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Tech Note 3

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IEI eMerge™ Version 2.5 to Version 3.3 Upgrade

- First:** Perform the V2.5 to V3.1 database conversion.
- Second:** Install the new V3.3 Controller/Node.
- Third:** Perform the restore of the converted database onto a V3.3 board.

Prerequisites

- A PC running Windows XP, with network connectivity to the eMerge.
- Administrative access to the PC for installing the IEI utilities and software required by those utilities.
- The V2_5 Desktop Backup Utility.
- The V2.5 to 3.x Data Conversion Utility.
- Replacement 3.3 Controller.
- The Activation Key and Product Key supplied by Linear Technical Services for your system.

Performing the Version 2.5 to 3.1 Database Conversion

Step 1: Ensure the eMerge is Version 2.5 or Higher

1. In the application select **Support/Utility : About**.
2. In the **Support Information** section, note the **Software version** number information.
3. If the eMerge is version 2.5 go to **Step 2**. Otherwise you must first upgrade to version 2.5 before you continue with the upgrade procedure to version 3.1.

NOTE: Patch and Update files are available from IEI. Call Linear Technical Services at (800) 421-1587.

Step 2: Make a Complete Backup for Version 2.5

There are several things that the backup utility will not capture. This procedure includes several extra steps to gather that information, which will have to be re-entered after the new Controller/node is installed.

1. If NAS or FTP is configured run a full system backup to the NAS or FTP location.
2. Select **Setup : Network Resources : FTP Backup** and/or **Network Storage**. If either are configured click **Backup Now**.
3. Check the NAS or FTP location to ensure the backup was completed successfully.

4. If NAS or FTP is not configured, run the **V2_5 Desktop Backup Utility** to download system data to the PC.

NOTE: Do not rename this backup file.

5. Check the PC location to ensure the backup was completed successfully.
6. Now print out the pages that contain the data which backups do not capture:

Select **Setup : Network Resources : Domain Name Servers**, and click the print icon at the top of the page.

Select **Setup : Network Resources : Email Settings**, and click the print icon at the top of the page.

Select **Setup : Network Resources : Time Server**, and click the print icon at the top of the page.

Select **Setup : Site Settings : Network Controller** and under the heading **Initmode Settings** click **Click here** to go to the Initmode page. Click the print icon at the top of the page.

Step 3: Convert System Backup Data from V2.5 to V3.1

NOTE: You need Administrator access to the PC. The Data Conversion Utility requires the following software:

- .NET Framework V2.0
- MySQL Database Server 4.1
- MySQL Connector/ODBC 3.51
- PostgreSQL Database Server 8.2

The data conversion utility will prompt you to install these if they are not on your PC. The .NET Framework 2.0 will need to be downloaded, so network connectivity is required. The MySQL and PostgreSQL software is included in the Data Conversion Utility package.

1. Run the **V2.5 to 3.x Data Conversion Utility**, and give it the location of the System Backup.

NOTE: If you made the complete system backup using the **V2_5 Desktop Backup Utility** the backup will be on the PC. If you backed up to a NAS or FTP site using the eMerge, point the Data Conversion Utility at the FTP or NAS location.

2. Select the file **S2_dbs.dmp.gz**.
3. The **V2.5 to 3.x Data Conversion Utility** performs the conversion, generates a DAR file (3.x System Backup representation), and places it on the Desktop.

NOTE: Do not rename this backup file.

4. The Data Conversion Utility will indicate that the conversion has succeeded.
5. Click **Finish**.

Installing the New V3.3 Controller/Node

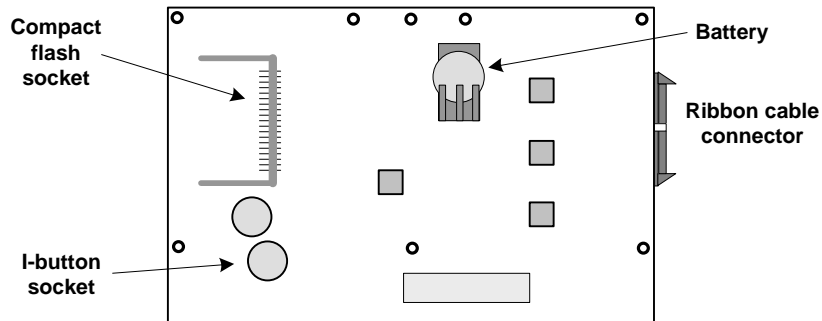
Step 4: Install the New V3.3 Controller/Node

1. Note the name and unique identifier of the node you will be replacing. You will need this information later in this procedure.

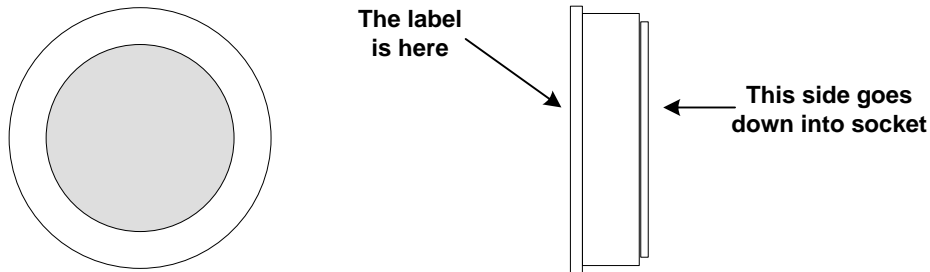
NOTE: The node you will replace is on the same board as the controller. Any other nodes in the system will not be replaced.

2. Power down the eMerge and remove the Version 2.5 Controller/node blade.

3. Remove the I-button from the I-button socket on the underside of the Version 2.5 Controller/Node Blade by gently pulling back the retaining clips allowing the button to fall out.
4. Install the I-button license into the new Version 3.3 Controller/node blade. See diagrams below.



The back of the controller/node blade



The I-button licensing chip

5. Install the Version 3.3 Controller/node into the eMerge cabinet.
6. Power up the new Version 3.1 IEI eMerge and wait for a single beep indicating the application has restarted.
7. Open a browser window on a computer connected to the router and in the Address box, enter the IP address for the Network Controller.
8. On the page that appears, enter the Product Key and Activation Key that are tied to the system license identifier.

IEI will generate these number keys and send them to you. The upgrade files will be available from [<IEI/Linear-Web Link goes here>](#).

9. After reviewing the license agreement, click the **Apply** button to accept it.

IMPORTANT: Click the **Apply** button only once.

10. When the Init Mode page displays, enter the Network Controller Network Settings from the printed page of the Initmode settings.
11. In the **Time Settings** section, be sure to set the correct time, date, and time zone.
12. Set the **Initmode Settings** drop-down to **NO**. (This is near the bottom of the Initmode page.)
13. Click **Save**.
14. When you see the message that the data is saved, click **Reboot**.

Restoring the Converted Database onto a V3.3 Board

Step 5: Restore the Backup – Reconnect Nodes

1. Select **Setup : System Maintenance : Restore System** and click the [click here](#) link to upload the converted system backup file.
2. Click the **Browse** button, browse to the Desktop location of the System Backup file created by the Data Conversion Utility.
3. Select the backup file in the browse dialog box and click **Open**.
4. On the **Upload System Backup File** page click **Save**.
5. Select **Setup : System Maintenance : Restore System**.
6. Select from the list of backups the one that you wish to restore by clicking the radio button in the **Restore?** column.
7. Click **Restore Now**.
8. The **Restore System** detail page displays and will indicate when the data is restored successfully.
9. Select **Setup : Network Resources** and use the printed pages to re-enter the **Domain Name Servers**, **Email settings**, and **Time server** information. Be sure to **Save** each page.
10. The Nodes will upgrade to version 3.1 and connect to the controller.

Step 6: Swap Old and New Node Identifiers

A new node can be associated with an old node's **Unique Identifier** so that the **Resource Details** (inputs, outputs, readers, etc.) will not have to be re-entered for the new node blade.

1. Select **Setup : Site Settings : Network Nodes**.
2. Select the new node from the **Name** drop-down and rename it "Temp Node."
3. Click **Save**.
4. Click the **Commands** tab.
5. Click **Swap Node**. A message window appears.
6. In the message window select the old node from the **with node** drop-down.
7. In the message window click **Save**.

NOTE: The newly installed node blade is now associated with the resources (inputs, portals, etc.) formerly managed by the old node.

8. Select **Temp Node** from the **Name** drop-down.
9. Click **Delete**.
10. Test the system functions.

Step 7: Make a Complete Backup for Version 3.3

1. Select **Setup : Network Resources : FTP Backup** and/or Network Storage. If either are configured click **Backup Now**.
2. Check the NAS or FTP location to ensure the backup was completed successfully.
3. If no network storage is configured or available, create a full backup on the compact flash by selecting **Setup : System Maintenance : Backup Database** and click **Full Backup**.