



Building a truly mission-critical solution for the **Foreign & Commonwealth Office**



The Foreign & Commonwealth Office (FCO) exists to promote the United Kingdom's interests overseas by supporting British citizens and businesses around the globe. It runs a worldwide network of embassies and consulates, and employs over 14,000 people in nearly 270 diplomatic offices.

One of FCO's key responsibilities is to support 'affected persons' (known as APs) with help, advice, or in extreme situations, extraction from the affected country when a situation becomes unstable (because of natural disaster, political upheaval, acts of terrorism etc.). In such a 'crisis', a dedicated Crisis Team manages these responses using an information system – known as the Crisis Hub – to coordinate their activities and allow information sharing with the Contact Centre Operators.

Civica was initially brought in to improve the mapping capability

of the Crisis Hub. Even before this was complete though, FCO had seen enough to be convinced that Civica should handle its more extensive system improvement requirements.

The challenge was to take the rudimentary existing solution and transform it into a technically robust, rapidly scalable and totally dependable solution.

Improving the Crisis Hub

Crisis Hub's role is to enable the Crisis Team to identify people affected by a crisis, pinpoint their location and specific needs, and help plan to get them out of harm's way if necessary. FCO wanted a multichannel system that was secure and available remotely.

It needed better present and manage information on which to base critical decisions, and for officials to be able to capture and record information, even when they were offline.

Outcomes

- ▶ Ability to rapidly scale the system during crises
- ▶ Increased automation and system intelligence
- ▶ Offline working capability so users can be productive at all times
- ▶ Helped the client deliver their first fully-Agile project
- ▶ High functionality and maintainability delivered cost-effectively
- ▶ Support for over 2,000 FCO users around the world

Crisis Hub now generates accurate maps that help pinpoint the location of 'affected persons'.

What was delivered

Mapping

Civica's first suggestion was that instead of Google Maps (which was used in the previous solution), Crisis Hub should use OpenStreetMap. This supplies a highly usable alternative, at no cost, and gets around the restrictions of Google's licence terms so that FCO also has full ownership of all the data.

The Crisis Hub now has the capacity to generate accurate maps that pinpoint the location of APs and add customised layers that include highly specific data such as 'danger areas' - the radius of fire of a hostile rocket emplacement, for example.

Offline working capabilities

It was critical to FCO that its field-based personnel have the ability to work offline. In crisis situations web access is often unavailable because of infrastructure or capacity problems or even because the internet has been censored or sabotaged.

In response Civica built an innovative solution. The user's browser takes a partial snapshot of the submitted data. The data is encrypted meaning that if a device is lost or stolen, the data cannot be retrieved by anyone who does not have the password. As soon as a connection is re-established, data is decrypted and synchronised with the central hub.

Scaling capacity

Crises come in many forms and sizes and some can be very large scale events - a coup or a tsunami, for example. There

may also be multiple crises occurring at the same time, with potentially tens of thousands of British nationals involved. FCO needed a system capable of being elastic and of handling scenarios of any size. The solution is cloud-based, which supports such scalability.

The system also avoids another potential bottleneck with the ability to on-board new users quickly when required. Civica designed the Crisis Hub so that it is intuitive. New users do not need a manual or detailed training. They simply require a login and they are up and running.

Automation

FCO wanted the Crisis Hub to automatically rank APs by priority. Civica worked on refining the system's triaging capacity. When an AP is added, Crisis Hub asks about their status. Children and parents, for instance, are a high priority. The system also prioritises APs against criteria such as disability, pregnancy, any injury and its severity, and critical medication requirements. It means that FCO personnel are fully informed and equipped, able to use their time more efficiently.

De-duplication

It is often the case in a crisis that more than one family member or friend lets FCO know about a potential AP, so it is important that the Crisis Hub is able to identify where the same individual is being listed more than once.

To do this in the most efficient way, Civica introduced sophisticated software which analyses the data and identifies probable matches. It also provides a 'certainty value' so users can make an informed judgement. For instance the system will identify that 'Iain Jones' and 'Ian Jones' are potentially the same person, and if they are additionally on holiday in the same resort and come from the same town then the 'certainty value' will increase.

Better management information

Crisis Hub's value as a life-saving tool is directly related to the quality and timeliness of the data that it provides. Civica

improved the information accuracy through de-duplication and work done to improve data collection, such as redesigned form layouts.

Civica's work has improved the system's management information significantly. The reporting capability has also been greatly enhanced. Civica added pivot tables, which bring a multidimensional aspect to reporting. Data can be 'sliced and diced' depending on what information FCO personnel need to see. If you want to know the number of Spanish OAPs or British children in a particular area, the system can easily generate that information. More importantly, the data is also available in real-time because Civica re-architected the Crisis Hub. Calculations are done dynamically and there is no batch processing.

Crisis Hub was also developed in a user-focused way. It was built to be intuitive so that FCO can easily on-board untrained personnel as a crisis escalates.

How the client benefited

The system's extended functionality has improved information collection, display, handling and reporting by a considerable margin. Information is collected and made accessible in a much more timely way, which means that better, more timely, decisions can be made. In turn, that directly reduces the risks for APs, consular staff, aid workers and others while ensuring that each member of staff is allocated in the most time-effective and productive way. It has almost certainly saved lives.

FCO is also benefiting from a technically sound solution. It is a business-critical system and must be 100% available. The system

sits on a secure and resilient distributed architecture, remaining secure even across the offline capability. Civica also used open source components so the Crisis Hub is easily maintainable and cost-efficient in terms of maintenance.

Crisis Hub was also developed in a user-focused way. It was built to be intuitive so that FCO can easily on-board untrained personnel as a crisis escalates. Because of its design, other agencies can easily collaborate and coordinate with the system.

Lastly, although return on investment is a secondary consideration when people's lives are at stake, the system uses

“Working with Civica helped deliver a great product. Civica’s expertise and readiness to listen to our needs and requirements made a real difference. Crisis Hub was the FCO’s first fully Agile IT project, and the approach of Civica and our other partners in the project helped deliver a true digital transformation in our crisis response and a product that has proved such an effective tool in use.”

Simon Wood, Head of Crisis Management Department, FCO

cloud infrastructure which is more cost-effective than traditional hosting. The cloud platform itself is also designed to be cost efficient. When not in major crisis mode, the system is compact and therefore relatively cheap to run.

How Civica makes a difference

Civica was initially chosen because it presented the best business case: one that provided a blend of pragmatic, low cost solutions combined with high functionality and maintainability. This is possible because Civica has advanced technical expertise and a thorough knowledge of current technology. Civica’s offline working solution is a particularly good demonstration of this ability.

One approach would have been to laboriously build a bespoke solution complete with web services and Android and iOS applications. Civica opted instead to exploit the pre-existing – but little-used – functionality embedded in every modern web browser. The result is an elegant solution that was easy to roll-out, quick and relatively cheap to build, and will be considerably simpler to support. It also has extraordinary flexibility because it will work with any connected device that you log on to the system with. Civica has the vision and technical know-how to create really innovative, yet robust, solutions.

Civica is also highly experienced with Agile which leads to quicker, and consequently cheaper, implementations that are very client focussed. It has huge experience with government deployments and secure delivery. As a result, its personnel are all security cleared. This made a difference to FCO as Civica were able to put a team on site in a secure Whitehall bunker straight away.

The success of the initial mapping solution prompted FCO to ask Civica to extend its work on the Crisis Hub. This involvement also grew to include FCO’s Contact Centre requirement – an integration of the London Crisis Team with FCO’s “follow-the-sun” support operation across the globe.

The Crisis Hub now supports over 2,000 users from FCO and its partner organisations, all of whom are dedicated to protecting

and supporting British nationals abroad. It has proved its worth in crisis situations around the world, including the airport security crisis in Sharm el Sheikh, the Nepalese earthquake and the Tunisian terrorist attacks.

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