



# Enterprise IP Solutions

## OfficeServ 500 System

---

July 2003

IAD Development Group

Samsung Electronics Co.,Ltd



ELECTRONICS

## **COPYRIGHT**

This manual is proprietary to SAMSUNG Electronics Co., Ltd. and is protected by copyright. No information contained herein may be copied, translated, transcribed or duplicated for any commercial purposes or disclosed to third parties in any form without the prior written consent of SAMSUNG Electronics Co., Ltd.

## **TRADEMARKS**

OfficeServ is registered trademark of SAMSUNG. Product names mentioned in this document may be trademarks and/or registered trademarks of their respective companies.

**This manual should be read before the upgrading the OfficeServ 500 system and componet software.**

This manual may be changed for the system improvement, standardization and other technical reasons without prior notice.

For further information on the updated manual or have a question the content of manual, contact **Samsung Technical support** at the address below .

**Address: Samsung Communications Unit 3A 100 Station Street, Nunawading, Victoria. Australia.**

**e-mail : techsupport@lspcoms.com.au**

Or contact **Samsung Technical Support** at the telephone below if you have any questions or concerns regarding the operation of your system.

**Phone : 61-3 98722950**

<http://www.samcom.com.au>

**©2003 SAMSUNG Electronics Co., Ltd. All rights reserved.**

## **Purpose**

This document contains information on installing or updating programs for the following modules for the OfficeServe-500.

The modules are as follows.

1. MCP2 / SCP2 /LCP2/PRI PGM Upgrade
2. Upgrading the MGI 1/2
  - 2-1.MGI boot image Update
  - 2-2.MGI S/W Update
3. Upgrading the MGI3
4. ITP Phone Upload

# 1. MCP2,SCP2/LCP2,TEPRI PGM Upgrade

The SMART Media Card is used to upgrade the MCP2/SCP2/LCP2/PRI PGM.

## 1.1. Introduction

New program files can be uploaded to the Smart Media card supplied with every OfficeServ 500 system using PCMMC. The OfficeServ 500 Smart Media Card is a 32 Megabyte card and is supplied with the following files:

MCP2 Program file – MPPLVXXX.PGM (L Version) or MPPMVXXX.PGM (M Version)

SCP2/LCP2 Program file – SPPXXXXX.PGM

**Note:** The SPPXXXX.PGM file is common to the SCP2 and LCP2 cards.

TEPRI Program file – PRI\_V105.PGM

STARTUP file – STARTUP.PRE

CUSTOMER DATABASE file – DATABASE.MPP

The Smart Media card can also support additional MCP2 and SCP2 Program files. To upload the new program files please following the procedure below.

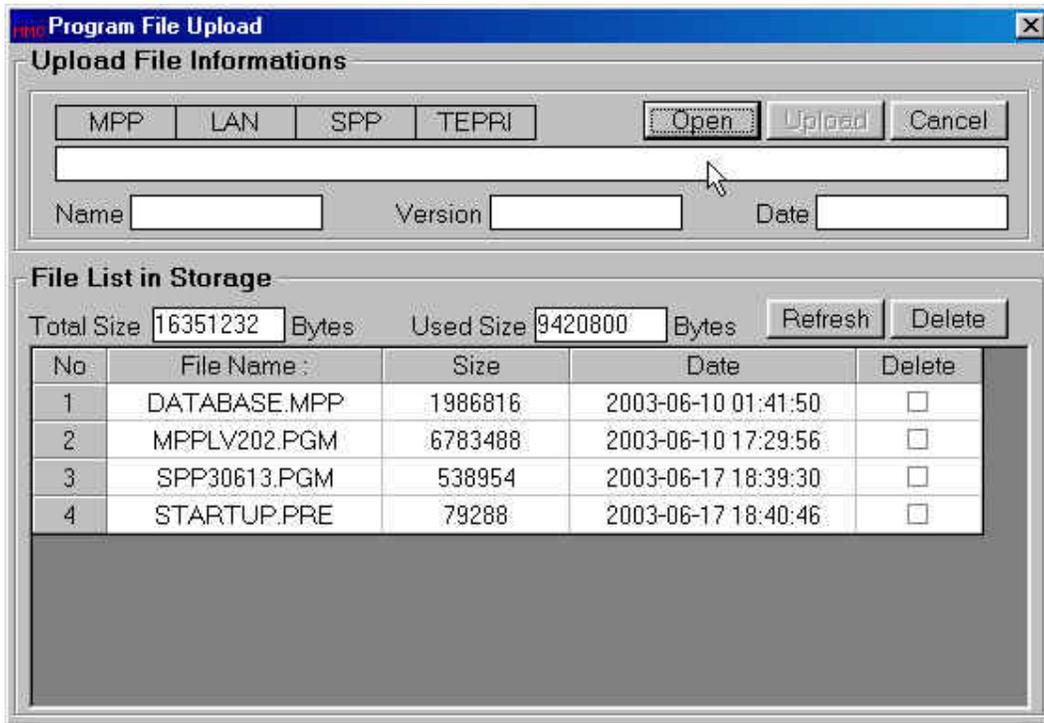
## 1.2. Smart Media Upgrade procedure

The Program files supplied by Samsung Technical support should be copied into your PC that has PCMMC installed eg. C:/Temp

Step 1. Launch PCMMC and connect to the OfficeServ system in the normal way.



Step 2. Select the Program Upload icon..... and the following screen will be displayed



Step 3. Click the [Open] button and select the new Program file to from the folder you copied the new Program file(s) to eg. C:/Temp

Step 4. Click the [Upload] button to commence uploading the new Program file to the Smart Media card.

**Note:** Do not delete any files currently installed on the Smart Media card as detailed in the File List Storage area.

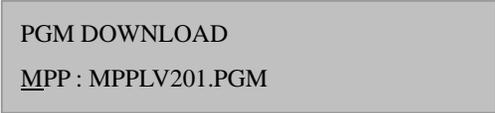
Step 5. If the file upload is successful a success message will appear. The uploading time will take approximately 5 minutes. Please wait until the success message appears.

Repeat steps 3 to 8 for the other new Program file(s).

Step 6. After the files have been successfully uploaded to the Smart Media card, disconnect PCMMC from the OfficeServ system and follow the procedure below to load the new program file into the OfficeServ system.

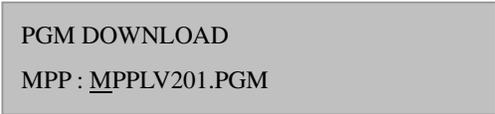
### 1.3. Upgrading the OfficeServ 500 System software from Smart Media

Step 1. In Key MMC programming mode, select MMC 818 :



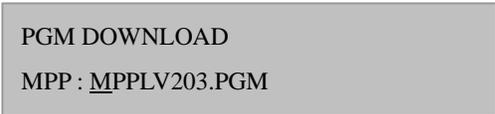
PGM DOWNLOAD  
MPP : MPPLV201.PGM

Step 2. Use the Volume control key to select the PGM file to be loaded into the system. If you select the Program name ( MPP/SPP/TEPRI), the program is read from Smart media card. Press the Right Soft key to move the cursor under the Program File name.



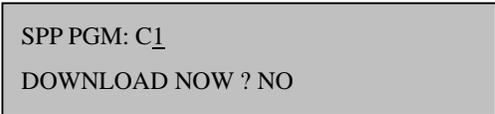
PGM DOWNLOAD  
MPP : MPPLV201.PGM

Step 3. Select the latest Program file using volume-button and press the right soft key.



PGM DOWNLOAD  
MPP : MPPLV203.PGM

Step 3A. In the case of the SPP program after step 3 you will be required to select the cabinet ie LCP2 card or SCP2 card you wish to download the new program file to. Use the Volume key to select the cabinet and then press the right soft key.



SPP PGM: C1  
DOWNLOAD NOW ? NO

Step 4. The message “ DOWNLOAD NOW?” → Select “YES” using the volume control key and then press the right soft button or dial [1].



MPP PGM  
DOWNLOAD NOW ? YES

Step 5. The download process will commence as soon as the ‘Yes’ option is chosen. Review the status LEDs of the card the new software is to be download to, confirm the process is underway and its completion.

Repeat the above steps to upload other program files.

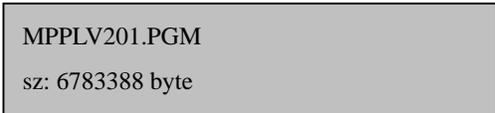
**Note:** When upgrading the SPPXXXX.PGM it is important to remember to upgrade both the SCP2 and LCP2 card(s) installed in the system.

#### 1.4. Smart Media Card File Management

After successfully completing the Program File upgrade the redundant files on the Smart Media card should be deleted. Care should be taken to ensure only the redundant files are removed.

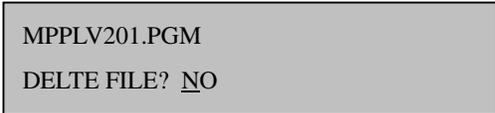
Step 1. In Key MMC programming mode, select MMC 819.

Step 2. Select the Program File to be deleted using the Volume key



MPPLV201.PGM  
sz: 6783388 byte

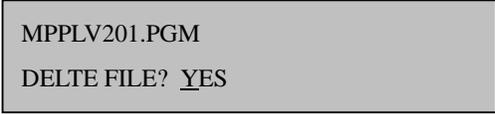
Step 3. Press the HOLD key



MPPLV201.PGM  
DELTE FILE? NO

Step 4. The message “ DELETE FILE? NO” → Select “YES” using the volume

control key and then press the right soft button or dial [1].



MPPLV201.PGM  
DELTE FILE? YES

Step 5. The Delete file process will commence as soon as the 'Yes' option is chosen. The following Message will be displayed on the Keyset LCD.



SM FILE CONTROL  
SMART IS BUSY

Step 6. Confirm the Program file has been deleted in MMC 818.

Repeat the above steps to delete other program files.

## 2 . MGI 1/2 Upgrade

### 2.1 Description

The MGI 1&2 cards of the OfficeSERV 500 are configured with their own software platform. As such it is necessary to perform software upgrades to these cards to maintain correct operation with the OfficeSERV 500 main software.

The Software required for the MGI 1&2 cards is exactly the same. This means that the same procedure is valid for both card types. The MGI 1 & 2 software comes in two parts; the first part is the Boot Image software and the second the MGI main program. Typically you will be required to upgrade one or both of these software parts.

When it is required to upgrade the MGI 1&2 software you will be supplied with typically two software files. You can identify the software by the file type:

Boot Image files are typically identified by name **mgiboot\_date.bin**

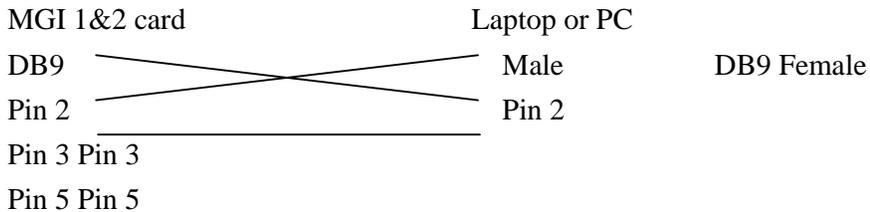
MGI Main program files are typically identified by name **mgimain100.ftp**

#### Required Items for Upgrading the MGI 1&2 card Software.

a. Laptop or desktop computer with a LAN card and a DB9 serial port. Operating system Windows 95 or later.

b. Serial cable to connect to the DB9 SIO port of the MGI card and laptop.

Cable Pin outs required.



c. Software packages Hyperterminal or Qmodem and Cabletron TFTPBOOTP.

Qmodem and Cabletron TFTPBOOTP programs are available from the Samsung Partner Website.

### Installing Cabletron TFTP Bootp software.

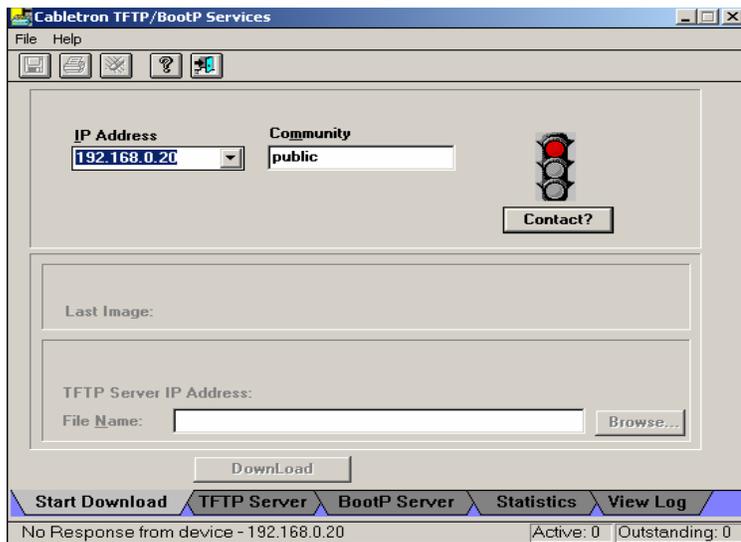
The application software BootP is required to download the required software into the MGI card. The advantage of this software is that the MGI card will automatically communicate with the BootP software and download the required software automatically.

To install the Cabletron software copy the supplied file tftp.zip into a new directory on you hard drive. With Win Zip or any compatible program extract the files into (your New) directory. You should now have the following files.

 tftp.zip	1,250 KB	ZIP File	12/02/2003 9:56 AM
 _inst16.ex_	264 KB	EX_ File	16/08/1995 4:57 PM
 _isdcl.exe	8 KB	Application	6/08/1995 1:06 PM
 _setup.dll	10 KB	Application Extension	12/06/1995 3:07 AM
 _setup.lib	141 KB	LIB File	12/07/1996 12:32 PM
 data.z	798 KB	Z File	12/07/1996 12:32 PM
 setup.bmp	83 KB	Bitmap Image	30/01/1996 11:40 AM
 setup.exe	46 KB	Application	16/08/1995 4:17 AM
 setup.ins	65 KB	Internet Communic...	12/07/1996 12:32 PM
 setup.pkg	1 KB	PKG File	12/07/1996 12:32 PM

Execute the setup.exe file to install the software. Nothing special is required during installation just follow the prompts.

Once installed execute the program and you should see the following application



### **Installing Qmodem terminal program.**

Qmodem can be used as an alternative to HyperTerminal to communicate between your PC and the serial port of the MGI 1 & 2 cards. To install the Qmodem software execute file

Once installed execute the program to launch the application. All configuration including speed and COM ports must be changed. The 'Home' key will open the Qmodem help screen or simply press the 'ALT' and 'S' key to open the COM port communication settings.

Change the setting to 19200.N.8.1 for communication to the MGI card. If you need to change the COM port selected press the ALT and K key to open the COM. Port select menu.

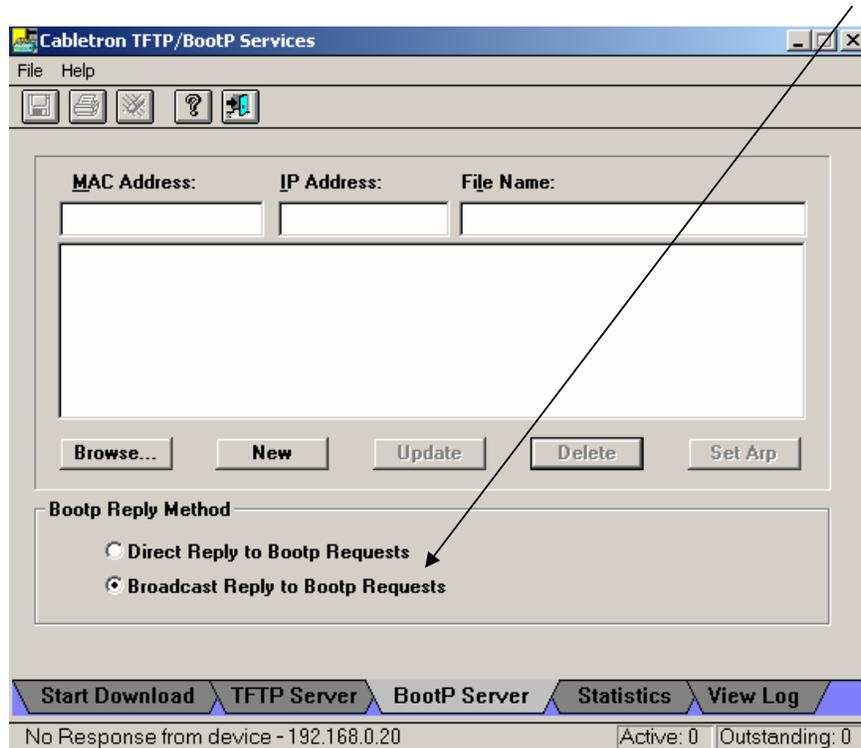
## **2.2 Upgrading the Boot Image of the MGI1/2 Card.**

Step1. Copy the upgrade files supplied into a directory on your PC hard drive.

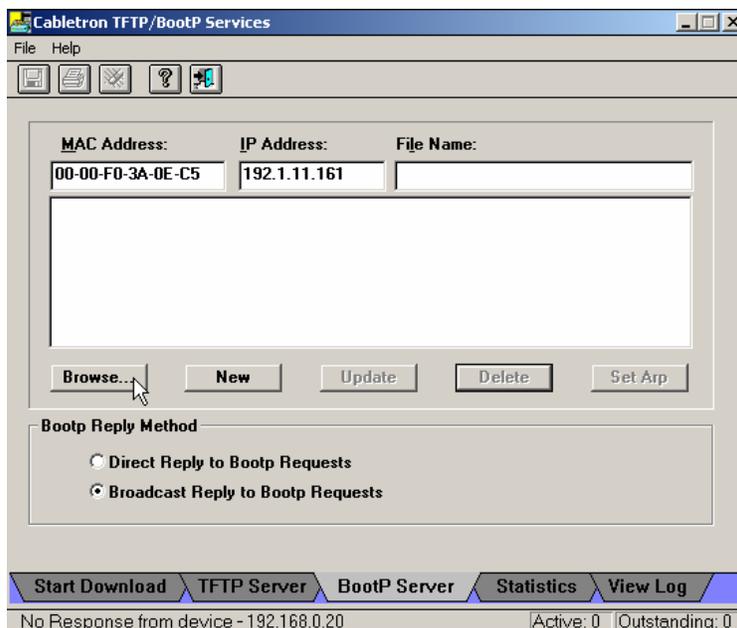
Step 2. In MMC 831 please obtain the IP address and Mac address of the MGI that requires the upgrade. eg. IP 192.1.11.161 Mac 00-00-F0-3A-0E-C5  
\*\*\* remember to use the format as shown above when entering the Mac address\*\*\*

Step 3. **Important.** Make sure the Laptop or PC that will load the files has access to the same IP address range of the MGI card. You may have to add a secondary address or change the address to suit the network.

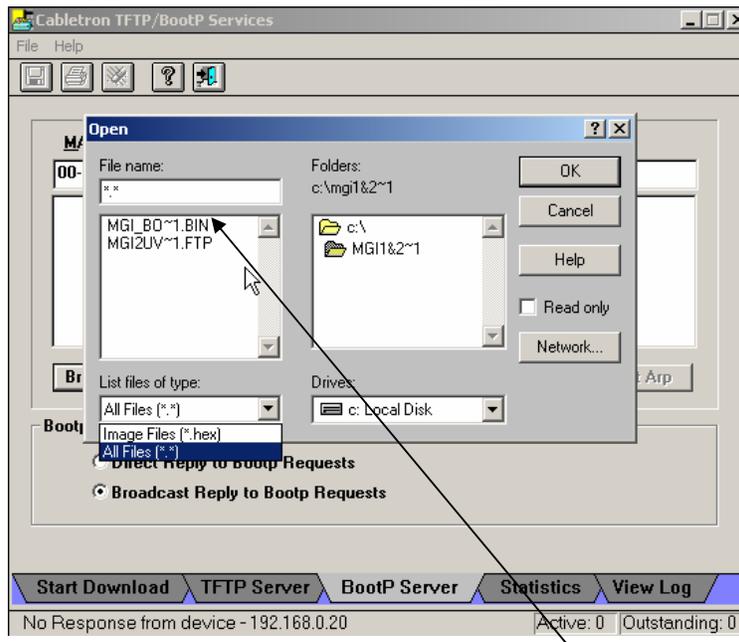
Step 4. Launch the Cabletron BootP program. Once launched select the BootP Tab at the bottom of the application screen and select **Broadcast Reply option**



Step 5. You must now enter the IP Address and the MAC address for the MGI card. In the Top blank option parts of the screen enter the relevant information. See below.



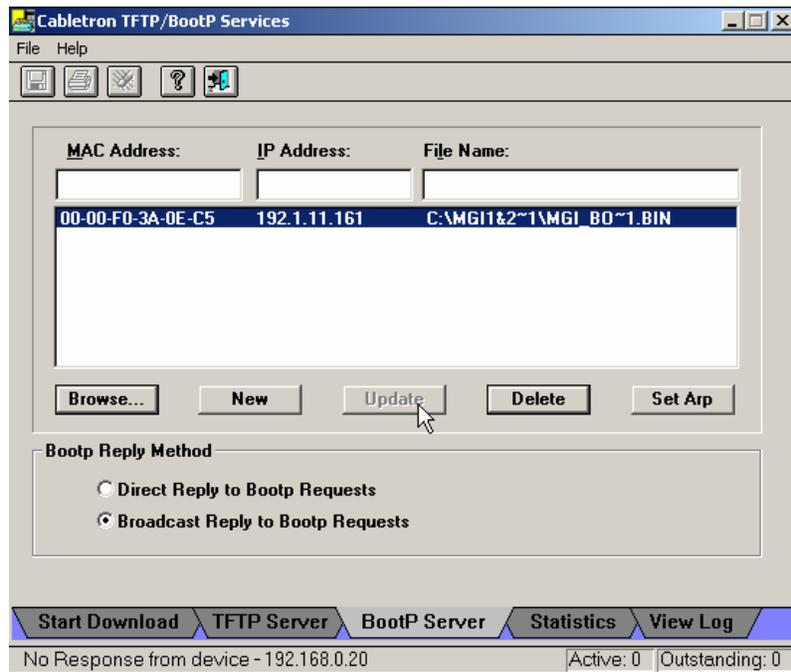
Step 6. To select the file to be used to upgrade the Boot Image , press the Browse Button. Note please change the File type to \*.\* so that you can view all files in the folder. See below



Select the Bin file for the Boot image of MGI software.

**\*\*\*NOTE. THE BOOT IMAGE MUST ALWAYS BE COMPLETED FIRST.**

Once the file, Mac Address & IP address have been correctly entered press the UPDATE button to enter the configuration. The BOOTP program is now ready to load files into the MGI card.



Step 7. Connect the serial cable between the MGI card and the PC and launch the Hyperterminal or Qmodem program.

You are now ready to upgrade the MGI 1&2 Boot Image file.

Step 8. To write the MGI BOOT Image to the MGI Card, press and hold the PC [Space Bar] and at the same time press the **RESET** key located on the front of the MGI card.

The following screen will be displayed. At this point stop release the Space Bar. Press the Enter Key to return to the] prompt

```
NBfs1Z
PP Boot 8.2.0.16 (25 June 2002)
Copyright (c) 2002 GlobespanVirata, Inc.
SDRAM^(1017) size = 0x800000
flash val =ff
Key pressed, stopping boot.

Entered console ... User request.
]
]
]
```

**\*\*\*Check that the BootP program is ready and that the correct file mgi2boot\_date.bin is selected\*\*\***

Step 9 Enter the following commands as shown below  
**configflash netboot yes** followed by [Enter]  
**reset** followed by [Enter]

```
] configflash netboot yes
] reset
```

The MGI card will now perform a reset and then will load the BIN file from the

BootP program. See below.

The following screen messages will be displayed during the upload process.

```
PP Boot 8.2.0.16 (25 June 2002)
Copyright (c) 2002 GlobespanVirata, Inc.
SDRAM^(1017) size = 0x800000
flash val =ff
MAC 00-00-F0-3A-0E-C5
Press Esc to abort tftp download.
boot
boot
boot
reply
IP 192.1.11.161
Server 192.1.11.80 ()
Booting '/tftpboot/flash11.bin'
.....
.....
...
Done! (0x150000 bytes)
Tftp image successfully relocated
```

Step 9. After completing the file transfer the MGI card will now need the new boot image written to the card firmware.

From Qmodem press the enter key and the following prompt will appear.

[MAC Address]>>

Enter the following command.

[MAC Address]>> **flashfs rewrite boot.bin** followed by [Enter].

The Boot Image files have now been successfully loaded and installed into the MGI Card. You now have two options to consider,

1. upgrade the MGI software or
2. exit the software upgrade procedure.

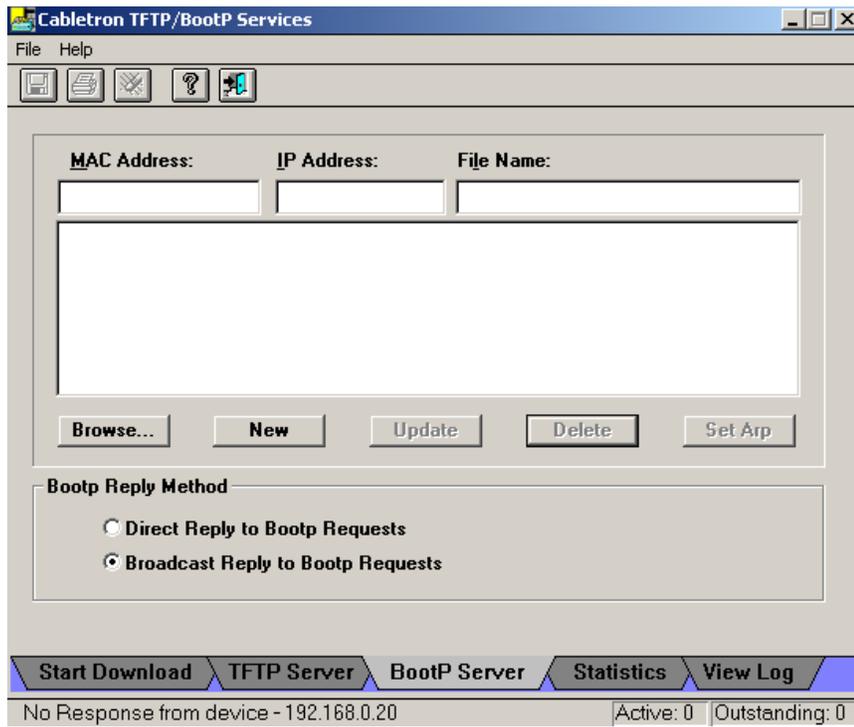
If you only wish to upgrade the Boot Image please now go to section **2.4 Terminating Software Upgrade Mode** of this document.

To upgrade the MGI main software please continue to the next section upgrading MGI Software.

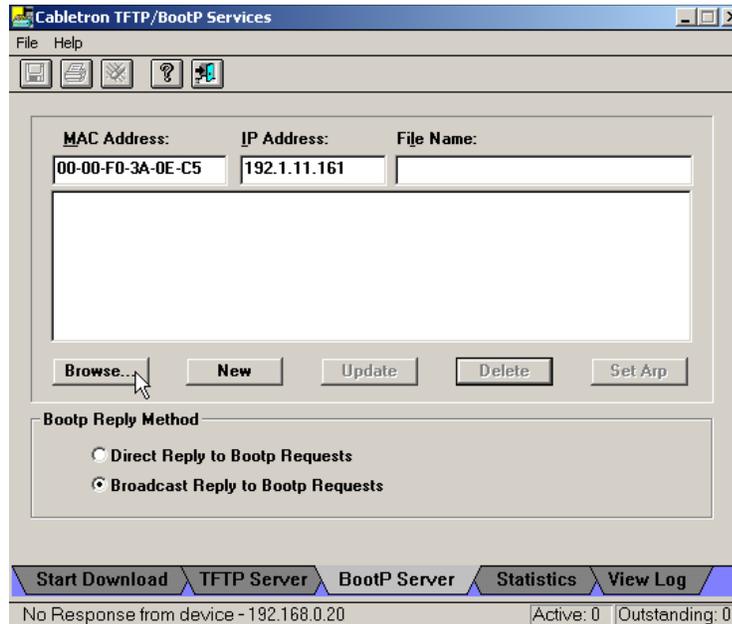
## **2.3 Upgrading the MGI 1&2 Card Main Software.**

**\*\*\*Note if you are following on from the Boot image upgrade please skip the first 5 steps of this chapter and go to the BOOTP file selection step 6\*\*\***

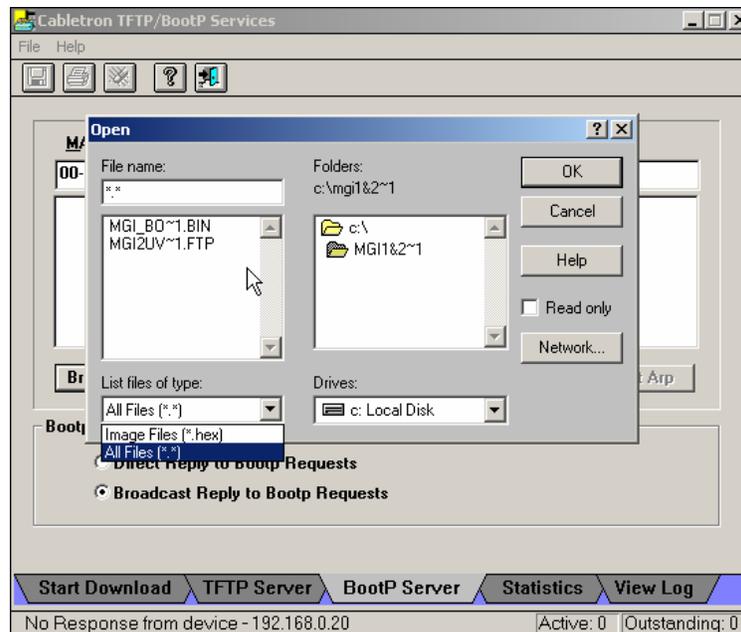
- Step 1. Copy the upgrade files supplied into a directory on your PC hard drive.
- Step 2. In MMC 831 please obtain the IP address and Mac address of the MGI that requires the upgrade. I.e. IP 192.1.11.161 Mac 00-00-F0-3A-0E-C5
- Step 3. **Important.** Make sure the Laptop or PC that will load the files has access to the same IP address range of the MGI card. You may have to add a secondary address or change the address to suit the network.
- Step 4. Launch the Cabletron BootP program. Once launched select the BootP Tab at the bottom of the application screen.



Step 5. You must now enter the IP Address and the MAC address for the MGI card in the top blank option parts of the screen. See below.

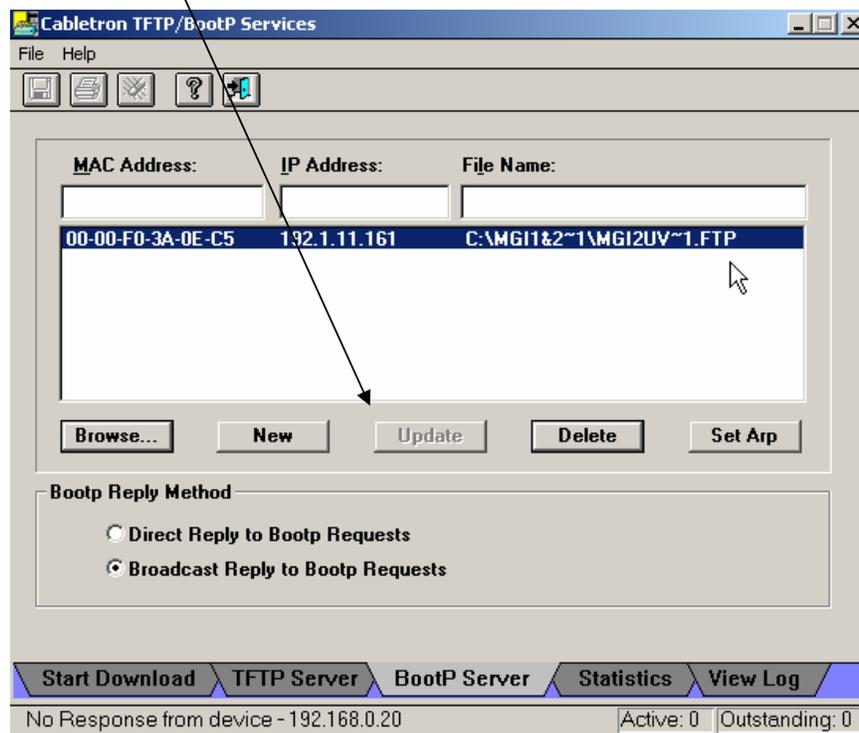


Step 6. After entering the MAC and IP address of the MGI card press the Browse Button to select the upgrade file required. Note please change the File type to \*.\* so that you can view all files. See below



Step 7. Select the FTP file for the MGI software.

Step 8 Once the file, Mac Address & IP address have been correctly entered press the **UPDATE** button to enter the configuration. The BOOTP program is now ready to load the FTP file into the MGI card.



**NOTE** If you are following on from the Boot Image upgrade please press the MGI reset button and go to step 13.

Step 9. Connect the serial cable between the MGI card and the PC then launch the Hyperterminal or Qmodem program.

You are now ready to upgrade the MGI card.

Step 10. To write the MGI software to the MGI Card press and hold the [**Space Bar**] and at the same time press the **RESET** button located on the front of the MGI card. The following screen will be displayed.

```
NBfs1Z
PP Boot 8.2.0.16 (25 June 2002)
Copyright (c) 2002 GlobespanVirata, Inc.
SDRAM^(1017) size = 0x800000
flash val =ff
Key pressed, stopping boot.

Entered console ... User request.
]
]
]
```

Step 11. Release the [**Space Bar**] and press the [**Enter**] key to return to the [ ] prompt

**\*\*\*At this point check that the BootP program is ready and that the correct file mgi2uv100.ftp is selected\*\*\***

Step 12. Enter the following commands as shown below.

**configflash netboot yes** followed by the [**Enter**] key

**reset** followed by the [**Enter**] key

```
] configflash netboot yes
] reset
```

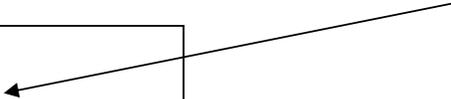
The MGI card will now perform a reset. On restarting the MGI card will load the FTP file from the BootP program. See below.

The following screen messages will be displayed during the file transfer process.

```
PP Boot 8.2.0.16 (25 June 2002)
Copyright (c) 2002 GlobespanVirata, Inc.
SDRAM^(1017) size = 0x800000
flash val =ff
MAC 00:20:2B:00:FF:20
Press Esc to abort tftp download.
boot
boot
boot
reply
```

A successful file upload will result in the below message being displayed.

```
Done! (0x150000 bytes)
tftp image successfully relocated
```



**Note:** If this message is not shown please check the PC LAN port is able to contact the MGI card and that the correct file has been selected.

The MGI card will now continue to Boot and finish with the following screen displayed.



Login. **mg**i

Password. **mg**i

A correct login will receive

**Login successful**

-->

Step 14. Now enter the following command `co en` to write the uploaded files into RAM on the MGI card.

--> **co en** followed by [Enter].

**Switching from CLI to console mode - type 'exit' to return** will be displayed

Step 15. Press the enter key and you will receive the following Command prompt with the MGI IP address.

192.1.11.161>

Step 16. Enter the following command.

192.1.11.161> **flashfs update** followed by [Enter]

After a few seconds the done message will appear

**done**

192.1.11.161>

Once the MGI 1&2 main software has been successfully upgraded to restart the card with the new software go to the following section **2.4 Terminating Software Upgrade Mode** of this document.

## 2.4 Terminating Software Upgrade Mode

Step 1. In the Hyperterminal or Qmodem program press and hold the [Space Bar] key and at the same time press the RESET key located on the front of the MGI card.

The following screen will be displayed. Release the Space Bar and press the [Enter] Key to return to the ] prompt

```
NBfs1Z
PP Boot 8.2.0.16 (25 June 2002)
Copyright (c) 2002 GlobespanVirata, Inc.
SDRAM^(1017) size = 0x800000
flash val =ff
Key pressed, stopping boot.

Entered console ... User request.
]
]
]
```

Enter the following commands as shown below.

**Configflash netboot no** followed by the [Enter] key

**Reset** followed by the [Enter] key

```
] configflash netboot no
] reset
```

The MGI card will now perform a reset and return to normal operation. The upgraded

OfficeServ 500 System - Software Upgrade Manual

software will now be in operation

## 3. MGI3 Upgrade

### 3.1 Equipment Required

LAN cross-over cable for direct connection between the PC LAN port and the MGI 3 card.

### 3.2 Setup

Connect the Laptop PC to the MGI3 card directly using the cross-over cable. Ensure that the IP address and subnet mask of the Laptop PC is in the same range as the MGI 3 card IP address as assigned in MMC 831. If the IP address is not assigned please assign an address in this MMC.

### 3.3 Procedure

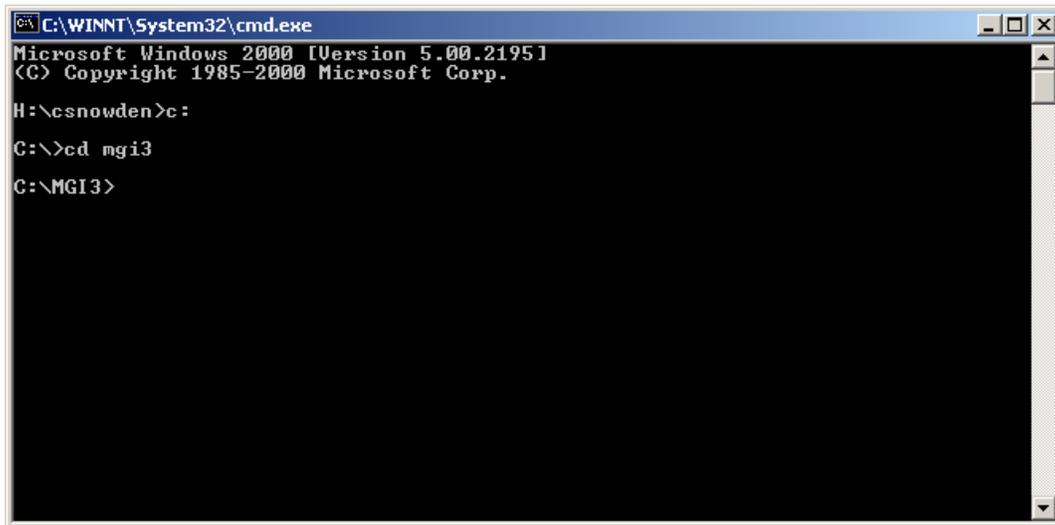
Step 1. Please unzip 'Mgi3.zip' file provided by Samsung Technical Support into a directory of your PC. E.g c:\mgi3  
(You'll see the following files in this directory mgi3.000 / mgi3.001 / etc., dsp.000 / dsp.001 and sig\_ver.c)

Step 2. Using MMC 831 verify the IP address information for the MGI3 card to be upgraded.  
(If the IP address is not assigned please assign an address in this MMC)

**Note:** If the IP address is modified the MGI3 card will reboot. After about 3 minutes, the MGI3 card will be live and ready to be upgraded.

Step 3. Using MMC 727 please check the version date of the MGI3 card. If the version information is the same as upgrade files, upgrading is not required.

Step 4. Open the DOS prompt on your PC and change the directory to the directory location of your MGI 3 upgrade files.



```
C:\WINNT\System32\cmd.exe
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

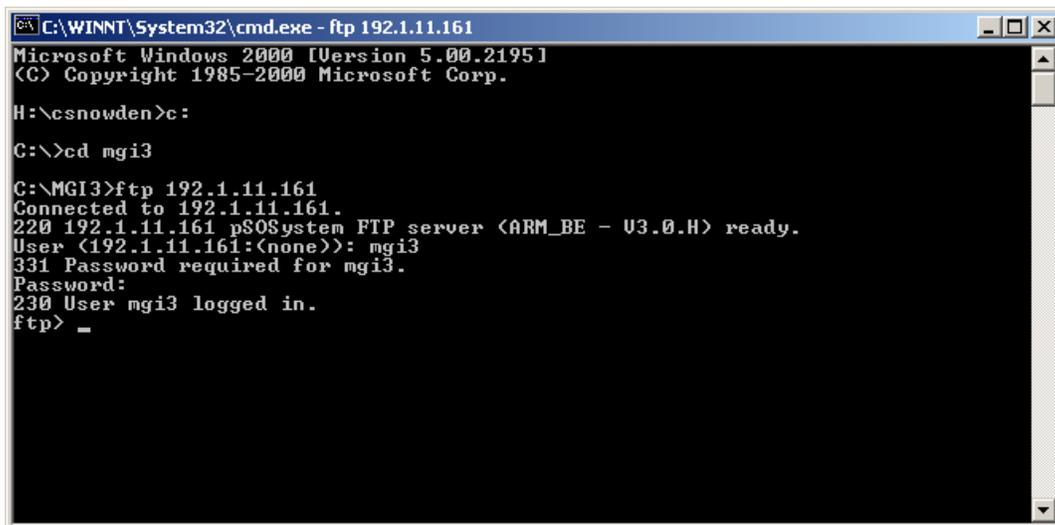
H:\csnowden>c :
C:\>cd mgi3
C:\MGI3>
```

Step 5. From the DOS prompt enter the following commands to gain FTP access to the MGI3 card.

ftp 168.219.81.79 (Please use the actual IP address of MGI3)

User: **MGI3**

Password: **MGI33**



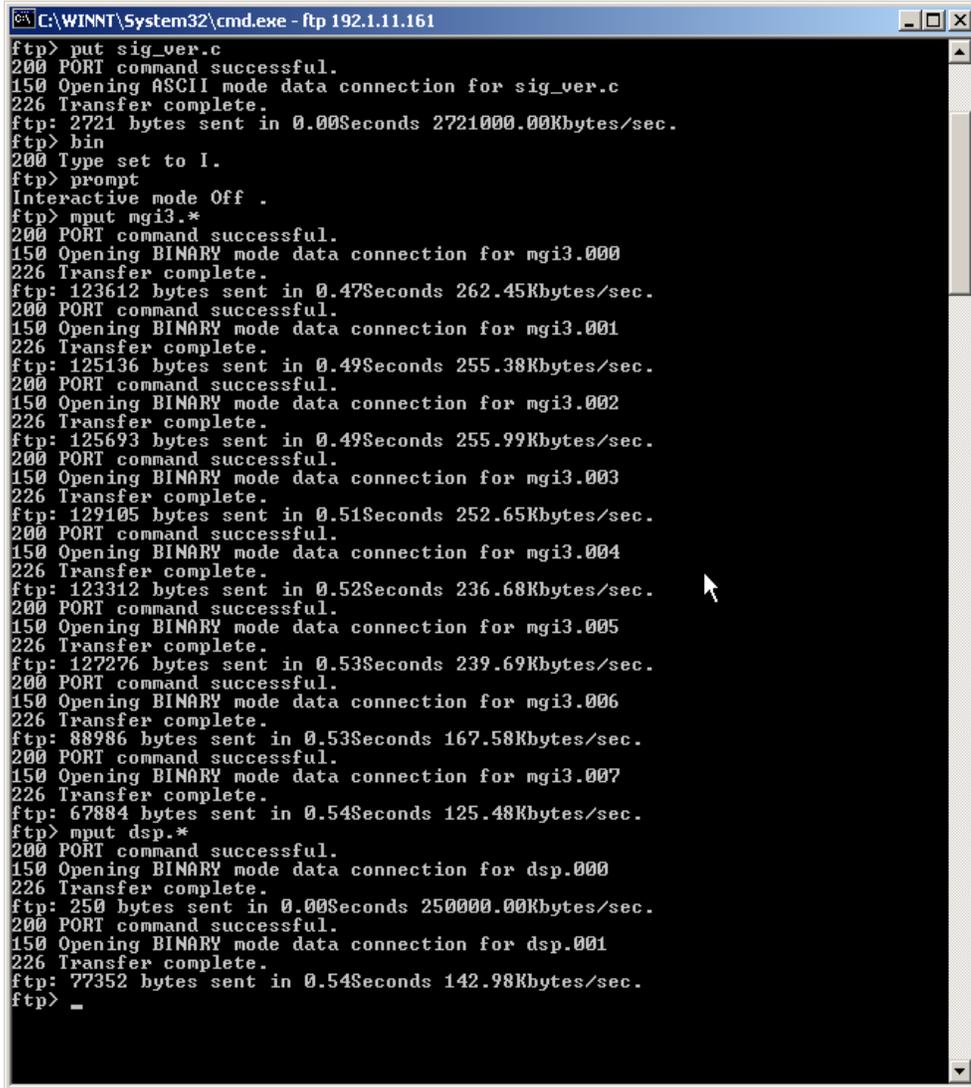
```
C:\WINNT\System32\cmd.exe - ftp 192.1.11.161
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

H:\csnowden>c :
C:\>cd mgi3
C:\MGI3>ftp 192.1.11.161
Connected to 192.1.11.161.
220 192.1.11.161 pSOSystem FTP server (ARM_BE - U3.0.H) ready.
User (192.1.11.161:(none)): mgi3
331 Password required for mgi3.
Password:
230 User mgi3 logged in.
ftp> _
```

Step 6. After connecting ftp session, to upload the unzipped Program Files, insert the following commands sequentially pressing [Enter] key after each one. Please wait for the ftp> prompt to reappear after each command and files are loaded as appropriate.

```
ftp> put sig_ver.c --> Transfer the version information file
ftp> bin --> Change the transfer mode as binary mode
ftp> prompt --> Turn off the interactive mode
ftp> mput mgi3.* --> Transfer new program package files to MGI3 card
Ftp> mput dsp.* --> Transfer new dsp kernal program files to MGI3 card
ftp> bye --> Close the FTP client
```

A success transfer message should be displayed after each file is downloaded as shown below



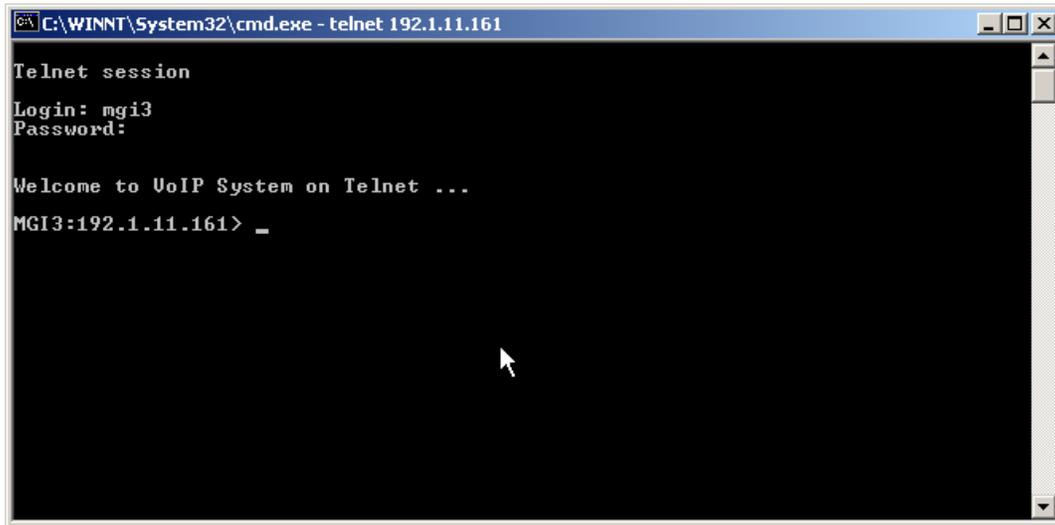
```
C:\WINNT\System32\cmd.exe - ftp 192.1.11.161
ftp> put sig_ver.c
200 PORT command successful.
150 Opening ASCII mode data connection for sig_ver.c
226 Transfer complete.
ftp: 2721 bytes sent in 0.00Seconds 2721000.00Kbytes/sec.
ftp> bin
200 Type set to I.
ftp> prompt
Interactive mode Off .
ftp> mput mg13.*
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.000
226 Transfer complete.
ftp: 123612 bytes sent in 0.47Seconds 262.45Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.001
226 Transfer complete.
ftp: 125136 bytes sent in 0.49Seconds 255.38Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.002
226 Transfer complete.
ftp: 125693 bytes sent in 0.49Seconds 255.99Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.003
226 Transfer complete.
ftp: 129105 bytes sent in 0.51Seconds 252.65Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.004
226 Transfer complete.
ftp: 123312 bytes sent in 0.52Seconds 236.68Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.005
226 Transfer complete.
ftp: 127276 bytes sent in 0.53Seconds 239.69Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.006
226 Transfer complete.
ftp: 88986 bytes sent in 0.53Seconds 167.58Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for mg13.007
226 Transfer complete.
ftp: 67884 bytes sent in 0.54Seconds 125.48Kbytes/sec.
ftp> mput dsp.*
200 PORT command successful.
150 Opening BINARY mode data connection for dsp.000
226 Transfer complete.
ftp: 250 bytes sent in 0.00Seconds 250000.00Kbytes/sec.
200 PORT command successful.
150 Opening BINARY mode data connection for dsp.001
226 Transfer complete.
ftp: 77352 bytes sent in 0.54Seconds 142.98Kbytes/sec.
ftp> _
```

Step 7. Again from the DOS prompt connect to the MGI3 card via a telnet session.

**telnet 168.219.81.79** (*Please use the actual IP address of your MGI3card*)

Login: **MGI3**

Password: **MGI33**



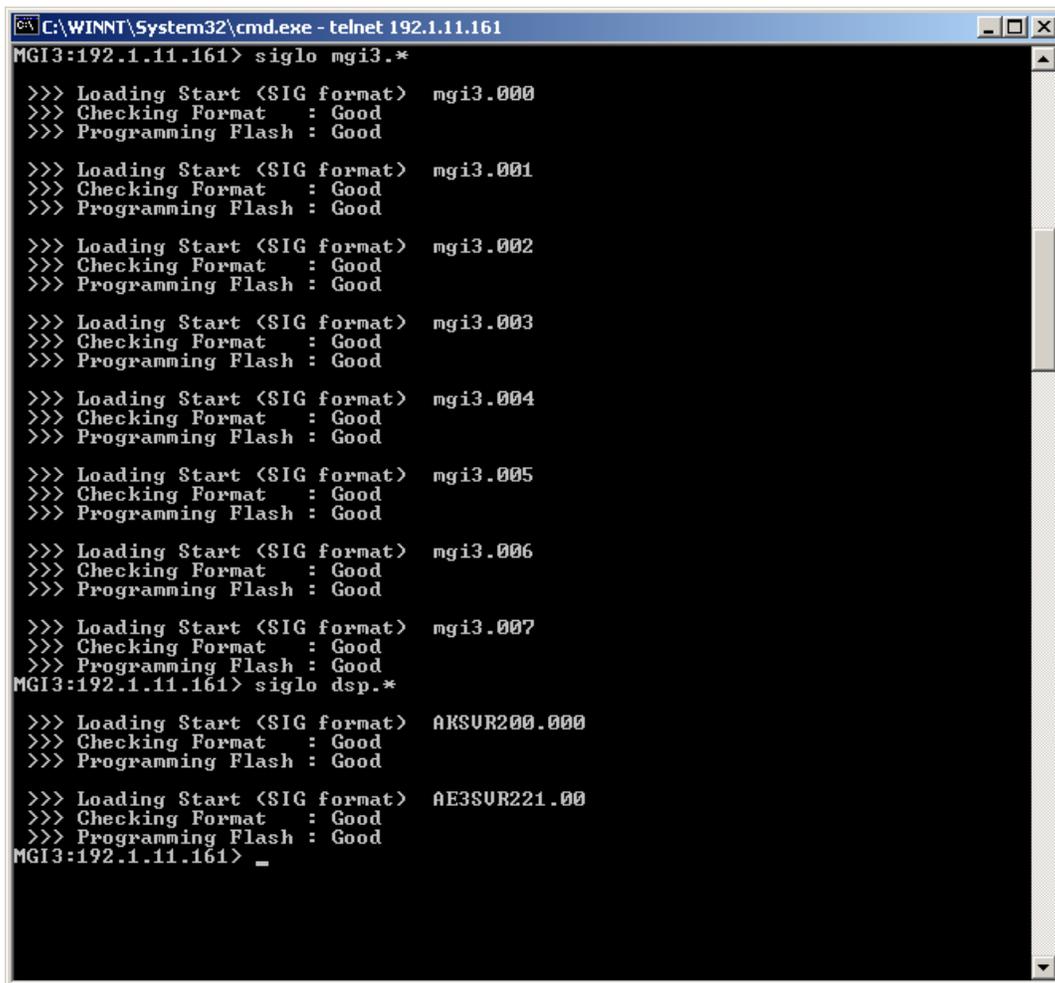
```
C:\WINNT\System32\cmd.exe - telnet 192.11.161
Telnet session
Login: mgi3
Password:
Welcome to UoIP System on Telnet ...
MGI3:192.11.161> _
```

Step 8. After connecting telnet, install the uploaded (in Step 4) files into MGI3 card.

MGI3( MGI3 Ip Address)>**siglo mgi3.\*** (*The messages will be displayed as shown below*)

MGI3( MGI3 Ip Address)>**siglo dsp.\***

MGI3( MGI3 Ip Address)>**sigboot** ( No prompt will be displayed after this command as the MGI 3 card is rebooting)



```
C:\WINNT\System32\cmd.exe - telnet 192.1.11.161
MGI3:192.1.11.161> siglo mgi3.*
>>> Loading Start (SIG format) mgi3.000
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.001
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.002
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.003
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.004
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.005
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.006
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) mgi3.007
>>> Checking Format : Good
>>> Programming Flash : Good
MGI3:192.1.11.161> siglo dsp.*
>>> Loading Start (SIG format) AKSUR200.000
>>> Checking Format : Good
>>> Programming Flash : Good

>>> Loading Start (SIG format) AE3SUR221.00
>>> Checking Format : Good
>>> Programming Flash : Good
MGI3:192.1.11.161> _
```

Step 9. Finish the telnet session closing the telnet window.

## 4. IP Phone Program Upload

### 4.1 Description.

The OfficeSERV 500 system is capable of interfacing with 3 models of IP keysets.

The ITP 5012L Large Screen IP Handset

The ITP 5021D 21 button IP Handset

The ITP 5014D 14 button IP Handset

As these three models of phone are all IP based in operation they allow any new software to be uploaded to the Handset via the data network.

Each phone has loaded into its software package a TFTP client software application. This allows the ITP phones to search for a specific IP address of a TFTP server and automatically perform the required software upgrade.

This section you will detail how to configure and install a basic TFTP server, load the upgrade files into the TFTP server and upgrade the ITP handset software.

### 4.2 Items Required

The following items are required to upgrade the ITP phone software:

- A PC running Windows 98 and above with a LAN connection.
- A copy of a TFTP server program. A shareware program 3Cdaemon described in this section will be available from the Samsung Partner Website.

### 4.3 ITP Phone Upgrade Files

The ITP phone software comprises two parts. The first is the Boot ROM and the second is the Program files. Typically one or both of these files will be provided in a ITP phone software upgrade release. Below is the list of files that are used for each ITP phone type.

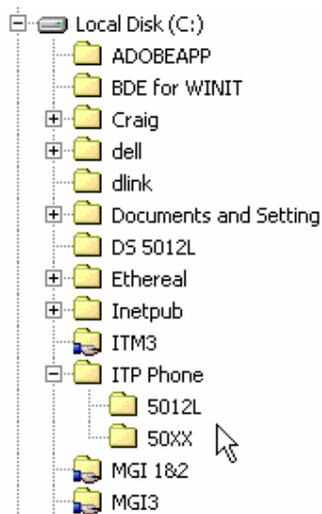
### ITP-5012L Large Screen Files

BootROM.BIN	(Phone Boot ROM Software)
dsp483l.bz	(Phone Voice Compression Software)
iphone.bz	(Phone Feature software)
loadrun.ini	(Running Software)
qstr.bin	(Running Software)

### ITP-5021D / ITP-5014D Files

BootROM.BIN	(Phone Boot ROM Software)
dsp483l.bz	(Phone Voice Compression Software)
iphone2.bz	(Phone Feature software)
loadrun.ini	(Running Software)

When a ITP phone upgrade is required the supplied ITP Phone software should be copied into separate directory's of your PC's Hard drive. An example is shown below.

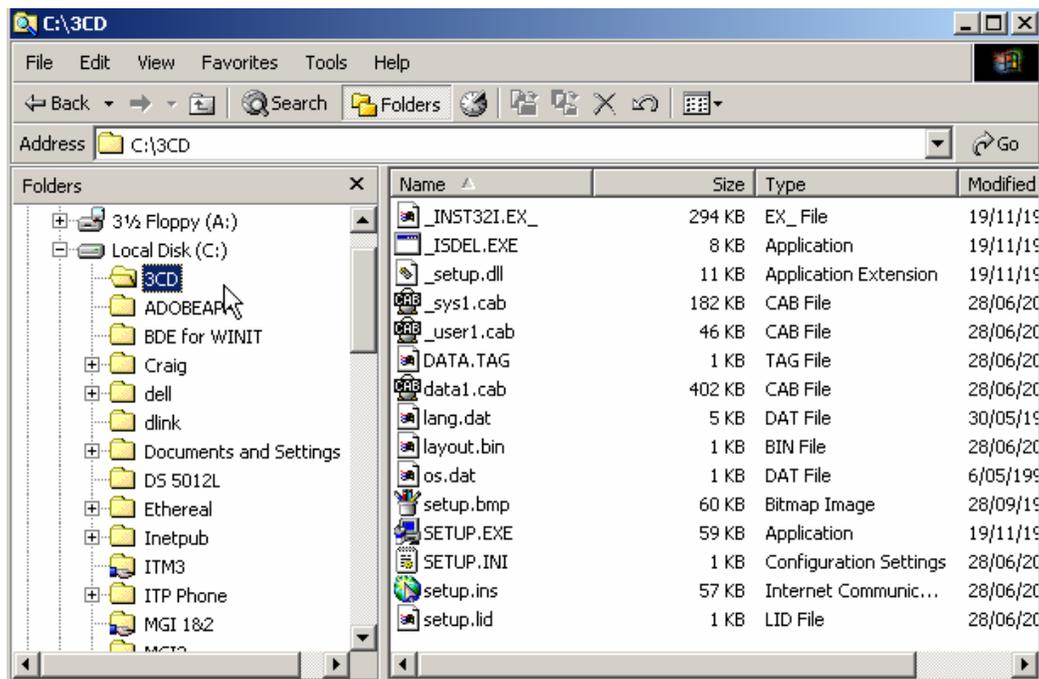


## 4.4 TFTP software (3CDAEMON)

The 3CDAEMON software is a shareware TFTP program that can be simply installed onto any PC. The program file is 3cdv2r10.zip and is 928K in size.

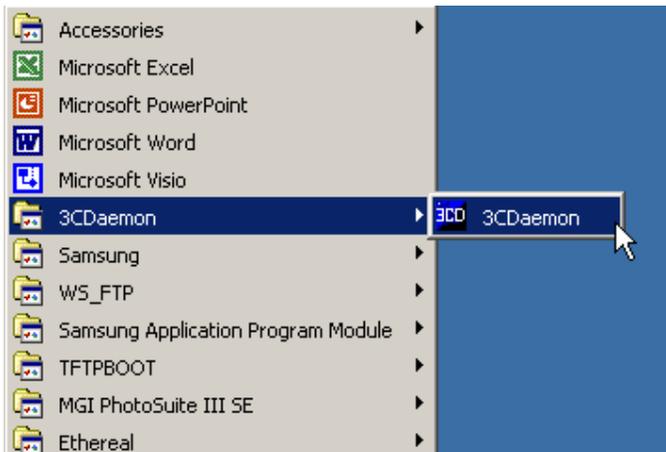
### Installing the TFTP Server Application

Step 1. Copy the file 3cdv2r10.zip into a new directory and extract the files from the ZIP archive.

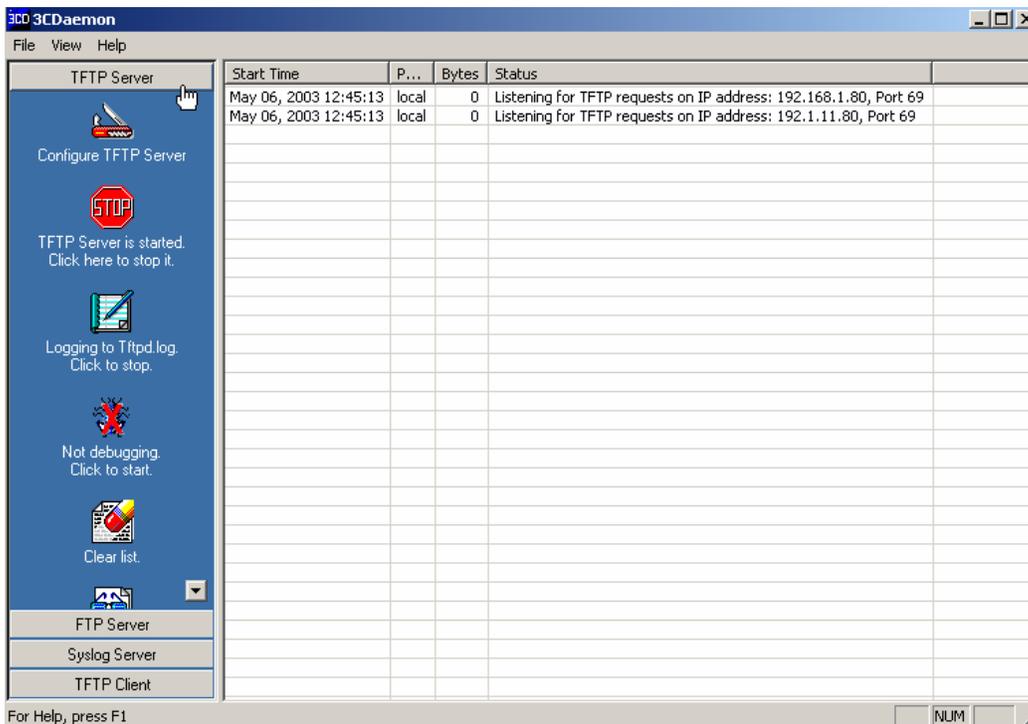


Step 2. Execute the SETUP.EXE file.

Step 3. Execute TFTP server application from Program files on your PC as shown below.



3Cdaemon will launch with the following screen.



---

**Notes:**

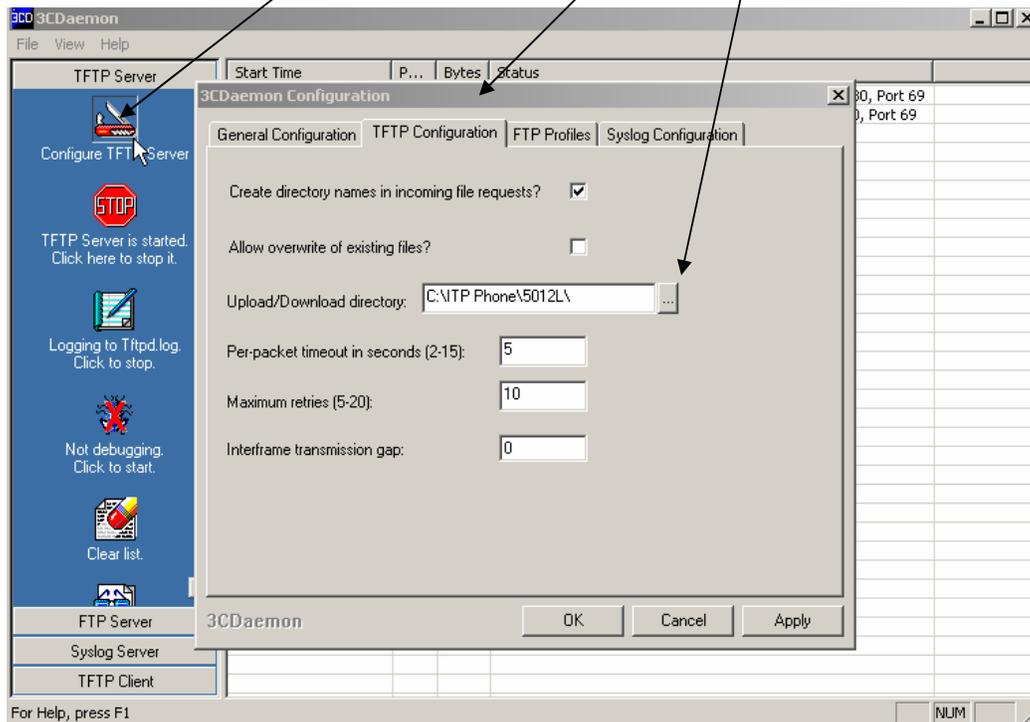
1. It is very important that the PC that will be the TFTP server has the same IP address range as the ITP phones that will be upgraded.
2. For correct operation you should see the message “listening for TFTP

request on IP Address xxx.xxx.xxx.xxx, Port 69., where xxx.xxx.xxx.xxx is the IP address of the PC with the TFTP server installed

It is also important to make sure the 3CDEAMON program is pointing at the required ITP phone software files you wish to use to upgrade the ITP phones.

### Configuring the TFTP Server Application

Select Configure TFTP Server button then the TFTP Configuration tab and use the browse button to locate the folder setup with the software files to be used in the upgrade process. The example below shows the ITP 5012L files selected.



3Cdaemon is now ready for use to upgrade the 5012L phones.

---

**Note:** Make sure the Go and Stop button shows STOP and the correct Listening message is shown

---

Contact Samsung Technical support if difficulties are experienced in reaching this stage.

## 4.5 Upgrading Samsung ITP phones

There are three methods available for upgrading the IP phone software.

- | Via the IP Phone MENU option
- | Via MMC 840 command from any keyset or IP phone
- | Via MMC 841 which allows all connected IP phones to be automatically updated at a predefined time.

Each of these options is described below.

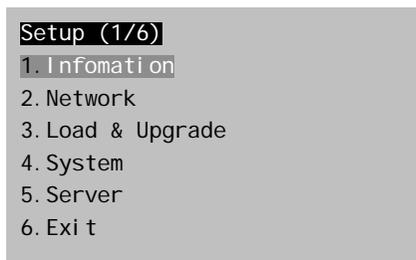
### Option 1. Manual Upgrade Via IP Phone Menu

#### Upgrading the 5012L Large screen Handset.

After correctly configuring and running the TFTP server software you can now proceed with the upgrading of the Handsets.

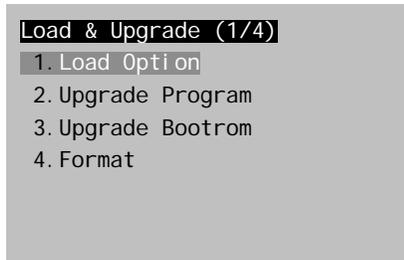
Step 1. Enter Environment Setup mode on the ITP-5012L phone.  
Press and Hold the [MENU] Key and remove and replace the AC adaptor power cord connected to the phone.

The Handset will reboot with the below screen.



Step 2. Select the Load & Upgrade Option using the navigation buttons and press the [Enter] key or dial [3].

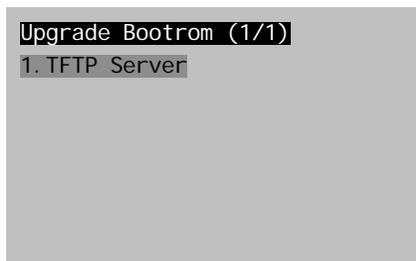
The following menu will now be displayed



### Step 3. Upgrade Bootrom

Move the cursor down using the navigation keys to [3 Upgrade Bootrom] and press the [Enter] key or dial [3].

The following screen will be shown.



---

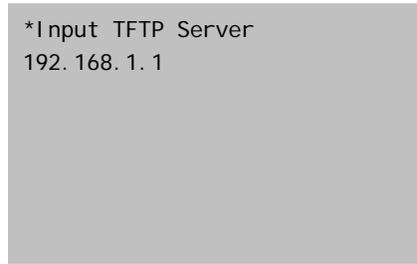
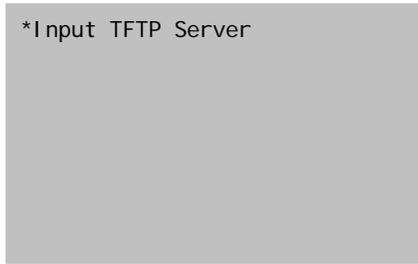
**Note:** It is important that the Bootrom option is always completed first before upgrading the program files.

---

### Step 4. Selecting the TFTP server and set its IP Address.

Select option [1 TFTP server] by pressing the [Enter] key or dialling [1] from the keypad.

The following screens will be displayed.



The IP phone will remember the last TFTP server IP address used at the time of the last software upgrade. If No IP address is shown this indicates that this is the first time the IP phone has been upgraded.

Please now enter the IP address of the PC that has the TFTP server application running and press the [Enter] button.

---

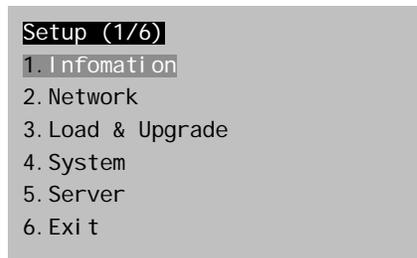
**Note:** Use the \* key to separate the numbers in the IP address. If the IP address contains two consecutive numbers of the same value, wait for the cursor to move to the next character or press the > navigation button to move the cursor manually.

---

Step 5. The ITP 5012L will begin the Bootrom Upgrade

The ITP phone will now ask the TFTP server for the required files to upgrade the bootrom.

The Display will indicate the Upgrade process and automatically perform the required steps. At the completion of the bootrom upgrade process the display will return to the Environment Setup page as shown below



---

**Note:** If the Bootrom version to be loaded is the same as is existing in the ITP phone the ITP phone will identify this and ask you if you wish to proceed with the upgrade. There in no reason to proceed, but it will do no harm.

---

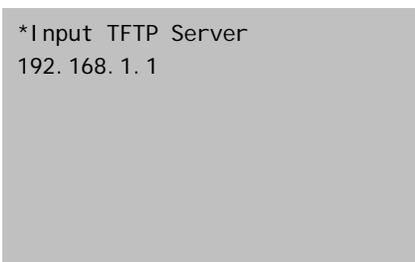
Step 6. To upgrade the ITP phone Program files select [3. Load & Upgrade] and press [Enter] or dial [3].

Step 7. Select [2. Upgrade Program] and press [Enter] or dial [2]  
The following screens will be displayed.



Step 8 Select the TFTP server

The IP address of the TFTP server as shown below will now be present due to the fact the Bootrom procedure has been completed.



Step 9. Press the [Enter] button to upload the Program files.

Once the upgrade has been successfully completed the ITP 5012L will reboot automatically and connect to the OfficeSERV500 It is now ready to use.

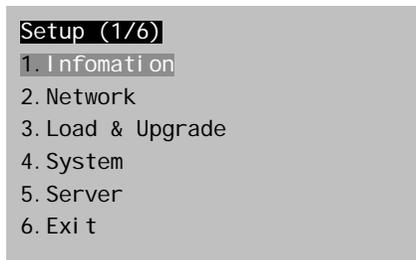
## Trouble Shooting.

If you find you have made a mistake with the upgrade procedure or the upgrade has failed and the handset will no longer operate you may have to default the Handset and start again. To default the ITP 5012L phone complete the following: -

Step 1. Enter the Environment Setup mode for the ITP-5012L phone.

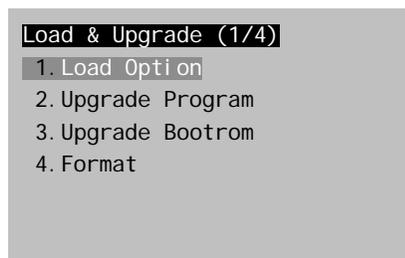
Press and Hold the [MENU] Key and remove and replace the AC adaptor power cord connected to the phone.

The following screen will be displayed.



Step 2. Select [3.Load & Upgrade] using the navigation keys and press [Enter] or dial [3]

The following menu will now be displayed



Step 3. Select [4. Format] using the navigation buttons and press [Enter] or dial [4]. The next screen will prompt you with “\*Format?” Press [Enter] to proceed to format the ITP handset. At the completion of the formatting the screen will display to the Load & Upgrade Menu.

At this point commence the ITP 5012L software upgrade procedure again.

### **Upgrading the 5021D & 5014D Handset.**

After correctly configuring and running the TFTP server software as described in Section 4.4 above, you can now proceed with the upgrading of the ITP 5021/14D IP phones. Remember the TFTP server must be pointing at the correct upgrade files for these ITP Phones.

Step 1. Enter the ITP-50XXD Environment Setup mode.  
Press and Hold the [MENU] Key and remove and replace the AC adaptor power cord connected to the phone.

The IP phone will reboot with the following displayed on the LCD.



```
> 1. Information
  2. Network
```

Step 2. Use the navigation buttons to select [3. Load & Upgrade] and press the Enter Key or dial [3].

The following menu will now be displayed



```
> 1. Load Option
  2. Upgrade Program
```

Step 3. Select [3. Upgrade Bootrom] and press [Enter] or dial [3]

---

**Note:** The Bootrom option must always be completed first before the program files if both sets of files need to be upgraded.

---

The following screen will be shown.



```
> 1. TFTP server
```

Step 4. Select the TFTP server and IP Address.

Select [1. TFTP Server] using the navigation button and press the [Enter] key or dial [1].

The following screens will be displayed.



The IP phone will remember the last TFTP server IP address used at the time of the last software upgrade. If No IP address is shown this indicates that this is the first time the IP phone has been upgraded.

Please now enter the IP address of the PC that has the TFTP server application running and press the [Enter] button.

---

**Note:** Use the \* key to separate the numbers in the IP address. If the IP address contains two consecutive numbers of the same value, wait for the cursor to move to the next character or press the > navigation button to move the cursor manually.

---

Step 5. The ITP 50XXD will begin the Bootrom Upgrade

The ITP will now ask the TFTP server for the required files to upgrade the bootroom.

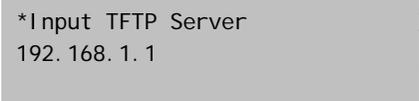
The Display will indicate the Upgrade process and automatically perform the required steps.

---

**Note:** If the Bootrom version to be loaded is the same as is existing in the ITP phone the ITP phone will identify this and ask you if you wish to proceed with the upgrade. There in no reason to proceed, but it will do no harm.

---

Step 6. Upgrading the Program files. Select [3. Load & Upgrade] using the navigation

Step  [3] using the navigation keys or dial [2].

Step 8 Select the TFTP server

The IP address of the TFTP server as shown below will now be present due to the fact the Bootrom procedure has been completed.

Step 9. Press the [Enter] button to upload the Program files.  
Once the upgrade has been successfully completed the ITP 50XXD will reboot

Once the upgrade has been successfully completed the 50xxD will reboot automatically and connect again to the OfficeSERV500 ready for use.

### **Trouble Shooting.**

If you find you have made a mistake with the upgrade procedure or the upgrade has failed and the handset will no longer operate you may have to default the Handset and start again. To default the ITP 5021/14D phone complete the following: -

Step 1. Enter the Environment Setup mode on the ITP-50XXD phone.  
Press and hold the “MENU” Key while the AC adaptor power cord is removed and re-inserted.

The ITP phone will reboot and will start in the Environment Setup mode as shown below.



> 1. Information  
2. Network

Step 2. Select [3. Load & Upgrade] using the navigation keys and press [Enter], or dial [3]

The following menu will now be displayed



> 1. Load Option  
2. Upgrade Program

Step 3. Select [4. Format] using the navigation buttons and press [Enter], or dial [4].  
The next screen will prompt you with “\*Format?” Press [Enter] to proceed to format the ITP phone. At the completion of the formatting the screen will return to the Load & Upgrade Menu.

At this point commence the ITP 5021/14D software upgrade procedure again.

## **Option 2. Manual Upgrade via MMC 840**

MMC 840 IP Set Information allows you to upgrade an ITP phone without performing the upgrade at the ITP phone using the phone upgrade method described above. This MMC forces the ITP phone to connect with the TFTP server and upgrade itself automatically.

Prior to using this MMC additional information must be programmed in MMC 841 Phone Information, see below

Step 1. Enter the IP address of the TFTP server in MMC841  
Enter the TFTP server address in “PHONE TFTP IP” option. Remember that all 12 digits must be entered via KMMC. E.g. 192.1.11.001 would be entered as 192001011001 the system will automatically include the [.]

Step 2. Select the Upgrade type required in MMC841  
Enter the type in “ITP VERS UPGRADE” TYPE : MMC COMMAND

Step 3 Select the IP phone extension number that requires the upgrade in MMC 840  
Select “SW UPGRADE” and press the right soft key and select “YES” to commence the upgrade.

The ITP phone will connect with the TFTP server and complete the required upgrade.

## **Option 3. Automatic Upgrade Time MMC 841.**

MMC 841 has the option for setting a time for all ITP phones to be upgraded. As all phones cannot actually be upgraded at exactly the same time (due to the TFTP server connections) each phone will upgrade in 10 second intervals.

Step 1. Enter the IP address of the TFTP server in MMC841  
Enter the TFTP server address in “PHONE TFTP IP” option. Remember that all 12 digits must be entered via KMMC. E.g. 192.1.11.001 would be entered as 192001011001 the system will automatically include the [.]

Step 2. Select the upgrade type required in MMC841

Enter the type in “ITP VERS UPGRADE” TYPE : AUTO TIME. The default is Phone Conn, which is for Option 1 above.

Step 3. Press the volume UP key and select START time.

Enter the time (in 24 hour mode) required to commence the ITP upgrades.

Step 4. Press the volume UP key and select INTERVAL

Enter the interval time required between upgrades.

At the time entered in step 3 above each ITP phone will automatically connect to the TFTP server and the IP phones software will be upgraded automatically in turn. After the completion of the upgrade for each ITP phone the system will wait for the interval programmed in step 4 before progressing to the next ITP phone.

---

**Note:** The TFTP Server must remain connected to the LAN for the duration of the upgrade process.

---

### **Cautions**

The copyright of this manual is an exclusive asset of Samsung Electronics Co. Ltd.

This manual must not be reproduced or transmitted, whether partially or entirely, by any electronic, mechanical, or audio means without the approval from Samsung Electronic. Co. Ltd.

The information provided in the manual is subject to change due to improvement in product functions or other reasons.

Copyright© SAMSUNG All rights Reserved



is the registered trademark of Samsung.