



## Planning to Configure the GGSN

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This chapter describes information that you should know before configuring the GGSN.

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### Prerequisites

#### Planning Your Access Point Configuration

Before you begin to configure the GGSN on your router, you should know which networks your mobile users will be allowed to access using the GGSN. Once you identify the networks, you can plan the physical interfaces to configure on the router for those networks. Then you can plan the associated access points to those networks and configure them on the GGSN.

For example, you might want to provide user access to the World Wide Web through a PDN, plus access to two private corporate intranets. In this case, you need to set up three access points—one to enable user access to the PDN, and one for each private intranet.

### Restrictions

The number of PDP contexts supported on the GGSN is dependent on the memory and router series in use, your GGSN configuration (whether a method of Point to Point Protocol [PPP] has been configured to forward packets beyond the terminal equipment and mobile termination), and the rate of PDP context creation to be supported.

The following list shows the maximum number of PDP contexts supported on the GGSN according to the memory and router series in use when a method of PPP has not been configured:

- Cisco 7206 VXR NPE-300 router with 256 Mb RAM—80,000 PDP contexts.
- Cisco 7206 VXR NPE-400 router with 512 Mb RAM—135,000 PDP contexts.

For information on the maximum number of PDP contexts supported on the GGSN when a method of PPP has been configured, see [“Overview of PPP Support on the GGSN” section on page 7-1](#).

## Supported Platforms

- Cisco 7200 VXR NPE-300
- Cisco 7200 VXR NPE-400

## Supported Standards, MIBs, and RFCs

### Standards

Cisco IOS GGSN software release 4.0 supports the following 3GPP standards:

- Release 97/98
  - 3G TS 03.03
  - 3G TS 03.60
  - 3G TS 04.08
  - 3G TS 09.02
  - 3G TS 09.60
  - 3G TS 09.61
  - 3G TS 12.15
- Release 99
  - 3G TS 22.107
  - 3G TS 23.003
  - 3G TS 23.060
  - 3G TS 24.008
  - 3G TS 29.002
  - 3G TS 29.060
  - 3G TS 29.061
  - 3G TS 32.015

The GGSN interfaces comply with the following SMG (Special Mobile Group) standards:

- Ga interface—SMG#28 R99
- Gn interface—SMG#31 R98

### MIBs

- CISCO-GGSN-MIB
- CISCO-GGSN-QOS-MIB
- CISCO-GPRS-ACC-PT-MIB
- CISCO-GPRS-CHARGING-MIB
- CISCO-GPRS-GTP-CAPABILITY
- CISCO-GPRS-GTP-MIB
- CISCO-GTP-CAPABILITY

- CISCO-GTP-MIB
- CISCO-GTP-DIRECTOR\_MIB

**Note**

The CISCO-GPRS-GTP-CAPABILITY MIB describes the scope of objects supported in the CISCO-GPRS-GTP-MIB. The CISCO-GTP-CAPABILITY MIB describes the scope of objects supported in the CISCO-GTP-MIB.

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL:

<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

**RFCs**

- RFC 1518, *An Architecture for IP Address Allocation with CIDR*
- RFC 1519, *Classless Inter-Domain Routing (CIDR): an Address Assignment and Aggregation Strategy*
- RFC 1661, *The Point-to-Point Protocol (PPP)*
- RFC 2475, *An Architecture for Differentiated Services*

## Related Documents

- *Cisco IOS Dial Technologies Configuration Guide*, Release 12.2
- *Cisco IOS Dial Technologies Command Reference*, Release 12.2
- *Cisco IOS Interface Configuration Guide*, Release 12.2
- *Cisco IOS Interface Command Reference*, Release 12.2
- *Cisco IOS IP Configuration Guide*, Release 12.2
- *Cisco IOS IP Command Reference, Volume 1 of 3: Addressing and Services*, Release 12.2
- *Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols*, Release 12.2
- *Cisco IOS IP Command Reference, Volume 3 of 3: Multicast*, Release 12.2
- *Cisco IOS Quality of Service Solutions Configuration Guide*, Release 12.2
- *Cisco IOS Quality of Service Solutions Command Reference*, Release 12.2
- *Cisco IOS Security Configuration Guide*, Release 12.2
- *Cisco IOS Security Command Reference*, Release 12.2
- *Cisco IOS Switching Services Configuration Guide*, Release 12.2
- *Cisco IOS Switching Services Command Reference*, Release 12.2

