



# Delivering Effective Mapping Services

*In the quest to deliver effective mapping services many ICT and GIS officers have to juggle everyday operational tasks with looking at the bigger strategic picture. Alun Jones describes how The Geoinformation Group's Training4GIS consultancy team has helped ICT officers in Blue Light services to do just this.*

In the busy daily life of Blue Light service GIS officers and ICT managers having time to step back and look at the strategic direction of Geographic Information (GI) is just one of those tasks that gets placed on the "nice to have" pile. Yet it is a very significant and important task that should be done to keep all GI activities, databases, maps, and users on the right track and provide a sense of direction. Where this is not done then usually cardinal rules of GI system management are broken (see Table 1).

## Cardinal rules of GI system management

- Avoid duplication of effort
- Store once, use many times
- Employ standards wherever possible
- Establish a cohesive procurement policy
- Ensure databases are managed and maintained
- Appoint an owner for the GI processes
- Establish a GI strategy
- Establish a GI champion

Table 1 Cardinal rules of GI system management

GI in many Blue Light services has developed in a polarised fashion. National initiatives provide solid well delivered GI systems for command and control, yet operate in a relatively standalone fashion, with little or no interconnectivity to the rest of the Force. As a result, GI has grown across the rest of the organisation separate from command and control in a haphazard way with small teams setting up their own GIS buying in their own software, databases, etc. Consequently there is a replication of the silo mentality seen with central control but at a departmental level.

Whilst there are national initiatives that seek to establish standards and improved working practices, such as National Policing Improvement Agency (NPIA), Fire Control and the Bichard Inquiry these do not address GI to a level that can help managers deliver an effective service. Although it does give managers reasons for seeking funding or support to meet recommendations of these initiatives if they can identify how they link to GI services.

So what does this mean for the GIS and ICT manager who has to support all these systems and yet keep all the users happy when things don't work as they should; as they invariably do when you have this situation?

Often what is required is a GI strategy to bring all the disparate GI activities under one umbrella, to focus effort, and staff resources. Yet getting a strategy is not that simple, often requiring time, a strategic vision, a business plan and most importantly for the GI manager, staff at senior board level buy into GI.

Organisations that have established GI strategies will more than likely have a senior member of the Brigade or Force as its champion and they will know or appreciate the importance of Geographic Information. However, most will not have this so how do you go about getting a strategic view and a GI strategy in place?

The first step is to realise that you cannot just jump straight into a GI strategy. Careful planning is required to gather all the evidence that points to a strategy being needed, such as duplication of effort, opportunities for cost savings, improvements in service delivery, current usage of GI and future requirements. The GI strategy should be aligned with the IT/ICT strategy so there is some joined up thinking between GI and IT.

As often the case within Blue Light services there is the need to consider the occurrence of major incidents and how GI service delivery is prepared in advance. When a kidnapping, major fire, or other high level event occurs GI can and should be at the heart of the commanding officers' tool kit. However, fumbling around for maps, checking if the right address database is loaded or it is up to date are not issues you want arising at such a time.



The following looks at a simple plan that has been implemented by the Training4GIS consultancy team to support the development of a GI strategy for a number of Blue Light services across the UK.

The GI Consultancy plan focused on three areas of concern to GI and ICT managers, Data, Software and Resources (staffing) and looked at where management could better handle these three areas through the establishment of a GI Strategy (Figure 1).

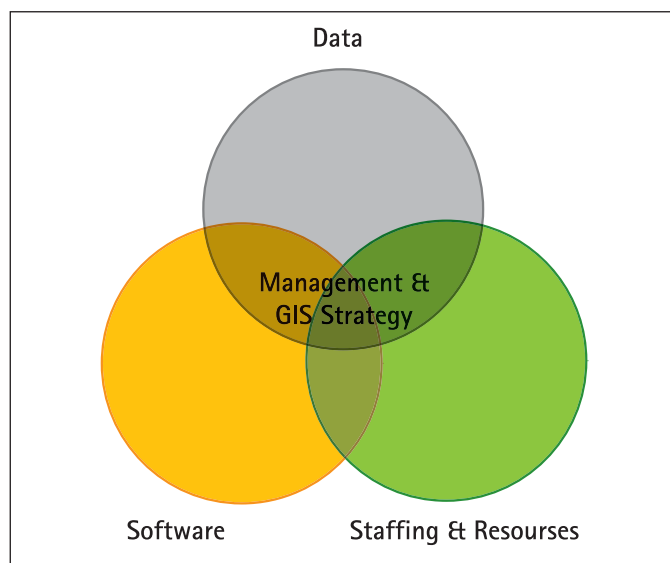


Figure 1 GI Management model

The Training4GIS consultancy approach with these brigades and Police forces was to provide an operational document that could be used to deliver a strategic direction.

It took the three areas of concern and looked at each of them at three different levels (AIM model), namely:

1. Assess the current state of play
2. Identify where the Force/Brigade etc want to go
3. Management action plan to get there

To deliver an effective mapping service, or to maintain one if already in place, requires strategic direction to focus operational tasks. Yet for many GI or ICT officers their priorities lie in the day to day delivery of the service to support tactical and front line activities. However by taking a small step back can mean making a big leap forward in delivering an effective mapping service.

#### Case Study – UK Police Force

The ICT officer of a UK police force wanted to improve their map delivery service, they were also offered new software to do this but wanted to justify that approach. The Force had five different address gazetteers in operation; one in command and control the other four spread across different groups, e.g. crime analysts, management information, airwaves. There was no central ownership of any other GI databases. Each group of GI users all operated with a different GIS, most with no support or maintenance. A number of address management tasks were duplicated by staff in the respective teams and there was no regular address or map maintenance.

The Training4GIS consultancy team initially spent two days with the ICT officer and the staff who had contact with GI. Working closely with the ICT officer a GI operational plan was developed along the AIM model. The AIM model identified where staff duplication had occurred and where improvements in service could be achieved. The plan also identified where cost savings could be achieved through centralised procurement of GI systems and data.

The report provided a number of recommendations along with an action plan. Currently this Force is now evaluating that plan with a view to taking it forward with a senior board level champion and establishing a GI strategy.