The Future of Push to Talk Communications

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INTRODUCTION

If you are a professional user of traditional ‘push to talk’ two-way radio communications, this will fundamentally change the way you view the use of your radios.

As a company, G6 Global has been supplying professional radio solutions to users for whom communications is Mission Critical since 1999. One of the first questions I am always asked when discussing a clients requirements is “What range can I expect from my radios?”

This is a valid question, and vitally important to them if they are going to decide whether radio is the right solution for their needs.

Sadly, the answer is often less than concise. You see radio coverage is governed by a number of factors; frequency, location, geography, topology, antenna type, antenna height, weather, terrain, radio type, local interference………..and the list goes on.

Explaining this to a customer has always felt unsatisfactory to me. It almost feels evasive, like I can’t give them a definitive answer because there are too many variables, but that is exactly the point: I can’t give them a definitive answer because there are too many variables.

In some circumstances we can achieve outstanding coverage, way beyond what we would usually expect, in others we can struggle to achieve the bare minimum.

And user requirements can be so diverse. Working mainly within the security community, our users demands can be quite strict, requiring a mixture of flexible coverage, whilst at the same time keeping a low profile. But across the industry as a whole, the needs of clients are hugely diverse and meeting them all can be a challenge.

So how can we address these ever changing needs to give customers the best possible experience and coverage for their ‘push to talk’ requirements?
DEVICE OF LAST RESORT……

If you have read this far then you already understand the frustrations that can be caused when your radio network does not deliver what you want it to. Consider the following questions:

1. Do you struggle with the coverage of your radio system; could it be better?
2. Do you cover a large geographic area but your radios only work in certain places?
3. Do you want to use your radios in areas where there is currently no coverage?
4. Do you have on-site radios that don’t reach all areas?
5. What do you use if the radios don’t work?

No matter how you answer the first four questions, the answer to question 5 is almost certainly going to be the same for everyone……….you use the phone.

I recently had cause to contact the company who is responsible for waste collection at our offices. We hadn’t been visited for a couple of weeks and I wanted to know when, that day, the lorry would arrive to empty the bins. The lady on the phone asked me to wait, saying that she would contact the driver of the lorry responsible for our area.

After a few seconds she was back, assuring me that he would be with us that morning. I asked her how she had contacted him; did they have a radio network or had she used the phone? She told me that ‘yes’ they did indeed have a radio network, but it didn’t work very well, so when it didn’t, she used the phone.

In a similar experience, we were recently providing communications support for a group of overseas students who were being trained in physical surveillance. For a variety of reasons, radio coverage in the training area was problematic, so what was the first thing they did…..yes, they all got out their phones and started to use WhatsApp to communicate!
THE STATUS QUO

So why is the phone always the comm’s device of last resort? If it is the one we turn to when nothing else works properly, surely this would imply that it is the most reliable means of communication, the one we can always be pretty sure will work when other methods fail.

This being the case, why do we not elevate this to our primary means of communication and get through more often?

The answer to this question is largely one of tradition and perception. We use our radios for one thing, and our phones for something else, and that’s the way it is, but that’s not the way it needs to be.

What does our radio network give us:

- It offers an ‘all informed’ means of communication; one press and you can speak to a group of people simultaneously
- It is secure, as long as the correct protocols are invoked when it is provisioned
- It is cost effective; once you have paid for it, its use is generally free to air i.e. you don’t pay every time you press the PTT button on the radio
- It is private, no one else can interfere with your private radio network
- It covers a specific geographic area of operations
- There is a good choice of both radio hardware and associated accessories specific to your operational needs

The problem is that radio networks require skill to put in place and, for a number of reasons including cost and licensing restrictions, only usually offer limited geographic coverage.

So back to our good old communications device of last resort……..the mobile phone. If we could achieve all of the functionality using our phone that we currently get from our radio network wouldn’t it make sense to use that instead; that’s a rhetorical question by the way, because the answer has surely got to be “yes”!
SO WHAT IS THE OPTION

Several years ago, companies in the UK began to flirt with, what is commonly known as ‘Push to Talk over Cellular’ which we will refer to as PTToC. This involved deploying hardware within the mobile phone providers core network and using the data service to provide the PTT capability. This was expensive for the providers and, therefore, also expensive for the end users, and performance was not particularly impressive.

Fast forward several years and we now have a far more developed and mature market in terms of IP (Internet Protocol) services, which makes this type of service much more viable.

High grade, super fast servers and faster interconnection between them now makes Push To Talk over Cellular a really viable option.

And the great thing is, things are only going to get better. With the development of LTE networks, mobile phone networks are going to become faster, wider reaching and more reliable. Carriers are also extending the availability of public Wifi, another key component to the success of this technology.

So what features and functionality can we expect from a PTToC service:

• Group calls, the ability to call multiple users with a single PTT operation
• High carrier grade end to end security as standard
• Individual calls, private PTT calls between individuals
• Low total cost of ownership with affordable ongoing monthly subscriptions
• Global coverage; quite literally you now have your own radio network wherever you have access to 3G or Wifi
• GPS tracking of all devices
• Emergency calls linked directly to a computer based radio controller
• Radio Dispatcher accessible from any Internet connected PC allows you to track and speak to groups and individuals
This list of services is actually more comprehensive than that provided by our traditional radio network.

But the real winner is coverage, because now our geographic ties are gone. Wherever we have 3G or better mobile phone coverage, or wherever we have Wifi coverage, we now have our network. Granted, it is still not going to give us 100% coverage everywhere we want it, but then neither does our radio network. But as we’ve already identified, this is only going to improve. Mobile phone coverage is only going to get wider and faster, and that means the range of our PTToC coverage is going to go with it.
CHANGING OUR HABITS

So how do we address the issues of perception and convince radio users to consider an alternative?

This shouldn’t be too hard, because the reality is that most radio users don’t know and don’t care how their message gets from A to B, as long as it gets there. As far as they know it could already use the mobile telephone network, or bounce off of a satellite. And that's the whole point; to the end user it shouldn’t make any difference, as long as it works reliably and in all the areas that they want it to work in.

Recognising that the future of radio communications will need to embrace PTToC, G6 has partnered with GroupTalk who have been successfully providing enterprise grade Push To Talk over Cellular services since 2006.

The service provides the following features:

- Group Call
- Private Call
- Emergency Alarm
- GPS Tracking
- Browser base Dispatcher
- End to end carrier grade encryption
- Fully redundant infrastructure

The smartphone App is fully tested and deployed on both iOS and Android operating systems, and GroupTalk has physically tested dozens of different makes and models of handset to asses their compatibility.

G6 has also teamed up with providers of both highly ruggedised and Atex approved devices, allowing a total solution to be deployed in the harshest and most demanding of operating environments.
Typical users of this service may be:

- Close Protection Teams
- Surveillance Operators
- Hotels and Events Teams
- Static Security Guards
- Security Patrols
- Key Holding and Alarm Receiving Centres
- Power Stations
- Local Authorities
- Stadiums & Arenas

This list is not exhaustive and the options are incredibly flexible. We can supply the hardware and the service or, if you would prefer to use your own devices, simply download the App and we will send you an activation SMS; you can be up and running in minutes.

If you only need to use the service for a short duration you can hire it by the day or by the week, meaning you can tailor your usage to your specific operational requirement.

But the best way to get to know any new service is to try it, so if you want to see what it is like then simply call us on 03332 020981 or email andrew@g6-global.com This way you can check coverage in all of the operational areas that are important to you.

As a parting thought, I’m not saying that this technology is going to replace traditional radio services, but it certainly needs to be taken seriously. You only need to look at the ‘roadmaps’ for many of the leading radio manufacturers to see that the design of handsets is tending more towards the look of a rugged smartphone than a traditional portable radio. Many manufacturers are also making the provision to include SIM cards in future models, and that tells its own story.

For a free no-obligation trial call us today on 03332 020981