



Configure the Platforms

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Platform Access-SSH

The Cellular Gateways platform can be accessed by **secure shell session** from a router for initial configuration. Parameters for that initial connection are as follows:

- IP address: 192.168.1.1
- username: admin
- password: *device serial number*

This can be found by looking on the bottom of the unit or sometimes monitoring the bootup sequence and seeing the following message as part of the bootup sequence:

Device is using default day0 password: xxxxxxxxxxxx

To begin using the Cellular Gateway platform, all that you really need to do is to attach a device as a DHCP client to the 2.5Gb/sec ethernet port on the CG418-E and to the 10Gb/sec ethernet port on the CG522-E. The port will drop back to 1Gb/sec speed if necessary. Assuming that you are connecting to a public APN, the AutoSIM function will load the appropriate firmware and default APN values.



Note The AutoSIM function is not supported for all carriers.

If custom APN values are necessary, instructions for providing those via the Cellular Gateway's CLI interface can be found in this document.

The Cellular Gateway acquires an IPv4 and/or IPv6 address from the cellular service provider. Then, the IP address is passed to the attached client device via DHCP.

Platform Access-Console port

The Cellular Gateway platform can be accessed by **console session** for initial configuration. Parameters for that initial connection are as follows:

- baud rate: 115200 bits/sec, 8 data bits, no parity, 1 stop bit (8N1). No flow control necessary.
- username: admin
- password: *device serial number*

This can be found by looking on the bottom of the unit or sometimes monitoring the bootup sequence and seeing the following message as part of the bootup sequence:

Device is using default day0 password: xxxxxxxxxxxx

To begin using the Cellular Gateway platform, all that you really need to do is to attach a device operation as a DHCP client to the 2.5Gb/sec ethernet port. The port will drop back to 1Gb/sec speed if necessary. Assuming that you are connecting to a public APN, the AutoSIM function will load the appropriate firmware and default APN values.

If custom APN values are necessary, instructions for providing those via the Cellular Gateway's CLI interface can be found in this document.

The DHCP client will receive an IP address from the Cellular Gateway. That DHCP action will provide information to install a default route on the client that points to back to the cellular provider. In addition, the DHCP server will send information to install a route to 192.168.1.1 which will point to the Cellular Gateway for management connectivity.

Single-Step Platform Image Download and Upgrade

You can follow a multi-stage process to change software or use a single-step process. This is the single-stage path.

The Cellular Gateway keeps two images in its boot space, a primary and a secondary. Typically, a known good image from the past is indicated as backup while a newly installed image is indicated as primary. During an upgrade process, the old secondary image is discarded, the old primary image is made secondary, and the newly uploaded image is specified as primary. The system will attempt to boot the primary image. If that fails, the system will then attempt to boot the secondary image which should be known as good.

Copy the software image to your TFTP server and ensure permissions on the file are such that anonymous TFTP users will be able to access the file. The TFTP server should be on the 192.168.1.0/24 subnet to ensure connectivity. Other address spaces may work depending on the Cellular Gateway's current IP address and routing configuration.

Download the image from a TFTP server to the gateway and upgrade:

```
CellularGateway# gw-action:request software upgrade
tftp://192.168.1.2/cg-ip-services.2020-06-03_04.31_satikum3.SSA.bin
System is about to download and install the selected software, Continue? [no,yes] yes
Software successfully upgraded
```

Reboot the system to bring the backup image to primary:

```
CellularGateway# gw-action:request system reboot

System is about to reload, Continue? [yes,no]

Show system partition to check the image2 become primary:

CellularGateway# show gw-system:system partition
System is about to reload, Continue? [yes,no]
show system partition
Primary Image
Partition      = image2
File name      = cg-ipsservices.2020-06-03_04.31_satikum3.SSA.bin
Version       = 17.3.01.0.107173.1587052958..Amsterdam
Build Date    = Thu Apr 16 16:02:38 2020
Install Date  = Sun Mar  5 08:04:14 2000
Boot Status   = Boot Successful.

Backup Image
Partition      = image1
File name      = cg-ipsservices.2020-05-25_04.18_satikum3.SSA.bin
Version       = 17.3.01.0.1198.1590405489..Amsterdam
Build date    = Mon May 25 11:18:09 2020
Install Date  = Wed Jun 17 23:52:27 2020
Boot Status   = Boot Successful.
```

Multi-Step Platform Image Download and Upgrade

You can follow a multi-stage process to change software or use a single step process. This is the multi-stage path.

The Cellular Gateway keeps two images in its boot space, a primary and a secondary. Typically, a known good image from the past is indicated as backup while a newly installed image is indicated as primary. During an upgrade process, the old secondary image is discarded, the old primary image is made secondary, and the newly uploaded image is specified as primary. The system will attempt to boot the primary image. If that fails, the system will then attempt to boot the secondary image which should be known as good.

To download software images to the router and use the new software image operations, follow this sequence:

Copy the software image to your TFTP server and ensure permissions on the file are such that anonymous TFTP users will be able to access the file. The TFTP server should be on the 192.168.1.0/24 subnet to ensure connectivity. Other address spaces may work depending on the Cellular Gateway's current IP address and routing configuration.

Download the image to the Cellular Gateway

```
CellularGateway# gw-action:request software download tftp://192.168.1.x/image_file_name
```

Install the image

```
CellularGateway# gw-action:request software install <image_file>
```

Activate the image

```
CellularGateway# gw-action:request software activate <image_file>
```

Reboot the Cellular Gateway

```
CellularGateway# gw-action:request software system reboot
```

Check PID, Uptime, Memory, Flash size

```
CellularGateway# show gw-system:system status
SYSTEM INFO
Platform PID                = CG418-E
Product Serial Number       = FHH2409P00X

System Up Time              = up 5 days, 19 hours, 45 minutes
Current Time                = Mon Mar 13 03:16:14 UTC 2000
Current CPU Usage           = 1%

RAM
Total Memory in KBytes     = 993540
Memory Used in KBytes      = 489524
Memory Free in KBytes      = 504016

STORAGE
Disk type                   = Bootflash
Disk Size in KBytes        = 999320
Disk Used in KBytes        = 3188
Disk Available in KBytes   = 927320
Disk Used Percentage       = 1%

TEMPERATURE
Ambient temperature        = 43 deg C
Power source               = AC
```

Manually Switch between Boot Partitions

To force the system to boot from a specific boot partition use the following EXEC mode command:

```
CellularGateway# gw-action:request software activate image1 | image2
Software Successfully activated imageX
```

Reboot the system to initiate the backup request to primary:

```
CellularGateway# gw-action:request system reboot
System is about to reload, Continue? [yes,no]
```

Show system partition to check the image1 | image2 become primary:

```
CellularGateway# show gw-system:system partition
System is about to reload, Continue? [yes,no]
show system partition
Primary Image Partition= image2
File name= cg1000-ipservices.2020-04-16_09.02_satikum3.SSA.bin
Version= 17.3.01.0.107173.1587052958..Amsterdam
Build Date= Thu Apr 16 16:02:38 2020
Install Date = Sun Mar 5 08:04:14 2000
Boot Status = Boot Successful.

Backup Image Partition= image1
File name= cg-ipservices.2020-05-25_04.18_satikum3.SSA.bin
Version= 17.3.01.0.1198.1590405489..Amsterdam
Build date= Mon May 25 11:18:09 2020
Install Date = Wed Jun 17 23:52:27 2020 Boot Status = Boot Successful
```