

# DHCP relay agent profile configuration (PROFILE DHCP\_RA)

- [profile dhcp-ra](#)
- [name](#)
- [description](#)
- [enable](#)
- [dos-block](#)
- [overwrite-option82](#)
- [trusted \[primary|secondary\]](#)
- [trusted timeout](#)
- [trusted server](#)
- [show profile dhcp-ra](#)
- [show interface gpon-port <GPON-PORT> dhcp sessions](#)

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

## profile dhcp-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 dhcp-ra [<NAME>]
```

### Parameters

<NAME> – profile name, case sensitive.

### Command mode

CONFIG

### Example

```
ma4000(config)# profile dhcp-ra test
ma4000(config-dhcp-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 DHCP\_RA

### Example

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

## description

The command allows you to add a description for the configured DHCP 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 DHCP relay (Option 82).

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-dhcp-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
```

## overwrite-option82

This command sets the formats of CircuitID and RemoteID fields for Option82.

Circuit ID – contains information about the port from which the request came to the DHCP repeater;

Remote ID – identifier of the DHCP repeater itself.

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

### Syntax

```
[no] overwrite-option82 <FORMAT> <STRING> <TEXT FORMAT>
```

### Parameters

<FORMAT> – configured field:

- circuit\_id\_format;
- remote\_id\_format

<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;

%OPT60% – string is extracted from DHCP option 60 of the incoming packet;

%OPT82\_CID% – DHCP option82 Circuit ID string is extracted from the incoming packet;

%OPT82 RID% – DHCP option82 Remote ID string is extracted from the incoming packet;

%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 DHCP\_RA

### Example

```
ma4000(config-dhcp-ra)("test")# circuit_id_format host=%HOSTNAME%,ont=%ONTID%, slot=%SLOTID%'
```

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-dhcp-ra)("test")# trusted primary 192.168.52.2
```

## trusted timeout

This command sets the time of waiting for the response from the DHCP 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 DHCP\_RA

### Example

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

## trusted server

This command enables the use of trusted DHCP 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-dhcp-ra)("TEST")# trusted server
```

## show profile dhcp-ra

This command is used to view the created DHCPRA profiles.

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

- Description – profile description;
- Relay agent – DHCP relay state (enabled/disabled);
- Circuit id format – Circuit id field mode for Option82 (text or binary);
- Remote id format – Remote id field mode for Option82 (text or binary);
- Overwrite client option82 – allow/deny the adding of information of Option 82, that was received from the client;
- 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 dhcp-ra [<NAME>]
```

### Parameters

<NAME> – profile name, optional parameter.

### Command mode

ROOT

### Example 1

```
ma4000# show profile dhcp-ra dhcp-ra-00
Description:                               'OLT Profile DHCP Relay Agent 0'
Relay agent:                               disabled
Circuit id format:                         ''
Remote id format:                          ''
Overwrite client option82:                 false
Dos block enabled:                         false
Bc packet per second:                      128
Port block time:                           600
Trusted server:                            disabled
Trusted primary:                           0.0.0.0
Trusted secondary:                         0.0.0.0
Trusted server timeout:                    1000
```

### Example 2

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

## show interface gpon-port <GPON-PORT> dhcp sessions

This command allows you to view currently active DHCP-sessions on PLC8 line cards.

DHCP Relay Agent should be enabled.

### Syntax

```
show interface gpon-port <GPON-PORT> pppoe sessions
```

### Parameters

<GPON-PORT> - gpon-port number in format of <SLOT>/<port>

<SLOT> – PLC8 module number, may take values (0..15). You may specify the list of numbers using comma ( , ) or specify the range using hyphen ( - );

<port> – GPON port number of PLC8 module.

### Command mode

ROOT

### Example

```
ma4000# show interface gpon-port 1/0 dhcp sessions
No active DHCP sessions
```