

The Virtualization of Wireless LAN Services using WebAAA

The unique WebAAA™ feature from Trapeze Networks™ goes far beyond the basic web authentication found in other browser-based access solutions. Instead, Trapeze WebAAA allows IT managers to support the entire realm of AAA services – authentication, authorization and accounting – for wireless LAN clients who authenticate using a web browser.

Trapeze WebAAA offers IT the best of both worlds: The simplest possible interface for wireless users – a web browser; and complete management of wireless LAN access using the AAA tools they're already familiar with.

It delivers secure (https) authentication based on username and password, supports a myriad of authorization attributes to precisely control network access (VLAN ID, access control lists, quality of service, time of day, start/stop times and more) and RADIUS-based accounting (personal statistics, individual roaming history and more).

WebAAA offers considerable flexibility, allowing IT to create fully customized web login portals for different groups that require secure wireless access: Employees, guests, contractors, suppliers and other groups.

Trapeze WebAAA delivers a broad array of capabilities, including:

- Up to 64 WebAAA configurations per Mobility Exchange (MX) switch
- Customizable HTML pages for each instance of WebAAA (by Virtual Service Set)
- Secure authentication (HTTPS)
- Per-user support of all authorization attributes, such as VLAN ID, access control lists (ACLs), quality of service (QoS), time-of-day, start/stop times and post-authentication URL redirection
- Full RADIUS accounting
- Per-user statistics and roaming history
- Equal applicability for wired users

WebAAA can be deployed in conjunction with Virtual Service Sets™, another unique capability from Trapeze that allows numerous virtual wireless LANs to be operated over a single wireless LAN infrastructure.

Traffic on each virtual wireless LAN is kept separate and existing wired network engineering – such as VLAN topology – is maintained for each user set. Different groups of users can each be assigned a separate private network with services tailored to their exact requirements.

For example, one virtual WLAN can be configured to support WebAAA for guests, another can be configured to support 802.1X with AES for employees, and another can be configured to support voice with MAC authentication and QoS.

How WebAAA Works

When a service profile is configured for WebAAA fall-through and a user connects to that Service Set Identifier (SSID), the MX switch intercepts the user's browser-based request to access a URL.

The user is placed on an IT-configured WebAAA VLAN for that SSID and is served a customized WebAAA login page. The user is then prompted to enter a username and password into the appropriate fields on the WebAAA login page, and the MX checks its local database or a RADIUS server for the username and password.

If the username and password are not found, Mobility System Software (MSS) denies access to the user. If the username and password are found, authentication and authorization occur. Authorization includes the assignment of a VLAN and other attributes such as the SSID the user is allowed to access, time-of-day access and start/stop times.

When the process of authorization has been completed, a “success” page is displayed briefly to provide confirmation, and the user's web browser is redirected to the URL that was originally requested. Trapeze WebAAA also enables the user's web browser to be redirected to a URL that was specified during the authorization process.

Accounting can also be invoked to collect and send information used for billing, auditing, and reporting purposes. For example, information can be collected about user identities, connection start and stop times, the number of packets received and sent, and the number of bytes transferred.

Individual WebAAA sessions can be tracked through accounting information stored locally or on a remote RADIUS server. As wireless LAN users roam throughout a Trapeze Mobility Domain, accounting records track them and their network usage.

Summary

WebAAA provides full authentication, authorization and accounting support for web-based user access, making it particularly well suited to support users that cannot use 802.1X authentication and to control guest access.

It doesn't just provide authentication for wireless users. The difference is that it leverages the power of the web browser to deliver secure authentication (https), authorization (VLAN-ID, access control lists, quality of service, time of day, start/stop times) and accounting (personal statistics, individual roaming history, RADIUS accounting) for wired and wireless.



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