



# **CDR-990 Cellular Router**

## **Upgrade Process**

**Application Software Version 1.58.1**

**Phone Module Hardware Version K2\_0\_7\_19A**



Call Direct

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## ***Document Description***

This document is intended to be used as a step-by-step guide for upgrading the Call Direct CDR-990seu cellular router from version 1.57.2 to the following version:-

Application Software Version:	1.58.1
Phone Module Firmware Version:	K2_0_7_19A

Note that if you presently have an Application Software Version other than V1.57.2 you will need contact Call Direct to obtain an upgrade pack at either:

Phone:	+61 (02) 9011-7526
Email:	<a href="mailto:support@call-direct.com.au">support@call-direct.com.au</a>

You will need the following files available to complete this upgrade procedure:

Application Software:	upgrade-1.57.2-1.58.1.cramfs (1,648KB)
Boot Loader:	MC8790_DLEX_K2.0.7.18.cwe (606KB)
Phone Application:	MC8790_K2.0.7.19.cwe (15,835KB)

## 1.0 Upgrade Process

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### ***Upgrade the Cellular Router Application Software***

1. **After upgrading the current settings on the unit will be lost**
2. Please **backup the current settings on the unit before the upgrade** to make a backup copy of the current settings go to the Application Load/Save then under the "Save a copy of current settings:" click Save, this will create a backup file of the current settings. To restore the previous settings select the "Restore saved settings:" select the backup file and click Restore.
3. Plug the network (CAT5) cable in to the Ethernet port, next plug in the power cable.
4. Log in to the web administration page by opening your web browser and typing in the URL <http://192.168.1.50/> with the following credentials:
  - a. Username: admin
  - b. Password: password
5. Verify that the present "Application Software Version" is 1.57.2 ①  
If "Application Software Version" is NOT 1.57.2 please contact Call Direct for an alternate upgrade pack to suit your software version.

**Status**

**LAN**

IP	192.168.1.50 / 255.255.255.0
MAC Address	00:11:DC:F2:06:00

**SYSTEM INFORMATION**

System Up time	00:11:20
Router Version	Hardware: 1.04_e Software: 1.57.2
Phone Module	Model: Hardware: not available Firmware: not available Temp:
Serial Number	00:11:DC:F2:06:00

**PPP**

PPP Status	DISABLED
PPP IP Address	N/A / N/A
PPP P-I-P	N/A
IPsec	

**PPPOE**

PPPoE Status	DISABLED
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6. Click on the "Application Load/Save" link in the menu bar ② .
7. Click the "Browse" button and select the application firmware file that is to be updated, which in this case is *upgrade-1.57.2-1.58.1.cramfs* and click "Open".
8. Now click on "Upload".

**UPLOAD NEW FIRMWARE:**

File	sktop\790\upgrade-1.57.2-1.58.1.cramfs	Browse...	Upload
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**Note: The whole upgrade procedure can take 2~3 mins.**

9. Click OK to the below message:



10. Also click OK to the below message:



11. You will now see a progress bar as indicated in the images below, which you will have to wait to finish before you can continue:

Status

LAN  
DHCP  
NAT  
Routing  
SNMP  
Data Connection  
PPTP  
System Monitor  
Modem  
Band  
Security  
DDNS  
Log  
Application Load/Save  
Reboot

Application Load/Save

Phase:	Upload
Messages:	
Errors:	
Percent Complete:	93 %

Current Position:

1597 / 1648 KBytes

Elapsed time:

00:00:14

Est Time Left:

00:00:01

Est Speed:

112 KB/s.

SAVE A COPY OF CURRENT SETTINGS:

Save

RESTORE SAVED SETTINGS:

File

Browse...

Restore

UPLOAD NEW FIRMWARE:

File

sktop\790\upgrade-1.57.2-1.58.1.cramfs

Browse...

Upload

Note: The whole upgrade procedure can take 2~3 mins.

12. Once the application upload has finished, you will see the screen below with the  
Phase: Finished

Application Load/Save

Phase:	Finished
Messages:	Checking Kernel parameters ... OK MODE: cramfs Checksum OK R 1.57.2 ==> 1.58.1 Stopping processes Deleting symlinks Starting update MEM=8112, DISK=4228, SIZE=826 Updating kernel Checking kernel Updating file system Deleting old files Installing new files Upgrade was successful (finished=1) Cleaning up Installation has succeeded Finished. The system will shortly reboot itself. This will take about 90 seconds. Do NOT power off during this time. Reload by pressing the Status button until you see the status screen. It may be necessary to restart the Web browser after the upgrade.
Errors:	
Percent Complete:	100%

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Current Position:	1648 / 1648 KBytes
Elapsed time:	00:03:54
Est Time Left:	00:00:00
Est Speed:	7 KB/s.

13. You will need to wait approximately 1 minute for the router to restart (this is done automatically).

Do NOT power off the router.

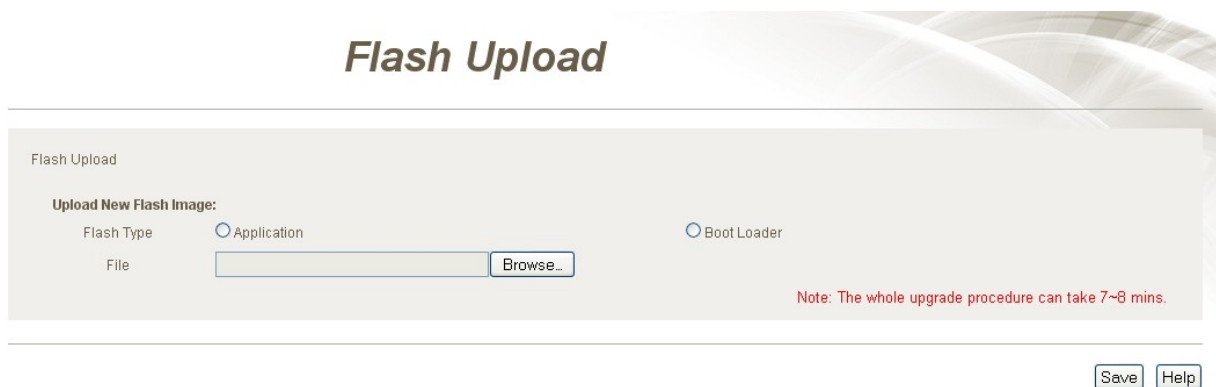
**Close your web browser** and log back into the web administration page by opening your web browser and typing in the URL <http://192.168.1.50/>

Router Version	Hardware: 1.04_g Software: 1.58.1
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**You have now completed the cellular router software upgrade**

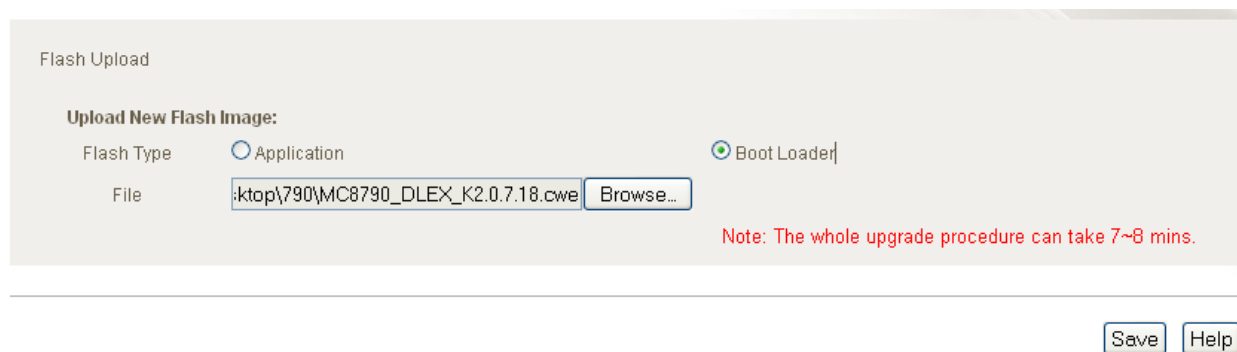
## ***Upgrade the Phone Module Bootloader***

1. In your browsers URL bar, type the following address:  
<http://192.168.1.50/linkFiles/FlashUpload.html> and you should see the following page load:-



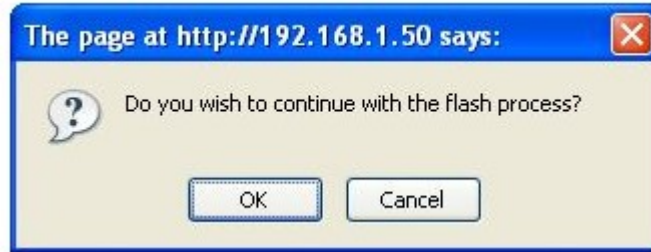
The screenshot shows the 'Flash Upload' web interface. At the top, the title 'Flash Upload' is displayed in a large, bold, italicized font. Below the title, the page is titled 'Flash Upload' in a smaller font. Underneath, there is a section 'Upload New Flash Image:'. This section contains two radio buttons: 'Application' and 'Boot Loader'. The 'Boot Loader' radio button is selected. To the left of the radio buttons, there is a 'Flash Type' label. Below the radio buttons, there is a 'File' label and a text input field. The text input field is empty. To the right of the text input field is a 'Browse...' button. Below the 'File' label and the text input field, there is a red note: 'Note: The whole upgrade procedure can take 7~8 mins.' At the bottom right of the page, there are two buttons: 'Save' and 'Help'.

2. You must select the "Boot Loader" radio button first, then click on the "Browse" button and select the **Boot Loader** file (MC8790\_DLEX\_K2.0.7.18.cwe) and click "Open".
3. Now click "Save".



The screenshot shows the 'Flash Upload' web interface after the file has been selected. The 'Flash Upload' title is at the top. Below it, the 'Upload New Flash Image:' section contains the 'Application' and 'Boot Loader' radio buttons, with 'Boot Loader' selected. The 'Flash Type' label is to the left. The 'File' label is to the left of the text input field, which now contains the file path 'k:\top\790\Mc8790\_DLEX\_K2.0.7.18.cwe'. The 'Browse...' button is to the right of the text input field. The red note 'Note: The whole upgrade procedure can take 7~8 mins.' is still present. At the bottom right, the 'Save' and 'Help' buttons are visible.

4. Click OK to the following:



5. Also click OK to the following:



6. Once the flash upload has completed, you will see the following message:

The screenshot displays the 'Flash Upload' section of the router's upgrade interface. It shows a list of messages indicating the successful completion of the boot loader upload process, including steps from stopping the modem emulator to preparing the modem emulator. The 'Phase' is marked as 'Finished' and 'Percent Complete' is at 100%. A progress bar is shown at 100%. Below this, statistics for the current position (606 / 606KBytes), elapsed time (00:00:46), estimated time left (00:00:02), and estimated speed (13 KB/s) are provided. The 'Flash Upload' section is active, showing 'Upload New Flash Image:' with 'Flash Type' set to 'Application' and 'Boot Loader' selected. The 'File' field contains the path 'Upgrade\MC8790\_DLEX\_K2.0.7.18.cwe' and a 'Browse...' button. A red note at the bottom right states: 'Note: The whole upgrade procedure can take 7~8 mins.'

Phase: Finished

Messages:

- Bootloader - Step 1. Stopping modem emulator.
- Bootloader - Step 2. Stopping daemons.
- Bootloader - Step 3. module power off.
- Bootloader - Step 4. Unloading USB driver.
- Bootloader - Step 5. module power on
- Bootloader - Step 6. Placing module into non-MUX mode.
- Bootloader - Step 7. Placing module into boot loader mode.
- Bootloader - Step 8. Boot upload and save.
- Bootloader successfully uploaded.
- Bootloader - Step 9. Preparing modem emulator.
- Your unit should now return to normal operations.

Errors:

Percent Complete: 100%

Current Position: 606 / 606KBytes

Elapsed time: 00:00:46

Est Time Left: 00:00:02

Est Speed: 13 KB/s.

Flash Upload

Upload New Flash Image:

Flash Type ☐ Application ☒ Boot Loader

File Upgrade\MC8790\_DLEX\_K2.0.7.18.cwe

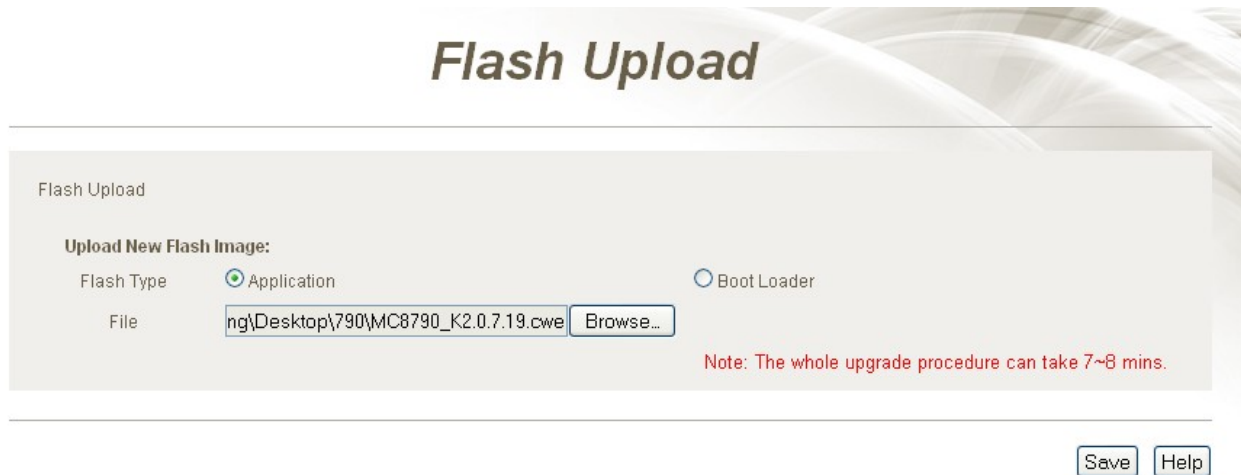
Note: The whole upgrade procedure can take 7~8 mins.

**You have now completed the phone module boot loader upgrade and may proceed to upgrade the phone module firmware.**

**At this stage you will NOT be able to establish a cellular connection until you complete the next step.**

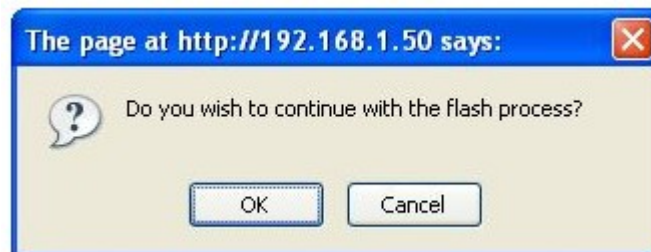
### ***Upgrade the Phone Module Application***

7. **Please power cycle the cellular router (i.e. unplug power to the router, plug it back in again and wait for the router to reboot).**
8. In your browsers URL bar, type the following address:  
<http://192.168.1.50/linkFiles/FlashUpload.html> and select "Application", then "Browse" and select the Phone Application file (MC8790\_K2.0.7.19.cwe) and click "Open".
9. Now click "Save".



The image shows a web browser window titled "Flash Upload". The main heading is "Flash Upload" in a large, bold, serif font. Below the heading, there is a section titled "Flash Upload" in a smaller font. Underneath, it says "Upload New Flash Image:". There are two radio buttons: "Application" (which is selected) and "Boot Loader". Below the radio buttons, there is a "File" label and a text input field containing the path "ng\Desktop\790\MC8790\_K2.0.7.19.cwe". To the right of the text input field is a "Browse..." button. Below the text input field and "Browse..." button, there is a red note that says "Note: The whole upgrade procedure can take 7~8 mins." At the bottom right of the page, there are two buttons: "Save" and "Help".

10. Click OK to the following:



11. Also click OK to the following:



12. This stage of the upgrade can take anywhere from 3 to 5 minutes. You will see a progress bar being displayed as the upgrade progresses. Once the phone application firmware has successfully uploaded, the following screen will appear:

## Flash Upload

<b>Phase:</b>	Finished
<b>Messages:</b>	Application - Step 1. Stopping modem emulator. Application - Step 2. Stopping daemons. Application - Step 3. module power off. Application - Step 4. Unloading USB driver. Application - Step 5. module power on Application - Step 6. Placing module into non-MUX mode. Application - Step 7. Placing module into boot loader mode. Application - Step 8. Boot upload and save. Application successfully uploaded. Application - Step 9. Preparing modem emulator. Your unit should now return to normal operations.
<b>Errors:</b>	
<b>Percent Complete:</b>	100%

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<b>Current Position:</b>	15835 / 15835 KBytes
<b>Elapsed time:</b>	00:05:03
<b>Est Time Left:</b>	00:00:01
<b>Est Speed:</b>	53 KB/s.

Flash Upload

**Upload New Flash Image:**

Flash Type	<input checked="" type="radio"/> Application	<input type="radio"/> Boot Loader
File	<input type="text" value="ng\Desktop\790\MC8790_K2.0.7.19.cwe"/> <input type="button" value="Browse..."/>	

Note: The whole upgrade procedure can take 7~8 mins.

13. You should now be able to type in the following URL in the address bar to check the relevant software versions. <http://192.168.1.50/>

The Application Software Version & Phone Module Firmware Version should be reflected as below:

SYSTEM INFORMATION	
System Up time	00 : 47 : 04
Router Version	Hardware: 1.04_g Software: 1.58.1
Phone Module	Model: MC8792V Hardware: 1.0 Firmware: K2_0_7_19A Temp: 36 C
Serial Number	00:11:DB:06:06:FA

**You have now completed the Phone Module upgrade process and finished upgrading the router.**