AIX 7 Jumpstart for UNIX Professionals

Skills and expertise to help you increase the business value from your Power Systems investment

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Purpose

This course is developed and designed for customers who have migrated to IBM POWER platform running IBM AIX operating system. This course is based on AIX 7.1 and AIX 7.2 managed by Hardware Management Console version 7 or under a standalone full partitioned environment. This is an excellent opportunity for experienced UNIX system administrators using HP-UX, Solaris, Linux or any other UNIX flavor.

Audience

This course is appropriate for experienced UNIX system administrators who want to support AIX running on POWER processor based systems in a multiuser POWER (System p) partitioned environment.

For additional details on other courses offered by TLC, please visit:

<https://www.tlcpak.com/educ.html>

Prerequisites

These skills can be acquired by attending AIX 6 or AIX 7 Basics (AN100) or through equivalent AIX/UNIX knowledge. You should also have experience administering a UNIX operating system (such as Solaris, HP-UX, and others) including:

- Execute basic AIX commands
- Manage files and directories
- Basic system administration tasks
- Use the vi editor
- Use redirection, pipes, and tees
- Use the utilities find and grep
- Use command and variable substitution
- Set and change Korn shell variables
- Write simple shell scripts
- Familiar with shells and variables
- User management and system security
- Storage concepts
- System shutdown and restart
- Backup and recovery
- System task scheduling

Skills Taught

- Install the AIX operating system, filesets, and Technology levels.
- Perform system startup and shutdown.
- Discuss and use system management tools such as System Management Interface Tool (SMIT) and IBM systems director console for AIX.
- Manage physical and logical devices.
- Discuss the purpose of the logical volume manager.
- Perform logical volume and file system management.
- Perform and restore system backups.
- Use the AIX error log as a tool in problem determination.

Unit 1: System Hardware Overview

- POWER Architecture.
- Define the terminology used by IBM System p.
- RISC, AIX and Today – History.
- Define terminology and concepts of IBM Power system servers, virtualization, HMC, and AIX.
- The role of AIX system administrator.
- Accessing the “root” by using `su` command.

- Firmware problem in booting the system.
- Disk capacity/requirement for AIX installation.
- POWER systems highlights and offerings.
- IBM POWER Facts and Features.

Unit 2: AIX System Management Tools

- System administration management challenges
- Discuss the functionality of traditional SMIT and IBM Systems Director Console for AIX (pconsole).
- Managing pconsole subsystem resource controller.
- Understand how system activities are logged.
- Use IBM Systems Director Console to monitor systems overall health and file systems status.

Unit 3: AIX 7.1 Software Installation and Maintenance

- Describe the package definitions and naming conventions.
- Speaking IBM Support Language.
- Learn how software products and updates are installed.

Unit 4: System Configuration and Devices

- Describe AIX logical and physical devices
- AIX ODM - Predefined and Customized databases
- Understanding the role of configuration manager.
- Different states of a device and related commands
- Use AIX commands to configure/unconfigure/customize device database.

Unit 5: System Startup and Shutdown

- Describe the system initialization process.
- Describe how to shutdown the system.
- Understand the contents of the `/etc/inittab` file.
- Understand AIX System Resource Controllers.
- Starting system maintenance mode.
- Using virtual console.
- Manage kernel tunable parameters.
- Activating the system AIX partition.
- Managing LPAR by using HMC.
- Shut down the system and AIX partitions.

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Education and Training
Services

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Unit 6: Working with Logical Volume Manager

- Understand Logical Volume Manager details.
- Add/Change/Delete AIX Volume Groups
- Add/Change/Delete AIX Logical Volumes
- Add/Change/Delete AIX Physical Volumes
- Learn how to activate and deactivate a volume group.
- Understand importvg and exportvg commands.
- Understand AIX Disk Mirroring
- migratepv command is used to move the contents of logical volumes with the Volume Group.



Unit 7: File Systems Administration

- Classify the components of an AIX file system.
- Add an enhanced journaled file system.
- Change characteristics of a file system.
- Reducing JFS2 filesystem.
- The skulker command.
- Defragmenting a filesystem.
- Reorganizing logical volumes.
- Monitoring filesystem growth.

Unit 8: Scheduling

- Use crontab files to schedule jobs on a periodic basis
- Understand and use the at command to schedule a job to be run at a specified.
- Use the batch command to submits a job to cron daemon that runs when the system load level permits.

Unit 9: Disk Management Procedures

- Storage management commands used for recovery.
- Replace a disk under different circumstances.
- Recover from a total volume group failure.
- Rectify problems caused by incorrect actions that have been taken to change disks.
- Export and import volume groups.

Unit 10: Backup and Restore

- Identify issues which have to be considered when deciding which backup policies to implement.
- List the different backup methods supported through SMIT and on the command line
- Create a customized installable system image
- Execute other useful commands to manipulate the backed up data on the media.

Unit 11: The Object Data Manager

- Describe AIX logical and physical devices
- AIX ODM - Predefined and Customized databases
- Understanding the role of configuration manager.
- Different states of a device and related commands
- Use AIX commands to configure/unconfigure customize device database.

Unit 12: Error Monitoring

- Analyze error log entries.
- Identify and maintain the error log components.
- Starting and stopping errdemon.
- Changing the ERRLOG file size.
- Initializing the Error Log.
- Understanding error notification class objects.
- Create/Verify/Delete Error Notification method.
- Understand the role and use of ASMI.

Unit 13: System Initialization Part 1

- Types of boot problems.
- Describe the boot process – Boot Logical Volume.
- Describe the contents of the boot logical volume.
- Interpret LED codes displayed during boot and at system halt.
- Fix the BLV on a system which is failing to boot.
- Fix corrupted jfslog (/dev/hd8).

Unit 14: System Initialization Part II

- General overview of the boot process.
- Understand the process involved in system initialization from loading of the boot image to a successful completion of boot.
- Describe how devices are configured during the boot initialization process.
- Study and resolve boot related problems.
- Boot problem diagnostics.
- Study cfgmgr with the help of alog command.
- System critical files and Hang Detection.

Unit 15: The AIX System Dump Facility

- Understand dump and the contents of dump.
- Understand and explain system dump.
- Understanding flashing 888 code.
- Determine and change the primary and secondary dump devices.
- Create and extend a system dump size.
- Dump device compression.
- Execute the snap command.
- Use the kdb command to check a system dump.

Unit 16: Paging Space

- The importance of paging space in AIX.
- Paging space VS swapping
- Paging space and general guidelines
- List, monitor and administrating AIX paging space utilization.
- Add, change, and delete paging space.
- Making the hd6 paging space smaller.
- Perform remedial procedures to fix paging space problems.

Detail Information

Course Code	:TN140
Course Duration	: 4 Day
Course Fee	: Obtain upon request
Course Location	: Customer onsite (Karachi, Lahore and Islamabad) and Online on Zoom
Discount	: Discounts are available for a class of 5 and 8 students
Terms & Conditions	:100% payment in advance

