



White Paper

DMP's Cellular Solution to Central Station Signaling

DMP offers a variety of options for cellular communications

Cellular Basics

According to the GSM Association, since 2008, more than 3 billion people across the world spanning more than 212 countries and territories have come to use GSM on a daily basis, thus making it the most preferred cellular technology in more than 80 percent of the world's market.

There are three components to a typical GSM cellular system: 1) the remote base stations with controllers, 2) the GSM core network, and 3) GPRS (Global Packet Radio Service). It's actually the GPRS component that facilitates the Internet connection that carries alarm signals from an XT or XR alarm panel's Digital Cellular Communicator to a DMP Central Station Receiver. GPRS has become an integral part of the GSM network, providing data rates of 56 to 114 Kbps.

The cost of operation for GPRS using the packet switched portion of the cellular system is typically based on the amount of data transmitted, usually in the Megabytes, whereas data sent via circuit switched GSM is billed by the minute. Where the latter is typically used to transmit digitized voice communications, the former is used to send digital alarm data. Because the size of a typical alarm signal data packet is only 66 bytes, the cost of GPRS-based cellular is far less than circuit switched and this is why GPRS is used to transport alarm signals.

One of the things that distinguish DMP's cellular technology from the rest is how a network connection is established with the Central Station receiver and how that data is transmitted. Where most other cellular units on the market establish a network connection with the Central Station receiver through SMS (Short Message Service), which usually comes at an additional cost, DMP uses IP, which is similar to sending an email message over the Internet.

Another major difference relates to connectivity between the cellular unit and the Central Station. Most of the cellular products on the market today first send alarm data to a clearing house over the cellular airways where it is then interpreted and retransmitted to a Central Station receiver over the Internet. This means that they do not communicate, or "talk," directly with the receiver. DMP's cellular products, however, are designed to establish a direct connection. This makes communication faster and more reliable and it makes it possible for DMP dealers to make alarm panel programming changes using the Remote Link™ software right over the cellular airway. Remote Link can be used in conjunction with either a desktop or laptop computer.

DMP GSM/GPRS Cellular Offerings

DMP offers five GSM/GPRS cellular options that provide cellular-based signaling for the XR and XT Series alarm panels. The method described previously is typical of the XT30C and XT50C alarm panels that come with cellular built in. Because cellular is integral to these panels, they are used when incorporating cellular right from the start. Of course, not everyone will decide to use cellular when they install their alarm system, and for this reason DMP makes it possible to add a cellular unit to an existing panel.

DMP's 263G and 463G GSM/GPRS Digital Cellular Communicators are designed to add cellular to DMP alarm panels. The 263G in particular will work with the XT30 and XT50 panels that are not equipped with cellular

and the 463G provides cellular exclusively to the XR500 Series. Because the 263G and 463G units are modular, they can be installed inside the same enclosure that houses the control panel, which provides power and battery backup without additional cost. This saves time and money because it's not necessary to install an additional transformer, battery, power supply, and metal can for the cellular unit.

Both the 263G and 463G cellular modules come with a SIM (Subscriber Identity Module) chip, which stores important data that the cell network must have to provide cellular service. Cellular service is available through SecureCom Wireless LLC, DMP's exclusive wireless cellular provider.

Another cellular option includes the CELLCOMRT; which is designed for use with an existing XR panel. Because it's self contained, the dealer can install it up to 250 feet from the main alarm panel. All five DMP cellular options provide full data transmission to the Central Station.

How to Get Started


Before an alarm dealer can put one of DMP's Digital Cellular Communicators to work, they must register with a cellular provider, such as SecureCom. The alarm company then is issued an exclusive ID number that identifies them to the cellular provider. This ID is used to activate SIM cards for DMP Digital Cellular Communicators. SIM activation can be accomplished with Remote Link or by a call to DMP Customer Service.

Cellular programming is accomplished by choosing the appropriate communication options within the alarm panel. The installer simply selects CELL and programs the IP number of the Central Station receiver. If text messaging to user cell phones is desired, the telephone numbers are programmed by the installer into the panel. Nothing else is required.

Benefits to the Customer and the Dealer

End users are increasingly requesting, and many are demanding, cellular communication links between their alarm panels and the Central Station. Besides being more resistant to the physical attacks that can cut dial-up or network connections, cellular opens a range of new features that includes the ability to receive system alerts and send panel commands via text messages.

For the system dealer, cellular communication unlocks new ongoing revenue opportunities from bundled cellular services. To meet customer expectations and enhance monthly revenue streams, security system providers need to understand the cellular options and be prepared to promote this communications technology as part of a comprehensive system to their customers.

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