

End 2 End Technologies PulsePAK

Release Notes

Version 5.6

Software Description

E2E PulsePAK is a software add-on for the GE PulseNET application that gives it new features and capabilities to monitor additional devices. GE PulseNET is used for monitoring devices in Industrial Communications Networks. For additional information, visit the End 2 End Technologies Website.

System Requirements

- **Disk Space:** 10 GB or greater of available storage
- Software: Only compatible with GE PulseNET Enterprise 5.6

Features

The following device models can be monitored by E2E PulsePAK (minimum firmware version in parentheses):

4RF Aprisa SR+ (1.9.0) Freewave FGR2, FGRplus FreeWave HTPlus (2.22) FreeWave Serial (with proxy) Freewave WavePro

Freewave Zumlink (1.1.1)
Radwin Airmux
Sierra Wireless AirLink
Sierra Wireless Raven
Cambium (450, 550, 820)

Change Management

4RF AprisaSR+ (Firmware Change, Configuration Change)

Freewave ZumLink: (Configuration Change)

Freewave FGR2, FGRplus

Known Issues

- A complete configuration poll is required for the Freewave Zumlink topology views to be correct.
- If a PAK device was discovered before the PAK upgrade was run, it will display as a 'Generic LAN Device.' This must be decommissioned and re-discovered after the PAK application in order to display correct model information.
- Freewave FRG2/FGRplus SSH change command in change management is not functioning

Installation Instructions

When all the system requirements are verified, proceed with installation. E2E PulsePAK does not have an executable or graphical installer and is installed as a GE MDS PulseNET Enterprise addon.

NOTE: During the E2E PulsePAK installation process, several core files are overwritten to allow for the inclusion of PAK features. In case of interruption, it is strongly recommended that a backup be created of the existing GE MDS PulseNET instance.



- 1. Shut down GE PulseNET and **backup the entire folder structure** to a safe location.
- 2. Restart GE PulseNET. **The E2E PulsePAK must be applied while GE PulseNET Enterprise is running.** Otherwise, a failed connection message will be displayed.

WARNING: E2E PulsePAK requires a GE PulseNET restart and it will automatically occur as a part of the installation process.

- 3. Locate the E2E PulsePAK installer file on the computer and note the file path.
- 4. Open a Windows Command Prompt or Linux Terminal and move to the \GE_MDS\PulseNET\addon-install\bin directory.
- 5. Run the install command: install <PulseNET dir> <PulsePak path>

Example, if running on Windows:

```
cd c:\GE_MDS\PulseNET\addon-install\bin>
install.bat C:\GE_MDS\PulseNET C:\Users\Admin\Downloads\pulsepak-5.6.pak
```

Example, if running on Linux:

```
cd /opt/GE_MDS/PulseNET/addon-install/bin>
install.sh /opt/GE_MDS/PulseNET /home/admin/downloads/pulsepak-5.6.pak
```

6. It will warn during installation that the services will restart and then request confirmation to proceed. Enter \mathbf{Y} to continue the install when ready.

```
C:\GE_MDS\PulseNET\addon-install\bin> install c:\GE_MDS\PulseNET c:\Users\Admini
strator\Downloads\pulsepak-4.4.0.pak
* Services will restart during installation causing downtime
* Please validate there is sufficient disk space and consider performing a backu
p of the current installation directory
Are you sure you want to install (Case sensitive Y/[N])?
```

7. After confirming to proceed with the install, some of the PulseNET services will stop and restart. If there is an issue with a service not restarting, use the methods described below to manually restart them.



```
Are you sure you want to install (Case sensitive Y/[N])?
Y
Starting Command-line Installer
Validating required licenses: [PulseNET Enterprise]
Starting server
Running 'run.pre' scripts.
Importing json files
Stopping server (monitor 'prunsrv.exe' processes in Task Manager and kill them m
anually if they do not stop within 30s)
```

If running on Windows:

- Open and monitor the **Task Manager** tool and navigate to the **Processes** tab to ensure all GE PulseNET services are shut down.
- If a service does not stop running at this point, right-click the process, and select End task to terminate it. Alternatively, select the item and click the End task button in the bottom-right corner of the window.

If running on Linux:

- Type the following command: ps -ef | grep jsvc
- If a service does not stop running, type: kill −9 <pid>
- 8. The installation should complete within a few minutes and provide a validation message in the Windows Command Prompt or Linux Terminal of **Installation** completed successfully.

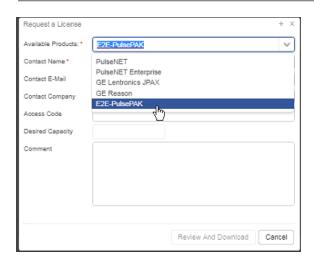
```
Installing files
Starting server
Installation completed successfully
Press any key to continue . . .
```

9. A feature license for E2E PulsePAK can now be requested.

Requesting a License

After installing the E2E PulsePAK, the option to request an E2E PulsePAK license is added to the dropdown. Request a valid feature license within the GE PulseNET software in Administration => Request a License.





To request a license:

- 1. In GE PulseNET, Navigate to Administration > Licensing > Request a License. A dialog box will appear.
- 2. Select **E2E-PulsePAK** from the dropdown list of Available Products.
- 3. In the **Contact Name** field, type the name of the person at the company who will be the main contact.
- 4. In the **Access Code** field, type the access code. Obtain the access code from the E2E Sales team.
- 5. The **Desired Capacity** field will be disabled.
- 6. In the **Comment** field, enter any comments which would help the Licensing team fulfill the license request.
- 7. Click **Review and Download** to continue.
- 8. Review the information on the Confirmation Screen and click **Download**.
- 9. Locate and send the downloaded file to **gemds.pulsenet@ge.com**.
- 10. For more information, contact GE MDS Tech. Support.



Adding the License

After receiving the feature license from E2E. it must be added to GE PulseNET.

To add a license:

- 1. Navigate to Administration > Licensing > Add a License.
- 2. In the dialog box that appears, click **Import License from File** to locate the license file on the computer (the file must be on the machine where the browser is running). The license key can also be copied from the file and pasted directly into the **License Key** field.
- 3. Click Add License. If the license is valid, it is added to GE PulseNET. Otherwise, a message will appear stating that the license key is invalid. Contact the E2E Support team if this occurs.
- 4. Once deployed, it will now be possible to discover and manage PulsePAK devices in GE PulseNET.

Change Management

GE PulseNET along with PulsePAK for non-GE devices, includes a change management feature which automates specified configuration changes on individual devices or on bulk groups of devices. The bulk change feature is useful in an environment where there are dozens, hundreds, or even thousands of remote radios which must be configured with specific settings. These devices are specific for PulsePAK:

4RF AprisaSR+ (Firmware Change, Configuration Change)** **Freewave ZumLink:** (Configuration Change)**

**Requires GE PulsePAK License



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Modernize Your Wireless Networks

Communications networks are becoming increasingly complex and the management of those networks has become a crucial component for corporate success. Finding the right people to modernize and manage them is difficult, especially when trying to control capital expenses. It is often more cost-effective to outsource this task to providers with the experience and resources to

build and manage best in class wireless networks as a service. This approach can free existing staff for higher business value projects while minimizing up-front capital expenses and integration risks.

The End 2 End Difference

E2E Technologies offers a unique combination of wireless communications and information technology expertise. We improve efficiency, reduce risk and lower the cost of industrial field operations via modernization and management of our customer's wireless communications networks. From initial planning through lifecycle support we assist your team in adopting a wireless solution that keeps communication costs low while maximizing network reliability and performance.

Customer Benefits

We offer a complete line of point-to-point and point-to-multipoint wireless products and accessories. Our solutions use industry-leading wireless equipment by the top providers in the world. From wellhead monitoring to utility substation automation, this equipment is built for industrial environments and has been rated and tested under harsh conditions. Our products enable a broad spectrum of applications and protocols from SCADA and telemetry to full voice and video.

Customer Support

If you have problems, comments, or questions pertaining to the E2E PulsePAK application, please contact End 2 End Technologies via one of the methods below:

Telephone +1 651-964-1299 Email support@e2etechinc.com

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