



Verifying the GPRS Configuration

This chapter describes how to verify the GGSN configuration. For a complete description of the GPRS commands in this chapter, refer to the *Cisco IOS Mobile Wireless Command Reference*. To locate documentation of other commands that appear in this chapter, use the command reference master index or search online.

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Verifying Global GPRS Configuration

Enter the **show running-configuration** command to see if GPRS GGSN services are enabled with the **service gprs ggsn** command:

```
router# show running-configuration

Building configuration...

Current configuration:
!
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service internal
service udp-small-servers
service tcp-small-servers
→ service gprs ggsn
!
hostname GGSN_1
```

Verifying Interface Configuration to the SGSN

Enter the **show running-configuration** command to view the interface configuration to the SGSN:

```
router# show running-configuration

interface FastEthernet0/0
description Gn interface to SGSN
ip address 44.44.44.44 255.0.0.0
half-duplex
```

Verifying Interface Configuration to the PDN

Enter the **show running-configuration** command to view the interface configuration to the PDN:

```
router# show running-configuration

interface FastEthernet3/0
description Gi interface to PDN
ip address 4.0.0.44 255.0.0.0
half-duplex
```

Verifying an Interface to the Private Network

Enter the **show running-configuration** command to view the interface configuration to the private network:

```
router# show running-configuration

gprs access-point-list gprs
access-point 1
access-point-name gprs.company.com
ip-address-pool dhcp-proxy-client
dhcp-server 99.100.0.3
use-interface Tunnel0 next-hop-address 97.0.0.2
exit
```

Verifying Configuration to the Virtual Template

- Step 1** Use the **show running-configuration** command to view the virtual template configuration. Note that the **encapsulation gtp** command must be configured on the virtual template interface of the GGSN:

```
router# show running-configuration

interface virtual-template 1
ip address 10.10.10.1 255.0.0.0
→ encapsulation gtp
ip mroute-cache
gprs fastswitch
gprs access-point-list gprs
```

- Step 2** Enter the **show interface** command to view the virtual template configuration:

```

router# show interface virtual-template 1

→ virtual-template 1 is up, line protocol is up
Hardware is Virtual Template interface
→ Internet address is 10.10.10.1/8
MTU 1500 bytes, BW 100000 Kbit, DLY 100000 usec,
reliability 255/255, txload 1/255, rxload 1/255
→ Encapsulation GPRS-GTP, loopback not set
Keepalive set (10 sec)
DTR is pulsed for 5 seconds on reset
Last input never, output never, output hang never
Last clearing of "show interface" counters 02:17:14
Queueing strategy:fifo
Output queue 0/40, 0 drops; input queue 0/75, 0 drops
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
0 packets output, 0 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 output buffer failures, 0 output buffers swapped out
0 carrier transitions

```

Verifying Access-Point Configuration

Step 1 Use the **show running-configuration** command to view the access-point configuration:

```

router# show running-configuration

gprs access-point-list gprs
access-point 1
access-point-name gprs.company.com
ip-address-pool dhcp-proxy-client
dhcp-server 99.100.0.3
dhcp-gateway-address 80.0.0.1

```

Step 2 Use the **show gprs access-point all** command to view all access points:

```

router# show gprs access-point all

There are 3 Access-Points configured

Index   Type   Mode           AccessPointName      Interface
-----
1       ip     transparent    gprs.company.com
-----
2       ip     transparent    abc.com
-----
3       ip     non-transparent xyz.com
-----

```

Verifying DHCP Configuration

Use the **show running-configuration** command to view the DHCP-related configuration. The following example shows the configuration of both global DHCP services, and DHCP services configured at the access point level:

```
router# show running-configuration
!
→ ip address-pool dhcp-proxy-client
interface Ethernet2/1
description interface to DHCP server
ip address 99.102.0.54 255.255.0.0
no ip mroute-cache
!
gprs access-point-list gprs
access-point 1
access-point-name gprs.company.com
→ ip-address-pool dhcp-proxy-client
→ dhcp-server 99.100.0.3
→ dhcp-gateway-address 99.102.0.54
exit
!
→ gprs default dhcp-server 99.100.0.3
```