



IP Office Technical Tip

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Region: GLOBAL

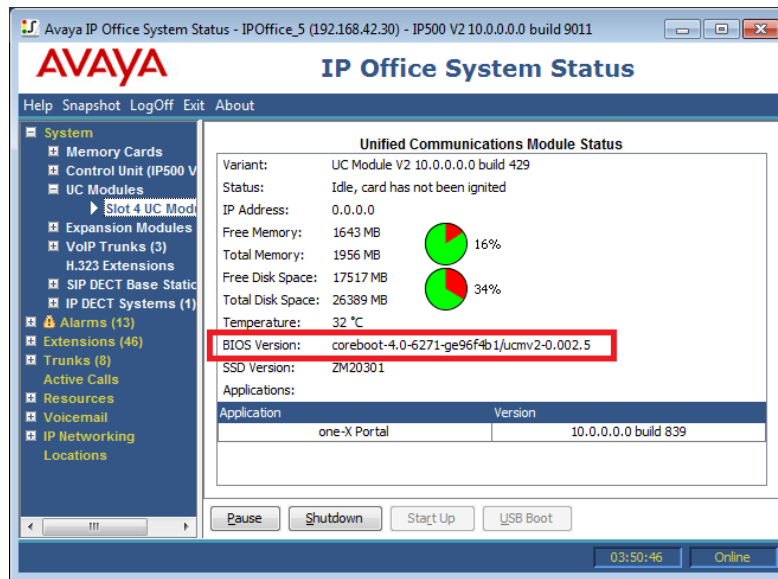
Unified Communications Module V2- Firmware Upgrade

This Technical Tip is to alert customers with the Unified Communications Module (UCM) V2 (Avaya ID 700507449) that a firmware upgrade may be required. Early manufactured UCM V2 cards that require a firmware upgrade may not start up correctly.

Affected modules are identified by PCS number, which can be determined from the label on the packaging, or from the manufacturing label on the module.

- Cards identified as PCS 1 will need to be upgraded.
- Cards identified as PCS 2 may need to be upgraded. In both cases, follow the procedure to determine the current UCM V2 firmware version.

If the UCM V2 is installed in an operational IP Office system, the firmware version can be checked using System Status Application (SSA). Navigate to the UCM status screen and check the BIOS version field displayed. The latest version is “coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.5”:



If an earlier version than the above is displayed, it is recommended that the upgrade process is followed to upgrade the firmware.

Note: The BIOS version can only be accessed when the UCM V2 card is shutdown. If the IP Office main unit is re-started while the UCM V2 is running, the BIOS Version field will not be populated in SSA. In this case, the UCM V2 must be shut down and restarted for the field to be displayed.

Pre-requisites required for installing UCM V2 firmware

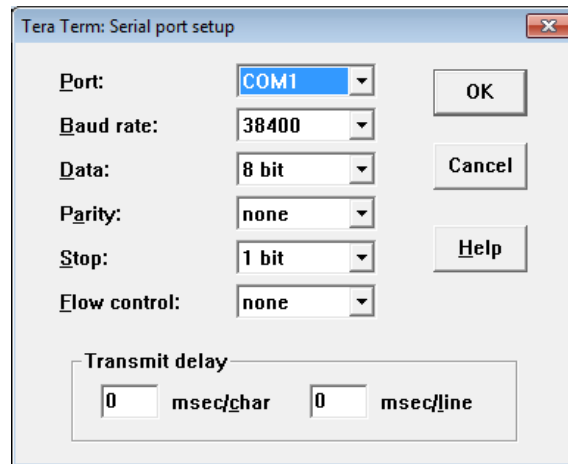
The upgrade procedure requires the following:

- An IP Office IP500 V2 Control Unit, running software release 9.0 Service Pack 6 or later.
- A PC running the IP Office Manager application and terminal emulation application (PuTTY or Tera Term for example).
- An RS-232 cable, with 9-pin male connector for the IP Office connection and appropriate connector for the PC COM port connection (9-pin female).
- The UCM V2 Firmware image file, named “UCMv2Flash.bin” from the Avaya Support web site

Upgrade Procedure

1. Install the UCM V2 module into the IP Office V2 Control Unit.
2. Connect the RS-232 cable to the IP Office V2 Control Unit RS232 port, located on the rear of the unit and to a COM port on the PC.

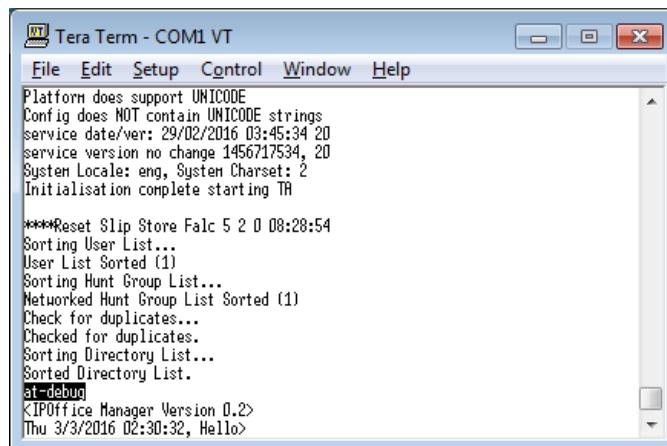
3. Configure the PC terminal emulation software, selecting the correct COM port and setting the serial port characteristics to 38400 baud, 8 data bits, 1 stop bit, no parity and no flow control. For example, if using Tera Term:



4. Power on the IP Office Control Unit
5. Hardware initialization messages should be displayed on the terminal window. After the message "Initialization complete starting TA" has been displayed, enter the following command:

at-debug

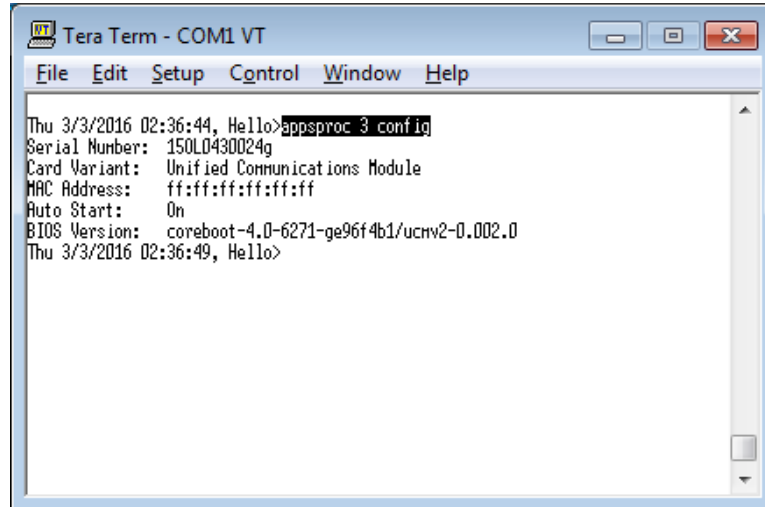
Observe the command prompt showing the date and time:



6. Commands which access the UCM V2 flash memory can only be executed when the card is in the shutdown state. This is identified by both front panel LED's being extinguished (except for the lower LED orange flash every 5 seconds). If the UCM V2 is not shut down, then press the front panel button on the module for at least 2 seconds and wait for the front panel LED's to show the shutdown state.

7. For the following DTE port commands entered in the terminal application, where the slot number of the UCM V2 module is required, the numbering is 0 (left hand slot when facing the unit) to 3 (right hand slot). In the example, the UCM V2 is located in slot 3. Enter command:

```
appsproc <slot> config
```



8. Check the BIOS version field for the required action:

```
coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.0 – upgrade required
coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.4 – upgrade required
coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.5 – no upgrade required
```

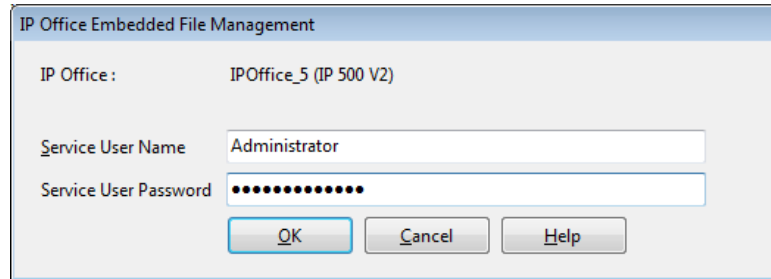
If no upgrade is required, the procedure can finish here. Otherwise, continue with the next steps.

Transfer Firmware File onto System SD Card, using IP Office Manager

9. Start the IP Office Manager application
10. Select “File”, “Advanced”, “Embedded File Management”

11. From the list of units, select the IP Office system containing the UCM V2 card to be upgraded. Select OK.

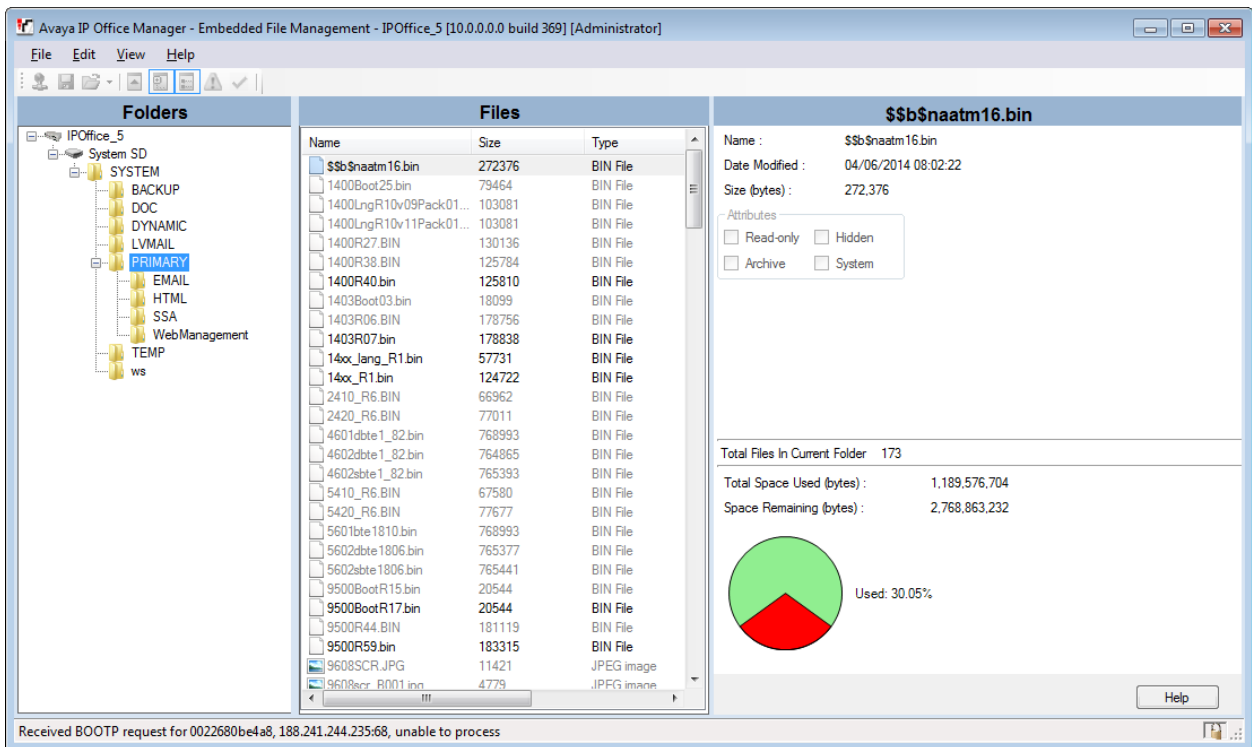
12. Enter the Service User Name and Password in the dialogue displayed:



The dialog box is titled "IP Office Embedded File Management". It contains the following fields and buttons:

- IP Office : IPOffice_5 (IP 500 V2)
- Service User Name: Administrator
- Service User Password: A field with 10 black dots representing a masked password.
- Buttons: OK, Cancel, Help

13. Navigate to the System SD, SYSTEM, PRIMARY folder:



The screenshot shows the "Avaya IP Office Manager - Embedded File Management" window. The interface is divided into three main sections:

- Folders:** A tree view on the left showing the directory structure: IPOffice_5 > System SD > SYSTEM > PRIMARY (selected).
- Files:** A table listing files in the current folder. The selected file is `$$b$naatm16.bin`.
- File Properties:** A panel on the right showing details for the selected file.

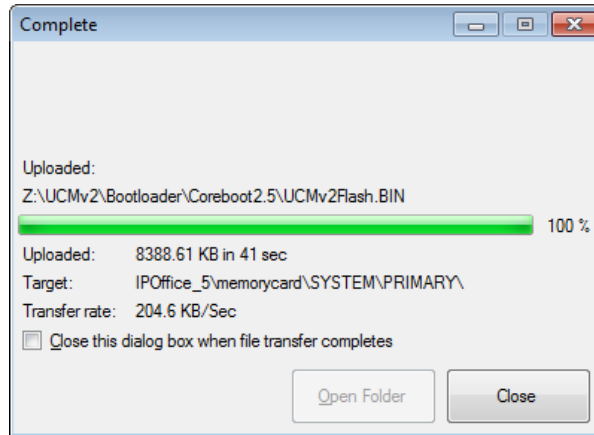
Name	Size	Type
\$\$b\$naatm16.bin	272376	BIN File
1400Boot25.bin	79464	BIN File
1400LngR10v09Pack01...	103081	BIN File
1400LngR10v11Pack01...	103081	BIN File
1400R27.BIN	130136	BIN File
1400R38.BIN	125784	BIN File
1400R40.bin	125810	BIN File
1403Boot03.bin	18099	BIN File
1403R06.BIN	178756	BIN File
1403R07.bin	178838	BIN File
14ox_Jang_R1.bin	57731	BIN File
14ox_R1.bin	124722	BIN File
2410_R6.BIN	66962	BIN File
2420_R6.BIN	77011	BIN File
4601bte1_82.bin	768993	BIN File
4602bte1_82.bin	764865	BIN File
4602sbte1_82.bin	765393	BIN File
5410_R6.BIN	67580	BIN File
5420_R6.BIN	77677	BIN File
5601bte1810.bin	768993	BIN File
5602bte1806.bin	765377	BIN File
5602sbte1806.bin	765441	BIN File
9500BootR15.bin	20544	BIN File
9500BootR17.bin	20544	BIN File
9500R44.BIN	181119	BIN File
9500R59.bin	183315	BIN File
9608SCR.JPG	11421	JPEG image
9608scr_R001.png	4779	JPG image

File Properties for \$\$b\$naatm16.bin:

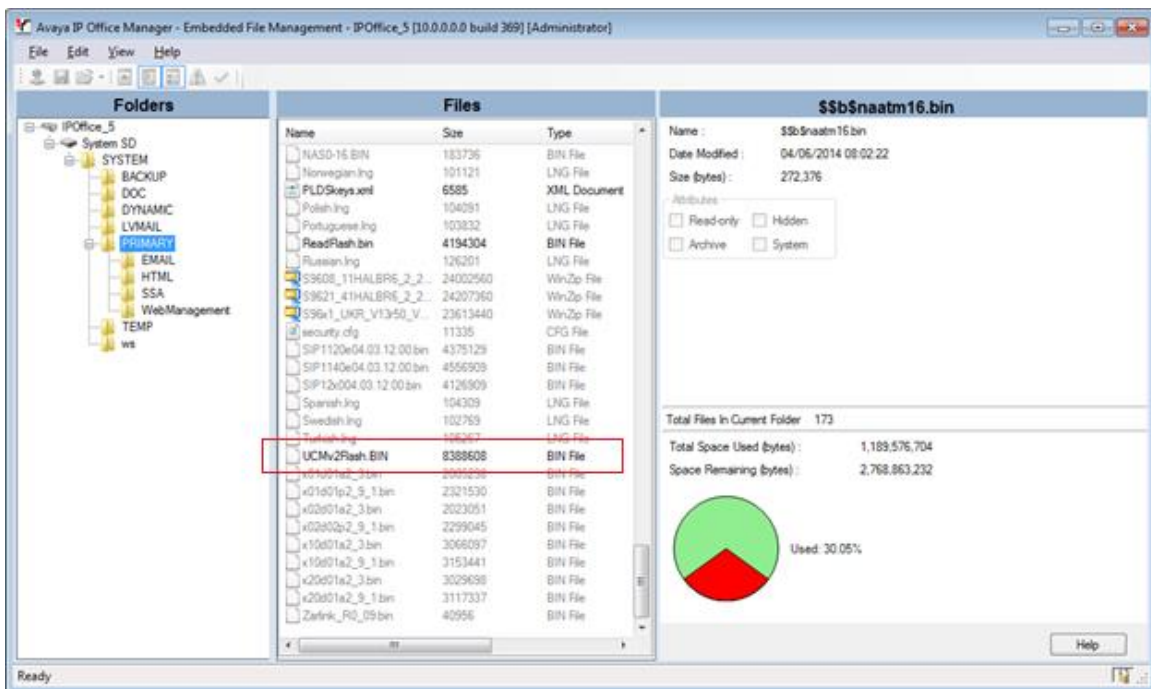
- Name: \$\$b\$naatm16.bin
- Date Modified: 04/06/2014 08:02:22
- Size (bytes): 272,376
- Attributes: Read-only, Hidden, Archive, System
- Total Files In Current Folder: 173
- Total Space Used (bytes): 1,189,576,704
- Space Remaining (bytes): 2,768,863,232
- Used: 30.05% (indicated by a pie chart)

Received BOOTP request for 0022680be4a8, 188.241.244.235:68, unable to process

- Drag and drop the UCM V2 firmware file, UCMv2Flash.bin, from its folder on the PC into the Primary folder on the SD card. A dialogue will show the progress of the transfer; when complete select Close:



- Verify the file is present in the "PRIMARY" folder:

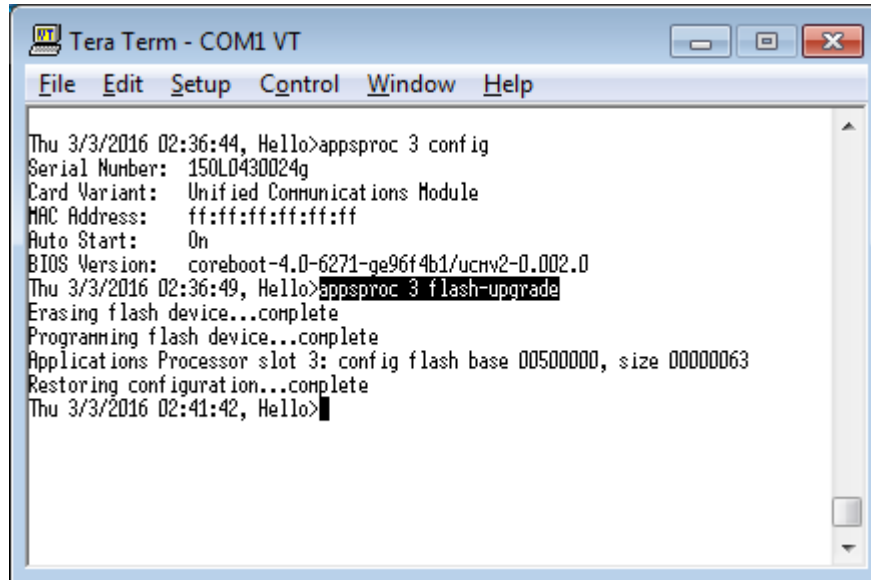


- Change IP Office Manager back to Configuration Mode, by selecting "File", and the "Configuration" menu option.

Upgrading the UCM V2 Firmware

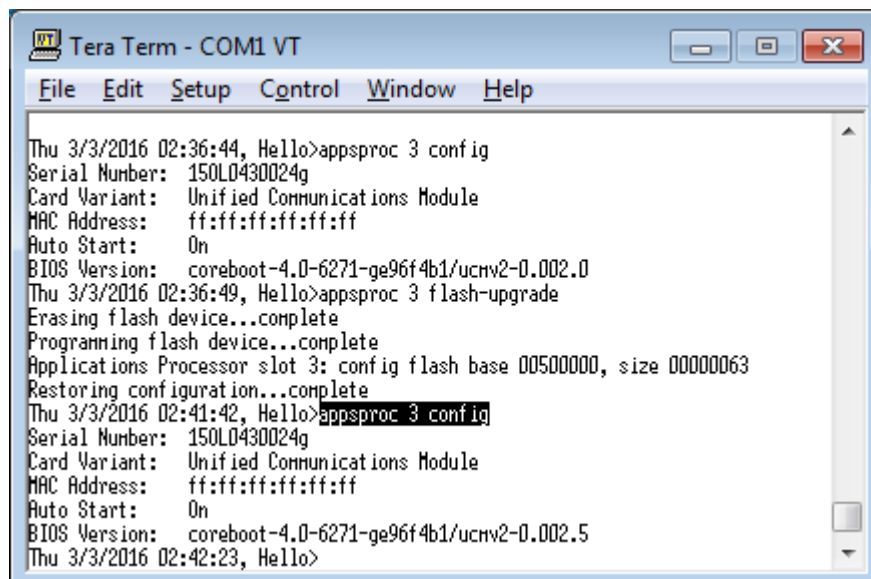
17. From the terminal window, enter the command:

```
appsproc <slot> flash-upgrade
```



```
Tera Term - COM1 VT
File Edit Setup Control Window Help
Thu 3/3/2016 02:36:44, Hello>appsproc 3 config
Serial Number: 150L0430024g
Card Variant: Unified Communications Module
MAC Address: ff:ff:ff:ff:ff:ff
Auto Start: On
BIOS Version: coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.0
Thu 3/3/2016 02:36:49, Hello>appsproc 3 flash-upgrade
Erasing flash device...complete
Programming flash device...complete
Applications Processor slot 3: config flash base 00500000, size 00000063
Restoring configuration...complete
Thu 3/3/2016 02:41:42, Hello>
```

18. The erase and programming cycle will take approximately four minutes. On completion, enter the `appsproc <slot> config` command again and verify that the BIOS version displayed is now “coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.5”:



```
Tera Term - COM1 VT
File Edit Setup Control Window Help
Thu 3/3/2016 02:36:44, Hello>appsproc 3 config
Serial Number: 150L0430024g
Card Variant: Unified Communications Module
MAC Address: ff:ff:ff:ff:ff:ff
Auto Start: On
BIOS Version: coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.0
Thu 3/3/2016 02:36:49, Hello>appsproc 3 flash-upgrade
Erasing flash device...complete
Programming flash device...complete
Applications Processor slot 3: config flash base 00500000, size 00000063
Restoring configuration...complete
Thu 3/3/2016 02:41:42, Hello>appsproc 3 config
Serial Number: 150L0430024g
Card Variant: Unified Communications Module
MAC Address: ff:ff:ff:ff:ff:ff
Auto Start: On
BIOS Version: coreboot-4.0-6271-ge96f4b1/ucmv2-0.002.5
Thu 3/3/2016 02:42:23, Hello>
```

19. The UCM V2 firmware upgrade is now complete. The card can be returned to service and powered on if previously commissioned, or the software installation procedure can now be followed to commission the card.

Early UCM V2 cards that have been running without issues in customer systems to date may still continue to start-up correctly without the Firmware upgrade. However, Avaya recommends that the firmware upgrade is performed on all affected cards.

The updated firmware is available from the IP Office 9.0 and 9.1 “Downloads” section of the Avaya Support web site:

<https://support.avaya.com>

Issued by:
Avaya SMEC Customer Product Engineering Support

Contact details:-
EMEA/APAC

Email: gsstier4@avaya.com

NA/CALA

Email: IPONACALAT4@Avaya.com

Internet: <http://www.avaya.com>
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