



# Configuring Preferences

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## CHAPTERS

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This guide applies to:

TL-R470T+ v6 or above, TL-R480T+ v9 or above, TL-R600VPN v4 or above, TL-ER5120 v3 or above, TL-ER6020 v2 or above, TL-ER6120 v3 or above

# 1 Overview

You can preset certain preferences, such as IP groups, time ranges, IP Pools and service types. These preferences will appear as options for you to choose when you are configuring the corresponding parameters for some functions. For example, the IP groups configured here will appear as options when you are configuring the effective IP addresses for functions like Bandwidth Control, Session Limit, Policy Routing and so on.

Once you configure a preference here, it can be applied to multiple functions, saving time during the configuration. For example, after configuring a time range in the **Preferences > Time Range > Time Range** page, you can use this time range as the effective time of Bandwidth Control rules, Link Backup rules, Policy Routing rules, and so on.

# 2 IP Group Configuration

IP groups configured here can be used as effective IP addresses for multiple functions like Bandwidth Control, Session Limit , Policy Routing and so on.

To complete IP Group configuration, follow these steps:

- 1) Add IP address entries.
- 2) Add IP address entries to an IP group.

## 2.1 Adding IP Address Entries

Choose the menu **Preferences > IP Group > IP Address** and click **Add** to load the following page.

Figure 2-1 Add an IP Address Entry

ID	Name	IP Address Type	IP Address Range	IP Address/Mask	Description	Operation
1	IP_LAN	IP Address/Mask	---	192.168.0.0/24	IP_LAN	---

Follow these steps to add an IP address entry:

- 1) Enter a name and specify the IP address range.

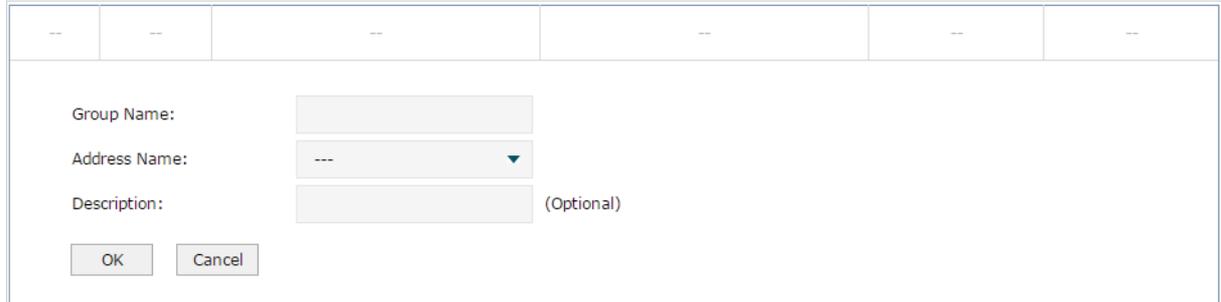
<b>Name</b>	Enter a name for the IP address entry. Only letters, digits or underscores are allowed.
<b>IP Address Type</b>	Choose a type and enter the IP address in the corresponding format. Two types are provided:  <b>IP Address Range:</b> Specify a starting IP address and an ending IP address.  <b>IP Address/Mask:</b> Specify a network address and the subnet mask.
<b>Description</b>	(Optional) Enter a brief description of this IP address entry to make identifying it easier.

- 2) Click **OK**.

## 2.2 Grouping IP Address Entries

Choose the menu **Preferences > IP Group > IP Group** and click **Add** to load the following page.

Figure 2-2 Create an IP Group



Follow these steps to create an IP group and add IP address entries to the group:

- 1) Specify a name and configure the range to add an IP address range.

<b>Group Name</b>	Enter a name for the IP group. Only letters, digits or underscores are allowed.
<b>Address Name</b>	Select the IP address entries as the members of the group from the drop-down list. It is multi-optional.  If no IP address entries are selected, the rule that references this IP group will have no effect on any IP addresses.
<b>Description</b>	(Optional) Enter an brief description of this IP group to make identifying it easier.

- 2) Click **OK**.

You can also choose an existing IP group and click  to add or remove the IP address members.

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 **Note:**

An IP group that is being referenced by a rule cannot be deleted.

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# 3 Time Range Configuration

Time range configuration allows you to define time ranges by specifying the period in a day and days in a week. The time range configured here can be used as the effective time for multiple functions like Bandwidth Control, Link Backup, Policy Routing and so on.

Choose the menu **Preferences > Time Range > Time Range** and click **Add** to load the following page.

Figure 3-1 Add a Time Range Entry

The screenshot shows a web interface titled "Time Range List". At the top right, there are "Add" and "Delete" buttons. Below is a table with columns: ID, Time Range Name, Working Time, Description, and Operation. The table contains one entry with ID "1", Name "Any", and Working Time represented by a calendar icon. Below the table is a modal form for adding a new entry. The form includes: "Time Range Name:" with a text input field; "Time Settings:" with radio buttons for "Working Calendar" (selected) and "Manually"; "Working Calendar:" with a calendar icon; "Description:" with a text input field and "(Optional)" label; and "OK" and "Cancel" buttons.

Follow these steps to add a time range entry:

- 1) Enter a name for the time range entry.

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<b>Time Range Name</b>	Enter a name for the time range entry. Only letters, digits or underscores are allowed.
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- 2) Choose a mode to set the time range. Two modes are provided: Working Calendar and Manually.

» Working Calendar

Working Calendar mode allows you to set the time range on a calendar. In this mode, the effective time can be accurate to the hour.

Choose Working Calendar mode and click  to load the following page.

Figure 3-2 Working Calendar Mode

System Time: 2017-1-3 Tue 22:47:04 GMT-08:00

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
00:00							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00							
19:00							
20:00							
21:00							
22:00							
23:00							
24:00							

■ Time

OK Reset Cancel

Select the time slices and click **OK** to set the time range. You can click the time slices, or alternatively drag the areas to select or deselect the time slices.

#### » Manually

Manually mode allows you to enter the time range and select the effective days in a week manually. In this mode, effective time can be accurate to the minute.

Choose Manually mode to load the following page.

Figure 3-3 Manually Mode

Time Settings:  Working Calendar  Manually

Week:  Mon  Tue  Wed  Thu  Fri  Sat  Sun

Time range: [ ] : [ ] - [ ] : [ ] [ + ]

**Week** Select the effective days in a week.

**Time Range** Enter a start and end time. If the effective time is discontinuous, click [ + ] to add another time range.

- 3) (Optional) Enter an brief description of this time range to make identifying it easier.
- 4) Click **OK**.

#### Note:

A time range entry that is being referenced by a rule cannot be deleted.

# 4 VPN IP Pool Configuration

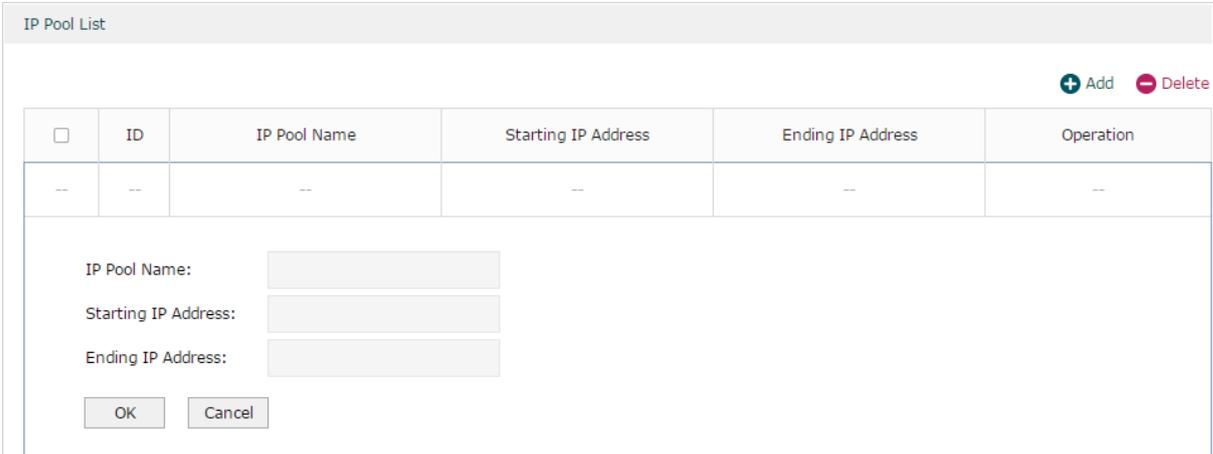
 **Note:**

TL-ER5120 does not support VPN IP Pool.

The VPN IP pools configured here can be used as the VPN IP address pools when configuring L2TP VPN and PPTP VPN.

Choose the menu **Preferences > VPN IP Pool > VPN IP Pool** and click **Add** to load the following page.

Figure 4-1 Add an IP Pool Entry



The screenshot displays the 'IP Pool List' configuration window. At the top right, there are '+ Add' and '- Delete' buttons. Below is a table with the following structure:

<input type="checkbox"/>	ID	IP Pool Name	Starting IP Address	Ending IP Address	Operation
<input type="checkbox"/>	--	--	--	--	--

Below the table, there is a form with the following fields and buttons:

- IP Pool Name:
- Starting IP Address:
- Ending IP Address:
- Buttons:

Follow these steps to add an IP Pool:

- 1) Enter a name and specify the starting and ending IP address of the IP Pool.

**IP Pool Name**

Enter a name for the IP Pool. Only letters, digits or underscores are allowed.

**Starting IP Address/  
Ending IP Address**

Specify the starting and ending IP address. The range of the IP pool cannot overlap with the existing IP pools.

- 2) Click **OK**.

 **Note:**

An IP pool entry that is being referenced by a rule cannot be deleted.

# 5 Service Type Configuration

The service type entries configured here can be used as part of the matching conditions when configuring the Access Control rules in Firewall.

Choose the menu **Preferences > Service Type > Service Type** to load the following page.

Figure 5-1 Service Type List

Service Type List						
 Add  Delete						
<input type="checkbox"/>	ID	Service Type Name	Protocol	Detail	Description	Operation
--	1	ALL	0-255	---	ALL	---
--	2	FTP	TCP	Source Port = 0-65535; Destination Port = 21-21	FTP	---
--	3	SSH	TCP	Source Port = 0-65535; Destination Port = 22-22	SSH	---
--	4	TELNET	TCP	Source Port = 0-65535; Destination Port = 23-23	TELNET	---
--	5	SMTP	TCP	Source Port = 0-65535; Destination Port = 25-25	SMTP	---
--	6	DNS	UDP	Source Port = 0-65535; Destination Port = 53-53	DNS	---
--	7	HTTP	TCP	Source Port = 0-65535; Destination Port = 80-80	HTTP	---
--	8	POP3	TCP	Source Port = 0-65535; Destination Port = 110-110	POP3	---
--	9	SNTP	UDP	Source Port = 0-65535; Destination Port = 123-123	SNTP	---
--	10	H.323	TCP	Source Port = 0-65535; Destination Port = 1720-1720	H.323	---
--	11	ICMP_ALL	ICMP	Type = 255; Code = 255	icmp	---
--	12	HTTPS	TCP	Source Port = 0-65535; Destination Port = 443-443	---	---

The entries in gray are system predefined service types. You can add other entries if your service type is not in the list.

Click **Add** to load the following page.

Figure 5-2 Add an Service Type Entry

The screenshot shows a web interface titled "Service Type List". At the top right, there are "Add" and "Delete" buttons. Below is a table with columns: ID, Service Type Name, Protocol, Detail, Description, and Operation. The table contains one row with dashes in all cells. Below the table is a form for adding a new entry. The form includes: "Service Type Name" (text input), "Protocol" (radio buttons for TCP, UDP, TCP/UDP, ICMP, Other), "Source Port Range" (two text inputs with a dash between them), "Destination Port Range" (two text inputs with a dash between them), and "Description" (text input, optional). At the bottom of the form are "OK" and "Cancel" buttons.

Follow these steps to add a service type entry:

- 1) Enter a name for the service type.

**Service Type Name**

Enter a name for the service type. Only letters, digits or underscores are allowed.

- 2) Select the protocol for the service type. The predefined protocols include **TCP**, **UDP**, **TCP/UDP** and **ICMP**. For other protocols, select the option **Other**.

When **TCP**, **UDP**, or **TCP/UDP** is selected, the following page will appear.

Figure 5-3 TCP/UDP Protocol

The screenshot shows a form for configuring the TCP/UDP protocol. It includes: "Protocol:" (radio buttons for TCP, UDP, TCP/UDP, ICMP, Other), "Source Port Range:" (two text inputs with a dash between them), and "Destination Port Range:" (two text inputs with a dash between them).

**Source Port Range/  
Destination Port Range**

Specify range of the source port and destination port of the TCP or UDP packets. Packets whose source port and destination port are both in the range are considered as the target packets.

When **ICMP** is selected, the following page will appear.

Figure 5-4 ICMP Protocol

The screenshot shows a form for configuring the ICMP protocol. It includes: "Protocol:" (radio buttons for TCP, UDP, TCP/UDP, ICMP, Other), "Type:" (text input), and "Code:" (text input).

**Type/Code**

Specify the type and code of the ICMP packets. ICMP packets with both the type and code fields matched are considered as the target packets.

When **Other** is selected, the following page will appear.

Figure 5-5 Other Protocols

Protocol:	<input type="radio"/> TCP	<input type="radio"/> UDP	<input type="radio"/> TCP/UDP	<input type="radio"/> ICMP	<input checked="" type="radio"/> Other
Protocol Number:	<input type="text"/>				

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**Protocol Number**

Specify the protocol number of the packets. Packets with the protocol number field matched are considered as the target packets.

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- 3) (Optional) Enter a brief description of this service type to make identifying it easier.
- 4) Click **OK**.

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 **Note:**

A service type entry that is being referenced by a rule cannot be deleted.

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