

TCP/IP Networking Concepts and z/OS Configuration

Course Summary

Description

This course provides the fundamentals of TCP/IP and VTAM network operations to systems programmers and I/T professionals. Topics include basic networking, TCP/IP architecture, TCP/IP functions, VTAM architecture, and VTAM functions in use in z/OS.

Topics

- Introduction to Networking
- TCP/IP Overview
- TCP/IP Configuration Overview
- TCP/IP Customization
- Routing and VIPA
- Application Customization
- VTAM Overview
- Start Up Options and Configuration List LAB
- Connecting APPN Nodes to VTAM
- APPN and LEN Node Structure
- APPN Services
- TCP/IP and VTAM Commands

Audience

This course is designed for systems programmers and analysts that need a better understanding of the TCP/IP and VTAM environments.

Duration

Five days

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Course Outline

- I. Introduction to Networking**
 - A. Define functions of gateways, front-end processors
 - B. Explain network bridges and routers
 - C. Examine networking protocols concepts.
 - D. Review use of modems, multiplexors, concentrators, and other connection mechanisms
 - E. Review network connectivity issues
- II. TCP/IP Overview**
 - A. Introduction to the TCP/IP protocol stack, MPC I/O processes, and CSM.
 - B. Review connectivity and gateway functions supported by Communications Server.
 - C. Examine networking protocols using IPv4 or IPv6.
 - D. Review files systems and application interfaces.
 - E. Examine TCP/IP packaging for z/OS.
- III. TCP/IP Configuration Overview**
 - A. UNIX System Services concepts and file structure.
 - B. Understanding Resolvers.
 - C. Configuration files for the TCP/IP stack and search orders.
 - D. Configuration files for TCP/IP applications.
 - E. Review consideration for Enterprise Extender, VIPA, and multiple instances of TCP/IP.
- IV. TCP/IP Customization**
 - A. Configuring the syslog daemon.
 - B. Configuring TCPIP.DATA and PROFILE.TCPIP.
 - C. Configuring the local host table.
 - D. Verifying the configuration
- V. Routing and VIPA**
 - A. IPv4 and IPv6 overview.
 - B. Dynamic versus Static routing.
 - C. Routing verification.
 - D. Dynamic versus Static VIPA
 - E. OMPRoute (Open MVS MultiProtocol Routing Daemon).
- VI. Application Customization**
 - A. Configuration and customization requirements for FTP.
 - B. Domain Name System (DNS).
 - C. Network management and SNMP configuration.
 - D. Verifying the configuration.
 - E. TELNET.
- VII. TCP/IP Commands**
 - A. Basic TCP/IP and network commands
- VIII. Overview**
 - A. Understand SNA concepts and definitions
 - B. Examine SNA protocol stack
 - C. Review basic VTAM/SNA function.
 - D. Introduce subarea vs APPN networks
- IX. Start Up Options and Configuration List LAB**
 - A. Review basic VTAM operation
 - B. Review VTAM parameters for startup and configuration definitions
 - C. Review VTAM buffering specifications
- X. Connecting APPN Nodes to VTAM**
 - A. Basic examination of APPN/VTAM connectivity
 - B. Introduce terminology for VTAM/APPN
- XI. APPN and LEN Node Structure**
 - A. Examine basic components of node structure
 - B. Examine methods of routing information
 - C. Investigate particular structures pertinent to node management
- XII. APPN Services**
 - A. APPN Services:
 - B. Address Space Management
 - C. Configuration Services
 - D. Topology and Routine Services
 - E. Directory Services
 - F. Session Services
- XIII. High Performance Routing (HPR)**
 - A. Examine High Performance Routing
 - B. Review Adaptive Rate Based (ARB) flow control mechanism
- XIV. VTAM Commands**
 - A. Basic VTAM and network commands