



Configuring Wireless Guest Access

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

Prerequisites for Guest Access

- All mobility peers should be configured for hierarchical mobility architecture.
 - For Guest Controller Mobility Anchor configuration on WLAN is must on Mobility Agent and Guest Controller.
 - Guest Access can be a 3 box solution or 2 box solution. The mobility tunnel link status should be up between:
 - Mobility Agent, Mobility Controller and Guest Controller.
- or
- Mobility Agent/Mobility Controller and Guest Controller

Restrictions for Guest Access

Guest Controller functionality is not supported on the Catalyst 3850 switch whereas Catalyst 3850 can act as mobility agent.

Information about Wireless Guest Access

Ideally, the implementation of a wireless guest network uses as much of an enterprise's existing wireless and wired infrastructure as possible to avoid the cost and complexity of building a physical overlay network. Assuming this is the case, the following additional elements and functions are needed:

- A dedicated guest WLAN/SSID—Implemented throughout the campus wireless network wherever guest access is required. A guest WLAN is identified by a WLAN with mobility anchor (Guest Controller) configured.
- Guest traffic segregation—Requires implementing Layer 2 or Layer 3 techniques across the campus network to restrict where guests are allowed to go.
- Access control—Involves using imbedded access control functionality within the campus network or implementing an external platform to control guest access to the Internet from the enterprise network.
- Guest user credential management—A process by which a sponsor or lobby administrator can create temporary credentials in behalf of a guest. This function might be resident within an access control platform or it might be a component of AAA or some other management system.

Fast Secure Roaming

Fast secure roaming can be achieved by caching the Pairwise Master Key (PMK) information for Cisco Centralized Key Management (CCKM), and 802.11i clients. Cisco Centralized Key Management (CCKM) helps to improve roaming. Only the client can initiate the roaming process, which depends on factors such as:

- Overlap between APs
- Distance between APs
- Channel, signal strength, and load on the AP
- Data rates and output power

Whenever a fast-roaming client 802.11i, [CCKM]) roams to a new device, after fast-roaming the clients go through mobility "handoff" procedure. And new AAA attributes learned through mobility "handoff" procedure get re-applied.

Full L2 authentication must be avoided during roaming if the client uses the 802.11i WPA2, CCKM, to achieve the full requirements of fast secure roaming. The PMK cache (802.11i, CCKM) is used to authenticate and derive the keys for roaming clients to avoid full L2 authentication. This requires all Mobility Anchors (MA) and Mobility Controllers (MC) in the mobility group to have the same PMK cache values.

The session timeout defines when a PMK cache will expire. A PMK cache can also be deleted when a client fails to re-authenticate or when it is manually deleted them from the CLI. The deletion on the original controller or switch shall be propagated to other controllers or switches in the same mobility group.

How to Configure Guest Access

Creating a Lobby Administrator Account

SUMMARY STEPS

1. **configure terminal**
2. **user-name** *user-name*
3. **type lobby-admin**
4. **password 0** *password*
5. **end**
6. **show running-config** | section *user-name* (or) **show running-config** | section *configured lobby admin username*

DETAILED STEPS

| | Command or Action | Purpose |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | user-name <i>user-name</i> Example: Switch (config)# user-name lobby | Creates a user account. |
| Step 3 | type lobby-admin Example: Switch (config-user-name)# type lobby-admin | Specifies the account type as lobby admin. |
| Step 4 | password 0 <i>password</i> Example: Switch (config-user-name)# password 0 lobby | Creates a password for the lobby administrator account. |
| Step 5 | end Example: Switch (config-user-name)# end | Returns to privileged EXEC mode. |
| Step 6 | show running-config section <i>user-name</i> (or) show running-config section <i>configured lobby admin username</i> Example: Switch # show running-config section lobby | Displays the configuration details. |

Example

Configuring Guest User Accounts

SUMMARY STEPS

1. **configure terminal**
2. **user-name** *user-name*
3. **password** *unencrypted/hidden-password password*
4. **type network-user description** *description* **guest-user lifetime** *year 0-1 month 0-11 day 0-30 hour 0-23 minute 0-59 second 0-59*
5. **end**
6. **show aaa local netuser all**
7. **show running-config** | section *user-name*

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | user-name <i>user-name</i> Example: Switch (config)# user-name guest | Creates a username for the lobby ambassador account. |
| Step 3 | password <i>unencrypted/hidden-password password</i> Example: Switch (config-user-name)# password 0 guest | Specifies the password for the user. |
| Step 4 | type network-user description <i>description</i> guest-user lifetime <i>year 0-1 month 0-11 day 0-30 hour 0-23 minute 0-59 second 0-59</i> Example: Switch (config-user-name)# type network-user description guest guest-user lifetime year 1 month 10 day 3 hour 1 minute 5 second 30 | Specifies the type of user. |
| Step 5 | end Example: Switch (config-user-name)# end | Returns to privileged EXEC mode. |
| Step 6 | show aaa local netuser all Example: | Displays the configuration details. After the lifetime, the user-name with guest type will be deleted and the client |

| | Command or Action | Purpose |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| | Switch # <code>show aaa local netuser all</code> | associated with the guest user-name will be de-authenticated. |
| Step 7 | show running-config section <i>user-name</i> Example: Switch # <code>show running-config section guest</code> | Displays the configuration details. |

Example

Configuring Mobility Agent (MA)

SUMMARY STEPS

1. **configure terminal**
2. **wireless mobility controller** *ipmc-ipaddress* **public-ip** *mc-publicipaddress*
3. **wlan** *wlan-name* *wlan-id* *ssid*
4. **client vlan id***vlan-group name/vlan-id*
5. **no security wpa**
6. **mobility anchor** *ipaddress*
7. **aaa-override**
8. **no shutdown**
9. **end**
10. **show wireless mobility summary**
11. **show wlan name** *wlan-name/id*

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | wireless mobility controller <i>ipmc-ipaddress</i> public-ip <i>mc-publicipaddress</i> Example: Switch (config) # <code>wireless mobility controller ip27.0.0.1 public-ip 27.0.0.1</code> | Configures the Mobility Controller to which the MA will be associated. |
| Step 3 | wlan <i>wlan-name</i> <i>wlan-id</i> <i>ssid</i> Example: Switch (config) # <code>wlan mywlan 34 mywlan-ssid</code> | <ul style="list-style-type: none"> • For <i>wlan-name</i> enter, enter the profile name. The range is 1- 32 characters. • For <i>wlan-id</i>, enter the WLAN ID. The range is 1-512. |

| | Command or Action | Purpose |
|----------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <ul style="list-style-type: none"> For <i>ssid</i>, enter the Service Set Identifier (SSID) for this WLAN. If the SSID is not specified, the WLAN profile name is set as the SSID. |
| Step 4 | client vlan id <i>vlan-group name/vlan-id</i> Example: Switch (config-wlan) # client vlan VLAN0136 | Configures the VLAN id or group of the WLAN. |
| Step 5 | no security wpa Example: Switch (config-wlan) # no security wpa | The security configuration must be the same for the WLAN created on the GC. This example is for open authentication. For other security types such as open and webauth, appropriate command should be provided. |
| Step 6 | mobility anchor <i>ipaddress</i> Example: Switch (config-wlan) # mobility anchor 9.3.32.2 | Configures the Guest Controller as mobility anchor. |
| Step 7 | aaa-override Example: Switch (config-wlan) # aaa-override | (Optional) Enables AAA override. AAA override is required for non open authentication in case AAA attributes are to be prioritized. It is required only in case guest user need to be deauthenticated after lifetime or have to give aaa-override attribute to the user. |
| Step 8 | no shutdown Example: Switch(config-wlan) # no shutdown | Enables the WLAN. |
| Step 9 | end Example: Switch (config) # end | Returns to privileged EXEC mode. |
| Step 10 | show wireless mobility summary Example: Switch # show wireless mobility summary | Verifies the mobility controller IP address and mobility tunnel status. |
| Step 11 | show wlan name <i>wlan-name/id</i> Example: Switch # show wlan name mywlan | Displays the configuration of mobility anchor. |

Example

Configuring Mobility Controller

Mobility Controller mode should be enabled using the **wireless mobility controller** command.

SUMMARY STEPS

1. **configure terminal**
2. **wireless mobility group member ip** *ip-address* **public-ip** *ip-address* **group** *group-name*
3. **wireless mobility controller peer-group** *peer-group-name*
4. **wireless mobility controller peer-group** *peer-group-name* **member ip** *ipaddress* **public-ip** *ipaddress*
5. **end**
6. **show wireless mobility summary**

DETAILED STEPS

| | Command or Action | Purpose |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | wireless mobility group member ip <i>ip-address</i> public-ip <i>ip-address</i> group <i>group-name</i> Example: Switch (config) # wireless mobility group member ip 27.0.0.1 public-ip 23.0.0.1 group test | Adds all peers within the MC group. The <i>ip-address</i> should be the guest controller's IP address. |
| Step 3 | wireless mobility controller peer-group <i>peer-group-name</i> Example: Switch (config) # wireless mobility controller peer-group pg | Creates the switch peer group. |
| Step 4 | wireless mobility controller peer-group <i>peer-group-name</i> member ip <i>ipaddress</i> public-ip <i>ipaddress</i> Example: Switch (config) # wireless mobility controller peer-group pg member ip 9.7.136.10 public-ip 9.7.136.10 | Adds the MA to the switch peer group. |
| Step 5 | end Example: Switch (config) # end | Returns to privileged EXEC mode. |
| Step 6 | show wireless mobility summary Example: Switch # show wireless mobility summary | Displays the configuration details. |

Example

Obtaining a Web Authentication Certificate

SUMMARY STEPS

1. `configure terminal`
2. `crypto pki import trustpoint name pkcs12 tftp: passphrase`
3. `end`
4. `show crypto pki trustpoints cert`

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Step 1 | configure terminal Example: Switch # <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | crypto pki import trustpoint name pkcs12 tftp: passphrase Example: Switch (config)# <code>crypto pki import cert pkcs12 tftp://9.1.0.100/ldapsver-cert.p12 cisco</code> | Imports certificate. |
| Step 3 | end Example: Switch (config)# <code>end</code> | Returns to privileged EXEC mode. |
| Step 4 | show crypto pki trustpoints cert Example: Switch # <code>show crypto pki trustpoints cert</code> | Displays the configuration details. |

Example

Displaying a Web Authentication Certificate

SUMMARY STEPS

1. `show crypto ca certificate verb`

DETAILED STEPS

| | Command or Action | Purpose |
|--------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Step 1 | show crypto ca certificate verb Example: Switch # <code>show crypto ca certificate verb</code> | Displays the current web authentication certificate details. |

Example

Choosing the Default Web Authentication Login Page

AAA override flag should be enabled on the WLAN for web authentication using local or remote AAA server.

SUMMARY STEPS

1. **configure terminal**
2. **parameter-map type webauth** *parameter-map name*
3. **wlan** *wlan-name*
4. **shutdown**
5. **security web-auth**
6. **security web-auth authentication-list** *authentication list name*
7. **security web-auth parameter-map** *parameter-map name*
8. **no shutdown**
9. **end**
10. **show running-config** | section *wlan-name*
11. **show running-config** | section **parameter-map type webauth** *parameter-map*

DETAILED STEPS

| | Command or Action | Purpose |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | parameter-map type webauth <i>parameter-map name</i> Example: Switch (config) # <code>parameter-map type webauth test</code> | Configures the web-auth parameter-map. |
| Step 3 | wlan <i>wlan-name</i> Example: Switch (config) # <code>wlan wlan10</code> | For the wlan-name, enter the profile name. The range is 1- 32 characters. |
| Step 4 | shutdown Example: | Disables WLAN. |

| | Command or Action | Purpose |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| | Switch (config) # shutdown | |
| Step 5 | security web-auth Example: Controller (config-wlan) # security web-auth | Enables web-auth on WLAN. |
| Step 6 | security web-auth authentication-list <i>authentication list name</i> Example: Controller (config-wlan) # security web-auth authentication-list test | Allows you to map the authentication list name with the web-auth WLAN. |
| Step 7 | security web-auth parameter-map <i>parameter-map name</i> Example: Switch (config) # security web-auth parameter-map test | Allows you to map the parameter-map name with the web-auth WLAN. |
| Step 8 | no shutdown Example: Switch (config) # no shutdown | Enables the WLAN. |
| Step 9 | end Example: Switch (config) # end | Returns to privileged EXEC mode. |
| Step 10 | show running-config section <i>wlan-name</i> Example: Switch# show running-config section mywlan | Displays the configuration details. |
| Step 11 | show running-config section parameter-map type webauth <i>parameter-map</i> Example: Switch# show running-config section parameter-map type webauth test | Displays the configuration details. |

Example

Choosing a Customized Web Authentication Login Page from an External Web Server

AAA override flag should be enabled on the WLAN for web authentication using local or remote AAA server.

SUMMARY STEPS

1. **configure terminal**
2. **parameter-map type webauth global**
3. **virtual-ip {ipv4 | ipv6} ip-address**
4. **parameter-map type webauth parameter-map name**
5. **type {authbypass | consent | webauth | webconsent}**
6. **redirect [for-login|on-success|on-failure] URL**
7. **redirect portal {ipv4 | ipv6} ip-address**
8. **end**
9. show running-config | section parameter-map

DETAILED STEPS

| | Command or Action | Purpose |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | parameter-map type webauth global Example: Switch (config) # parameter-map type webauth global | Configures a global webauth type parameter. |
| Step 3 | virtual-ip {ipv4 ipv6} ip-address Example: Switch (config-params-parameter-map) # virtual-ip ipv4 1.1.1.1 | Configures the virtual IP address. |
| Step 4 | parameter-map type webauth parameter-map name Example: Switch (config-params-parameter-map) # parameter-map type webauth test | Configures the webauth type parameter. |
| Step 5 | type {authbypass consent webauth webconsent} Example: Switch (config-params-parameter-map) # type webauth | Configures webauth subtypes such as consent, passthru, webauth, or webconsent. |
| Step 6 | redirect [for-login on-success on-failure] URL Example: Switch (config-params-parameter-map) # redirect for-login http://9.1.0.100/login.html | Configures the redirect URL for the log in page, success page, and failure page. |
| Step 7 | redirect portal {ipv4 ipv6} ip-address Example: Switch (config-params-parameter-map) # redirect portal ipv4 23.0.0.1 | Configures the external portal IPv4 address. |

| | Command or Action | Purpose |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Step 8 | end Example: Switch (config-params-parameter-map) # end | Returns to privileged EXEC mode. |
| Step 9 | show running-config section parameter-map Example: Switch # show running-config section parameter-map | Displays the configuration details. |

Example

Assigning Login, Login Failure, and Logout Pages per WLAN

SUMMARY STEPS

1. **configure terminal**
2. **parameter-map type webauth** *parameter-map-name*
3. **custom-page login device** *html-filename*
4. **custom-page login expired** *html-filename*
5. **custom-page failure device** *html-filename*
6. **custom-page success device** *html-filename*
7. **end**
8. **show running-config | section parameter-map type webauth** *parameter-map*

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | parameter-map type webauth <i>parameter-map-name</i> Example: Switch (config) # parameter-map type webauth test | Configures the webauth type parameter. |
| Step 3 | custom-page login device <i>html-filename</i> Example: Switch (config-params-parameter-map)# custom-page login device device flash:login.html | Allows you to specify the filename for web authentication customized login page. |
| Step 4 | custom-page login expired <i>html-filename</i> Example: | Allows you to specify the filename for web authentication customized login expiry page. |

| | Command or Action | Purpose |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| | Switch (config-params-parameter-map) # custom-page login expired device flash:loginexpired.html | |
| Step 5 | custom-page failure device <i>html-filename</i> Example: Switch (config-params-parameter-map) # custom-page failure device device flash:loginfail.html | Allows you to specify the filename for web authentication customized login failure page. |
| Step 6 | custom-page success device <i>html-filename</i> Example: Switch (config-params-parameter-map) # custom-page success device device flash:loginsuccess.html | Allows you to specify the filename for web authentication customized login success page. |
| Step 7 | end Example: Switch (config-params-parameter-map) # end | Returns to privileged EXEC mode. |
| Step 8 | show running-config section parameter-map type webauth <i>parameter-map</i> Example: Switch (config) # show running-config section parameter-map type webauth test | Displays the configuration details. |

Example

Configuring AAA-Override

SUMMARY STEPS

1. **configure terminal**
2. **wlan** *wlan-name*
3. **aaa-override**
4. **end**
5. **show running-config | section** *wlan-name*

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|------------------------------------------------------------------------------------|-----------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |

| | Command or Action | Purpose |
|---------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Step 2 | wlan <i>wlan-name</i> Example: Switch (config) # wlan ramban | For <i>wlan-name</i> , enter the profile name. The range is 1- 32 characters. |
| Step 3 | aaa-override Example: Switch (config-wlan) # aaa-override | Enables AAA override on the WLAN. |
| Step 4 | end Example: Switch (config-wlan) # end | Returns to privileged EXEC mode. |
| Step 5 | show running-config section <i>wlan-name</i> Example: Switch # show running-config section ramban | Displays the configuration details. |

Example

Configuring Client Load Balancing

SUMMARY STEPS

1. **configure terminal**
2. **wlan** *wlan-name*
3. **shutdown**
4. **mobility anchor** *ip-address1*
5. **mobility anchor** *ip-address2*
6. **no shutdown wlan**
7. **end**
8. **show running-config | section** *wlan-name*

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|----------------------------------------------------------------------------------------|------------------------------------------------|
| Step 1 | configure terminal Example: Switch # configure terminal | Enters global configuration mode. |
| Step 2 | wlan <i>wlan-name</i> Example: Switch (config)# wlan ramban | For <i>wlan-name</i> , enter the profile name. |

| | Command or Action | Purpose |
|--------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Step 3 | shutdown Example: Switch (config-wlan) # shutdown | Disables WLAN. |
| Step 4 | mobility anchor ip-address1 Example: Switch (config-wlan) # mobility anchor 9.7.136.15 | Configures a guest controller as mobility anchor. |
| Step 5 | mobility anchor ip-address2 Example: Switch (config-wlan) # mobility anchor 9.7.136.16 | Configures a guest controller as mobility anchor. |
| Step 6 | no shutdown wlan Example: Switch (config-wlan) # no shutdown wlan | Enables the WLAN. |
| Step 7 | end Example: Switch (config-wlan) # end | Returns to privileged EXEC mode. |
| Step 8 | show running-config section wlan-name Example: Switch # show running-config section ramban | Displays the configuration details. |

Example

Configuring Preauthentication ACL

SUMMARY STEPS

1. **configure terminal**
2. **wlan wlan-name**
3. **shutdown**
4. **ip access-group web preauthrule**
5. **no shutdown**
6. **end**
7. **show wlan name wlan-name**

DETAILED STEPS

| | Command or Action | Purpose |
|--------|---------------------------|-----------------------------------|
| Step 1 | configure terminal | Enters global configuration mode. |

| | Command or Action | Purpose |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| | Example: Switch# <code>configure terminal</code> | |
| Step 2 | wlan <i>wlan-name</i> Example: Switch (config)# <code>wlan ramban</code> | For <i>wlan-name</i> , enter the profile name. |
| Step 3 | shutdown Example: Switch (config-wlan)# <code>shutdown</code> | Disables the WLAN. |
| Step 4 | ip access-group web <i>preauthrule</i> Example: Switch (config-wlan)# <code>ip access-group web preauthrule</code> | Configures ACL that has to be applied before authentication. |
| Step 5 | no shutdown Example: Switch (config)# <code>no shutdown</code> | Enables the WLAN. |
| Step 6 | end Example: Switch (config-wlan)# <code>end</code> | Returns to privileged EXEC mode. |
| Step 7 | show wlan name <i>wlan-name</i> Example: Switch# <code>show wlan name ramban</code> | Displays the configuration details. |

Example

Configuring IOS ACL Definition

SUMMARY STEPS

1. `configure terminal`
2. `ip access-list extended` *access-list number*
3. `permit udp any eq` *port number* `any`
4. `end`
5. `show access-lists` *ACL number*

DETAILED STEPS

| | Command or Action | Purpose |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Step 1 | configure terminal Example: Switch # <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | ip access-list extended <i>access-list number</i> Example: Switch (config) # <code>ip access-list extended 102</code> | Configures extended IP access-list. |
| Step 3 | permit udp any eq <i>port number any</i> Example: Switch (config-ext-nacl) # <code>permit udp any eq 8080 any</code> | Configures destination host. |
| Step 4 | end Example: Switch (config-wlan) # <code>end</code> | Returns to privileged EXEC mode. |
| Step 5 | show access-lists <i>ACL number</i> Example: Switch # <code>show access-lists 102</code> | Displays the configuration details. |

Example

Configuring Webpassthrough

SUMMARY STEPS

1. `configure terminal`
2. `parameter-map type webauth` *parameter-map name*
3. `type consent`
4. `end`
5. `show running-config | section parameter-map type webauth` *parameter-map*

DETAILED STEPS

| | Command or Action | Purpose |
|--------|------------------------------------------------------------------------------------------|----------------------------------------|
| Step 1 | configure terminal Example: Switch # <code>configure terminal</code> | Enters global configuration mode. |
| Step 2 | parameter-map type webauth <i>parameter-map name</i> | Configures the webauth type parameter. |

| | Command or Action | Purpose |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| | Example: Switch (config) # parameter-map type webauth webparalocal | |
| Step 3 | type consent Example: Switch (config-params-parameter-map) # type consent | Configures webauth type as consent. |
| Step 4 | end Example: Switch (config-params-parameter-map) # end | Returns to privileged EXEC mode. |
| Step 5 | show running-config section parameter-map type webauth parameter-map Example: Switch (config) # show running-config section parameter-map type webauth test | Displays the configuration details. |

Example

Configuration Examples for Guest Access

Example: Creating a Lobby Ambassador Account

This example shows how to configure a lobby ambassador account.

```
Switch# configure terminal
Switch(config)# user-name lobby
Switch(config)# type lobby-admin
Switch(config)# password 0 lobby
Switch(config)# end
Switch# show running-config | section lobby
user-name lobby
creation-time 1351118727
password 0 lobby
type lobby-admin
```

Example: Obtaining Web Authentication Certificate

This example shows how to obtain web authentication certificate.

```
Switch# configure terminal
Switch(config)# crypto pki import cert pkcs12 tftp://9.1.0.100/ldapservers-cert.p12 cisco
Switch(config)# end
Switch# show crypto pki trustpoints cert
```

```
Trustpoint cert:
  Subject Name:
    e=rkannajr@cisco.com
    cn=sthaliya-lnx
    ou=WNBU
    o=Cisco
    l=SanJose
    st=California
    c=US
    Serial Number (hex): 00
  Certificate configured.
Switch# show crypto pki certificates cert
Certificate
  Status: Available
  Certificate Serial Number (hex): 04
  Certificate Usage: General Purpose
  Issuer:
    e=rkannajr@cisco.com
    cn=sthaliya-lnx
    ou=WNBU
    o=Cisco
    l=SanJose
    st=California
    c=US
  Subject:
    Name: ldapserver
    e=rkannajr@cisco.com
    cn=ldapserver
    ou=WNBU
    o=Cisco
    st=California
    c=US
  Validity Date:
    start date: 07:35:23 UTC Jan 31 2012
    end   date: 07:35:23 UTC Jan 28 2022
  Associated Trustpoints: cert ldap12
  Storage: nvram:rkannajrcisc#4.cer

CA Certificate
  Status: Available
  Certificate Serial Number (hex): 00
  Certificate Usage: General Purpose
  Issuer:
    e=rkannajr@cisco.com
    cn=sthaliya-lnx
    ou=WNBU
    o=Cisco
    l=SanJose
    st=California
    c=US
  Subject:
    e=rkannajr@cisco.com
    cn=sthaliya-lnx
    ou=WNBU
    o=Cisco
    l=SanJose
    st=California
    c=US
  Validity Date:
    start date: 07:27:56 UTC Jan 31 2012
    end   date: 07:27:56 UTC Jan 28 2022
  Associated Trustpoints: cert ldap12 ldap
  Storage: nvram:rkannajrcisc#0CA.cer
```

Example: Displaying a Web Authentication Certificate

This example shows how to display a web authentication certificate.

```
Switch# show crypto ca certificate verb
Certificate
Status: Available
Version: 3
Certificate Serial Number (hex): 2A9636AC00000000858B
Certificate Usage: General Purpose
Issuer:
cn=Cisco Manufacturing CA
o=Cisco Systems
Subject:
Name: WS-C3780-6DS-S-2037064C0E80
Serial Number: PID:WS-C3780-6DS-S SN:FOC1534X12Q
cn=WS-C3780-6DS-S-2037064C0E80
serialNumber=PID:WS-C3780-6DS-S SN:FOC1534X12Q
CRL Distribution Points:
http://www.cisco.com/security/pki/crl/cmca.crl
Validity Date:
start date: 15:43:22 UTC Aug 21 2011
end date: 15:53:22 UTC Aug 21 2021
Subject Key Info:
Public Key Algorithm: rsaEncryption
RSA Public Key: (1024 bit)
Signature Algorithm: SHA1 with RSA Encryption
Fingerprint MD5: A310B856 A41565F1 1D9410B5 7284CB21
Fingerprint SHA1: 04F180F6 CA1A67AF 9D7F561A 2BB397A1 0F5EB3C9
X509v3 extensions:
X509v3 Key Usage: F0000000
    Digital Signature
    Non Repudiation
    Key Encipherment
    Data Encipherment
X509v3 Subject Key ID: B9EEB123 5A3764B4 5E9C54A7 46E6EECA 02D283F7
X509v3 Authority Key ID: D0C52226 AB4F4660 ECAE0591 C7DC5AD1 B047F76C
Authority Info Access:
Associated Trustpoints: CISCO_IDEVID_SUDI
Key Label: CISCO_IDEVID_SUDI
```

Example: Configuring Guest User Accounts

This example shows how to configure a guest user account.

```
Switch# configure terminal
Switch(config)# user-name guest
Switch(config-user-name)# password 0 guest
Switch(config-user-name)# type network-user description guest guest-user lifetime year 1
month 10 day 3 hour 1 minute 5 second 30
Switch(config-user-name)# end
Switch# show aaa local netuser all
User-Name          : guest
Type               : guest
Password           : guest
Is_passwd_encrypted : No
Description        : guest
Attribute-List     : Not-Configured
First-Login-Time   : Not-Logged-In
```

```

Num-Login          : 0
Lifetime           : 1 years 10 months 3 days 1 hours 5 mins 30 secs
Start-Time         : 20:47:37 chennai Dec 21 2012

```

Example: Configuring Mobility Controller

This example shows how to configure a mobility controller.

```

Switch# configure terminal
Switch(config)# wireless mobility group member ip 27.0.0.1 public-ip 23.0.0.1 group test
Switch(config)# wireless mobility controller peer-group pg
Switch(config)# wireless mobility controller peer-group pg member ip 9.7.136.10 public-ip
9.7.136.10
Switch(config)# end
Switch# show wireless mobility summary

```

Mobility Controller Summary:

```

Mobility Role           : Mobility Controller
Mobility Protocol Port  : 16666
Mobility Group Name     : default
Mobility Oracle         : Enabled
DTLS Mode               : Enabled

```

```

Mobility Keepalive Interval : 10
Mobility Keepalive Count    : 3
Mobility Control Message DSCP Value : 7
Mobility Domain Member Count : 3

```

Link Status is Control Link Status : Data Link Status

Controllers configured in the Mobility Domain:

| IP | Public IP | Group Name | Multicast IP | Link Status |
|-------------|-------------|-------------|--------------|-------------|
| 9.9.9.2 | - | default | 0.0.0.0 | UP : UP |
| 12.12.11.11 | 12.13.12.12 | rasagna-grp | | DOWN : DOWN |
| 27.0.0.1 | 23.0.0.1 | test | | DOWN : DOWN |

```

Switch Peer Group Name : spg1
Switch Peer Group Member Count : 0
Bridge Domain ID : 0
Multicast IP Address : 0.0.0.0

```

```

Switch Peer Group Name : pg
Switch Peer Group Member Count : 1
Bridge Domain ID : 0
Multicast IP Address : 0.0.0.0

```

| IP | Public IP | Link Status |
|------------|------------|-------------|
| 9.7.136.10 | 9.7.136.10 | DOWN : DOWN |

Example: Choosing the Default Web Authentication Login Page

This example shows how to choose a default web authentication login page.

```

Switch# configure terminal
Switch(config)# parameter-map type webauth test

```

This operation will permanently convert all relevant authentication commands to their CPL control-policy equivalents. As this conversion is irreversible and will disable the conversion CLI 'authentication display [legacy|new-style]', you are strongly advised to back up your current configuration before proceeding.

```
Do you wish to continue? [yes]: yes
Switch(config)# wlan wlan50
Switch(config-wlan)# shutdown
Switch(config-wlan)# security web-auth authentication-list test
Switch(config-wlan)# security web-auth parameter-map test
Switch(config-wlan)# no shutdown
Switch(config-wlan)# end
Switch# show running-config | section wlan50
wlan wlan50 50 wlan50
 security wpa akm cckm
 security wpa wpal
 security wpa wpal ciphers aes
 security wpa wpal ciphers tkip
 security web-auth authentication-list test
 security web-auth parameter-map test
 session-timeout 1800
 no shutdown

Switch# show running-config | section parameter-map type webauth test
parameter-map type webauth test
 type webauth
```

Example: Choosing a Customized Web Authentication Login Page from an External Web Server

This example shows how to choose a customized web authentication login page from an external web server.

```
Switch# configure terminal
Switch(config)# parameter-map type webauth global
Switch(config-params-parameter-map)# virtual-ip ipv4 1.1.1.1
Switch(config-params-parameter-map)# parameter-map type webauth test
Switch(config-params-parameter-map)# type webauth
Switch(config-params-parameter-map)# redirect for-login http://9.1.0.100/login.html
Switch(config-params-parameter-map)# redirect portal ipv4 23.0.0.1
Switch(config-params-parameter-map)# end
Switch# show running-config | section parameter-map
parameter-map type webauth global
virtual-ip ipv4 1.1.1.1
parameter-map type webauth test
type webauth
redirect for-login http://9.1.0.100/login.html
redirect portal ipv4 23.0.0.1
security web-auth parameter-map rasagna-auth-map
security web-auth parameter-map test
```

Example: Assigning Login, Login Failure, and Logout Pages per WLAN

This example shows how to assign login, login failure and logout pages per WLAN.

```
Switch# configure terminal
Switch(config)# parameter-map type webauth test
Switch(config-params-parameter-map)# custom-page login device flash:loginsantosh.html
Switch(config-params-parameter-map)# custom-page login expired device flash:loginexpire.html
```

```
Switch(config-params-parameter-map)# custom-page failure device flash:loginfail.html
Switch(config-params-parameter-map)# custom-page success device flash:loginsuccess.html
Switch(config-params-parameter-map)# end
Switch# show running-config | section parameter-map type webauth test
parameter-map type webauth test
type webauth
redirect for-login http://9.1.0.100/login.html
redirect portal ipv4 23.0.0.1
custom-page login device flash:loginsantosh.html
custom-page success device flash:loginsuccess.html
custom-page failure device flash:loginfail.html
custom-page login expired device flash:loginexpire.html
```

Example: Configuring AAA-Override

This example shows how to configure aaa-override.

```
Switch# configure terminal
Switch(config)# wlan fff
Switch(config-wlan)# aaa-override
Switch(config-wlan)# end
Switch# show running-config | section fff
wlan fff 44 fff
aaa-override
shutdown
```

Example: Configuring Client Load Balancing

This example shows how to configure client load balancing.

```
Switch# configure terminal
Switch(config)# wlan fff
Switch(config-wlan)# shutdown
Switch(config-wlan)# mobility anchor 9.7.136.15
Switch(config-wlan)# mobility anchor 9.7.136.16
Switch(config-wlan)# no shutdown wlan
Switch(config-wlan)# end
Switch# show running-config | section fff
wlan fff 44 fff
aaa-override
shutdown
```

Example: Configuring Preauthentication ACL

This example shows how to configure preauthentication ACL.

```
Switch# configure terminal
Switch(config)# wlan fff
Switch(config-wlan)# shutdown
Switch(config-wlan)# ip access-group web preauthrule
Switch(config-wlan)# no shutdown
Switch(config-wlan)# end
Switch# show wlan name fff
```

Example: Configuring IOS ACL Definition

This example shows how to configure IOS ACL definition.

```
Switch# configure terminal
Switch(config)# ip access-list extended 102
Switch(config-ext-nacl)# permit udp any eq 8080 any
Switch(config-ext-nacl)# end
Switch# show access-lists 102
Extended IP access list 102
 10 permit udp any eq 8080 any
```

Example: Configuring Webpassthrough

This example shows how to configure webpassthrough.

```
Switch# configure terminal
Switch(config)# parameter-map type webauth webparalocal
Switch(config-params-parameter-map)# type consent
Switch(config-params-parameter-map)# end
Switch# show running-config | section parameter-map type webauth test
parameter-map type webauth test
type webauth
redirect for-login http://9.1.0.100/login.html
redirect portal ipv4 23.0.0.1
```

Additional References for Guest Access

Related Documents

| Related Topic | Document Title |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Mobility CLI commands | <i>Mobility Command Reference, Cisco IOS XE 3SE (Cisco WLC 5700 Series)</i> |
| Mobility configuration | <i>Mobility Configuration Guide, Cisco IOS XE 3SE (Cisco WLC 5700 Series)</i> |
| Security CLI commands | <i>Security Command Reference, Cisco IOS Release 3SE (Cisco WLC 5700 Series)</i> |
| Configuring web-based authentication on the Catalyst 5700 Series Wireless Controller | <i>Security Configuration Guide, Cisco IOS Release 3SE (Cisco WLC 5700 Series)</i> |
| Wired guest access configuration and commands | <i>Identity Based Networking Services</i> |

Standards and RFCs

| Standard/RFC | Title |
|--------------|-------|
| None | - |

MIBs

| MIB | MIBs Link |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| None | To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs |

Technical Assistance

| Description | Link |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p> | http://www.cisco.com/support |

Feature History and Information for Guest Access

| Releases | Feature Information |
|----------------------------|------------------------------|
| Cisco IOS XE Release 3.2SE | This feature was introduced. |

