

Customer Story



Industry

Public Sector

Focus

Data Quality

Business Issue

Migrate millions of records from legacy systems into a new policing records management system, retaining access to data stored in decommissioned systems and freeing users from data preparation tasks to focus on value-added analytics, better supporting management across all divisions.

Solution

A SAS-based platform for intelligence-led policing, extending to 1,400 users, covering data quality, access and management, analytics, business intelligence and reporting.

Benefits

Efficiency gains, improved accuracy and consistency; enabling analysts to focus on value-added activity, helping the force 'do more with less' and ensure public safety; meeting internal reporting needs/monthly crime statistics for management and performance activity, plus statutory reporting including Home Office returns.

Police Force Gains New Insights to Support Intelligence-Led Policing

Home Office figures in 2010 showed that crime in the South Wales Police area fell by almost 12 per cent compared to 2008-9, with 14,000 fewer victims of crime. Since 2007, the force has used SAS® in data quality, analytics and reporting to enable more informed management and support performance improvements



Although the South Wales Police area covers only 10 per cent of the country's landmass, it's responsible for over 1.2 million citizens: 42 per cent of Wales' total population. In recent years, the force has made increasing use of SAS® in data quality, analytics, business intelligence and performance reporting to support moves towards more predictive policing and intelligence-led law enforcement. "Implementing a new records management system (RMS), to replace multiple silo systems, was the major catalyst," says Simon Kinsey, BI Manager. Replacing the separate systems used to record crime, process custody records, prepare cases and manage incidents, this change led the force to reassess and then fundamentally change how data was accessed and analysed, and how resulting insights were provided across the business. "Before, staff had the word 'analyst' in their job title but actually spent most of their time gathering and processing data, rather than analysing and reporting," Kinsey says.

Improved Data Quality - Enhanced Business Insights

From the outset, the force wanted to improve efficiency in reporting and create an integrated, organisational approach. The seven divisions at the time (Basic Command Units) each had their own analysts and practices; work was duplicated while inconsistencies and

inefficiencies were rife. "We wanted to consolidate all those processes, to make improvements as well as continuing with business-as-usual," says Andy Davies, BI Data Modeller. Most of the analytics involve crime statistics for seven local authority areas and 232 individual wards: crime type, detection rates, incidents. In addition to delivering monthly performance statistics, the business must provide Home Office and other statutory returns in areas such as knife crime and gun crime.

SAS was first used to support the huge RMS migration project, which involved transferring data covering over a million crimes from the legacy systems. During this move, reporting had to continue as normal, despite the RMS having no reporting capabilities. "This meant adding functionality on top," says Davies. "We also needed to retain access to other legacy data stores after decommissioning, which eventually meant pulling that data through using SAS." This was, for example, to enable records checks on applicants for jobs involving vulnerable groups like children.

“ There are so many opportunities to use SAS to drive efficiency gains and achieve savings in different areas of the force’s operations – and we’re starting to realise those savings. ”

Simon Kinsey, BI Manager, South Wales Police

With SAS® Data Integration Studio the key tool used for the migration, and the only tool for backup and conversion elements, SAS partner Atos Origin examined the force’s wider requirements, including compliance with Home Office initiatives like the NMIS (National Management Information System). The force realised SAS could play a far bigger role: “We wanted to add value, improving productivity and doing more with less – all of which are even more important in today’s financial climate,” Davies continues. With the migration successful, 15 years’ accumulated crime data was easily accessible in a single location. “Other forces have considered doing something similar but given up,” says Davies. “It’s complex data and a lot of transformation is required, so we depended heavily on SAS’ data quality capabilities. I think this was only possible using SAS.” Kinsey adds, “SAS enabled us to achieve our goals: we believe we’re the only UK force to conduct a conversion on this scale successfully, populating a system with data going back to 1994, with records covering a million crimes plus everything linked to those crimes, including photographs.”

The force now had a “wealth of criminal and policing intelligence” to draw upon, representing a huge investment of time and effort. “If you’ll pardon the pun, it would have been criminal not to use that properly,” Kinsey says. “We can now retrieve records going back years that we couldn’t access before. To perform meaningful crime analysis you need access to individual records, which wasn’t possible previously.” The force soon extended its business intelligence capabilities with an Oracle data warehouse, built using the Police Corporate Data Model (CorDM), populated with data from the RMS each night. “Our approach is designed to provide every aspect of data needed by modern policing,” says Davies.

Over 15 SAS ‘power users’ have also benefited from SAS Education training, including bespoke and onsite courses. The BI team, meanwhile, has even faster access to SAS support, skills and on-going advice through its SAS® Premium Support contract, which more recently has included hands-on support for a planned wholesale upgrade to the latest SAS technology.

Drive Efficiency Gains, Achieve Savings

The RMS has, Kinsey says, become the most significant operational system within the force, “catering for most of our analytical needs, answering questions posed by people across the organisation and outside it.” The data warehouse is fed by flexible SAS® ETL (extraction, transformation and loading) processes, used to make the connections necessary to answer ad hoc queries the force couldn’t otherwise deal with, and address specific requirements like those of the Home Office data hub. SAS® Enterprise Guide® is also used to create stored processes for the SAS® Information Delivery Portal, providing access for 1,400 staff via the force’s intranet site and supporting everything from data quality and performance checks to individual officer monitoring. SAS also enables all users to access and monitor their own data quality standards in line with the force’s requirements. “We’re providing managers and team leaders with the tools they need to manage their people and perform more effectively,” says Davies, “to make sure everyone is working towards a common goal and achieving better results.” Kinsey says the force is working towards a ‘one-stop-shop’ arrangement, enabled via SAS, “from data processing through to a host of analytical tools, and for users at different levels. SAS provides that flexibility. We want to empower people in their divisions, reducing dependency on spreadsheets and other local solutions, avoiding duplicated effort and removing inefficiencies. Previously, analysts could spend days preparing data. Using SAS means they have far more time for analysis.”

In 2010, Home Office statistics revealed that crime in the South Wales Police area had fallen by 11.8 per cent compared to 2008-9, with South Wales Police the 8th most improved force nationally for overall crime reduction, with 14,000 less victims of crime. Kinsey adds, “SAS means we can integrate data from so many systems, including our RMS, Command and Control, Duty Management system, data from mobile devices and more, and give us huge flexibility in terms of output. There are so many opportunities to use SAS to drive efficiency gains and achieve savings in different areas of the force’s operations, like our Duty Management system – and we’re starting to realise those savings.”

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