

Introducing Inovonics Commercial Mesh Network for Submetering

Featuring EchoStream® Radio Technology

Inovonics Wireless® Corporation announces the availability of our Commercial Mesh Network for multifamily housing, with submetering as one of the initial applications. The Commercial Mesh Network is the foundation on which submetering and common-area security are currently implemented, and on which other applications will be built in the future. This new mesh network will provide a variety of benefits to property owners and our channel partners, without changing the way the Inovonics submetering system has traditionally been installed and operated.

What is Inovonics Commercial Mesh Network?

The Commercial Mesh Network is a new radio platform that leverages our third-generation radio technology, EchoStream, along with advanced network architecture, to provide a number of enhanced capabilities, including:

- Improved radio range
- Enhanced robustness and reliability
- Multiple applications (e.g., submetering and security) leveraging the same network
- Two-way communications
- Greater scalability

The Commercial Mesh Network is comprised of the EchoStream signal repeaters and receiver along with the various types of transmitters all working together. In a typical submetering system, the network components would include the DCC, receiver, repeaters, and the transmitters.

What is EchoStream Technology?

EchoStream is the third-generation radio technology developed by Inovonics Wireless. It is powerful, affordable and takes advantage of the latest technological advances for radio systems. Over twenty years of experience and three generations of applying frequency hopping, spread spectrum, 900 MHz technology to wireless network infrastructures has uniquely positioned Inovonics to build superior radio technology. The EchoStream technology has been in use in our line of security products in international markets for over three years, so it is field proven and reliable, as you would expect from Inovonics.

Inovonics Commercial Mesh Network Benefits for Submetering

Increased Range

The EchoStream radio, with its higher output power and advanced modulation scheme, provides greater open field range than the FA radio. That means a potentially smaller number of repeaters are needed for a comparable installation, and thus potentially lowering the overall installed cost.*

Integrated Water Meter and Transmitter

Inovonics Wireless and Neptune® teamed up to create the MetraMeter™, an Integrated Meter-Transmitter. By integrating the EchoStream RF transmitter with Neptune's industry-proven T-10 meter, we've eliminated the need for a wired connection, making it easier to install and maintain. Additionally, a 20-year, long-life battery is used in this product to provide reduced maintenance and more value.

Longer Battery Life Option

The optional long-life battery now available with our transmitters provides a 20-year calculated battery life. Inovonics Wireless warrants this Panasonic BR AG battery for 10 years. Standard transmitters are still available with a calculated five to seven year battery life.

Simplified Installation

EchoStream transmitters, when placed into the "Rapid Transmit Mode", cause them to transmit every minute for 36 hours, instead of the normal transmit frequency of once per hour. Installers can quickly verify the RF network backbone is working properly and this shortens the time spent installing and configuring the overall system.

Simplified RF Survey Kit

The EchoStream wireless system brings with it a smaller and easier to use Site Survey Kit. Conducting site surveys with the EchoStream survey kit is now more efficient. This means evaluating the RF network and optimizing locations for repeaters is now easier than ever.

Multi-Application Foundation

The EchoStream wireless network technology provides the foundation and wireless infrastructure for multiple application support. Once EchoStream repeaters are deployed at a site, the property is enabled to support a wide range of applications such as: environmental monitoring, water detection, intrusion detection, access control, smoke detection, or any number of future one or two-way wireless communication applications.

Expanded Meter Compatibility

EchoStream transmitters accept meter pulses more quickly than our FA transmitters, increasing the number of meters compatible with EchoStream transmitters. This provides a broader choice of meters with which to build a submetering system.

**Inovonics Wireless recommends the use of our survey kit to optimize the location of repeaters. Actual RF range is dependent on numerous site-specific factors.*

FAQ's

Q: What are the plans for FA (Frequency Agile®) radio product?

A: We will continue to sell, service and support the existing FA submetering system, including the FA radio for the AMCO InsideR™. However, with the wireless industry rapidly changing and the EchoStream technology incorporating recent advances in wireless technology to provide more value, Inovonics Wireless feels that EchoStream will quickly become the preferred radio technology for submetering applications.

Q: Is EchoStream compatible with FA products?

A: The two systems are not compatible because EchoStream uses faster data rates and an advanced modulation technique. However, they do not interfere with each other, so if there is a need to combine these in an installation you can simply install both product types.

Q: When will the EchoStream system be available?

A: The complete EchoStream submetering system is currently available and ready to ship to you immediately.

Q: How will the use of EchoStream effect my billing operations?

A: Because the EchoStream system uses the same DCC as with an FA system, the billing center continues to use the same TapWatch software to retrieve the data from the sites as it always has. It is recommended to upgrade to the latest version of TapWatch software, 2.2.63, so the new EchoStream transmitters are available in the menus.

EchoStream and Frequency Agile Product Comparison

Product	Frequency Agile	EchoStream	
Transmitters	FA5201	ES1501	
	FA5202	ES1501	TapWatch software tracks the count factor so no FA5202-type transmitter is needed
	N/A	EN1501-XL	Transmitter with 20-year battery life
	N/A	EN1550	MetraMeter is the integrated Neptune water meter & Inovonics transmitter with a 20-year battery life
Repeater	FA5570	EN5000-T	
Receiver	FA403	EN6540	
Data Collector	DCC5800	DCC5800	
Software	SW5800	SW5800	Version 2.2.63 is needed to have EchoStream transmitter models in menus

