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Storm Control Configuration Guide

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Contact Information

Technical Assistance Center

The Raisecom TAC is available to all customers who need technical assistance with a Raisecom product, technology, or, solution. You can communicate with us through the following methods:

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World Wide Web

You can access the most current Raisecom product information on the World Wide Web at the following URL:

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Feedback

Comments and questions about how the ... system software works are welcomed. Please review the FAQ in the related manual, and if your question is not covered, send email by using the following web page:

<http://www.raisecom.com/en/xcontactus/contactus.htm>.

If you have comments on the ... specification, instead of the web page above, please send comments to:

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We hope to hear from you!

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Release Notes

Date of Release	Manual Version	Software Version	Revisions

Preface

About This Manual

This manual introduces primary functions of the configuration management software for RC series products.

Who Should Read This Manual

This manual is a valuable reference for sales and marketing staff, after service staff and telecommunication network designers. For those who want to have an overview of the features, applications, structure and specifications of ... device, this is also a recommended document.

Relevant Manuals

《Raisecom NView System User Manual》

《Raisecom Nview System Installation and Deployment Manual》

《... User Manual》

《... Commands Notebook》

Organization

This manual is an introduction of the main functions of ... EMS. To have a quick grasp of the using of the EMS of ... , please read this manual carefully. The manual is composed of the following chapters

Chapter 1 Overview

This chapter briefly introduces the basic function of ...

Chapter 2 Configuration Management

This chapter mainly introduces the central site configuration management function of the

Chapter 3 Performance Management

This chapter focuses on performance management function of

Chapter 4 Device Maintenance Management

This chapter introduces the device maintenance management function of

Appendix A Alarm Type

The alarm types supported by

Compliance

The RC series products developed by Raisecom are strictly complied with the following standards as well as ITU-T, IEEE, IETF and related standards from other international telecommunication standard organizations:

YD/T900-1997 SDH Equipment Technical Requirements - Clock

YD/T973-1998 SDH 155Mb/s and 622Mb/s Technical conditions of optical transmitter module and receiver module

YD/T1017-1999 Network node interface for the Synchronous Digital Hierarchy (SDH)

YD/T1022-1999 Requirement of synchronous digital hierarchy (SDH) equipment function

YD/T1078-2000 SDH Transmission Network Technique Requirements-Interworking of Network Protection Architectures

YD/T1111.1-2001 Technical Requirements of SDH Optical Transmitter/Optical Receiver Modules——2.488320 Gb/s Optical Receiver Modules

YD/T1111.2- 2001 Technical Requirements of SHD Optical Transmitter/Optical Receiver Modules——2.488320 Gb/s Optical Transmitter Modules

YD/T1179- 2002 Technical Specification of Ethernet over SDH

G.703 Physical/electrical characteristics of hierarchical digital interfaces

G.704 Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels

G.707 Network node interface for the synchronous digital hierarchy (SDH)

G.774 Synchronous digital hierarchy (SDH) - Management information model for the network element view

G.781 Synchronization layer functions

G.783 Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks

G.784 Synchronous digital hierarchy (SDH) management

G.803 Architecture of transport networks based on the synchronous digital hierarchy (SDH)

G.813 Timing characteristics of SDH equipment slave clocks (SEC)

G.823 The control of jitter and wander within digital networks which are based on the 2048 kbit/s hierarchy

G.825 The control of jitter and wander within digital networks which are based on the synchronous digital hierarchy (SDH)

G.826 End-to-end error performance parameters and objectives for international, constant bit-rate digital paths and connections

G.828 Error performance parameters and objectives for international, constant bit-rate synchronous digital paths

G.829 Error performance events for SDH multiplex and regenerator sections

G.831 Management capabilities of transport networks based on the synchronous digital hierarchy (SDH)

G.841 Types and characteristics of SDH network protection architectures

G.842 Interworking of SDH network protection architectures

G.957 Optical interfaces for equipments and systems relating to the synchronous digital hierarchy

G.691 Optical interfaces for single channel STM-64 and other SDH systems with optical amplifiers

G.664 Optical safety procedures and requirements for optical transport systems

I.731 ATM Types and general characteristics of ATM equipment

I.732 ATM Functional characteristics of ATM equipment

IEEE 802.1Q Virtual Local Area Networks (LANs)

IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering

IEEE 802.3 CSMA/CD Access Method and Physical Layer Instruction

Chapter 8 Storm Control Configuration Guide

8.1 Storm control introduction

A packet storm occurs when a large number of broadcast, unicast, or DLF packets are received on a port. Forwarding these packets can cause the network to slow down or to time out. Storm control is configured for the switch as a whole but operates on a per-port basis. By default, storm control is enabled.

8.2 The default configuration for storm control function

By default, storm control is enabled for unicast DLF packets, broadcast packets and multicast packets.

8.3 Storm control function configuration

8.3.1 Enable/disable storm control function

The configuration is to enable/disable storm control

Step	Command	Description
1	config	Global configuration mode
2	storm-cont rol {broadcast multicast dlf all} {enable disable}	Enable/disable broadcast packet, multicast packet and DLF packet Broadcast DLF broadcast packet Multicast DLF multicast packet Dlf DLF packet All broadcast, multicast and DLF unicast packets.
3	exit	Quit global configuration mode and enter privileged EXEC mode
4	show storm-cont rol	Show storm control state

8.3.2 Storm control number

Configure storm control threshold, unit is kbps (kbit per second).

Step	Command	Description
------	---------	-------------

1	config	Enter global configuration mode
2	storm-cont rol bps <i>value</i>	Set storm control threshold. Value stands for the kbit number that is allowed to pass per second, range can be found on the command manual.
3	exit	Quit global configuration mode and enter privileged EXEC mode.
4	show storm-cont rol	Show storm control state.

Configure storm control threshold, unit is pps (packet per second).

Step	Command	Description
1	config	Enter global configuration mode
2	storm-cont rol pps <i>value</i>	Set storm control threshold. Value the storm packet number that is allowed to pass per second, range is 0-262143.
3	exit	Quit global configuration mode and enter privileged EXEC mode.
4	show storm-cont rol	Show storm control state.

Set storm control threshold for broadcast, multicast and DLF packets, unit is %

Step	Command	Description
1	config	Enter global configuration mode
2	storm-cont rol ratio <i><1-100></i> <i>[<0-512></i> <i>]</i>	Set storm control threshold for broadcast, multicast and DLF packets, unit is % 1-100 the bandwidth proportion of the storm packet 0-512 burst value, unit is Kbps;
3	exit	Quit global configuration mode and enter privileged EXEC mode.
4	show	Show storm control state.

storm-cont**rol**

8.4 Monitoring and maintaining

Command	Description
show storm-control	Show storm control state

8.5 Typical configuration example

Example 1: disable storm control to broadcast packet

```
Raisecom#config
```

```
Raisecom(config)# storm-control broadcast disable
```

```
Raisecom(config)#exit
```

```
Raisecom#show storm-control
```

Broadcast: Disable

Multicast: Enable

Unicast destination lookup failed(DLF): Enable

Threshold: 1024 pps

Example 2: set storm control threshold value to 200kbps

```
Raisecom#config
```

```
Raisecom(config)# storm-control bps 200
```

```
Raisecom(config)#exit
```

```
Raisecom#show storm-control
```

Broadcast: Disable

Multicast: Enable

Unicast destination lookup failed(DLF): Enable

Threshold: 200 Kbps

Example 3: set storm control threshold to 2000.

```
Raisecom#config
```

```
Raisecom(config)# storm-control bps 2000
```

```
Raisecom(config)#exit
```

```
Raisecom#show storm-control
```

Broadcast: Disable

Multicast: Enable

Unicast destination lookup failed(DLF): Enable

Threshold: 2000 pps



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