

Managing Services

CHAPTERS

- 1. Services
- 2. Dynamic DNS Configurations
- 3. UPnP Configuration
- 4. Configuration Example for Dynamic DNS



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

Services

1.1 Overview

The Services module incorporates two functions, Dynamic DNS (DDNS) and UPnP (Universal Plug and Play) to provide convenient network services.

1.2 Support Features

Dynamic DNS

Nowadays, network protocols such as PPPoE and DHCP are widely employed by ISPs to assign public IP addresses to users. The use of these protocols can cause the user's public IP address to change dynamically. DDNS is an internet service that ensures a fixed domain name can be used to access a network with a varying public IP address. This means the user's network can be more easily accessed by internet hosts.

UPnP

With the development of networking and advanced computing techniques, greater numbers of devices feature in networks. UPnP is designed to solve the problem of communication between these network devices. UPnP function allows devices dynamically discover and communicate with each other without additional configurations. For example, it allows the download of P2P software without opening ports.

2 Dynamic DNS Configurations

With Dynamic DNS configurations, you can:

- Configure and view Peanuthull DDNS
- Configure and view Comexe DDNS
- Configure and view DynDNS
- Configure and view NO-IP DDNS

2.1 Configure and View Peanuthull DDNS

Choose the menu **Service** > **Dynamic DNS** > **Peanuthull** and click **Add** to load the following page.

| | ID | Interface | Account N | ame Update Interval | Status | Service Status | Domain Name | Service Type | Operation |
|--|-----------------------------|-----------|----------------------------|------------------------|--------|----------------|-------------|--------------|-----------|
| | | | | | | | | | |
| | Inter | face: | | | • | | | | |
| | Account Name: | | | | G | o to register | | | |
| | Pass | word: | | | | | | | |
| | Update Interval: Status: | | : | | • | | | | |
| | | | Enable | | | | | | |
| | (| DK (| Cancel | | | | | | |

Figure 2-1 Configure Peanuthull DDNS

Follow these steps to configure Peanuthull DDNS.

- 1) Click **Go to register** to visit the official website of Peanuthull, register an account and a domain name.
- 2) Configure the following parameters and click **OK**.

| Interface | Select the interface for the DDNS service. |
|-----------------|--|
| Account Name | Enter the account name of your DDNS account. You can click Go to register to visit the official website of Peanuthull to register an account. |
| Password | Enter the password of your DDNS account. |
| Update Interval | Specify the Update Interval that the device dynamically updates IP addresses for registered domain names. |
| Status | Check the box to enable the DDNS service. |

3) View the DDNS status.

Figure 2-2 View the Status of Peanuthull DDNS

| Peanuthull | | | | | | | | | | | | | |
|-----------------------------------|---|-----------|-----------------|---|-----------------|-----------------|------------------|------------|-------------|--|--|--|--|
| | | | | | | | | A | dd 😑 Delete | | | | |
| | ID | Interface | Account Name | ccount Name Update Status Service Status Domain Name Service Ty | | | | | | | | | |
| | 1 | WAN1 | user1 | 6 hours | Enabled 😣 | Offline | | | 2 | | | | |
| Sta | Status Displays whether the corresponding DDNS service is enabled. | | | | | | | | | | | | |
| Ser | vice | Status | Display | Displays the current status of DDNS service. | | | | | | | | | |
| Offline: DDNS service is offline. | | | | | | | | | | | | | |
| | | | Connee | cting: D | DNS client is o | connecting to t | he server. | | | | | | |
| | | | Online: | DDNS | is working nor | mally. | | | | | | | |
| | | | Incorr e | ect ac ct. | count name | or password: | : The account na | me or pass | word is | | | | |
| Dor | main | Name | Display | rs the D | omain Names | obtained from | the DDNS server. | | | | | | |
| Ser | Service Type Displays the DDNS service type, including Professional service and Standard service. | | | | | | | | tandard | | | | |

2.2 Configure and View Comexe DDNS

Choose the menu **Service** > **Dynamic DNS** > **Comexe** and click **Add** to load the following page.

| Figure 2-3 | Configure | Comexe | DDNS |
|-------------|-----------|-----------|------|
| i iguio z o | oormgure | 001110/00 | |

| ID | Interface | Account | it Name Update Interval | | Status | | Service Status | Domain Name | Operation |
|------------------|-----------|---------|----------------------------|---|---------------------|----|----------------|-------------|-----------|
| | | - | | | | | | | |
| Interfa | ace: | | | | • | | | | |
| Account Name: | | | | | <u>Go to regist</u> | er | | | |
| Passw | ord: | | | | | | | | |
| Update Interval: | | | | | • | | | | |
| Status | 5: | | 💌 Enable | 9 | | | | | |
| Oł | < Car | ncel | | | | | | | |

Follow these steps to configure Comexe DDNS.

1) Click **Go to register** to visit the official website of Comexe, register an account and a domain name.

2) Configure the following parameters and click **OK**.

| Interface | Select the interface for the DDNS service. |
|-----------------|--|
| Account Name | Enter the account name of your DDNS account. You can click Go to register to visit the official website of Comexe to register an account. |
| Password | Enter the password of your DDNS account. |
| Update Interval | Specify the Update Interval that the device dynamically updates IP addresses for registered domain names. |
| Status | Check the box to enable the DDNS service. |

3) View the DDNS status.

Figure 2-4 View the Status of Comexe DDNS

| Come | ke | | | | | | | | | | | |
|--|--|--------|------------|---|----------------|------------|---|--------------|--|--|--|--|
| | | | | | | | c | Add 😑 Delete | | | | |
| | D ID Interface Account Name Update Interval Status Service Status Domain Name | | | | | | | Operation | | | | |
| | 1 | WAN1 | user1 | 6 hours | Enabled 😣 | Connecting | | i | | | | |
| Stat | tus | | Displays | Displays whether the corresponding DDNS service is enabled. | | | | | | | | |
| Ser | vice | Status | Displays | Displays the current status of DDNS service. | | | | | | | | |
| | | | Offline: D | Offline: DDNS service is offline. | | | | | | | | |
| | | | Connecti | Connecting: DDNS client is connecting to the server. | | | | | | | | |
| | | | Online: D | DNS is w | orking normall | у. | | | | | | |
| | Incorrect account name or password: The account name or password incorrect. | | | | | | | | | | | |
| Domain Name Displays the Domain Names obtained from the DDNS server. | | | | | | | | | | | | |

2.3 Configure and View DynDNS

Choose the menu **Service** > **Dynamic DNS** > **DynDNS** and click **Add** to load the following page.

| | ID | Interface | Accoun | t Name | Update Interval | St | atus | Service Status | Domain Name | Operation |
|--|----------------------------|-----------|--------|----------|--------------------|----|---------------------|----------------|-------------|-----------|
| | | | _ | - | | | | | | |
| | Interf | ace: | | | | • | | | | |
| | Account Name: Password: | | | | | | <u>Go to regist</u> | ter | | |
| | | | | | | | | | | |
| | Doma | in Name: | | | | | | | | |
| | Update Interval: | | | | • | | | | | |
| | Statu | s: | | 💌 Enable | e | | | | | |
| | O | K Ca | ncel | | | | | | | |

Figure 2-5 Configure DynDNS

Follow these steps to configure DynDNS.

- 1) Click **Go to register** to visit the official website of DynDNS and register an account and a domain name.
- 2) Configure the following parameters and click **OK**.

| Interface | Select the interface for the DDNS service. |
|-----------------|--|
| Account Name | Enter the account name of your DDNS account. You can click Go to register to visit the official website of DynDNS to register an account. |
| Password | Enter the password of your DDNS account. |
| Domain Name | Specify the domain name that you registered with your DDNS service provider. |
| Update Interval | Specify the Update Interval that the device dynamically updates IP addresses for registered domain names. |
| Status | Check the box to enable the DDNS service. |

3) View the DDNS status.

Figure 2-6 View the Status of DynDNS

DynDNS

Status

| | | | | | | • | Add 😑 Delete |
|----|-----------|--------------|--------------------|-----------|----------------|-----------------|--------------|
| ID | Interface | Account Name | Update Interval | Status | Service Status | Domain Name | Operation |
| 1 | WAN1 | VAN1 user1 | | Enabled 😣 | Connecting | domainname1.com | e 1 |
| | | | | | | | |

Displays whether the corresponding DDNS service is enabled.

| Service Status | Displays the current status of DDNS service. | | | | | | |
|----------------|---|--|--|--|--|--|--|
| | Offline: DDNS service is offline. | | | | | | |
| | Connecting: DDNS client is connecting to the server. | | | | | | |
| | Online: DDNS is working normally. | | | | | | |
| | Incorrect account name or password: The account name or password is incorrect. | | | | | | |
| | Incorrect domain name: The domain name is incorrect. | | | | | | |
| Domain Name | Displays the Domain Names obtained from the DDNS server. | | | | | | |

2.4 Configure and View NO-IP DDNS

Choose the menu **Service** > **Dynamic DNS** > **NO-IP** and click **Add** to load the following page.

| ID | Interface | Accoun | t Name Update Interval | | St | atus | Service Status | Domain Name | Operation |
|------------------|-----------|--------|---------------------------|---|----|------|----------------|-------------|-----------|
| | | - | | | - | | | | |
| Interface: | | | | | • | | | | |
| Account Name: | | | | | | | <u>er</u> | | |
| Passw | in Namo: | | | | | | | | |
| Donia | tatanali | | | | | | | | |
| Update Interval: | | | | • | | | | | |
| Statu | s: | | Enable | 9 | | | | | |
| O | K Ca | ncel | | | | | | | |

Figure 2-7 View NO-IP DDNS

Follow these steps to configure NO-IP DDNS.

- 1) Click **Go to register** to visit the official website of NO-IP and register an account and a domain name.
- 2) Configure the following parameters and click **OK**.

| Interface | Select the interface for the DDNS service. |
|--------------|---|
| Account Name | Enter the account name of your DDNS account. You can click Go to register to visit the official website of NO-IP to register an account. |
| Password | Enter the password of your DDNS account. |
| Domain Name | Specify the domain name that you registered with your DDNS service provider. |

| Update Interval | Specify the Update Interval that the device dynamically updates IP addresses for registered domain names. |
|-----------------|---|
| Status | Check the box to enable the DDNS service. |

3) View the DDNS status.

Figure 2-8 View the Status of NO-IP DDNS

NO-IP

| | | | | | | | • | Add 😑 Delete |
|--|----|-----------|--------------|--------------------|-----------|----------------|-----------------|--------------|
| | ID | Interface | Account Name | Update Interval | Status | Service Status | Domain Name | Operation |
| | 1 | WAN1 | user1 | 6 hours | Enabled 🙁 | Connecting | domainname1.com | i |

| Status | Displays whether the corresponding DDNS service is enabled. |
|----------------|---|
| Service Status | Displays the current status of DDNS service. |
| | Offline: DDNS service is offline. |
| | Connecting: DDNS client is connecting to the server. |
| | Online: DDNS is working normally. |
| | Incorrect account name or password: The account name or password is incorrect. |
| | Incorrect domain name: The domain name is incorrect. |
| Domain Name | Displays the Domain Names obtained from the DDNS server. |
| | |

3 UPnP Configuration

Choose the menu **Service** > **UPnP** to load the following page.

Figure 3-1 Configure UPnP Function

-- --

2)

| Genera | al | | | | | | | | | |
|------------------|-----------------|-------------|----------|---|----------|------------|---------------|---------------|----------|-----------|
| ✓ Ena Interfa | able UP ice: | 'nP | | • | | | | | | |
| Sav | e | | | | | | | | | |
| UPnP P | ortma | p List | | | | | | | | |
| | | | | | | | | | 😑 Delete | 🕜 Refresh |
| | ID | Description | Protocol | I | nterface | IP Address | External Port | Internal Port | Status | Operation |

Follow these steps to configure UPnP function:

1) In the **General** section, enable the UPnP function and select the interface. Then click **Save.**

--

| Enable UPnP | Check the box to enable the UPnP function. | | | | | |
|-------------------|--|--|--|--|--|--|
| Interface | Select the interface for the UPnP function. | | | | | |
| (Optional) In the | e UPnP Portmap List section, view the portmap list. | | | | | |
| Description | Displays the description of the application using UPnP protocol. | | | | | |
| | | | | | | |

| Protocol | Displays the protocol type used in the process of UPnP. |
|---------------|--|
| Interface | Displays the interface used in the process of UPnP. |
| IP Address | Displays the IP address of the local host. |
| External Port | Displays the external port that is opened for the application by the router. |
| Internal Port | Displays the internal port that is opened for the application by the local host. |
| Status | Displays the status of the corresponding UPnP entry. |
| | Enabled: The mapping is active. |
| | Disabled: The mapping is inactive. |

4 Configuration Example for Dynamic DNS

4.1 Network Requirement

Host A gets internet services from an ISP (Internet Service Provider) via a PPPoE dial-up connection. The user wants to visit the router's web management interface using another host on the internet.

Figure 4-1 Network Topology



4.2 Configuration Scheme

For security management, the internet hosts attempting to manage the router must be permitted by the router. Remote Management is used to manage the IP addresses of these hosts.

Because the user uses PPPoE to access to the network, the public IP address of the router may be changed each time the dial-up connection is established. When the public IP address of the router changes, DDNS service ensures the DNS server rebinds the current domain name to the new IP address. This means the user can always reach the router using the same domain name, even if the public IP address has been changed.

4.3 Configuration Procedure

4.3.1 Specifying the IP Address of the Host

Before configuring DDNS, it is required to specify the IP address of the internet host for remote management. For details, go to **System Tools > Admin Setup > Remote Management** page.

4.3.2 Configuring the DDNS function

There are four DDNS servers supported by the router, we take Peanuthull DNS as an example here.

 Choose the menu Services > Dynamic DNS > Peanuthull and click Add to load the following page. Click Go to register to register a domain name on the official website of Peanuthull.

| Fiaure 4-2 | Registering a | Domain Name |
|------------|---------------|-------------|
| | | |

| Peanu | Peanuthull | | | | | | | | | | | |
|-------|--|--|--------|----------------|-------------------|----------|-------------------|-------------|--------------|-----------|--|--|
| Ad | | | | | | | | | | | | |
| | ID Interface Account I | | | lame L Ir | Jpdate nterval | Status | Service Status | Domain Name | Service Type | Operation | | |
| | | | | | | | | | | | | |
| | Interface: Account Name: Password: Update Interval: Status: OK Cancel | | Cancel | @ Enab | le | ▼ Got | <u>o register</u> | | | | | |

2) Set the Interface as WAN1, set the Update Interval as 6 hours, and enter the Account Name and Password previously registered before. Click **OK**.

Figure 4-3 Specifying Peanuthull DDNS Parameters

| Peanu | Peanuthull | | | | | | | | | | |
|-------|--|--|--------|---------------------------|----------|-------------------|-------------|--------------|-------------|--|--|
| | | | | | | | | A A | dd 😑 Delete | | |
| | ID Interface Account N | | | lame Update Interval | Status | Service Status | Domain Name | Service Type | Operation | | |
| | | | | | | | | | | | |
| | Interface: Account Name: Password: Update Interval: Status: OK Cancel | | Cancel | WAN1 6 hours Enable | ▼ Got | <u>o register</u> | | | | | |