

Course Name: MTCRE

Course Time: 16 Hrs.

Course Prerequisites: MTCNA Certificate

Course Outline:

❖ **Static Routing**

- More specific routes
- ECMP + LAB
- How to force gateway over specific interface
- Gateway reachability check and route distance + LAB
- Routing mark and route policy + LAB
- Recursive next-hop and scope/target-scope usage + LAB

❖ **Point to point addressing**

- PtP address configuration + LAB

❖ **VPN**

- What is VPN?
- Different types of VPN
- Site to site connectivity with tunnels (IPsec, EoIP, PPTP, SSTP, L2TP) + LAB
- Vlan and its usage
- QinQ implementation + LAB
- Vlan and managed switch
- Vlan and switch chip configuration on Rbs + LAB

❖ **OSPF**

- What is OSPF?
- How OSPF protocol works (Hello protocol, Database distribution and LSA types explained)
- OSPF network structure (Areas, Router types)
- OSPF neighbors and neighbor states (DR and BDR election) + LAB
- External Route Distribution methods (type1, type2) + LAB
- Interface cost and interface types (broadcast, NBMA, etc.) + LAB
- STP tree calculation algorithm
- OSPF and multicast (problems with NBMA)
- Stub, NSSA and area ranges (route aggregation) + LAB
- Virtual links, usage and limitations + LAB
- OSPF routing filters and limitations + LAB

❖ **MME**

- Quick introduction of MME as an alternative to OSPF over wireless network