

Course prerequisites – MTCNA and MTCRE certificates

Title	Objective
BGP	<ul style="list-style-type: none"> • What is Autonomous System • What is BGP? • Path Vector algorithm • BGP Transport and packet types • iBGP and eBGP + LAB • Stub network scenarios and private AS removal + LAB • Non-stub scenarios + LAB • iBGP and eBGP multihop and loopback usage + LAB • Route distribution and routing filters +LAB • BGP best path selection algorithm • BGP prefix attributes and their usage + LAB • BGP route reflectors and confederations + LAB
Multicast	<ul style="list-style-type: none"> • What is multicast? • Multicast addressing L2 and L3 • Group management (IGMP) • Multicast routing (PIM-SM) + LAB • IGMP proxy and IGMP snooping + LAB
MPLS	<ul style="list-style-type: none"> • What is MPLS (basics) • Label Distribution (LDP) + LAB • What is Penultimate-hop-popping • MPLS traceroute differences • LDP based VPLS tunnels + LAB • What is Bridge Split Horizon + LAB • BGP based VPLS + LAB • VRF and route leaking + LAB • L3VPN (BGP based Layer3 tunnels) + LAB • OSPF as CE-PE protocol
Traffic Engineering	<ul style="list-style-type: none"> • What is traffic engineering and how it works • RSVP, Static path, dynamic path (CSPF) + LAB • Bandwidth allocation and bandwidth limitation differences and settings + LAB