

ning Tree Protocol
MSDU
RADIUS Server
MSDU Ping
Group
License File
Network Address Translation
TCP / IP Management Information Base
HTTP Broadcast Storm
ICMP
STP Frames
MAC Address
TCP / IP Network Address Translation


Wireless



Glossary

Upload Authentication Multicast Client IP Address Pool
Multicast HTTP Broadcast Storm ICMP
Unicast STP Frames MAC Address
Spanning Tree Protocol
Multiplexing MSDU
Upload RADIUS Server
SSH TCP / IP Network Address Translation
ICMP Port Number
Management Information Base
Simple Network Management Protocol
License File
Network Address Translation
Authentication
MAC Address

A

Access point	A wireless network transceiver or “base station” hub, often used to connect a local area network to one or more wireless devices. An access point (also called AP) can provide a communication link to a wired local area network also.
Address Realm	An address realm is a network domain in which the network addresses are uniquely assigned to entities such that data grams can be routed to them.
ADHOC	A ‘client’ setting for a wireless local area network that allows devices connected to the network to communicate with one another directly, independent of an access point or router.
Advanced Encryption Standard (AES)	It is a symmetric-key encryption standard, containing three block ciphers AES-128, AES-192, AES-256. Each of these ciphers has a 128-bit block size, with key sizes of 128, 192 and 256 bits, respectively.
AE	Active Ethernet is another name for Power over Ethernet (PoE).
Antenna Beam width	Antenna beam width is the peak-to-peak angle overlaying the maximum gain beam of the antenna at which its gain is reduced by 3 dB. Contrary to popular belief, the 3 dB gain beam-width of an antenna does not represent its interference beam-width, which is significantly wider. For example, a typical 2 - foot parabolic antenna at 5.8 GHz has 28 dBi of gain, and a typical beam-width of 6 degrees. However, as an interference source, it radiates with 25 dBi of gain over a 6 degree area, 10 dBi of gain over a 32 degree area, and 2 dBi gain over a 170 degree area.
Antenna Gain	Antenna gain is the amount of increase in signal strength (in decibels) that results from an antenna concentrating it’s radiated signal into a given direction, when compared to the gain of a reference antenna. As antenna gain increases in a given direction, its radiated “beam-width” becomes narrower in one or more aspects.
Application Level Gateway (ALG)	An Application Level Gateway is an application-specific translation agent that provides the required transparency for an application running on a host in a private network to connect to its counterpart running on a host in the public network. The NAT feature requires an ALG to support certain applications.
ARP	The Address Resolution Protocol (ARP) is intended to find the MAC address belonging to an IP address.
Authentication	The process the unit uses to decide whether a wireless client is allowed to register to an access point network or not. IEEE 802.11 specifies two forms of authentication: open system and shared key.
Authentication Server “Shared Secret”	This is a kind of password shared between the unit and the RADIUS authentication server. This password is used to encrypt important data exchanged between the unit and the RADIUS server.
Authentication server authentication port	This is a UDP port number (default is 1812), which is used to connect to the authentication server for obtaining authentication information.
Auto-Negotiation	A signaling method that lets each node define its operational mode and detect the operational mode of the adjacent node. Auto-negotiation can be used in dual-function 10/100 Mbps Ethernet adapters. The process happens out-of-band with no loss of network throughput.

B

Basic Service Set (BSS)	A wireless network with atleast one Access Point (either connected to a wired network infrastructure or a wireless backhaul) and a set of wireless devices forms a Basic Service Set (BSS).
Bridge	An interface connecting a local area network to another local area network that uses the same protocol (for example, wireless, Ethernet or token ring). Wireless bridges are commonly used to link buildings in campuses.
Broadband	In data communications, a “broadband connection” is a connection with a high speed of data transfer, fast enough to support a video streaming.
Broadcast	Broadcast traffic is a large series of broadcast packets (most often caused by wrong network configuration) that severely impact the network performance.
Broadcast SSID (BSSID) BSSID	BSSID refers to the MAC address of the wireless client within an Access Point (AP) coverage area.

C

Carrier Sense Multiple Access with Collision Avoidance (CSMA / CA)	It is a wireless network multiple access method in which: A carrier sensing scheme is used. A node wishing to transmit data has to first listen to the channel to determine whether or not another node is transmitting on the channel within the wireless range. If the channel is sensed "idle," then the node is permitted to begin the transmission process. If the channel is sensed as "busy," the node defers its transmission for a random period of time. Once the transmission process begins, it is still possible for the actual transmission of application data to not occur.
Client IP Address Pool	This a pool of IP addresses from which the unit can assign IP addresses to clients, which perform a DHCP Request.
Cyclic Redundancy Check (CRC)	A cyclic redundancy check (CRC) is an error-detecting code commonly used in digital networks and storage devices to detect accidental changes to raw data. Blocks of data entering these systems get a short check value attached, based on the remainder of a polynomial division of their contents; on retrieval the calculation is repeated, and corrective action can be taken against presumed data corruption if the check values do not match.

D

DHCP Relay Agent	A feature of the unit that intercepts DHCP requests from clients and forwards them to a DHCP server. For the client, the DHCP Relay Agent of the unit functions like a DHCP server. This enables DHCP requests to pass router boundaries; for example, it is not required to have a DHCP server on every IP subnet.
Digital Subscriber Line (DSL)	Digital subscriber line is a technology that provides internet access by transmitting digital data over the wires of a local telephone network.
Domain Name Server (DNS)	A domain name server is an Internet service that translates domain names into IP addresses. For example, www.ietf.org is translated into 4.17.168.6.
Downstream / Downlink	Downstream means a data stream from the central part of the network to the end user. Also, refer Upstream / Uplink.
Dual-Band	Dual-band refers to a device's ability to function on two different frequency bands.
Dynamic Frequency Selection (DFS)	DFS helps you select the operating frequency that does not interfere with the RADAR signals, by continuously detecting the range of operating frequencies with a RADAR interference.
Dynamic Host Configuration Protocol (DHCP)	Dynamic Host Configuration Protocol (DHCP) is a method to dynamically assign IP addresses. If DHCP is enabled, the device or computer broadcasts a request that is answered by a DHCP Server.
Dynamic IP address	An IP address assigned to a client, each time the client connects to the network. The dynamic IP address is configured by the DHCP server and can be different each time the client connects to the network.

E

Encryption	Encryption is a means of coding data with a key before sending it across a network. The same key must be used to decode the information at the receiver. This way, it prevents unauthorized access to the data that is sent across the network.
Encryption Key	An alphanumeric (letters and/or numbers) series that enables data to be encrypted and then decrypted, so it can be securely shared among members of the same network. While sending, the encryption key helps to encrypt outgoing wireless data the same encryption key enables the computer to automatically decrypt the information so it can be read.
Ethernet	Ethernet is the most widely installed Local Area Network (LAN) technology. The unit supports both 10 and 100 Mbps and half and full duplex.
Extensible Authentication Protocol (EAP)	EAP is an authentication framework providing the transport and usage of keying material and parameters generated by EAP methods. EAP is not a wire protocol, instead it only defines the message formats. Each protocol that uses EAP defines a way to encapsulate EAP messages within that protocol's messages.

F

Free Space Loss	The Free Space Loss is the transmission loss between two antennas, separated by a distance.
Fresnel Zones	Unlike the popular view of a Line of Sight which a clear unobstructed clear straight line. Radio frequency line of sight is defined by Fresnel Zones which are ellipse shaped areas between any two radios. The primary Fresnel zone is required to be at least 60% clear of any obstruction to ensure the highest performance of wireless link.

G

Gateway	A gateway is network device that connects multiple (IP) networks to each other. A gateway can perform protocol conversion.
Group	A group is a logical collection of network parameters. For example, the System Group is composed of several parameters and tables giving system information of the unit. All items for a group are grouped under one tab of the Web Interface and start with the same prefix for the command line interface.

H

Hexadecimal	A numeral system with a radix or base, of 16. It uses sixteen distinct symbols, 0–9 to represent values zero to nine and A, B, C, D, E, F to represent values ten to fifteen. Each hexadecimal digit represents four binary digits (bits).
HTTP	Hypertext Transfer Protocol (HTTP) is the protocol to transport Web pages. When you access the Internet with your browser, the HTTP protocol is used for data transport (http://www.Tsunami-wireless.com). When you access the unit by using the Web Interface, HTTP is used to transport the information. HTTPS is the Secure Hypertext Transfer Protocol.

I

ICMP	Internet Control Message Protocol (ICMP) is used by computers and devices to report errors encountered during processing packets, and to perform other IP-layer functions, such as diagnostics ('ping').
IP Address	A unique numerical address of a computer attached to the Internet or Intranet. An IP (Internet Protocol) address consists of a network part and part for a host (computer) number. An IP address is represented by four numbers in the range 0 - 255 separated by dots: for example 10.0.10.1 and 172.21.43.214. See also subnet mask.

L

LAN	A Local Area Network (LAN) is a network of limited size to which computers and devices can connect so that they can communicate with each other.
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M

MAC Address	A MAC (Media Access Control) address is a globally unique network device address, which is hardware bound. It is used to identify a network device in a LAN. A MAC address is represented by six two-digit hexadecimal numbers (0 - 9 and A - F) separated by colons: for example 00:02:2D:47:1F:71 and 00:D0:AB:00:01:AC.
Management Information Base (MIB)	A Management Information Base (MIB) is a formal description of a set of network objects that can be managed with the Simple Network Management Protocol (SNMP). A MIB can be loaded by a management application so that it knows the unit specific objects.
MPDU Packets	MPDU stands for MAC Protocol Data Unit. MPDUs are the fragmented units of MSDUs.
MSDU	MSDU stands for MAC Service Data Unit. The MSDU is that unit of data that is received from the LLC sub-layer, which lies above the MAC sub-layer in a protocol stack.
Multicast	A one-to-many communication or a delivery of a message or information to a group of destination computers simultaneously in a single transmission.
Multiple-Input-Multiple-Output (MIMO)	Multiple-Input-Multiple-Output (MIMO) is a cutting edge antenna technology transmitting multiple data streams on multiple transmitters to multiple receivers. Multiple antennas are used at both the transmitter and the receiver to increase the odds of receiving the signal, especially when the link has Non-Line-of-Sight (nLoS).

N

NETBIOS	It provides services related to the session layer of the OSI model allowing applications on separate computers to communicate over a local area network.
Network Address Translation	Network Address Translation is a method by which IP addresses are mapped from one address realm to another, providing transparent routing to end hosts.
Network Mask	See Subnet Mask

O

Orthogonal Frequency Division Multiplexing (OFDM)	OFDM is a frequency-division multiplexing (FDM) scheme, a method of encoding digital data on multiple carrier frequencies. A large number of closely spaced orthogonal sub-carrier signals are used to carry data. The data is divided into several parallel data streams or channels, one for each sub-carrier, maintaining total data rates similar to conventional single-carrier modulation schemes in the same bandwidth.
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P

Ping	Ping is a basic Internet program that lets you verify if a particular computer or device with a certain IP address is reachable. If the computer or device receives the ping packet, it responds to it, which gives the ping program the opportunity to display the round-trip time.
Port Number	TCP and UDP provide an address mechanism, the port number, for identifying different applications communicating from the same IP address. Thus an active Web browser and an independently active mail program operating from the same IP location would typically use different port numbers so that packets are correctly delivered to specific applications.
Probe Request	A wireless client sends a probe request frame when it needs to obtain information from another wireless client or an access point. For example, a radio NIC would send a probe request to determine which access points are within range.
Probe Response	A wireless client or an access point will respond to the probe request with a probe response frame, containing capability information, supported data rates, etc.

Q

QoS	The Quality of Service (QoS) defines the classes, service flows, and packet identification rules for specific types of traffic. The main priority of QoS is to guarantee a reliable and adequate transmission quality for all types of traffic under conditions of high congestion and bandwidth over-subscription.
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R

RADIUS Server	Remote Authentication Dial In User Service (RADIUS) is a client/server networking protocol that runs in the application layer, by using UDP as transport and provides centralized Authentication, Authorization, and Accounting (AAA) management for computers to connect and use a network service. The RADIUS server is a background process that serves the following three functions: To authenticate users or devices before granting them access to a network. To authorize those users or devices for certain network services. To account the users for usage of the provided services.
RIP	Routing Information Protocol (RIP) is used between routers to update routing information so that a router automatically 'knows' which port to use for a certain destination IP address.
Router	Routers forward packets from one network to another based on routing information. A router uses a dynamic routing protocol like RIP or static routes to base its forwarding decision on.
RTS Frame	A node wishing to send data initiates the process by sending a Request-to-Send (RTS) frame.

S

Scan Tool	A computer program that can be used to retrieve or set the IP address of a locally connected unit.
Simple Network Management Protocol (SNMP)	A protocol used for the communication between a network management application and the devices it is managing. The network management application is called the SNMP manager and the devices it manages will have SNMP agents. Not only the unit but also almost every network device contains a SNMP agent. The manageable objects of a device are arranged in a Management Information Base, also called MIB. The Simple Network Management Protocol (SNMP) allows managers and agents to communicate for accessing these objects.
Single-Band	Single-band refers to a device's ability to function only on one frequency band.
Spanning Tree Protocol (STP)	The Spanning Tree Protocol (STP) can be used to create redundant networks ("hot standby") and to prevent loops. If enabled, spanning tree prevents loops by disabling redundant links. If a link fails, it can automatically enable a backup link.
SSH	A security protocol for logging into a remote server. SSH provides an encrypted session for transferring files and executing server programs.
SSID	A Service Set Identifier (also referred to as a network name) is a common name that identifies a wireless network. The identifier is attached to the wireless local area network (WLAN) and acts as an identifier when a device tries to connect to the system. A device will not be permitted to join the network unless it can provide the unique SSID. An SSID can be broadcast by the network router, allowing devices to detect it as an available network. An SSID does not supply security to the network
SSL	Secure Socket Layer is a commonly used encryption scheme used by many online retail and banking sites to protect the financial integrity of transactions.
STP Frames	The data frames exchanged in an STP network topology are called as the STP Frames, BPDU frames being one of them.

Subnet Mask	A subnet mask is a bit mask that defines which part of an IP address is used for the network part and which part for a host (computer) number. A subnet mask is like an IP address represented by four numbers in the range 0 - 255 separated by dots. When the IP address 172.17.23.14 has a subnet mask of 255.255.255.0, the network part is 172.17.23 and the host number is 14. See also IP address.
Syslog Server	Syslog Server receives, logs, displays, and forwards syslog messages from network devices like routers.
System Operating Margin	The System Operating Margin or SOM is the difference between the signal a radio is actually receiving vs. what it needs for good data recovery (i.e. receiver sensitivity).
T	
Tagged Frames	When a frame enters the VLAN - aware area of the network, a tag is added to represent the VLAN membership of the frame's port or the port/protocol combination. These are called Tagged Frames.
TCP / IP	The TCP/IP internet-suite protocol describes a set of general design guidelines and implementations of specific networking protocols to enable computers to communicate over a network. TCP/IP provides end-to-end connectivity specifying how data should be formatted, addressed, transmitted, routed and received at the destination.
Telnet	Telnet is a network protocol used on the Internet or local area networks to access the command-line interface, on a remote host. Most network equipment and operating systems with a TCP/IP stack support a Telnet service for remote configuration.
Topology	Topology is the physical layout of network components (cable, wireless clients, gateways, hubs, and so on).
Trap	A trap is used within SNMP to report an unexpected or unallowable condition.
Trivial File Transfer Protocol (TFTP)	Trivial File Transfer Protocol (TFTP) is a lightweight protocol for transferring files that is like a simple form of File Transfer Protocol (FTP).
U	
Unicast	Unicast transmission is the sending of messages to a single network destination identified by a unique address.
Untagged Frames	Untagged frame is a frame which not added with a tag or has no VLAN Id associated to it.
Upload	Uploading a file means copying a file from a network device to a remote server.
Upstream / Uplink	Upstream means a data stream from the end users to the central part of the network. See also Downstream / Downlink.
V	
VLAN	The Virtual Local Area Network (VLAN) feature helps in logical grouping of network host on different physical LAN segments, which can communicate with each other as if they are all on the same physical LAN segment.
W	
Wireless Client / Station (STA)	A computer or program, connected to an access point network, that can access the wireless network, download files for manipulation, run applications, or request application-based services from a file server is called a wireless client or a wireless station (STA).
WLAN	A flexible data communication system implemented as an extension to or as an alternative for a wired LAN within a building or campus. By using electromagnetic waves, WLANs transmit and receive data over the air, minimizing the need for wired connections.

About Proxim

Proxim Wireless Corporation (OTC Markets: PRXM) provides Wi-Fi®, Point-to-Point and Point-to-Multipoint 4G wireless network technologies for wireless internet, video surveillance and backhaul applications. Our ORiNOCO® and Tsunami® product lines are sold to service providers, governments and enterprises with over 2 million devices shipped to over 250,000 customers in over 90 countries worldwide. Proxim is ISO 9001-2008 certified. For more information, visit www.proxim.com. For investor relations information, e-mail ir@proxim.com or call +1 413-584-1425.



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