

Lab 3.2.3 Using Feature Navigator

Objectives

- Set up a Cisco.com Guest registration.
- Select the IOS images using the Cisco.com Feature Navigator.

Expected Results and Success Criteria

Before starting this lab, read through the tasks that you are expected to perform. What do you expect the result of performing these tasks will be?

How is an understanding of the Cisco.com Feature Navigator useful in network administration?

What is a benefit of using the Cisco.com Feature Navigator?

Background / Preparation

This lab introduces the features of the Cisco Systems, Inc. website, www.cisco.com, as a resource for supporting Cisco networking devices.

You will use the website tools to examine the features available in versions of the Cisco IOS software for the 1841 ISR and Catalyst 2960 switch.

The ability to navigate and access the services and information on www.cisco.com is critical to maintaining up-to-date knowledge of router and switch features that applies to network configuration and troubleshooting.

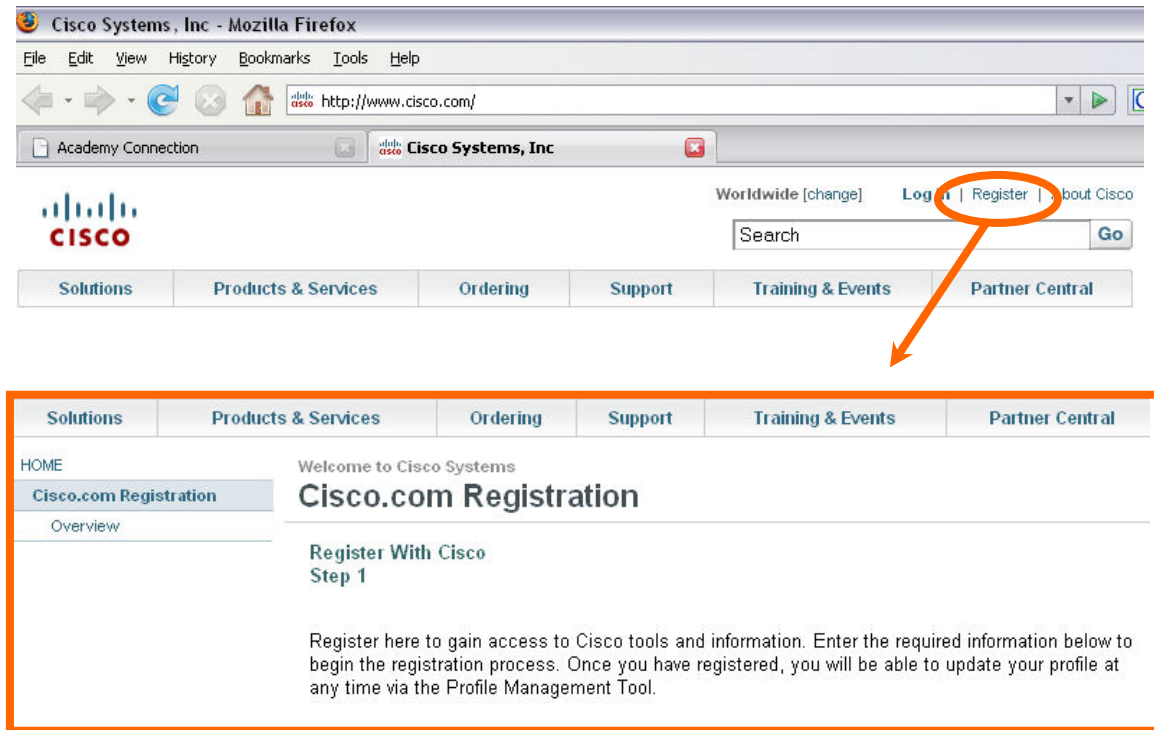
Task 1: Create a Cisco.com Guest Registration

NOTE: Task 1 covers setting up a Cisco.com Guest registration (formerly known as CCO, Cisco Connection Online). If you already have a current working Cisco.com registration, omit this task.

NOTE: Cisco.com Guest registration is completely separate from your Cisco Networking Academy student account. During the registration process, you may find it convenient to register the same username as your student username, if it is available.

Step 1: Access the Cisco.com registration service

- a. Using a computer with Internet access, go the website <http://www.cisco.com>.
- b. On the top right of the page, click **Register**. The page that opens is Step 1 of 4 in the registration process.



Step 2: Complete the registration process

- a. Complete the registration information required for Step 1.
 - 1) A valid email address must be used.
 - 2) The User ID can be the same as your Networking Academy name (if it is available).
 - 3) Do not select any check boxes under Register for Additional Access.
 - 4) Click **Submit**.
- b. On the next page, Step 2 of 4, select **Home Address** and enter either your academy address details or your personal address, and a telephone number. Click **Submit**.
- c. At the Your Interest and Preferences screen under Step 3 of 4, click **Skip This Step** if you are not employed. Completing this information is optional.
- d. At Step 4 of 4, the Complete Registration screen appears. You will be directed to your email account to activate your registration with Cisco.com.
- e. Check the email account you registered with for an email with the subject "Cisco.com Registration: Action required." In the body of the email, click the Cisco.com account activation link, or copy and paste it into a browser address window.
 - 1) You will see the Successful Registration screen.
 - 2) You will receive a Cisco.com Registration Confirmation email with your User ID.

You can now access Cisco.com by clicking **Log In** at the top of the screen and entering your User ID and password.

Step 3: Test your Cisco.com Guest registration

- Using a computer with Internet access, go the website <http://www.cisco.com>.
- At the top right of the page, click **Log In** and log in using your Cisco.com username and password.

NOTE: As a security precaution, if you have not changed your password within the last 3 months, you will be prompted to change it when you log in.

Once logged in, you may not notice any change in appearance of the website (other than Logged In and Profile at the top of each page). However, when services on the **Support** menu are accessed, the range and detail of features may increase.

NOTE: Guest Registration does not provide access to IOS software downloads. Additional Access registration is required to access IOS software. These registrations can be of the following types:

- Service Contract (SMARTnet) Owner
- Cisco Channel Partner or Authorized Company
- Purchase Direct from Cisco
- Customer of a Cisco Certified Partner Initiated Customer Access [PICA] Partner
- You are a Cisco Certified Internetwork Expert [CCIE User]

Task 2: Access Cisco.com Feature Navigator

Step 1: Access and log in to Cisco.com

- Using a computer with Internet access, go the website <http://www.cisco.com>.
- At the top right of the page, click **Log In** and log in using your Cisco.com username and password.
- Click **Products and Services**.
- Under **Product Research Tools**, click the **Cisco Feature Navigator** link.

NOTE: You do not need to use your Cisco.com registration to access the Cisco Feature Navigator. It can be accessed directly from <http://www.cisco.com/go/cfn>.

Step 2: Examine the Feature Navigator tools

List the six tools offered by the Feature Navigator:

It may be necessary to use more than one tool. For example, you may not know the exact description of a feature set, but you may know the platform and image name. In this case, a combination of the tools is required to provide all the necessary information.

Task 3: Examine 1841 Router IOS Features

NOTE: It is important to distinguish between an IOS feature and a Feature Set.

- An IOS feature is a specific facility that an IOS supports. Examples include support for a particular routing protocol (EIGRP or BGP), a WAN service (Frame Relay), or a VPN facility (IPSec).
- A Feature Set is a group of features that differentiates one IOS image from another. Feature Sets have generalized names such as IP BASE, ADVANCED IP SERVICES, and ADVANCED ENTERPRISE SERVICES.

Step 1: Search by feature

This assumes that you know which features you want your upgraded network to have.

- From the Cisco Feature Navigator page, click the **Search by Feature** link.
- From **Available Features** list, select the following features:
 - CallManager Express (CME) 3.0
 - IPv6 (Internet Protocol Version 6)
 - Mobile IP
 - Videoconferencing for the Cisco Multiservice IP-to-IP Gateway Feature
 - Voice Over IP (VoIP)

These features are a sample of services that the FilmCompany may consider adding to their network; you may add others for this exercise.

TIP: Filtering by using the first letter links across the top of the page or using the search field makes finding each feature easier.

- Click the **Add** button for each feature selected. When done, click **Continue**.
- On the next screen, from the **Platform** drop-down menu, select **1841**. From the **Feature Set** drop-down menu, select **ADVANCED IP SERVICES**.

Output similar to this will be displayed:

Release	Image Name	DRAM	Flash
12.3(14)YT1	c1841-advipservicesk9-mz.123-14.YT1.bin	192	48
12.3(14)YT	c1841-advipservicesk9-mz.123-14.YT.bin	192	48
12.3(8)YG4	c1841-advipservicesk9-mz.123-8.YG4.bin	192	64
12.3(8)YG3	c1841-advipservicesk9-mz.123-8.YG3.bin	192	64
12.3(8)YG2	c1841-advipservicesk9-mz.123-8.YG2.bin	192	64
12.3(8)YG	c1841-advipservicesk9-mz.123-8.YG.bin	192	64

- Note the DRAM and flash requirements for each image.

Does your router have the DRAM and flash resources to support these advanced services?

How can the DRAM and flash available on your router be determined?

The required and suitable IOS image can be selected and the appropriate arrangements made to download it.

Step 2: Search by platform

- a. From the Cisco Feature Navigator page, click the **Search by Platform** link.
- b. List the four search objectives available:

- c. From the **Platform** drop-down menu, select **1841**. Click **Continue**.

Step 3: Search by feature set

- a. From the **Feature Set** drop-down menu, select **IP BASE**.
- b. Examine the list of features.

List the interior routing protocols supported.

List the exterior routing protocols supported.

- c. From the **Feature Set** drop-down menu, select **ADVANCED IP SERVICES**.

Note that the extra features listed include such features as:

- Analog Centralized Automatic Message Accounting E911 Trunk
- Analog DID (Direct Inward Dial)
- Call Admission Control for H.323 VoIP Gateways
- Caller ID
- Caller ID on Analog Voice Interfaces
- CallManager Express (CME) 3.1
- Cisco IOS Telephony Service (ITS) Version 2.1
- And various features for:
 - H323
 - MGCP - Media Gateway Control Protocol
 - Mobile IP
 - SIP (Session Initiation Protocol)
 - Videoconferencing for the Cisco Multiservice IP-to-IP Gateway Feature
 - VoIP (Voice over IP)

This presentation provides feature details but makes direct comparison between the Feature Sets difficult.

Step 4: Compare images

In this step, it is assumed that you know some release and version details about the IOS images but not the exact features of each.

- a. Click the **Compare Images** tab on the current page or the **Compare Images** link on the Cisco Feature Navigator page.
- b. Under **Select First Image Parameters**, make a selection from each drop-down list, for example:
Software: IOS
Major Release: 12.4
Release Number: 12.4(1a)
Platform: 1841
Feature Set: IP BASE
- c. Under **Select Second Image Parameters**, make a selection from each drop-down list, for example:
Software: IOS
Major Release: 12.4
Release Number: 12.4(10b)
Platform: 1841
Feature Set: ADVANCED IP SERVICES
- d. Note the information displayed:
 - Image information for each IOS
 - Features unique to each image
 - Common features in both images (scroll half-way down the page)

Does your router have the DRAM and flash resources to support these advanced services?

How can the DRAM and flash available on your router be determined?

What extra Layer 3 protocol support is with the ADVANCED IP SERVICES feature set?

- e. Examine some of the unique features listed above by clicking the links.

Describe the enhanced network services and features users could expect if an IOS upgrade to the ADVANCED IP SERVICES feature set was performed.

Task 4: Examine 2960 Switch IOS Features

Step 1: Search by platform

- a. Return to the Cisco Feature Navigator page and click the **Search by Platform** link.
- b. From the **Platform** drop-down menu, select **CAT2960** and click **Continue**.

Step 2: Search by feature set

- a. From the **Feature Set** drop-down menu, select **LAN BASE**.

- b. Examine the list of features.
- c. Examine some of the features listed by clicking on the links.
- d. Select various Major Release and Release values from those respective menus. Note the IOS image filenames and memory requirements.
- e. Return to the Cisco Feature Navigator. From the **Platform** drop-down menu, select **CAT3560** and click **Continue**.
- f. Examine the list of features.

Which significant Layer 3 protocol family is included in the feature set?

What is the significance of this difference between 2960 and 3560 switches?

Task 5: Reflection

The recording and documentation of network features and services, and the devices that provide them, are important features of network management.

Consider and explore the Cisco.com resources and information that can facilitate this task.
