CHAPTER **3**

Configuring Dying Gasp

This chapter describes the Dying-Gasp feature for the Supported Hardware, which enables the systems to send *dying gasp* messages through SNMP, syslog, or Ethernet-OAM (Operations Administration and Maintenance) to report the abrupt loss of power to the host platform.

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Supported Hardware

Feature	Hardware	Minimum Software Release	Related Documentation
Dying Gasp	Cisco CGR 2010	Cisco IOS Release 15.2(3)T	Cisco Connected Grid Router Software Configuration Guide
	Cisco CGS 2520	Cisco IOS Release 15.0(2)ED	Release Notes for Cisco IOS Release 15.0(2)ED

Information About Dying Gasp

Dying Gasp resides on a hardware component on the High-performance WAN Interface Card (HWIC) and supports the Fast Ethernet and Gigabit Ethernet interfaces. The networking devices rely on a temporary back-up power supply on a capacitor, that allows for a graceful shutdown and the generation of the dying-gasp message. This temporary power supply is designed to last from 10 to 20 milliseconds to perform these tasks.

Dying-Gasp packets are created when you configure the host by using the **dying-gasp** configuration command. The **show dying-gasp packets** command displays the detailed information about the created packets.

The SNMP server for the SNMP Dying Gasp message is specified through the **snmp-server host** configuration command. The syslog server sending the syslog Dying Gasp message is specified through the **logging host hostname-or-ipaddress transport udp** command. The Ethernet-OAM Dying Gasp packets are created for interfaces where Ethernet-OAM is enabled.

Dying Gasp packets can be sent to a maximum number of 5 servers for each notification type.

Configuring Dying Gasp

To enable dying-gasp notification through syslog, SNMP trap, or Ethernet OAM, use the **dying-gasp** command:

Command Syntax	Description
dying-gasp primary {**syslog** | **snmp-trap** | **ethernet-oam**} **secondary** {**syslog** | **snmp-trap** | **ethernet-oam**}	• **dying-gasp**—Dying Gasp configuration command • **primary**—Dying Gasp primary notification • **secondary**—Dying Gasp secondary notification • **ethernet-oam**—Enable Ethernet OAM notification • **snmp-trap**—Enable trap notification sent to SNMP server • **syslog**—Enable system logger

Verifying Dying Gasp Configuration

The following are descriptions of the **show dying-gasp** command keywords:

Command Syntax	Description
show dying-gasp {**status** | **packets** [**snmp-trap** | **syslog** | **ethernet-oam**]}	• **dying-gasp**—Dying Gasp information • **status**—Dying Gasp configuration status • **packets**—Detailed information about the created packets • **snmp-trap**—Dying Gasp SNMP trap information • **syslog**—Dying Gasp Syslog message information • **ethernet-oam**—Dying Gasp Ethernet OAM message information

show dying-gasp Output Examples

The following is sample output for the **show dying-gasp status** command on a CGR 2010:

```
Router# show dying-gasp status
Dying Gasp Configuration
SNMP Trap Enabled
Syslog Enabled
Ethernet OAM Disabled
```

The following is sample output for the **show dying-gasp status** command on a CGS 2520:

```
Switch# show dying-gasp status
Dying Gasp Configuration
SNMP Trap Enabled (secondary)
Syslog Enabled (primary)
Ethernet OAM Disabled
Switch#
```

The following is sample output for the **show dying-gasp packets snmp-trap** command:

```
Router# show dying-gasp packets snmp-trap
SNMP Trap packet for server 3.1.1.2, link type IP
Interface, via GigabitEthernet0/0, local IP address 10.2.2.9
Encap type is ARPA, local hardware address 0022.bdd4.2f48
Next hop IP address 10.2.2.8, next hop hardware address 0000.0c07.ac09

SNMP Trap packet for server 3.1.1.4, link type IP
Interface, via GigabitEthernet0/1, local IP address 20.2.2.7
Encap type is ARPA, local hardware address 0012.001a.2f08
Next hop IP address 20.2.2.8, next hop hardware address 0cd0.0c02.ac10
```

debug dying-gasp

To turn on debugging for dying gasp, issue the **debug dying-gasp** command:

Command Syntax	Description
debug dying-gasp	**dying-gasp**—Dying Gasp debug information