6.   Layer 3 Features

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ARP

ARP Aging Time

This window is used to view and configure the ARP aging time settings.

To view the following window, click **L3 Features > ARP > ARP Aging Time**, as shown below:

Figure 6-1 ARP Aging Time window

The fields that can be configured are described below:

Parameter	Description
Timeout	Enter the ARP aging timeout value here.

Click the **Apply** button to accept the changes made.

Click the **Edit** button to re-configure the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

Static ARP

This window is used to view and configure the static ARP settings.

To view the following window, click **L3 Features > ARP > Static ARP**, as shown below:

Static ARP

Static ARP					
IP Address	. . .	Hardware Address	00-11-22-33-44-AA		Apply

Total Entries: 1

Interface Name	IP Address	Hardware Address	Aging Time	Type	
vlan1	10.90.90.90	00-01-02-03-04-00	Forever		Edit Delete

1/1 |< < **1** > >| Go

Figure 6-2 Static ARP window

The fields that can be configured are described below:

Parameter	Description
IP Address	Enter the IP address that will be associated with the MAC address here.
Hardware Address	Enter the MAC address that will be associated with the IP address here.

Click the **Apply** button to accept the changes made.

Click the **Edit** button to re-configure the specific entry.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

Proxy ARP

This window is used to view and configure the proxy ARP settings. The Proxy ARP feature of the Switch will allow the Switch to reply to ARP requests destined for another device by faking its identity (IP and MAC Address) as the original ARP responder. Therefore, the Switch can then route packets to the intended destination without configuring static routing or a default gateway. The host, usually a Layer 3 switch, will respond to packets destined for another device.

To view the following window, click **L3 Features > ARP > Proxy ARP**, as shown below:

Proxy ARP

Proxy ARP			
Total Entries: 1			
Interface Name	Proxy ARP State	Local Proxy ARP State	
vlan1	Disabled	Disabled	Edit

1/1 |< < **1** > >| Go

Figure 6-3 Proxy ARP window

The fields that can be configured are described below:

Parameter	Description
Proxy ARP State	Select to enable or disable the proxy ARP state here.
Local Proxy ARP State	Select to enable or disable the local proxy ARP state here. This local proxy ARP function allows the Switch to respond to the proxy ARP, if the source IP and destination IP are in the same interface.

Click the **Apply** button to accept the changes made.

Click the **Edit** button to re-configure the specific entry.

ARP Table

This window is used to view and configure the ARP table settings.

To view the following window, click **L3 Features > ARP > ARP Table**, as shown below:

Figure 6-4 ARP Table window

The fields that can be configured are described below:

Parameter	Description
Interface VLAN	Select and enter the interface's VLAN ID used here. This value must be between **1** and **4094**.
IP Address	Select and enter the IP address to display here.
Mask	After the **IP Address** option was selected, enter the mask address for the IP address here.
Hardware Address	Select and enter the MAC address to display here.
Type	Select the type option here. Options to choose from are **All** and **Dynamic**.

Click the **Find** button to locate a specific entry based on the information entered.

Click the **Clear All** button to clear all the information.

Click the **Delete** button to remove the specific entry.

Gratuitous ARP

This window is used to view and configure the gratuitous ARP settings. A gratuitous ARP request packet is an ARP request packet where the source and the destination IP address are both set to the IP address of the sending device and the destination MAC address is the broadcast address.

Generally, a device use the gratuitous ARP request packet to discover whether the IP address is duplicated by other hosts or to preload or reconfigure the ARP cache entry of hosts connected to the interface.

To view the following window, click **L3 Features > Gratuitous ARP**, as shown below:

Figure 6-5 Gratuitous ARP window

The fields that can be configured are described below:

Parameter	Description
IP Gratuitous ARP State	Select this option to enable or disable the learning of gratuitous ARP packets in the ARP cache table.
Gratuitous ARP Trap State	Select this option to enable or disable the ARP trap state.
IP Gratuitous ARP Dad-Reply State	Select this option to enable or disable the IP gratuitous ARP Dad-reply state.
Gratuitous ARP Learning State	Select this option to enable or disable the gratuitous ARP learning state. Normally, the system will only learn the ARP reply packet or a normal ARP request packet that asks for the MAC address that corresponds to the system's IP address. This option used to enable or disable the learning of ARP entries in the ARP cache based on the received gratuitous ARP packet. The gratuitous ARP packet is sent by a source IP address that is identical to the IP that the packet is queries for.

Click the **Apply** button to accept the changes made.

Click the **Edit** button to re-configure the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

IPv4 Interface

This window is used to view and configure the IPv4 interface settings.

To view the following window, click **L3 Features > IPv4 Interface**, as shown below:

Figure 6-6 IPv4 Interface window

The fields that can be configured are described below:

Parameter	Description
Interface VLAN	Enter the interface's VLAN ID here. This value must be between 1 and 4094.

Click the **Apply** button to accept the changes made.

Click the **Find** button to locate a specific entry based on the information entered.

Click the **Edit** button to re-configure the specific entry.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

After clicking the **Edit** button, the following window will be available.

Figure 6-7 IPv4 Interface Configure window

Click the **Back** button to return to the previous window.

The field that can be configured for **Settings** is described below:

Parameter	Description
State	Select this option to enable or disable the IPv4 interface's global state.

Click the **Apply** button to accept the changes made.

The fields that can be configured for **IP Settings** are described below:

Parameter	Description
Get IP From	Select the get IP from option here. Options to choose from are **Static** and **DHCP**. When the **Static** option is selected, users can enter the IPv4 address of this interface manually in the fields provided. When the **DHCP** option is selected, this interface will obtain IPv4 information automatically from the DHCP server located on the local network.
IP Address	Enter the IPv4 address for this interface here.

Mask	Enter the IPv6 subnet mask for this interface here.
Secondary	Tick the check box to use the IPv4 address and mask as the secondary interface configuration.

Click the **Apply** button to accept the changes made.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

After clicking the **DHCP Client** tab, the following page will appear.

Figure 6-8 DHCP Client window

The fields that can be configured are described below:

Parameter	Description
DHCP Client Client-ID	Enter the VLAN interface, whose hexadecimal MAC address will be used as the client ID to be sent with the discover message.
Class ID String	Enter the vendor class identifier with the maximum of 32 characters. Tick the **Hex** check box to have the class identifier in the hexadecimal form.
Host Name	Enter the host name. The maximum length is 64 characters. The host name must start with a letter, end with a letter or digit, and only with interior characters letters, digits, and hyphens.
Lease	Specify the preferred lease time for the IP address to request from the DHCP server. Enter the day duration of the lease, or select the hour and minute duration of the lease.

Click the **Apply** button to accept the changes made.

IPv4 Static/Default Route

This window is used to view and configure the IPv4 static and default route settings. The Switch supports static routing for IPv4 formatted addressing. Users can create up to 64 static route entries for IPv4. For IPv4 static routes, once a static route has been set, the Switch will send an ARP request packet to the next hop router that has been set by the user. Once an ARP response has been retrieved by the Switch from that next hop, the route becomes enabled. However, if the ARP entry already exists, an ARP request will not be sent.

The Switch also supports a floating static route, which means that the user may create an alternative static route to a different next hop. This secondary next hop device route is considered as a backup static route for when the primary static route is down. If the primary route is lost, the backup route will uplink and its status will become active.

Entries into the Switch's forwarding table can be made using both an IP address subnet mask and a gateway.

To view the following window, click **L3 Features > IPv4 Static/Default Route**, as shown below:

Figure 6-9 IPv4 Static/Default Route window

The fields that can be configured are described below:

Parameter	Description
IP Address	Enter the IPv4 address for this route here. Tick the **Default Route** check box to use the default route as the IPv4 address.
Mask	Enter the IPv4 network mask for this route here.
Gateway	Enter the gateway address for this route here.
Backup State	Select the backup state option here. Options to choose from are **Primary**, and **Backup**. When the **Primary** option is selected, the route will be used as the primary route to the destination. When the **Backup** option is selected, the route will be used as the backup route to the destination.

Click the **Apply** button to accept the changes made.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

IPv4 Route Table

This window is used to view and configure the IPv4 route table settings.

To view the following window, click **L3 Features > IPv4 Route Table**, as shown below:

Figure 6-10 IPv4 Route Table window

The fields that can be configured are described below:

Parameter	Description
IP Address	Select and enter the single IPv4 address here.
Network Address	Select and enter the IPv4 network address here. In the first space enter the network prefix and in the second space enter the network mask.
Connected	Select this option to display only connected routes.
Hardware	Select this option to display only hardware routes. Hardware routes are routes that have been written into the hardware chip.
Summary	Display the brief information of the active routing entries.

Click the **Find** button to locate a specific entry based on the information entered.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

IPv6 General Prefix

This window is used to view and configure the IPv6 general prefix settings.

To view the following window, click **L3 Features > IPv6 General Prefix**, as shown below:

Figure 6-11 IPv6 General Prefix window

The fields that can be configured are described below:

Parameter	Description
Interface VLAN	Enter an interface VLAN ID.
Prefix Name	Enter the IPv6 interface name with a maximum of 12 characters.
IPv6 Address	Enter the IPv6 address.

Click the **Apply** button to accept the changes made.

Click the **Find** button to locate a specific entry based on the information entered.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

IPv6 Interface

This window is used to view and configure the IPv6 interface's settings.

To view the following window, click **L3 Features > IPv6 Interface**, as shown below:

Figure 6-12 IPv6 Interface window

The fields that can be configured are described below:

Parameter	Description
Interface VLAN	Enter the VLAN interface's ID that will be associated with the IPv6 entry.

Click the **Apply** button to accept the changes made.

Click the **Find** button to locate a specific entry based on the information entered.

Click the **Detail** button to view and configure more detailed settings for the IPv6 interface entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

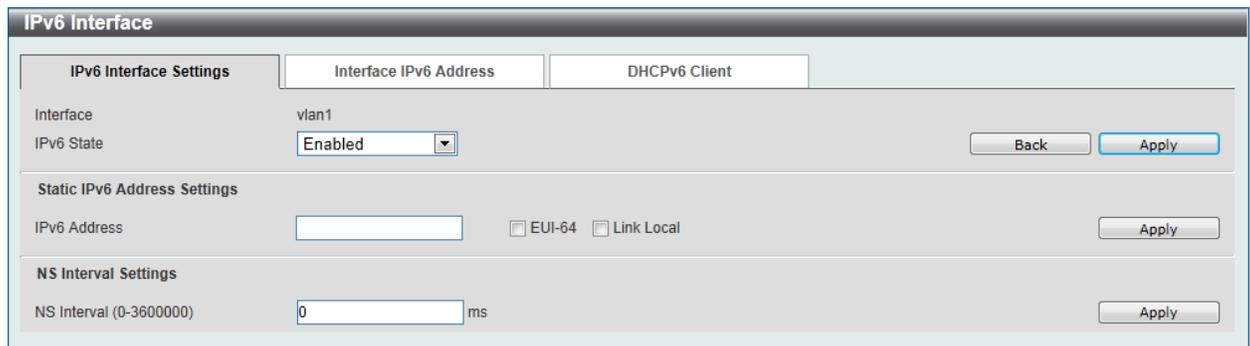After clicking the **Detail** button, the following page will be available.

Figure 6-13 IPv6 Interface - Detail, IPv6 Interface Settings window

The fields that can be configured for **Interface** are described below:

Parameter	Description
IPv6 State	Select to enable or disable the IPv6 interface's global state here.

Click the **Back** button to return to the previous window.

Click the **Apply** button to accept the changes made.

The fields that can be configured for **Static IPv6 Address Settings** are described below:

Parameter	Description
IPv6 Address	Enter the IPv6 address for this IPv6 interface here. Select the **EUI-64** option to configure an IPv6 address on the interface using the EUI-64 interface ID. Select the **Link Local** option to configure a link-local address for the IPv6 interface.

Click the **Apply** button to accept the changes made.

The fields that can be configured for **NS Interval Settings** are described below:

Parameter	Description
NS Interval	Enter the NS interval between 0 and 3600000 milliseconds.

Click the **Apply** button to accept the changes made.

After clicking the **Interface Address** tab, at the top of the page, the following page will be available.

Figure 6-14 IPv6 Interface - Detail, Interface IPv6 Address window

Click the **Delete** button to delete the specified entry.

After clicking the **DHCPv6 Client** tab, at the top of the page, the following page will be available.

Figure 6-15 IPv6 Interface - Detail, Interface IPv6 Address window

Click the **Restart** button to restart DHCPv6 client on an interface.

The fields that can be configured for **DHCPv6 Client Settings** are described below:

Parameter	Description
Client State	Select this option to enable or disable the DHCPv6 client state. Tick the **Rapid Commit** check box to proceed with two-message exchange for prefix delegation.

Click the **Apply** button to accept the changes made.

The fields that can be configured for **DHCPv6 Client PD Settings** are described below:

Parameter	Description
Client PD State	Select this option to enable or disable the DHCPv6 client PD state. Tick the **Rapid Commit** check box to proceed with two-message exchange for prefix delegation.
General Prefix Name	Enter the IPv6 general prefix name with the maximum of 12 characters.

Click the **Apply** button to accept the changes made.

IPv6 Neighbor

This window is used to configure and view the IPv6 neighbor settings.

To view the following window, click **L3 Features > IPv6 Neighbor**, as shown below:

Figure 6-16 IPv6 Neighbor window

The fields that can be configured are described below:

Parameter	Description
Interface VLAN	Enter an interface VLAN ID.
IPv6 Address	Enter the IPv6 address.
MAC Address	Enter the MAC address.

Click the **Apply** button to accept the changes made.

Click the **Find** button to locate a specific entry based on the information entered.

Click the **Clear** button to clear all the information for the specific port.

Click the **Clear All** button to clear all the information in this table.

Click the **Delete** button to remove the specific entry.

Enter a page number and click the **Go** button to navigate to a specific page when multiple pages exist.

IPv6 Static/Default Route

This window is used to view and configure the IPv6 static or default routes.

To view the following window, click **L3 Features > IPv6 Static/Default Route**, as shown below:

Figure 6-17 IPv6 Static/Default Route window

The fields that can be configured are described below:

Parameter	Description
IPv6 Address/Prefix Length	Enter the IPv6 address and prefix length for this route here. Tick the **Default Route** option to use the default route as the IPv6 address.
Interface VLAN	Enter the interface's VLAN ID that will be associated with this route here.
Next Hop IPv6 Address	Enter the next hop IPv6 address here.
Backup State	Select the backup state option here. Options to choose from are **Primary**, and **Backup**. When the **Primary** option is selected, the route is specified as the primary route to the destination. When the **Backup** option is selected, the route is specified as the backup route to the destination.

Click the **Apply** button to accept the changes made.

IPv6 Route Table

This window is used to view and configure the IPv6 route table.

To view the following window, click **L3 Features > IPv6 Route Table**, as shown below:

Figure 6-18 IPv6 Route Table window

The fields that can be configured are described below:

Parameter	Description
IPv6 Address	Select and enter the IPv6 address to display here.

IPv6 Address/Prefix Length	Select and enter the IPv6 address and prefix length to display here. Select the **Longer Prefixes** option to display the route and all of the more specific routes.
Interface VLAN	Select and enter the interface's VLAN ID to display here.
Connected	Select this option to display only connected routes.
Database	Select to view all the related entries in the routing database instead of just the best route.
Hardware	Select this option to display only hardware routes. Hardware routes are routes that have been written into the hardware chip.
Summary	Display the brief information of the active routing entries.

Click the **Find** button to locate a specific entry based on the information entered.