



National Audit Office

The National Offender Management Information System

LONDON: The Stationery Office
£14.35

Ordered by the
House of Commons
to be printed on 10 March 2009



SUMMARY

Background

1 In June 2004, the newly-created National Offender Management Service (NOMS), then part of the Home Office now within the Ministry of Justice, initiated the National Offender Management Information System project (C-NOMIS) to implement a single offender management IT system across prison and probation services by January 2008. C-NOMIS was intended to support a new way of working, known as end-to-end offender management, and to replace existing prison inmate and local probation area offender case management systems with one integrated system, allowing prison and probation officers and others to access shared offender records in real time.

2 Under end-to-end offender management, the focus of all those dealing with offenders is intended to be on reducing the risk of re-offending. Each offender is supervised by a single offender manager throughout their sentence, whether it is served in custody or in the community. The aim of one integrated information system was to improve information sharing about offenders; address the lack of continuity and follow up of interventions with offenders as they move within the prison system and between prison and the community; and to provide a clearer alignment of prison and probation work with offenders.

3 In June 2004, HM Prison Service was already intending to replace its inmate information system with a software application developed by the Canadian firm Syscon Justice Systems Ltd. After analysis of probation's requirements, NOMS extended its existing contract with EDS and Syscon to customise the software and roll out one application, called C-NOMIS, to prisons and probation. The approved lifetime cost of the project, as at June 2005, was £234 million to 2020.

4 By July 2007, NOMS had spent £155 million, C-NOMIS was two years behind schedule and estimated lifetime project costs had risen to £690 million. The Minister of State imposed a moratorium while options for reducing the project cost were sought. During Autumn 2007, NOMS evaluated a range of options and, in January 2008, recommenced work on a rescoped programme with an estimated lifetime cost of £513 million (including sunk costs) and a final delivery date of March 2011.

- 5** Rather than introducing a single shared database with interfaces to other criminal justice systems, the programme now consists of five separate projects:
- replacement of several current prison systems with the C-NOMIS application;
 - creation of a national probation case management system based on an existing package called Delius;
 - the introduction of a read-only data share facility between prison and probation;
 - the creation of a single offender risk assessment system; and
 - replacement of the current prison Inmate Information System.

6 At 31 December 2008, the delivery of the core programme was proceeding towards commencing roll-out of C-NOMIS in prisons in April 2009 with the final elements scheduled for delivery early in 2011. The current lifetime budget (including the £226 million spent so far) is still £513 million. **Figure 1** shows the key events in the project's history.

1 NOMIS project timeline

Date	Organisational responsibility	Key events
June 2004	National Offender Management Service (NOMS) created, bringing together HM Prison Service and the National Probation Service within a single organisational structure, but still formally part of the Home Office	Start of the C-NOMIS project pilot phase
June 2005		C-NOMIS project full business case approved
December 2006		Prototype C-NOMIS application tested in HMP Albany
May 2007	Responsibility for NOMS transferred from Home Office to new Ministry of Justice	NOMS Board made aware of cost overruns for first time
August 2007		Minister informed and imposes moratorium
Sept-Nov 2007		Options for reducing scope of project assessed
December 2007		Revised NOMIS programme approved
January 2008		<i>Original target for full implementation of C-NOMIS</i>
April 2008	NOMS established as an Executive Agency with its own Accounting Officer	
May 2010		Current planned date for full implementation of Prison NOMIS
February 2011		Current planned date for full implementation of Delius probation case management system

Source: National Audit Office

7 This report examines the reasons for the delays and cost increases to the original project and, since the moratorium, the aims of the revised NOMIS programme and the progress made, the impact of the delays and rescope on the costs and benefits achieved, and NOMS' fitness to deliver. Our methods are described in full in Appendix 1 and include:

- a technical analysis of the project (summary at Appendix 2);
- assessment of the original project against the eight common causes of project failure; and
- interviews with stakeholders including visits to probation areas and prisons to assess the impact of the delays.

Key findings

On the reasons for the delay and cost increases

8 There was inadequate oversight by senior management. The NOMS Board relied on the C-NOMIS Project Board to escalate issues to it through NOMS' routine reporting systems. Between the start of the project and May 2007, the NOMS Board did not ask for or receive any other more specific reports on project progress. Whilst the Project Board met at least once every two months, it did not actively monitor delivery of the project and was unaware of the full extent of delays or the implications of decisions it made upon project cost.

9 NOMS did not put the appropriate resources and structures in place to deliver such a complex project. The overall governance and resources applied were not adequate given the scale of the task. Roles and responsibilities were blurred, in particular financial accountability was unclear, and insufficient skilled resource was applied to the project. Operating within the newly-created NOMS entity (a merger between HM Prison Service, the National Probation Service and associated headquarters and Home Office staff) contributed to the confusion.

10 Programme management was poor in key aspects, including planning, financial monitoring and change control. NOMS initial planning was overly optimistic in terms of both cost and timescales. For example there was no contingency, despite some recognition that the project carried a high level of risk. There was no overall plan bringing together the different workstreams (up to 40 at one point) and hence it was difficult for managers to assess overall progress. Budget monitoring was absent, with cost control focusing on monitoring the spending against the annual budget rather than matching cost against project deliverables. Change control was weak, and there was no process in place for assessing the cumulative impact of individual change requests on the project budget or delivery timetable. In addition, the VAT implications of implementing C-NOMIS in private prisons were not grasped early enough and firmly enough, resulting in these prisons being first in, then out, and now potentially again within the scope of the project.

11 NOMS significantly underestimated the technical complexity of the project. A single offender database is technically realisable, but NOMS did not adequately explore other potential solutions and underestimated the cost of customising the software it had already selected for the Prison Service. This package appeared to provide a reasonable fit with prison requirements but met, in full, only 29 per cent of probation service requirements. In fact, neither assessment was correct, and business requirements also changed as policy developed. As a result the estimated cost of developing the application rose from £99 million when the full business case was approved in June 2005 to £254 million by July 2007, primarily because of customisation.

12 NOMS underestimated the need to invest in business change alongside the IT system. There are 42 probation areas in England and Wales, each with their own ways of working. NOMS, however, made no sustained effort to simplify and standardise business processes across prisons and probation areas, and did not allocate resource for this purpose. At the outset, NOMS treated C-NOMIS as an IT project rather than a major IT-enabled business change programme. This status increased the pressure on the project team to approve requests for changes and contributed to significant scope creep.

13 NOMS' contractual arrangements with its key suppliers were weak and its supplier management poor.

Instead of tendering key project contracts, NOMS opted to use its current suppliers under existing framework agreements to develop and deliver the C-NOMIS application. NOMS allowed these contracts to go forward on a time and materials basis for longer than it should, which meant that there was insufficient pressure on suppliers to deliver to time and cost. In addition, NOMS' relationship with its suppliers, particularly EDS, deteriorated during 2005 and 2006, and it did not make best use of their expertise. Significantly, NOMS did not seek to revise its contractual arrangements with Syscon, the software developers, immediately the extent of the customisation became clear. Syscon is now able to market the improved software, but taxpayers will not benefit from their investment in the product.

14 In conclusion, although technically feasible, C-NOMIS was a very ambitious project thought to have the potential to bring much closer working across the criminal justice system. The desirability of the project's aims appears to have overly influenced decision makers, leading to the failure to evaluate other technical options sufficiently and establish realistic budget, timescales and governance for the project.

On the aims of the revised NOMIS programme and the progress made so far

15 **NOMS followed an objective process to identify and compare different options to rescope the programme in line with industry practice, and selected the lowest cost option available.** In Autumn 2007, NOMS assessed seven different options considering strategic alignment, value and benefits, achievability and risks. In December 2007, the NOMS Board selected the lowest cost option though, by its own analysis, this option did not offer the greatest benefit to cost ratio. Funding constraints proved to be the main decisive factor.

16 **The option selected has evolved since December 2007 but has not been compared to previously rejected options, including continuing with the original C-NOMIS solution, on a like-for-like basis.** Since the rescopeing decision was made, NOMS has undertaken further evaluation of the options for a probation case management system and has identified ways to make significant reductions in cost by, for example, simplifying data migration. Although it has not considered formally whether applying these methods

to C-NOMIS would make it affordable and deliverable, NOMS' present view is that the original C-NOMIS vision is both unaffordable and not required operationally to deliver end-to-end offender management. There is still some uncertainty over the costs of the Delius and the data share options.

17 **NOMS is making steady progress on delivering the full C-NOMIS application to prisons for the start of national deployment by April 2009. Roll-out dates for the other projects in the programme are not known and risks remain.** There are currently some delays, with some 60 per cent of C-NOMIS deliverables two months late, but both the supplier and NOMS are confident of delivering the full application by April 2009. Successful delivery of the national probation case management system is dependent on an existing probation service infrastructure project which is itself delayed, although not, according to NOMS, critically so.

On the impact of delays and rescopeing on costs and benefits

18 **The full financial impact of the delays and rescopeing of the programme is uncertain but is likely to be at least £41 million.** We have not been able to determine the full value of the waste and inefficiencies associated with the failure of the C-NOMIS project with certainty because of NOMS' poor recording of costs. We estimate that NOMS has spent around £15 million on the probation element of C-NOMIS which is no longer required. Costs to NOMS from benefits deferred due to the delays and costs associated with inefficient processes and system failures are likely to add a further £25 million. Additional EDS costs following the moratorium to close down work were around £1.2 million.

19 **Many benefits of the programme are capable of being realised but the key aim of creating a single database of offenders directly accessible by prison, probation and third party intervention providers responsible for offenders from sentencing through to resettlement will not be met.** The programme will deliver significant improvements over existing systems. One of the main aims of the programme, to replace the ailing LIDS system in prisons, will be met and together with a national probation case management system, over 220 separate databases will be replaced by just three. The other main aim of the programme, to support end-to-end offender management, will however not be fulfilled as originally envisaged.

On NOMS' fitness to deliver the revised project

20 **NOMS has worked hard to address past weaknesses and has made significant improvements across the key areas including governance, leadership, project management and financial control.** Since summer 2007, when a new Senior Responsible Owner brought the problems to light, NOMS has undertaken detailed reviews of its past performance and strengthened the programme considerably in all areas.

21 **Some weaknesses remain, particularly in resourcing, business focus and financial forecasting.** Recruitment difficulties mean the programme is heavily reliant on contracted-in staff, and not all vacancies are filled. We believe that NOMS still needs to standardise ways of working, particularly across the National Probation Service, to reduce scope creep and ensure that the introduction of the new systems goes smoothly. Whilst NOMS has made significant improvements to financial controls, it still lacks the means to match spending against deliverables although it is pursuing this shortcoming in its current contract negotiations with potential suppliers.

Evaluation of project weaknesses against the eight common causes of project failure

22 **The key factors leading to the failure of the C-NOMIS project could have been prevented.** In 2002, the Office of Government Commerce and NAO agreed eight common causes of project failure which were disseminated to Departments in February 2003. In May 2005, as part of the project approval process, the Home Office's Programme and Project Management Support Unit certified C-NOMIS as not suffering from the common causes of failure. Based on our analysis of the underlying causes of the cost increases and delay, we found that C-NOMIS suffered from four of the eight common causes of project failure in full and three in part (see Figure 2).

Conclusion on value for money

23 Overall the C-NOMIS project was handled badly and the value for money achieved by the project was poor. Many of the causes of the delays and cost overruns could have been avoided with better management of well known issues. NOMS' failure at the start to appreciate the product customisation and business change required, its inadequate oversight of the project and weak relationships with suppliers led to a doubling in programme costs, a three year delay in programme roll-out and reductions in scope and benefits. In particular the core aim of a shared database to provide a single offender record accessible by all service providers will not be met, though over 220 separate databases will be replaced by just three. Although programme management has improved considerably in the last 18 months, weaknesses remain.

2 Assessment of C-NOMIS against the eight common causes of project failure

Common causes of project failure	Cause of failure evident in C-NOMIS?	Commentary on C-NOMIS project performance
Lack of clear link between the project and the organisation's key strategic priorities, including agreed measures of success	In part	We found a clear link between the objectives of the C-NOMIS Project and the strategic priorities of the NOMS Change Programme. Assumptions were tested during a pilot that also provided valuable lessons learned. However, project planning lacked both detail and robustness, and there was a failure to produce a single integrated plan representing all the planned tasks from across the individual work streams.
Lack of clear senior management and Ministerial ownership and leadership	Yes	<p>The Senior Responsible Owner (SRO) from project inception to April 2007 had little experience of major IT project delivery and insufficient time to undertake SRO responsibilities despite some reduction in her other responsibilities from September 2006. Until the moratorium, we found no evidence of Ministerial involvement beyond them receiving standard summarised briefings.</p> <p>Leadership was compromised by blurred accountability between the project board and Offender Information Services (OIS) which led to reactive and indecisive decision making.</p>
Lack of effective engagement with stakeholders	In part	Engagement with stakeholders was on an ad hoc basis. Early on, users were given the chance to voice their opinions of the C-NOMIS application and user groups were involved in development of the system requirements. There was little communication with stakeholders on project progress. With project plans failing to schedule engagement activities, many stakeholders were unsure how best to communicate with the project. When delays occurred, many stakeholders only found out at the last minute.
Lack of skills and proven approach to project management and risk management	Yes	<p>The project suffered from a consistent shortage of skilled personnel, leading to a greater reliance on contracted-in staff. A lack of financial skills led to poor financial estimating and monitoring.</p> <p>Risks identified at the outset were not managed. Under the governance structure, the Programme Manager was the only report to the Programme Director, which led to a good news culture.</p>
Too little attention to breaking development and implementation into manageable steps	No	The project team's decision to undertake a software trial and an initial pilot implementation provided valuable learning. Breaking the development and deployment into manageable steps was sensible for a project as large and complex as C-NOMIS.
Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits)	In part	The original business case, on which the decision to proceed was based, had projected C-NOMIS would deliver a positive net present value, but costs were seriously underestimated. Despite recognition that the project was high risk and had a challenging delivery schedule, there was no contingency within the budget, suggesting either a desire to keep costs down to achieve the go-ahead or a high degree of optimism.
Lack of understanding of and contact with the supply industry at senior levels of the organisation	Yes	An existing framework contract within the Prison Service and an infrastructure renewal contract within the Probation Service constrained the level of engagement with external suppliers and restricted competitive procurement opportunities. Although the main delivery partner provided a detailed set of assumptions as part of their Best and Final Offer, there was no evidence of an assessment to determine whether requirements could be met by suppliers, given competing pressures from other sectors of the economy.
Lack of effective project team integration between clients, the supplier team and the supply chain	Yes	The project selected existing suppliers as the main delivery partners, and did not seek a wider evaluation of their requirements from the market. Although suppliers were represented on technical governance boards, project delays adversely impacted working relationships and there was a lack of communication channels at a more senior level.

Source: National Audit Office

Recommendations

In the short term

- a **The National Probation Service covers 42 individual areas with different ways of working, which inhibits the development of one national system.** In order to mitigate the risk of scope creep and implementation difficulties, NOMS should require areas to develop a common approach to handling data within the new probation case management system, through a business change programme with a specific business change team and budget.
- b **Financial controls have improved significantly during the lifetime of the project, but there are still insufficient mechanisms to assess quickly how events impact cost.** NOMS should develop its financial model to demonstrate the key cost drivers and introduce a clear understandable method to track cost against progress and completed work.
- c **Although the size of the NOMIS programme team has increased, difficulties in recruiting staff have meant a greater reliance on contractors, which could impact the ability of the central team to manage the programme effectively.** NOMS and the Ministry of Justice should provide the necessary support, training and resources to reflect the size and complexity of NOMIS.

In the medium to long term

- d **Through introducing a single offender database accessible by prison and probation, the original C-NOMIS application was designed for end-to-end offender management. The revised solution, however, does not facilitate the sharing of information as initially envisaged, and has already led other agencies to develop their own databases, such as the Parole Board.** In the absence of a single database, NOMS should:
 - within two years of implementation, evaluate the effectiveness of the data sharing facilities it is developing for the prison and probation services and, in the light of experience, take early steps to plan any improvements required;

- assess the effectiveness of the interim data sharing methods it has established with other agencies, and investigate the potential for links to other agency databases; and
- make clear the technical standards for the development of systems to facilitate the creation of future database links. Future solutions need to be built with a view to the wider picture, interoperability and the potential need for future enhancements.

Recommendations for Government Chief Information Officer

- e **The failure of the C-NOMIS project could have been prevented had basic principles and existing good practice been followed by NOMS.** The Government CIO should, with OGC, seek assurance that all government departments managing large scale IT programmes are actively avoiding these well known reasons for delivery failure. Such an assurance system could, for example, require all government departments, agencies and non-departmental public bodies' IT-enabled business change projects/programmes with a total life value exceeding £100 million to certify that they meet minimum standards, including standards of financial control, governance and senior management oversight, commercial arrangements and supplier management.