

# Joined up intelligence

The Intelligence Value Chain (IVC) concept reduces the cost of delivering high quality information, argues Darren Hunt, industry programme manager SAS UK

Public sector organisations are once again facing a conundrum. On the one hand they are being asked to deliver more citizen-centric services, to measure numerous key performance indicators and to encourage a "right to know" culture. On the other hand budgets remain tight. Organisations face internal pressures to reduce costs and to make more efficient use of their resources, delivering a greater overall availability of public assets.

So what's new? Yes, people have been saying this for years, but a "business as usual" approach is no longer an option. The next 18 months are going to prove especially challenging. Policymakers will look for improvements in access to key data to help them tackle priority areas.

These include (but are by no means limited to) reducing NHS waiting lists, raising standards in education, eliminating fraud, helping to combat crime and terrorism, and improving communication between Government departments. Recent high profile press coverage has exposed the inadequacy of data quality and information sharing, putting public sector processes and IT systems under ever increasing scrutiny.

In addition the Government has expectations that its e-government initiatives will start to make a real impact on the relationship with the individual citizen. Government services are expected to be available electronically by 2005, and the hope is that large numbers of people will access key services online, saving time and resources.

In short, the stakes are much higher; the Government wants quick results. Policymakers are well aware that the data already exists. And while it is true that they are much less aware of the challenges involved in collecting and integrating that data, to be fair, that is not their job.

Instead, the burden falls onto individual departments within the respective organisations and, being much closer to the reality, their first question is often "where and how do I start?"

It's the right question. Now is the time to step back, consider the key business drivers that should inform the design of an intelligence architecture; one that will deliver results rapidly while providing a low cost, low maintenance

platform for the long term. The objectives that need to be addressed include:

- Consistent, accurate and reliable information: incorrect or incomplete information is potentially more damaging than no information at all. People's credibility is at stake; mistakes will receive high profile coverage and obscure successes.
- Increased organisational agility: public sector organisations can be perceived as slow and bureaucratic. One of the reasons is that it often takes too long to get at information.
- Demonstrable business benefit: departments are under pressure to demonstrate and improve the value that they deliver. Business intelligence systems need to show where priority action must be taken to improve performance.
- Closer control over citizen and partner relationships: the boundaries of government have become blurred as much activity is shared between departments or outsourced. IT is now charged with breaking down the "Chinese walls" and delivering information that is citizen-centric rather than functionally focused.

In other words, solutions must surface the value of each individual component of the information infrastructure to the level of the council, the department, the ministry or indeed the Government itself. The problem is that those very components were conceived for different purposes, by different departmental units and typically using a variety of platforms and architectures.

But there is a starting point. On a conceptual level, all of these systems have a common functionality. They all have the features of a "value chain": capturing, transforming, storing, manipulating and reporting data. From an IT perspective the aim is to optimise and extend this value chain in two directions: first to turn data into intelligence, and second, to do this across the "enterprise" rather than in little functional pockets. Once the business objectives are understood, this is essentially a set of technology challenges for IT planning and implementation. Note: a set of challenges, and furthermore, challenges that are complex and unique to your organisation. No single product is going to solve this.

SAS has therefore created the Intelligence Value Chain (IVC) framework, independent of

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your current software, hardware and vendor environment. The IVC embraces all of the necessary software components, the best practice methodologies and (importantly) the know-how and experience built up through SAS' execution of thousands of enterprise intelligence projects around the world.

The strategic thinking behind the IVC framework is the application of minimal resources to get maximum leverage from existing IT investments. It can be applied in whole, or on a modular as-needed basis. So it is appropriate for a broad range of public sector bodies from ministry level to service delivery units. For example SAS® analytical software is helping NHS service units to increase patient survival rates and improve quality of life. And at the highest level of Government administration, SAS software is used to collect, validate and analyse data across multiple departments to support decisions on resource planning.

The IVC's starting point is to articulate in the simplest possible terms the five key phases of the Intelligence Value Chain: Plan, ETLQ, Intelligent Storage, Business Intelligence and Analytic Intelligence.

### Plan

Services offered in this first phase embody the experience we have built up on thousands of projects, both in private sector organisations such as finance, telecommunications, retail, pharmaceutical and manufacturing, and in the public sector. The goal is to enable government departments to structure project deployment for maximum efficiency and consistency, reducing implementation and project risk. Our planning services ensure that you see rapid results while building an intelligence architecture to support future evolution.

### ETLQ

Most public sector organisations have sunk huge sums of money, time and effort into developing the current system landscape. Senior managers want to know, where's the payback? At SAS we've focused our research and development efforts on becoming the leader in ETL, because this is the critical stage of the value chain.

To draw an analogy with the energy sector,

extract, transform and load is the IT equivalent of drilling the oil, refining it and distributing it to the storage plants. ETLQ is capable of reading all data formats and it adds the additional dimension of quality through a three phase process of profiling data, adding value, and integrating it.

### Intelligent Storage

Enterprise intelligence needs to be stored cost-efficiently, without putting additional strains on your existing transactional RDBMSs. We've focused on tuning information storage for rapid read only access by decision makers and information consumers.

### Business Intelligence

The goal of business intelligence in the era of e-government is to devolve query and reporting tools to employees and the ultimate "end user" – the citizen. To do this requires a highly scalable business intelligence portal.

### Analytic Intelligence

Business intelligence is about analysing the past, but analytical intelligence gives you the power to predict the future.

A project we recently undertook for the Italian government analyses migration and age distribution patterns to predict how many teachers the local education authorities will need to employ in five or 10 years' time, what sort of skills they will need and where the schools should ideally be located.

SAS has built up the IT industry's widest and deepest capabilities in analytic intelligence including mathematical data manipulation, data modelling and text mining. And critically important for the public sector in the age of open government, they all have client interfaces for the non-specialist user.

Of course there are always challenges and complexities involved in delivering business and analytic intelligence at the organisational level. But it would be a mistake to overestimate them. You do not have to start from scratch or invest in some mammoth sized ERP project. SAS' experience with many private and public sector organisations shows that by applying the IVC concept, you can deliver high value intelligence by building on your existing IT infrastructure.

### About SAS

SAS is the market leader in providing a new generation of business intelligence software and services that create true enterprise intelligence. SAS solutions are used at more than 40,000 sites. SAS is the only vendor that completely integrates leading data warehousing, analytics and traditional BI applications to create intelligence from massive amounts of data. For nearly three decades, SAS has been giving customers around the world The Power to Know®.