

Course Name	CCNA 4: CONNECTING NETWORKS (PCP)
Course Overview	<p>This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables participants to understand the selection criteria of network devices and WAN technologies to meet network requirements. Participants learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Participants will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network.</p>
Course Objective	<p>Upon completion of this Adobe InDesign training course, students should be able to:</p> <ul style="list-style-type: none"> • Understand and describe different WAN technologies and network architectures • Understand and describe the operations and benefits of virtual private networks (VPNs) and tunneling • Understand, configure, and troubleshoot serial, broadband and tunneling connections; and Network Address Translation (NAT) operations • Monitor and troubleshoot network operations using syslog, SNMP, and NetFlow.
Target Audience	<p>This CCNA4 : Connecting Networks training course is suitable for individuals who are seeking entry-level jobs in the ICT industry or hope to fulfill prerequisites to pursue more specialized ICT skills. CCNA Routing and Switching provides an integrated and comprehensive coverage of networking topics, from fundamentals to advanced applications and services, while providing opportunities for hands-on practical experience and career skills development. The course is for students at many education levels and types of institutions, including high schools, secondary schools, universities, colleges, career and technical schools, and community centers.</p> <p>Pre-requisite: Complete CCNA Scaling Networks course.</p>

Course Outline

DAY / DATE	TIME	TOPIC
Day 1	<p>9 am – 12.30 noon</p> <p><i>10 am – 10.15 am</i></p> <p>- <i>Tea break</i></p> <p><i>1.00 pm – 2.00 pm</i></p> <p>- <i>Lunch</i></p> <p>2.00 pm – 5.00 pm</p> <p><i>4.00 pm – 4.15 pm</i></p> <p>- <i>Tea Break</i></p>	<p>Hierarchical Network Design</p> <ul style="list-style-type: none"> • Hierarchical Network Design Overview • Cisco Enterprise Architecture • Evolving Network Architectures <p>Connecting to the WAN</p> <ul style="list-style-type: none"> • WAN Technologies Overview • Selecting a WAN Technology <p>Practical</p> <ul style="list-style-type: none"> • Router Configuration (Revision)
Day 2	<p>9 am – 12.30 noon</p> <p><i>10 am – 10.15 am</i></p> <p>- <i>Tea break</i></p> <p><i>1.00 pm – 2.00 pm</i></p> <p>- <i>Lunch</i></p>	<p>Point-to-Point Connections</p> <ul style="list-style-type: none"> • Serial Point-to-Point Overview • PPP Operation • Configure PPP • Troubleshooting WAN connectivity. <p>Practical</p> <ul style="list-style-type: none"> • Configure Basic PPP

			<p>2.00 pm – 5.00 pm</p> <p><i>4.00 pm – 4.15 pm</i></p> <p>- <i>Tea break</i></p>	<p>Frame Relay</p> <ul style="list-style-type: none"> • Introduction to Frame Relay • Configure Frame Relay • Troubleshoot Connectivity <p>Practical</p> <ul style="list-style-type: none"> • Configure Frame Relay
	Day 3	<p>9 am – 12.30 noon</p> <p><i>10 am – 10.15 am</i></p> <p>- <i>Tea break</i></p> <p><i>12.30 noon – 2.00 pm</i></p> <p>- <i>Lunch</i></p> <p>2.00 pm – 5.00 pm</p> <p><i>4.00 pm – 4.15 pm</i></p> <p>- <i>Tea break</i></p>	<p>Network Address Translation for IPv4</p> <ul style="list-style-type: none"> • NAT Operation • Configuring NAT • Troubleshooting NAT. <p>Practical</p> <ul style="list-style-type: none"> • Configure NAT/PAT <p>Broadband Solutions</p> <ul style="list-style-type: none"> • Teleworking • Comparing Broadband Solutions • Configuring xDSL Connectivity <p>Practical</p> <ul style="list-style-type: none"> • Configure a Router for DSL Connectivity 	
	Day 4	<p>9 am – 12.30 noon</p> <p><i>10 am – 10.15 am</i></p> <p>- <i>Tea break</i></p>	<p>Securing Site-to-Site Connectivity</p> <ul style="list-style-type: none"> • VPNs 	

		<p><i>12.30 noon – 2.00 pm</i></p> <p>- <i>Lunch</i></p> <p>2.00 pm – 5.00 pm</p> <p><i>4.00 pm – 4.15 pm</i></p> <p>- <i>Tea break</i></p>	<ul style="list-style-type: none"> Implementing GRE Tunnels Introducing IPsec Remote Access. <p>Practical</p> <ul style="list-style-type: none"> Configure a Point-to-point GRE VPN Tunnel <p>Monitoring the Network</p> <ul style="list-style-type: none"> Syslog SNMP NetFlow <p>Practical</p> <ul style="list-style-type: none"> Configure SNMP, Syslog and NTP
	Day 5	<p>9 am – 12.30 noon</p> <p><i>10 am – 10.15 am</i></p> <p>- <i>Tea break</i></p> <p><i>12.30 noon – 2.00 pm</i></p> <p>- <i>Lunch</i></p> <p>2.00 pm – 5.00 pm</p> <p><i>4.00 pm – 4.15 pm</i></p> <p>- <i>Tea break</i></p>	<p>Troubleshooting the Network</p> <ul style="list-style-type: none"> Troubleshooting with a Systematic Approach Network Troubleshooting <p>Practical</p> <ul style="list-style-type: none"> Troubleshooting Basic PPP Troubleshooting NAT configurations

		Day 6	9 am – 12.30 noon <i>10 am – 10.15 am</i> - <i>Tea break</i> 12.30 noon – 2.00 pm - <i>Lunch</i> 2.00 pm – 5.00 pm <i>4.00 pm – 4.15 pm</i> - <i>Tea break</i>	Final Exam Online Test (Cisco Netacad) Practical Test
<i>*Note: Topicss proposed are subjects to changes</i>				
Duration	6 Days			