

Configuring the Switch Using the Web User Interface

Note

Any figures included in the document are shown for illustrative purposes only.

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Setting up the Switch

After you complete the hardware installation, you need to setup the switch with configuration required to enable traffic to pass through the network. On your first day with your new device, you can perform a number of tasks to ensure that your device is online, reachable and easily configured.

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.

Connecting to the Switch

Before you begin

Set up the DHCP Client Identifier on the client to get the IP address from the switch, and to be able to authenticate with Day 0 login credentials.

Setting up the DHCP Client Identifier on the client for Windows

- 1. Type regedit in the Windows search box on the taskbar and press enter.
- 2. If prompted by User Account Control, click Yes to open the Registry Editor.
- 3. Navigate to

Computer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters\Interfaces\ and locate the Ethernet Interface Global Unique Identifier (GUID).

4. Add a new REG_BINARY DhcpClientIdentifier with Data 77 65 62 75 69 for webui. You need to manually type in the value.

Figure 1: Setting up DHCP Client Identifier on Windows

omputer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentContro			p\Paramet	ers\Inter	faces\{4	6836ffc-6	358-4da1-b	o9f8-a2a10f1a0c48}			
stexstor		lame				Туре		Data			
stisvc		(Default)				REG_S2	2	(value not set)			
L storahci	2	AddressT	ype			REG_D	WORD	0x00000000 (0)			
storfit	2	DhcpClie	ntldentifie			REG_BI	NARY	77 65 62 75 69			
stornyme		dit Binary \	(alua							×	
storqosfit StorSvc		on binary s	raiue							~	le 01 00 79 00 00 00 00
storufs		Value name:									
storus	1	DhcpClientlo	lentifier								1
svsvc		Value data:									
swenum		value data. 0000	77		6.0	76					
swprv		0000	111	65	62	75	69		webu	1	
SynaMetSMI											
Synth3dVsc											
SynTP											
SynTPEnhService											
SysMain											
SystemEventsBroker											
SzCCID											
TabletInputService											
I TapiSrv											
L Tcpip									ОК	Cancel	
- 📜 Linkage	1	012				NEO_D	WORD	00001001001001000	271091)		
- 🤁 Parameter											
Parameters											
> Adapters											
> DNSRegisteredAdapters											
✓ Interfaces											
- [{2a1d7785-5141-4b33-8f11-4b5cf324636c}											
- [{2e6a118d-8ff9-45c8-b861-13bbbf590a22}											
- [(3f99fba7-ae95-43f6-b34c-e2fbdde8cb40) - [(46836ffc-6358-4da1-b9f8-a2a10f1a0c48)											
4828db99-4092-4a20-903b-e304a283e9f0 (7b-a2007 040a 4-77 b050 - 0b-b 40 0545)											
- [{7baa2017-910a-4c77-b968-a9beb40c9646											
[922467f8-ace4-4789-93b6-9a3799a7b574]											

5. Restart the PC for the configuration to take effect.

Setting up the DHCP Client Identifier on the client for MAC

1. Go to System Preferences >Network >Advanced >TCP >DHCP Client ID: and enter webui.

				Netw	ork		Q Search
📄 Wi-Fi							
•	Wi-Fi	TCP/IP	DNS	WINS	802.1X	Proxies	Hardware
Config	jure IPv4:	Using DI	HCP			\$	
IPv4	Address:	XXXXXXXXXXX	16X XX 8				Renew DHCP Lease
Subr	net Mask:	2222/000	(12)55/2X(3)		DHCP	Client ID:	
	Router:	100000000	10XXXX				(If required)
Config	jure IPv6:	Automat	ically			\$	
	Router:	texexxxexx	S MXDexi	8X3496X			
IPv6	Address:	20087742	0050000	*****	KKK BXXXX	****	
Prefi	x Length:	162 8 X					
							Cancel
							Cancer

Figure 2: Setting up DHCP Client Identifier on MAC

2. Click **OK** to save the changes.

The bootup script runs the configuration wizard, which prompts you for basic configuration input: (Would you like to enter the initial configuration dialog? [yes/no]:). To configure Day 0 settings using the web UI, do not enter a response. Perform the following tasks instead:

- **Step 1** Make sure that no devices are connected to the switch.
- **Step 2** Connect one end of an ethernet cable to one of the downlink (non-management) ports on the active supervisor and the other end of the ethernet cable to the host (PC/MAC).
- **Step 3** Set up your PC/MAC as a DHCP client, to obtain the IP address of the switch automatically. You should get an IP address within the 192.168.1.x/24 range.

Figure 3: Obtaining the IP Address

ems > Network Connectio	ins		~ Ū	Search Network C
his connection Rename	e this connection View s	tatus of this connection	Change settings of this	connection 🖷
Cisco AnyConnect Secu Mobility Client Connec Disabled	tion 🦰 🌄 Uni	ernet dentified network el(R) Ethernet Connectio	Enable	Loopback Adapter d Loopback Adapter
VMware Network Ada VMnet8	Network Connection Details	s	×	
	Property Connection-specific DNS S Description Physical Address DHCP Enabled IPv4 Address IPv4 Subnet Mask Lease Obtained Lease Expires IPv4 Default Gateway IPv4 DHCP Server IPv4 DHCP Server IPv4 DNS Server IPv4 WINS Server NetBIOS over Tcpip Enabl	Intel(R) Ethernet Connection 54-EE-75-DC-9F-06 Yes 192.168.1.3 255.255.255.0 Tuesday, June 11, 2019.8.25 Wednesday, June 12, 2019 192.168.1.1 192.168.1.1	:33 AM	

It may take up to three mins. You must complete the Day 0 setup through the web UI before using the device terminal.

- **Step 4** Launch a web browser on the PC and enter the device IP address (https://192.168.1.1) in the address bar.
- **Step 5** Enter the Day 0 username webui and password serial number of the switch.

The serial number is case sensitive.

What to do next

Create a user account.

Creating User Accounts

Setting a username and password is the first task you will perform on your device. Typically, as a network administrator, you will want to control access to your device and prevent unauthorized users from seeing your network configuration or manipulating your settings.

Step 1 Log on using the default username and password provided with the device.

Step 2 Set a password of up to 25 alphanumeric characters. The username password combination you set gives you privilege 15 access. The string cannot start with a number, is case sensitive, and allows spaces but ignores leading spaces.

Figure 4: Create Account

Configuration Se	etup Wizard				
CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
Create New Account				Hardware and Software	details of the device.
Login Name				Platform Type:	
Password				IOS Installed:	
Confirm password				Serial Number:	
				Modules:	
				License Installed:	
		Create New Account			Basic Device Settings >

Choosing Setup Options

Select **Wired Network** to configure your device based on a site profile, and continue to configure switch wide settings. Otherwise, continue to the next step and configure only basic settings for your device.

Configuring Basic Device Settings

On the **Basic Device Settings** page configure the following information:

Step 1 In the **Device ID and Location Settings** section, type a unique name to identify your device in the network.

Step 2 Choose the date and time settings for your device. To synchronize your device with a valid outside timing mechanism, such as an NTP clock source, choose Automatic, or choose Manual to set it yourself.

Configuration Se	tup Wizard				
CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
Device ID and Location Settings				HELP A	ND TIPS
Device Name			① Device name is mandatory		
Date & Time Mode	Automatic	•		device name is an identification that is gi	
				If manual time is set then the difference configuring the device.	n time will be adjusted at the time of
Device Management Settings	Mon Aug 13 2018 14:18:06			The management VRF is a dedicated, se manage the router inband on switched v interfaces.	
Management Interface	gigabitethernet0/0			Select this to enable access to the devic password to authenticate user access to	e using Telnet. Configure a username and the device.
Management IP	x.x.x.x			Select this to enable secure remote according to a configure a username and password to a configure a secure and password to a configure a secure according to a contract the secure according to contract the secure according to	ess to the device using Secure Shell (SSH). authenticate user access to the device.
Subnet Mask	x.x.x.x			Enable transparent mode if you do not w transparent switch does not advertise its	ant the switch to participate in VTP. A VTP VLAN configuration and does not
Default Gateway (optional)	x.x.x.x (optional)			synchronize its VLAN configuration base transparent switches do forward VTP ad	d on received advertisements, but vertisements that they receive out their trunk
< Setup Options					Site Profile >

Figure 5: Basic Settings - Device ID and Location Settings

- **Step 3** In the **Device Management Settings** section, assign an **IP address** to the management interface. Ensure that the IP address you assign is part of the subnet mask you enter.
- **Step 4** Optionally, enter an **IP** address to specify the default gateway.
- **Step 5** To enable access to the device using telnet, check the **Telnet** check box.
- Step 6 To enable secure remote access to the device using Secure Shell (SSH), check the SSH check box.
- Step 7 Check the VTP transparent mode check box to disable the device from participating in VTP.

If you did not select **Wired Network**, in the earlier step, continue to the next screen to verify your configuration on the **Day 0 Config Summary** screen, and click **Finish**. To automatically configure your device based on a site profile, click **Setup Options**, and select **Wired Network**.

Figure 6: Basic Settings - Device Management Settings

CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
	Mon Aug 13 2018 14:18:37			HELP A	ND TIPS
vice Management Settings					
lanagement Interface	gigabitethernet0/0			device name is an identification that is g	
anagement IP	XXXX			If manual time is set then the difference configuring the device.	in time will be adjusted at the time of
ubnet Mask	X.X.X.X			The management VRF is a dedicated, se manage the router inband on switched v interfaces.	
efault Gateway (optional)	x.x.x.x (optional)			Select this to enable access to the devic password to authenticate user access to	
elnet				Select this to enable secure remote acc Configure a username and password to	
SH				Enable transparent mode if you do not w transparent switch does not advertise its	
TP transparent mode				synchronize its VLAN configuration base transparent switches do forward VTP ad	d on received advertisements, but
< Setup Options					Site Profile >

Configuring Your Device Based on a Site Profile

To ease your configuration tasks and save time, choose a site profile based on where your device may be installed and managed in your network. Based on the site profile you choose, your device is automatically configured according to Cisco best practices. You can easily modify this default configuration, from the corresponding detailed configuration screens.

Choosing a site profile as part of Quick Setup allows you to configure your device based on the business needs of your enterprise. For example, you could use your device as an access switch, to connect client nodes and endpoints on your network, or as a distribution switch, to route packets between subnets and VLANs.

Setting	Single Access Switch (Single Uplink)	Single Access Switch (Single Port Channel Uplink)	Single Access Switch (Redundant Port Channel Uplink)
Hostname	The hostname or device name you provided as part of Quick Setup	The hostname or device name you provided as part of Quick Setup	The hostname or device name you provided as part of Quick Setup
Spanning Tree Mode	RPVST+	RPVST+	RPVST+
VTP	Mode Transparent	Mode Transparent	Mode Transparent
UDLD	Enabled	Enabled	Enabled
Error Disable Recovery	Recovery mode set to Auto	Recovery mode set to Auto	Recovery mode set to Auto
Port Channel Load Balance	Source Destination IP	Source Destination IP	Source Destination IP
SSH	Version 2	Version 2	Version 2
SCP	Enabled	Enabled	Enabled
VTY Access to Switch	Enabled	Enabled	Enabled
Service Timestamp	Enabled	Enabled	Enabled
VLAN	The following VLANs are created:	The following VLANs are created:	The following VLANs are created:
	• Default VLAN	• Default VLAN	• Default VLAN
	• Data VLAN	• Data VLAN	• Data VLAN
	Voice VLAN	Voice VLAN	Voice VLAN
	Management VLAN	Management VLAN	Management VLAN

Table 1: Default Configuration Loaded with Each Site Profile (Access Switches)

Setting	Single Access Switch (Single Uplink)	Single Access Switch (Single Port Channel Uplink)	Single Access Switch (Redundant Port Channel Uplink)
Management Interface	Layer 3 settings	Layer 3 settings	Layer 3 settings
	configured on the	configured on the	configured on the
	management port, based	management port, based	management port, based
	on Quick Setup	on Quick Setup	on Quick Setup
IPv6 Host Policy	IPv6 host policy created	IPv6 host policy created	IPv6 host policy created
QoS Policy for Downlink	Auto QoS Policy for	Auto QoS Policy for	Auto QoS Policy for
Ports	Access defined	Access defined	Access defined
QoS Policy for Uplink	QoS Policy for	QoS Policy for	QoS Policy for
Ports	Distribution created	Distribution created	Distribution created
Uplink Interfaces	Selected uplink interfaces configured as trunk ports, set to allow all VLANs	Selected ports configured as Port-channel in trunk mode, set to allow all VLANs.	Selected ports configured as Port-channel in trunk mode, set to allow all VLANs.
Downlink Interfaces	Downlink ports	Downlink ports	Downlink ports
	configured in Access	configured in Access	configured in Access
	mode	mode	mode
Port-channel	Not configured	Port-channel to distribution created	Port-channel to distribution created

Figure 7: Site Profile - Access Switches





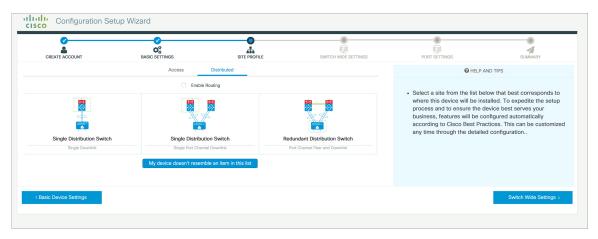
Figure 8: Site Profile - Access Switches (with Routed Access)

Table 2: Default Configuration Loaded with Each Site Profile (Distribution Switches)

Setting	Single Distribution Switch (Single Downlink)	Single Distribution Switch (Single Port Channel Downlink)	Redundant Distribution Switch (Port Channel Peer and Downlink)
Hostname	The hostname or device name you provided as part of Quick Setup	The hostname or device name you provided as part of Quick Setup	The hostname or device name you provided as part of Quick Setup
Spanning Tree Mode	RPVST+	RPVST+	RPVST+
VTP	Mode Transparent	Mode Transparent	Mode Transparent
UDLD	Enabled	Enabled	Enabled
Error Disable Recovery	Recovery mode set to Auto	Recovery mode set to Auto	Recovery mode set to Auto
Port Channel Load Balance	Source Destination IP	Source Destination IP	Source Destination IP
SSH	Version 2	Version 2	Version 2
SCP	Enabled	Enabled	Enabled
VTY Access to Switch	Enabled	Enabled	Enabled
Service Timestamp	Enabled	Enabled	Enabled

Setting	Single Distribution Switch (Single Downlink)	Single Distribution Switch (Single Port Channel Downlink)	Redundant Distribution Switch (Port Channel Peer and Downlink)
VLAN	The following VLANs are created:	The following VLANs are created:	The following VLANs are created:
	• Default VLAN	• Default VLAN	• Default VLAN
	• Data VLAN	• Data VLAN	• Data VLAN
	Voice VLAN	Voice VLAN	• Voice VLAN
	Management VLAN	Management VLAN	Management VLAN
Management Interface	Layer 3 settings configured on the management port, based on Quick Setup	Layer 3 settings configured on the management port, based on Quick Setup	Layer 3 settings configured on the management port, based on Quick Setup
QoS Policy	QoS Policy for Distribution defined	QoS Policy for Distribution defined	QoS Policy for Distribution defined
Uplink Interfaces	Selected uplink ports connect to other distribution or core switches	Selected uplink ports connect to other distribution or core switches	Selected uplink ports connect to other distribution or core switches
Downlink Interfaces	Downlink connections to access switches configured in Trunk mode	Downlink connections to access switches configured in Trunk mode	Downlink connections to access switches configured in Trunk mode
Port-channel	Port-channel to core created	Port-channel to core or access created	Port-channel to core or distribution created

Figure 9: Site Profile - Distribution Switches



I

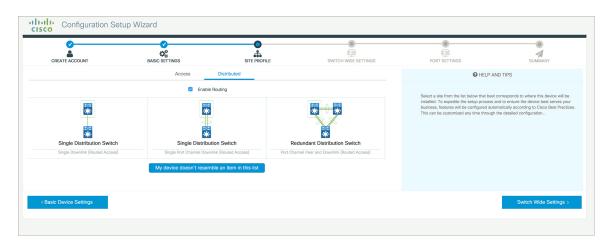


Figure 10: Site Profile - Distribution Switches (with Routed Access)

Configuring VLAN Settings

Step 1 In the VLAN Configuration section, you can configure both data and voice VLANs. Type a name for your data VLAN.

- **Step 2** To configure a data VLAN, ensure that the **Data VLAN** check box is checked, type a name for your VLAN, and assign a VLAN ID to it. If you are creating several VLANs, indicate only a VLAN range.
- **Step 3** To configure a voice VLAN, ensure that the **Voice VLAN** check box is checked, type a name for your VLAN, and assign a VLAN ID to it. If you are creating several VLANs, indicate a VLAN range.

Configure STP Settings

- **Step 1** RPVST is the default STP mode configured on your device. You can change it to PVST from the **STP Mode** drop-down list.
- **Step 2** To change a bridge priority number from the default value 32748, change **Bridge Priority** to Yes and choose a priority number from the drop-down list.

Figure 11: VLAN and STP Settings

Configuration Set	up Wizard				
CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
VLAN Configuration				HELP A	ND TIPS
Data VLAN Voice VLAN Management Viswitch Wide Settings STP Configuration STP Mode	RPVST	 ,		phones on a specific VLAN. STP is to prevent bridge loops and the br	I allows you to enhance VoIP to carry IPvoice traffic from IP oedcast radiation that results from them. tiffies it as belonging to a particular domain.
Bridge Priority Bridge Priority Number	32768			through emergencies to generate error m malfunctions. Protocol for network management and its network devices, such as switches, and r	- collecting information from, and configuring
General Configuration		·		nerror derives, such as similares, and i	outers on one interview.
< Site Profile					Port Settings >

Configuring DHCP, NTP, DNS and SNMP Settings

- Step 1 In the Domain Details section, enter a domain name that the software uses to complete unqualified hostnames.
 Step 2 Type an IP address to identify the DNS server. This server is used for name and address resolution on your device.
 Step 3 In the Server Details section, type the IP address of the DNS server that you want to make available to DHCP clients.
 Step 4 In the Syslog Server field, type the IP address of the server to which you want to send syslog messages.
 Step 5 To ensure that your device is configured with the right time, date and timezone, enter the IP address of the NTP server with which you want to synchronize the device time.
 Step 6 In the Management Details section, type an IP address to identify the SNMP server. SNMPv1, SNMPv2, and SNMPv3
- Step 6 In the Management Details section, type an IP address to identify the SNMP server. SNMPv1, SNMPv2, and SNMPv3 are supported on your device.
- **Step 7** Specify the **SNMP community** string to permit access to the SNMP protocol.

Figure 12: DHCP, NTP, DNS and SNMP Settings

CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
General Configuration				HELP A	ND TIPS
omain Details					
Domain Name					d to carry user-generated traffic.Voice VLAN onfiguring ports to carry IPvoice traffic from
DNS Server				STP is to prevent bridge loops and the b	roadcast radiation that results from them.
Server Details					ntifies it as belonging to a particular domain.
DHCP Server				Configure Syslog Client within the Cisco through emergencies to generate error n malfunctions.	
Syslog Server				 Protocol for network manage 	
NTP Server				information from, and config as switches, and routers on	uring, network devices, such an IP network.
Management Details					
< Site Profile					Port Settings >

What to do next

Configure port settings.

Configuring Port Settings

Step 1 Based on the site profile chosen in the earlier step which is displayed in the left-pane, select the **Port Role** from among the following options:

- Uplink For connecting to devices towards the core of the network.
- Downlink For connecting to devices further down in the network topology.
- Access For connecting guest devices that are VLAN-unaware.
- **Step 2** Choose an option from the **Select Switch** drop-down list.
- **Step 3** Make selections from the **Available** list of interfaces based on how you want to enable them and move them to the **Enabled** list.

Figure 13: Port Settings

CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY
	Port Role OUplink O	Access			
	Available (16)		(0)		
	Uplinks ᅌ	Interface	s		
	GigabitEthernet1/1/1	÷			
	GigabitEthernet1/1/2	÷			
	GigabitEthernet1/1/3	<i>→</i>			
	GigabitEthernet1/1/4	<i>→</i>			
Switch Wide Settings					Day 0 Config Summar

What to do next

- Click Day 0 Config Summary to verify your setup.
- Click Finish.

Figure 14: Day 0 Config Summary

Configuration Set	tup Wizard								
CREATE ACCOUNT	BASIC SETTINGS	SITE PROFILE	SWITCH WIDE SETTINGS	PORT SETTINGS	SUMMARY				
SUMMARY					CLI Preview				
	This screen provides t	he summary of all the steps configured as a par	t of the day zero configuration. Please click Finish to confi	gure the device.					
> General Information	✓ User: test, ✓ Network Type: Wired	✓ User: test, ✓ Network Type: Wired, ✓ Site Profile: Single Access Switch - Single Uplink							
> Basic Device Configuration	✓ Controller Name: test, ✓ Manager	✓ Controller Name: test, ✓ Management Interface: gigabitethemet0/0(1.1.1.1),							
> Global Switch Settings	✓ Data VLAN: (), ✓ Voice VLAN: (no	✓ Data VLAN: (), ✓ Voice VLAN: (not configured), ✓ STP Mode: rapid-pvst, ✓ Bridge Priorby: 32768, ✓ DNS Server:, ✓ DHCP Server:, ✓ NTP Server:, ✓ Syslog Server:, ✓ SNMP Server:							
> Port Configuration		Uplink Ports							
	No Ports were configured			No Ports were configured					
< Port Settings					Finish >				