System Tools

CHAPTERS

This guide applies to:

TL-R470T+ v6 or above, TL-R480T+ v9 or above, TL-600VPN v4 or above, TL-ER5120 v3 or above, TL-ER6020 v2 or above, TL-ER6120 v3 or above

1 System Tools

1.1 Overview

The System Tools module provides several system management tools for users to manage the router.

1.2 Support Features

Admin Setup

Admin Setup is used to configure the parameters for users' login. With this function, you can modify the login account, specify the IP subnet and mask for remote access and specify the HTTP and HTTPS server port.

Management

The Management section is used to manage the firmware and the configuration file of the router. With this function, you can reset the router, backup and restore the configuration file, reboot the router and upgrade the firmware.

SNMP

SNMP (Simple Network Management Protocol) is a standard network management protocol. It helps network managers to configure and monitor network devices. With SNMP, network managers can view and modify network device information, detect and analyze network error, and so on. The router supports SNMPv1 and SNMPv2.

Diagnostics

Diagnostics is used to detect network errors and equipment failures. With this function, you can test the connectivity of the network with ping or traceroute command and inspect the router under the help of technicians.

Time Settings

Time Settings is used to configure the system time and the daylight saving time.

System Log

System Log is used to view the system log of the router. You can also configure the router to send the log to a server.

2 Admin Setup

In Admin Setup module, you can configure the following features:

- Admin Setup
- Remote Management
- System Settings

2.1 Admin Setup

Choose the menu **System Tools** > **Admin Setup** > **Admin Setup** to load the following page.

Figure 2-1 Modifying the Admin Account

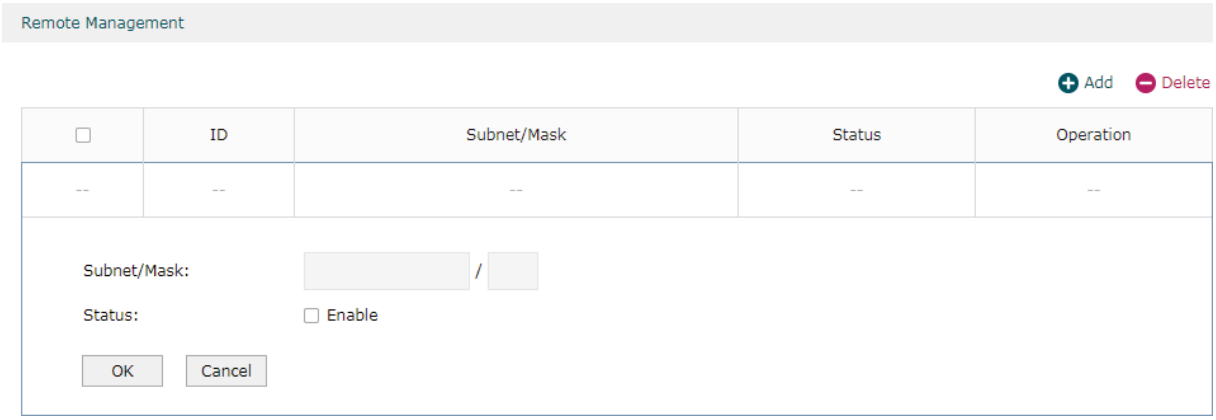
In the **Account** section, configure the following parameters and click **Save** to modify the admin account

Old Username	Enter the old username.
Old Password	Enter the old password.
New Username	Enter a new username.
New Password	Enter a new password.
Confirm New Password	Re-enter the new password for confirmation.

2.2 Remote Management

Choose the menu **System Tools** > **Admin Setup** > **Remote Management** and click **Add** to load the following page.

Figure 2-2 Configuring Remote Management



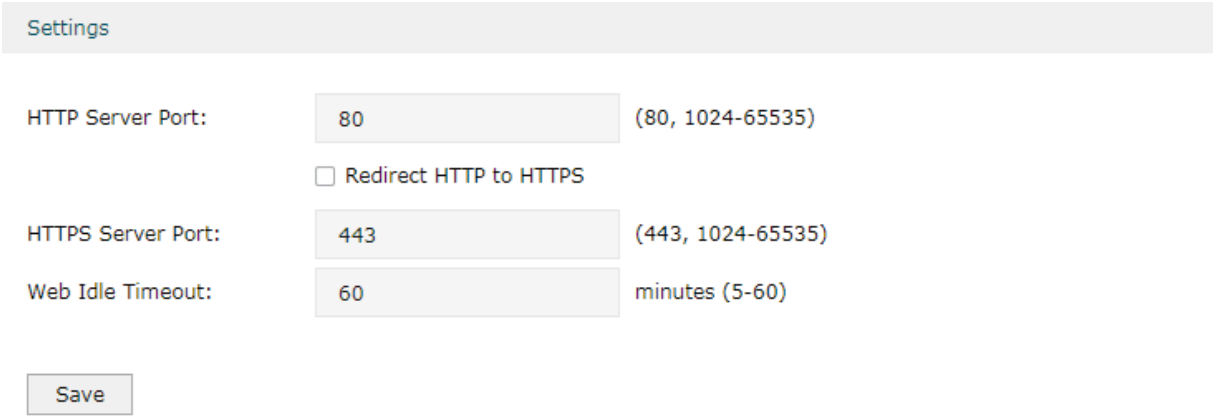
In the **Remote Management** section, configure the following parameters and click **OK** to specify the IP subnet and mask for remote management.

Subnet/Mask	Enter the IP Subnet and Mask of the remote host.
Status	Check the box to enable the remote management function for the remote host.

2.3 System Setting

Choose the menu **System Tools** > **Admin Setup** > **System Settings** to load the following page.

Figure 2-3 Configuring System Settings



In the **Settings** section, configure the following parameters and click **Save**.

HTTP Server Port	Enter the http server port for web management. The port number should be different from other servers'. The default setting is 80. After changing the http server port, you should access the interface by using IP address and the port number in the format of 192.168.0.1:1600.
Redirect HTTP to HTTPS	Check the box to enable the function, then you will access the web management interface by HTTPS protocol instead of HTTP protocol.
HTTPS Server Port	Enter the https server port for web management. The port number should be different from other servers'. The default setting is 443. After changing the https server port, you should access the interface by using IP address and the port number in the format of https://192.168.0.1:1800.
Web Idle Timeout	Enter a session timeout time for the device. The web session will log out for security if there is no operation within the session timeout time.

3 Management

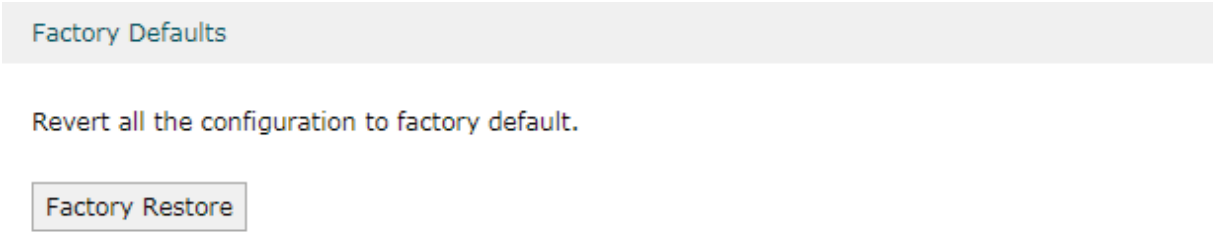
In Management module, you can configure the following features:

- Factory Default Restore
- Backup & Restore
- Reboot
- Firmware Upgrade

3.1 Factory Default Restore

Choose the menu **System Tools** > **Management** > **Factory Default Restore** to load the following page.

Figure 3-1 Reseting the Device

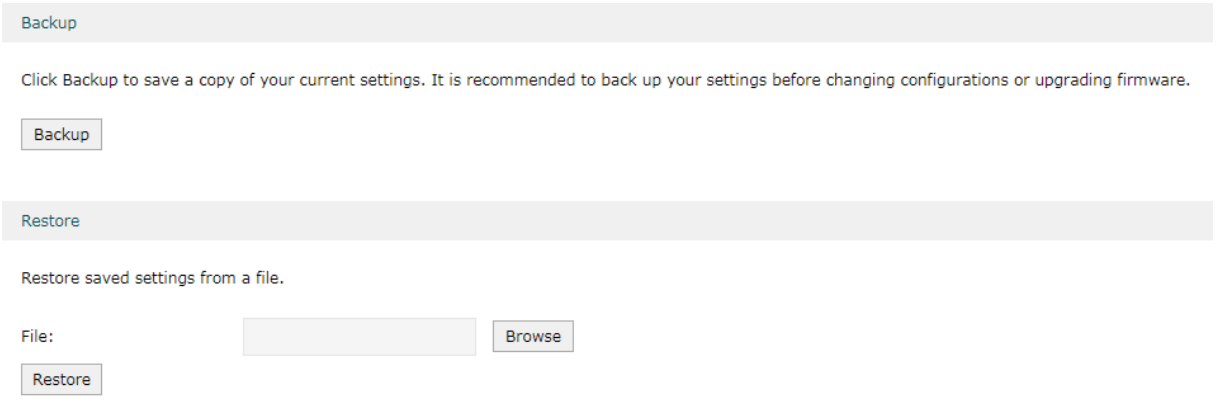


Click **Factory Restore** to reset the device.

3.2 Backup & Restore

Choose the menu **System Tools** > **Management** > **Backup & Restore** to load the following page.

Figure 3-2 Backup & Restore Page



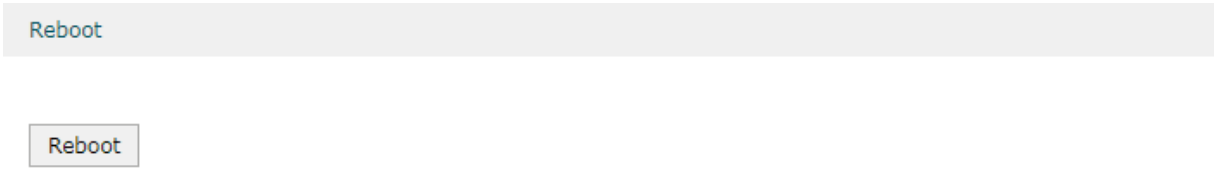
Choose the corresponding operation according to your need:

1) In the **Backup** section, click **Backup** to save your current configuration as a configuration file and export the file to the host.
2) In the **Restore** section, select one configuration file saved in the host and click **Restore** to import the saved configuration to your router.

3.3 Reboot

Choose the menu **System Tools** > **Management** > **Reboot** to load the following page.

Figure 3-3 Rebooting the Device

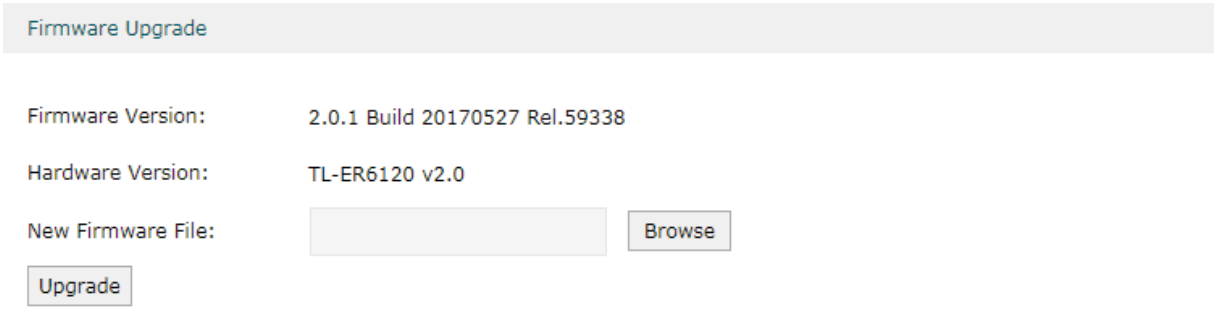


Click **Reboot** to reboot the device.

3.4 Firmware Upgrade

Choose the menu **System Tools** > **Management** > **Firmware Upgrade** to load the following page.

Figure 3-4 Configure System Settings

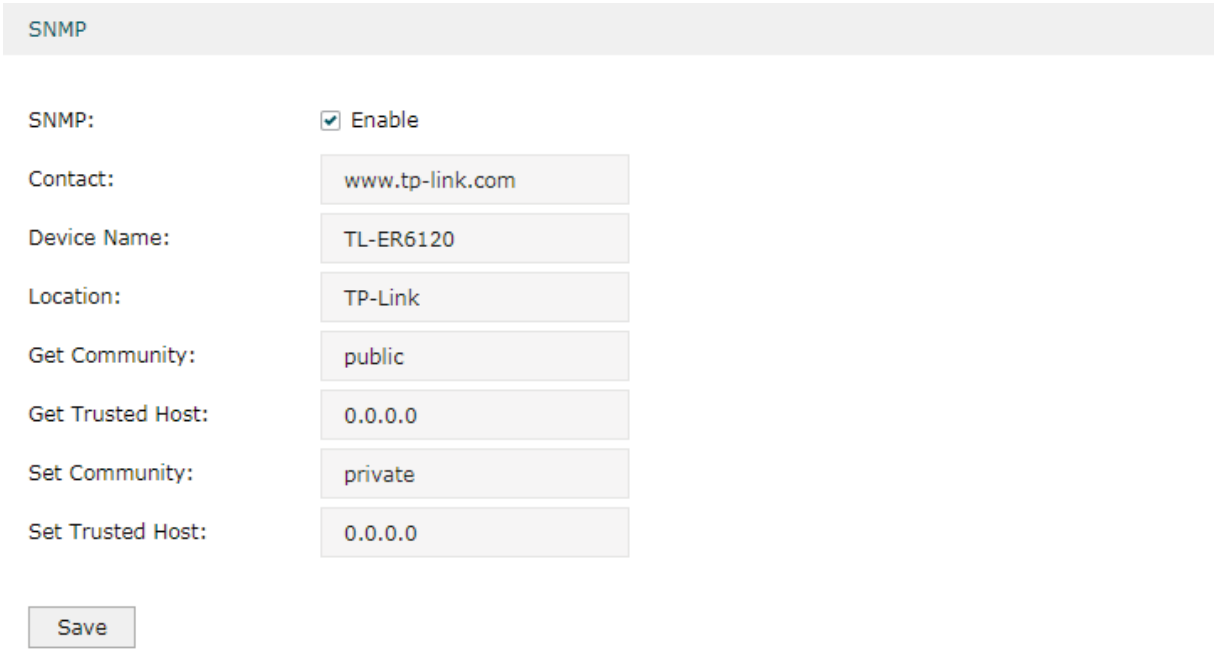


Select one firmware file and click **Upgrade** to upgrade the firmware of the device.

4 SNMP

Choose the menu **System Tools** > **SNMP** > **SNMP** to load the following page.

Figure 4-1 Configuring SNMP



Follow these steps to configure the SNMP function:

1) Check the box to enable the SNMP function.
2) Configure the following parameters and click **Save**.

Contact	Enter the textual identification of the contact person for this the device, for example, contact or e-mail address.
Device Name	Enter a name for the device.
Location	Enter the location of the device. For example, the name can be composed of the building, floor number, and room location.
Get Community	Specify the community that has read-only access to the device's SNMP information.
Get Trusted Host	Enter the IP address that can serve as Get Community to read the SNMP information of this device.
Set Community	Specify the community who has the read and write right of the device's SNMP information.
Set Trusted Host	Enter the IP address that can serve as Set Community to read and write the SNMP information of this device.

5 Diagnostics

In Diagnostics module, you can configure the following features:

- Diagnostics
- Remote Assistance

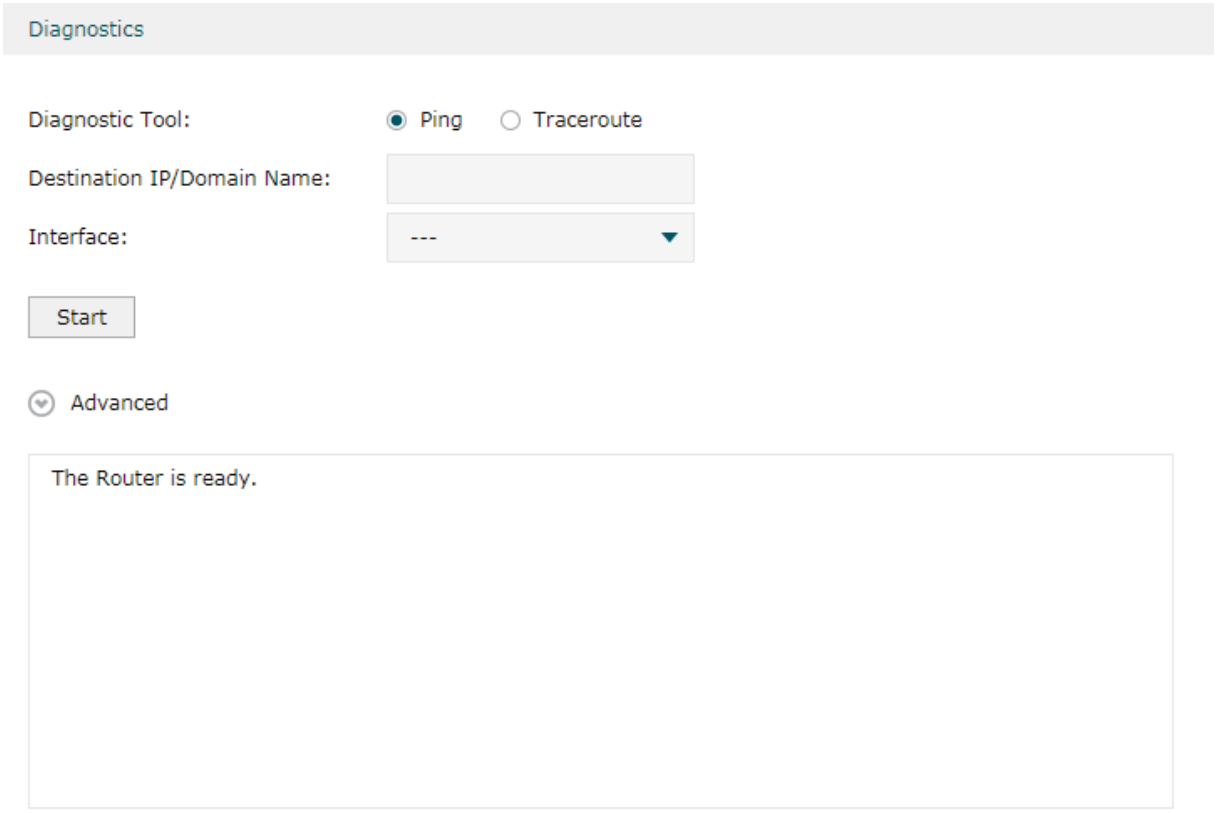
5.1 Diagnostics

Ping and traceroute are both used to test the connectivity between two devices in the network. In addition, ping can show the roundtrip time between the two devices directly and traceroute can show the IP address of routers along the route path.

5.1.1 Configuring Ping

Choose the menu **System Tools** > **Diagnostics** > **Diagnostics** to load the following page.

Figure 5-1 Configuring Diagnostics



Follow these steps to configure Diagnostics:

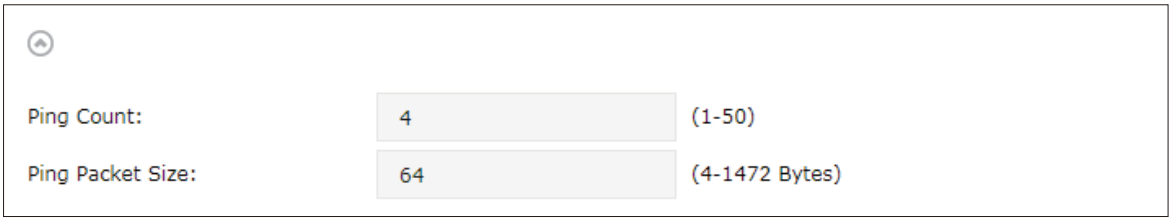
1) In **Diagnostics** section, select **Ping** and configure the following parameters.

Diagnostic Tool	Select **Ping** to test the connectivity between the router and the desired device.

Destination IP/ Domain Name	Enter the IP address or the domain name that you want to ping or tracert.
Interface	Select the interface that sends the detection packets.

2) (Optional) Click **Advanced** and the following section will appear.

Figure 5-2 Advanced Parameters for Ping Method



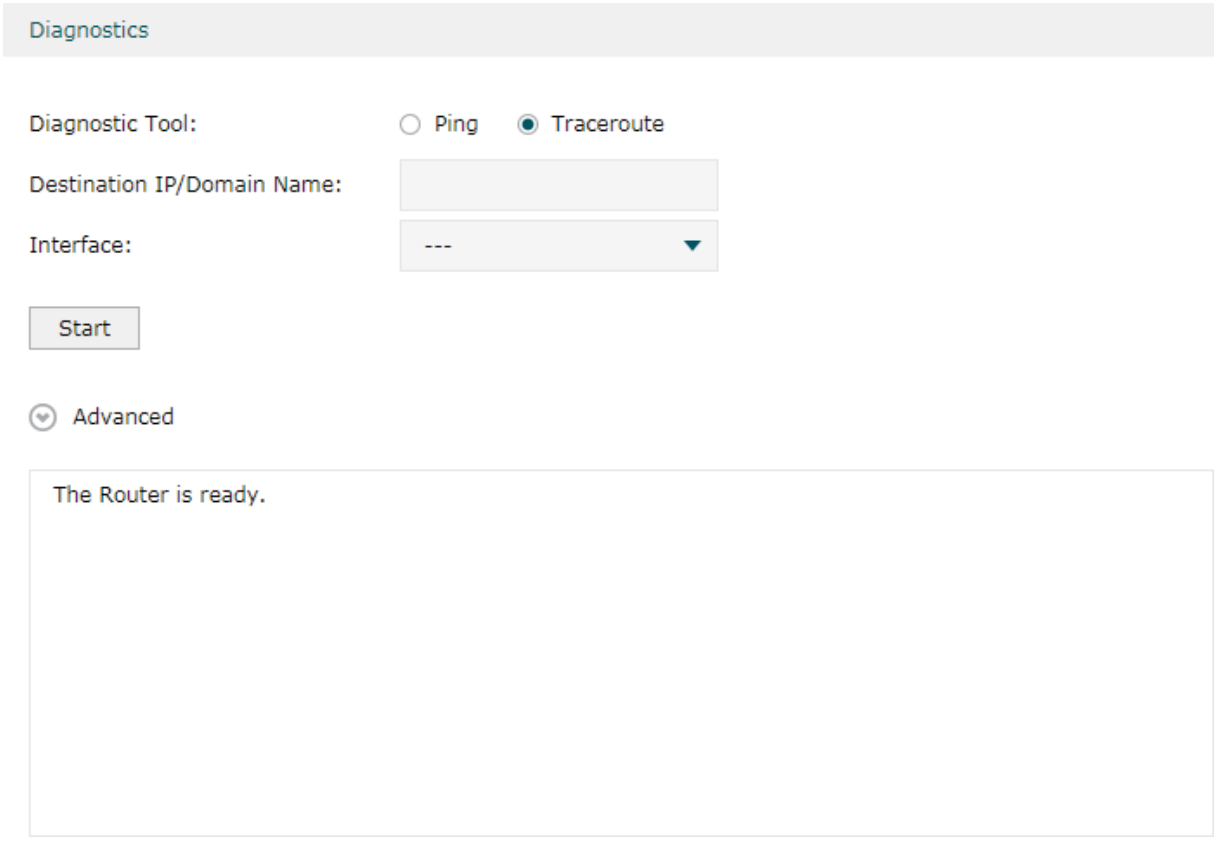
Ping Count	Specify the count of the test packets to be sent during the ping process.
Ping Packet Size	Specify the size of the test packets to be sent during the ping process.

3) Click **Start**.

5.1.2 Configuring Traceroute

Choose the menu **System Tools** > **Diagnostics** > **Diagnostics** to load the following page.

Figure 5-3 Configuring Diagnostics



Follow these steps to configure Diagnostics:

1) In **Diagnostics** section, select **Traceroute** and configure the following parameters.

Diagnostic Tool	Select **Traceroute** to test the connectivity between the router and the desired device.
Destination IP/ Domain Name	Enter the IP address or the domain name that you want to ping or tracert.
Interface	Select the interface that sends the detection packets.

2) (Optional) Click **Advanced** and the following section will appear.

Figure 5-4 Advanced Parameters for Traceroute Method

Traceroute MAX TTL	Specify the traceroute max TTL (Time To Live) during the traceroute process. It is the maximum number of the route hops the test packets can pass through.

3) Click **Start**.

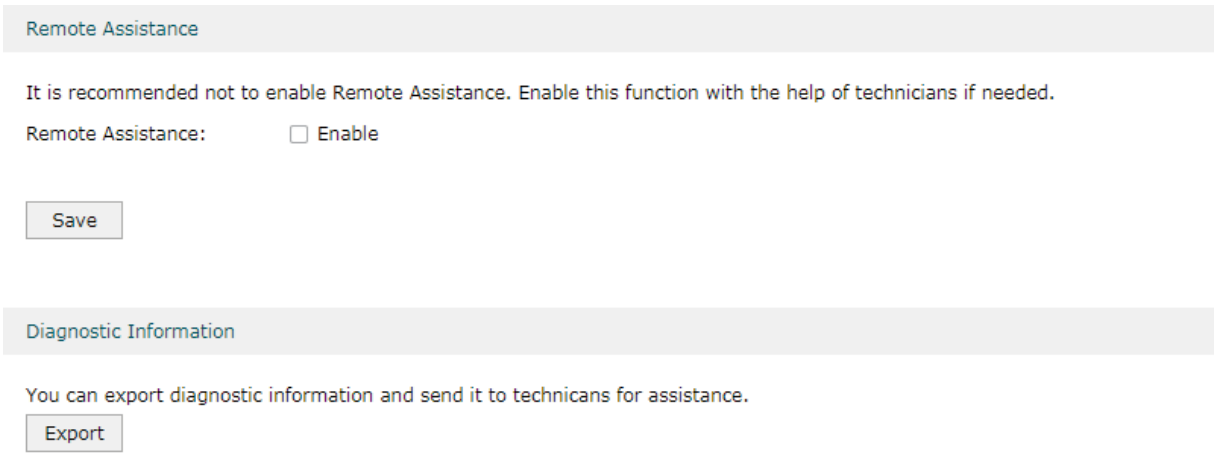
5.2 Remote Assistance

Note:

Please make contact with the technicians brfore trying to use this function.

Choose the menu **System Tools** > **Diagnostics** > **Remote Assistance** to load the following page.

Figure 5-5 Remote Assistance Page



1) In the **Remote Assistance** section, check the box and click **Save** to enable the remote assistance function and then the technicians can access your router and help to solve the problems by SSH.

2) In the **Diagnostic Information** section, click **Export** to download a binary (.bin) file containing helpful information, and send it to the technicians for help.

6 Time Settings

In Time Settings module, you can configure the following features:

- System Time
- Daylight Saving Time

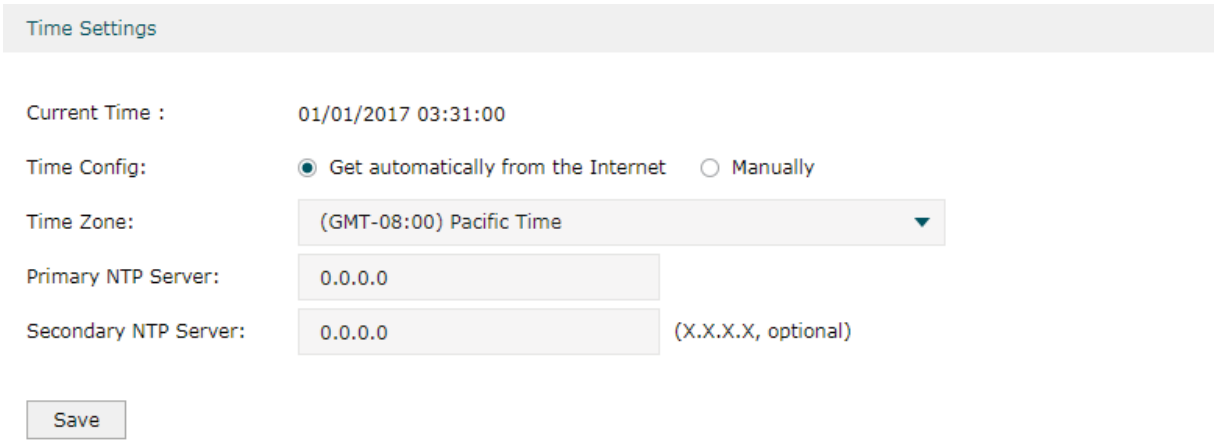
6.1 Setting the System Time

Choose one method to set the system time.

6.1.1 Getting time from the Internet Automatically

Choose the menu **System Tools** > **Time Settings** > **Time Settings** to load the following page.

Figure 6-1 Getting Automatically from the Internet



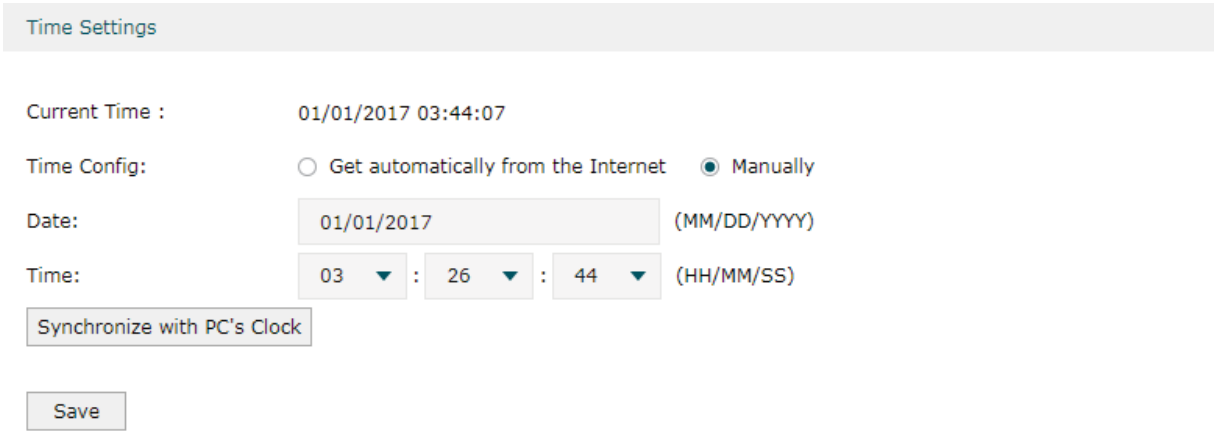
In the **Time Settings** section, configure the following parameters and click **Save**.

Current Time	Displays the current system time.
Time Config	Select **Get automatically from the Internet** to get the system time from the NTP server.
Time Zone	Select the time zone the device is in.
Primary NTP Server	Enter the IP address of the Primary NTP server.
Secondary NTP Server	Enter the IP address of the Secondary NTP server.

6.1.2 Setting the System Time Manually

Choose the menu **System Tools** > **Time Settings** > **Time Settings** to load the following page.

Figure 6-2 Setting the System Time Manually



In the **Time Settings** section, configure the following parameters and click **Save**.

Current Time	Displays the current system time.
Time Config	Select **Manually** to set the system time manually.
Date	Specify the date of the system.
Time	Specify the time of the system.
Synchronize with PC's Clock	Synchronize the system time of the router with PC's clock.

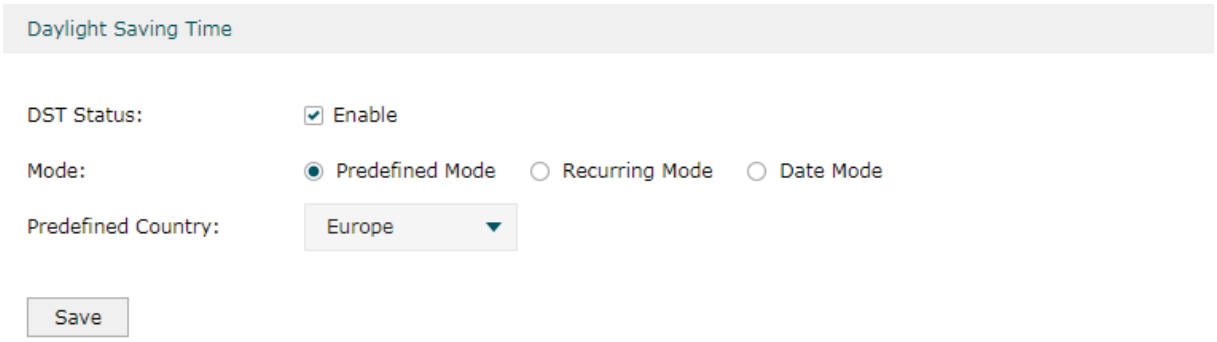
6.2 Setting the Daylight Saving Time

Choose one method to set the daylight saving time.

6.2.1 Predefined Mode

Choose the menu **System Tools** > **Time Settings** > **Time Settings** to load the following page.

Figure 6-3 Predefined Mode Page



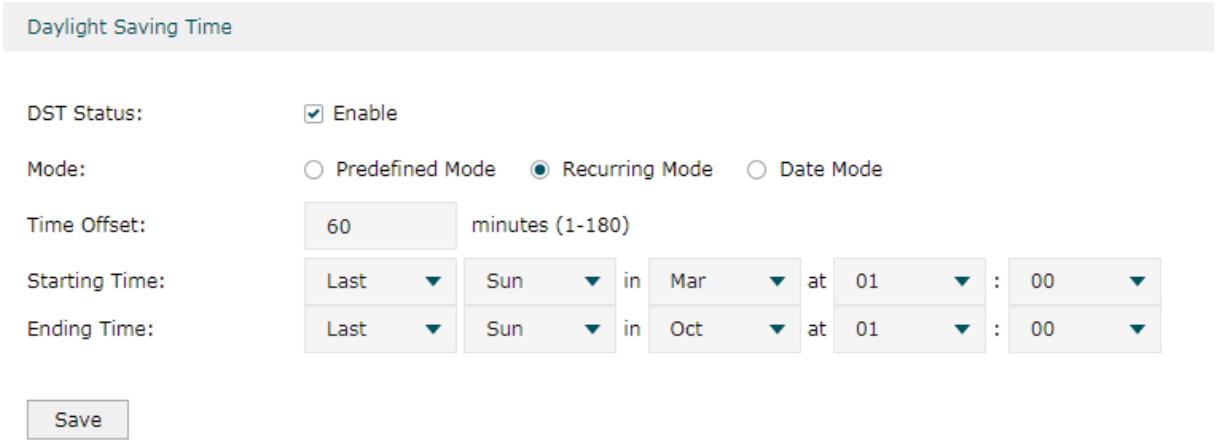
In the **Daylight Saving Time** section, select one predefined DST schedule and click **Save**.

DST Status	Check the box to enable the DST function.
Mode	Select **Predefined Mode** to choose a predefined daylight saving time.
USA	Select the Daylight Saving Time of the USA. It is from 2: 00 a.m. on the Second Sunday in March to 2:00 a.m. on the First Sunday in November
Europe	Select the Daylight Saving Time of Europe. It is from 1:00 a.m. on the Last Sunday in March to 1:00 a.m. on the Last Sunday in October.
Australia	Select the Daylight Saving Time of Australia. It is from 2:00 a.m. on the First Sunday in October to 3:00 a.m. on the First Sunday in April.
New Zealand	Select the Daylight Saving Time of New Zealand. It is from 2:00 a.m. on the Last Sunday in September to 3:00 a.m. on the First Sunday in April.

6.2.2 Recurring Mode

Choose the menu **System Tools** > **Time Settings** > **Time Settings** to load the following page.

Figure 6-4 Recurring Mode Page



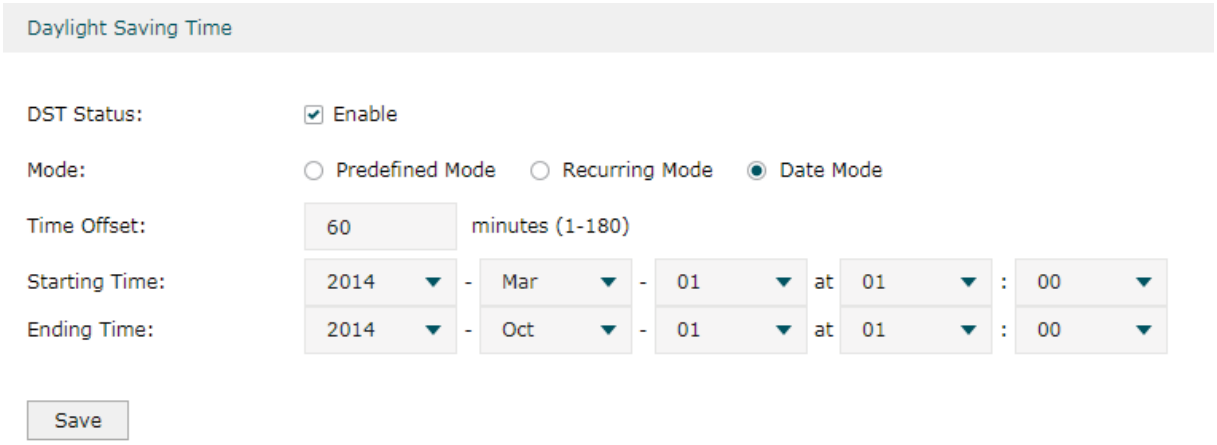
In the **Daylight Saving Time** section, configure the following parameters and click **Save**.

DST Status	Check the box to enable the DST function.
Mode	Select **Recurring Mode** to specify a cycle time range for the daylight saving time. This configuration will take effects every year.
Time Offset	Specify the time added in minutes when Daylight Saving Time takes effect.
Starting Time	Specify the starting time of Daylight Saving Time. The starting time is relative to standard time.
Ending Time	Specify the ending time of Daylight Saving Time. The ending time is relative to daylight saving time.

6.2.3 Date Mode

Choose the menu **System Tools** > **Time Settings** > **Time Settings** to load the following page.

Figure 6-5 Date Mode Page



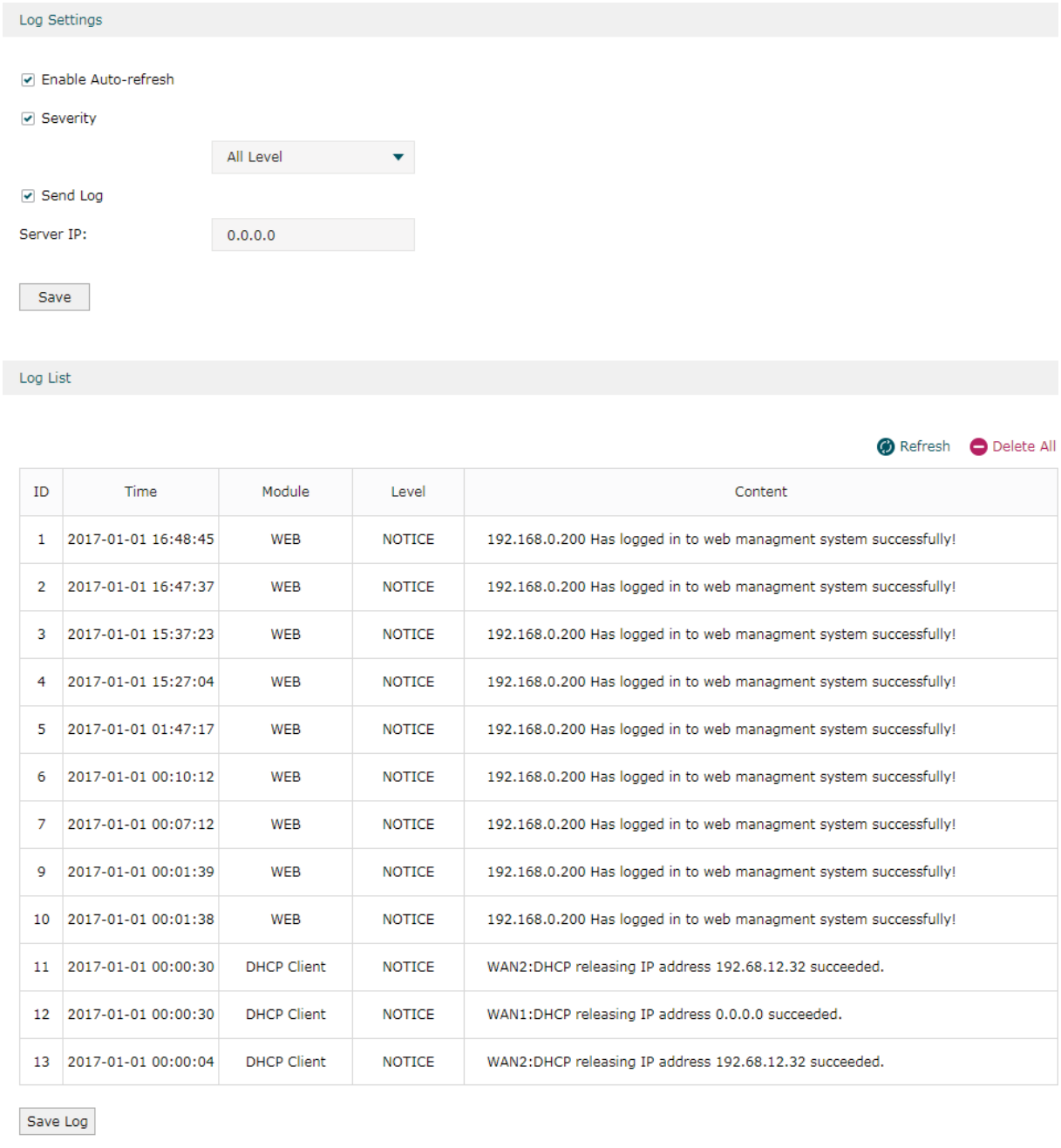
In the **Daylight Saving Time** section, select one predefined DST schedule and click **Save**.

DST Status	Check the box to enable the DST function.
Mode	Select Date Mode to specify an absolute time range for the daylight saving time.
Time Offset	Specify the time added in minutes when Daylight Saving Time takes effect.
Starting Time	Specify the starting time of Daylight Saving Time. The starting time is relative to standard time.
Ending Time	Specify the ending time of Daylight Saving Time. The ending time is relative to daylight saving time.

7 System Log

Choose the menu **System Tools** > **System Log** > **System Log** to load the following page.

Figure 7-1 System Log Page



ID	Time	Module	Level	Content
1	2017-01-01 16:48:45	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
2	2017-01-01 16:47:37	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
3	2017-01-01 15:37:23	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
4	2017-01-01 15:27:04	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
5	2017-01-01 01:47:17	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
6	2017-01-01 00:10:12	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
7	2017-01-01 00:07:12	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
9	2017-01-01 00:01:39	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
10	2017-01-01 00:01:38	WEB	NOTICE	192.168.0.200 Has logged in to web managment system successfully!
11	2017-01-01 00:00:30	DHCP Client	NOTICE	WAN2:DHCP releasing IP address 192.68.12.32 succeeded.
12	2017-01-01 00:00:30	DHCP Client	NOTICE	WAN1:DHCP releasing IP address 0.0.0.0 succeeded.
13	2017-01-01 00:00:04	DHCP Client	NOTICE	WAN2:DHCP releasing IP address 192.68.12.32 succeeded.

Follow these steps to view the system log:

1) In the **Log Settings** section, configure the following parameters and click **Save**.

Enable Auto-refresh	Check the box to enable this function and the page will refresh automatically every 10 seconds.

Severity	Enable Severity and specify the importance of the logs you want to view in the log list. **ALL Level**: Logs of all levels. **EMERGENCY**: Errors that render the router unusable, such as hardware errors. **ALERT**: Errors that must be resolved immediately, such as flash write errors. **CRITICAL**: Errors that put the system at risk, such as a failure to release memory. **ERROR**: Generic errors. **WARNING**: Warning messages, such as WinNuke attack warnings. **NOTICE**: Important notifications, such as IKE policy mismatches. **INFO**: Informational messages. **DEBUG**: Debug-level notifications, such as when the router receives a DNS packet.
Send Log	Enable the Send Log function and then the newly generated logs will be sent to the specified server.
Server IP	Specify the IP address of the server that the logs will be sent to.

2) (Optional) Click **Save Log** to save the current logs to the host.