ReadyBell
Software Services Pvt. Ltd.

Course Name	CCIE ENTERPRISE INFRASTRUCTURE v1.1
About the Course	CCIE Enterprise Infrastructure certification is the highest level you can achieve in the Enterprise track. Prove your skills with complex enterprise infrastructure solutions from designing and deploying to operating and optimizing. To get the certification and your own CCIE number, you need to pass the CCNP ENCOR exam and lab exam.
Key Skills You Will Learn	More about any of the topics that you encountered in the CCNA and CCNP Enterprise exams, Anything there is to know about switching topics like VLANs, trunks, spanning-tree and Etherchannels, Anything there is to know about routing protocols RIP, EIGRP, OSPF and BGP, Tunneling topics like MPLS and DMVPN, Quality of Service (QoS), Network Automation, And many other topics…
Course Pre-Requisite	You have mastered all topics in CCNA and CCNP R&S. Learners are recommended to have five to seven years of experience with designing, deploying, operating and optimizing enterprise networking technologies and solutions prior to taking the exam.
Target Audience	The target audience for the Cisco Certified Internetwork Expert (CCIE) Enterprise Infrastructure certification is: Network engineers, Network architects, Network managers, Network IT professionals, and Other IT professional. The certification is designed for those who need to use expert-level problem-solving skills to support complex network technologies and topologies
Job prospects with this role	Network architect, Business services architect, Systems engineer
Course Duration	~ 120 Hrs
Course Customisation	Not applicable
Certification	READYBELL CCIE ENTERPRISE INFRASTRUCTURE v1.1 Certificate
Mode of Training	Instructor-led 100% Online or 100% Classroom (Salt Lake, Kolkata - India) or hybrid mode (Online + Classroom) as suitable for the learner
Course Fees	Please contact us
Refund Policy	Get a 3-hours free trial during which you can cancel at no penalty. After that, we don't give refunds
Job Assistance	Will assist candidate in securing a suitable job
Contact	**READYBELL SOFTWARE SERVICES PVT. LIMITED** **AH 12, SALT LAKE SECTOR 2, KOLKATA (INDIA) - 700 091** **E-MAIL: contact@readybellsoftware.com** **PH: +91 - 9147708045/9674552097, +91 - 33-79642872**

ReadyBell
Software Services Pvt. Ltd.

CURRICULUM		
Topic	**Sub-Topic**	**Duration (Hrs)**
CCIE ENTERPRISE INFRASTRUCTURE v1.1	**Basic Switching**	120 Hrs
	Module 1: Switch administration	
	Managing MAC address table	
	Errdisable recovery	
	L2 MTU	
	Module 2: Layer 2 protocols	
	CDP, LLDP	
	UDLD	
	Module 3: VLAN technologies	
	Access ports	
	Trunk ports (802.1Q)	
	Native VLAN	
	Manual VLAN pruning	
	VLAN database	
	Normal range and extended range VLANs	
	Voice VLAN	
	VTP	
	Module 4: EtherChannel	
	LACP, static	
	Layer 2, Layer 3	
	Load balancing	
	EtherChannel Misconfiguration Guard	
	Module 4: Spanning Tree Protocol	
	PVST+, Rapid PVST+, MST	
	Switch priority, port priority, path cost, STP timers	
	PortFast, BPDU Guard, BPDU Filter	
	Loop Guard, Root Guard	
	Routing Concepts	
	Module 5: Administrative distance	
	Module 6: VRF-lite	
	Module 7: Static routing	
	Module 8: Policy Based Routing	
	Module 9: VRF-aware routing with any routing protocol	
	Module 10: Route filtering with any routing protocol	
	Module 11: Manual summarization with any routing protocol	
	Module 12: Redistribution between any pair of routing protocols	

	Module 13: Routing protocol authentication	
	Module 14: Bidirectional Forwarding Detection	
	EIGRP	
	Module 15: Adjacencies	
	Module 16: Best path selection	
	RD, FD, FC, successor, feasible successor	
	Classic Metrics and Wide Metrics	
	Module 17: Operations	
	General operations	
	Topology table	
	Packet types	
	Stuck In Active	
	Graceful shutdown	
	Module 18: EIGRP load balancing	
	Equal-cost	
	Unequal-cost	
	Add-path	
	Module 19: EIGRP Named Mode	
	Module 20: Optimization, convergence and scalability	
	Fast convergence requirements	
	Query propagation boundaries	
	IP FRR (single hop)	
	Leak-map with summary routes	
	EIGRP stub with leak map	
	OSPF (v2 and v3)	
	Module 21: Adjacencies	
	Module 22: Network types, area types	
	Module 23: Path preference	
	Module 24: Operations	
	General operations	
	Graceful shutdown	
	GTSM (Generic TTL Security Mechanism)	
	Module 25: VLAN database	
	Metrics	
	LSA throttling, SPF tuning, fast hello	
	LSA propagation control (area types)	
	Stub router	
	Loop-free alternate	
	Prefix suppression	

	BGP	
	Module 26: IBGP and EBGP peer relationships	
	Peer-group/update-group, template	
	Active, passive	
	Timers	
	Dynamic neighbors	
	4-byte AS numbers	
	Private AS	
	Module 27: Path selection	
	Attributes	
	Best path selection algorithm	
	Load balancing	
	Module 28: Routing policies	
	Attribute manipulation	
	Conditional advertisement	
	Outbound Route Filtering	
	Standard and extended communities	
	Multi-homing	
	Module 29: AS path manipulations	
	local-AS, allowas-in, remove-private-as	
	Prepend	
	Regexp	
	Module 30: Convergence and scalability	
	Route reflector	
	Aggregation, as-set	
	Module 31: Other BGP features	
	Multipath, add-path	
	Soft reconfiguration, Route Refresh	
	Multicast	
	Module 32: Layer 2 multicast	
	IGMPv2, IGMPv3	
	IGMP Snooping, PIM Snooping	
	IGMP Querier	
	IGMP Filter	
	MLD	
	Module 33: Reverse path forwarding check	

	Module 34: PIM	
	Sparse Mode	
	Static RP, BSR, AutoRP	
	Group to RP Mapping	
	Bidirectional PIM	
	Source-Specific Multicast	
	Multicast boundary, RP announcement filter	
	PIMv6 Anycast RP	
	IPv4 Anycast RP using MSDP	
	Multicast multipath	
	Cisco SD Access	
	Module 35: Design a Cisco SD Access solution	
	Underlay network (IS-IS, manual/PnP)	
	Overlay fabric design (LISP, VXLAN, Cisco TrustSec)	
	Fabric domains (single-site and multi-site using SD-WAN transit)	
	Module 36: Cisco SD Access deployment	
	Cisco DNA Center device discovery and device management	
	Add fabric node devices to an existing fabric	
	Host onboarding (wired endpoints only)	
	Fabric border handoff	
	Module 37: Segmentation	
	Macro-level segmentation using VNs	
	Micro-level segmentation using SGTs (using Cisco ISE)	
	Module 38: Host onboarding (wired endpoints only)	
	Network and client health (360)	
	Monitoring and troubleshooting	
	Cisco SD-WAN	
	Module 39: Design a Cisco SD-WAN solution	
	Orchestration plane (vBond, NAT)	
	Management plane (vManage)	
	Control plane (vSmart, OMP)	
	Data plane (vEdge/cEdge)	
	Module 40: WAN edge deployment	
	Onboarding new edge routers	
	Orchestration with zero-touch provisioning/Plug-And-Play	
	OMP	
	TLOC	
	Module 41: Configuration templates	
	Module 42: Localized policies (only QoS)	

	Module 43: Centralized policies	
	Application Aware Routing	
	Topologies	
	MPLS	
	Module 44: Operations	
	Label stack, LSR, LSP	
	LDP	
	MPLS ping, MPLS traceroute	
	Module 45: L3VPN	
	PE-CE routing	
	MP-BGP VPNv4/VPNv6	
	Extranet (route leaking)	
	DMVPN	
	Module 46: Troubleshoot DMVPN Phase 3 with dual-hub	
	NHRP	
	IPsec/IKEv2 using pre-shared key	
	Per-Tunnel QoS	
	Module 47: Identify use cases for FlexVPN	
	Site-to-site, Server, Client, Spoke-to-Spoke	
	IPsec/IKEv2 using pre-shared key	
	MPLS over FlexVPN	
	Security and Services	
	Module 48: Device Security on Cisco IOS XE	
	Control plane policing and protection	
	AAA	
	Module 49: Network Security	
	Switch security features	
	Router security features	
	IPv6 infrastructure security features	
	IEEE 802.1X Port-Based Authentication	
	Module 50: System Management	
	Device management	
	SNMP	
	Logging	
	Module 51: Quality of Service	
	End to end L3 QoS using MQC	
	Module 52: Network Services	
	First Hop Redundancy Protocols	
	Network Time Protocol	
	DHCP on Cisco IOS	
	IPv4 Network Address Translation	

	Module 53: Network optimization	
	IP SLA	
	Tracking object	
	Flexible NetFlow	
	Module 54: Network operations	
	Traffic capture	
	Cisco IOS-XE troubleshooting tools	
	Automation and Programmability	
	Module 55: Data encoding formats	
	JSON	
	XML	
	Module 56: Automation and scripting	
	EEM applets	
	Guest shell	
	Module 57: Programmability	
	Interaction with vManage API	
	Interaction with Cisco DNA Center API	
	Interaction with Cisco IOS XE API	
	Deploy and verify model-driven telemetry	
To register for this course please e-mail/call us		