

# MTCRE

<b>Course Name:</b>	MTCRE
<b>Course Duration:</b>	16 hours
<b>Requirements:</b>	MTCNA
<b>Who should take this Course:</b>	Network engineers

## Syllabus 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 (IPIP, EoIP, PPTP, SSTP, L2TP) + LAB
  - Vlan and it's 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