



Dying Gasp Support for Loss of Power Supply via SNMP, Syslog and Ethernet OAM

Dying Gasp—One of the following unrecoverable condition has occurred:

- Interface error-disable
- Reload
- Power failure or removal of power supply cable

This type of condition is vendor specific. An Ethernet Operations, Administration, and Maintenance (OAM) notification about the condition may be sent immediately.

- [Prerequisites for Dying Gasp Support, page 1](#)
- [Restrictions for Dying Gasp Support, page 1](#)
- [Configuration Examples for Dying Gasp Support, page 2](#)
- [Dying Gasp Trap Support for Different SNMP Server Host/Port Configurations, page 2](#)
- [Message Displayed on the Peer Router on Receiving Dying Gasp Notification, page 3](#)
- [Displaying SNMP Configuration for Receiving Dying Gasp Notification, page 4](#)

Prerequisites for Dying Gasp Support

You must enable Ethernet OAM before configuring Simple Network Management Protocol (SNMP) for dying gasp feature. For more information, see [Enabling Ethernet OAM on an Interface](#).

Restrictions for Dying Gasp Support

- The dying gasp feature is not supported if you remove the power supply unit (PSU) from the system.
- SNMP trap is sent only on power failure or removal of power supply cable.
- The dying gasp support feature cannot be configured using CLI. To configure hosts using SNMP, refer to the SNMP host configuration examples below.

Configuration Examples for Dying Gasp Support

Configuring SNMP Community Strings on a Router

Setting up the community access string to permit access to the SNMP:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server community public RW
Router(config)# exit
```

For more information on command syntax and examples, refer to the Cisco IOS Network Management Command Reference.

Configuring SNMP-Server Host Details on the Router Console

Specifying the recipient of a SNMP notification operation:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server host X.X.X.XXX vrf mgmt-intf version 2c public udp-port 9800
Router(config)# exit
```

For more information on command syntax and examples, refer to the Cisco IOS Network Management Command Reference.

Dying Gasp Trap Support for Different SNMP Server Host/Port Configurations



Note You can configure up to five different SNMP server host/port configurations.

Environmental Settings on the Network Management Server

```
setenv SR_TRAP_TEST_PORT=UDP port
setenv SR_UTIL_COMMUNITY=public
setenv SR_UTIL_SNMP_VERSION=v2c
setenv SR_MGR_CONF_DIR=Path to the executable snmpinfo.DAT file
```

The following example shows SNMP trap configuration on three hosts:

Configuration example for the first host:

```
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)# snmp-server host 7.0.0.149 vrf Mgmt-intf version 2c public udp-port 6264
Configuration example for the second host:
Router(config)#
```

```
Router(config)# snmp-server host 7.0.0.152 vrf Mgmt-intf version 2c public udp-port 9988
Configuration example for the third host:
Router(config)# snmp-server host 7.0.0.166 vrf Mgmt-intf version 2c public udp-port 9800
Router(config)#
Router(config)# ^Z
Router#
```

After performing a power cycle, the following output is displayed on the router console:

```
Router#
System Bootstrap, Version 15.3(2r)S, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2012 by Cisco Systems, Inc.
Compiled Wed 17-Oct-12 15:00
Current image running: Boot ROM1
Last reset cause: PowerOn
UEA platform with 2097152 Kbytes of main memory
rommon 1 >
=====
Dying Gasp Trap Received for the Power failure event:
-----
      Trap on Host1
      ++++++
      snmp-server host = 7.0.0.149 (nms1-lnx) and SR_TRAP_TEST_PORT=6264
      /auto/sw/packages/snmp/15.4.1.9/bin> /auto/sw/packages/snmp/15.4.1.9/bin/traprcv
      Waiting for traps.
      Received SNMPv2c Trap:
      Community: public
      From: 7.29.25.101
      snmpTrapOID.0 = ciscoMgmt.305.1.3.5.0.2
      ciscoMgmt.305.1.3.6 = Dying Gasp - Shutdown due to power loss
      -----
      Trap on Host2
      ++++++
      snmp-server host = 7.0.0.152 (nms2-lnx) and SR_TRAP_TEST_PORT=9988
      /auto/sw/packages/snmp/15.4.1.9/bin> /auto/sw/packages/snmp/15.4.1.9/bin/traprcv
      Waiting for traps.
      Received SNMPv2c Trap:
      Community: public
      From: 7.29.25.101
      snmpTrapOID.0 = ciscoMgmt.305.1.3.5.0.2
      ciscoMgmt.305.1.3.6 = Dying Gasp - Shutdown due to power loss
      -----
      Trap on Host3
      ++++++
      snmp-server host = 7.0.0.166 (erbusnmp-dc-lnx) and SR_TRAP_TEST_PORT=9800
      /auto/sw/packages/snmp/15.4.1.9/bin> /auto/sw/packages/snmp/15.4.1.9/bin/traprcv
      Waiting for traps.
      Received SNMPv2c Trap:
      Community: public
      From: 7.29.25.101
      snmpTrapOID.0 = ciscoMgmt.305.1.3.5.0.2
      ciscoMgmt.305.1.3.6 = Dying Gasp - Shutdown due to power loss
```

Message Displayed on the Peer Router on Receiving Dying Gasp Notification

```
001689: *May 30 14:16:47.746 IST: %ETHERNET_OAM-6-RFI: The client on interface Gi4/2 has
received a remote failure indication from its remote peer(failure reason = remote client
power failure action = )
```

Displaying SNMP Configuration for Receiving Dying Gasp Notification

Use the show running-config command to display the SNMP configuration for receiving dying gasp notification:

```
Router# show running-config | i snmp
snmp-server community public RW
snmp-server host 7.0.0.149 vrf Mgmt-intf version 2c public udp-port 6264
snmp-server host 7.0.0.152 vrf Mgmt-intf version 2c public udp-port 9988
snmp-server host 7.0.0.166 vrf Mgmt-intf version 2c public udp-port 9800
Router#
```