Maximum Receive Unit Configuration Support

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Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	• P-GW • SAE-GW • S-GW
Applicable Platform(s)	ASR 5500
Feature Default	Disabled - Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	• *Command Line Interface Reference* • *P-GW Administration Guide* • *SAEGW Administration Guide* • *S-GW Administration Guide*

Revision History

Revision Details	Release
First introduced.	21.24

Feature Description

Prior to MRU Configuration support, the Maximum Receive Unit (MRU) setting was equal to the Maximum Transmission Unit (MTU).

When the MTU of eNB on the S1-U interface was increased to 2000 bytes but no changes were made on the MTU on S1-U interface on SAE-GW, packets were received at SAE-GW with size more than 1500 bytes. This resulted into those packets getting dropped at the S1-U interface on the SAE-GW with **Lport_MRU_exceeded** exception. This was affecting UEs that were trying to set up IKE Tunnels.

This Configure MRU feature allows you to configure MRU separately from MTU.

How It Works

To handle MRU independently of MTU, changes are made in Network Processing Unit (NPU), NPUSIM, NPUMGR, and CLI.

Configuring the MRU Feature

This section describes how to configure the MRU of the IP interface along with MTU using the **ip mtu** keyword under interface configuration.

Configuring MRU

To configure the MTU and MRU in the Ethernet Interface Configuration mode, use the following sample configuration.

```
config
  context context_name
    interface interface_name broadcast
    ip mtu mtu_size [ mru mru_size ]
    end
```

NOTES:

- **ip mtu** *mtu_size*: Specify the MTU size. *mtu_size* must be an integer in the range of 5762048 bytes.
- **mru** *mru_size*: Specify the MRU size. *mru_size* must be an integer in the range of 5762048 bytes.
- Use the **no ip mtu** command to disable the MTU configuration.
- The maximum configurable value for MTU is 2048 bytes.. If MTU is not configured, the default value is 1500 bytes.
- MRU attribute is optional and when it is not configured, MRU is set to the same value as MTU.
- MRU optional attribute is not applicable to VPC-DI and VPC-SI platforms. This attribute is only visible on ASR 5500.
- On CUPS or ICUPS, the following error is displayed you when you try to configure MRU on an interface.

```
Failure: Configure MRU Feature is not supported when ICUPS/CUPS is
enabled!
```

- Although the product allows configuring asymmetric MTU and MRU values on the same interface is not advised as it may result into undesirable behavior on the network.

Configuring the MRU Feature when no MTU is specified

MTU = default MTU, MRU = default MTU

For example:

```
configure
   interface SGi-VLAN400
     logical-port-statistics
     ip address 172.26.96.3 255.255.255.248
     ipv6 address 2600:300:2030:1104::3/64 secondary
     bfd interval 300 min_rx 300 multiplier 3
     #exit
#exit
```

Configuring the MTU Feature when no MRU is specified

MRU = Configured MTU for backward compatibility. MRU = MTU = 1970 bytes.

For example:

```
configure
   interface SGi-VLAN400
     logical-port-statistics
     ip address 172.26.96.3 255.255.255.248
     ipv6 address 2600:300:2030:1104::3/64 secondary
     ip mtu 1970
     bfd interval 300 min_rx 300 multiplier 3
#exit
```

Configuring the MTU Feature when both MTU and MRU are specified

MTU = default MTU, MRU = default MTU

For example:

```
configure
   interface SGi-VLAN400
     logical-port-statistics
     ip address 172.26.96.3 255.255.255.248
     ipv6 address 2600:300:2030:1104::3/64 secondary
     ip mtu 1600 mru 1700
     bfd interval 300 min_rx 300 multiplier 3
#exit
```

Verifying the Configured MRU

The output of the is enhanced to display the configured MRU value.

For example:

```
[EPC2]26kl-chassis# config
[EPC2]26kl-chassis(config)# context EPC2
[EPC2]26kl-chassis(config-ctx)# interface TO-EPC2-SGW-INGRESS
[EPC2]26kl-chassis(config-if-eth)# ip mtu 1500 mru 1970
```

```
[EPC2]26kl-chassis(config-if-eth)# end
[EPC2]26kl-chassis# show ipv6 interface
Intf Name: TO-EPC1-SGW-INGRESS
Intf Type: Broadcast
Description:
VRF: None
IP State: UP (Bound to 5/20 vlan id 190, 802.1P prior 0, ifIndex 85196802)
Router Advertisement: disabled MTU: 1500 MRU: 1970
IPv6 Link-Local Address: fe80::d272:dcff:fea3:8543/64
IPv6 Global Unicast Address: 2001::1:21/64
L3 monitor LC-port switchover: Disabled
Number of Secondary Addresses: 5
IPv6 Address: 2001::1:31/64
IPv6 Address: 2001::1:205/64
IP Address: 10.10.10.21 Subnet Mask: 255.255.255.0
IP Address: 10.10.10.31 Subnet Mask: 255.255.255.0
IP Address: 10.10.10.200 Subnet Mask: 255.255.255.0
```

NOTES:

- Use the **show ipv6 interface** command to verify if the Configurable MTU configuration is enabled or disabled.
- **no ip mtu**: Disables the Configurable MTU configuration.