



CCSP Bridge MTU Kernel Module Command Syntax Specification

Modification History

Revision	Date	Comments
1	09/30/2014	First Draft

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1 Introduction

The MTU size needs to be modified for the Hotspot GRE bridge traffic. This is done by the kernel module brMtuMod.ko.

The kernel module is installed at this proc file system entry : /proc/net/mtu_mod. It is used by the Utopia handle_gre.sh script. This specification defines the syntax of this kernel module usage.

2 Design Considerations

This kernel module is used to limit the MTU size for traffic going through a certain bridge to the GRE gateway.

3 Command Syntax

3.1 General

The kernel module is used by echoing certain commands to the proc file system node /proc/net/mtu_mod.

For example, the Utopia handle_gre.sh script issues this command:

```
echo add br=$br mtu=$MTU_VAL icmp=y segment=y gw=$2 > /proc/net/mtu_mod
```

The different available command syntax are:

Commands:

add – add a bridge node to monitor/modify the mtu size (bridgeName, segmentFlag, icmpFlag, mtuSize, gwIp)

del – del a bridge node to stop monitor/modify the mtu size (bridgeName)

update – update a bridge node to monitor/modify the mtu size (bridgeName, segmentFlag, icmpFlag, mtuSize, gwIp)

show – show the bridge node information with bridgeName

Parameters:

br=\$br

- specify the name of the bridge (\$br) to be processed

segment=y

- specify whether to segment the oversized packet or not
- can use “segment=y” or “segment=Y”

icmp=y

- specify whether to send back an icmp message or not
- can use “icmp=y” or “icmp=Y”

mtu=\$MTU_VAL

- specify the limitation size of the mtu (\$MTU_VAL)
- in the handle_gre.sh script, the \$MTU_VAL is hardcoded as 1360

gw=\$2

- the ip address of the gateway
- for example, the \$2 string can be something like “68.85.15.238”

3.2 Commands

The syntax is:

```
echo add br=$br mtu=$MTU_VAL icmp=y segment=y gw=$2 > /proc/net/mtu_mod
```

This command adds a combination node to be monitored for the traffic that:

- goes through the bridge of name \$br
- is limited to the mtu size of \$MTU_VAL
- will generate an icmp back to the source ip address
- will segment the packet
- for traffic that goes between gateway of ip address \$2

4 References

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