

# Interface Configuration Mode Commands

This section describes the commands in interface configuration mode. Interface configuration mode allows you to configure a GSS Ethernet interface. The GSS comes with one integrated dual-port Ethernet controller. This controller provides an interface for connecting to 10-Mbps, 100-Mbps, or 1000-Mbps networks.

To access the interface configuration mode, use the **interface ethernet** command in global configuration mode. The CLI prompt changes to (config-eth*n*), where *n* is 0 or 1 as follows:

```
gssm1.example.com(config)# interface ethernet 0
gssm1.example.com(config-eth0)#
```

In global configuration mode, you can also use the **interface ethernet** command with an option to perform its corresponding Ethernet interface configuration function as follows:

```
gss1.example.com(config)# interface ethernet 1 speed auto
gssm1.example.com(config-eth1)#
```

**interface ethernet {0 | 1} {autosense | duplex {auto | full | half} | ip address {ip-address netmask} | no | gss-communications | gss-tcp-keepalives | shutdown | speed {mbits | auto}}**

Syntax Description		
<b>ethernet</b>		Specifies which of the GSS's two Ethernet interfaces is configured.
<b>0</b>		Specifies the first network Ethernet interface on the GSS.
<b>1</b>		Specifies the second network Ethernet interface on the GSS.
<b>autosense</b>		Sets the interface to automatically detect the network line speed (Fast Ethernet only) and duplex of incoming signals, and synchronizes those parameters during the data transfer.
<b>duplex</b>		Configures an interface for autonegotiate, full-duplex, or half-duplex operation.

<b>auto</b>	Resets the Fast Ethernet and Gigabit Ethernet ports to automatically negotiate the port speed and the duplex of incoming signals.
<b>full</b>	Configures an interface for full-duplex operation. Full duplex allows data to travel in both directions at the same time through an interface or a cable.
<b>half</b>	Configures an interface for half-duplex operation. A half-duplex setting ensures that data only travels in one direction at any given time.
<b>ip address</b>	Sets the IP address and the subnet mask of the Ethernet interface.
<i>ip-address</i>	IP address of the Ethernet interface. Enter the IP address in dotted-decimal notation (for example, 192.168.11.1).
<i>netmask</i>	Subnet mask of the interface. The subnet mask of the interface in dotted-decimal notation (for example, 255.255.255.0).
<b>no</b>	Negates the selected command or restores its default values.
<b>gss-communications</b>	Sets the current interface as the primary interface for the device, which is used for all GSS-related communications.
<b>gss-tcp-keepalives</b>	Designates the current interface as the interface that is used for GSS keepalive communication.
<b>shutdown</b>	Shuts down the specified interface.
<b>speed</b>	Sets the bandwidth of the specified interface.
<i>mbits</i>	Bandwidth of interface in megabits per second (10, 100, or 1000 Mbps).
<b>auto</b>	Enables the autonegotiate speed configuration.

### Usage Guidelines

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **interface** command.

To display the interface identifiers (for example, interface Ethernet 0), use the **show running-config** or **show startup-config** commands. The **(config-eth) autosense**, **exec-timeout**, **ip**, **snmp**, and **(config-eth) speed** commands are listed separately in this command reference.

The **exec-timeout** command cannot be set for full- or half-duplex operation until you specify an interface bandwidth speed (megabits per second) by using the **(config-eth) speed** command. If you enter the **exec-timeout** command (other than **auto**) without an explicit speed setting, the following error message appears:

```
Duplex will not be set until speed is set to a non-auto value.
```

# (config-eth) autosense

To enable autosense on an interface, use the **autosense** command. To disable this function, use the **no** form of this command.

**autosense**

**no autosense**

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## Syntax Description

This command has no arguments or keywords.

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Interface configuration

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## Usage Guidelines

Autosense is enabled by default.

The autosense feature allows the current GSS interface to select the proper duplex mode (for example, full duplex or half duplex) for communicating with other network devices. The GSS automatically detects the network line speed (Fast Ethernet only) and duplex of incoming signals and synchronizes those parameters during a data transfer. Autonegotiation enables the GSS and the other devices on the link to achieve the maximum common level of operation.

The **autosense** command is part of the suite of interface commands for the GSS and can be used only with the **interface ethernet** command. Make sure that you disable **autosense** before configuring an Ethernet interface. When **autosense** is on, manual configurations are overridden.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **autosense** command.

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## Examples

The following example shows how to enable autosense on an interface:

```
gss1.example.com(config)# interface ethernet 0  
gss1.example.com(config-eth0)# autosense
```

The following example shows how to disable autosense on an interface:

```
gss1.example.com(config-eth0)# no autosense
```

**Interface Configuration Mode Commands**

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**Related Commands** [interface ethernet](#)

## (config-eth) duplex

To configure an interface for autonegotiate, full-duplex, or half-duplex operation, use the **duplex** command. To disable this function, use the **no** form of this command.

```
duplex { auto | full | half }
```

```
no duplex
```

### Syntax Description

<b>auto</b>	Resets the Fast Ethernet and Gigabit Ethernet ports to automatically negotiate the port speed and the duplex mode of incoming signals. Auto is the default setting.
<b>full</b>	Configures an interface for full-duplex operation. Full duplex allows data to travel in both directions at the same time through an interface or a cable.
<b>half</b>	Configures an interface for half-duplex operation. A half-duplex setting ensures that data only travels in one direction at any given time.

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### Usage Guidelines

Use this command to configure an interface for duplex operation. Full duplex allows data to travel in both directions at the same time through an interface or a cable. A half-duplex setting ensures that data only travels in one direction at any given time. Although full duplex is faster, the interfaces sometimes cannot operate effectively in this mode. If you encounter excessive collisions or network errors, configure the interface for half duplex rather than full duplex.

The **duplex** command cannot be set for full or half duplex until you specify an interface bandwidth (megabits per second) by using the **(config-eth) speed** command. If you enter the **duplex** command (other than **auto**) without a specified speed setting, the following error message appears:

```
Duplex will not be set until speed is set to a non-auto value.
```

The **duplex** command is part of the suite of interface commands for the GSS and can only be used with the **interface ethernet** command.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **duplex** command.

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## Examples

The following example shows how to configure an interface for full-duplex operation:

```
gss1.example.com(config)# interface ethernet 0  
gss1.example.com(config-eth0)# duplex full
```

The following example shows how to disable this function:

```
gss1.example.com(config-eth0)# no duplex
```

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## Related Commands

**interface ethernet**  
**(config-eth) speed**

## (config-eth) gss-communications

To designate the current interface as the interface to be used for both GSS interdevice communication and for communication with the optional Cisco Application Networking Manager (ANM), use the **gss-communications** command.

### **gss-communications**

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#### Syntax Description

This command has no arguments or keywords.

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#### Command Modes

Interface configuration

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#### Usage Guidelines

By default, the first Ethernet interface (eth0) is used for both interdevice communications and for communicating with ANM, which you use to manage your GSS devices.

The **gss-communications** command is part of the suite of interface commands for the GSS and can only be used along with the **interface ethernet** command.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **gss-communications** command.

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#### Examples

The following example shows how to designate the current interface as the interface to be used for GSS interdevice communication:

```
gss1.example.com(config)# interface ethernet 0  
gss1.example.com(config-eth0)# gss-communications
```

---

#### Related Commands

**gss**  
**(config-eth) gss-tcp-keepalives**  
**interface ethernet**

## (config-eth) gss-tcp-keepalives

To designate the current interface as the interface that will be used for GSS keepalive communication, use the **gss-tcp-keepalives** command.

**gss-tcp-keepalives**

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### Syntax Description

This command has no arguments or keywords.

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### Command Modes

Interface configuration

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### Usage Guidelines

The first Ethernet interface (eth0) is used for keepalive traffic by default.

The **gss-tcp-keepalives** command is part of the suite of interface commands for the GSS and can only be used along with the **interface ethernet** command.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **gss-tcp-keepalives** command.

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### Examples

The following example shows how to designate the current interface as the interface that will be used for GSS keepalive communication:

```
gss1.example.com(config)# interface ethernet 0  
gss1.example.com(config-eth0)# gss-tcp-keepalives
```

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### Related Commands

**gss**  
**gss tech-report**  
**interface ethernet**

## (config-eth) ip address

To configure the IP address of a GSS device network interface, use the **ip address** command. To disable a specific network address, use the **no** form of this command.

```
ip address {ip-address ip-subnet}
```

```
no ip address {ip-address ip-subnet}
```

### Syntax Description

<i>ip-address</i>	IP address. Enter the IP address in dotted-decimal notation (for example, 192.168.11.1).
<i>ip-subnet</i>	IP subnet mask.

### Command Modes

Interface configuration

### Usage Guidelines

Use this command to set or change the IP address and subnet mask of the GSS network interfaces.

The **ip address** command is part of the suite of interface commands for the GSS and can only be used along with the **interface** command.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **ip address** command.

The **ip address** interface configuration command allows configuration of secondary IP addresses for a specified interface as follows:

```
gss1.example.com(config)# interface ethernet 0  
gss1.example.com(config-eth0)# ip address ip-address ip-subnet
```

The same IP address cannot be assigned to more than one interface. The following command configures the IP address for the GSS communications interface:

```
gss1.example.com(config-eth0)# ip address ip-address ip-subnet  
gss-communications
```

**Note**

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No two interfaces can have IP addresses in the same subnet.

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**Examples**

The following example shows how to configure the IP address of a GSS device network interface:

```
gss1.example.com(config-eth0)# ip address 172.16.10.10 255.255.0.0
```

The following example shows how to disable a specific network address:

```
gss1.example.com(config-eth0)# no ip address
```

## (config-eth) no

To negate a CLI command or set it to its default settings, use the **no** command. Some GSS CLI commands do not have a **no** form.

**no** *command*

Syntax Description		
	<b>autosense</b>	Disables autosense for a GSS Ethernet interface.
	<b>duplex</b>	Disables an Ethernet interface for autonegotiate, full-duplex, or half-duplex operation.
	<b>ip address</b>	Disables a specific network address.
	<b>speed</b>	Restores default values for a GSS Ethernet interface.

**Command Modes** Interface configuration, global, and global server load-balancing configuration

**Usage Guidelines** Use the **no** command to disable functions or negate a command. If you need to negate a specific command, such as the default gateway IP address, you must include the specific string in your command, such as **no ip default-gateway *ip-address***.

**Examples** The following example shows how to negate a CLI command or set it to its default settings:

```
gss1.example.com(config)# no ip name-server 10.11.12.14
```

```
gss1.example.com(config)# no ntp-server 172.16.22.44
```

# (config-eth) speed

To configure an interface bandwidth, use the **speed** command. To restore the default values, use the **no** form of this command.

**speed** *mbits*

**no speed**

## Syntax Description

<i>mbits</i>	Bandwidth size in megabits per second (Mbps). The available ranges include: <ul style="list-style-type: none"> <li>• <b>10</b>—Initiate 10-Mbps operation</li> <li>• <b>100</b>—Initiate 100-Mbps operation</li> <li>• <b>1000</b>—Initiate 1000-Mbps operation</li> <li>• <b>auto</b>—Enable the autonegotiate speed configuration (this is the default setting)</li> </ul>
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## Command Modes

Interface configuration

## Usage Guidelines

Use this command to set the bandwidth on Fast Ethernet interfaces only. Gigabit Ethernet interfaces run at 1000 Mbps only and are not user configurable.

You cannot enter interface commands while the GSS is running (for example, serving Domain Name System [DNS] requests). You must enter the **gss stop** command before entering the **speed** command.

## Examples

The following example shows how to configure an interface bandwidth:

```
gss1.example.com(config)# interface ethernet 0
gss1.example.com(config-eth0)# speed 100
```

The following example shows how to restore the default values:

```
gss1.example.com(config-eth0)# no speed
```

## Related Commands

[interface ethernet](#)