

Managing the device Using Web User Interface

The Web User Interface (Web UI) is an embedded GUI-based device-management tool that provides the ability to provision the device, to simplify device deployment and manageability, and to enhance the user experience. It comes with the default image, so there is no need to enable anything or install any license on the device. You can use WebUI to build configurations, and to monitor and troubleshoot the device without having CLI expertise. This chapter includes the these sections:

- Set up factory default device using Web UI , on page 1
- Using Web User Interface for day one setup, on page 5
- Monitor and troubleshoot device Plug and Play (PnP) Onboarding using WebUI , on page 6

Set up factory default device using Web UI

Quick Setup Wizard allows you perform the basic router configuration. To configure the router:

Note Before you access the Web UI, you need to have the basic configuration on the device.

Procedure

Step 1 Connect the RJ-45 end of a serial cable to the RJ-45 console port on the router.

Step 2 After the device initial configuration wizard appears, enter **No** to get into the device prompt when the following system message appears on the router.

Would you like to enter the initial configuration dialog? [yes/no]: no

Step 3 From the configuration mode, enter the following configuration parameters.

```
!
ip dhcp pool WEBUIPool
network 192.168.1.0 255.255.255.0
default-router 192.168.1.1

username admin privilege 15 password 0 default
!
interface gig 0/0/1
```

```
ip address 192.168.1.1 255.255.255.0
!
```

Step 4 Connect the PC to the router using an Ethernet cable to the gig 0/0/1 interface.

Step 5 Set up your PC as a DHCP client to obtain the IP address of the router automatically.

Step 6 Launch the browser and enter the device IP address in your browser's address line. For a secure connection, type https://192.168.1.1/#/dayZeroRouting. For a less secure connection, enter http://192.168.1.1/#/dayZeroRouting.

Step 7 Enter the default username (admin) and the password as default.

Basic or advanced mode Setup Wizard

To configure the router using the basic or advanced mode setup:

Procedure

Step 1 Choose the **Basic Mode** or **Advanced Mode** and click **Go To Account Creation Page**.

Step 2 Enter the username and password. Reenter the password to confirm.

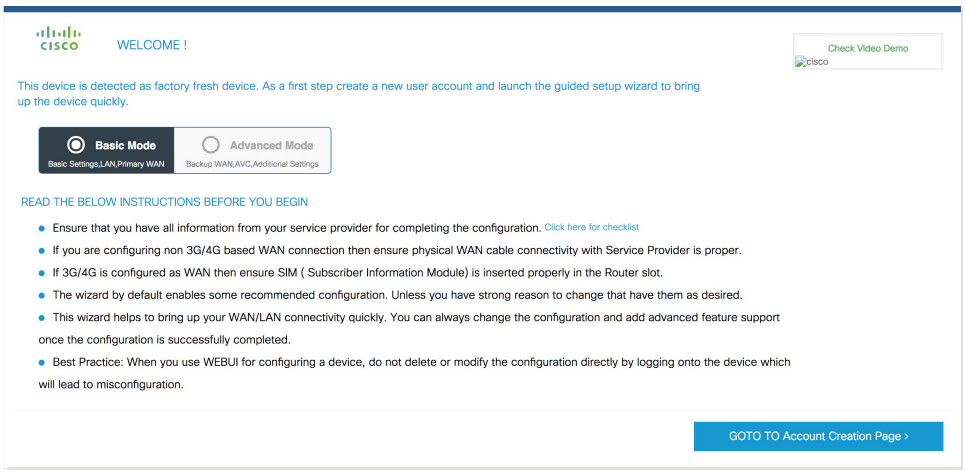
Step 3 Click **Create and Launch Wizard**.

Step 4 Enter the device name and domain name.

Step 5 Select the appropriate time zone from the **Time Zone** drop-down list.

Step 6 Select the appropriate date and time mode from the **Date and Time** drop-down list.

Step 7 Click **LAN Settings**.



Configure LAN settings

Procedure

Step 1 Choose the **Web DHCP Pool/DHCP Pool** name or the **Create and Associate Access VLAN** option.

a) If you choose the Web DHCP Pool, specify the following:

Pool Name—Enter the DHCP Pool Name.

Network—Enter network address and the subnet mask.

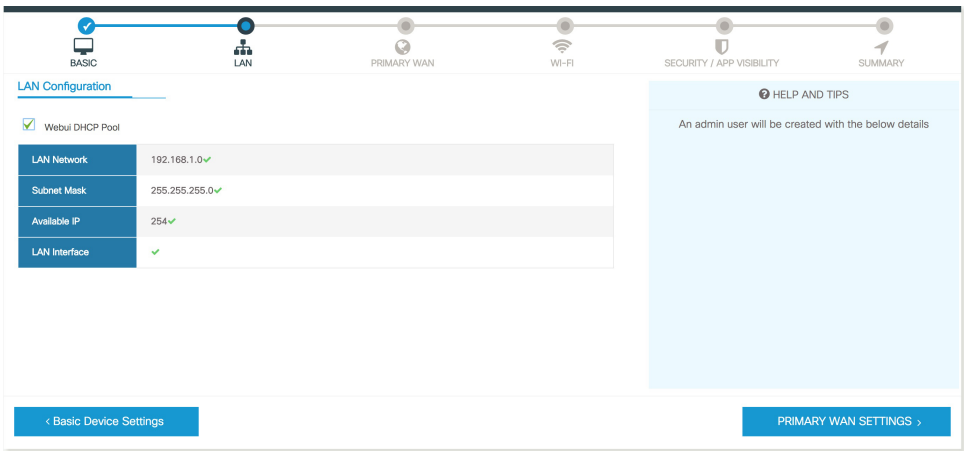
b) If you choose the Create and Associate Access VLAN option, specify the following:

Access VLAN—Enter the Access VLAN identification number. The range is from 1 to 4094.

Network—Enter the IP address of the VLAN.

Management Interfaces—Select the interface and move to the selected list box using the right and left arrows. You can also double click or drag and drop to move the interface to the selected list box.

Step 2 Click **Primary WAN Settings**.



Configure primary WAN settings

Procedure

Step 1 Select the primary WAN type. You con configure Serial, 3G/4G, Ethernet, or Broadband (xDSL) as primary WAN depending on the WAN types supported by the router.

Step 2 Select the interface from the drop-down list.

Step 3 Check the **Get DNS Server info directly from ISP** check box to get the DNS server information directly from the service provider. You can also manually enter the Primary DNS and Secondary DNS.

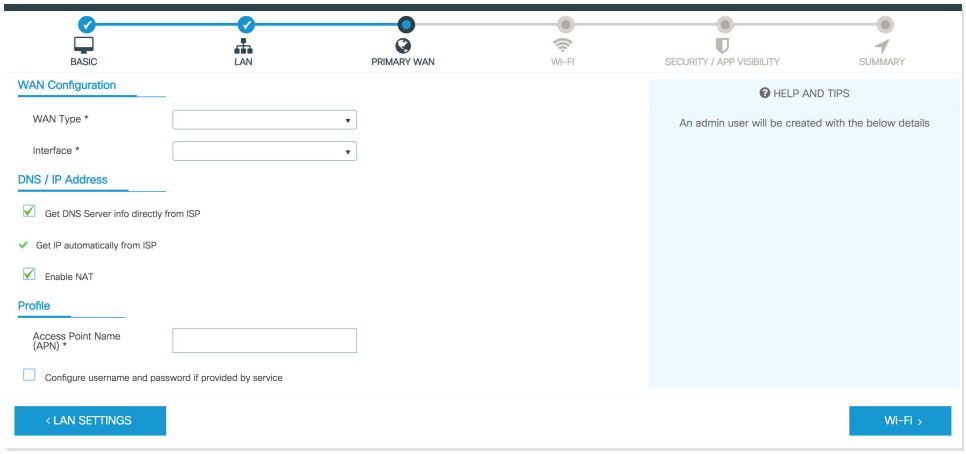
Step 4 Check the **Get IP automatically from ISP** check box to get the IP address information directly from the service provider. You can also manually enter the IP address and subnet mask.

Step 5 Check the **Enable NAT** check box to enable NAT. It is recommended to enable NAT.

Step 6 Check the **Enable PPPOE** check box to enable PPPoE. If you have enabled PPPoE, select the required authentication mode. The options are: **PAP** and **CHAP**.

Step 7 Enter the user name and password provided by the service provider.

Step 8 Click **Security / APP Visibility WAN Settings**.



Configure secondary WAN settings

For advanced configuration, you should configure the secondary WAN connection.

Procedure

Step 1 Select the secondary WAN type. You con configure Serial, 3G/4G, Ethernet, or Broadband (xDSL) as a secondary WAN depending on the WAN types supported by the router.

Step 2 Select the interface from the drop-down list.

Step 3 Check the **Get DNS Server info directly from ISP** check box to get the DNS server information directly from the service provider. You can also manually enter the Primary DNS and Secondary DNS.

Step 4 Check the **Get IP automatically from ISP** check box to get the IP address information directly from the service provider. You can also manually enter the IP address and subnet mask.

Step 5 Check the **Enable NAT** check box to enable NAT. It is recommended to enable NAT.

Step 6 Check the **Enable PPPOE** check box to enable PPPoE. If you have enabled PPPoE, select the required authentication mode. The options are **PAP** and **CHAP** .

Step 7 Enter the user name and password provided by the service provider.

Step 8 Click **Security / APP Visibility WAN Settings**.

Configure security settings

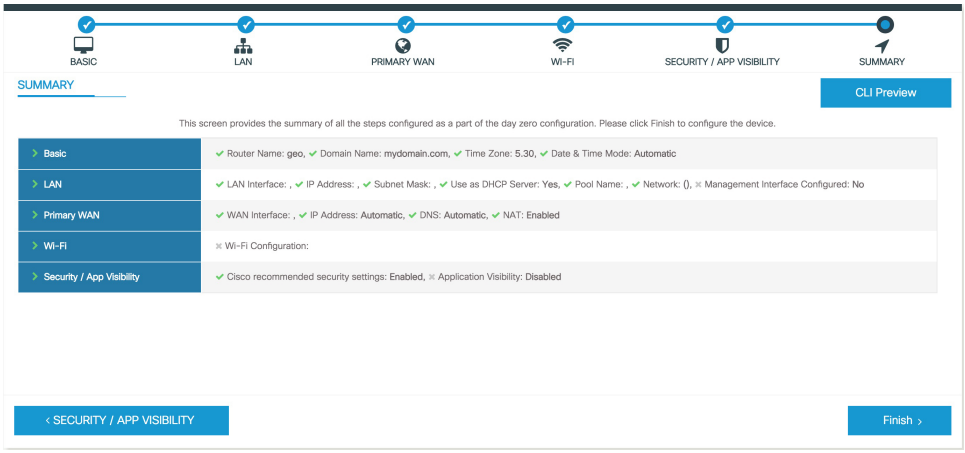
Procedure

Step 1 Check the **Enable Cisco Recommended Security Settings** check box to ensure that all passwords are not shown in plain text. The passwords are encrypted.

Step 2 Click **Day 0 Config Summary**.

Step 3 To preview the configuration, click **CLI Preview** to preview the configuration.

Step 4 Click **Finish** to complete the Day Zero setup.



Using Web User Interface for day one setup

To configure the Web user interface:

Note Some configurations and protocols are identified as insecure and is a security risk for Cisco devices. Existing deployments continue to function, but new installations require intentional enablement. For more information on remediation, refer to Resilient Infrastructure: Cisco Catalyst SD-WAN and Routing

Procedure

Step 1 Configure the HTTP server. By default, the HTTP server configuration should be present on the device. Ensure the configuration by checking if the **ip http server** and **ip http secure-server** commands are present in the running configuration.

```
Device #configure terminal
Device (config)#ip http server
Device (config)#ip http secure-server
```

Step 2 Set up the authentication options to log into Web UI. You can use one of these methods to authenticate:

a) You can authenicate using local database. To use a local database for Web UI authentication, ensure to have the **ip http authentication local** command in the running configuration. This command is preconfigured on the device. If the command is not present, configure the device as shown in this example:

```
Device #configure terminal
Device (config)#ip http authentication local
```

Note
You need a user with privilege 15 to access the configuration screens on Web UI. If the privilege is less than 15, you can access only the Dashboard and Monitoring screens on Web UI.

To create a user account, use the **username** <username> **privilege** <privilege> **password 0** <passwordtext>

```
Device #configure terminal
Device (config)# username <username> privilege <privilege> password 0 <passwordtext>
```

b) Authenticate using AAA options. To use AAA authentication for Web UI, ensure to configure 'ip http authentication aaa' on the device. Also, ensure that the required AAA server configuration is present on the device.

```
Device #configure terminal
Device (config)#ip http authentication local
```

Step 3 Launch the browser. In the address bar, type the IP address of the device. For a secure connection, type https://ip-address.

Step 4 Enter the default username (cisco) and password provided with the device

Step 5 Click **Log In**.

Monitor and troubleshoot device Plug and Play (PnP) Onboarding using WebUI

Table 1: Feature History

Feature Name	Release Information	Description
Monitor and Troubleshoot Device PnP Onboarding using WebUI	Cisco IOS XE 17.18.1	You can now monitor and troubleshoot your Day-0 device onboarding using WebUI through PnP onboarding. If the automated PnP onboarding fails, you can manually onboard your device.

A device can be automatically onboarded to Cisco vManage through either Zero Touch Provisioning (ZTP) or the Plug and Play (PnP) process. This section describes the procedure to monitor and troubleshoot device onboarding through the PnP method. This feature on WebUI enables you to monitor and troubleshoot the PnP

onboarding process, and also see its real-time status. If this onboarding is stuck or fails, you can terminate the process and onboard your device manually.

Prerequisites

- Your device (a computer that can run a web browser) running the WebUI and the device you are onboarding must be connected through an L2 switch port (NIM) on the device.
- The DHCP client-identifier on your device must be set to string “webui”.
- Your device must support Cisco SD-WAN Day-0 device onboarding on WebUI.

Troubleshoot Device PnP Onboarding

To troubleshoot device onboarding through PnP in controller mode:

1. Enter the controller mode in WebUI:
   - Switching from autonomous mode to controller mode:

     Usually, when you boot your device for the first time it is in autonomous mode. Go to the URL https://192.168.1.1/webui/ and log in using the default credentials— webui/cisco. If your device supports Cisco SD-WAN Day-0 device onboarding on WebUI, you can switch to the controller mode by selecting **Controller Mode.** A dialogue box appears, asking if you want to continue. Click **Yes.** Your device reloads to switch to controller mode.
   - Booting your device in controller mode:

     If your device is already in the controller mode, you do not have to make any changes to the mode. Go to the URL https://192.168.1.1 or https://192.168.1.1/webui. If your device supports Cisco SD-WAN Day-0 device onboarding on WebUI, the URL is redirected to https://192.168.1.1/ciscosdwan/ and you can log in using the default credentials for Cisco IOS XE SD-WAN devices - admin/admin.

Note If the device does not have start-up configuration at the time of PnP onboarding, the WebUI is enabled by default on supported devices.

2. On the **Welcome to Cisco SDWAN Onboarding Wizard** page, click **Reset Default Password.**

Note The default password of your Day-0 device is weak. Therefore, for a secure log in, you must reset the password when you first log in to the device on WebUI. The WebUI configuration is automatically deleted after the device is onboarded successfully. In rare cases where the template configuration for your device on Cisco vManage has the WebUI configuration, it is not deleted even after a successful device onboarding.

3. You are redirected to the Device hardware and software details page. Enter your password and click **Submit.**
4. The next page displays the onboarding progress and lists statuses of different components of the PnP Connect Portal and Cisco SD-WAN controllers. If the PnP IPv4 component fails, it indicates that the device PnP onboarding has failed.

To view and download logs for the onboarding process, click the information icon on the right hand side of the SDWAN Onboarding Progress bar.

5. If the automated PnP onboarding fails, click **Terminate Automated Onboarding.** This allows you to onboard your device manually.
6. A dialogue box appears. To continue with the termination, click **Yes**. It might take a few minutes for the termination to complete.
7. On the Bootstrap Configuration page click **Select File** and choose the bootstrap file for your device. This file can be either a generic bootstrap file (common platform-specific file) or a full configuration bootstrap file that you can download from Cisco SD-WAN Manager. This file must contain details such as the vBond number, UUID, WAN interface, root CA and configuration.
8. Click **Upload**.
9. After your file is successfully uploaded, click **Submit.**
10. You can see the SDWAN Onboarding Progress page again with statuses of the Cisco SD-WAN controllers. To open the Controller Connection History table click the information icon on the right hand side of the SDWAN Control Connections bar. In this table you can see the state of your onboarded device. After the onboarding is complete, the state of your device changes to **connect**.