



## Lab 6.5.3.1 Manage Bridge Configuration and Image Files

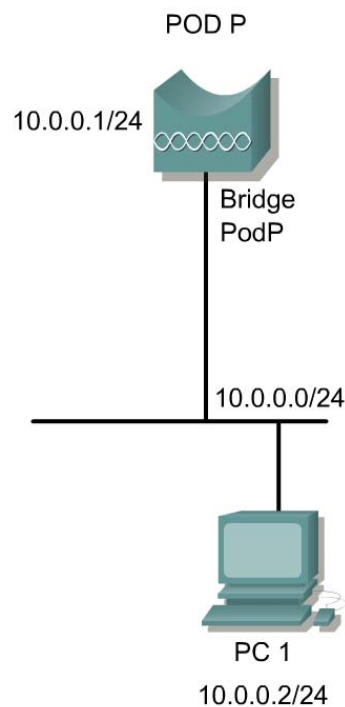
Estimated Time: 20 minutes

Number of Team Members: Students will work in teams of two.

### Objective

In this lab, the student will learn the features of the wireless bridge configuration dump and the process used for wireless bridge configuration and image load processes. Additionally, in this lab, the student will learn the process for distributing firmware and configurations.

### Topology



### Preparation

The students will read and familiarize themselves with the concepts in Chapter 6 prior to attempting this lab.

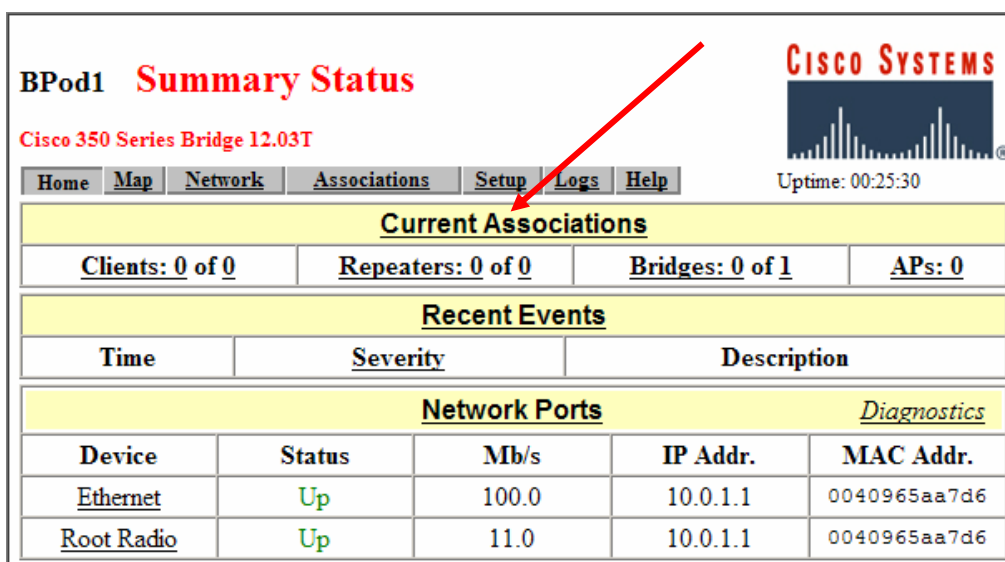
### Tools and Resources

Each team will require the following:

- One BR350
- One PC on the wired LAN for bridge configuration

## Step 1 Backup the current configuration file

In order to backup the current configuration files, complete the following steps:



**BPod1 Summary Status**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations **Setup** Logs Help

Uptime: 00:25:30

**Current Associations**

Clients: 0 of 0	Repeaters: 0 of 0	Bridges: 0 of 1	APs: 0
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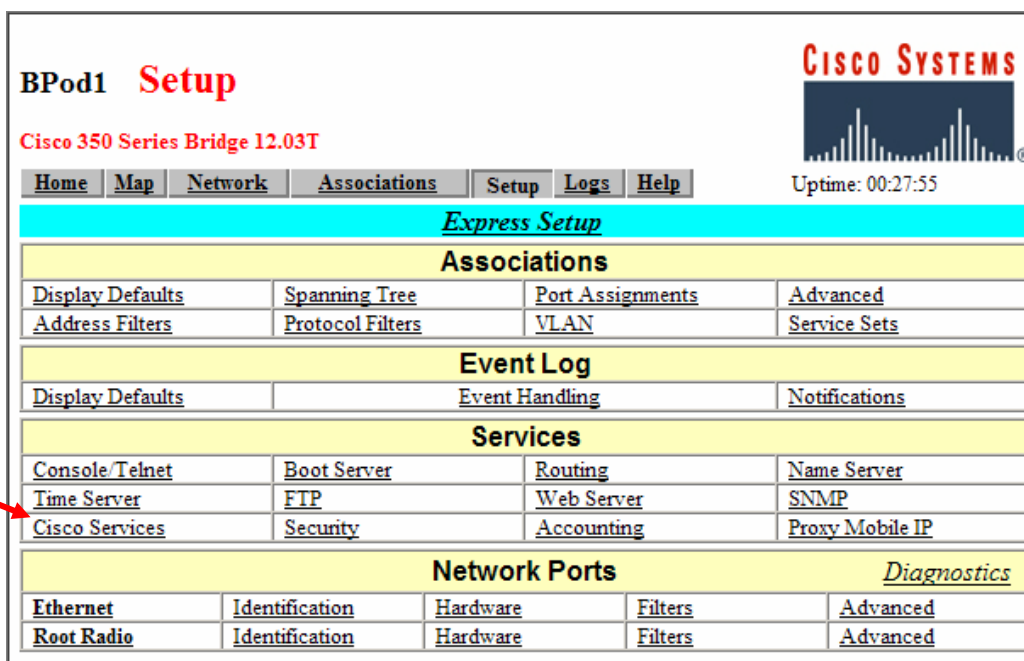
**Recent Events**

Time	Severity	Description
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**Network Ports** *Diagnostics*

Device	Status	Mb/s	IP Addr.	MAC Addr.
Ethernet	Up	100.0	10.0.1.1	0040965aa7d6
Root Radio	Up	11.0	10.0.1.1	0040965aa7d6

- a. On PC1, open a web browser and access the bridge. From the Home page, click on the Setup tab.



**BPod1 Setup**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations **Setup** Logs Help

Uptime: 00:27:55

**Express Setup**

**Associations**

Display Defaults	Spanning Tree	Port Assignments	Advanced
Address Filters	Protocol Filters	VLAN	Service Sets

**Event Log**

Display Defaults	Event Handling	Notifications
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**Services**

Console/Telnet	Boot Server	Routing	Name Server
Time Server	FTP	Web Server	SNMP
<b>Cisco Services</b>	Security	Accounting	Proxy Mobile IP

**Network Ports** *Diagnostics*

Ethernet	Identification	Hardware	Filters	Advanced
Root Radio	Identification	Hardware	Filters	Advanced


- b. From the Services section, select **Cisco Services**.

BPod1

Cisco Services Setup

Cisco 350 Series Bridge 12.03T

[Home](#)
[Map](#)
[Network](#)
[Associations](#)
[Setup](#)
[Logs](#)
[Help](#)



Uptime: 00:29:23

[Manage Installation Keys](#)
  
[Manage System Configuration](#)
  
[Distribute Configuration to other Cisco Devices](#)
  
[Distribute Firmware to other Cisco Devices](#)
  
[Hot Standby Management](#)
  
[Cisco Discovery Protocol \(CDP\)](#)
  

Fully Update Firmware:

[Through Browser](#)

[From File Server](#)

Selectively Update Firmware:

[Through Browser](#)

[From File Server](#)

Locate unit by flashing LEDs:

☐ Enabled

☒ Disabled

Apply

OK

Cancel

Restore Defaults


- c. Click on the **Manage System Configuration** link.

BPod1

System Configuration Setup

Cisco 350 Series Bridge 12.03T

[Home](#)
[Map](#)
[Network](#)
[Associations](#)
[Setup](#)
[Logs](#)
[Help](#)



Uptime: 00:30:28

"WARM" RESTART SYSTEM NOW

"COLD" RESTART SYSTEM NOW

[Download Non-Default System Configuration \*Except\* IP Identity](#)
  

Reset System Factory Defaults Except IP Identity

[Download Non-Default System Configuration](#)
[Download All System Configuration](#)

Reset All System Factory Defaults

Additional System Configuration File:

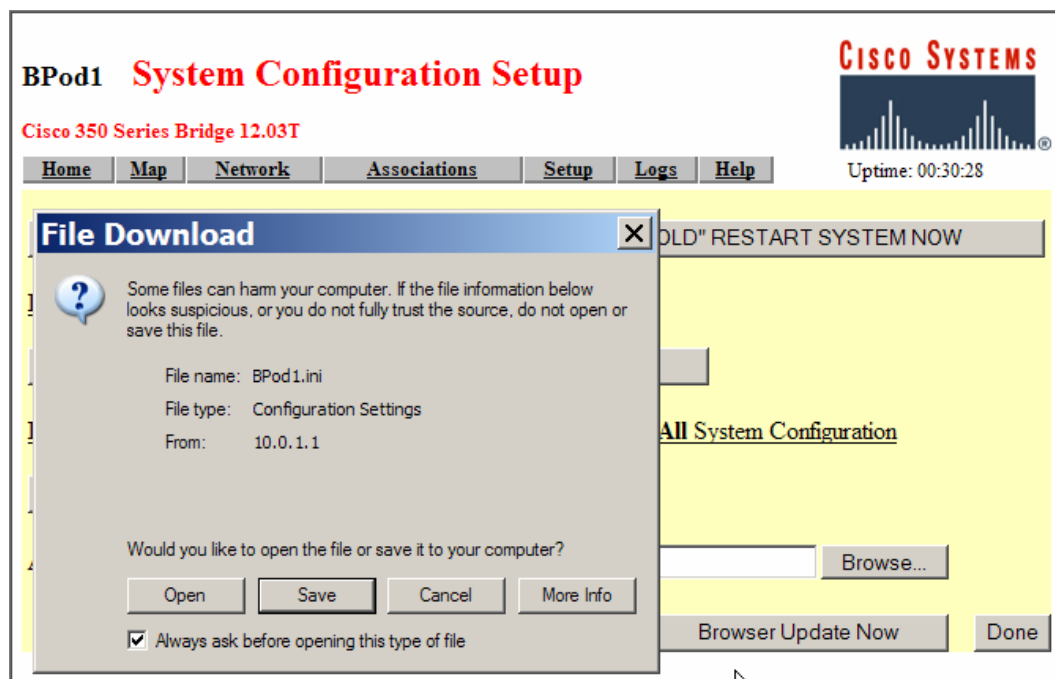
Browse...

Read Config File from Server

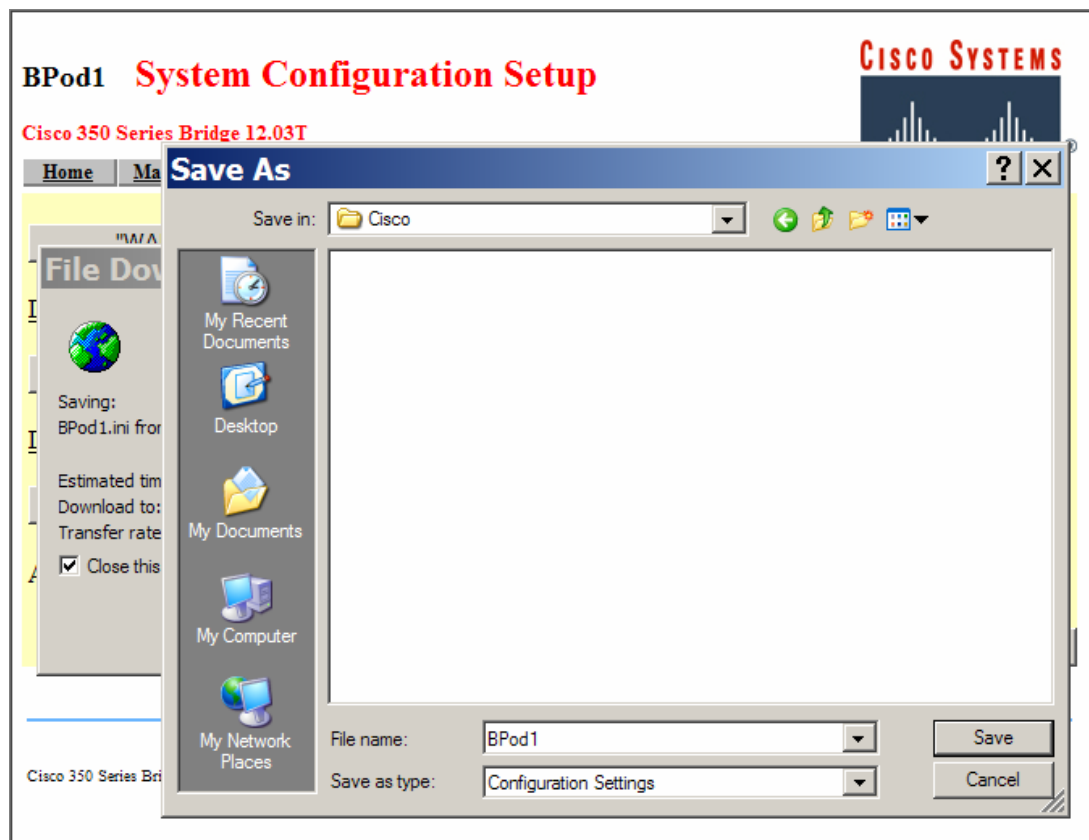
Browser Update Now

Done

- d. Click on the **Download All System Configuration** button.

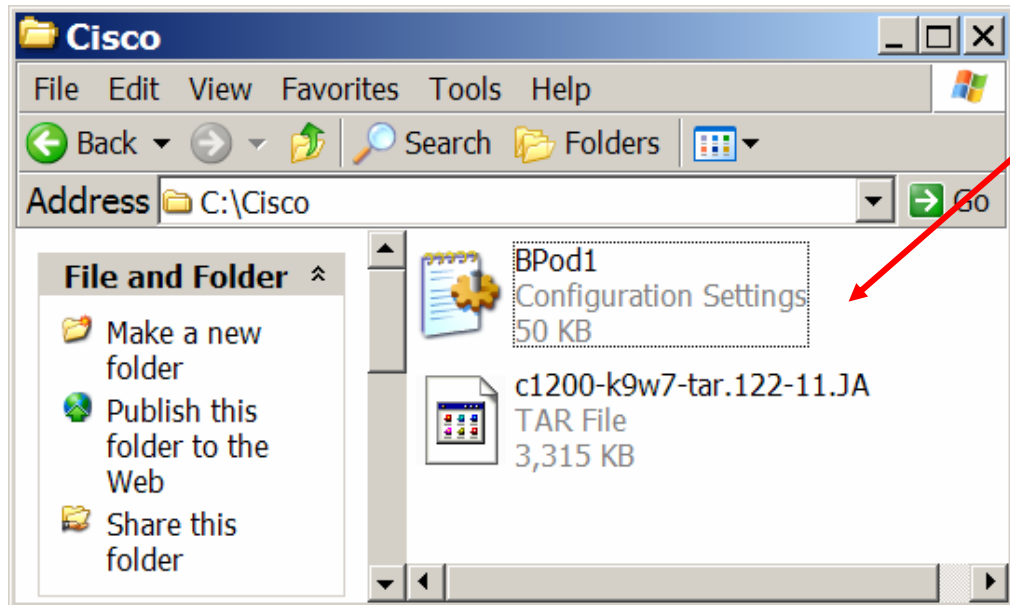


- e. When the File Download screen appears, click the **Save** button.



- f. Choose a file name and location or click **Save** to accept the defaults.

In this example, BPod1.ini was selected as the file name, and C:\Cisco directory was selected as the location to save the configuration file.



- g. Verify the configuration file is saved on PC1.

A screenshot of a Notepad window titled "BPod1 - Notepad". The text content is a configuration file for a Cisco 350 Series Bridge. The last line, "sysName=BPod1", is highlighted with a red box. The configuration text is as follows:

```
#===Beginning of BPod1 (Cisco 350 Series Bridge 12.03T)
Configuration File===
dot11AuthenticationResponseTimeOut.2=2000
dot11PowerManagementMode.2=active
dot11DesiredSSID.2=BR1
dot11OperationalRateSet.2=\x82\x84\x8b\x96
dot11BeaconPeriod.2=100
dot11DTIMPeriod.2=2
dot11AssociationResponseTimeOut.2=2000
dot11MultiDomainCapabilityEnabled.2=false
dot11AuthenticationAlgorithmsEnable.2.1=true
dot11AuthenticationAlgorithmsEnable.2.2=false
dot11AuthenticationAlgorithmsEnable.2.3=false
dot11PrivacyInvoked.2=false
dot11WEPDefaultKeyID.2=0
dot11WEPKeyMappingLength.2=0
dot11ExcludeUnencrypted.2=false
dot11RTSThreshold.2=2339
dot11ShortRetryLimit.2=32
dot11LongRetryLimit.2=32
dot11FragmentationThreshold.2=2338
dot11MaxTransmitMSDULifetime.2=5000
dot11MaxReceiveLifetime.2=10000
dot11ChannelAgilityEnabled.2=false
dot11CurrentTxAntenna.2=diversity
dot11CurrentRxAntenna.2=diversity
dot11CurrentTxPowerLevel.2=6
dot11CurrentDwellTime.2=19
dot11CurrentSet.2=1
dot11CurrentPattern.2=1
dot11CurrentChannel.2=6
dot11CurrentCCAMode.2=1
sysContact=Aironet Wireless Communications, Inc.
sysName=BPod1
```

- h. On PC1, open the configuration file with Notepad. Edit the "sysName=" value to BPod1backup.
- i. Save the changes and exit Notepad.

## Step 2 Load a configuration file

If the configuration is ever lost or corrupted, it can be restored by using the Additional System Configuration File. This is an option from the **Cisco Services** Setup menu or page to move the configuration file into the bridge. The system automatically restores the configuration based on these commands.

In order to load a configuration file, complete the following steps:

- a. On the **Cisco Services Setup** page, click on the **Manage System Configuration** button.

**BPod1 System Configuration Setup**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations Setup Logs Help Uptime: 00:30:28

"WARM" RESTART SYSTEM NOW "COLD" RESTART SYSTEM NOW

Download Non-Default System Configuration Except IP Identity

Reset System Factory Defaults Except IP Identity

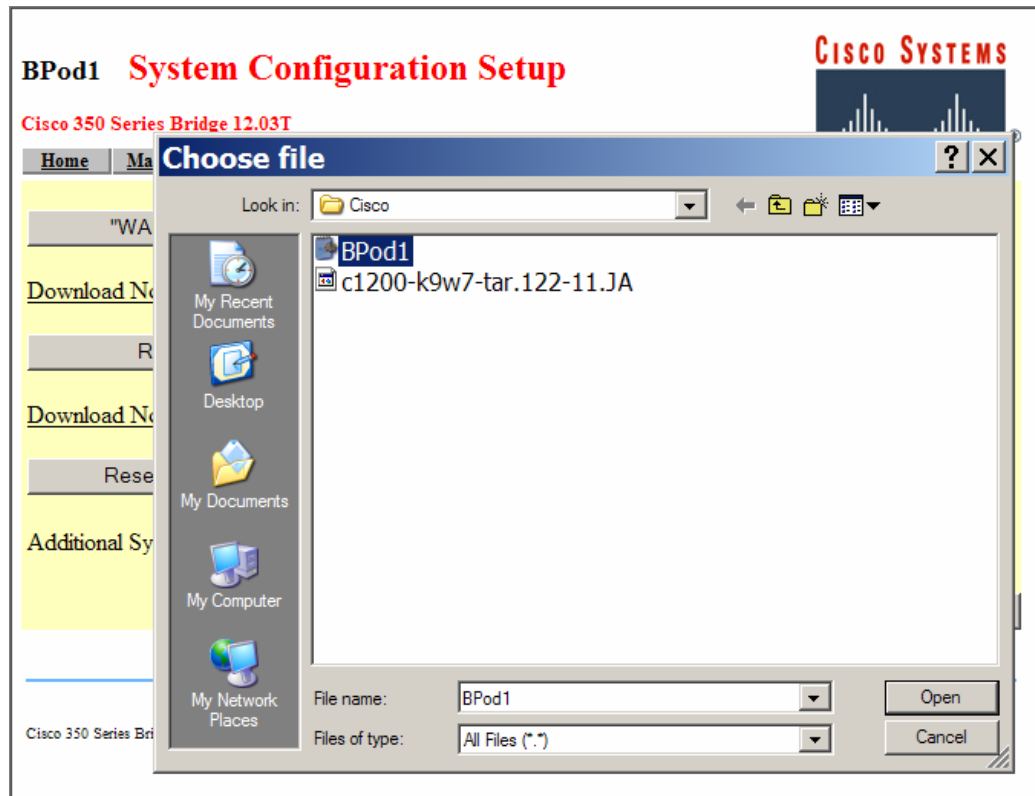
Download Non-Default System Configuration Download All System Configuration

Reset All System Factory Defaults

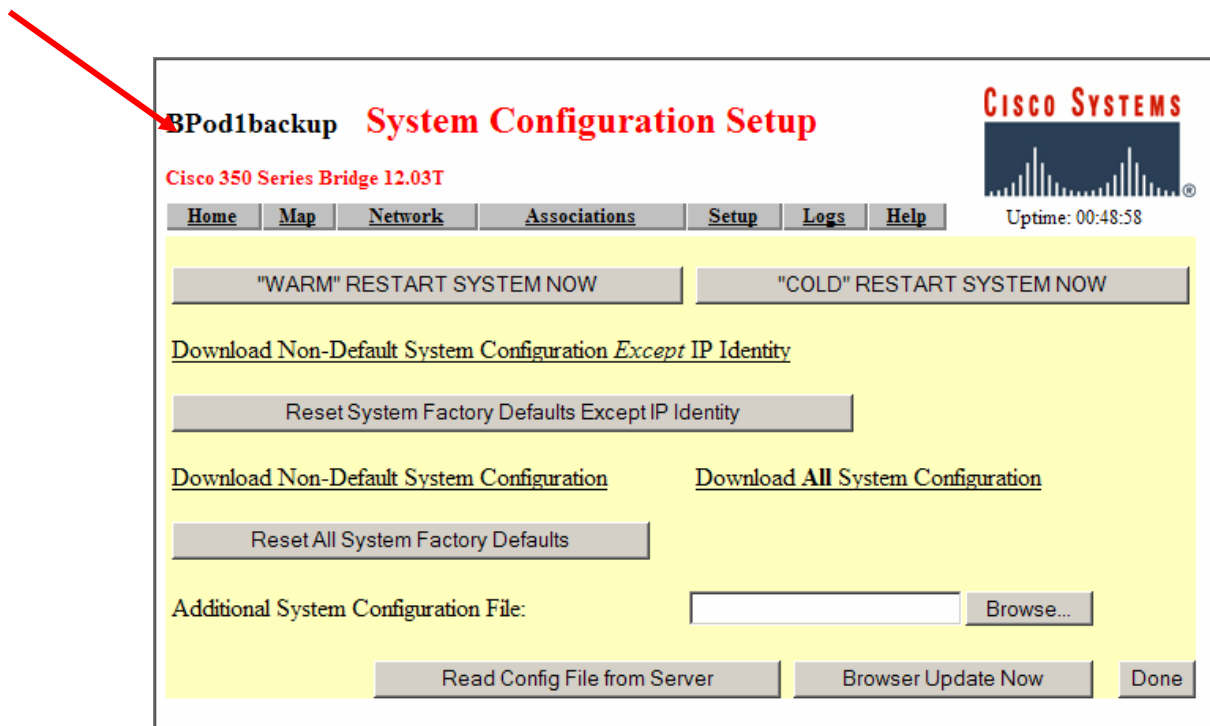
Additional System Configuration File:  Browse...

Read Config File from Server Browser Update Now Done

- b. From the **System Configuration Setup** Page, click on the **Browse...** button near the Additional System Configuration file: field.



- c. Choose the configuration file BPod1 that is to be loaded and click the **Open** button.



- d. Click the **Browser Update Now** button to load the file. After about 10 seconds, the page will update. Notice the System name will change in the upper left corner.
1. Was it possible to load the saved configuration file into the current configuration of the bridge? How is this confirmed?

### Step 3 Update bridge firmware using a browser


Bridges may need to be updated to provide new services or greater security features.

In order to update firmware using a web browser, complete the following steps:

The screenshot shows the Cisco Systems Software Center website. The top navigation bar includes the Cisco Systems logo, a search bar with 'Technical Support' entered, and links for Home, Log In, and Register. A left sidebar menu lists various software categories, with 'Wireless Software' selected. The main content area is titled 'SOFTWARE CENTER' and 'Wireless Software'. It features two main sections: 'Wireless LAN Software' and 'Cisco Aironet Wireless Bridge Firmware and Utilities'. The 'Wireless LAN Software' section includes a link to 'Cisco Aironet Wireless LAN Client Adapters'. The 'Cisco Aironet Wireless Bridge Firmware and Utilities' section includes links to 'Cisco Aironet 1400 Series', 'Cisco Aironet 350 Series', 'Cisco Aironet 340 Series', and 'Cisco Aironet 4800 Series'. A red arrow points to the 'Cisco Aironet 350 Series' link.

- a. Download the latest BR350 image from Cisco.com. Save the image file on PC1.



**BPod1 Cisco Services Setup** **CISCO SYSTEMS**  
  
Uptime: 01:10:03

**Cisco 350 Series Bridge 12.03T**

[Home](#) [Map](#) [Network](#) [Associations](#) [Setup](#) [Logs](#) [Help](#)

[Manage Installation Keys](#)

[Manage System Configuration](#)

[Distribute Configuration to other Cisco Devices](#)

[Distribute Firmware to other Cisco Devices](#)

[Hot Standby Management](#)

[Cisco Discovery Protocol \(CDP\)](#)


Fully Update Firmware: [Through Browser](#) [From File Server](#)

Selectively Update Firmware: [Through Browser](#) [From File Server](#)

Locate unit by flashing LEDs: ☐ Enabled ☒ Disabled

[Apply](#) [OK](#) [Cancel](#) [Restore Defaults](#)

- b. From the **Cisco Services Setup** Page, click on the **Fully Update Firmware: Through Browser** link.

**BPod1 Update All Firmware Through Browser** **CISCO SYSTEMS**  
  
Uptime: 01:14:02

**Cisco 350 Series Bridge 12.03T**

[Home](#) [Map](#) [Network](#) [Associations](#) [Setup](#) [Logs](#) [Help](#)

Current Version of System Firmware: 12.03

Current Version of Web Pages: 12.03

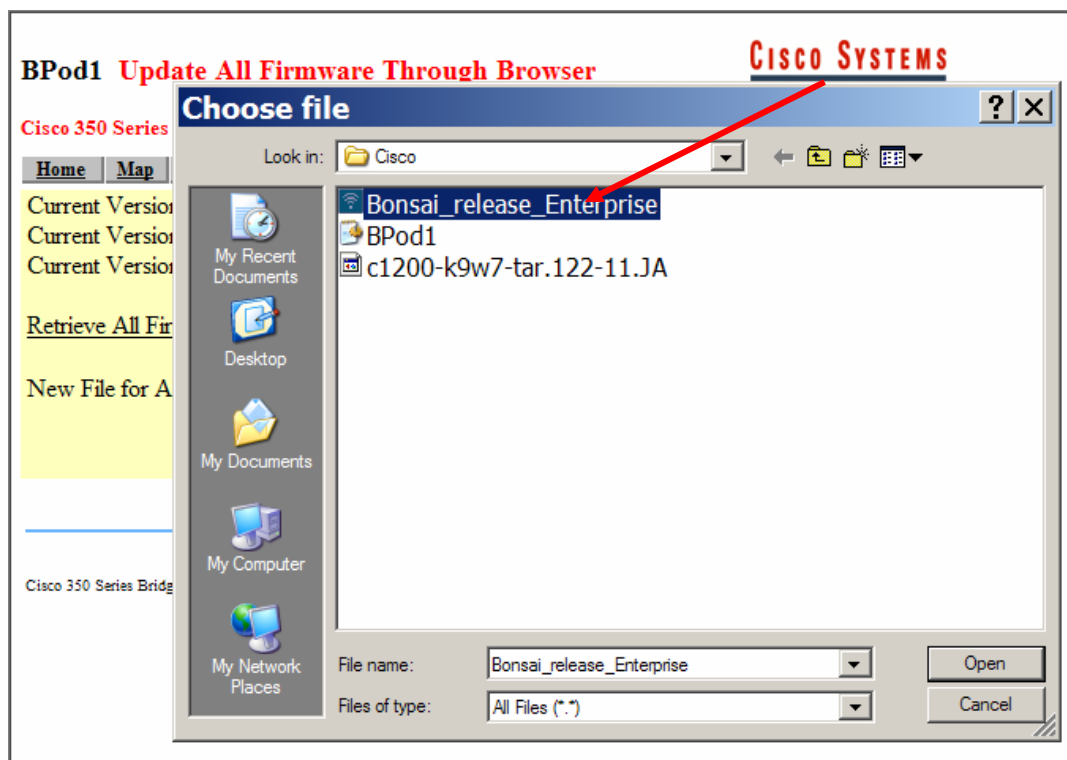
Current Version of Internal Radio Firmware: 5.20U

[Retrieve All Firmware Files](#)

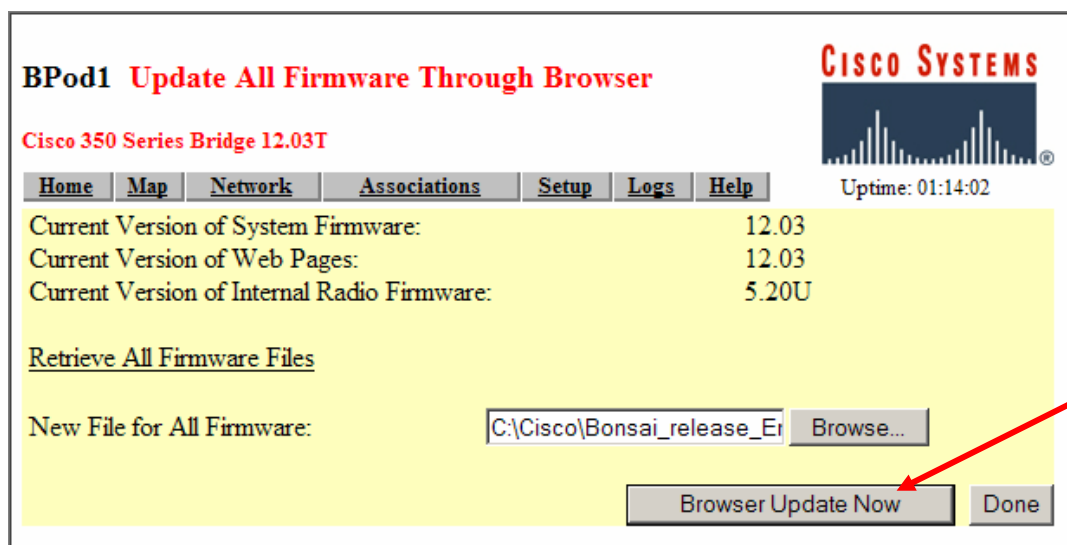
New File for All Firmware:  [Browse...](#)

[Browser Update Now](#) [Done](#)

- c. From the **Update All Firmware Through Browser** Page, click on the **Browse...** across from the **New File for All Firmware:**



- d. Select the downloaded BR350 image file and click the **Open** button.



- e. The image file location will now appear in the field.

**Note** If the bridge has the latest image installed, skip the next step. If the bridge requires updating, ask for instructor permission before upgrading.

- f. Click on the **Browser Update Now** button.

**Note** Do not interrupt the update process once the update begins. This will corrupt the bridge operating system, rendering the bridge inoperable.

## Step 4 Distribute bridge firmware

The **Cisco Services Setup** menu provides an option for distributing firmware or configuration from one bridge to all other bridges on the infrastructure. These options reduce the time needed to perform firmware upgrades or make global changes to the configuration.

In order to distribute firmware, complete the following steps:

BPod1backup **Cisco Services Setup**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations Setup Logs Help

Uptime: 00:59:08

Manage Installation Keys

Manage System Configuration

Distribute Configuration to other Cisco Devices

Distribute Firmware to other Cisco Devices

Hot Standby Management

Cisco Discovery Protocol (CDP)

Fully Update Firmware: Through Browser From File Server

Selectively Update Firmware: Through Browser From File Server

Locate unit by flashing LEDs: ☐ Enabled ☒ Disabled

Apply OK Cancel Restore Defaults

- Click on the **Distribute Firmware to other Cisco Devices** from the **Cisco Services Setup** page.

BPod1backup **Distribute Firmware**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations Setup Logs Help

Uptime: 00:53:12

Current User: User Manager Not Enabled

Distribute All Firmware: ☒ yes ☐ no

Current Version of System Firmware: 12.03 ☒

Current Version of Web Pages: 12.03 ☒

Current Version of Internal Radio Firmware: 5.20U ☒

Start Abort

Status: INACTIVE

- From the **Distribute Firmware** Page, choose the **yes** radio button on for the Distribute all firmware option.

- c. Click the **Start** button.

**BPod1 backup Distribute Firmware**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations Setup Logs Help Uptime: 00:56:26

Current User: User Manager Not Enabled

Distribute All Firmware: ☒ yes ☐ no

Current Version of System Firmware:	12.03	<input checked="" type="checkbox"/>
Current Version of Web Pages:	12.03	<input checked="" type="checkbox"/>
Current Version of Internal Radio Firmware:	5.20U	<input checked="" type="checkbox"/>

Start Abort

Status: SEARCHING

The bridge will search for other bridges to distribute its firmware to, which is indicated by the SEARCHING status in the lower left hand corner of the page. If it locates a bridge, the distribution will occur automatically. If no other bridges are available, the status will display INACTIVE.

### Step 5 Reset the bridge configuration

The bridge provides an option to restore the bridge configuration back to factory defaults using a web browser. In order to reset the bridge, complete the following steps:

**BPod1 Cisco Services Setup**

Cisco 350 Series Bridge 12.03T

Home Map Network Associations Setup Logs Help Uptime: 00:29:23

Manage Installation Keys

Manage System Configuration

Distribute Configuration to other Cisco Devices

Distribute Firmware to other Cisco Devices

Hot Standby Management

Cisco Discovery Protocol (CDP)

Fully Update Firmware:	<u>Through Browser</u>	<u>From File Server</u>
Selectively Update Firmware:	<u>Through Browser</u>	<u>From File Server</u>

Locate unit by flashing LEDs: ☐ Enabled ☒ Disabled

Apply OK Cancel Restore Defaults

- a. From the **Cisco Services Setup** page, click on the Manage System Configuration link.

## BPod1 System Configuration Setup

Cisco 350 Series Bridge 12.03T

CISCO SYSTEMS



Uptime: 01:27:57

[Home](#) [Map](#) [Network](#) [Associations](#) [Setup](#) [Logs](#) [Help](#)

<input now"="" restart="" system="" type="button" value="WARM"/>		<input now"="" restart="" system="" type="button" value="COLD"/>	
<u>Download Non-Default System Configuration <i>Except</i> IP Identity</u>			
<input type="button" value="Reset System Factory Defaults Except IP Identity"/>			
<u>Download Non-Default System Configuration</u>		<u>Download <del>All</del> System Configuration</u>	
<input type="button" value="Reset All System Factory Defaults"/>			
Additional System Configuration File:		<input type="text"/>	<input type="button" value="Browse..."/>
<input type="button" value="Read Config File from Server"/>		<input type="button" value="Browser Update Now"/>	<input type="button" value="Done"/>

- b. From the **System Configuration Setup** Page, click on the **Reset All System Factory Defaults** button.