



A COHORT PLC COMPANY

CASE STUDY

Data innovation in law enforcement



THE CHALLENGE

Our customer, a large law-enforcement agency, was finding issues with the management and analysis of their data. They had a number of discreet IT systems, each of which was used to manage the investigation of a particular type of crime. These systems had grown over time – with no overall holistic approach – and whilst some technology may have been appropriate 20 years ago, the customer realised that modern solutions may bring much needed benefits.

We found the existing IT solutions estate had three common issues:

1. **No commonality in case management** – the IT solutions included a mix of apps, like OneNote, Excel etc.
2. **No data sharing** – The IT solutions worked in isolation, so data from one investigation was not available to other investigations.
3. **Lack of search functionality** – it was very difficult to search for information across the enterprise.

SOLUTION

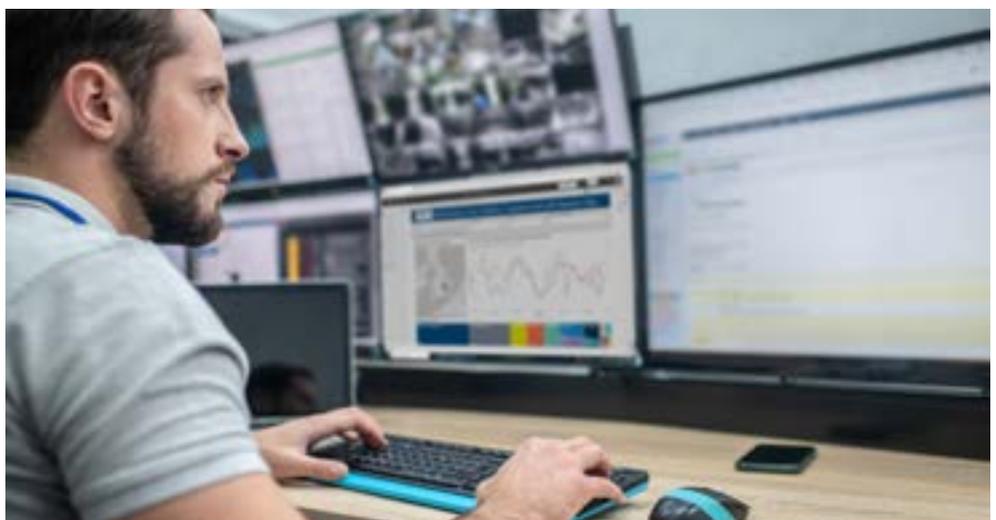
The team from MASS sat down with the customer to truly understand the challenges they faced and what they wanted to achieve from the work. Once they agreed the outcomes, the MASS team established three key improvements they could make using data engineering, data architecture and content management.

Data Engineering

The customer used a lot of manual data processes that were based on spreadsheets and manual data manipulation.

For example, the task of gathering data and saving it in the right format to produce reports was taking 10 working-days but by automating the process we reduced it to 2 working-days of analytical effort.

By automating the process of gathering and formatting data for reports we reduced the task time by 80%



Visualisations from the new automated process could allow the discovery of complex relationships between phone numbers

All investigative teams could access the new digital-twin database, allowing data sharing and data discovery

We upskilled agency staff in the new searchable CMS system

Data Architecture

A MASS Data Architect looked at the entirety of the customer's operation to map how data was being handled and suggested some solutions, including:

- 160 separate improvements that could be implemented in a stand-alone manner but part of a comprehensive roadmap leading to improved working practices.
- A comprehensive digital-twin database that could be accessed by all investigative teams to allow data sharing and data discovery. Two separate deployment plans were created using either the big bang or incremental approaches.
- An automated process was prototyped to handle telephone call data that maintained evidential provenance and included interactive, self-serve visualisations that allowed investigators to discover relationships between telephone numbers.



Content management

We also recommended SharePoint as a content management system in place of the current fileshare which, over time, had grown to a point where searching was difficult.

We conducted a number of workshops with both end-users and management to determine requirements, which were either a continuance of the existing business process or leveraging the functionality that SharePoint could offer.

The new SharePoint site was prototyped in the MASS labs environment with the customer's staff having access. This encouraged rapid development as the users could make a request during a workshop and see the solution a few minutes later on their own hardware.

We also created and delivered courseware to upskill staff in both the basics of using SharePoint and the particulars of how to use the customer's SharePoint site.

We worked with the agency's communications team to develop a SharePoint-based intranet where news articles, HR policies and other routine business information could be published.

OUTCOME

At the end of the project, we had provided the customer with a clear roadmap to implementing smarter and cost-effective ways of working that ultimately helps them to unlock significant budget savings now and in the future.

BY TAILORING OUR APPROACH TO THE CUSTOMER'S NEEDS, WE HAVE BEEN ABLE TO:

INCREASE PRODUCTIVITY

We increased the productivity of their teams by creating automated data processes that saved them time. For example, one process has seen a reduction in the hours spent on a task from 2 days per week to just 2 hours per week.

We also put together a set of smaller data-centric solutions that if implemented individually would improve productivity and facilitate the discovery of new data.

TRAIN AND UPSKILL TEAMS

Teams are now better equipped to use digital tools and apps that will help them better store, access and analyse data quicker and smarter. This is due to a comprehensive training plan we delivered around the deployment of new solutions, at a pace which matches employee development and in line with the organisation's goals.

IMPROVE DATA ACCESSIBILITY

Teams and individuals are able to share and access data more effectively using newly installed SharePoint sites. These sites included libraries, calendars, newsfeeds, organisation charts, maps and planners.

We documented and handed over a comprehensive solution that can be implemented over time that will encourage data sharing across investigation teams. This will help them identify leads more quickly and make better informed decisions in a timely manner.



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