Course Name: MTCINE

Course Time: 24 Hrs.

Course Prerequisites: MTCNA & MTCRE Certificates

Course Outline:

❖ **BGP**

- 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

❖ **MPLS**

- What is MPLS (basics)
- Static Label Mapping + LAB
- Label Distribution (LDP) + LAB
- What is Penultimate-hop-popping
- MPLS traceroute differences
- LDP based VPLS tunnels + LAB
- What is Bridge Split Horizon + LAB
- VPLS Control Word (CW) usage
- L2MTU importance and MPLS fragmentation
- BGP based VPLS + LAB
- VRF and route leaking + LAB
- L3VPN (BGP based Layer3 tunnels) + LAB
- OSPF as CE-PE protocol

❖ **Traffic Engineering**

- What is traffic engineering and how it works
- RSVP, Static path, dynamic path (CSPF) + LAB
- Bandwidth allocation and bandwidth limitation differences and settings + LAB