



MEA
3.1
MeshFlash
Users Guide

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Table of Contents

Introduction 1

MeshFlash Application Description 1

MeshFlash Application and Firmware Location..... 1

Installing the MeshFlash Application..... 1

Running MeshFlash 1

Customer Service Information 8

Obtaining Support 8

System Information 8

Return Material Request 9

Radio Products and Services Division 9

 Radio Products and Services Division Telephone Numbers9

Returning System Components to Motorola..... 9

Returning FREs..... 9

Product Warranty Information 10

List of Figures

Figure 1.	MeshFlash Welcome Window	2
Figure 2.	End User License Agreement Window	3
Figure 3.	MeshFlash Firmware Image Selection	4
Figure 4.	File Browser Window.....	4
Figure 5.	MeshFlash Upgrade Confirmation Window.....	5
Figure 6.	MeshFlash Progress Window	6
Figure 7.	No Card Detected Warning Dialog	6
Figure 8.	Insert Next Card Dialog	7

Introduction

This Users Guide provides Installation and Operational Instructions for the MeshNetworks Enabled Architecture (MEA®) MeshFlash application. MeshFlash allows the MEA WMC6300 firmware to be upgraded without the need to connect the card to the MEA network. The WMC6300 firmware is supplied separately from the MeshFlash Application.

Note: Always use the latest version of MeshFlash when upgrading the subscriber device firmware.

MeshFlash Application Description

When a firmware upgrade for the MEA WMC6300 is made available, the firmware must be uploaded into the WMC6300 and then “Flashed” to the hardware to complete the process. The MeshFlash application will walk the user through this simple process to upgrade the flash memory on an installed and properly working WMC6300 card.

The MeshFlash Application is compatible with the Microsoft Windows 2000 and Windows XP operating systems. The only hardware that is necessary is a laptop computer with a type II PCMCIA card slot. The MEA drivers must also be installed prior to upgrading the WMC6300.

MeshFlash Application and Firmware Location

The MeshFlash application will be found on the Administration and Software CD or the Firmware Upgrade CD. The Subscriber device firmware will be found on the Firmware Upgrade CD.

Installing the MeshFlash Application

MeshFlash is a precompiled executable that is provided on the Administration and Software Documentation CD or the Firmware Upgrade CD. Complete the following procedure to install MeshFlash.

1. Create a MeshFlash directory on the laptop computer.

Note: The files can also be copied directly onto the desktop if desired.

2. Insert the CD into the laptop computer's CD-ROM drive and navigate to the root directory of the CD. The MeshFlash.exe is located in the Software directory.
3. Locate the **MeshFlash.exe** and **MeshFlash.chm** files and copy them to the MeshFlash directory created in Step 1 of this procedure, or copy the files directly onto the “desktop” of the laptop computer.
4. Double-click the **MeshFlash.exe** file to open the application. The MeshFlash Graphical User Interface (GUI) wizard will be displayed.

Running MeshFlash

When MeshFlash is opened as described in the previous section, the MeshFlash Wizard will display a *Welcome* window. This window provides generic information about the application. Follow the on-screen directions presented by the wizard to complete the firmware upgrade procedure.

1. Verify that you have the desired firmware upgrade files, which are supplied on the Firmware Upgrade CD. The firmware files can be copied to the local disk or may be used directly from the CD.

The subscriber device (SD) firmware upgrade filename will be similar to the following example:

7_x_y_SD.dld

CAUTION: Only the **Subscriber Device** firmware should be used with MeshFlash.

If the wrong device type firmware is flashed to a device, the device may become inoperative and may need to be returned to MeshNetworks to correct the problem.

2. Double-click on the *MeshFlash.exe* file to open the application.
3. When the MeshFlash *Welcome* window is displayed as shown in [Figure 1](#), click on the **Next** button to continue the upgrade procedure. To cancel the upgrade process and exit the MeshFlash program click on the **Cancel** button.

Clicking on the **Help** button will bring up the MeshFlash help pages.



Figure 1. MeshFlash Welcome Window


4. The *End User License Agreement* window will be displayed as shown in [Figure 2](#) to allow the user the opportunity to accept or reject the terms of the End User License Agreement (EULA). The **Next** button is disabled, so the user cannot proceed with the flashing operation without accepting the terms of the EULA.

Click on the **I Accept** button, to continue the upgrade procedure. **NOTE:** Selecting the **Cancel** button will cause the application to exit.



Figure 2. End User License Agreement Window

5. The *Firmware Selection* dialog box will be displayed as shown in [Figure 3](#). The user must designate the filename of the firmware image to use in the textbox. The user can accomplish this by either typing in the complete path and firmware filename, or by using a file browser to select the image to transfer.

Clicking on the  button will bring up a file browser as shown in [Figure 4](#).

Selecting the *Flash Multiple* checkbox will allow the user to flash multiple cards during the same session. If selected, during the flashing process the GUI will prompt the user to either exit the application or insert another card. The image transfer will begin again with the same parameters if another card is inserted.

When the filename has been entered, click the **Next** button to continue the upgrade procedure. If the filename selected is not valid, a warning message will be displayed.

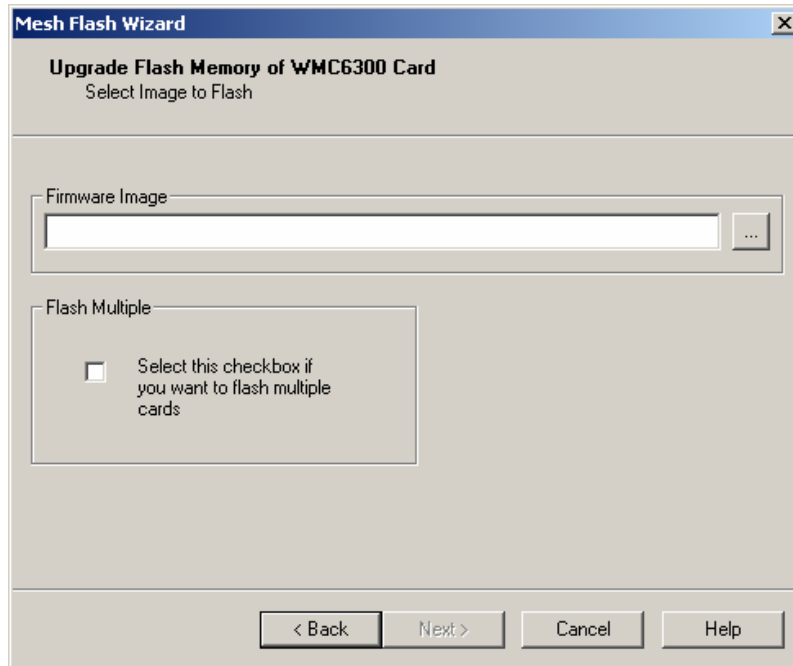


Figure 3. MeshFlash Firmware Image Selection

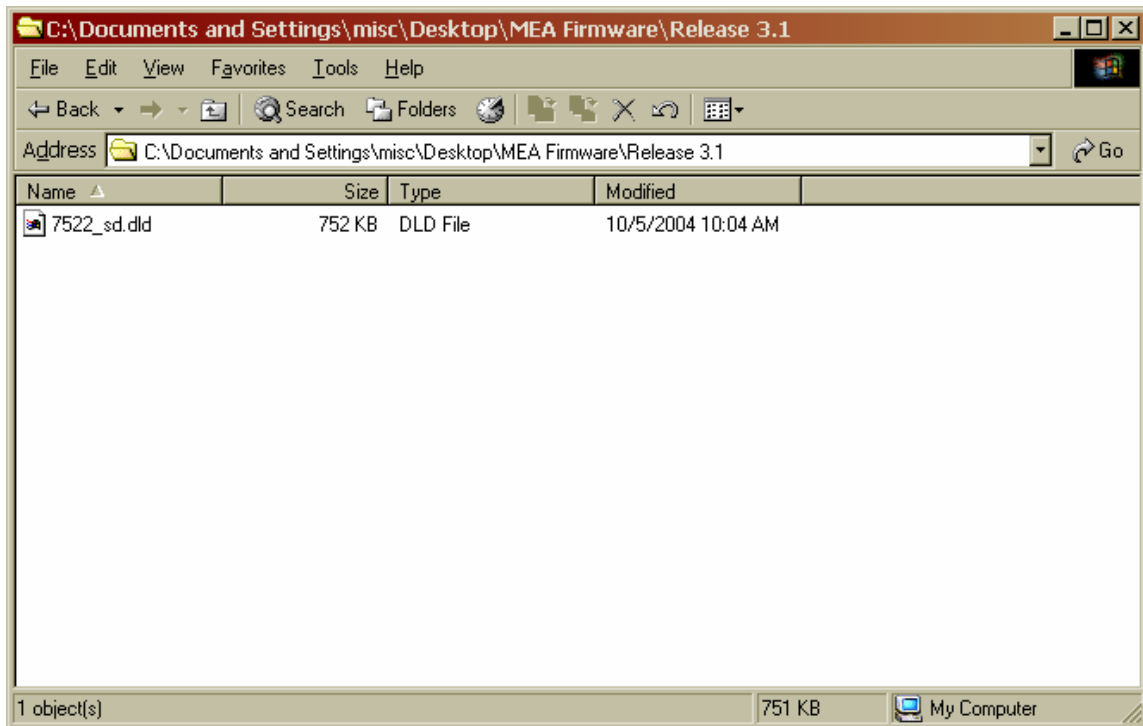


Figure 4. File Browser Window

- If the file selected is valid for the correct device type, the *Review Selected Actions* window is displayed as shown in [Figure 5](#).

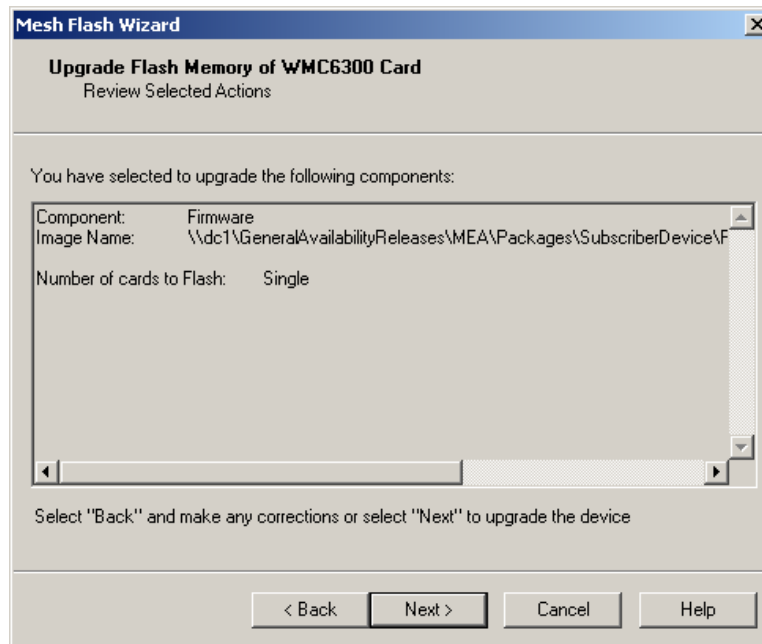


Figure 5. MeshFlash Upgrade Confirmation Window

- Click the **Next** button to continue the upgrade procedure.
Select the **Back** button to return to the Firmware Selection window. Select the **Cancel** button to terminate the flash procedure and exit the MeshFlash application.

Caution: Flashing an incorrect image could render the card inoperative.

- The *Flash Progress* dialog box is displayed as shown in [Figure 6](#). The active stage will be highlighted in bold and progress bars will indicate how far along the stage has progressed.

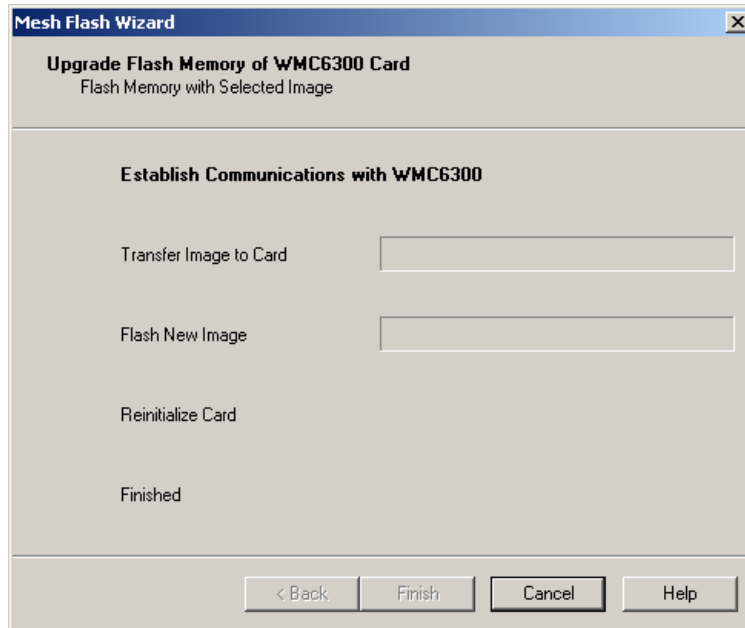


Figure 6. MeshFlash Progress Window

9. If a WMC6300 card is not detected in the computer a dialog box will appear as shown in [Figure 7](#). If required, insert a WMC6300 card into the computer's PCMCIA card slot. When the card is detected, the flash procedure will continue automatically.

Selecting the **Cancel** button will cause the application to exit.

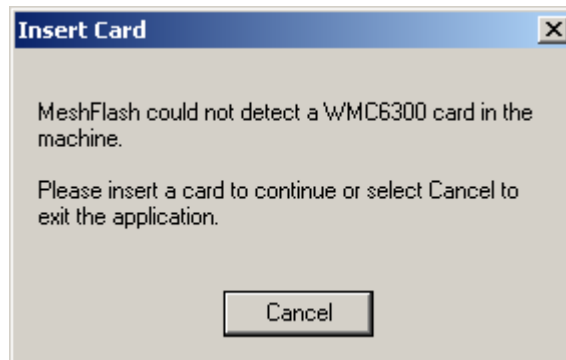


Figure 7. No Card Detected Warning Dialog

10. A progress bar next to the highlighted text will show the percentage completed of the file transfer. Once the image has been flashed, the card will reboot and start using the new firmware. Click on the **Finish** button when the flash process has completed.

If the *Flash Multiple* checkbox was selected, the user will be prompted to insert another WMC6300 card so the process can continue automatically, or select the **Done** button as shown in Figure 8 to stop flashing cards.

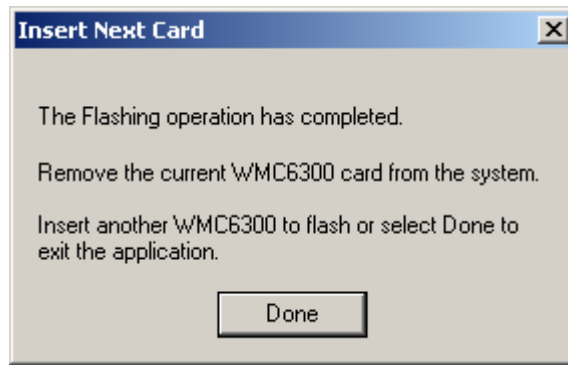


Figure 8. Insert Next Card Dialog



Customer Service Information

If you have read this document and made every effort to resolve installation or operation issues yourself and still require help, please contact Motorola System Support Center (SSC) using the following contact information:

Hours of Operation

7 days a week, 24 hours

Technical Support: 800-221-7144 (USA)

Obtaining Support

Motorola provides technical support services for your system and recommends that you coordinate warranty and repair activities through the Motorola System Support Center (SSC). When you consult the Motorola SSC, you increase the likelihood that problems are rectified in a timely fashion and that warranty requirements are satisfied. Check your contract for specific warranty and service information.

System Information

To be provided with the best possible opportunity for support, collect the following system information and have it available when obtaining support.

- Location of the system
- Date the system was put into service
- Software or firmware version information for components of your system
- Serial number(s) of the device(s) or component(s) requiring support
- A written description of the symptom or observation of the problem:
 - When did it first appear?
 - Can it be reproduced?
 - What is the step-by-step procedure to cause it?
- Do other circumstances contribute to the problem? For example, changes in weather or other conditions?
- Maintenance action preceding problem:
 - Upgrade of software or equipment
 - Change in the hardware or software configuration
 - Software reload - from backup or from CD-ROM (note the version and date)

Return Material Request

After collecting system information, contact the Motorola System Support Center for assistance or to obtain a Return Material Authorization (RMA) number for faulty Field Replaceable Entities (FREs):

North America: 800-221-7144

Radio Products and Services Division

The Radio Products and Services Division is your source for manuals and replacement parts.

Radio Products and Services Division Telephone Numbers

The telephone numbers for ordering are: (800)-422-4210 (US and Canada orders)

The Fax numbers are: (800)-622-6210 (US and Canada orders)

The number for help identifying an item or part number is (800)-422-4210; select choice “3” from the menu

Returning System Components to Motorola

Motorola's service philosophy is based on field replaceable entities (FREs). FREs are system components identified by Motorola to be returned to Motorola for repair. In turn, Motorola sends you a replacement FRE component to help you maintain maximum operating performance for your system.

Returning FREs

Return faulty FREs to Motorola for repair. When you return an assembly for service, follow these best practices:

- Place any assembly containing CMOS devices in a static-proof bag or container for shipment.
- Obtain a return authorization (RA) number from the Motorola System Support Center.
- Include the warranty, model, kit numbers, and serial numbers on the job ticket, as necessary.
- If the warranty is out of date, you must have a purchase order.
- Print the return address clearly, in block letters.
- Provide a phone number where your repair technician can be reached.
- Include the contact person's name for return.
- Pack this assembly tightly and securely, preferably in its original shipping container.



Product Warranty Information

This warranty applies within the fifty (50) United States, the District of Columbia and Canada.

LIMITED WARRANTY MOTOROLA COMMUNICATION PRODUCTS

If the affected product is being purchased pursuant to a written Communications System Agreement signed by Motorola, the warranty contained in that written agreement will apply. Otherwise, the following warranty applies.

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

Motorola Inc. or, if applicable, Motorola Canada Limited ("Motorola") warrants the Motorola manufactured Broadband Data communications product, against material defects in material and workmanship under normal use and service for a period of One (1) Year from the date of shipment.

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it with the same or equivalent Product (using new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided purchaser notifies Motorola according to the terms of this warranty. Repaired or replaced Product is warranted for the balance of the original applicable warranty period. All replaced parts of the Product shall become the property of Motorola.

This express limited warranty is extended by Motorola to the original end user purchaser purchasing the Product for purposes of leasing or for commercial, industrial, or governmental use only, and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by Motorola. Motorola assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of Motorola. Unless made in a separate written agreement between Motorola and the original end user purchaser, Motorola does not warrant the installation, maintenance or service of the Product.

Motorola cannot be responsible in any way for any ancillary equipment not furnished by Motorola which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, Motorola disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS:

This warranty sets forth the full extent of Motorola's responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at Motorola's option, is the exclusive remedy. **THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.**

III. HOW TO GET WARRANTY SERVICE:

Purchaser must notify Motorola's representative or call Motorola's Customer Response Center at 1-800-247-2346 within the applicable warranty period for information regarding warranty service.

IV. WHAT THIS WARRANTY DOES NOT COVER:

- A) Defects or damage resulting from use of the Product in other than its normal and customary manner.
- B) Defects or damage from misuse, accident, water, or neglect.
- C) Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- D) Breakage or damage to antennas unless caused directly by defects in material workmanship.
- E) A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.
- F) Product which has had the serial number removed or made illegible.
- G) Batteries (they carry their own separate limited warranty).
- H) Freight costs to the repair depot.
- I) A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with Motorola's published specifications or with the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from Motorola.
- J) Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- K) That the software in the Product will meet the purchaser's requirements or that the operation of the software will be uninterrupted or error-free.
- L) Normal and customary wear and tear.
- M) Non-Motorola manufactured equipment unless bearing a Motorola Part Number in the form of an alpha numeric number (i.e., TDE6030B).
- N) Lift trucks for installation, removal, replacement or repair of the Motorola supplied products from light, power, telephone poles etc.
- O) Dispatch to remote site locations
- P) Loading of software upgrades or fixes into the devices.

V. GOVERNING LAW

In the case of a Product sold in the United States and Canada, this Warranty is governed by the laws of the State of Illinois and the Province of Ontario, respectively.

VI. PATENT AND SOFTWARE PROVISIONS:

Motorola will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or its parts infringe a United States patent, and Motorola will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- A) that Motorola will be notified promptly in writing by such purchaser of any notice of such claim;**
- B) that Motorola will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and**
- C) should the Product or its parts become, or in Motorola's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit Motorola, at its option and**



expense, either to procure for such purchaser the right to continue using the Product or its parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or its parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or its parts as established by Motorola.

Motorola will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or its parts furnished hereunder with software, apparatus or devices not furnished by Motorola, nor will Motorola have any liability for the use of ancillary equipment or software not furnished by Motorola which is attached to or used in connection with the Product. The foregoing states the entire liability of Motorola with respect to infringement of patents by the Product or any its parts thereof.

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