

Radio Telemetry Alarm Monitoring

We have now completed the roll out and testing of our High Security Radio Network. This has entailed a very significant investment by Alarm Control 24, but we are convinced that we now possess the most Secure, Intelligent, Radio Telemetry Network available in Ireland and the **only** network capable of transmitting Contact ID, which of course is part of the Garda Alarm Verification Standard 2005.

You may or may not have heard of recent Country Wide break-ins where GSM Jamming Devices were used to block the GSM Diallers fitted to some of the premises from transmitting the Alarm Activation Signals.

In conjunction with the Gardai we have carried out tests at our Alarm Receiving Centre with devices similar to those discovered at some of these break-ins. And they quite clearly prove that the jamming devices successfully block all **GSM, 3G, Text** and **SMS** messages from being transmitted and received. This discovery has very significant ramifications for the security industry.

We have also carried out these tests for some of the largest Insurance Companies in Ireland and needless to say they are very concerned and are considering what their response and options are.

In our opinion GSM Diallers are no longer a secure way of transmitting alarm signals, which is why we installed a High Security Radio Telemetry Network.

We have devised a very competitive pricing structure, which has been received very favourably by the Industry. We would like to talk to you or visit you to explain in greater detail the contents of this letter. Alternatively if you would like to visit our Monitoring Station or would like a demonstration of the Jamming Device, please give me a call.

I look forward to speaking with you in the near future.

PS. I enclose a brochure on Our Radio Telemetry System

Kind Regards

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INTRUDER MONITORING EXPLAINED

Basically an alarm system is 'monitored' when it connected to an Alarm Receiving Centre or ARC either via a telephone line, GSM or a radio link.

When a system connected to the Alarm Receiving Centre triggers or activates a signal is sent to a computerised 'receiver' and the relevant information such as customer name, address and key-holding details appear on the computer screen for the controllers to act upon.



Alarm activates which alerts our Monitoring Control Centre.



Control centre makes contact with you to verify that the activation is genuine or false. You will then be asked to verify the code word to confirm positive identity.



When the alarm activation is genuine and the code/Pass word is confirmed our Control Centre then contacts the relevant services:
Key holder or Emergency Services or log the call as an error.

The benefits of Monitoring

- Immediate reporting of alarm activations-verification technology can indicate which zone or area of the system has activated.
- Intruder, personal attack, fire, freezer, water detection etc. Depending on the type of alarm signal received the monitoring centre can contact the appropriate parties: Gardai, Fire brigade, medical staff, key-holders etc.
- Garda respond on receipt of verified signal.
- Peace of mind knowing your family, home or premises is monitored 24 hours a day.

Types of monitoring services

There are essentially 4 main types of monitoring systems which transmit their signals to the Monitoring Control Centre.

- **Telephone line** • **GSM/GPRS Dual Com** • **GSM Dialler Unit** • **Radio Telemetry**

Some systems purporting to be 'high security transmission' may use a combination of telephone line and GSM or IP telephony. These systems can be compromised no matter how good the alarm system is. Once the method of transmission is disconnected, cut or blocked it cannot send a signal to the Alarm Receiving Centre.

Telephone Line

Telephone line monitoring is the most common type. Essentially a 'digital communicator' or 'digi' is connected to the phone line, when the alarm activates it sends a signal to the Alarm Receiving Centre. This method of transmission is generally quite reliable, however the main problem is that if the phone line is cut or disconnected the signal cannot be sent to the Alarm Receiving Centre. Most premises/dwellings built in the last 20-30 years have a panel installed usually placed outside that the Eircom phone line is terminated in. It is here that the problem lies, making it very easy to access and render the communicator useless. An additional problem with telephone line communications that is now becoming more common is the huge increase in people using phone lines provided by TV companies; such as UPC or IP based telephone lines from Internet Service Providers. These phone lines are not as secure as those from traditional providers such as Eircom. For example, if the router is unplugged or there is an electricity failure the phone line ceases to work; this has the same effect as cutting the phone line rendering the communicator useless.

GSM/GPRS

There are several types of GSM based communicators; however they all use the cellular phone network to send their signals to the Alarm Receiving Centre. Some units use a SIM card to provide a phone line which is connected into a digital communicator similar to the normal telephone line communicator. Other units called GPRS communicators use the 'IP' element of the cellular network to send signals over a Virtual Private Network to special 'IP' receivers in the Alarm Receiving Centre. The key thing to note about any GSM/GPRS units is that they use the cellular network to communicate, if the network is down or blocked they render the system useless.

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GSM Mobile phone Network

GSM is the most popular standard for mobile telephony systems in the world. GSM is used by over 1.5 billion customers across 212 countries world wide. There are several different frequencies; in Ireland and most of Europe we use the 900 and 1800 MHz bands for mobile phone communication.

Radio Telemetry – Tried, tested and proven the most reliable

Never before has a security alarm system been put to the test and proved the most reliable and effective in both performance and cost than Radio Telemetry. A very desirable security solution that operates on a selected frequency so that calls are not put at risk by hackers or jamming devices. The Radio Security Monitoring solution from AC24 is a professional and reliable wireless network which can serve and accommodate many thousands of end units. The system is the most effective security solution in the present market for alarm transmission with a well proven track record backed by many satisfied clients.

Problems with Telephone and GSM mobile network

Although the GSM network is generally good in cities and major towns but in some cases the signal strength and call quality can vary and is often poor in rural areas. We have all experienced 'black spots' where the signal drops off or dies altogether regardless of what network we use. There are many reasons why this can happen, the following are just a sample;

- The cell you are connected to may have too many subscribers exceeding its capacity.

- Engineers working on the system.
- Essential maintenance being carried out (a favourite of the service providers)

While a 'dropped call' or not being able to hear the person on the phone may be inconvenient but it's a totally different matter if your GSM digi can't make contact with the Alarm Receiving Centre due to poor network coverage.

However probably the greatest threat to the GSM digital communicator is relevantly recent and comes from a unit called a **"GSM Jammer"**.

RECENT REPORTAGE IN THE NATIONAL NEWSPAPERS

'Gardai smash gang of ex-military Albanian burglars' IRISH EXAMINER - Wednesday, July 28th 2010

<http://www.irishexaminer.com/ireland/kfcwgbmhokf/rss2/>

'Garda alert as gang learn to bypass alarms' Thieves using sophisticated equipment to carry out hundreds of 'low-value' robberies.

IRISH INDEPENDENT – Sunday April 11th 2010

<http://www.independent.ie/national-news/garda-alert-as-gang-learn-to-bypass-alarms-2133637.html>

'Gangs using jammers to deactivate alarms' THE SUNDAY TIMES – April 26th 2010

<http://www.timesonline.co.uk/tol/news/world/ireland/article7107249.ece>

'Alarms being blocked by jamming devices, says Mitchell' - THE IRISH TIMES – July 5th 2012

<http://www.irishtimes.com/search/search7.1213540?q=Alarms%20being%20blocked%20by%20jamming%20devices%2C%20says%20Mitchell>

'Gangs importing jammers to deactivate house and car alarms' THE IRISH INDEPENDENT – Dec 04th 2012

<http://www.independent.ie/irish-news/gangs-importing-jammers-to-disable-house-and-car-alarms-28943000.html>

'Time for jammin' sessions in theatres and concert halls' THE IRISH TIMES - FEB 21st 2013

<http://www.irishtimes.com/search/search7.1213540?q=Time%20for%20jammin%E2%80%99%20sessions%20in%20theatres%20and%20concert%20halls>

Full articles can be sourced by going online to the relevant newspapers links above.

GSM MOBILE PHONE JAMMER

Devices such as the GSM Jammer are readily available and can block the mobile phone network and prevent GSM and GPRS digital communicators from working. They were developed originally to prevent mobile phone networks from operating in locations as Government offices, military installations and other sensitive locations and sales were restricted to authorised personnel only. However, due to Far East mass production they are readily available at extremely low costs. They range from pocket sized units that can block mobile phone signals up to 10m radius. For example a basic model with a range of 100m can block all mobile phone frequencies and costs about €50.00 including a remote control unit.

All frequencies are vulnerable to the GSM Jammer threat

Most importantly to note is that it will block all GSM frequencies and all networks; if the GSM digi is on either Vodafone, O2, Meteor, 3 or a 'World SIM card' - All of these will be rendered useless when the Jammer is put into operation.

GSM Jammers used in recent burglaries around the country

Gardaí have noted recently an increase in the use of mobile phone jammers by intruders in order to bypass GSM digital communicators. There have been several break-ins recently where Gardaí have found these devices at the scene. The scenario is that the intruders turn on the GSM jammer then cut the phone line which will prevent both the telephone line digi and the GSM digi from communicating to the Alarm Receiving Centre. Another 'bonus' to the intruders is that the unit is powerful enough to prevent any passer by using his/her mobile phone to contact the Gardaí. Intruders have used this method to their benefit in several break-ins including those in Cork and Galway as reported by the Sunday Independent (April 2010).

So what is the solution to this increasing worrying issue?

There is only one secure method of signalling and for this we must go 'back to the future'! Sometimes the old ways are best and in this case it certainly seems so. Radio telemetry; an old idea but with a modern updated 'twist'.

LONG RANGE SECURE RADIO TELEMETRY SYSTEM



Going back 25 years or so before the advent of cheap mobile phone communication, monitoring was either by telephone line or radio. Radio transmitters cost in the region of IR£1500 and monitoring was extremely expensive meaning that radio monitoring was limited to high risk installations such as banks and wealthy owners of private residences. At that time radio transmitters were short range devices and a radio network was expensive to install and maintain and most gave only 'skeleton coverage'. When the GSM digi became more popular, most of the monitoring stations adopted this as an alternative to the radio network mainly because of the cost factor involved in installing and maintaining their own private network. As a result the private radio networks fell into decline due to lack of interest.



Now 2013

Harris Alarm Control
24 has their own
radio network which

is a private and does not share bandwidth with any other providers. This consists of a nationwide network of repeaters that receive the signals from the individual radio transmitters that are located in the protected premises. These repeaters then 'bounce' the signals back to the receiver in the Alarm Receiving Centre. Our system uses secure, proven technology from one of the largest radio manufacturers in the world; having sold over 1,000,000 transmitters and receiver units. Our radio network is totally secure and penetrable proof against GSM Jammers and is proven to be the most reliable and effective in both performance and cost.

ADVANCED FEATURES OF RADIO

Speed – Signals received at the monitoring station in a fraction of seconds

Test Signals – send as many as required without additional cost

Private network – network dedicated for alarm transmission only – no sharing networks for other applications

Signals – Signal level on each alarm transmitter are measured and recorded

Synthesized units – all parameters are programmed via PC or handheld devices

In addition to being probably the most secure, reliable and cost effective radio network in this country our radio transmitters are capable of sending signals in Contact ID format.

What is Contact ID?

Contact ID is a format fully compliant with the Garda Alarm Verification Policy of 2005. It is a 'language' that sends zone number details to the Alarm Receiving Centre when activation occurs. A small interface card is installed between the alarm control panel and the radio transmitter And this then sends the Contact ID information to the monitoring centre. When used with this interface card the telephone line connected to the intruder alarm panel can also report a line failure to the Alarm Receiving Centre within seconds of the line fault so if an intruder cuts the phone line we will know about it in seconds.

THE COST

GSM Annual Monitoring: €500 plus VAT for the first year thereafter €400.00 plus VAT per annum.

Radio Telemetry Monitoring: €650 plus VAT for the first year thereafter €450.00 plus VAT per annum.

If you would like to visit our Monitoring Station or would like a demonstration of the Jamming Device, please give me a call on 087 9522223

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