BMC Mainframe: z/OS UNIX System Services Part 1 - Concepts & Facilities

COURSE ABSTRACT

COURSE CODE

» MGRS-ZUS1-2021

APPLICABLE VERSIONS

» Not Applicable

DELIVERY METHOD 🌐

» Instructor-led Training (ILT)

COURSE DURATION 🌐

» 2 Days

PREREQUISITES

» A basic understanding of the z/OS environment

RECOMMENDED TRAININGS

» NA

Course Overview

The course is developed and delivered by © RSM Technology.

This two-day course describes and explains UNIX System Services from a technician's point of view. The principal UNIX concepts are introduced and explained, followed by a thorough examination of USS (UNIX) at a conceptual level.

The course goes on to describe the facilities available, and explains how the z/OS system environment has changed to support open system and UNIX concepts through z/OS USS.

Target Audience

All IT technicians working in a z/OS technical environment that will be encompassing the use of USS.

Learner Objectives

» Understand and use the terminology associated with UNIX
» Describe basic UNIX concepts
» Issue UNIX shell commands
» Identify and utilise key shell commands such as 'find', 'grep', etc
» Explain the changes that have been made to the MVS platform in order to support applications created for a UNIX environment
» Identify the facilities and functions provided within USS
» Utilise ISHELL

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COURSE ABSTRACT

COURSE ACTIVITIES
» Classroom Presentations
» Demonstration

BMC MAINFRAME INFRASTRUCTURE AND PLATFORMS LEARNING PATH
» https://www.bmc.com/education/courses/find-courses.html#filter/%7B%22type%22%3A%22edu-specific-types-159150236%22%7D

CERTIFICATION PATHS 🌐
» This course is not part of a BMC Certification Path.

DISCOUNT OPTIONS 🌐
» Have multiple students? Contact us to discuss hosting a private class for your organization
» **Contact us for additional information** 🌐

Course Modules

Introduction to UNIX & Open Systems
» Where did UNIX come from?
» Modern UNIX history
» The UNIX 'culture'
» Commercial UNIX systems
» What is 'Open Systems'?
» Some 'official' definitions
» Open platforms
» Portable Operating System Interface - POSIX
» The POSIX standards
» Open Group branding
» What is DCE?

UNIX System Overview
» UNIX internals overview
» The Kernel
» System calls
» Processes and programs
» The shell
» Tools
» UNIX shells
» The UNIX file system
» The system files - /etc, /dev, /bin and others

» UNIX security basics
» UNIX User ids (uids)
» User attributes
» Access control in UNIX
» File access control attributes
» Meaning of permissions
» Changing user and file attributes
» Changing user information
» Changing file information
» File permission and user mask
» Additional permission bits
» User account information
» User-determined information
» The root username - the superuser

The Kernel & the Shell
» The Kernel
» The Shell
» Main shell functions
» Basic command syntax
» Input and Output redirection
» Examples of redirecting Input and Output
» Piping input between commands
» Environment variables
» Special shell variables

» Shell variables
» Local and environment variables
» Special keyboard operations
» Online help
» UNIX multitasking
» Placing a command in background
» Monitoring background commands
» Controlling background commands
» Moving processes between foreground and background
» File wild card searches
» Shell programming
» Shell programming commands and features
» Passing arguments to shell programs
» Shells and shell commands
» Overview of commands
» Command history

The UNIX File System Concept
» UNIX file types
» Directory structure
» Paths and file names
» zFS and HFS
» Recommended file structure

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COURSE ABSTRACT

- Lengths of path and file names
- Specifying UNIX files in z/OS
- Creating, listing and viewing files
- Positioning current work directory
- Path and file name lengths
- Working with directories
- File system protection
- Assigning file attributes
- Permission attributes (r, w, x)
- Assigning permission attributes to a file
- Setting file permissions - chmod
- File attributes
- Default file permissions - umask
- Links - file name 'alias'; Hard links
- Hard links and i-node numbers
- Hard link - listing
- Symbolic links

- Additional list options
- Listing files - pattern matching
- Locating files - find
- The find command
- Additional search qualifiers
- Copying files - cp
- Moving and removing files
- Controlling Input and Output
- Passing files between programs - pipes
- Regular expressions
- Searching for strings in files - grep
- grep - a science in its own right
- grep and regular expressions
- Sorting text files - sort
- Formatting files with pr
- Printing to hardcopy - lp
- Example of files and directories

Interactive USS
- Invoking USS
- Running USS interactively
- Login to USS
- TSO terminal support - Pseudo TTY
- TSO or asynchronous, OCS or direct?
- 1003.1 Compliant communication functions
- The shell
- The OMVS command
- Default PF keys in OMVS
- OMVS subcommands
- Shell commands
- TSO/E commands and ISPF panels
- ISPF panel for file management - ISHELL
- Directory list
- File - drop down menu
- The ISPF edit panel
- Directory - drop down menu
- OEDIT and OBROWSE

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