

▶ Customer References



SAS® Professional Services

A selection of customer successes

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Foreword

When I talk to customers, a consistent theme crops up: you're already making excellent use of SAS® technology and solutions but would like to take this even further. That's where SAS® Professional Services come in. Your employees are already highly skilled, but need some extra help or advice to take things to the next level.

It's one thing telling people about your services in a marketing brochure but a much better way is to show people by pulling together a range of customer references that not only describe what we do but, more importantly, show real-life outcomes and business impacts.

This short collection of case studies covers a variety of our services and shows how customers in different sectors have benefited. For instance: how we led implementation of a new marketing solution for award-winning insurer Swinton; what happened when British Army HQ consulted SAS domain experts; how Premium Support helps South Wales Police deliver intelligence-led policing; and how training and certification benefited an individual risk consultant along with his employer, the world's biggest building society.

I'm extremely proud of our SAS Professional Services team. I believe we are the best at what we do. And because we know our technology, its capabilities and practical applications so well, customers are assured that our people can go further and deliver more. Ultimately, it's how our customers benefit that really matters to us.

Mark Wilkinson
Managing Director, SAS UK & Ireland

SAS® helps reduce Nationwide's fraud losses by 75 per cent

The world's largest building society uses SAS® in its strategic project to tackle a variety of fraud

Business Issue

Nationwide faced significant and escalating fraud losses, and needed a system to help detect and report on this more effectively.

Solution

Base SAS®; SAS® Enterprise Guide®; SAS® Enterprise Miner™; SAS® Information Portal; SAS® Web Report Studio.

Benefits

Improved fraud detection and reporting; significant contribution to reduction of losses through fraud by 75% since peak losses; effective anti-money laundering regulatory compliance.



On your side

Business rules identify multiple types of fraud

Using SAS, Nationwide built ten fraud detection rule sets to identify fraudulent activity across Nationwide's operations. These rules monitor: account takeover; money laundering; employee fraud; cheque credit; intercepted chequebooks; vulnerable customers; investment fraud; solicitors; Nationwide's regional brands; and credit card tactical solutions.

Nationwide's fraud analytics team runs data from five sources, such as a financial crimes database and existing corporate data, through the business rule sets, which then flags transactions or other records to examine more closely. This is particularly important in anti-money laundering efforts, where this analysis is a regulatory requirement, and in cases of high-risk fraud, such as account takeover and employee fraud.

These rule sets and automated queries mean that Nationwide can better protect its customers against fraud: for example, an elderly customer wanted to invest in a company, and came into a Nationwide branch to make a £5,000 transfer. An intra-day fraud

Nationwide is the world's largest building society and the UK's largest mutual, with 700 branches across the country. A perennial activity for Nationwide, as for other banks and building societies, is the fight against fraud.

Nationwide wanted to lower its fraud losses. In order to achieve this, a strategic project and a fraud analytics team were established within the organisation to tackle the problem. Nationwide chose SAS® to support this strategic project.

"SAS has contributed towards a 75 per cent reduction in fraud losses, to a quarter of their peak a couple of years ago," says David Parsons, Senior Manager Fraud Analytics at Nationwide. "That is a real, bottom-line saving that we are making."

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David Parsons, Senior Manager Fraud Analytics, Nationwide

check, which is an automated query that is part of Nationwide's standard rule set in SAS, identified that the company was disreputable and named on various watch lists. This information was imparted to the customer who, in turn, chose to block the payment before it cleared and thus was not defrauded of £5,000.

Ad hoc queries made simple

In addition, Nationwide is able to run ad hoc queries: it's possible to simply run the data using SAS® Enterprise Guide® and examine the analysis it produces. The ability to make ad hoc enquiries has made it possible to identify and uncover fraud that Nationwide wouldn't have been able to find before. The system gives Nationwide flexibility in its fraud analysis, because the graphical user interface of SAS Enterprise Guide means members of the fraud analytics team can simply point and click to run a query, rather than writing code. "SAS is now our tool of choice for a lot of our fraud detection," says David Parsons.

Creating predictive models to support anti-money laundering projects

To support Nationwide's anti-money laundering initiatives, the SAS system provides analysis that flags dubious transactions, using information about past behaviour to build 'transaction profiles' for customers. If transactions start to fall within the pattern of behaviour identified, the transaction is identified as suspicious.

Nationwide now receives regular visits from its fraud-fighting peers at other institutions who wish to tighten their approach.

Rapid reporting across the organisation

Nationwide is not only using SAS to detect fraud, but also to report on it. Where, previously, reporting would have involved pulling information from various sources into a spreadsheet, using SAS® Information Portal, Nationwide's fraud team can provide self-service reporting. For example, the fraud analytics team has created a report detailing fraud losses versus planned losses, broken down by fraud type and by product, which is automated and runs every day so management can refine their efforts to combat financial crime.

Using SAS Information Portal and SAS® Web Report Studio, both part of the SAS® Enterprise BI solution, the fraud analytics team can also share reports with the team and with others within Nationwide who need this information. For example, Nationwide has been able to respond to the postal interception of chequebooks, with the end-user investigations team utilising reports from SAS Web Report Studio to spot certain suspect characteristics. The easy-to-interpret reports mean the investigations team can pinpoint postal hotspots as they occur, without the need for detailed technical training or the use of other systems.

Looking to the future, Nationwide is interested in a move to the SAS® Fraud Framework which would help provide an integrated approach to fraud analytics and enable greater auditability, accountability, consistency, compliance and governance, all managed through a single framework. It will also allow for greater automation.

Nationwide is also examining how it can further use SAS in its anti-money laundering work, building its own rules for anti-money laundering, and using SAS® Enterprise Miner™ to build predictive models to support these rules. Nationwide is also looking to expand its use of SAS® BI tools as a search engine for its case management system.

"SAS is now our tool of choice for a lot of our fraud detection."

David Parsons, Senior Manager Fraud Analytics, Nationwide

SAS® Certification helps Nationwide risk consultant maximise investment in SAS® and further professional development

Risk Consultant at the world's largest building society, Nationwide, undertook the SAS® Certified Professional Programme enhancing the company's use of SAS® and his own development

Business Issue

Improve knowledge of SAS® Business Intelligence Framework so that it could be used for reporting risk and supporting the development of regulatory and economic capital models.

Solution

Nationwide's Risk Consultant, Younes Salama, took SAS® Certification *Creating Business Intelligence in Your Organisation* and has gained SAS® BI Content Developer Certification, in addition to Base SAS® Certification.

Benefits

Improved internal and external reports, optimised usage of the SAS® BI Framework, including Portal, OLAP and stored processes, greater knowledge of platform admin, as well as increased productivity overall.

Younes Salama chose to undertake SAS® Certification to enhance his use of Nationwide's SAS® Business Intelligence (BI) Framework, ensuring maximum return on the company's investment. In February 2012 Salama completed the SAS® Creating Business Intelligence for Your Organisation course with an exceptional pass mark, which was part of gaining SAS® BI Content Developer Certification. Training and certification has enabled Salama to apply SAS® Analytics to support the development of regulatory and economic capital models and improve the use of SAS® at Nationwide for reporting risk calculations.



On your side

Salama has been a risk consultant at Nationwide since May 2011. As the world's largest mutual, with 700 branches across the country, Nationwide has large amounts of data relating to risk exposure. Salama was hired and charged with the responsibility of using the SAS Business Intelligence Framework to bring this data together, so as to produce more accurate risk reports and capital models needed both for internal purposes and regulatory compliance.

"In particular SAS Certification has really helped me get the most out of SAS® Enterprise Guide® which was a new product for me at the time. Now I'm competent it's much easier to access data sources and pull off rapid reports," commented Salama.

Although Salama already had five years' experience of working with SAS, in August 2011 he attended the Creating Business Intelligence for Your Organisation course at the SAS UK headquarters in Marlow.

"Being the new man on the Nationwide team, I wanted to bring helpful solutions into the organisation that would maximise the strategic investment in SAS," Mr Salama said. "Having already put a SAS Business Intelligence Framework in place, I wanted to improve the accuracy and comprehensiveness of the reports it produced. That's why I chose the course and it has given me a range of new insights which I have brought back to the business."

"At SAS we want to use our 30 years of experience to provide the advanced skill sets within organisations which will ensure the maximum return on investments made in our products."

Myles Hannon, Head of Education, SAS UK

Of particular interest to Nationwide and Salama was the course's focus on how to examine and manage metadata created in SAS. With such big data volumes being held in different parts of the company, Nationwide believed that knowledge of best practice for analysing and managing metadata would lead to core data quality and management improvements, and subsequently more accurate models and reporting.

During the course, Salama participated in a classroom learning environment with peers that resulted in a more thorough understanding of how to better build reports and dashboards for consumption by business users and other information consumers within the organisation.

Salama adds, "The on-site training SAS provides is delivered by highly knowledgeable tutors and they have a real passion for what they are teaching. I was also impressed by the networking opportunities SAS Certification presented."

On successfully completing the final examination, Salama returned to Nationwide able to share the knowledge gained with his entire team, ensuring that colleagues now understood the data quality and reporting issues faced by Nationwide and the best practice for using SAS to address these challenges. The results have been improved internal and external reports, optimised usage of the SAS BI Framework including Portal, OLAP and stored processes, greater knowledge of platform admin, as well as increased overall productivity.

Myles Hannon, Head of Education, SAS UK says, "There is currently an analytics and data management skills gap appearing as the world's appetite for making decisions based on statistical rigour grows. At SAS we want to use our 30 years of experience to provide the advanced skill sets within organisations which will ensure the maximum return on investments made in our products."

He continued, "Nationwide's experience following Mr Salama's SAS Certification demonstrates the advantages that both employees and employers can achieve through structured certification."

Salama's relationship with SAS stretches back long before his recruitment by Nationwide, having begun in 2006 when he completed the SAS Certified Base Programmer course, which led to employment by a large multinational pharmaceutical corporation.

In his last BI certification exam, Mr Salama achieved a highly impressive pass rate of 100%, adding to his previous score of 90% for Base SAS.

"I do feel SAS Certification has distinguished me from many of my peers, and the skills I have learnt have proven to be transferrable across industry sector and job role, meaning I have been able to embark on an exciting and varied career. My knowledge of SAS has taken me from pharmaceuticals to healthcare to finance."

In addition to his ongoing involvement with SAS Certification throughout his career, Salama is also a member of SAS® Professionals, an online social networking site dedicated to SAS software and services. The site constitutes a community of SAS experts exchanging hints and tips and communicating through forums and groups organised by product, job role, course and geographical area. Salama has also been a regular participant in the annual SAS Professionals Convention where he has made connections and exchanged ideas.

Salama explains the advantages of connectivity to his SAS peers across the world: "SAS Professionals is a great way to ensure that you are always continuing to learn and improve. Here one can exchange ideas and best practices with some of the most experienced individuals in the field."

"Being the new man on the Nationwide team, I wanted to bring helpful solutions into the organisation that would maximise the strategic investment in SAS. Having already put a SAS Business Intelligence Framework in place, I wanted to improve the accuracy and comprehensiveness of the reports it produced. That's why I chose the course and it has given me a range of new insights which I have brought back to the business."

Younes Salama, Risk Consultant, Nationwide

SAS experts help insurer optimise marketing campaigns

SAS® Marketing Automation is used to improve campaigns, help acquire new customers and increase market share

Business Issue

Improve speed, control, effectiveness and accuracy in marketing campaigns designed to target valuable customers, generate leads and introduce a more 'scientific' element.

Solution

Swinton received its marketing automation solution on time and within budget, including SAS® Campaign Management, SAS® Enterprise Guide®, SAS® Enterprise Miner™, SAS® Data Integration Studio, SAS® Web Report Studio, SAS® Management Console.

Benefits

Operational efficiency gains provided immediate ROI; by improving campaign effectiveness SAS will help Swinton to acquire new customers, retain existing ones and drive market share.



With over 350 branches, Swinton Group is the UK's largest high street insurance chain. A 'one-stop source' of cover for homes, cars, travel and more, the company chose SAS to provide a complete solution: from data access, data selection, modelling and campaign creation to response tracking and campaign evaluation.

Award-winning insurer Swinton chose SAS® Marketing Automation to improve campaigns, help acquire new customers and increase market share. SAS® Professional Services played a key role from proof-of-concept through implementation to ensuring knowledge transfer.

With major gains anticipated through campaign optimisation, the operational efficiency improvements and cost savings provided by SAS enabled an immediate ROI.

Business requirements

The main focus of Swinton's marketing is to generate leads into the branch network to convert into quotes. Andy Mills: "We wanted to be cleverer in how we used our data, with far more sophistication in how we segmented customers, in how quickly we could respond to the market, and to make better decisions on campaigns. We wanted to speed up the process and introduce a more 'scientific' element."

"SAS Professional Services played a key role in implementing this solution. I can't speak more highly about the way SAS managed the project."

Andy Mills, Customer Information Manager, Swinton

Service description

SAS Professional Services led implementation, including a huge amount of knowledge transfer: The elapsed time from the project starting to Swinton being fully self-sufficient was just 20 weeks. "Our SAS project manager shaped the project around how Swinton worked rather than trying to force theoretical principles on us," says Mills. "He brought the right people in at the right time at each stage, making it appear a seamless body of people. On both the IT and campaign management sides, the SAS account team added a great deal of value. We never had to re-brief the consultants - you always got the impression they understood the business and what we wanted to achieve. And they ensured a serious degree of knowledge transfer."

Service activities

- Proof-of-concept work.
- Reviewing objectives in light of Swinton's IT environment and business requirements.
- Defining a new marketing automation architecture.
- Establishing a joint project team with Swinton, ensuring collaborative working throughout.
- Flexible project management focused on Swinton's needs rather than rigid principles.
- Implementing the architecture from a technical perspective and marketing perspective.
- Supporting migration of existing applications and data.
- Advising on best practice and optimum processes.
- Workshops (e.g. business intelligence for business users) and providing hands-on user support for effective skills and knowledge transfer.
- Additional training and SAS Education services.

Andy Mills describes implementation as "one of the smoothest projects I've ever worked on. The SAS people took the time to understand Swinton's business, not only in terms of what we wanted to achieve business-wise but also our culture. They sat with us as real team members, adding value at every stage.

"I wanted a serious element of knowledge transfer through working in a collaborative way. For example, a SAS analytical consultant worked with a guy on my team to set up four campaigns from start to finish, from data selection to post-campaign analysis and reporting. Once SAS was implemented, my people were fully versed and it was relatively straightforward for them to build new campaigns. The same can be said of the IT side, such as working together on the data integration and how SAS mapped onto our data. It was all done from a knowledge transfer point of view, working hand-in-hand with SAS consultants. This meant we could be more self-sufficient rapidly, to start getting value out of the solution."

"Our SAS project manager shaped the project around how Swinton worked rather than trying to force theoretical principles on us. He brought the right people in at the right time at each stage, making it appear a seamless body of people."

Andy Mills, Customer Information Manager, Swinton

Driving success

Award-winning insurer Swinton is using SAS® Marketing Automation to improve campaigns, acquire new customers and increase market share. With major gains anticipated, the operational efficiency improvements delivered by SAS gave the business an immediate return on its investment.

Business Issue

Improve speed, control, effectiveness and accuracy in marketing campaigns designed to target valuable customers, generate leads and build market share in a relentlessly competitive marketplace.

Solution

SAS® Marketing Automation including SAS® Campaign Management, SAS® Enterprise Guide®, SAS® Enterprise Miner, SAS® Data Integration Studio, SAS® Web Report Studio, SAS® Management Console.

Benefits

Operational efficiency gains provided immediate ROI; by improving campaign effectiveness SAS will help Swinton to acquire new customers, retain existing ones and drive market share. business by establishing a robust data-driven analytics culture and risk awareness across the organisation.

With over 350 branches, Swinton Group is the largest high street insurance chain in the UK. A 'one-stop source' of cover for homes, cars, travel and more, the company has chosen SAS® to provide a complete marketing solution: from data access, data selection, modelling and campaign creation to response tracking and campaign evaluation.

"The main focus of our marketing is to generate leads into our branch network that can be converted into insurance quotes," says Andy Mills, Customer Information Manager. "To do that, we've worked successfully with an external mailing house for years. With the volumes hitting the branches growing, we decided it was the right time to ramp up our direct marketing capability in-house." Mills says the last few years have seen the market become far more competitive and price-driven, with multiple comparison websites and aggregators appearing. "This industry and the nature of our customers have changed significantly, and SAS will help us address a very competitive marketplace."



Using SAS, Swinton has an opportunity to create and run multi-stage campaigns with minimal intervention, enabling its marketers to focus on leveraging campaign results rather than implementing campaigns in the first place.

Smarter marketing

Mills continues, "We wanted to be cleverer in how we used our data, and we have many more channels to consider now. In addition to direct mail we have email, SMS, telesales... we needed far more sophistication in how we segmented customers, in how quickly we could respond to the market, and to make better decisions on campaigns." Previously, the time lag between campaign data selection and results was five months. Swinton wanted to speed up the process, to bring all customer data into one place and introduce a more 'scientific element' into its marketing: historically, the business mailed everyone with a known policy renewal date coming up, with little or no segmentation or modeling.

"In parallel with SAS, we also built a single customer view in-house based on our various product sources," Mills says. "Having that view and using SAS for customer analytics, gaining a far more granular view of customer behaviour, means far more sophistication not only in our key motor campaigns but for all other products and across all channels. We can bring a scientific approach to how we select people, how we segment the mailing, and how we integrate across channels."

Why SAS?

Swinton ran a tendering process to identify the right solution, focusing on capabilities across campaign management and modeling; it wanted a complete solution. An initial seven providers became two and, following proof of concept, Swinton chose SAS. Mills says SAS offered all the capabilities required in a single system, from data selection onwards, while forcing people to follow a methodical step-by-step process to build campaigns.

"We're a small team and wanted to hit the ground running," he explains. "It made sense to have an integrated solution. I need to respond to business demands fast rather than saying 'Sorry, it's going to take four weeks for that data selection'. I wanted to do that in hours, while knowing it was being done right with the proper controls." In short, Swinton wanted a solution powerful and flexible enough to meet campaign design, data complexity and cross-channel requirements but one that also imposed discipline on campaign development. "For instance, SAS has re-usable templates, for data suppressions say, and a built-in sign-off so people can't just release campaigns. I also had confidence based on the SAS account team."

The elapsed time from the project starting to Swinton being fully self-sufficient was just 20 weeks, a short period of time given the huge degree of knowledge transfer involved and the fact implementation also included the single customer view and migrating data from the agency.

SAS® Professional Services worked alongside Swinton on the marketing automation aspects. "This was one of the smoothest projects I've ever worked on," says Mills. "Our SAS project manager shaped the project around how Swinton worked rather than trying to force theoretical principles on us. He brought the right people in at the right time, making it appear a seamless body of people. On both the IT and campaign management sides, the SAS account team added a great deal of value. We never had to re-brief the consultants coming in - you always got the impression they understood the business and what we wanted to achieve. They ensured a complete knowledge transfer."

Improving efficiency, enhancing campaigns

Using SAS, Swinton can run more timely and targeted campaigns to attract new and lapsed customers. By improving understanding of customer behaviour, SAS will help Swinton predict their likelihood to respond to specific offers, so influencing response rates. In practice, while other insurers might run 10 campaigns monthly with five cells each, Swinton runs one big motor insurance campaign each month comprising 50 cells, mailing up to one million pieces to 300,000-400,000 recipients with known renewal dates. "We do this in one campaign, so it's quite complex to build in terms of segmenting the data," says Mills. "This is where the logical approach provided by SAS comes in, and the ease of segmenting your data. It's simple to do and easy for others to understand."

Less than three months after go-live, "The vast majority of our direct marketing campaigns run through SAS," Mills says. "Early wins came from an operational efficiency point of view and cost savings there, with SAS enabling us to bring this activity in-house and give it a greater internal focus, rather than continue to outsource."

The insurer is now using SAS to start evaluating effectiveness across direct mail, email, the web and SMS, to understand which channels are working best and where to make improvements. This will have an impact on how budget and resources are allocated to concentrate on the channels yielding the best results. "We never had this before," says Mills. "We're developing contact histories and looking at responses, to understand the impacts of using different channels or a multi-channel approach. SAS means we can collect far better and more transparent performance data, and use that learning to target people more effectively. Until now we never had information on cross-product holdings, and cross-customer metrics. For the first time, we can explore areas like customer retention rates by number of products held, or retention rates by how soon we contact a customer in the retention process, or simply information on the types of customer holding different kinds of products. This sort of information is now being discussed at board level."

"SAS has become a buzzword at Swinton, as in 'SAS can do that' or 'Can SAS do this?' It certainly has a high profile, and is helping raise the profile of what my team can do for the business."

"SAS means we can collect far better and more transparent performance data on campaigns and channels, and use that learning to target people more effectively."

Andy Mills, Customer Information Manager

Integrated *Quick Start* services ensure a rapid route to analytics

Packaged professional services from a trusted source meant the fastest route to implementation, enabling this successful insurer to improve data access, analysis and business reporting

Business Issue

Rapidly deploy a new analytics solution – gain value from the software in the shortest time frame.

Solution

Integrated services via a cost-effective *Quick Start* package to implement a SAS® Office Analytics solution: Consulting, Phase Zero/Requirements Gathering, Architectural Plan, remote Installation and Configuration.

Benefits

Fast and cost-effective installation of an analytics solution to underpin a growing business, and support a new centre of excellence for Actuarial Pricing: targeted expertise, resources and knowledge transfer via SAS® Professional Services and its delivery partner.

Insurers depend on market knowledge, customer insight and effective pricing – with powerful analytics increasingly providing the key to success. This particular insurance company, part of a Fortune 100 US-based international group, was already a significant player in the Irish marketplace, providing individuals, businesses and brokers with car, home and other insurance products. Its continued business growth had resulted in a growing appetite for improved data access, manipulation, analysis and reporting capabilities.

“While the company does work through brokers and intermediaries, its direct business for both the UK and Ireland is headquartered in Ireland, and that includes its IT operations,” says Ross Hammett, SAS® Professional Services. With plans in place to create a new centre of excellence for Actuarial Pricing, he says, “They already had our technology on the desktop, so we started a conversation about how they might enhance and extend their approach. In particular, they were interested in upgrading to a server to support growing user numbers, partly due to the new centre of excellence, to deal with the Big Data volumes anticipated, and to benefit from all the other stuff a server approach brings, including data sharing, enhanced security and greater control.”



To support growing requirements in pricing, underwriting and claims, the business opted to deploy SAS® Office Analytics, with SAS Professional Services providing a targeted *Quick Start* implementation. “This technology is an easy way to access and benefit from SAS analytics in a familiar Microsoft environment,” Hammett says. “If you want to perform more powerful data manipulation and analysis, you don’t have to settle for the more simplistic approach offered by Excel and other desktop tools.”

Requirements gathering

Hammett continues, “*Quick Start* for Office Analytics is a package of services, a starting point, so we and our delivery partners can provide certain customers with an appropriately focused response to implement a specific solution. It aims to minimise implementation effort on the customer side, and people do find it’s an effective way to implement on time, in scope and to the required level of quality.” In this case, integrated services covered five days’ consulting, including targeted Phase Zero activity and a requirements gathering workshop; analysis of those requirements; and creating an Architectural Plan, later reviewed on a conference call. The focused nature of *Quick Start* means installation and configuration is typically handled remotely, although in this case the delivery team worked on-site. The package also provides a base level of knowledge transfer to the primary individual tasked with running the software in-house.

Implementing quickly and effectively

"We ran into a few challenges, including delays on the customer side," says Paul Evans, Customer Services Manager. "For example, it was a struggle to get the internal IT team to prioritise this project. We also realised our project prerequisites and recommendations hadn't been acted on. In particular, the hardware was under-specified compared to what we'd recommended. Consequently, the customer recognised and agreed that we needed an additional two days to complete what they needed." A SAS delivery partner successfully installed the solution.

Hammett adds, "Our professional services clients expect us to deliver for them as quickly and effectively as possible, at the time they want us to. They view us as a trusted adviser, and our role as ensuring that the software is implemented in the right ways and can start delivering value fast. On behalf of the customer, we need to take all factors into consideration, including internal requirements, time scales, budget, and resources available to us. So this is about coming up with the right solution given the circumstances. In this case, it meant recognising the issues they'd run into, coming up with a revised plan, and then using the capacity and resources of a proven delivery partner to make it happen within the time scales they wanted."



"Our role is to ensure that the software is implemented in the right ways and can start delivering value fast. *Quick Start* for Office Analytics is an effective way to implement on time, in scope and to the required quality."

Ross Hammett, SAS Professional Services

Fast 'check-in' for analytics at leading hotels

When this major hotel brand wanted to better target customers to improve guest numbers and revenues, packaged implementation services meant the solution was delivered fast

Business Issue

Rapidly deploy a new business analytics/customer insight solution, and gain value from the software in the shortest time frame.

Solution

Integrated implementation services via the cost-effective SAS® Office Analytics *Quick Start* service: consulting, prerequisites, installation, configuration and knowledge transfer - from SAS® Professional Services and its delivery partner.

Benefits

Focused, cost-effective installation of a powerful new analytics and reporting solution, meaning new capabilities available to support the business in targeting customers and in helping to drive revenues for member hotels.



"This brand wanted new capabilities to enable its people to interrogate customer data more effectively, to provide new levels of actionable insight for the business," says Nicholas Becci, Client Manager, SAS. "They saw the value in accessing and sharing customer data more easily, and in applying new techniques, for example, to segment customers in different ways." This would provide opportunities to target guests in new and more sophisticated ways, using promotions, offers and services that individuals would be more likely to respond to. With "personalised service" a key brand differentiator, this is another way of delivering more to customers in a challenging marketplace.

To help support these objectives, the business chose to deploy SAS® Office Analytics - delivered using a cost-effective implementation package from SAS® Professional Services.

With a presence in the UK for more than three decades, this international hotel brand - the world's biggest grouping of independently owned and managed hotels - prides itself on the personality and distinctiveness of its venues. This is a tough time for the trade, however. While a global city like London has seen improvements in occupancy and revenues, demand in the UK regions is more dependent on the domestic economy, which has been squeezed by high inflation and other impacts after the financial crisis. With some observers suggesting this may become "the new normal", with room revenues and rates staying flat, part of the solution lies in using analytics in smarter ways to better understand and communicate with customers: to attract more business and enhance the guest experience.

"SAS Office Analytics is an extremely easy way for people to access and benefit from more powerful analytics while using their familiar Microsoft environment."

Ross Hammett, SAS Professional Services

Fast and effective implementation

"SAS Office Analytics is an extremely easy way for people to access and benefit from more powerful analytics while using their familiar Microsoft environment," says Ross Hammett, SAS Professional Services. "You don't have to settle for the simplistic approach to data manipulation, analysis and reporting that's offered by Excel and other tools - it brings more sophisticated and meaningful analysis and reporting within the reach of everyone." He describes the SAS® Office Analytics *Quick Start* service as "a package that enables us to provide customers of a certain size with an appropriately expert and focused response to implementing the software. It takes the hassle away from the customer, while ensuring they can get the software up and running fast. It really does minimise implementation effort on their part, while delivering a fit-for-purpose solution able to start delivering business value fast."

Integrated service delivery centres on the complete and tested installation and configuration of the SAS Office Analytics bundle. "In this case, we already had a good understanding of the customer's environment," says Paul Evans, Customer Services Manager, SAS. "We discussed their set-up, requirements, sizing and other issues on conference calls. We were confident it was a suitable environment for SAS Office Analytics, so we sent through documentation including the list of prerequisites that outlines exactly what they need in place for us to deliver the service, and this was followed by installation by our delivery partner. That was it: very straightforward, with the work completed on time." The package also includes a degree of knowledge transfer covering how the software works from a maintenance and administrative perspective, designed for the individual tasked with running SAS Office Analytics in-house.

Evans adds, "This really lived up to its name: a true quick start for the customer, requiring minimal effort from them." He is keen to emphasise that completing a *Quick Start* engagement isn't the end of the story: "It's actually the first major step in starting to explore the possibilities presented by SAS Office Analytics. For example, as part of the package, we normally return within 28 days to check how the customer is doing, to look at how they are using the software and to make further recommendations. In this case, it's likely the customer will buy training from SAS Education as part of its user adoption, so it can continue developing its skills and getting the most from its software."

"They wanted new capabilities to interrogate customer data more effectively. SAS Office Analytics *Quick Start* service meant they were up and running fast, so the software could start delivering business value even more rapidly."

Ross Hammett, SAS Professional Services

SAS® Premium Support enables The Duke of Edinburgh's Award to go further, faster

Additional services and domain expertise via SAS® Premium Support are helping this leading youth charity gain new insights, enabling managers to better target resources, work to improve performance and deliver more for its partners and participants

Business Issue

Gain up-to-date business insight and performance data; develop effective reporting on a limited budget.

Solution

SAS® Analytics and SAS® Reporting supported by SAS® Consulting, SAS Education and ongoing SAS® Premium Support.

Benefits

Hands-on support, knowledge sharing and skills transfer. Ongoing support and easy access to SAS® domain expertise enable faster development of valuable reports to improve performance and target resources - delivering a significant ROI in terms of organisational improvements.



"As a result, we can work with many more young people, extend our reach and have access to up-to-date information for reporting and management purposes." He describes this change, enabled using SAS®, as "a genuinely big win: we went from being an information poor charity to information rich. Everyone has been on a huge learning curve: we had no expertise in business intelligence and no expertise in creating the reports we needed covering our operations, partners and young people's activity - but we wanted to build our capability. SAS has supported us throughout, first with 'standard' support - which was exceptional - and then SAS® Premium Support. We couldn't have got here, in terms of BI and reporting, without SAS Premium Support."

With 650 licensed partners across the UK, the Duke of Edinburgh's Award (DofE) helps young people develop valuable skills for life and work "to fulfil their potential and have a brighter future". Each year, 275,000 work towards achieving 90,000 Bronze, Silver and Gold Awards. Since 2009, SAS has been helping the DofE manage its operations more efficiently and cost-effectively with an analytics and reporting suite using SAS® Enterprise BI Server, and including SAS® Web Report Studio, SAS® Information Map Studio, OLAP, SAS® BI Dashboard and SAS® Enterprise Guide®.

"We launched an online version of our record-keeping system for young people in 2009 - it had all been paper records since the 1950s," says Richard White, DofE Programme Manager.

Bridging the gap

DofE was aware it had been using standard SAS support a great deal, particularly as it moved to a server-based solution. It was also planning to double user numbers to 1,000. "We discussed how SAS Premium Support would be more appropriate in terms of the focus and expertise the DofE needed," says Neil Doyle, Technical Account Manager, SAS. Extra benefits provided by SAS Premium Support include an agreed number of days for technical account management, and for on-site and critical period support, plus regular status reports, priority handling of escalations and a dedicated

"I think we get a great return on investment from SAS Premium Support. I can't fault SAS and the support it provides. Personally, I wouldn't be able to deliver against my targets in reporting without SAS Premium Support."

Jimmy Chung, Reporting Officer, DofE

Customer Support specialist as a single contact. Richard White says, "The 'standard' support was fantastic but did have limitations. We wanted to make sure we got something meaningful from the solution, to design the reports we wanted and overcome hurdles. It's definitely a two-way relationship now, with SAS being proactive and making recommendations. It's not just problem-solving."

"I've been working with DofE since day one," says Graham Lester, Customer Support Team Leader, SAS. "Given what it wanted to achieve, I could see it would benefit from more dedicated resources. The purpose of SAS Premium Support is to bridge the gap if a skills shortfall exists." With the DofE not requiring full-blown consulting, SAS Premium Support ensured it had flexible access to a highly experienced consultant who knew its set-up and requirements intimately, and could offer proactive suggestions along with technical assistance. "That one-to-one support is invaluable in helping us create the reports we need, which can be quite intricate, working against our data sources, including charts and graphs, presenting complicated extrapolated results, including KPIs, traffic lighting, and so on," says Jimmy Chung, Reporting Officer, DofE. "The reports also have to be simple to use: our users are from a youth worker background, not IT."

Before SAS Premium Support, it was easy to get stuck. And once I have the knowledge, I can replicate the approach in other reports. In particular, the KPIs we've been able to include have opened people's eyes to what's possible; our work is helping to drive a massive cultural change."

A low cost, high value service

"SAS Premium Support provides a low cost but extremely effective advisory service," Neil Doyle says. "The DofE also has continuity in service, support and knowledge: people know their call will be answered by someone who can help them. This is about providing a customer like DofE with a winning combination of SAS technology plus domain expertise." The contract includes 5-6 days' training a year from SAS Education.

"We're relatively small and don't have the resources to employ an in-house team with the SAS expertise we need," Richard White adds. "We started from a very low base, and SAS has really helped from the word go: in particular to identify our information needs and how best to address them. SAS is working in partnership with us, and we definitely get value for money. This is about DofE becoming so much more efficient, so we can achieve more - and SAS Premium Support helps us do that. We can now analyse what works and what doesn't, visualise results, identify performance issues, and have opportunities to make specific changes that improve our organisation's efficiency and effectiveness, including targeting resources where they can have the biggest impact. I think we get a great return on investment from SAS Premium Support. I can't fault SAS and the support it provides." Jimmy Chung adds, "Personally, I wouldn't be able to deliver against my targets in reporting without SAS Premium Support. SAS support has been brilliant for me, and so helpful to DofE. I can only see our relationship continuing." The final word goes to Richard White: "SAS Premium Support is so very important to us in terms of the consistent value it delivers that we couldn't risk the contract lapsing - so we approached SAS to discuss renewal well before the initial agreement ended."

"SAS has really helped from the word go: in particular to identify our information needs and how best to address them. SAS is working in partnership with us, and we definitely get value for money. This is about DofE becoming so much more efficient, so we can achieve more."

"I think we get a great return on investment from SAS Premium Support. I can't fault SAS and the support it provides. Personally, I wouldn't be able to deliver against my targets in reporting without SAS Premium Support."

Jimmy Chung, Reporting Officer, DofE

Going for gold: The Duke of Edinburgh's Award achieves new heights in reporting

A SAS® business intelligence and reporting solution is helping a leading UK youth charity deliver new levels of up-to-date management information to more people in faster ways

Business Issue

Provide new levels of up-to-date management information based on more consistent data and processes; improve reporting and information sharing within a limited budget to highlight the benefits the DofE delivers, strengthen relationships with local Operating Authorities, and enable performance improvements.

Solution

SAS-based analytics and reporting founded on SAS® Enterprise BI Server, including SAS® Web Report Studio, SAS® Information Map Studio, OLAP capability, SAS® Enterprise Guide®, stored processes; plus SAS Education, SAS® Consulting for knowledge sharing and skills transfer.

Benefits

New insights delivered and shared faster mean improved decision making, both strategic and tactical, to drive future direction; delivering greater value plus improved and more informed services to all stakeholders; having a positive impact on diverse areas ranging from improving access to fundraising and marketing campaigns.

Dedicated to the personal development of young people, The Duke of Edinburgh's Award has the widest reach of any UK youth charity: each year, over 275,000 young people including 30,000 from disadvantaged backgrounds work to achieve their Bronze, Silver and Gold Awards. To help manage its operations efficiently and cost-effectively, and provide a consistently excellent service to its local organisations and participants, the DofE partnered with SAS to create a reporting solution that utilises its new online management system, named eDofE. Providing up-to-date new insights into key performance indicators, the charity can now showcase the benefits it delivers in hard numbers.



"The idea behind developing eDofE was to put our old Record Book online," says Janet Dutton, Project Manager at DofE head office, Windsor. From the late 1950s until 2009, all participant record keeping was done in the same manual way. "At the end of each financial year, we'd gather statistics on the previous year," Dutton continues. "So people were managing the DofE and taking decisions using numbers that were 16-18 months old, compiled in spreadsheets by 400 local authorities, then sent for consolidation." A key win delivered by eDofE, which involved creating a central data store and front-end website, is the SAS® based reporting it now enables: valuable new insights available centrally, to local authorities, adult Leaders and participants.

Why SAS®?

With the DofE needing its reporting solution ready for the financial year 2011-12, it considered various solutions including IBM Cognos, SAP Crystal and Microsoft. "However, I was keen to work with a company local to us," Dutton says. "We did a SWOT exercise and costed it all out, including training, and SAS was the best option. SAS genuinely wanted to help us - and it's been fantastic. We wouldn't have got so far so fast and within that budget with any of the other solutions, and would not have had a partnership like the one we have with SAS; it would have been a commercial relationship."

Previously, there was no consistent process for information gathering across the local Operating Authorities licensed to run DofE programmes, ranging from local borough councils to schools. “Problems arise when you have to make strategic or tactical decisions based on data gathered manually that can be up to 18 months old. Information could be anecdotal, and what about standardisation: are you all counting the same things in the same ways?” Dutton says it was difficult to answer questions with certainty: for example, the average age of people doing a Gold, Silver or Bronze DofE programme? “In that case, using SAS meant we could confirm our ideas were correct,” Dutton says. “But we could see more. For example, for the first time we saw what the bell curve looked like as numbers of participants tails off as age increases from 21-25. We have a far more accurate idea of what’s happening.” This also has a big impact on campaigns and communications: “Marketing can be more appropriate, targeting 14 or 18 year-olds, say, as opposed to 22 year-olds.”

From 2009 to 2011, the number of young people on the DofE database leapt from 6,000 to 180,000, with 10,000 added each month. Dutton continues, “We knew what we needed to achieve and where we were going, but had no reporting experience. From a standing start, with SAS’ help, we created the solution, populated it with the information required, generated standard reports, piloted and went live. All with just three central people.” With eight staff and volunteers undergoing a SAS Education business analytics course, the DofE has since made extensive use of SAS® Enterprise BI Server functionality including SAS® Web Report Studio, SAS® Information Map Studio and OLAP functionality, with plans to more fully exploit SAS® Enterprise Guide®.

Key measures of success

Insights help the DofE track and manage its business across three key measures: the number of people doing a DofE programme (how many start each year); how many stay on the DofE ‘journey’ and progress – in effect a ‘loyalty score’; and the proportion of people from disadvantaged backgrounds or special needs.

In the latter area, Dutton says, SAS enables the DofE to build a far better picture of those young people from deprived areas, certain ethnic groups or specific medical conditions accessing the DofE by postcode – to help it ensure activity matches the organisation’s ‘direction of travel’. “SAS also means we can share that information with the 400 Operating Authorities, another key objective,” Dutton adds. “Given the constraints on local authority budgets, we have to demonstrate the benefits the DofE actually brings. SAS-based reporting highlights those benefits. If an authority is cutting budgets in some areas, our reporting might influence the decision by showing the value we’re delivering to help them meet their local KPIs regarding young people, volunteering hours, special needs, and so on.” The system is also secure, with each authority authorised to see its own data. And with a common approach UK-wide, the DofE has laid the groundwork for benchmarking across authorities: for example, showing the cost of running the DofE in different locations.

Last but not least, with selling Participation Places a key income stream, new knowledge also helps a small internal team to secure the funding required to cover DofE staffing costs. “We use SAS to examine the stock and flow of the number of places sold.” Dutton says. “And when people consider a donation and have a special area of interest, deprived youngsters say, we can show the impact of a donation in that area. So it’s a fundraising tool as well. Again, this is about greater transparency.” She adds, “We trust SAS to help us. It provided everything we needed in one place: training, access to consultants, and I must say that SAS support is the best we’ve ever experienced. I use the helpdesk as a best practice model for how our team responds to calls from our customers. The fact we can talk to somebody who understands what we do and can actually help us is a real differentiator for me. And how we work with SAS helps us to be self-sufficient, to build our own capacity and skills in how we develop and administer the solution.”

“SAS genuinely wanted to help us – and it’s been fantastic. We wouldn’t have got so far so fast and within our budget with any of the other solutions. We trust SAS to help us.”

Janet Dutton, Project Manager, The Duke of Edinburgh’s Award

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

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.

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

"Previously, analysts could spend days preparing data. Using SAS means they have far more time for analysis."

Simon Kinsey, BI Manager, South Wales Police

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.

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% 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."

"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

Predicting fire risk and saving lives

The world's third largest firefighting organisation uses SAS® to explore risk and drive prevention strategies aimed at reducing fires, death and injury in the UK capital. London Fire Brigade can now reveal high risk areas and target resources, ensuring a focus on the biggest opportunities to protect life and property

Business Issue

The world's third biggest firefighting organisation wanted to better analyse, predict and report on fire risk to prevent fires and save lives - across 7.5 million people living in 3.2 million households.

Solution

SAS® predictive analytics.

Benefits

Improved speed, flexibility and accuracy in understanding and predicting risk - targeting resources in prevention for high risks areas, saving lives and protecting property.



Run by the London Fire & Emergency Planning Authority, London Fire Brigade (LFB) is the UK's largest fire service. Employing 7,000 staff including 5,700 operational firefighters, it serves a population of 7.5 million people in 3.2 million households across 1,537 square kilometres. As you would expect, fire prevention programmes and raising public awareness are priorities. "It's really important that we target our Community Fire Safety activities at where they are most needed," says Andy Mobbs, Risk Information Manager, LFB. "We are using SAS® to target people in their homes so we can carry out safety checks, give advice and fit smoke alarms. We want people to take better care in their homes so they won't need our services later." In 2008, LFB started using SAS in its Incident Risk Analysis Toolkit. "The information we provide using SAS has cascaded from top to bottom," says Mobbs.

"Our predictive capabilities have improved since we started working with SAS and provided us with a greater understanding of fire risk."

Modernising the fire service

The LFB requires the most robust, reliable and accurate analytics to understand and predict risk - to help it continue reducing the number of fires. Like any other local government structure, LFB also faces various operational pressures, from availability of resources to time pressures and controlling costs. So working in a more informed way - ensuring staff are deployed and activity is targeted where it can have the biggest impact - also helps address the 'efficiency agenda' in the public sector. Indeed, Mobbs says the brigade's use of software analytics, such as that provided by SAS, is clearly part of the push to modernise the fire service.

"Firefighters are busy people but there's inevitably downtime when you're not attending an emergency call," he explains. "We want to pick up on that time and see what can be done in the community to make people's lives safer. So this is about the better distribution of resources." Previously, Mobbs' team used free open source software for regression modelling that, he says, was fine for development purposes. When this work moved into the

"Our predictive capabilities have improved since we started working with SAS and provided us with a greater understanding of fire risk."

Andy Mobbs, Risk Information Manager, London Fire Brigade

mainstream, however, and staff became more dependent on results, he saw the need for a more robust, dependable and better supported solution. "Moving to SAS was about embedding a stable product that we could rely on."

Predict and prioritise fire risk

Mobbs continues, "SAS analytics enable us to prioritise and understand risk. We have over three million homes in London and carry out 65,000 home safety visits each year. Even on that scale of activity this would take over 50 years to complete for everyone. So this is very much about finding out who we think is at the most risk, and what the key indicators are." A substantial amount of work on fire risk has already been done based on fire death reports but he says, "deaths by fire are relatively small in number so this can produce a skewed picture. We wanted to look at a much broader range of factors, a combination of lifestyles, property type and geographic area, then model all this to give us a better picture of risk. This is about expanding our knowledge into what we think are the drivers of risk."

More than 60 different data elements feed into the SAS model, including census data and population demographics, broken down into 649 geographical areas (ward level), plus type of land use, data on deprivation, Mosaic lifestyle data, historic incidents and past prevention activity. The model aims to improve understanding of 'incident likelihood' - predicting where fires are most likely to occur, in particular 'accidental dwelling fires'. "We wanted to move away from historic incidents, seeing where fires happened in the past and instead explore where they might happen," says Mobbs.

Results, provided as user-friendly maps showing predicted incident levels, are mainly used at fire station level. Borough Commanders and local firefighters use these insights to plan and target home visits in areas of highest risk. "Results help ensure home visits are based on targeted calling rather than random events - to ensure people are in specific districts, knocking on the right doors in the right streets, even down to a postcode level," says David Wyatt, Head of Information Management, LFB. The results also emulate the 33 local authority borough structure of the

capital: although the LFB treats London as a single entity, this approach reflects the fact that prevention work often involves working with local authorities and other partners in the borough.

Perception versus reality

The SAS models are typically updated quarterly with new incident data. "We're running models more frequently now, to see how the risk picture changes," continues Wyatt. "We also do ad hoc reports for internal policy teams, particularly in Community Fire Safety - for instance, looking at events around 5th November (Guy Fawkes bonfire night)." The results, he says, can challenge conventional wisdom on particular events: for example, the timings of incidents in the run-up to the night itself, crossover with other festivals, and so on. "The insights help us in our understanding as we work in partnership with the Greater London Authority, the Metropolitan Police and Transport for London. We can move away from best-guesses and perceptions."

In terms of embedding a more risk aware culture and 'selling' his results inside the brigade, Mobbs says being able to prove his numbers is a big benefit. "People's perception of risk isn't always the same as the actual risk most of us experience. Being able to present hard numbers has a strong influence on bringing people round to our way of thinking of where the risk lies, which areas and which people. Another benefit is that SAS is a far easier environment to work in. It's a boost to the team having a well-supported solution: they can focus on doing their jobs rather than struggling with the software."

Mobbs adds, "I'm very pleased with what we've achieved, and I believe that in some respects we're leading the way. Through informal networking with colleagues in other brigades and more formal ways, like the risk conference we hosted in London, we're trying to share ideas and take forward the need for even greater understanding of the risk factors involved with fires.

"My team's role is to look at risk, work on prevention and help reduce fires and casualties in London. As a result of our work, I believe we are directly supporting work that prevents fires and saves lives. And in terms of best practice I think our approach could be easily replicated in other brigades.

"As a result of our work, I believe we are directly supporting work that prevents fires and saves lives."

Andy Mobbs, Risk Information Manager, London Fire Brigade

SAS® Professional Services streamlining British Army restructuring in run-up to 2020

A team of SAS experts has revolutionised The British Army's data analysis processes and is driving a seamless restructuring process for the post-Afghanistan era

Business Issue

Headquarters of the Land Army had an urgent need for efficient manpower and resource planning. This is made yet more urgent by current restructuring in the run-up to 2020 and the need to significantly reduce spending levels.

Solution

Specialist domain expertise and consultancy provided by the SAS® Professional Services team of five SAS consultants, working on-site to help the Army gain actionable insight into data held in disconnected information systems.

Benefits

By providing a flexible delivery capability, Army HQ has been able to work in an agile way responding to urgent and nascent information demands, as well as supporting the overall manpower planning programme. Potential to start using this capability for other applications in the future.



At the same time, the Army retains a complex structure with up to 200 trades currently supported, from machine gunner to signaller and from engineer to plant operator mechanic. Ensuring there are the right numbers of people in each role and trade is a challenge in itself, but the Army also needs to make sure it maintains an appropriate flow of skilled and experienced soldiers upwards through the rank structure into senior roles.

It needed to gain an insight into the information it holds, with large amounts of relevant data held in numerous disconnected information systems. The challenge was to bring this information together, to gain insight into it and to use it to support evidence-based decision making. To do this, it needed the help of specialists who could bring together all of the disparate manpower information assets, make sense of that data in the context of the Army's business, and interpret those findings to achieve meaningful and actionable results.

Resource planning has always been vitally important to the British Army. Currently the need is more urgent than ever. The Army is restructuring as part of a wider Ministry of Defence (MOD) process taking place between now and 2020. Like the rest of the public sector, the Army is under huge financial pressure from Government and needs to position itself for the post-Afghanistan era.

The number of regular soldiers is set to fall from 102,000 to 82,000 by 2020, while reservists will double to 30,000. At the same time, the Government's Comprehensive Spending Review of 2010 planned for the overall resource budget of the Ministry of Defence (MOD) to fall by 7.5%. The Army needs to understand what skills it will need; and where and when it will need them to support this change in focus and resources.

Putting a Professional Services solution in place

After a detailed assessment process, the Army chose SAS to deliver this capability. The crucial factor was that SAS was the only company that offered to come in and actively support the development of the solution on-site.

“Close engagement with the Army was vital from the outset,” said Mark Briggs, SAS Capability and Integration Manager, Management Information Branch, Plans Directorate Army Headquarters. “The Army wanted reassurance that it was buying professional services capability that could deliver the required outcomes quickly and efficiently. Being on-site allowed us to demonstrate the flexibility of service we could offer while building trust with key project stakeholders.”

“While the Army recognised the quality and rich functionality of SAS® data analytics, forecasting and reporting solutions used, ultimately it wanted to buy a capability that enabled it to deliver the required outcomes around resource planning. So it bought a comprehensive solution from SAS which incorporated both software and services, and SAS was flexible in delivering the required solution,” he added.

Using the full SAS® 9.2 suite of data management, statistical analysis and reporting software solutions, the SAS team of five consultants focused on integrating data held mainly in two previously unlinked systems. The first deals with personnel administration and cost. The second, a manpower system, concentrates on allocating people to specific roles and departments.

Reaping the rewards

Using SAS® solutions, the SAS team has achieved great success in taking data from those two systems and seamlessly integrating them to enable the Army to understand the differences between the two, and crucially to deliver added value by linking actual manpower to the roles it needs filled.

According to Briggs, “The SAS capability is the first time that the Army headquarters has had the ability to draw all of those different bits of data together and ensure that they make sense. The SAS team has focused on giving the Army insight into that information and the Army has been delighted with the results achieved.

“It has been an iterative data exploration process evolving over time,” he adds. “The Army knew the basic questions they wanted to ask about manpower, but along the way we have been able to give them significant added insight into other associated areas that they have, until now, been unaware of, and which, therefore, have helped to drive their future operational strategy.”

The capabilities delivered have been instrumental in enabling the Army to look at manpower efficiencies and optimisation over the next few years, in support of the Army 2020 restructuring requirements. Looking to the future, while manpower planning has been the key focus so far, the Army is now also beginning to look at issues around asset engineering, occupational health and contingent operations.

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Mark Briggs, SAS Capability and Integration Manager, Management Information Branch, Plans Directorate, Army Headquarters

SAS' expert team enables Army to optimise value of information

Working on-site, a group of SAS® consultants is using state-of-the-art SAS® analytics and reporting solutions to extract maximum value from the British Army's data resources

Business Issue

In a period of cuts and restructuring, the Army is challenged to effectively leverage the vast volume of data it has at its disposal to drive key manpower and resource planning decisions.

Solution

A business intelligence software solution, which includes SAS® Enterprise BI Server and SAS® Enterprise Miner™ is providing insights to power better enterprise and data mining capability. Specialist domain expertise provided by SAS consultants on-site helped the Army gain actionable insight into data held in disconnected information systems.

Benefits

The Army was able to integrate disparate sources of data relating to manpower and resources - and to draw that information together to make better, more informed manpower decisions. Now using this capability as the management information bureau for a range of other applications.



Defence secretary Philip Hammond has focused on the Army being a “forward-looking, modern fighting machine.” To achieve this vision in light of the cuts, the Army will need to gain a greater insight into the vast volumes of information it holds, often on disconnected systems, and then use that information to support evidence-based decision making on resourcing issues and a range of other topics, including asset engineering, occupational health and contingent operations.

Manpower planning will become increasingly critical to the British Army as government cuts bite over coming years. The number of regular soldiers will fall by 20,000 to 82,000 by 2020, with the result that the country's land forces will be about half the size they were during the Cold War era.

At the moment, data is not sufficiently integrated to provide the actionable intelligence senior personnel need to confidently make these decisions. To overcome this challenge, the Army realised that it needed not just high-quality data management and analytics software but specialist help in implementing, maintaining and

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Mark Briggs, SAS Capability and Integration Manager, Management Information Branch Plans Directorate, Army Headquarters

exploiting it. In this way, it could bring together all of the disparate manpower information assets, make sense of that data in the context of the Army's business and interpret those findings to achieve meaningful and actionable results.

Delivering an on-site capability

After a detailed assessment process, the Army decided to implement SAS® data quality, analytics and reporting solutions. The decision was based partly on the fact that SAS technology was more intuitive and easier to use than competitive systems, but a major factor was that SAS was able to come in and support the development of the solution on-site.

The Army has now implemented the full SAS® 9.2 suite of statistical analysis, data management and reporting software solutions. This includes SAS® Enterprise BI Server and SAS® Enterprise Miner™, a business intelligence software solution that employs data mining to analyse everything from skills levels achieved to training requirements to personnel ready to be deployed in a theatre of war. SAS® Enterprise Guide® is used to streamline data analytics and reporting, and empower the on-site SAS team to extract value and insight from data sets. The SAS solutions also enable the Army to keep data quality high, correcting input errors and de-duplicating data sets - a vital first step in any project of this type.

Critically, SAS is providing an invaluable service through its on-site team, who combine domain expertise with an in-depth technical knowledge and ability to ensure that the Army is able to 'sweat its data assets' effectively and obtain the maximum value from the vast volume of information it holds.

Using the full SAS 9.2 suite of solutions, the on-site team of SAS consultants first focused on helping support the manpower and resource decision-making process by integrating data held mainly in two previously unlinked systems. The first deals with personnel administration and cost. The second, a manpower system,

concentrates on allocating people to specific roles and departments. Today, this role has evolved significantly and the on-site team now effectively delivers a full-blown management information bureau service to the Army which looks at a vast range of issues across its headquarters.

Supporting a new army model

By blending disparate data sources, the in-house SAS team can use the SAS solutions set to ensure data quality and data integration levels are high. It can then carry out coherent analysis of these. As John Tibble, Head of Public Sector UK, SAS, explains: "This, in turn, enables us to provide the Army with a greater level of insight into the skills and talents of their workforce, including, amongst many other things, critical information about how many people have passed a certain examination grade, what the specialisms of particular individuals are, the grades they have achieved and training courses they have completed. All of this information is key to efficient manpower planning."

The quality of the software is vital. However, by working on-site at the Army headquarters the team of SAS experts has been key in unlocking the value of these solutions. Part of this is about building strong relationships. As Mark Briggs, SAS Capability and Integration Manager, Management Information Branch, Plans Directorate Army Headquarters, explained, "The Army wanted reassurance that it was buying a professional services capability that could deliver the required outcomes quickly and efficiently. Being on-site allowed us to demonstrate the flexibility of service we could offer while building trust with key project stakeholders."

The other key element is the ability of the SAS team to ensure that the Army can fully exploit the software and its range of capabilities. They can do this because they have not only in-depth expertise in SAS technology but also a detailed awareness and understanding of the issues that the Army is facing.

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John Tibble, Head of Public Sector, SAS UK & Ireland



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