

PROGRAMMA CWNP Certified Wireless Analysis Professional (CWAP-404)

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Parts I: Protocol Analysis

- Capture 802.11 frames using the appropriate methods
- Understand and apply the common capture configuration parameters available in protocol analysis tools
- Analyze 802.11 frame captures to discover problems and find solutions
- Utilize additional tools that capture 802.11 frames for analysis and troubleshooting
- Ensure appropriate troubleshooting methods are used with all analysis types

Parts II: Spectrum Analysis

- Capture RF spectrum data and understand the common views available in spectrum analyzers
- Analyze spectrum captures to identify relevant RF information and issues
- Analyze spectrum captures to identify various device signatures
- Use centralized spectrum analysis solutions

Parts III: PHY Layers and Technologies

- Understand and describe the functions of the PHY layer and the PHY protocol data units (PPDUs)
- Apply the understanding of PHY technologies, including PHY headers, preambles, training fields, frame aggregation, and data rates, to captured data
- Identify and use PHY information provided within pseudo-headers in protocol analyzers
- Recognize the limits of protocol analyzers to capture PHY information including NULL data packets and PHY headers
- Use appropriate capture devices based on proper understanding of PHY types

Parts IV: MAC Sublayer and Functions

- Understand frame encapsulation and frame aggregation
- Identify and use MAC information in captured data for analysis
- Validate BSS configuration through protocol analysis
- Identify and analyze CRC error frames and retransmitted frames

Parts V: WLAN Medium Access

- Understand 802.11 contention algorithms in-depth and know how they impact WLANs
- Analyze QoS configuration and operations

Parts VI: 802.11 Frame Exchanges

- Capture, understand, and analyze BSS discovery and joining frame exchanges
- Analyze roaming behavior and resolve problems related to roaming
- Analyze data frame exchanges
- Analyze MIMO and multiuser-specific transmission methods

- Analyze behavior and resolve problems related to MAC layer operations