

Upgrading IMG System Software

Topic Location: Introduction

Overview

This topic provides steps for performing the following tasks:

- Upgrade GCEMS Software from 10.3.3:x to 10.5.0:x
- Upgrade IMG switch software from 10.3.3.x to 10.5.0.x

Estimated total time required to execute this upgrade procedure:

- Approximately 1 hour

Estimated call processing downtime:

- approximately 10 minutes

Pre-Installation

1. The IMG has something called "Tag Values". The TAG value shows the status of each individual slot in the IMG. Using the current version of GCEMS and ClientView, depress the "Query All Tags" button. This will set the tags of all "slots" on all IMGs if not already set and will prevent unnecessary reconfiguration later. The "Query All Tags" button is currently available at any object.

NOTE: If any of the tags do not validate that means that if GCEMS is restarted (IMG remains powered up and configured) then that particular component in the IMG will re-configure. If the tag validates and GCEMS is restarted (IMG remains powered up and configured) then that particular component in the IMG will not re-configure.

NOTE: By default TAG 5 will not validate.

2. It is recommended that you perform the following steps prior to upgrading the IMG software. Before starting the upgrade note the status of each of the entities listed below. Entities that were not in service before the upgrade should not be expected to be in service after the upgrade.
 - Spans
 - Channels
 - ISDN D-Channels
 - SS7 Links
 - Network Interfaces
 - ClientView users that are logged in. Notify them of the pending upgrade and have them log off if necessary.
3. The latest IMG system software can be acquired at the Dialogic BBS website. <http://excelbbs.dialogic.com>

If access to the BBS site is needed contact the Dialogic Technical Support Team through one of the sources below

Email -- techsupport@cantata.com
Phone -- +1-781-433-9600

4. Before starting the upgrade process make a copy of the configuration file that is currently being used. Follow the steps below.
 - In the menu bar in ClientView and select **File --> Save Configuration File**
 - Make a copy of the current configuration file by renaming present configuration file to "configurationfile_old". Follow steps below to rename file.
 - i. In ClientView Select the Configuration object. The Configuration object is the first entry in the configuration pane located on left side of ClientView screen.
 - ii. Once selected double-click in the text box marked User-Specified in the Filename field.
 - iii. When the text box becomes white you can edit it to the new name.
 - iv. Commit and then save the new file by selecting **File --> Save** from the Main Menu.

Backup any old configuration files

1. If there are any other configuration files stored in the /opt/cantata/common/config directory it is wise to back them up also.

FTP GCEMS and IMG System Software

1. Transfer the new GCEMS and User Interface install software to the GCEMS server. Software files must be transferred in binary mode. Username and Password to GCEMS is as follows:

Username: excelsw
Password: excelsw

2. Transfer IMG_10.5.0.xx.bin to the /home/excelsw/ftpBuilds directory.
3. Transfer IMGUserInterface_10.5.0.xx.bin to /home/excelsw/ftpBuilds.
4. Transfer img1010_ver1050xxx.bin to either the /home/excelsw/ftpBuilds directory or the location indicated in the dhcpd.conf file. The dhcpd.conf file is located in the /etc directory. If you open this file there is a line in it which states <filename "ftpBuilds/IMG1010_id0101.bin">. This is the directory path to the IMG software.
5. If using an SD Card to load system software, appropriate files must be transferred to the card. Files can be transferred to the SD card in one of two ways
 - 1050 software gives you the ability to transfer files to and from the SD Card through FTP. See **SD Card Remote Provisioning** in online documentation for more information if using SD card.
<http://www.dialogic.com/support/>
 - The second way is to use an SD Card Reader and copy the files through use of the reader. See **Downloading IMG System Software from an SD Card** in online documentation
6. Transfer the new 10.5.0 license to /opt/cantata/common/license directory.

Installation of New GCEMS Software

This section covers installation of the Host Software and does not contain service-affecting steps.

1. Follow next few steps to Shutdown the current GCEMS Applications
 - Close the ClientView GUI
 - Close the AdminView Application Terminal
 - Run 'StopGCEMS' to shutdown all GCEMS processes (double click on the StopGCEMS icon)

2. Open a terminal on the GCEMS server and become a root/superuser by entering the command:

```
$ su
Password: excel2
```

3. Change the ownership and mode of the files being installed. This is accomplished by executing the following commands

```
# chown root:root IMG_10.5.0.xxx.bin
# chown root:root IMGUserInterface_10.5.0.xx.bin
# chmod +x IMG_10.5.3.xxx.bin
# chmod +x IMGUserInterface_10.5.0.xxx.bin
```

4. Install GCEMS software.

```
# ./IMG_10.5.0.xxx.bin (xxx=build number) (Follow the prompts)
```

IMG_10.5.0.xxx.bin will be installed in the directory /opt/cantata/installs/IMG_10.5.0.xxx. At the end of the installation you will be prompted to log out and then log back in. Do not log out and back in at this time.

5. Install the IMG User Interface

```
# ./IMGUserInterface_10.5.0.xxx.bin (xxx=build number) (Follow the prompts)
```

IMGUserInterface_10.5.0.xxx.bin will be installed in the directory /opt/cantata/installs/IMGUserInterface_10.5.0.xxx

6. At the end of the installation you will be prompted to log out. Log out as root user by entering the "exit" command

Installation of IMG System Software

Overview

1. To install the System Software into the IMG, the FTP Server being utilized (Usually GCEMS Server) should have one of two things to allow software to be loaded.

- A pathname to the specific software that is to be installed or
- Have a link generated in the ftp server that points a generic name (img1010_id0101.bin) to a specific software file.

Dialogic Corporation recommends that a link be created. This will allow the user to change software builds in the IMG easily. The link generated will create an association between the filename line in the dhcpd.conf file located in /etc and the latest version software being installed. The link will be created in the /home/excelsw/ftpBuilds folder. There are two ways to create this link. Below will explain both

Create Link Manually

1. In the GCEMS server, go to the folder located at /home/excelsw/ftpBuilds. In this folder will be a file named img1010_ver1050xxx_id0101.bin. (1050=10.5.0 software and xxx=build number of the software). Execute the following commands within this folder. The command below will create a link connecting software 10.5.0 and software build 123 to the filename img1010_id0101.bin)

```
$ ln -sf img1010_ver1050123_id0101.bin  
img1010_id0101.bin
```

2. To confirm the link has been created, enter the command

```
$ ls -la
```

3. The Response will be:

```
lrwxrwxrwx 1 root root 27 Jun 21 09:27 img1010_id0101.bin ->  
img1010_ver1050123_id0101.bin
```

This verifies that the link created points to the correct .bin file.

Create Link using Inimg script (Recommended)

1. A script has been written that will create the symbolic link shown above. This script was written to make it easier to change the symbolic link each time a new build is to be installed. Follow the procedure below to create the symbolic link through the Inimg script.

- Copy the file Inimg located in /opt/cantata/common/osconfig to /home/excelsw/ftpBuilds.
- From the ftpBuilds run the Inimg script ./Inimg
- Follow the instructions and enter the 1050xxx (1050 = 10.5.0) for version and build number.
- A response "Link Created --> **img1010_ver1050123_id0101.bin**
img1010_id0101.bin" will be output
- Executing the ls -la command as shown above, verifies that the link got created.

Install IMG system software

1. If changes were made to the dhcpd.conf file restart the dhcpd service. Service can be restarted by SuperUser only.

```
# /sbin/service dhcpd restart
```

2. Once the service is running and the IMG software build is available, power on the IMG by toggling the power switch on the rear Power Module of the IMG to 1(ON).
3. The fans on the IMG will now spin at Full Speed while the IMG diagnostics are running. Watch the LCD screen on the front of the IMG. The following is what will be displayed on the LCD display.

ROM information

MAC: XX:XX:XX:XX:XX:XX id0101

ROM: X.XX.XX

FTP Server Information

MAC: XX:XX:XX:XX:XX:XX id0101

FTP: XX.XX.XX.XX

Load Status

MAC: XX:XX:XX:XX:XX:XX id0101

Load OK/Jumping to Load

The last screen that appears is node information.

Node Name: IMG1010

NodeID: 255

The fans will return to normal operating speed at this time

4. If the above steps do not happen and the IMG will not load software see the Troubleshooting section below.

Troubleshooting

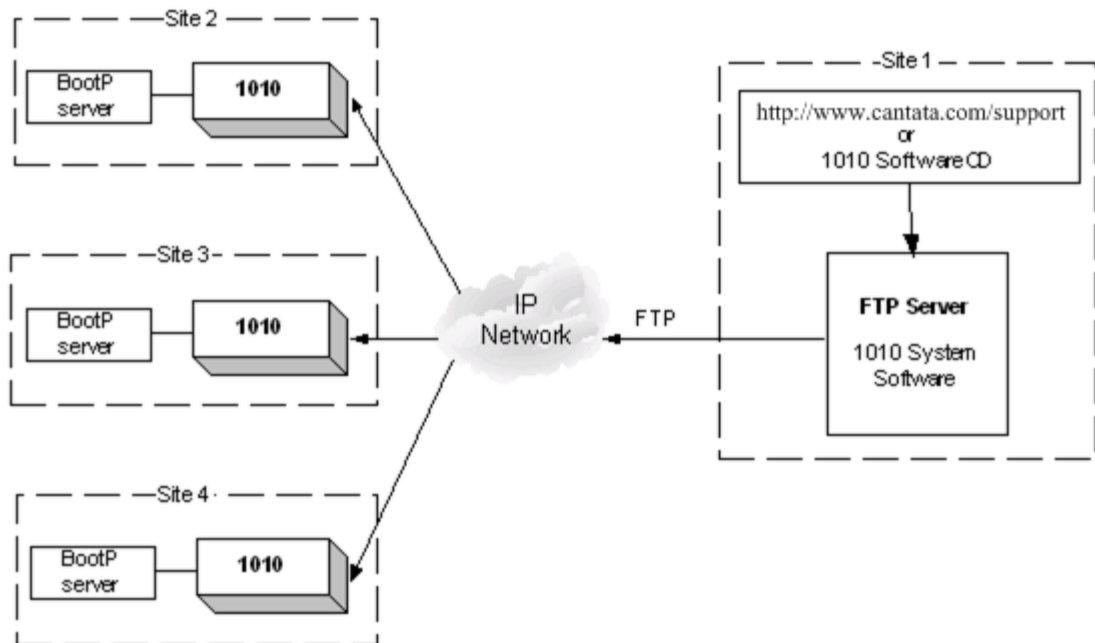
If the software load does not transfer to the IMG, check the following:

- Verify that the Linux firewall is disabled.
Within Menu Bar go to System Settings --> Security Level
- Verify that DHCP and VSFTP services are running.
Within Menu Bar go to System Settings --> Server Setting --> Services
- Verify that the etc/dhcpd.conf file is correct.
- Verify that the switch bin file is in the correct location.
(/home/excelsw/ftpBuilds).
- Verify that the link to the switch bin created in /home/excelsw/ftpBuilds is correct.

Example: img1010_id0101.bin ->
img1010_ver1050XXX_id0101.bin

Diagram

The following illustration shows the transfer of IMG System Software using FTP from an FTP server to each IMG with a local BootP Server.



Next Task:

Starting GateControl EMS see online documentation
<http://www.dialogic.com/support/>