

DHCP IPv6 relay agent profile configuration (PROFILE DHCPv6_RA)

- [profile dhcpv6-ra](#)
- [name](#)
- [description](#)
- [enable](#)
- [dos-block](#)
- [add-interface-id](#)
- [add-remote-id](#)
- [add-suboptions](#)
- [trusted \[primary|secondary\]](#)
- [trusted timeout](#)
- [trusted server](#)
- [show profile dhcpv6-ra](#)

In the **PROFILE DHCPv6_RA**, you can configure the DHCP relay agent profile parameters. After configuration, the DHCPv6 relay agent profile can be assigned to a specific PLC8 module with the **slot <id> profile dhcpv6-ra** command in the CONFIG command mode.

profile dhcpv6-ra

This command allows you to create a new DHCP relay agent profile and switch to its configuration mode.

The use of a negative form (no) of the command removes the profile.

Syntax

```
[no] profile dhcpv6-ra [<NAME>]
```

Parameters

<NAME> – profile name, case sensitive.

Command mode

CONFIG

Example

```
ma4000(config)# profile dhcpv6-ra test
ma4000(config-dhcpv6-ra)("test")#
```

name

The command changes the name of the configured profile.

The use of a negative form (no) of the command removes a name.

Syntax

```
[no] name <STRING>
```

Parameters

<STRING> – profile name.

Command mode

PROFILE DHCPV6_RA

Example

```
ma4000(config-dhcp-ra)("test")# name EL
```

description

The command allows you to add a description for the configured DHCPv6 relay agent profile.

The use of a negative form (no) of the command removes description.

Syntax

```
[no] description <STRING>
```

Parameters

<STRING> – text description.

Command mode

PROFILE DHCP_RA

Example

```
ma4000(config-dhcp-ra)("test")# description TEST
```

enable

This command enables DHCPv6 Relay (Option82).

The use of a negative form (no) of the command disables this feature.

Syntax

```
[no] enable
```

Parameters

The command contains no arguments.

Command mode

PROFILE DHCP_RA

Example

```
ma4000(config-dhcpv6-ra)("TEST")# enable
```

dos-block

This command enables DoS attack prevention.

The use of a negative form (no) of the command disables this feature.

Syntax

```
[no] set dos-block [packet-limit <LIMIT>|block-time <TIME>]
```

Parameters

packet-limit <LIMIT> – the command sets the DoS attack threshold (number of packets per second), where <LIMIT> – number of packets per second, may take values [10 .. 1000];

block-time <TIME> – the command sets the time to block the port when a DoS attack is detected, where <TIME> – blocking time, may take values [30 .. 3600] in seconds.

Command mode

PROFILE DHCP_RA

Example

```
ma4000(config-dhcp-ra)("TEST")# dos-block packet-limit 13 block-time 222
```

add-interface-id

This command sets the formats of Option 38 in DHCPv6.

The use of a negative form (no) of the command removes a specified value.

Syntax

```
[no] add-interface-id <STRING> <TEXT FORMAT>
```

Parameters

<STRING> – string up to 240 characters. Has the following form: PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_nameN=PARAM_N, where parameters (PARAM_1.. PARAM_N) are the following formats:

%HOSTNAME% – LTP device name;

%SLOTID% – MA4000 slot number;

%MNGIP% – management interface IP address;

%GPON-PORT% – optical channel identifier;

%ONTID% – ONT identifier, assigned by administrator;

%PONSERIAL% – ONT device serial number;

%GEMID% – GEM port identifier;

%VLAN0% – VLAN external identifier;

%VLAN1% – VLAN internal identifier;

%MAC% – subscriber device MAC address;

%DESCR% – first 20 characters of ONT configuration description.

The separators between parameters may be any characters, but each parameter FORMAT must be enclosed in '%'.

<TEXT FORMAT> – option presentation type:

- binary – binary;
- text – text.

Command mode

PROFILE DHCPV6_RA

Example

```
ma4000(config-dhcpv6-ra)("test")# add-interface-id host=%HOSTNAME%,ont=%ONTID%,slot=%SLOTID%
```

add-remote-id

This command sets the formats of Option 37 in DHCPv6.

The use of a negative form (no) of the command removes a specified value.

Syntax

```
[no] add-remote-id <STRING> <TEXT FORMAT>
```

Parameters

<STRING> – string up to 240 characters. Has the following form: PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_nameN=PARAM_N, where parameters (PARAM_1.. PARAM_N) are the following formats:

%HOSTNAME% – LTP device name;

%SLOTID% – MA4000 slot number;

%MNGIP% – management interface IP address;

%GPON-PORT% – optical channel identifier;

%ONTID% – ONT identifier, assigned by administrator;

%PONSERIAL% – ONT device serial number;

%GEMID% – GEM port identifier;

%VLAN0% – VLAN external identifier;

%VLAN1% – VLAN internal identifier;

%MAC% – subscriber device MAC address;

%DESCR% – first 20 characters of ONT configuration description.

The separators between parameters may be any characters, but each parameter FORMAT must be enclosed in '%'.

<TEXT FORMAT> – option presentation type:

- binary – binary;
- text – text.

Command mode

PROFILE DHCPV6_RA

Example

```
ma4000(config-dhcpv6-ra)("test")# add-remote-id host=%HOSTNAME%,ont=%ONTID%,slot=%SLOTID%
```

add-suboptions

This command enables adding a suboption to DHCPv6.

The use of a negative form (no) of the command disables suboptions adding.

Syntax

```
[no] add-suboptions
```

Parameters

The command contains no arguments.

Command mode

PROFILE DHCPV6_RA

Example

```
ma4000(config-dhcpv6-ra)("test")# add-suboptions
```

trusted [primary|secondary]

This command sets the IP addresses of the primary and secondary DHCP server.

The use of a negative form (no) of the command removes a specified value.

Syntax

```
[no] trusted primary <IP>  
[no] trusted secondary <IP>
```

Parameters

trusted primary <IP> – the command sets primary DHCP server IP address;

trusted secondary <IP> – the command sets secondary DHCP server IP address;

<IP> – IP address, defined as AAA.BBB.CCC.DDD where each part takes values of [0..255].

Command mode

PROFILE DHCP_RA

Example

```
ma4000(config-dhcpv6-ra)("test")# trusted primary 192.168.52.2
```

trusted timeout

This command sets the time of waiting for the response from the DHCPv6 server.

The use of a negative form (no) of the command removes a specified value.

Syntax

```
[no] trusted timeout <VALUE>
```

Parameters

<VALUE> – time period in seconds [200..1500].

Command mode

PROFILE DHCPV6_RA

Example

```
ma4000(config-dhcpv6-ra)("test")# trusted timeout 1000
```

trusted server

This command enables the use of trusted DHCPv6 servers.

The use of a negative form (no) of the command disables this feature.

Syntax

```
[no] trusted server
```

Parameters

The command contains no arguments.

Command mode

PROFILE DHCP_RA

Example

```
ma4000(config-dhcpv6-ra)("TEST")# trusted serve
```

show profile dhcpv6-ra

This command is used to view the created DHCPv6_RA profiles.

When you specify a profile name, you will see the settings of the configured profile:

- Description – profile description;

- Relay agent – DHCPv6 relay state (enabled/disabled);
- Interface id format – Option 38 format;
- Remote id format – Option 37 format;
- Write interface id option, Write remote id option – allow/deny adding suboptions;
- Dos block enabled – DoS attack protection (enabled/disabled);
- Bc packet per second – number of packets per second, at which the system registers DoS attack;
- Port block time – port blocking time on detection of DOS attack, seconds;
- Trusted server enable – allow/deny the use of trusted DHCP servers;
- Trusted primary – primary DHCP server address;
- Trusted secondary – secondary DHCP server address;
- Trusted server timeout – response time from DHCP server, seconds.

Syntax

```
show profile dhcpv6-ra [<NAME>]
```

Parameters

<NAME> – profile name, optional parameter.

Command mode

ROOT

Example 1

```
ma4000# show profile dhcpv6-ra test
Description:                               'OLT Profile DHCPv6 Relay Agent 1'
Relay agent:                               disabled
Interface id format:                       ''
Remote id format:                          '%DESCR%'
Write interface id option:                  true
Write remote id option:                    true
Dos block enabled:                         false
Bc packet per second:                      128
Port block time:                           600
Trusted server:                            disabled
Trusted primary:                           ::
Trusted secondary:                         ::
Trusted server timeout:                    1000
```

Example 2

```
ma4000# show profile dhcpv6-ra
##          Name      Description
1          dhcpv6-ra-00  OLT Profile DHCP Relay Agent 0
```