



L2 Managed Switch

Management and SSH

1. Full Configuration for Management and SSH

1.1. Access to the Management Interface

By default, the switch has an IP address of **192.168.1.1/24** in **VLAN 1**.
For the initial connection:

1.1.1. Set the network interface of your computer to the same subnet (**192.168.1.x**,
subnet mask 255.255.255.0).

1.1.2. Connect to the switch through the **console port**.

1.2. Creating VLAN 100 for Management

Enter configuration mode and create the new VLAN:

```
Switch#  
Switch# configure  
Switch(config)# vlan 100  
Switch(config-vlan)# name MGMT  
Switch(config-vlan)# exit  
Switch(config)#
```

1.3. Assigning a Port for Management

Select the physical port through which management will be done (for example,
GigabitEthernet 23):

```
Switch(config)# ip address 192.168.100.100 mask 255.255.255.0  
Switch(config)# ip default-gateway 192.168.100.1  
Switch(config)# management-vlan vlan 100  
Switch(config)#
```

After this, access via **192.168.1.1** will be disabled, and management will only be available
through **192.168.100.100**.

1.4. Configuring SSH for Secure Management

Enable SSH and set it to use version 2:

```
Switch(config)# ip ssh v2  
Generating a SSHv2 default RSA Key.  
This may take a few minutes, depending on the key size.  
  
*Jan 01 2000 08:06:27: %SYSTEM-4: CPU Usage 100%  
Generating a SSHv2 default DSA Key.  
This may take a few minutes, depending on the key size.  
  
Switch(config)# █
```

The system will automatically generate RSA and DSA keys for SSH. After generating the keys, activate SSH:

```
Switch(config)#  
Switch(config)# ip ssh  
SSH daemon enabled.
```

The switch will now accept SSH connections.

2. Configuring Management and SSH via Web Interface

2.1. Access the Web Interface

By default, the switch has an IP address of **192.168.1.1/24** in **VLAN 1**. To access the web interface for initial configuration:

2.1.1. Set the network interface of your computer to the same subnet (**192.168.1.x**, **subnet mask 255.255.255.0**).

2.1.2. Open a web browser and type the default IP address of the switch (**192.168.1.1**) in the address bar.

2.1.3. Log in using the default username and password (usually **admin/admin**).

2.2. Create VLAN 100 for Management

Once logged in, follow these steps to create VLAN 100:

2.2.1. Navigate to the **VLAN** section from the main menu.

2.2.2. Go to the **Create** sub-section.

2.2.3. In the **Available VLANs** column, find **VLAN 100** and move it to the **Create VLAN** column.

2.2.4. Click the **Apply** button.

2.2.5. After applying, **VLAN 100** will appear in the **VLAN Table** on the same page.

VLAN

Available VLAN: VLAN 97, VLAN 98, VLAN 99, VLAN 101, VLAN 102, VLAN 103, VLAN 104, VLAN 105

Created VLAN: VLAN 1, VLAN 100

Apply

VLAN Table

Showing All entries Showing 1 to 2 of 2 entries

<input type="checkbox"/>	VLAN	Name	Type
<input type="checkbox"/>	1	default	Default
<input type="checkbox"/>	100	VLAN0100	Static

Edit Delete

2.3. Assign a Name to VLAN 100

To assign a name to **VLAN 100**:

- 2.3.1. In the **VLAN Table**, check the box next to **VLAN 100**.
- 2.3.2. Click the **Edit** button.
- 2.3.3. Enter the name **MGMT** for the VLAN.
- 2.3.4. Click **Apply** to save the changes.

VLAN Table

Showing All entries Showing 1 to 2 of 2 entries

<input type="checkbox"/>	VLAN	Name	Type
<input type="checkbox"/>	1	default	Default
<input checked="" type="checkbox"/>	100	VLAN0100	Static

Edit Delete

Name: MGMT

Apply Close

2.4. Assign VLAN 100 to Port 23

To assign **VLAN 100** to **port 23**:

2.4.1. Navigate to the **VLAN** section, then go to the **Port Settings** sub-section.

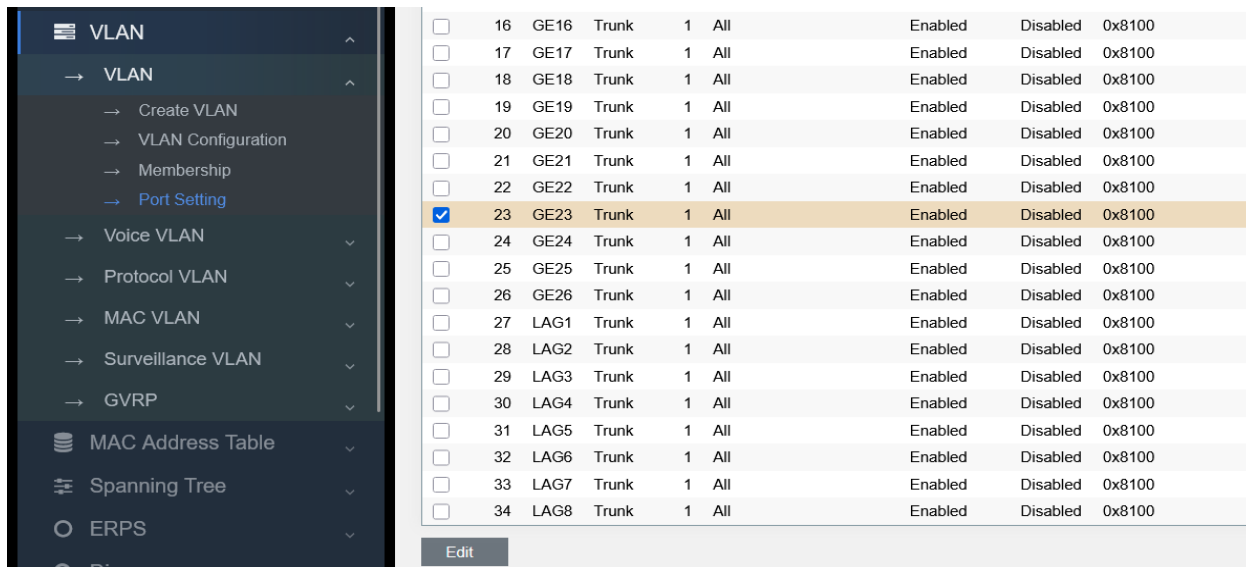
2.4.2. In the **Port Settings** list, find **Port 23** and check the box next to it.

2.4.3. Click the **Edit** button.

2.4.4. In the opened window, select **Access** mode for the port.

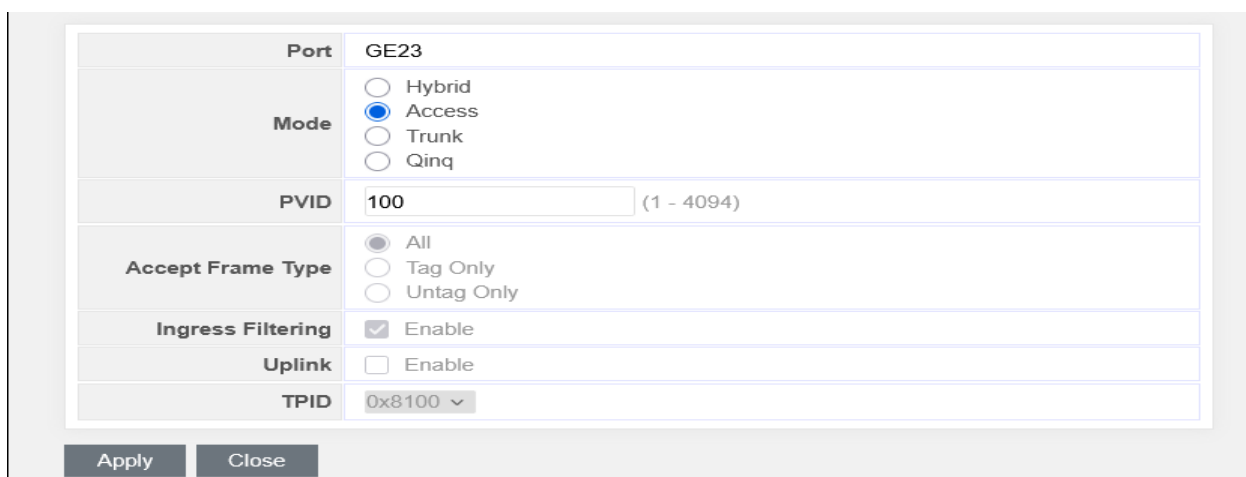
2.4.5. Change the **PVID** from **1** to **100**.

2.4.6. Click **Apply** to save the configuration.



The screenshot shows the VLAN configuration interface. On the left is a navigation menu with 'VLAN' selected and 'Port Setting' highlighted. The main area displays a table of ports with their configurations. Port 23 is selected, and the 'Edit' button is visible at the bottom.

Port	Mode	Enabled	Disabled	PVID		
<input type="checkbox"/> 16	GE16 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 17	GE17 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 18	GE18 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 19	GE19 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 20	GE20 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 21	GE21 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 22	GE22 Trunk	1	All	Enabled	Disabled	0x8100
<input checked="" type="checkbox"/> 23	GE23 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 24	GE24 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 25	GE25 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 26	GE26 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 27	LAG1 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 28	LAG2 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 29	LAG3 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 30	LAG4 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 31	LAG5 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 32	LAG6 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 33	LAG7 Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/> 34	LAG8 Trunk	1	All	Enabled	Disabled	0x8100



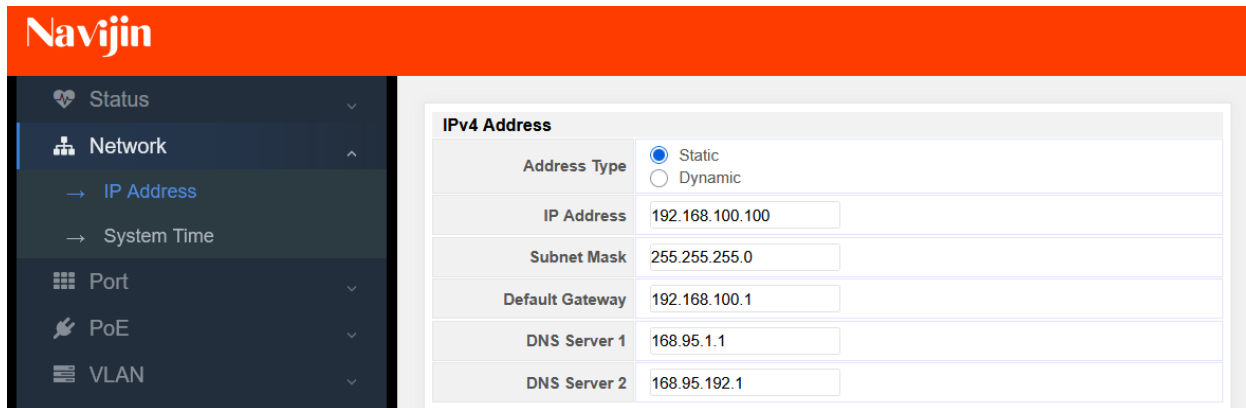
The screenshot shows the 'Port Settings' configuration window for Port GE23. The 'Mode' is set to 'Access', the 'PVID' is set to '100', and 'Ingress Filtering' is checked. The 'Apply' button is highlighted.

Port	GE23
Mode	<input type="radio"/> Hybrid <input checked="" type="radio"/> Access <input type="radio"/> Trunk <input type="radio"/> Qinq
PVID	100 (1 - 4094)
Accept Frame Type	<input checked="" type="radio"/> All <input type="radio"/> Tag Only <input type="radio"/> Untag Only
Ingress Filtering	<input checked="" type="checkbox"/> Enable
Uplink	<input type="checkbox"/> Enable
TPID	0x8100

2.5. Assign the Switch IP Address and Set Management VLAN

To assign a new IP address for management:

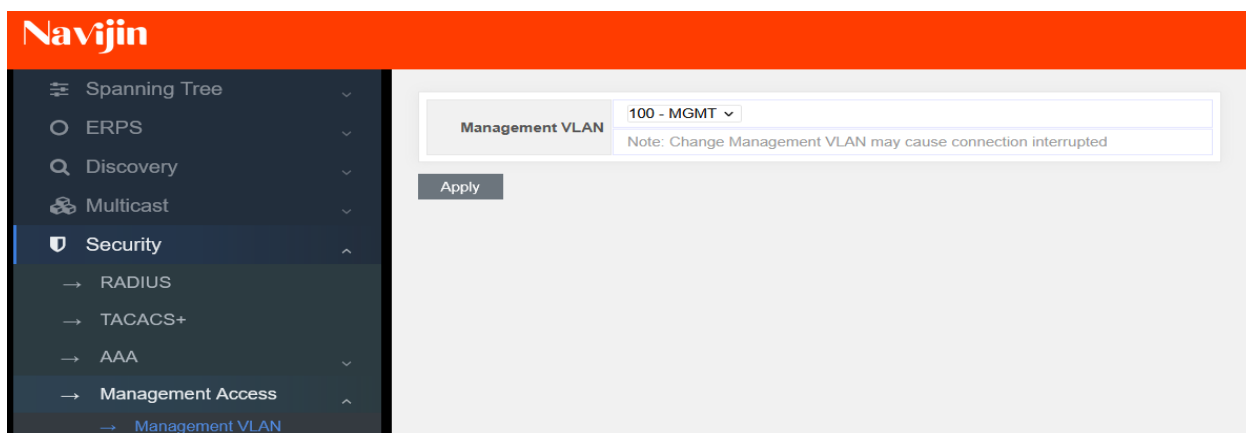
- 2.5.1. Navigate to the **Network** section, then go to the **IP Address** sub-section.
- 2.5.2. In the **IPv4 Address** window, select **Address Type: Static**.
- 2.5.3. Enter the IP address **192.168.100.100**, subnet mask **255.255.255.0**, and default gateway **192.168.100.1**.
- 2.5.4. Scroll down and click **Apply** to save the settings.
- 2.5.5. On your computer or laptop, change the IP to **192.168.100.2**, subnet mask **255.255.255.0**.
- 2.5.6. Access the switch using the new IP **192.168.100.100**.



2.6. Set the Management VLAN

To assign **VLAN 100** as the management VLAN:

- 2.6.1. Navigate to the **Security** section and go to the **Management Access** sub-section.
- 2.6.2. Then, go to the **Management VLAN** sub-section.
- 2.6.3. In the opened window, change the default VLAN from **1** to **100 (MGMT)**.
- 2.6.4. Click **Apply** to save the changes.
- 2.6.5. You will lose connection to the switch after this step.



2.7. Reconnect to the Switch

Since you have configured **VLAN 100** for management, to reconnect:

2.7.1. Connect your computer or laptop to **Port 23** on the switch.

2.7.2. On your computer, change the IP address to **192.168.100.2** with the subnet mask **255.255.255.0**.

2.7.3. Use the new IP address **192.168.100.100** to access the switch's web interface.

Now your switch operates in **VLAN 100**, and you can manage it via the web interface at **192.168.100.100**.

2.8. Enable SSH for Secure Management

To enable SSH for secure management:

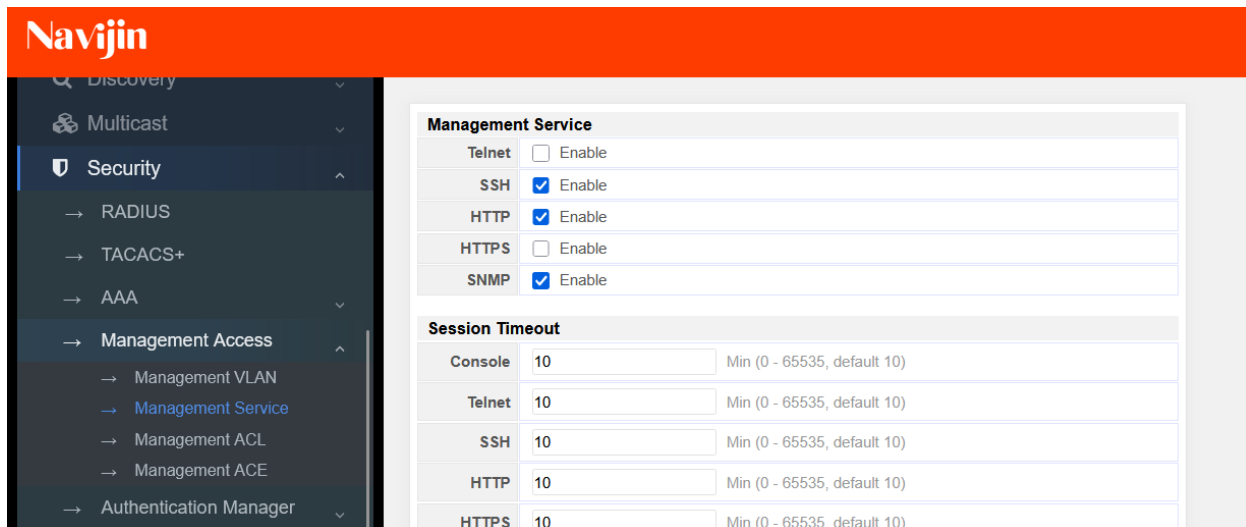
2.8.1. Navigate to the **Security** section in the web interface.

2.8.2. Go to the **Management Access** sub-section.

2.8.3. Then, go to the **Management Service** sub-section.

2.8.4. In the opened window, find **SSH** and check the box next to it.

2.8.5. At the bottom of the page, click **Apply** to enable the SSH service.



The screenshot shows the Navijin web interface. The top navigation bar is orange with the 'Navijin' logo. A dark sidebar on the left contains a 'Security' menu with sub-items: RADIUS, TACACS+, AAA, Management Access, Management VLAN, Management Service (highlighted), Management ACL, Management ACE, and Authentication Manager. The main content area is titled 'Management Service' and contains two tables.

Management Service	
Telnet	<input type="checkbox"/> Enable
SSH	<input checked="" type="checkbox"/> Enable
HTTP	<input checked="" type="checkbox"/> Enable
HTTPS	<input type="checkbox"/> Enable
SNMP	<input checked="" type="checkbox"/> Enable

Session Timeout	
Console	10 Min (0 - 65535, default 10)
Telnet	10 Min (0 - 65535, default 10)
SSH	10 Min (0 - 65535, default 10)
HTTP	10 Min (0 - 65535, default 10)
HTTPS	10 Min (0 - 65535, default 10)