

Expanding its Coverage

Whether it is alarm companies pushing the technology or consumers asking for it, wireless alarm signaling is definitely growing in popularity.

By Paul Grossinger

Some may call it fear mongering, while others may simply call it offering good security. Whatever moniker one chooses, those alarm companies that are spreading the gospel of wireless back-up technology are certainly having an impact on the sale of alternate communication in today's alarm industry. "If we look at it from the security industry outwardly, there seems to be more interest and it seems to be steadily growing," says Gordon Hope, vice-president of marketing at ADEMCO, the manufacturer of AlarmNet, a family of radio communications services specifically designed as an alternative or back-up to the transmission of alarm signals over telephone lines.

"What appears to be driving it is that information is becoming more known that for relatively modest costs [alarm companies] can provide back-up services to their customers that just a few years ago were probably twice as expensive as it is today." For Malcolm Pesner, vice-president of Sentinel Alarm Co. in Montreal, Que., the growth of wireless communications at his company is profound — as can be seen in the fact that it has added 600 AlarmNet accounts over the past two years. "The growth is tremendous — it is unbelievable," he says, adding that one insurance company has even demanded clients install wireless back-up in their homes in order to receive coverage. "You are comparing it to DVAC and the cost is less expensive to the customers and we always have this threat of the DVAC rates going up. "In the industry," he notes, "you are only as good as your phone line, and it is amazing that there are so many alarm systems just on phone lines. To be honest, every alarm system should be on cellular. What's the point of having an alarm system if all the thief has to do is cut the phone line?"



**Numerex's UplinkSM
DigiCell 1500**

According to Eric Tassé, Digital Security Control's (DSC) product manager of communication products, including all Skyroute, T-Link and Sur-Gard-related central station receiver equipment, the use of wireless communications has not yet reached mainstream status, but is definitely on the rise. For wireless to climb the last few rungs on the mainstream ladder, Tassé believes the industry should focus on educating dealers about the advantages of the technology and how to sell it to the end-user. "Everyone has relied on PSTN or telephone lines for years," says Tassé. "It's always there, it's been reliable, but the reality of the situation today is that in the telecommunication industry, with the convergence from analogue to digital lines and the de-regulation of the telcos, the PSTN network is getting quite cluttered. There are transmission problems that are starting to crop up due to all these changes to the infrastructure of the network; so wireless communications provides an excellent alternative."

Fruitful Findings

To discover the role of wireless communications in the security industry — and whether or not wireless is moving to a primary method of communication from its customary back-up role — the Security Industry Association formed the Wireless Industry Group in 2000. Its first order of business was to uncover available statistics reported by official sources, such as the FCC, telecom industry associations and independent carriers that display the relative reliability of the wireless versus the wireline networks.

As a result, the group published a Network Reliability Study in 2001 that concluded, at the time, the adoption of wireless transmission stood at less than three percent of all installed systems in commercial establishments and even less in residential. Although statistics are not available to prove that these numbers have risen, it is safe to assume that wireless technology is used more for alarm signaling these days than ever before. During its investigation, the group discovered that phone lines frequently encounter switch outages caused by scheduled outages, hardware failure, software design, telco procedural errors, natural causes, vendors procedural errors, external power failure, unknown, hardware design and massive line outages. As well, from information gleaned from carriers and industry research, the likelihood of a cellular alarm signal not reaching the central monitoring station due to failure of the cellular network was minimal. As supported by carrier comments and the Telephia tracking of network availability, the analogue cellular networks operated at an aggregate of 98.8-percent availability for standard cellular and a higher rate for fixed, control channel alarm transmissions.

The group's conclusion was "wireless networks continue to improve in reliability versus the wireline network. Transmission of signals over the wireless should not pose a concern to the security industry and users of security systems. It is a reliable communications path and has the potential to become the primary communication path for many future applications."

Greater Applications

Over the past several years, nationwide service providers have spent millions of dollars laying out wireless infrastructures across the country and the continent. "The infrastructure is built out with so many cell towers that you really have to look hard to find areas that are not covered by the cell network," explains Hope, referring to the fact that practically any location in North America has the ability to send and receive wireless signals. "That ubiquity of coverage is what makes it so attractive because the installing company can go in with great confidence that they can take the wireless radio and, somewhere in that building or home, get it to work. And that is probably one of the biggest advantages to today's class of radio, as opposed to a few years ago when the coverage wasn't that good."

According to Roland Rice, the executive vice-president of sales at Numerex Corp., the way the wireless data is transmitted has not changed much in the past 18 months, but the way the data has been collected has seen some alterations. For example, there is a move to receive full data from an alarm control panel, not just the reporting of fire, burglary or panic status. Wireless data now contains what door or window was breached and what detectors were triggered. Numerex, based in Atlanta, Ga., owns a nation-wide Cellemetry[®] network that is used to transport alarm signals, as well as UplinkSM, a physical cellular radio device that is installed on the alarm panel and monitors it for alarm conditions.

Besides the expanded coverage of wireless technology, the advent and the explosion of satellite television, cable networks and cellular telephones have produced a consumer who is much more attune to — and willing to pay for — wireless equipment and technology. As for whether wireless communications is moving to a primary method of communication from its more traditional back-up role, it seems that those days are not in clear sight just yet. "The future is going to be multiple paths of communications into the monitoring station," says DSC's Tassé, adding that this offers customers the highest level of security. "Other industries have been looking at communications redundancies, back-up systems and parallel systems for years, and our industry is just catching up with that. "I think everything has the potential to be wireless," he adds. "The key from our point of view is that wireless is definitely on the map and will definitely continue to grow. It will be a major contributor, but the focus is on having more than one path to the central station. From our point of view, alternate communications is a significant growth point in the market."

ULC is even taking a proactive approach to wireless as it has already recognized wireless communications to be beneficial in a number of varieties and mediums. ULC is even in the process of voting on a new commercial fire alarm installation standard, which, if passed, will see any new installations require the use of a phone line and some other alternative communications device — not just the installation of a dual dialer. The assumption amongst many industry experts is that the most cost effective and easiest deployable alternative form of communication is wireless, and maybe TCP/IP. For Hope, he believes wireless will one day become a primary form

of communication, but for the near future “it is going to grow in areas where it make sense first ... new construction or [when] people [are] moving.”

Actually, in some circumstances now, wireless is being used in place of the phone line, where there may not be a phone line available, such as cottages, new construction sites, mobile trailers and homes. For example, when people are moving homes, they are looking to cut costs any way possible. For those who own a cellular phone and who have access to cable modem service for logging onto the Internet, a hardwired phone line may not be necessary. As well, some phone companies are lowering their cellular phone rates to encourage people away from land lines because of the high costs associated with maintenance and support.

“What we have seen over the past 12 months is that more and more dealers are selling it, more and more customers are understanding the need for it, but it is still being sold as a back-up,” says Rice. “Where it was perceived before as a weakness potentially to the alarm system and not a proactive part of the sales cycle, we are seeing that change and that people are starting to see they are vulnerable to phone lines being cut.” Rice does admit that in Latin and South American markets, where landlines are expensive and not as easily available as in North America, people are starting to use wireless as the primary form of communication.

Although he would like to see wireless communication as the primary form of communication in the alarm industry, Sentinel’s Pesner says wireless technology “isn’t smart enough” to be used in that way just yet. Eventually, though, not only should alarm systems incorporate wireless components, but every single system should be installed with dual forms of communication. “One thing that is perplexing me is that you have the industry saying, ‘let’s cut down on false alarms,’ but then you have [a company] coming out with an Internet panel that meets UL standards. The Internet doesn’t have the same reliability as the phone line and everybody knows that, but the manufacturer submitted it to UL, UL gave it approval and all of a sudden it is a Level 3 (the same as DVAC). The whole problem is when [a customer] loses his Internet, what do I do? There is no way I’m going to give a [ULC] certificate for someone just on Internet.”

The best solution seems to be a product that offers tag-team (i.e., phone line, Internet and cellular) communication, so when one method goes down, the others are readily available to send the necessary signals. As major wireless service providers deploy more and more wireless communications, and as consumers begin to demand some form of back-up communications for their alarm systems, dealers who take advantage of this technology and additional revenue stream will be able to separate themselves from the rest of the pack.

###