RADIUS WAP Configuration Guide

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Audience:

This document is for the use of the Network Administrator. In the future, I do not foresee as yet other appropriate persons to whom this document may apply. It is assumed that the Network Administrator has an understanding of the Cisco CLI and Terminal usage processes.

Preamble:

This document details the exact setup required for a WAP which will use the APEagers Radius server 'qld-ras1' to authenticate with. Please refer to the document "APEagers RADIUS Server Setup Guide" for details on the setup of this server.

This document DOES NOT detail how to configure the Radius server. This document DOES NOT detail how to connect clients to the WAP or the Radius server.

Formulae Used:

These two formulae are used to calculate the host name of the access point and the site location used to identify the location.

Switch name:

switch name = <campus_code>_data_[switch_model]_wap_[n]

Site Location:

site location = <CAMPUS NAME> - <Dealership> {([where])}

{([where])} is optional hence the {}s if included surround in ()s

For example, imagine that the second Cisco 1128 at Eagers Mitsubishi, Newstead is being put in.

Looking up the "Standard Naming Conventions" guide, the <campus code> for Newstead is "nsd" but Mitsubishi is in building "a" so this is extended to "nsda". The <CAMPUS NAME> is simply "NEWSTEAD(A)". The dealership to use is obviously "Eagers Mitsubishi". Also the [switch model] is abbreviated to "c1128". [n] will need to be calculated based on the number of WAPs in Building A of Newstead. Imagining that this is the fourth WAP there, [n] would be "4".

So the [switch name] for the new WAP is:

nsda_data_c1128_wap_4

And the [site location] is:

NEWSTEAD(A) – Eagers Mitsubishi (Under reception desk)

See how the [where] option can be used to show where in the dealership the WAP was placed.

Configuration in Detail:

The following are the commands to setup via the CLI bare/factory default WAPs. Manual sections must be entered by typing the commands and Auto sections can be copied and pasted into the terminal. (Note: that this Word document has issues with the length of lines so a "_" is used to denote that the line has carried over. DO NOT copy details to paste into the terminal from this document use the .txt file)

Values denoted by <>s or []s are variable and must be replaced by their known or calculated value. For the passwords, if the `<is a!>` password is unknown, use `<clueless>`. If `<clueless>` is unknown use `<woody>`. Passwords will be amended after deployment.

Manual1:

```
service password-encryption
enable secret 0 <is a!>
username issadmin password 0 <clueless>
int bvi1 ip address x.x.x.x 255.255.0.0
ip default-gateway x.x.y.254
hostname [switch name]
snmp-server location "[site location]"
```

Auto1:

```
no username Cisco

aaa new-model
aaa group server radius rad_eap
      server 10.1.1.99 auth-port 1812 acct-port 1813
exit
aaa authentication login eap_methods group rad_eap
no aaa authentication login mac_methods local

ip radius source-interface BVI1
radius-server retransmit 3
radius-server attribute 32 include-in-access-req format %h
```

Manual2:

```
radius-server host 10.1.1.99 auth-port 1812 acct-port 1813 _
      key 0 <clueless>
```

Auto2:

```
dot11 ssid apeagers
      authentication open eap eap_methods
      authentication network-eap eap_methods
      authentication key-management wpa
      guest-mode
exit

int Dot11Radio 0
      no shutdown
      encryption mode ciphers tkip
      ssid apeagers
      speed basic-1.0 basic-2.0 basic-5.5 6.0 9.0 basic-11.0 _
            12.0 18.0 24.0 36.0 48.0 54.0
exit
int Dot11Radio 1
      no shutdown
      encryption mode ciphers tkip
      ssid apeagers
      speed basic-1.0 basic-2.0 basic-5.5 6.0 9.0 basic-11.0 _
            12.0 18.0 24.0 36.0 48.0 54.0
exit

snmp-server contact "issadmin@apeagers.com.au"
snmp-server community apsnmpro ro
snmp-server community apsnmprw rw
sntp server 10.1.1.43
```