



Lightweight, Deployable Geo Solution

What we do

Helyx supports the end-to-end implementation of geospatial capability from the definition of a vision to the design, development and deployment of technical solutions that are integrated within a clients' infrastructure. We are experts in the provision of mobile and inter-connected capabilities for field and deployed operations.

Our systems engineering approach

Helyx has nearly 15 years worth of experience, in the effective design, development and integration of real time solutions as standalone Systems, or as part of a System of Systems.

Our Systems Engineering Approach is a crucial aspect in our provision of mobile and deployable geo-solutions. The value added by the system as a whole, beyond that contributed independently by its parts, is primarily created by the relationship among those parts; i.e. how they are interconnected. This is a fundamental element of ensuring capability for deployed solutions.

Case Study

A lightweight, deployable geo solution for the MOD:

Helyx delivered a fully functional, lightweight, deployable geo solution, which has enabled our customer to improve the speed of their decision making and provided a far richer information picture, for their deployed users. We also delivered a solution with a very small Size, Weight and Power (SWaP) footprint.

The task

Our customer was challenged by a very limited geospatial capability in deployed environments that was not capable of meeting their requirements. They were becoming increasingly reliant on the capability provided at baseplant that did meet the requirements, however this was not the case when delivering that capability over disadvantaged communications bearers which significantly degraded performance and capacity. This situation could not continue and the customer needed a solution quickly.

The challenge was to replicate the baseplant geospatial solution and services in deployed environments and reduce reliance on the baseplant capability. The key factors being performance, Size, Weight, And Power (SWaP) and the ability to integrate easily to the customers enterprise and continue to work while disconnected or disadvantaged. All of this was to be achieved without incurring a significant training or support burden as a result.

Helyx was asked to extend our static geo solution and services, to ensure they would be fit for a deployed solution. We needed to replicate the baseplant geospatial solution and services in deployed environments and reduce reliance on the baseplant capability. In addition to these key factors, the solution needed to be easily integrated within existing Enterprise Architecture and it needed to operate independently.

Our approach

We used our many years of experience in deployed geospatial solutions to fully describe each of the challenges in detail. Through effective stakeholder management, we were able to elicit the key concerns and perceived issues from the customer. By working in partnership, we ensured a full understanding of the environment they faced, which significantly influenced the design and our solution. Our customer engagement, enabled us to design an Enterprise Architecture and agree the Solution Architecture, within a very swift timeframe.

Once the supporting workflows and all aspects of the agreed solution were documented, we approached our hardware supplier, in order to adapt one of their existing solutions, to meet the more demanding needs of our customer.

A complete Training Solution for Deployable GIS Capability

We delivered a fully functional, lightweight, deployable geo solution, fit for operational use; exactly as per our brief. The technical elements were not treated in isolation with technical and support workflows developed to ensure that all aspects were met and the benefits of the new capability could be realised quickly.

After implementation the customer had a functioning lightweight deployed geospatial solution that was fit for operational use. It has not meant significant increase in training but has led to an increase in the speed of decision making and a richer information picture for deployed users within a very small SWaP footprint. There is also a reach-back capability and remote support from baseplant to fix most issues. The hardware supplier also has had significant success in selling the adapted equipment to other MOD customers. In addition the concept and hardware are being considered to address another deployed challenge.

The success of this geo solution, is now actively contributing to the resolution of other challenges our customers' face, whilst in deployed environments.

Deployable and mobile computing solutions are now common-place and both are used readily by skilled and non-skilled users. Helyx delivers bespoke deployable and mobile solutions, in full consideration of our customers' security and communications' requirements. We also develop bespoke Applications to accompany those solutions, enabling our customers to better exploit their geographic information.

