

MTCIPv6E

Course Name:	MTCIPv6E
Course Duration:	24 hours
Requirements:	MTCNA
Who Should Take This Course:	Network engineers

Syllabus Course

Introduction to IPv6 + LAB	IPv6 prefix	Firewall
IPv6 address	IPv6 Packet +LAB	IPsec
Differences between IPv4 and IPv6	IPv6 header	Header only encryption (AH)
Address distribution	Header field description	Data only encryption (ESP)
Address notation	Next header (daisy chaining)	Header and data encryption (AH+ESP)
SLAAC IPv6 address creation (EUI-64)	Fragmentation	Transition Mechanisms + LAB
Subnetting	Path MTU discovery	Dual stack (RIPE recommended)
Address types	IPv6 Security + LAB	6to4
Link-local	ICMPv6	Teredo
Global	Neighbor discovery protocol	DS-lite (Dual stack lite)
Multicast	Router solicitation	Interoperability + LAB
Anycast	Router advertisement	IPv6 pool
Unique local	Neighbor solicitation	DHCP
Special addresses	Duplicate address detection	DHCP PD server
Reserved IPv6 addresses	Neighbor unreachability detection	DHCP PD client
IPv6 Protocol + LAB	Neighbor advertisement	DHCPv6 client
Address configuration	'Managed address configuration' flag	IPv6 tunnels
Auto-configuration	'Other configuration' flag	IPIPv6
Stateless – SLAAC, DHCPv6	Redirect	EoIPv6
Stateful – DHCPv6	MLD (Multicast Listener Discovery)	GRE6
IPv6 routing basics	Temporary addresses	IP version agnostic