

MTCWE training outline

last edited on March 16, 2011

Course prerequisites – MTCNA certificate

Title	Objective
Wireless Installations	<ul style="list-style-type: none">○ Wireless routers<ul style="list-style-type: none">○ RouterBoard Hardware○ Wireless cards○ Antenna types
Wireless Standard	<ul style="list-style-type: none">○ 802.11 a/b/g/n○ Bands and channel width○ Frequencies
Wireless Tools	<ul style="list-style-type: none">○ Wireless Tools + LAB<ul style="list-style-type: none">○ Scan○ Frequency usage○ Spectral Scan/History○ Snooper○ Align○ Sniffer
Wireless Troubleshooting	<ul style="list-style-type: none">○ Troubleshooting wireless clients + LAB<ul style="list-style-type: none">○ Registration table analysis○ Ack-Timeout/Distance○ CCQ○ TX/RX Signal Strength○ Frames and HW-frames○ Data-rates
Wireless Advanced Settings	<ul style="list-style-type: none">○ Advanced Wireless Tab settings + LAB<ul style="list-style-type: none">○ HW-retries○ HW-protection○ Adaptive-noise-immunity○ WMM○ Country regulation settings○ TX-power + LAB○ Virtual-AP
802.11n	<ul style="list-style-type: none">○ 802.11n wireless protocol + LAB<ul style="list-style-type: none">○ Features○ Data Rates○ Channel bonding○ Frame Aggregation○ TX-power for N cards○ Chain settings○ Wireless link debugging
Wireless Security	<ul style="list-style-type: none">○ Wireless Security Measures + LAB<ul style="list-style-type: none">○ Access Management○ Access-List/Connect-List○ RADIUS○ Authentication

Title	Objective
	<ul style="list-style-type: none"> ○ Encryption ○ EAP ○ Management Frame Protection
WDS and MESH	<ul style="list-style-type: none"> ○ Wireless WDS protocol + LAB <ul style="list-style-type: none"> ○ Dynamic/Static WDS ○ RSTP Bridge ○ Wireless MESH + LAB <ul style="list-style-type: none"> ○ HWMP+ Mesh
Wireless Bridging	<ul style="list-style-type: none"> ○ Wireless Transparent Bridge + LAB <ul style="list-style-type: none"> ○ WDS bridging ○ AP/Station-WDS ○ Pseudobridge ○ MPLS/VPLS tunnel
Nstreme Protocol	<ul style="list-style-type: none"> ○ MikroTik Wireless Nstreme Protocol + LAB <ul style="list-style-type: none"> ○ Features ○ Configuration options ○ Nstreme Dual ○ Troubleshooting
Nv2 Protocol	<ul style="list-style-type: none"> ○ MikroTik Wireless Nv2 Protocol + LAB <ul style="list-style-type: none"> ○ Features ○ Configuration options ○ Troubleshooting