

Configure External web authentication with Converged Access (5760/3650/3850)

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Configure](#)

[Network Diagram](#)

[CLI Configuration](#)

[GUI configuration](#)

[Verify](#)

Introduction

This document defines how to configure external web auth with Converged Access controllers. The guest portal page and credentials authentication are both on Identity Services Engine (ISE) in this example.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

1. Cisco converged access controllers.
2. Web authentication
3. Cisco ISE

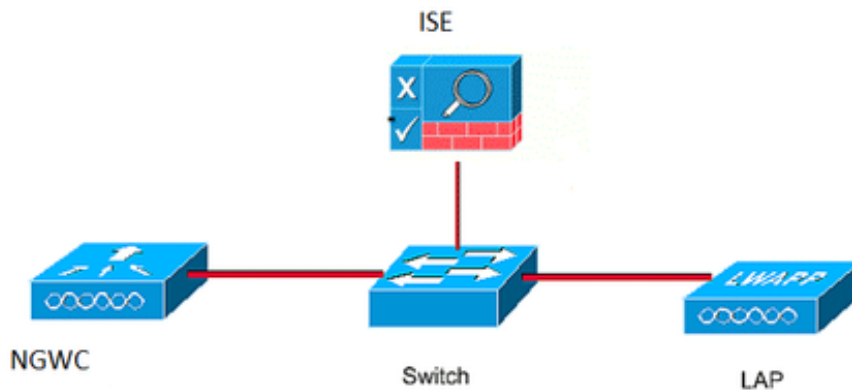
Components Used

The information in this document is based on these software and hardware versions:

1. Cisco 5760 controller (NGWC on the below diagram), 03.06.05E
2. ISE 2.2

Configure

Network Diagram



CLI Configuration

Radius configuration on controller

step 1 : Define external radius server

```
radius server ISE.161
address ipv4 10.48.39.161 auth-port 1812 acct-port 1813
timeout 10
retransmit 5
key Cisco123
```

step 2:. Define AAA radius group and specify the radius server to be used

```
aaa group server radius ISE-Group
server name ISE.161
deadtime 10
```

step 3. Define method list pointing to the radius group and map it under the WLAN.

```
aaa authentication login webauth group ISE-Group
```

Parameter Map configuration

step 4. Configure global parameter map with virtual ip address which is required for external and internal webauth. Logout button uses virtual ip. Its always a good practice to configure a non-routable virtual ip.

```
parameter-map type webauth global
type webauth
virtual-ip ipv4 1.1.1.1
```

step 5 : Configure a named parameter map.It will act like a type of webauth method. This will be called under the WLAN config.

```
parameter-map type webauth web
type webauth
redirect for-login https://10.48.39.161:8443/portal/PortalSetup.action?portal=0c712cd0-6d90-
11e5-978e-005056bf2f0a
redirect portal ipv4 10.48.39.161
```

Pre authentication ACL. This will also be called under the WLAN.

step 6: Configure Preauth_ACL which allows access to ISE, DHCP and DNS before authentication is over

```
ip access-list extended Preauth_ACL
permit ip any host 10.48.39.161
permit ip host 10.48.39.161 any
permit udp any eq bootps any
permit udp any any eq bootpc
permit udp any eq bootpc any
permit udp any eq domain any
permit udp any any eq domain
```

WLAN config

step 7 : configure the WLAN

```
wlan ext-webauth 7 ext-webauth
client vlan vlan232
ip access-group web Preauth_ACL
no security wpa
no security wpa akm dot1x
no security wpa wpa2
no security wpa wpa2 ciphers aes
security web-auth
security web-auth authentication-list webauth
security web-auth parameter-map web
session-timeout 1800
no shutdown
```

step 8 : Turn on http server.

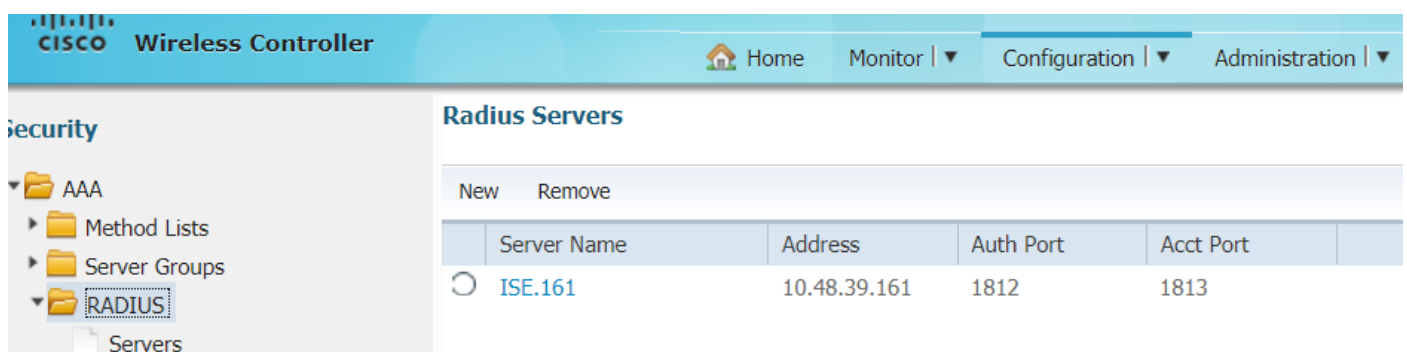
```
ip http server
```

```
ip http secure-server (for secure web-auth, use 'no' to disable secure web)
```

GUI configuration

We are following here the same steps as above. The screenshots are just provided for cross-reference.

step 1 : Define an external radius server



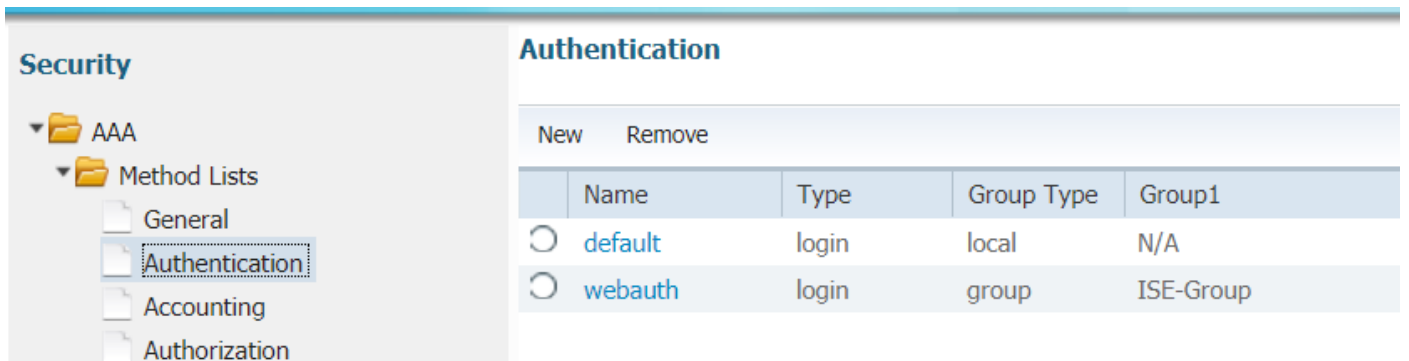
The screenshot shows the Cisco Wireless Controller GUI. The top navigation bar includes 'Home', 'Monitor', 'Configuration', and 'Administration'. The left sidebar shows a tree view with 'RADIUS' selected under 'Servers'. The main content area is titled 'Radius Servers' and contains a table with the following data:

New		Remove			
Server Name	Address	Auth Port	Acct Port		
<input type="radio"/> ISE.161	10.48.39.161	1812	1813		

step 2: Define AAA radius group and specify the radius server to be used



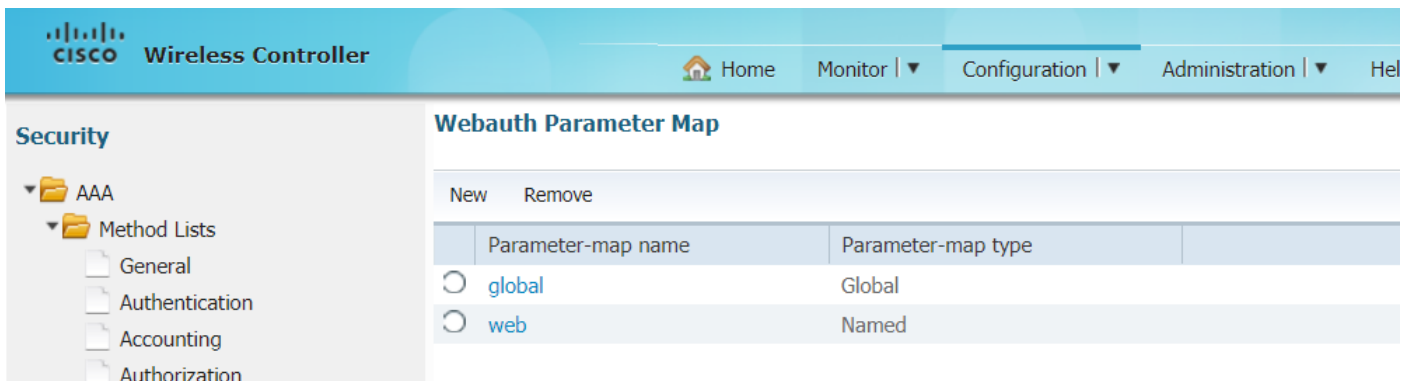
step 3. Define method list pointing to the radius group and map it under the WLAN.



Parameter Map configuration

step 4. Configure global parameter map with virtual ip address which is required for external and internal webauth. Logout button uses virtual ip. Its always a good practice to configure a non-routable virtual ip.

step 5 : Configure a named parameter map.It will act like a type of webauth method. This will be called under the WLAN config.



Pre authentication ACL. This will also be called under the WLAN.

step 6: Configure Preauth_ACL which allows access to ISE, DHCP and DNS before authentication is over

CISCO Wireless Controller Home Monitor Configuration Administration Help

Security

- AAA
 - Method Lists
 - General
 - Authentication
 - Accounting
 - Authorization
 - Server Groups
 - Radius
 - Tacacs+
 - Ldap
 - RADIUS
 - TACACS+ Servers
 - LDAP Servers
 - Users
 - Attribute List
 - MAC Filtering
 - Disabled Client
 - AP Policy
 - Local EAP
 - Wireless Protection Policies
 - CIDS
 - FQDN
 - ACL
 - Access Control Lists

Access Control Lists
ACLs > ACL detail

Details :
Name: **Preauth_ACL**
Type: **IPv4 Extended**

Seq	Action	Protocol	Source IP/Mask	Destination IP/Mask	Source Port	Destination Port	DSCP
10	permit	ip	any	10.48.39.161	-	-	-
20	permit	ip	10.48.39.161	any	-	-	-
30	permit	udp	any	any	eq 67	-	-
40	permit	udp	any	any	-	eq 68	-
50	permit	udp	any	any	eq 68	-	-
60	permit	udp	any	any	eq 53	-	-
70	permit	udp	any	any	-	eq 53	-

ext-webauth	7	ext-webauth	232	Enabled	Web-Auth
-------------	---	-------------	-----	---------	----------

WLAN config

step 7 : configure the WLAN

CISCO Wireless Controller Home Monitor Configuration Administration

Wireless

- WLAN
 - WLANs
 - Advanced
 - Access Points
 - 802.11a/n/ac
 - 802.11b/g/n
 - Media Stream
 - QOS

WLAN
WLAN > Edit

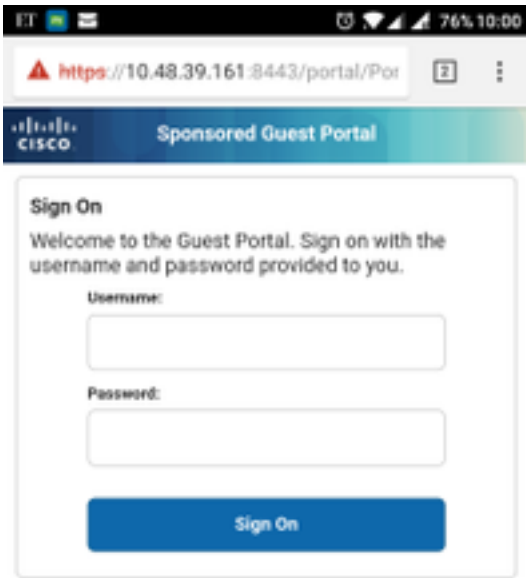
General Security QOS AVC Policy Mapping Advanced

Layer2 Layer3 AAA Server

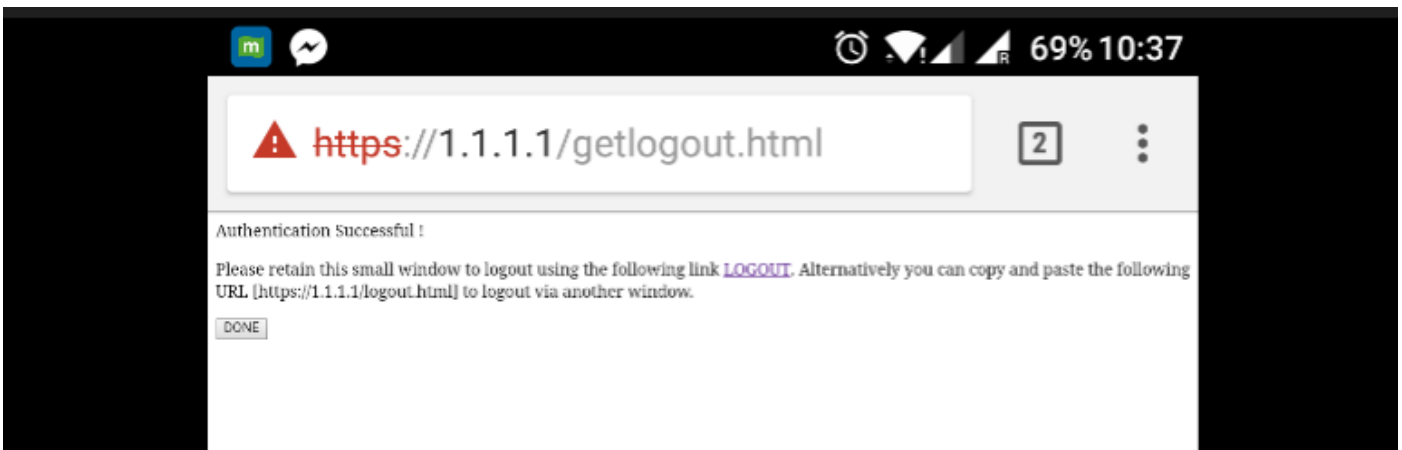
Web Policy	<input checked="" type="checkbox"/>
Conditional Web Redirect	<input type="checkbox"/>
Webauth Authentication List	webauth
Webauth Parameter Map	web
Webauth On-mac-filter Failure	<input type="checkbox"/>
Preauthentication IPv4 ACL	Preauth_ACL
Preauthentication IPv6 ACL	none

Verify

Connect a client and make sure that if you open a browser, the client will be redirected to your login portal page. The below screenshot illustrates the ISE guest portal page.



Once proper credentials are submitted, the success page will be shown :



The ISE server will report two authentication : one on the guest page itself (the bottom line with only the username) and a second authentication once the WLC provides the same username/password through radius authentication (only this authentication will make the client move to the success phase). If the radius authentication (with mac address and WLC details as NAS) does not occur, the radius configuration is to be verified.

Time	Status	Details	Repeat ...	Identity	Endpoint ID	Endpoint P...	Authenticat...	Authorizati...	Authorizati...
Sep 10, 2017 08:37:37.891 AM	✓			ritmahaj	C0:EE:FB:D7:88:24	Unknown	Default >> D...	Default >> B...	PermitAccess
Sep 10, 2017 08:37:34.506 AM	✓			ritmahaj					