



# Command and control – getting IT right

*Intergraph public safety consultant Nick Chorley's tips on how to choose and manage a command and control system.*



*When it comes to command and control, flexibility is becoming an important priority as a result of an increasing requirement for collaboration, says Intergraph public safety consultant Nick Chorley. Photo credit: Intergraph.*

**F**or a public safety organisation its command and control (C&C), incident management system is arguably its single most important technology investment, and the level of C&C procurement across all emergency services is now at its highest for 10 years.

As a core operations 'hub' the C&C system is integral to a wide range of functions, from field communications, call taking and dispatch to management reporting and HR. Its mission critical, public-facing nature also means that if it does go 'wrong' that event is usually high profile in nature.

When choosing a C&C system, it is vital to see the current model in action in a similar capacity, if not in exactly the same field as your own. You need to know that it has been tested in practice and to talk to those that have relied on it in difficult times: this is the best way to de-risk your choice and minimise the operational impact of the transition.

That takes care of the first major concern. Next, ensure that there is a clear product road-map for the future and a track record of regular, progressive and non-disruptive development, preferably driven by evolution rather than revolution. Evolution with innovation is a helpful mix. Talk to the system supplier's user group: its members are close to the company/product, but face the same challenges as you.

Be very clear on your criteria for success when starting your project. Availability will be high on any public safety user's list, but do not put yourself in a position where you have to rely on your C&C technology 100% of the time. For your C&C service to the public to be truly resilient the availability of people and current operational data is also required, regardless of whether the hardware and software are working. Have a constructive plan B – for example the London Ambulance Service had a very effective, tried and tested manual method of working in place. Nevertheless, it is good practice to have two or more live control sites, each with spare capacity and ready to quickly compensate in the case of any failure in another. A 'dark site', where backup C&C is available but not in regular use, is less preferable.

Other criteria might include high volume capacity (taking a huge volume of calls for service with no system slow-down); and winning buy-in from the user base. The

consistency of a product throughout its life cycle is important for those taking a longer view of a technology partnership – a sensible precaution given the pace of technological change. C&C systems that have a consistent processing core or foundation on which a variety of public safety-specific workflows and applications can then be built combine longer-term, stable technology with the degree of flexibility that changing organisations demand. Managed product cycles rather than massive leaps forward will allow the user to best manage risk, performance and planning.

System life cycle management presents a different set of challenges. Organisational change is always accompanied by risk, which can be costly to manage at systems level – so forward planning is crucial. Organisations should also measure the longer term maintenance and other system costs, such as technology refresh, that will kick in during the system's life-cycle. Scalability is often presented by suppliers as a C&C system strength. While it is essential for larger organisations, smaller ones may be better purchasing a packaged solution that will meet their needs, at lower cost.

For organisations of all sizes however, flexibility is a priority as there is an increasing requirement for public safety organisations to collaborate. If you are one of those (or plan to be) choose a C&C system that has been specifically developed to enable you to communicate electronically and efficiently with other agencies. These might be sister services in your own area; or neighbouring same-service agencies in your region, providing mutual backup, with separate C&C systems but sophisticated interfaces; or, ideally, collaborating agencies sharing a single C&C system for maximum interoperability and utilisation of field and control room resources across the agencies. In this final scenario backup, workload and resources are shared and managed using a 'virtual control room' environment, powered by that single system.

The next 12 months will be an historic period for C&C technology: a time of great system renewal and re-organisation. Choosing and deploying systems that provide robust, yet flexible, support will help to ensure the future effectiveness of the UK's public safety agencies.