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# Smarter policy implementation – enabled by IT

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**The latest IT tools and techniques can bring benefit to policy implementation in Government, as well as to administration and operations. This new role for IT can not only speed up the implementation of policy changes, but enable more effective targeting of those policies. This paper explains how. Oracle provides standard COTS software that can do this, and how such solutions have already been proven in Government Ministries.**

## 1. The Challenge – How to Introduce Policy Changes Quickly and Effectively

In recent years, politicians have introduced new policies at an increasing rate. Ministers often stay in one job for less than two years, and are understandably keen to make their mark quickly by both announcing policy changes and implementing them in a short time. But the IT systems that support these policies have generally prevented changes being implemented as quickly as politicians would like. Legislative policy changes have to be made by a mandatory deadline, thus applying more pressure to over-stretched IT resources. Many frustrations are expressed by policy-makers that IT does not deliver effective or timely policy changes, while IT feels that it does not get a clear enough definition of the changes required. The problem is particularly acute in the areas of taxation and social security, because these are the areas where the State is usually directly responsible for both Policy and Operations.

Although the capability of IT technology continues to develop rapidly with many useful new tools and architectures, more often than not the approach in Government is to continue to focus on increasing the efficiency of the administrative systems. Large budget-eating legacy systems discourage innovative approaches and they become serious barriers to change. You often hear that “we cannot do this or that with our systems”, despite the fact that all agree that “this or that” are desirable things to do from a policy perspective. The equivalent in a manufacturing company would be to focus on administration and not on how to target its products to a constantly changing market place. This is often the reality of the Public Sector today and yet this will need to change significantly with the fiscal crunch if service levels are to be maintained or improved.

This has seemed to be an intractable problem. Until now.

## 2. The Solution – a New Role for IT

Off-the-shelf software solutions (COTS) are now available that can speed up the implementation of policy changes. Not only that, but such software also enables better targeting of those citizens and businesses that the policy is designed to benefit, thus improving the effectiveness of the policy. Achieving more with less has been the main

justification for investing in IT in the back office. The goal of “more with less” through the use of IT should now be seen as equally relevant to public policy. This is a different way of thinking, as policy has not been the responsibility of the CIO, nor is the IT Department much consulted when policy changes are considered, because they tend to be seen as “blockers” who do not have the necessary skills to engage in policy-making. This new role for IT should be seen as a natural development from its historical use to improve back-office efficiency and improve public services. Governments now generally recognise that there are clear advantages to be gained by using modern configurable COTS to support administration. The software techniques that have been proven in such ERP and CRM systems can now be deployed to improve policy-making and implementation.

A clear example will illustrate this. In several countries, PES (Public Employment Services) provides assistance for jobseekers. This service has a cost, but if one were to improve the speed by which the unemployed can find suitable jobs, the impact on the well-being of the individuals as well as the welfare of the State will increase by a significant amount. The cost of achieving this objective is relatively small, given the savings in unpaid employment benefits, the addition of more economic actors into the market and the significant social returns to society at large. This requires different ways of thinking about the problem. One leading example is UWV in the Netherlands, who today utilize a number of tools to decrease the time where jobseekers are between jobs.

The same argument applies to other forms of social services, to education and to health. These account for the “big items” of state expenditure. The same principle can be applied on the revenue side of the state, enabling more agile and targeted tax and revenue generating policies.

What is being advocated here is a change in focus, not neglecting administrative efficiencies but also concentrating on the efficiency of policy implementation. This is going to become a necessity because the current fiscal crunch will demand a reassessment not simply of how services are being delivered but the very effectiveness of these services.

### 3. How IT Can Contribute to Policy Efficiency and Effectiveness

The next generation of IT tools possess a number of key policy-related capabilities that contribute to both efficiency and effectiveness, and are valid across the Public Sector. These key capabilities include:

#### a. Agility and Targeting of Policy

The main reason why IT systems have in the past not been able to provide the necessary capability is that “policy and regulations” had to be coded into the IT systems for them to operate efficiently. This has been a source of many delays, failed projects, and costly and time-consuming maintenance when the policy

changes. The consequence is an inherently conservative system incapable of acting with the necessary agility to change policies for specific segments as a result of policy-evaluation.

IT can provide this capability today with natural language rules engines, where the case workers - whether in social services, immigration, police or other services - can change the rules themselves according to their level of authorization, without the intervention of the IT department or a vendor. The net result is much greater agility of the entire system and a very economical way of targeting groups.

#### b. Segmentation

This is the capacity to segment groups as small or as large as needed to make the policy efficient. Very large groups are typically inefficient, because individuals' circumstances vary sufficiently at extremes of the group that the policy proves to be not beneficial at one extreme and inefficient at the other, wasting resources. Segmentation allows a more granular treatment of sectors of the population with targeted policies appropriate for their circumstances. This is important for Social Services, Education, Health, Immigration, Customs and Tax.

A classic case here is the use of one of the favourite tools of the State to condition behaviour: fines. Fines are used for discouraging speeding, environmental damage, white collar crime, etc. They are typically uniform and often totally unrelated to circumstances, with the effect that for many sectors of the population they are ineffective as the cost is either too low (no change of behaviour), too high (cannot pay) plus an array of "in between". In some advanced countries fines are calculated based on salary of the delinquent, but most often such an approach is not utilized for policy effectiveness and efficiency.

#### c. Single Source of Data – Multiple Uses

This allows the collection of rich information, while maintaining its consistency and integrity, which can then be accessed by multiple users. The data can be held as part of the common infrastructure in a single repository, with citizens, families and related individuals separately identifiable. This is essential for an efficient and effective system, to provide the right service to the right individual at the right time and place, and apply a targeted policy to a specific group.

This approach can also minimize and in some cases eliminate fraud, and allow many caseworkers to act collaboratively on the same case. Examples are the "Tell Us Once" initiative in the UK and "No Wrong Door" in the Netherlands. Other examples can be seen in police, social services, tax and customs.

#### d. Closed Loop Systems and Business Intelligence

This capability shortens the cycle between the implementation of policy and its evaluation and allows for very quick and precise understanding of whether a policy is working well or not - either because it is inefficient or it is not connecting with its target groups. Data can be obtained to review, with different levels of granularity, what the policy objective has been and the results. Governments do not do this often or systematically enough, and it is not uncommon that governments measure their success by the consumption of the budget rather than the practical results of the policy. This is partly because it is generally easier to measure expenditure than policy outcomes, which can be more aspirational – e.g. abolition of child poverty.

Related to this is the analysis of trend, risk assessment and mitigation processes, giving the capability of modelling policy more accurately on targeted populations at the design stage, enabling a new kind of dialogue between the administration and politicians.

#### e. Multi-channel Self-service

This capability has developed dramatically in the past five years due to many advances of technology, the democratisation of the use of the internet and mobile telephony. Technologies for authentication and simple SMS are now being used to provide services in a more effective way to targeted groups in specific circumstances. Self-service in the retail sector has not only reduced cost, but also increased the effectiveness of services. Examples include self-scanning in supermarkets, self-service petrol pump stations and self-service check in counters in airports.

How far can Governments utilise self-service, when they cannot “force a channel” to citizens? Many still do not have the Internet, are not familiar with the technology or have accessibility issues of different kinds. Often, it is the people who need Government services most, particularly in social services and health, who are the ones with least connectivity or familiarity with technology. The Government needs to operate in a multi-channel mode yet, as proven many times, maintain the cohesiveness and consistency of the services and supporting systems. Whilst governments do have to deliver socially inclusive services, sensible segmentation can reduce delivery cost and free up resource to fund services for those people who will always require face to face contact.

Although there has been progress here – e.g. with Government Self-Service kiosks in Shopping Malls or Benefit Offices – this is an area as yet underexploited. It requires more “intelligent portals” that can provide guidance to citizens online, together with the use of SMS in areas where speed is of the essence and rapid

response required – for example employment opportunities or healthcare appointments.

#### f. Social Networks

These are emerging gradually as an additional and potentially powerful tool of policy-making, involving communities in services, in sharing experiences and interest, in recording the knowledge of retirees and many other potential areas. This increasing interaction between citizens, professionals and the administration can facilitate solutions in many areas.

Underlying all the above is an IT infrastructure which also has evolved into much more agile and subtle capabilities than previously, due partly to the development of Middleware and also great improvements in scalability and performance of the large systems involved.

## 4. Achieving These Benefits with COTS

The capabilities mentioned above can today be delivered for the most part using standard off the shelf products (COTS) as opposed to the custom made systems of the past. Why are COTS important for the core objective of making public policy more efficient?

The answer is relatively simple and has to do precisely with agility and flexibility of systems. Custom-build systems have the enormous disadvantage that in order to modify them it is necessary to re-write code, and – in the case of policy – re-code the digital representation of the policy each time there are changes. While the systems are so expensive to maintain, the cost of change can be so exorbitant that policy implementation has to be postponed. To make matters worse, the systems do not have the agility required to optimize policy, to make it more granular, targeted and – critically important – evaluate effectiveness on a regular basis in an economical way.

Although no single COTS product can offer this, the combination of several different ones using open standards and current technologies will allow dramatic changes in the way Government agencies operate today. The IT Department can then focus on integrating open, standard products and how best to optimize policy. The change is significant and this is why it is a transformational exercise for the business rather than only a technology challenge.

The new decade will focus on the efficiency and effectiveness of policy, rather than almost exclusively on the efficiency of administrative systems. Both are essential and, while Oracle will continue to focus on administrative efficiencies, it will increasingly look for opportunities to deploy its products in supporting policy-making and policy implementation, to the benefit of citizens, businesses and Governments.

## CASE STUDIES

These Case Studies show how Oracle software products have enabled smarter policy implementation in three key areas of public services that are particularly likely to be affected by policy changes that Ministers require to be implemented quickly and cost-effectively.

### Tax, with a focus on HMRC in the UK

Oracle is used by the two largest Tax agencies in the World, the IRS in the USA and HMRC, the UK Tax agency. In addition, Oracle is used by Skatteverket (Swedish Tax Agency), SKAT (Danish Tax Agency) and smaller agencies such as the New Zealand Inland Revenue.

HMRC selected Oracle software as their preferred strategic tool for implementing changes in legislation and new pieces of legislation. Oracle is included in HMRC's strategic five year plan based on the ability to empower business users to take ownership of legislation changes.

The first project where Oracle software was deployed at HMRC was the Employment Status Indicator (ESI). This project was required to assist with planned changes in legislation affecting self-employed workers. Changes were being made to determine the tax status of a self-employed worker depending on how long they were working for the same employer. HMRC decided to offer a self-service option to Citizens.

It was assumed that no more than 25% of enquiries regarding ESI changes would be handled by the Self service option and HMRC was anticipating having to employ up to 3,000 additional people in their call centres to handle the extra volumes of enquiries. Within two weeks of the OPA ESI application going live over 90% of enquiries was being handled using Oracle software. HMRC therefore didn't need to recruit the extra Call centre staff and made a substantial saving of over £3m.

One of the more recent projects at HMRC was the delivery of a complex solution to handle Tax Credits. All 22 million calls received by HMRC per year relating to Tax Credits are presented with guidance developed using the Oracle technology. The project had a number of highlights as follows:

- Successful enablement of HMRC staff in rule-authoring to provide self-maintenance and extension of rules for future releases.
- User interface configured to HMRC standards and compliant with the UK Disability Discrimination Act (DDA).

- Rapid and successful development of a rule-base calculator for Tax Credits eligibility and entitlement.
- Analysis of timings and trends.
- Rules architecture developed with future maintenance and version upgrades in mind.

More generally, the reasons Tax Authorities give for using Oracle in policy implementation are to:

- Provide self-service calculators for taxpayer calculations, reducing contact centre costs and improving consistency of advice
- Use a single repository of correct policy and thus migrate systematically away from expensive-to-maintain legacy systems
- Compare the impact of detailed policy or interpretation changes on test cases, ensuring consistent application of rules and bottom line budgetary impact
- Respond more reliably to the annual cycle of changes to tax legislation and policy at dramatically lower cost
- Use risk scoring rules to assess tax declarations for further investigation and fraud detection

#### Immigration, with a focus on DIAC in Australia

The mission of the Department of Immigration and Citizenship (DIAC) is to ‘enrich Australia through the well managed entry and settlement of people’. It employs over 6,000 staff. Before Oracle was deployed, DIAC faced a number of challenges:

- Lack of support for staff in decision-making roles
- Gaps and vulnerabilities in systems and processes
- High profile errors in decisions resulting in political embarrassment

Oracle has now been used to automate over 1500 policies and is used to process over 750,000 visa applications per year. Over 98% of Call centre visa enquiries are now handled through self service. Anyone travelling to Australia on business, on holiday or to emigrate can use an on-line Visa Wizard for a fast and effective service. The Visa Wizard screen presents a questionnaire to the user and, based on the answers to the questions, then presents a list of the valid Visa types available, costs and next steps required to complete the visa process.

Many other Immigration agencies are now following DIAC’s lead as one of the most technologically advanced Immigration agencies in the world.

Social Services, with a focus on FK (Swedish Social Insurance) and SVB (Sociale Verzekeringsbank)

#### Forsakringskassan (FK)

In November 2007, FK announced that the Swedish Government was introducing new legislation to handle claims for Dental Treatment on 1 July 2008. Following a formal tender process, a global Systems Integrator (SI) was selected to deliver the solution. The project commenced in December 2007 with the SI initially believing that the legislation/rules were straight forward and could be coded in time as part of the solution. In January 2008, the SI realized that the legislation/rules were more complex than they first thought and decided to deploy Oracle software. The solution was subsequently delivered on time and is regarded as a great success. The solution is used by over 10,000 Dentists in Sweden who process over 20,000 claims per day.

The next phase of implementation is to assist with the detection of fraudulent benefit claims. Given this early success, Oracle is now being considered for the modernisation of a number of other Social Services areas at FK.

One of the main reasons that OPA can be delivered quickly is that the rules are abstracted from the core application. In this case the rules in the legislation were still being changed up to two weeks before the legislation came into effect. If the rules had been coded within the application the solution could not have gone live on time.

#### SVB (Sociale Verzekeringsbank)

SVB (Sociale Verzekeringsbank) is the organization that implements national insurance schemes in the Netherlands. SVB makes sure that you, your children or your parents receive child benefit, pension or any survivor benefit correctly and on time. Some 4.9 million citizens rely on SVB.

SVB initiated a large Customer Program called “Ten for Service” with three key business drivers:

- Enhance Customer Service with one integral customer view
- Improve efficiency (reduction of 700 FTE out of 3.000 FTE) by less administrative paperwork
- Become more adaptive and agile by centralising social service policies into one business rule engine

In 2009, SVB selected Oracle as part of this modernisation programme. SVB is initially implementing a nationwide database for all Dutch Citizens to assist with future ‘Life Events’ notifications (change of address, birth of new child etc). This is part of the ‘No wrong door’ initiative in the Netherlands



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