

Configuring Web-Based Authentication

This chapter describes how to configure web-based authentication on the switch. It contains these sections:

- Finding Feature Information, page 1
- Information About Web-Based Authentication, page 1
- How to Configure Web-Based Authentication, page 10
- Monitoring Web-Based Authentication Status, page 24

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.

Information About Web-Based Authentication

Use the web-based authentication feature, known as web authentication proxy, to authenticate end users on host systems that do not run the IEEE 802.1x supplicant.



Note

You can configure web-based authentication on Layer 2 and Layer 3 interfaces.

When you initiate an HTTP session, web-based authentication intercepts ingress HTTP packets from the host and sends an HTML login page to the users. The users enter their credentials, which the web-based authentication feature sends to the authentication, authorization, and accounting (AAA) server for authentication.

If authentication succeeds, web-based authentication sends a Login-Successful HTML page to the host and applies the access policies returned by the AAA server.

If authentication fails, web-based authentication forwards a Login-Fail HTML page to the user, prompting the user to retry the login. If the user exceeds the maximum number of attempts, web-based authentication forwards a Login-Expired HTML page to the host, and the user is placed on a watch list for a waiting period.

These sections describe the role of web-based authentication as part of AAA:

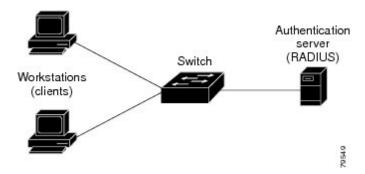
Device Roles

With web-based authentication, the devices in the network have these specific roles:

- *Client*—The device (workstation) that requests access to the LAN and the services and responds to requests from the switch. The workstation must be running an HTML browser with Java Script enabled.
- Authentication server—Authenticates the client. The authentication server validates the identity of the
 client and notifies the switch that the client is authorized to access the LAN and the switch services or
 that the client is denied.
- Switch—Controls the physical access to the network based on the authentication status of the client. The switch acts as an intermediary (proxy) between the client and the authentication server, requesting identity information from the client, verifying that information with the authentication server, and relaying a response to the client.

This figure shows the roles of these devices in a network.

Figure 1: Web-Based Authentication Device Roles



Host Detection

The switch maintains an IP device tracking table to store information about detected hosts.



Note

By default, the IP device tracking feature is disabled on a switch. You must enable the IP device tracking feature to use web-based authentication.

For Layer 2 interfaces, web-based authentication detects IP hosts by using these mechanisms:

- ARP based trigger—ARP redirect ACL allows web-based authentication to detect hosts with a static IP address or a dynamic IP address.
- Dynamic ARP inspection

 DHCP snooping—Web-based authentication is notified when the switch creates a DHCP-binding entry for the host.

Session Creation

When web-based authentication detects a new host, it creates a session as follows:

- Reviews the exception list.
- If the host IP is included in the exception list, the policy from the exception list entry is applied, and the session is established.
- · Reviews for authorization bypass
- If the host IP is not on the exception list, web-based authentication sends a nonresponsive-host (NRH) request to the server.
- If the server response is access accepted, authorization is bypassed for this host. The session is established.
- Sets up the HTTP intercept ACL
- If the server response to the NRH request is access rejected, the HTTP intercept ACL is activated, and the session waits for HTTP traffic from the host.

Authentication Process

When you enable web-based authentication, these events occur:

- The user initiates an HTTP session.
- The HTTP traffic is intercepted, and authorization is initiated. The switch sends the login page to the
 user. The user enters a username and password, and the switch sends the entries to the authentication
 server.
- If the authentication succeeds, the switch downloads and activates the user's access policy from the authentication server. The login success page is sent to the user.
- If the authentication fails, the switch sends the login fail page. The user retries the login. If the maximum number of attempts fails, the switch sends the login expired page, and the host is placed in a watch list. After the watch list times out, the user can retry the authentication process.
- If the authentication server does not respond to the switch, and if an AAA fail policy is configured, the switch applies the failure access policy to the host. The login success page is sent to the user.
- The switch reauthenticates a client when the host does not respond to an ARP probe on a Layer 2 interface, or when the host does not send any traffic within the idle timeout on a Layer 3 interface.
- The feature applies the downloaded timeout or the locally configured session timeout.
- If the terminate action is RADIUS, the feature sends a nonresponsive host (NRH) request to the server. The terminate action is included in the response from the server.
- If the terminate action is default, the session is dismantled, and the applied policy is removed.

Local Web Authentication Banner

With Web Authentication, you can create a default and customized web-browser banners that appears when you log in to a switch.

The banner appears on both the login page and the authentication-result pop-up pages. The default banner messages are as follows:

- Authentication Successful
- Authentication Failed
- Authentication Expired

The Local Web Authentication Banner can be configured in legacy and new-style (Session-aware) CLIs as follows:

- Legacy mode—Use the **ip admission auth-proxy-banner http** global configuration command.
- New-style mode—Use the **parameter-map type webauth global banner** global configuration command.

The default banner *Cisco Systems* and *Switch host-name Authentication* appear on the Login Page. *Cisco Systems* appears on the authentication result pop-up page.

Cisco Systems

Sunil-sw1 Authentication

Username: webauth

Password:

OK

Cisco Systems

Authentication

Successful!

DONE

Figure 2: Authentication Successful Banner

The banner can be customized as follows:

- Add a message, such as switch, router, or company name to the banner:
 - Legacy mode—Use the ip admission auth-proxy-banner http banner-textglobal configuration command.
 - New-style mode—Use the parameter-map type webauth global bannerglobal configuration command

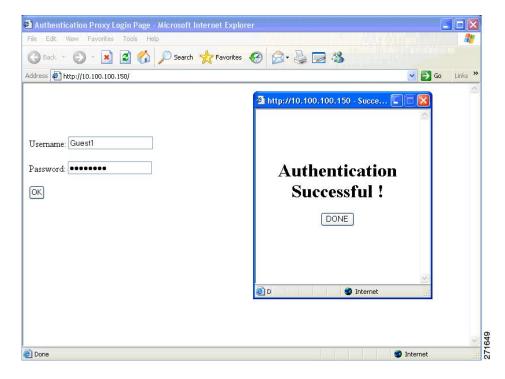
- Add a logo or text file to the banner:
 - Legacy mode—Use the **ip admission auth-proxy-banner http** *file-path* global configuration command.
 - New-style mode—Use the **parameter-map type webauth global banner** global configuration command

Figure 3: Customized Web Banner



If you do not enable a banner, only the username and password dialog boxes appear in the web authentication login screen, and no banner appears when you log into the switch.

Figure 4: Login Screen With No Banner



For more information, see the Session Aware Networking Configuration Guide, Cisco IOS XE Release 3SE (Catalyst 3850 Switches) Session Aware Networking Configuration Guide, Cisco IOS XE Release 3SE (Catalyst 3850 Switches) and the Web Authentication Enhancements - Customizing Authentication Proxy Web Pages.

Web Authentication Customizable Web Pages

During the web-based authentication process, the switch internal HTTP server hosts four HTML pages to deliver to an authenticating client. The server uses these pages to notify you of these four-authentication process states:

- · Login—Your credentials are requested.
- Success—The login was successful.
- Fail—The login failed.
- Expire—The login session has expired because of excessive login failures.

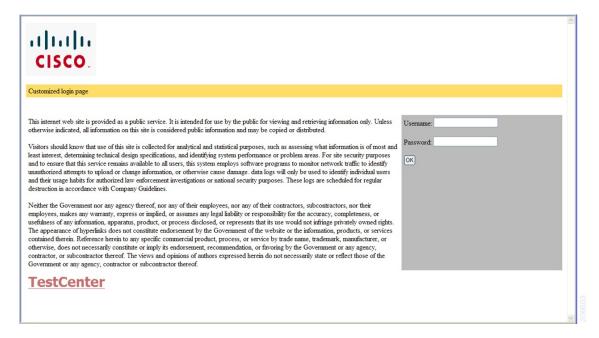
Guidelines

- You can substitute your own HTML pages for the default internal HTML pages.
- You can use a logo or specify text in the *login*, *success*, *failure*, and *expire* web pages.

- On the banner page, you can specify text in the login page.
- The pages are in HTML.
- You must include an HTML redirect command in the success page to access a specific URL.
- The URL string must be a valid URL (for example, http://www.cisco.com). An incomplete URL might cause *page not found* or similar errors on a web browser.
- If you configure web pages for HTTP authentication, they must include the appropriate HTML commands (for example, to set the page time out, to set a hidden password, or to confirm that the same page is not submitted twice).
- The CLI command to redirect users to a specific URL is not available when the configured login form is enabled. The administrator should ensure that the redirection is configured in the web page.
- If the CLI command redirecting users to specific URL after authentication occurs is entered and then
 the command configuring web pages is entered, the CLI command redirecting users to a specific URL
 does not take effect.
- Configured web pages can be copied to the switch boot flash or flash.
- On stackable switches, configured pages can be accessed from the flash on the stack master or members.
- The login page can be on one flash, and the success and failure pages can be another flash (for example, the flash on the stack master or a member).
- · You must configure all four pages.
- The banner page has no effect if it is configured with the web page.
- All of the logo files (image, flash, audio, video, and so on) that are stored in the system directory (for example, flash, disk0, or disk) and that must be displayed on the login page must use web auth <filename> as the file name.
- The configured authentication proxy feature supports both HTTP and SSL.

You can substitute your HTML pages for the default internal HTML pages. You can also specify a URL to which users are redirected after authentication occurs, which replaces the internal Success page.

Figure 5: Customizable Authentication Page



Authentication Proxy Web Page Guidelines

When configuring customized authentication proxy web pages, follow these guidelines:

- To enable the custom web pages feature, specify all four custom HTML files. If you specify fewer than four files, the internal default HTML pages are used.
- The four custom HTML files must be present on the flash memory of the switch. The maximum size of each HTML file is 8 KB.
- Any images on the custom pages must be on an accessible HTTP server. Configure an intercept ACL
 within the admission rule.
- Any external link from a custom page requires configuration of an intercept ACL within the admission rule.
- To access a valid DNS server, any name resolution required for external links or images requires configuration of an intercept ACL within the admission rule.
- If the custom web pages feature is enabled, a configured auth-proxy-banner is not used.
- If the custom web pages feature is enabled, the redirection URL for successful login feature is not available.
- To remove the specification of a custom file, use the **no** form of the command.

Because the custom login page is a public web form, consider these guidelines for the page:

- The login form must accept user entries for the username and password and must show them as **uname** and **pwd**.
- The custom login page should follow best practices for a web form, such as page timeout, hidden password, and prevention of redundant submissions.

Related Topics

Customizing the Authentication Proxy Web Pages, on page 18

Redirection URL for Successful Login Guidelines

When configuring a redirection URL for successful login, consider these guidelines:

- If the custom authentication proxy web pages feature is enabled, the redirection URL feature is disabled and is not available in the CLI. You can perform redirection in the custom-login success page.
- If the redirection URL feature is enabled, a configured auth-proxy-banner is not used.
- To remove the specification of a redirection URL, use the **no** form of the command.
- If the redirection URL is required after the web-based authentication client is successfully authenticated, then the URL string must start with a valid URL (for example, http://) followed by the URL information. If only the URL is given without http://, then the redirection URL on successful authentication might cause page not found or similar errors on a web browser.

Related Topics

Specifying a Redirection URL for Successful Login, on page 20

Web-based Authentication Interactions with Other Features

Port Security

You can configure web-based authentication and port security on the same port. Web-based authentication authenticates the port, and port security manages network access for all MAC addresses, including that of the client. You can then limit the number or group of clients that can access the network through the port.

Related Topics

Enabling and Configuring Port Security

LAN Port IP

You can configure LAN port IP (LPIP) and Layer 2 web-based authentication on the same port. The host is authenticated by using web-based authentication first, followed by LPIP posture validation. The LPIP host policy overrides the web-based authentication host policy.

If the web-based authentication idle timer expires, the NAC policy is removed. The host is authenticated, and posture is validated again.

Gateway IP

You cannot configure Gateway IP (GWIP) on a Layer 3 VLAN interface if web-based authentication is configured on any of the switch ports in the VLAN.

You can configure web-based authentication on the same Layer 3 interface as Gateway IP. The host policies for both features are applied in software. The GWIP policy overrides the web-based authentication host policy.

ACLs

If you configure a VLAN ACL or a Cisco IOS ACL on an interface, the ACL is applied to the host traffic only after the web-based authentication host policy is applied.

For Layer 2 web-based authentication, it is more secure, though not required, to configure a port ACL (PACL) as the default access policy for ingress traffic from hosts connected to the port. After authentication, the web-based authentication host policy overrides the PACL. The Policy ACL is applied to the session even if there is no ACL configured on the port.

You cannot configure a MAC ACL and web-based authentication on the same interface.

You cannot configure web-based authentication on a port whose access VLAN is configured for VACL capture.

Context-Based Access Control

Web-based authentication cannot be configured on a Layer 2 port if context-based access control (CBAC) is configured on the Layer 3 VLAN interface of the port VLAN.

EtherChannel

You can configure web-based authentication on a Layer 2 EtherChannel interface. The web-based authentication configuration applies to all member channels.

How to Configure Web-Based Authentication

Default Web-Based Authentication Configuration

The following table shows the default web-based authentication configuration.

Table 1: Default Web-based Authentication Configuration

Feature	Default Setting
AAA	Disabled

Feature	Default Setting
RADIUS server • IP address • UDP authentication port • Key	None specified1645None specified
Default value of inactivity timeout	3600 seconds
Inactivity timeout	Enabled

Web-Based Authentication Configuration Guidelines and Restrictions

- Web-based authentication is an ingress-only feature.
- You can configure web-based authentication only on access ports. Web-based authentication is not supported on trunk ports, EtherChannel member ports, or dynamic trunk ports.
- You cannot authenticate hosts on Layer 2 interfaces with static ARP cache assignment. These hosts are not detected by the web-based authentication feature because they do not send ARP messages.
- By default, the IP device tracking feature is disabled on a switch. You must enable the IP device tracking feature to use web-based authentication.
- You must configure at least one IP address to run the switch HTTP server. You must also configure routes to reach each host IP address. The HTTP server sends the HTTP login page to the host.
- Hosts that are more than one hop away might experience traffic disruption if an STP topology change results in the host traffic arriving on a different port. This occurs because the ARP and DHCP updates might not be sent after a Layer 2 (STP) topology change.
- Web-based authentication does not support VLAN assignment as a downloadable-host policy.
- Web-based authentication supports IPv6 in Session-aware policy mode. IPv6 Web-authentication requires at least one IPv6 address configured on the switch and IPv6 Snooping configured on the switchport.
- Web-based authentication and Network Edge Access Topology (NEAT) are mutually exclusive. You
 cannot use web-based authentication when NEAT is enabled on an interface, and you cannot use NEAT
 when web-based authentication is running on an interface.
- Web-based authentication NRH (Non-Responsive Host) is not supported for voice devices.

Configuring the Authentication Rule and Interfaces

Examples in this section are legacy-style configurations. For new-style configurations, see the Session Aware Networking Configuration Guide, Cisco IOS XE Release 3SE (Catalyst 3850 Switches)

Follow these steps to configure the authentication rule and interfaces:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip admission name name proxy http
- 4. interface type slot/port
- 5. ip access-group name
- 6. ip admission name
- 7. exit
- 8. ip device tracking
- 9. end
- 10. show ip admission status
- 11. copy running-config startup-config

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	ip admission name name proxy http	Configures an authentication rule for web-based authorization.
	Example:	
	<pre>Switch(config) # ip admission name webauth1 proxy http</pre>	
Step 4	interface type slot/port	Enters interface configuration mode and specifies the
	Example:	ingress Layer 2 or Layer 3 interface to be enabled for web-based authentication.
	Switch(config)# interface gigabitEthernet1/0/1	<i>type</i> can be fastethernet, gigabit ethernet, or tengigabitethernet.
Step 5	ip access-group name	Applies the default ACL.
	Example:	
	Switch(config-if)# ip access-group webauthag	

	Command or Action	Purpose
Step 6	ip admission name	Configures web-based authentication on the specified interface.
	Example:	
	Switch(config-if)# ip admission webauth1	
Step 7	exit	Returns to configuration mode.
	Example:	
	Switch(config-if)# exit	
Step 8	ip device tracking	Enables the IP device tracking table.
	Example:	
	Switch(config)# ip device tracking	
Step 9	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	
Step 10	show ip admission status	Displays the configuration.
	Example:	
	Switch# show ip admission status	
Step 11	copy running-config startup-config	(Optional) Saves your entries in the configuration file.
	Example:	
	Switch# copy running-config startup-config	

Configuring AAA Authentication

Follow these steps to configure AAA authentication:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. aaa new-model
- 4. aaa authentication login default group {tacacs+ | radius}
- 5. aaa authorization auth-proxy default group {tacacs+ | radius}
- **6.** tacacs-server host {hostname | ip address}
- 7. tacacs-server key {key-data}
- **8.** end
- 9. show running-config
- 10. copy running-config startup-config

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	aaa new-model	Enables AAA functionality.
	Example:	
	Switch(config)# aaa new-model	
Step 4	aaa authentication login default group {tacacs+ radius}	Defines the list of authentication methods at login.
	Example:	
	<pre>Switch(config) # aaa authentication login default group tacacs+</pre>	
Step 5	aaa authorization auth-proxy default group {tacacs+ radius}	Creates an authorization method list for web-based authorization.
	Example:	
	Switch(config) # aaa authorization auth-proxy default	

	Command or Action	Purpose
	group tacacs+	
Step 6	tacacs-server host {hostname ip_address}	Specifies an AAA server.
	Example:	
	Switch(config)# tacacs-server host 10.1.1.1	
Step 7	tacacs-server key {key-data}	Configures the authorization and encryption key used between the switch and the TACACS server.
	Example:	
	Switch(config)# tacacs-server key	
Step 8	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	
Step 9	show running-config	Verifies your entries.
	Example:	
	Switch# show running-config	
Step 10	copy running-config startup-config	(Optional) Saves your entries in the configuration file.
	Example:	
	Switch# copy running-config startup-config	

Configuring Switch-to-RADIUS-Server Communication

Follow these steps to configure the RADIUS server parameters:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip radius source-interface vlan vlan interface number
- **4.** radius-server host {hostname | ip-address} test username username
- 5. radius-server key string
- 6. radius-server dead-criteria tries num-tries
- **7.** end

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	ip radius source-interface vlan vlan interface number	Specifies that the RADIUS packets have the IP address of the indicated interface.
	Example:	
	Switch(config)# ip radius source-interface vlan 80	
Step 4	radius-server host {hostname ip-address} test	Specifies the host name or IP address of the remote RADIUS server.
	username username	The test username username option enables automated testing of
	Example:	the RADIUS server connection. The specified <i>username</i> does not need to be a valid user name.
	Switch(config) # radius-server host 172.120.39.46 test username user1	The key option specifies an authentication and encryption key to use between the switch and the RADIUS server.
		To use multiple RADIUS servers, reenter this command for each server.
Step 5	radius-server key string	Configures the authorization and encryption key used between the switch and the RADIUS daemon running on the RADIUS server.
	Example:	
	Switch(config)# radius-server key rad123	

Command or Action	Purpose
radius-server dead-criteria tries num-tries	Specifies the number of unanswered sent messages to a RADIUS server before considering the server to be inactive. The range of
Example:	num-tries is 1 to 100.
Switch(config)# radius-server dead-criteria tries 30	
end	Returns to privileged EXEC mode.
Example:	
Switch(config)# end	
	radius-server dead-criteria tries num-tries Example: Switch(config) # radius-server dead-criteria tries 30 end Example:

Configuring the HTTP Server

To use web-based authentication, you must enable the HTTP server within the Switch. You can enable the server for either HTTP or HTTPS.

Follow these steps to enable the server for either HTTP or HTTPS:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip http server
- 4. ip http secure-server
- 5. end

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	

Command or Action	Purpose	
ip http server	Enables the HTTP server. The web-based authentication feature uses the HTTP server to communicate with the hosts for user authentication	
Example:		
Switch(config)# ip http server		
ip http secure-server	Enables HTTPS.	
Example:	You can configure custom authentication proxy web pages or specify a redirection URL for successful login.	
Switch(config)# ip http secure-server	Note To ensure secure authentication when you enter the ip http secure-server command, the login page is always in HTTPS (secure HTTP) even if the user sends an HTTP request.	
end	Returns to privileged EXEC mode.	
Example: Switch(config)# end		
	<pre>ip http server Example: Switch(config) # ip http server ip http secure-server Example: Switch(config) # ip http secure-server end Example:</pre>	

Customizing the Authentication Proxy Web Pages

You can configure web authentication to display four substitute HTML pages to the user in place of the Switch default HTML pages during web-based authentication.

For the equivalent Session Aware Networking configuration example for this feature, see the section "Configuring a Parameter Map for Web-Based Authentication" in the chapter, "Configuring Identity Control Policies." of the book, "Session Aware Networking Configuration Guide, Cisco IOS XE Release 3SE (Catalyst 3850 Switches)."

Follow these steps to specify the use of your custom authentication proxy web pages:

Before You Begin

Store your custom HTML files on the Switch flash memory.

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip admission proxy http login page file device:login-filename
- 4. ip admission proxy http success page file device: success-filename
- 5. ip admission proxy http failure page file device: fail-filename
- 6. ip admission proxy http login expired page file device: expired-filename
- **7.** end

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	ip admission proxy http login page file	Specifies the location in the Switch memory file system
	device:login-filename	of the custom HTML file to use in place of the default login page. The <i>device:</i> is flash memory.
	Example:	
	Switch(config)# ip admission proxy http login page file disk1:login.htm	
Step 4	ip admission proxy http success page file	Specifies the location of the custom HTML file to use
	device:success-filename	in place of the default login success page.
	Example:	
	Switch(config)# ip admission proxy http success page file disk1:success.htm	
Step 5	ip admission proxy http failure page file	Specifies the location of the custom HTML file to use
	device:fail-filename	in place of the default login failure page.
	Example:	
	<pre>Switch(config)# ip admission proxy http fail page file disk1:fail.htm</pre>	
Step 6	ip admission proxy http login expired page file	Specifies the location of the custom HTML file to use
	device:expired-filename	in place of the default login expired page.
	Example:	
	Switch(config)# ip admission proxy http login expired page file disk1:expired.htm	

	Command or Action	Purpose
Step 7	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	

Related Topics

Authentication Proxy Web Page Guidelines, on page 8

Specifying a Redirection URL for Successful Login

Follow these steps to specify a URL to which the user is redirected after authentication, effectively replacing the internal Success HTML page:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip admission proxy http success redirect url-string
- 4. end

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	ip admission proxy http success redirect url-string	Specifies a URL for redirection of the user in place of the default login success page.
	Example:	
	Switch(config) # ip admission proxy http success redirect www.example.com	

	Command or Action	Purpose
Step 4	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	

Related Topics

Redirection URL for Successful Login Guidelines, on page 9

Configuring the Web-Based Authentication Parameters

Follow these steps to configure the maximum number of failed login attempts before the client is placed in a watch list for a waiting period:

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip admission max-login-attempts number
- 4. end
- 5. show running-config
- 6. copy running-config startup-config

Command or Action	Purpose
enable	Enables privileged EXEC mode. Enter your password if prompted.
Example:	
Switch> enable	
configure terminal	Enters the global configuration mode.
Example:	
Switch# configure terminal	
	enable Example: Switch> enable configure terminal Example:

	Command or Action	Purpose
Step 3	ip admission max-login-attempts number	Sets the maximum number of failed login attempts. The range is 1 to 2147483647 attempts. The default is 5.
	Example:	
	Switch(config)# ip admission max-login-attempts 10	
Step 4	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	
Step 5	show running-config	Verifies your entries.
	Example:	
	Switch# show running-config	
Step 6	copy running-config startup-config	(Optional) Saves your entries in the configuration file.
	Example:	
	Switch# copy running-config startup-config	

Configuring a Web Authentication Local Banner

Follow these steps to configure a local banner on a switch that has web authentication configured.

SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. ip admission auth-proxy-banner http [banner-text | file-path]
- 4. end
- 5. show running-config
- 6. copy running-config startup-config

DETAILED STEPS

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	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	configure terminal	Enters the global configuration mode.
	Example:	
	Switch# configure terminal	
Step 3	ip admission auth-proxy-banner http [banner-text	Enables the local banner.
	file-path]	(Optional) Create a custom banner by entering C
	Example:	banner-text C (where C is a delimiting character), or file-path that indicates a file (for example, a logo or text
	Switch(config)# ip admission auth-proxy-banner http C My Switch C	file) that appears in the hopper
Step 4	end	Returns to privileged EXEC mode.
	Example:	
	Switch(config)# end	
Step 5	show running-config	Verifies your entries.
	Example:	
	Switch# show running-config	
Step 6	copy running-config startup-config	(Optional) Saves your entries in the configuration file.
	Example:	
	Switch# copy running-config startup-config	

Removing Web-Based Authentication Cache Entries

Follow these steps to remove web-based authentication cache entries:

SUMMARY STEPS

- 1. enable
- 2. clear ip auth-proxy cache {* | host ip address}
- 3. clear ip admission cache {* | host ip address}

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode. Enter your password if prompted.
	Example:	
	Switch> enable	
Step 2	clear ip auth-proxy cache {* host ip address}	Delete authentication proxy entries. Use an asterisk to delete all cache entries. Enter a specific IP address to delete the entry for
	Example:	a single host.
	Switch# clear ip auth-proxy cache 192.168.4.5	
Step 3	clear ip admission cache {* host ip address}	Delete authentication proxy entries. Use an asterisk to delete all cache entries. Enter a specific IP address to delete the entry for
	Example:	a single host.
	Switch# clear ip admission cache 192.168.4.5	

Monitoring Web-Based Authentication Status

Use the commands in this topic to display the web-based authentication settings for all interfaces or for specific ports.

Table 2: Privileged EXEC show Commands

Command	Purpose
show authentication sessions method webauth	Displays the web-based authentication settings for all interfaces for fastethernet, gigabitethernet, or tengigabitethernet

Command	Purpose
show authentication sessions interface type slot/port[details]	Displays the web-based authentication settings for the specified interface for fastethernet, gigabitethernet, or tengigabitethernet. In Session Aware Networking mode, use the show
	access-session interface command.

Monitoring Web-Based Authentication Status