IVA Institute of Technology
https://iva-institute.com/
info@iva-institute.com

Mastering Enterprise Network & Systems

About This Training

This comprehensive Enterprise-level program combines **Cisco Networking (CCNA + ENCOR + ENARSI)**, **FortiGate Firewall (NSE4 / FCP Core)**, **Linux Server Administration**, and **Windows Active Directory & Enterprise Infrastructure** in one complete curriculum.
It is designed to prepare learners for real-world enterprise environments, multi-vendor networks, security operations, and system administration.

The training includes **network design, routing & switching, firewall management, Linux servers, AD DS, Group Policy, PKI, VPNs**, and many enterprise-grade technologies.

Curriculum

#	Topic	Description

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1	**CCNA + ENCOR + ENARSI**	• OSI Layer • Subnetting - IPv4 • Spanning Tree algorithm • VLAN & L2, L3 EtherChannel • Inter-VLAN routing using a router • Port Security, PortFast, BPDU Guard, Root Guard • RSTP, PVST, MST • HSRP Configuration, VRRP Configuration • Introduction to Routing • Static Routing, Static Default Route, Floating Static Route • Introduction to EIGRP • EIGRP Neighborship • EIGRP Authentication, Summarization, Passive Interface • Default Route Injection into EIGRP • Access-List • NAT / PAT • Route-Map, Prefix-list & Distribute-list • Route Redistribution between OSPF & EIGRP • OSPF Concepts Explained (Day 1) • OSPF Concepts Explained (Day 2) • OSPF Single & Multi-area, LSA and Routes • OSPF Virtual-Link & Authentication • OSPF Stub & Totally Stub • OSPF NSSA, OSPF Broadcast & Point-to-Point Network • OSPF Intra-Area Filtering, Type-3 Filtering, Filtering on ASBR • ISP Load Balancing Configuration with Policy-Based Routing • IPSLA and Its Implementation • Introduction to BGP • Configuring eBGP Neighborship & Peer Groups • BGP Peering with Loopback Address – eBGP Multihop • BGP Next-Hop-Self, BGP Backdoor • BGP Attributes & BGP Weight Attributes • BGP Local Preference & BGP MED • iBGP Full Mesh & BGP AS Path Prepending • BGP Community • BGP Route-Reflector • DMVPN (Day 1) • DMVPN (Day 2) • MPLS Concepts • MPLS Protocols & VRF-Lite • MPLS L3 VPN Configuration • IPv6 Concepts & Implementation • IPv6 Configuration & IPv6 Static Route • EIGRP Configuration with IPv6 • OSPF & Dual-Stack (IPv4 & IPv6) • IPv6 Tunneling over IPv4 • Configuring SNMPv3 • Syslog Server Implementation • GRE Tunnel
2	**FortiGate FCP CORE–NSE 4**	• Cyber Security Fundamentals • Introduction to Firewall • Lab setup in eve-ng & initial setup • Interface and Zone config, Dashboard • Routing - Static and dynamic • Network Address Translation (NAT) • Firewall Policies • Web Filtering • Application Control • Antivirus, File Filtering • Firewall Authentication - Local and Remote • Logging and Monitoring • IPSec VPN - Site to site • Remote Access VPN • Failover / HA

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3	**Linux Contents, Number of Classes**	LINUX Introduction • Operating System Concepts • Parts of Operating System • How Operating System works • Kernel, Shell & Applications • Linux and GNU Project • Part of Linux Based Operating Systems • Linux vs Windows Operating Systems • Why Use Linux Operating systems Linux Installations and Lab Setup • Planning a Linux Installation • Required hardware resources for Linux install • Partitioning Requirements for Linux install • Linux Installation Method (USB/ISO/DVD/PXE) • Required Partitions for RHEL/Ubuntu Installation • Standard Installation vs LVM Installation • Physical lab and Virtual Lab Setup Requirements Getting started with Linux CLI • Working with terminal and command console • Introduction to Linux shells and terminal • Linux Virtual Console/Terminal • Logging remote system through SSH • Linux Command Syntax, Options, Argument • Examples of Simple Commands • Powering Off, Reboot and Logout System Working with Linux Files & Directories • Linux File System Hierarchy • Introducing Linux Directory Structure • Navigating Linux Directory Paths • Introducing Different Types Linux Files • In depth of Linux Directories • Files & Directory handling commands Linux Text Processing Tools • Different types of text processing tools • Redirecting Output to a File • Constructing and Using Pipelines • Working with tail, head, cat, less, wc, echo • Working with Regular Expressions 'grep' • Familiar with Linux 'find' Command Linux Text Editors • Why need text editor • Different types of text editors • Linux Text Editor Utilities (vim, gedit, nano) • Introduction to 'vi/vim' and 'nano' • Working with Different 'vi/vim' Modes • Editing, Replacing, Searching with 'vi/vim' • Working with ‘vim’ advanced features Linux User and Group Administration • Users and Groups Introduction • Linux User Types and User Database • Manage password requirements • Primary Groups and Supplementary Groups • Managing Local User Accounts • Managing Local Group Accounts Linux File Permissions and Ownership • Introducing Linux File Permissions • Working with Linux File & Directory Properties • Linux User, Group and Other Permission Concept • Viewing File/Directory Permission and Ownership • Default File Permission and Umask Value • Change file permission and Ownership. • Working with ACL Permission Network Management (IPv4) • Understand Network Device Recognition • Working with Network Manager Services • Introducing Network Manager tools • Configuring Host Name and Name Resolution • Working with gateway and route table • Configure Static and dynamic IP DNS Server Configuration Mail Server Configuration Nagios Server Cacti Server

4	**Windows Active Directory**	Installing and configuring domain Overview of AD DS • Overview of AD DS domain controllers • Deploying a domain controller Deploying and administering AD DS • Deploying AD DS • Deploying domain controllers by performing domain controller cloning • Administering AD DS Managing objects in AD • Managing user accounts • Managing groups in AD DS • Managing computer objects in AD DS • Using Windows PowerShell for AD DS administration • Implementing and managing OUs Managing AD DS objects • Creating and managing groups in AD DS • Creating and configuring user accounts in AD DS • Managing computer objects in AD DS Administering AD DS • Delegate administration for OUs • Creating and modifying AD DS objects with Windows PowerShell Advanced AD DS infrastructure • Overview of advanced AD DS deployments • Deploying a distributed AD DS environment • Configuring AD DS trusts Domain and trust management in AD DS • Implementing forest trusts • Implementing child domains in AD DS Implementing and administering AD • Overview of AD DS replication • Configuring AD DS sites • Configuring and monitoring AD DS replication Implementing AD DS sites and replication • Modifying the default site • Creating additional sites and subnets • Configuring AD DS replication • Monitoring and troubleshooting AD DS replication Implementing Group • Introducing Group Policy • Implementing and administering GPOs • Group Policy scope and Group Policy processing • Troubleshooting the application of GPOs Implementing a Group Policy infrastructure • Creating and configuring GPOs • Managing GPO scope Managing user settings with Group • Implementing administrative templates • Configuring Folder Redirection, software installation, and scripts • Configuring Group Policy preferences Managing user settings with GPOs • Using administrative templates to manage user settings • Implement settings by using Group Policy preferences • Configuring Folder Redirection • Planning Group Policy (optional) After completing this module, students will be able to: • Implement administrative templates. • Configure Folder Redirection, software installation, and scripts. • Configure Group Policy preferences. Securing Active Directory Domain • Securing domain controllers • Implementing account security • Implementing audit authentication • Configuring managed service accounts Securing AD DS • Implementing security policies for accounts, passwords, and administrative groups • Deploying and configuring an RODC • Creating and associating a group MSA Deploying and managing AD • Deploying CAs • Administering CAs • Troubleshooting and maintaining CAs Deploying and configuring a two-tier CA hierarchy •

Fees

Regular: 60,000.00

Current: **30,000.00**

Company Information

IVA Institute of Technology

Shawra Para, Dhaka, Bangladesh

Website: https://iva-institute.com/

Email: info@iva-institute.com

Contact:

IVA Institute of Technolo