



## Monitoring GSS Operation

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The GSS software includes a number of tools for monitoring the operating status of the GSS devices on your GSS network. These tools include CLI-based commands and the primary GSSM GUI pages that display the status of your GSSs, GSSMs (primary and standby), and the GSSM database.

This chapter contains the following major sections:

- [Monitoring GSS and GSSM Status](#)
- [Monitoring GSSM Database Status](#)
- [Viewing the GSS Operating Configuration for Technical Support](#)



### Note

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You can use the **show statistics** CLI command to display content routing and load balancing statistics for each component of your GSS global server load balancing operation: Boomerang (CRAs), DNS, DNS sticky, network proximity, and keepalives. Refer to the *Cisco Global Server Load-Balancing Configuration Guide* for details on displaying statistics using the **show statistics** command.

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# Monitoring GSS and GSSM Status

From the CLI of each GSS device, you can monitor the following:

- Online status and resource usage of the individual GSS subsystems (servers) by using the **gss status** command.
- The current operating status of your GSS device, including the online status, current software version, and start date or time for the individual GSS subsystems by using the **show system-status** command

From the primary GSSM GUI, you can monitor the status of the GSS devices in your GSS network, including online status, software version, current device role network address, hostname, and MAC address of each device.

This section includes the following procedures:

- [Monitoring GSS Device Online Status from the CLI](#)
- [Monitoring GSS Device System Status from the CLI](#)
- [Monitoring GSS Device Status from the Primary GSSM GUI](#)

## Monitoring GSS Device Online Status from the CLI

To monitor the status and resource usage of a GSS device from the CLI:

1. Log in to the CLI of a GSS device and enable privileged EXEC mode.

```
gss1.example.com> enable
gss1.example.com#
```

2. Enter the **gss status** CLI command to display the current running status of the GSS device.

```
gss1.example.com# gss status
Cisco GSS - 1.2(1) - Development build GSSM - primary [Tue Jun 17
14:27:40 UTC 2003]
```

```
Normal Operation [runmode = 5]
```

```
START SERVER
Jul09 Boomerang
Jul09 Config Agent (crdirector)
Jul09 Config Server (crm)
Jul09 DNS Server
Jul09 Database
Jul09 GUI Server (tomcat)
```

```
Jul09 Keepalive Engine
Jul09 Node Manager
Jul09 Proximity
Jul09 Sticky
Jul09 Web Server (apache)
```

3. Enter the **gss status verbose** command to include statistics about CPU utilization when displaying information on the current operating state of the GSS device.

```
gss1.example.com# gss status verbose
Cisco GSS - 1.2(1) - Development build GSSM - primary [Tue Jun 17
11:56:26 UTC 2003]
```

```
Normal Operation [runmode = 5]
```

```
%CPU  START  SERVER
 0.0  11:55  Boomerang
 0.0  11:55  Config Agent (crdirector)
 0.0  11:55  Config Server (crm)
 0.0  11:55  DNS Server
 0.0  11:55  Database
 0.0  11:55  GUI Server (tomcat)
 0.0  11:55  Keepalive Engine
 0.0  02:58  Node Manager
 0.0  02:58  Proximity
 0.0  02:58  Sticky
 0.0  11:55  Web Server (apache)
```

## Monitoring GSS Device System Status from the CLI

To monitor the current operating status of a GSS device from the CLI:

1. Log in to the CLI of a GSS device and enable privileged EXEC mode.

```
gss1.example.com> enable
gss1.example.com#
```

2. Enter the **show system-status** CLI command to display the current running status of the GSS device.




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**Note** The equivalent CLI command is **gss status**.

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For example:

```
gssm1.example.com# show system-status
Cisco GSS - 1.2(1) GSS Manager - primary [Tue Sep 16 16:37:37 UTC
2003]
```

```
Normal Operation [runmode = 5]
```

```
START SERVER
Jul09 Boomerang
Jul09 Config Agent (crdirector)
Jul09 Config Server (crm)
Jul09 DNS Server
Jul09 Database
Jul09 GUI Server (tomcat)
Jul09 Keepalive Engine
Jul09 Node Manager
Jul09 Proximity
Jul09 Sticky
Jul09 Web Server (apache)
```

## Monitoring GSS Device Status from the Primary GSSM GUI

To monitor the status of GSS devices from the primary GSSM GUI:

1. From the primary GSSM GUI, click the **Resources** tab.
2. Click the **Global Site Selectors** navigation link. The Global Site Selector list page appears displaying the status, role, and IP address of each GSS in the network.
3. Click the **Modify GSS** icon for the GSS or GSSM to monitor. The Global Site Selectors details page appears, displaying configuration and status information about the device at the bottom of the page. The device type (GSS or GSSM) appears in the Node Services column.

Displayed information includes:

- **Status**—Online or offline
  - **Version**—Software version currently loaded on the device
  - **Node services**—Current role of the device (GSS, primary or standby GSSM, or both)
  - **IP address**—Network address of the device
  - **Hostname**—Network host name of the device
  - **MAC**—Machine address of the device
4. Click **Cancel** to return to the Global Site Selectors list page.

## Monitoring GSSM Database Status

The GSS software includes a number of CLI commands to monitor the status of the GSSM database and its contents. This section includes the following procedures:

- [Monitoring the Database Status](#)
- [Validating Database Records](#)
- [Creating a Database Validation Report](#)

## Monitoring the Database Status

To verify that the database running on the primary GSSM is functioning properly:

1. Log in to the CLI of the primary GSSM and enable privileged EXEC mode.

```
gssm1.example.com> enable
gssm1.example.com#
```

2. Enter the **gssm database status** command to display the operating status of the GSSM database.

```
gssm1.example.com# gssm database status
GSSM database is running.
```

## Validating Database Records

To validate the records in your GSSM database:

1. Log in to the CLI of the primary GSSM and enable privileged EXEC mode.

```
gssm1.example.com> enable
gssm1.example.com#
```

2. Enter the **gssm database validate** command to validate the content of your GSSM database.

```
gssm1.example.com# gssm database validate
GSSM database passed validation.
```

## Creating a Database Validation Report

If you encounter problems while validating your GSSM database, generate a report, called `validation.log`, that details which database records failed validation. The **gssm database report** command constructs a list of invalid records in the GSSM database and writes the results to `validation.log` in the `/home` directory.

To generate a database validation report:

1. Log in to the CLI of the primary GSSM and enable privileged EXEC mode.

```
gssm1.example.com> enable
gssm1.example.com#
```

2. Enter the **gssm database report** command to generate a validation report on the content of your GSSM database.

```
gss1.example.com# gssm database report
GSSM database validation report written to validation.log.
```

3. Enter the **type** command to view the contents of your validation report.

```
gss1.example.com# type validation.log
validation.log
Start logging at Thu Aug 28 19:17:21 GMT+00:00 2003

- storeAdmin Validating ... Thu Aug 28 19:17:23 GMT+00:00 2003 -
- ObjectId  Object_Name.Field_Name  Description -
Validating FactoryInfo
Validating answerElement
Validating answerGroup
    70  answerGroup.OwnerId  Many-To-One List
```

```
Validating CachingConfig
Validating ClusterConfig
Validating CmdControl
Validating CmdPurgeRD
Validating CmdUpdate
Validating ConfigProperty
Validating Customer
Validating DistTree
Validating DnsRule
Validating DomainElement
Validating DomainGroup
Validating ENodeConfig
Validating ENodeStatus
Validating KeepAliveConfig
Validating KeepAlive
Validating Location
Validating OrderedanswerGroup
Validating Owner
Validating Region
Validating RequestHandler
Validating RoutedDomain
Validating RoutingConfig
Validating RrConfig
Validating RrStatus
Validating SNodeConfig
Validating SourceAddressElement
Validating SourceAddressGroup
Validating SpInfo
Validating SystemConfig
Validating UpdateInfo
Validating UserConfig
Validating VirtualCDN
Validating WlpanswerElement
Validating User Validations
End of file validation.log
```

# Viewing the GSS Operating Configuration for Technical Support

The GSS software includes two CLI commands to assist a Cisco Technical Assistance Center (TAC) representative in troubleshooting potential problems on your GSS network. Use the following CLI commands:

- **show tech-support [config | core-files]**—Displays a report on the current operating configuration of your GSS device that can be used by a Cisco TAC representative in troubleshooting problems on your GSS network. The **config** option exports the output of all configured fields from the primary GSSM GUI.
- **gss tech-report filename** —Generates a detailed report for use by a Cisco TAC representative in troubleshooting persistent GSS problems. The file generated is a compressed tar- format archive file with a .tgz extension. The *filename* variable identifies a user-assigned name for the report generated by the **gss tech-report** command.

For example, to display an operating configuration report for your GSS device, enter the **show tech-support** command:

```
gssm1.example.com(config)#show tech-support
Cisco GSS - 1.2(1.0.2) - host-gss GSS software GSSM - standby [[Tue
Sep 16 16:39:09 UTC 2003]
```

```
Registered to primary GSSM: 10.86.209.252
```

```
Normal Operation [runmode = 5]
START SERVER
Sep15 Boomerang
Sep15 Config Agent (crdirector)
Sep15 Config Server (crm)
Sep15 DNS Server
Sep15 Database
Sep15 GUI Server (tomcat)
Sep15 Keepalive Engine
Sep15 Node Manager
Sep15 Web Server (apache)
*** clock ***
System time: Tue Sep 16 16:41:24 UTC 2003
*** uptime ***
Uptime: 22 Hours 41 Minutes and 48 seconds
*** running-config ***
interface ethernet 0
```



```
ip address 10.86.209.220 255.255.254.0
gss-communications
interface ethernet 1
ip address 192.168.1.25 255.255.255.0
gss-tcp-keepalives
...
```

To export the output of all configured fields from the primary GSSM GUI, enter the **show tech-support config** command:

```
gssm1.example.com(config)#show tech-support config
GUI Configuration Export:
Tue Sep 16 16:46:24 GMT+00:00 2003
Global Site Selectors:
  GSS1:
    Global Site Selector: charon.cisco.com
    Status: Online
    Node Services: GSS
    IP Address: 192.168.209.224
    Location:
    Region:
  GSS2:
    Global Site Selector: geryon.cisco.com
    Status: Online
    Node Services: GSS
    IP Address: 192.168.209.225
    Location:
    Region:
  GSS3:
    Global Site Selector: ladon.cisco.com
    Status: Online
    Node Services: GSS; Standby GSSM
    IP Address: 192.168.209.222
    Location:
    Region:
  GSS4:
    Global Site Selector: icarus.cisco.com
    Status: Online
    Node Services: GSS
    IP Address: 192.168.209.221
    Location:
    Region:
DNS Rules:
  Rule1:
    Name: ECommerce
    Source Address List: Anywhere
    Domain List: ECommerce
    Owner: ECommerce-Database
```

```

Status: Active
Match DNS Query Type: A record
Answer Group 1: Database-Services
Balance Method 1: Hashed
Balance Clause Options 1: DNS TTL: 20; Return Record Count: 1;
Answer Group 2:
Balance Method 2:
Balance Clause Options 2:
Answer Group 3:
Balance Method 3:
Balance Clause Options 3:
...

```

To display a listing of all core files useful to Cisco TAC, enter the **show tech-support config** command:

```

gssm1.example.com(config)#show tech-support core-files
/core-files/dataserver/core-dataserver-Tue-May-25-17.03.30
462848Bytes
/core-files/dnsserver/core-dnsserver-Wed-Jun-16-17.49.57
14311424Bytes
/core-files/dnsserver/core-dnsserver-Wed-Jun-16-22.08.10
14835712Bytes
/core-files/dnsserver/core-dnsserver-Wed-Jun-16-16.49.08
14315520Bytes
/core-files/dnsserver/core-dnsserver-Wed-Jun-16-21.04.11
14315520Bytes
/core-files/dnsserver/core-dnsserver-Wed-Jun-16-22.09.57
14835712Bytes
/core-files/keepalive/core-keepalive-Wed-Jun-23-14.40.13
22618112Bytes
/core-files/explorer/core-explorer-Tue-Jun-22-15.47.59 11173888Bytes
/core-files/explorer/core-explorer-Tue-Jun-22-15.47.40 11169792Bytes
/core-files/explorer/core-explorer-Tue-Jun-22-15.47.52 11169792Bytes
/core-files/explorer/core-explorer-Tue-Jun-22-15.47.34 11165696Bytes
/core-files/explorer/core-explorer-Tue-Jun-22-15.47.46 11169792Bytes
/core-files/sticky/core-sticky-Wed-Jun-16-22.07.23 21270528Bytes
/core-files/sticky/core-sticky-Wed-Jun-16-17.48.00 21262336Bytes
/core-files/sticky/core-sticky-Wed-Jun-16-21.02.50 21262336Bytes

```

To generate a detailed report for use by a Cisco TAC representative in troubleshooting GSS problems, enter the **gss tech-report** command:

```

gssm1.example.com#gss tech-report GSS_TAC_Rpt1
Creating report for Cisco TAC. This may take a few minutes...
Created debug package: /home/GSS_TAC_Rpt1.tgz
Use scp/ftp to retrieve.
gssm1.example.com#

```