The National Offender Management Information System

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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, recommended 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		*Original target for full implementation of C-NOMIS*
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 rescoping 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 rescoping 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 rescoping on costs and benefits

18   The full financial impact of the delays and rescoping 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	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. Leadership was compromised by blurred accountability between the project board and Offender Information Services (OIS) which led to reactive and indecisive decision making.
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	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. 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.
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.

PART ONE

Background to NOMIS

Policy and administrative context

1.1 The National Offender Management Information System project (C-NOMIS) formed part of a wider change programme instigated following Lord Carter's Correctional Services Review in 2003.[1] The review aimed to improve the focus of correctional services in England and Wales on the offender and reducing re-offending, rather than on managing the prison and probation services.[2] Lord Carter recommended bringing together the two services and introducing "end-to-end offender management" in terms of the supervision of individual offenders throughout their sentence (whether in custody or in the community) by a single offender manager. Reducing re-offending would contribute in large part to reducing the numbers in prison, and reduce the cost and raise the efficiency and effectiveness of running correctional services.

1.2 The Carter Review found as follows.

■ Programmes and interventions received in prison were often not followed up in the community.

■ Information sharing on offenders between services was often poor. Prison and probation areas operated different systems, with different ways of capturing data.

■ No single organisation was ultimately responsible for the offender, with the result that there was no clear ownership on the front-line for reducing re-offending.

1.3 In June 2004, the Home Office created the National Offender Management Service (NOMS), bringing together Her Majesty's Prison Service (HMPS) and the National Probation Service (NPS) within one entity. It also started work on fleshing out how end-to-end offender management could be implemented and the systems required to support it.

The genesis and aims of the C-NOMIS project

1.4 The Home Office realised very early that end-to-end offender management would require better joined up information systems across prison and probation services than were either in existence or planned. Both services were already intending to replace their existing IT systems, but data sharing across the services did not form part of these projects. HMPS's PRIME project begun in 2003, aimed to replace its ageing prisoner management system (Local Inmate Database System – LIDS) by April 2007, whilst the National Probation Service aimed to introduce the key elements of a national offender management system beginning in 2005. The Home Office decided to take the PRIME project and use it as the basis for a national offender management information system across both services.

1.5 The scale of the challenge was considerable. There are 141 prisons and Young Offenders Institutions in England and Wales housing around 80,000 inmates at any one time, with a further 240,000 supervised in the community by the National Probation Service. Together, prison and probation offender management systems currently hold records on around 1.5 million individuals.

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1   *Managing Offenders, Reducing Crime: A new approach*, Patrick Carter, Cabinet Office Strategy Unit, December 2003.
2   ibid page 4.

1.6 The Home Office launched the C-NOMIS project in June 2004. Its aims were to:

- reduce re-offending through end-to-end offender management across probation and prison services and including providers from the private and voluntary sectors;

- introduce more assertive case management and contestability in service providers to improve outcomes and value for money;

- integrate IT support across custody and community sentences to facilitate the breaking down of barriers between prison and probation; and

- improve means of monitoring compliance with National Standards, including more demanding community sentences and greater control and oversight of persistent offenders.

A key benefit of C-NOMIS was that a single offender database would provide real time information to offender managers, enabling them to manage offenders effectively across organisational boundaries.

Progress of the C-NOMIS project

1.7 The PRIME project was being carried out for HM Prison Service by Electronic Data Systems Corporation (EDS) under an existing agreement. HMPS had already selected a software application called TAG, developed by the Canadian firm Syscon Justice Systems Ltd, to replace LIDS in prisons. In June 2004, after analysis of the probation service's requirements, NOMS decided to extend the contract with EDS to carry out a design and pilot evaluation to customise TAG to fit the needs of the probation service and NOMS and roll out one application across prisons and probation.

1.8 Following the pilot phase, NOMS approved a further extension of the EDS contract, on a time and materials basis, to develop, test and roll out the C-NOMIS system including the migration of data from LIDS and other legacy prison systems such as the Inmate Information System (IIS). Similarly, NOMS employed Steria, under an existing IT infrastructure contract with the National Probation Service, to prepare the 42 NPS legacy case management systems into a common data format ready to migrate into C-NOMIS.

1.9 The Home Office Group Investment Board approved the full business case for the project in June 2005. At this time, the project's lifetime costs to 2020 were estimated to be £234 million (including design costs of £99 million) and the new system was due to be fully implemented and operational by January 2008. In September 2006, following a critical Gateway Review 4[3], NOMS made changes to the management and governance of the project, establishing a programme structure under a programme director, in part to provide a greater focus on the business change aspects of implementing a new IT system as well as the purely technical aspects.

1.10 In August 2007, following a review, the project team recommended to the Minister of State that he stop the project because it had become unaffordable. By this time, C-NOMIS was two years behind schedule and estimated lifetime costs had risen to £690 million. A version of C-NOMIS had been implemented in three prisons on the Isle of Wight and roll out to a further 15 prisons was planned. EDS was also approaching the start of full testing of the probation part of the enhanced TAG application. The Minister imposed a moratorium on all further work by suppliers while NOMS carried out a strategic review of the programme. By this point, NOMS had spent £155 million, mainly on the prison element of C-NOMIS[4], and was incurring costs of around £350,000 per working day, which if continued would lead to a cash overspend for the year.

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3   Gateway reviews are carried out at key decision points during the lifecycle of all government IT projects. They provide assurance on whether a project can successfully progress to the next stage. OGC Gateway 4 assesses a project's readiness for service.
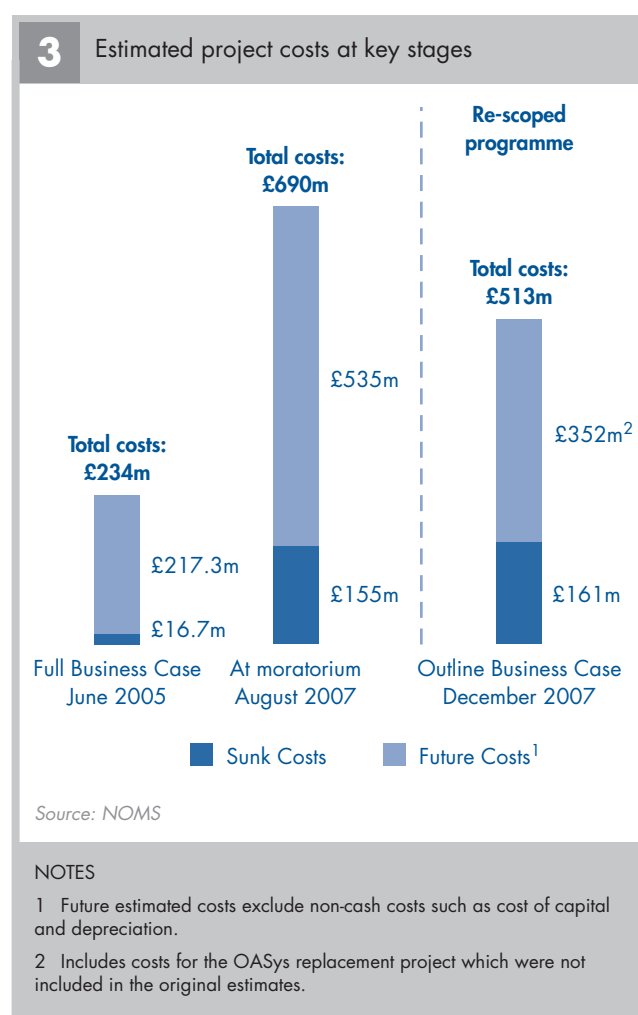4   C-NOMIS refers to the first development of the NOMIS software for use across prisons and probation.

The redesigned NOMIS programme

1.11 In November 2007 the NOMS Board agreed to a rescoped programme at an estimated cost of £513 million (including sunk costs) **(Figure 3)**. The main cost savings were to be achieved by avoiding £81 million in VAT liabilities by excluding private prisons from the programme and by moving from a single database solution to multiple databases. The key decisions were to:
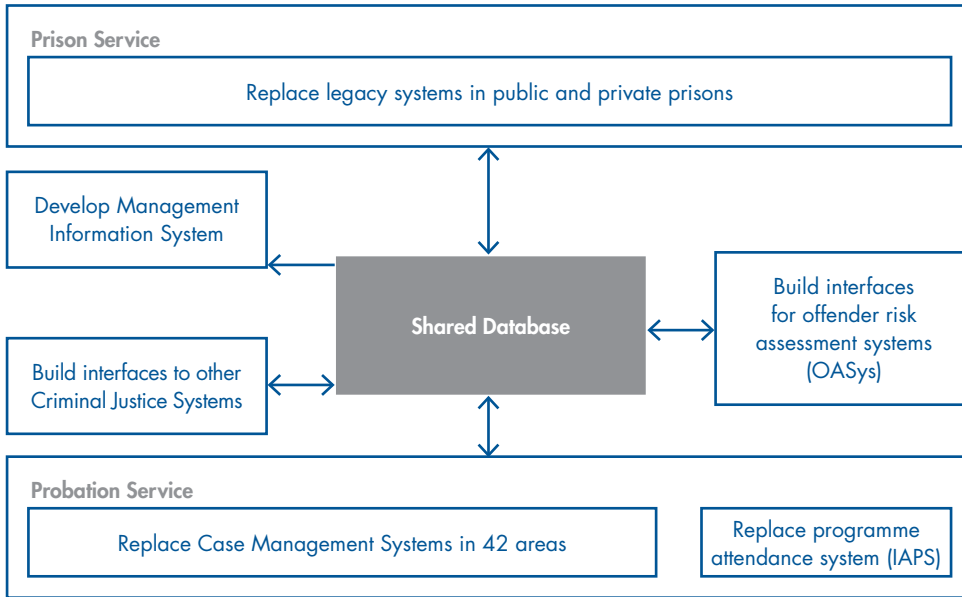
- continue to implement C-NOMIS in prisons (now called Prison NOMIS);

- halt work on developing C-NOMIS for probation, replace their case management systems Area by Area on a needs basis and consider the options for improvement;

- develop a mechanism to share limited offender information between prisons and probation, such as the name of responsible officer and offender's location; and

- extend the programme scope to include a project to improve the current separate prison and probation offender assessment systems and redevelop them as a single national system. This element, called OASys, had previously been proceeding as a standalone project.

1.12 Since the rescoped programme was approved, NOMS has continued to explore the options for replacing probation case management systems. Current plans are to rebuild an existing application called Delius, used by four of the 42 probation areas, to increase system capability and roll it out to all areas by March 2011. **Figure 4 overleaf** compares the scope of the original C-NOMIS project with the revised programme and **Figure 5 on page 15** shows the original and latest timescales for the programme.

3 Estimated project costs at key stages

Re-scoped programme

Total costs: £690m

Total costs: £513m

Total costs: £234m

£535m

£352m[2]

£217.3m

£155m

£161m

£16.7m

| Full Business Case June 2005 | At moratorium August 2007 | Outline Business Case December 2007 |

■ Sunk Costs ■ Future Costs[1]

Source: NOMS

NOTES

1 Future estimated costs exclude non-cash costs such as cost of capital and depreciation.

2 Includes costs for the OASys replacement project which were not included in the original estimates.

4   Changes in the scope of the NOMIS programme

Original C-NOMIS Project

Out of Scope

Prison Service

Replace legacy systems in public and private prisons

Develop Management Information System

Shared Database

Build interfaces for offender risk assessment systems (OASys)

Build interfaces to other Criminal Justice Systems

Replace OASys and e-OASys

Probation Service

Replace Case Management Systems in 42 areas

Replace programme attendance system (IAPS)

Revised NOMIS Programme

Out of Scope

Prison Service

Replace legacy systems in public prisons

Develop Management Information System

Build Data Share application

Build OASys and e-OASys replacement

Build interface to IAPS & OASys

Build interfaces to other Criminal Justice Systems

Prison NOMIS Database

National Delius Database

Replace Probation Case Management Systems with C-NOMIS

Replace legacy systems in private prisons with C-NOMIS

Probation Service

Replace Case Management Systems with a centralised version based on a redevelopment of Delius

Replace Programme Attendance system (IAPS)

▓ Activities originally not in scope	☐ Activities in scope	☐ Activities added to scope	▓ Activities postponed or dropped from scope

Source: National Audit Office

5 Key programme milestones

Milestones

Milestone	
C-NOMIS pilot working in small number of Prisons	Jul 2006 Dec 2006
LIDS replaced with C-NOMIS in Prisons	Sep 2007 May 2010
Inmate Information System replacement operational	Jan 2008 2011
Single Case Management System operating in the Probation Service	Sep 2007 2011

2006   2007   2008   2009   2010   2011

☐ C-NOMIS planned milestone, as outlined in Project Initiation Document   ☐ Actual delivery date   ☐ Latest proposed delivery date

Source: NOMS

NOTE

New programme elements, OASys Replacement and Data Share, are planned for delivery by March 2011.

PART TWO

Causes of delay and cost increases

2.1 Between June 2005 when the full business case was approved and August 2007, lifetime costs trebled from £234 million to £690 million, and the project fell two years behind schedule. This Part of the report explains the reasons behind the delays and cost escalation. In addition to our own analysis, we have drawn on reviews carried out by OGC, NOMS' internal audit and suppliers.

Overview of cost increases and delays

2.2 All areas of the project increased in cost, with large increases in software development, system support and VAT **(see Figure 6)**.

2.3 A reappraisal of costs by a new project team during early 2007 was the first time full forecasts were brought together in detail from suppliers, and concluded that additional funding of £456 million would be needed to see the project through as originally envisaged. For example EDS, the main supplier, identified that their costs for development, deployment and support and maintenance were likely to increase from £95 million to approximately £200 million. The major cost elements in the original budget were £65 million for developing the application and infrastructure, which would be mainly spent by March 2008, and £128 million on supporting the system once it went live, spread between 2007 and 2020.

2.4 We have identified five main areas which contributed to the cost increases and delay which are explored in the following sections:

■ NOMS significantly underestimated the **technical complexity** of the project, particularly the need to customise TAG for both prisons and probation services;

■ NOMS did not get to grips with the **business changes** required to design and implement a single offender database across both services;

■ NOMS' **contractual arrangements** with its key suppliers were weak and its supplier management poor;

■ NOMS did not put the **appropriate resources and governance** in place to deliver such a complex project; and

■ **Project management** was poor in key aspects, such as planning, financial monitoring and change control.

The inter-related nature of the factors above and a lack of detailed financial information available from NOMS, means that we are not able to quantify the separate contribution of each weakness to the overall cost increase.

The complexity of the project

"The complexity of the project to replace and integrate the case management systems for offenders across the whole of the Prison and Probation Service was significantly underestimated in many aspects of the original C-NOMIS Business Case."

C-NOMIS Financial Controller 2007

2.5 The design and implementation of a single offender database and management system across prisons and probation services was always going to be a major undertaking. Both the prison and probation services have complex and differing requirements **(Figure 7)** and there was only 23 per cent common functionality between the proposed prison and probation IT solutions. In 2004, when the need for a joined up IT system across both services was first articulated, HM Prison Service was already at an advanced stage of its planning for a replacement to its existing LIDS system and this factor heavily influenced NOMS' approach to C-NOMIS. In particular, it contributed to the decision to continue with the TAG software and customise it to deliver a probation case management system, and to use its existing supplier of prison infrastructure, EDS, to deliver the project.

6 Breakdown of cost forecasts

	Estimated cost June 2005 £m	Estimated cost July 2007 £m	Cost increases £m
Application development (software licences, system build and testing)	51	206	155
System maintenance and support (to 2020)	128	243	115
Infrastructure (hardware including refreshes)	14	38	24
Implementation (data migration and staff training)	12	22	10
Project management	13	34	21
VAT	0	99	99
Contingency	0	32	32
Other (sunk costs, Management Information Systems, Contracted-Out Prisons)	16	16	
Total	**234**	**690**	**456**

Source: National Audit Office analysis of NOMS' financial reports

7 The functionality required by prisons and the probation service

Functionality required by both prisons and probation

Administrative details such as name, date of birth, sentence and offender manager

Detail of interventions received and progress

Automated sentence calculation

Access and entry into offender's progress record

Detail of prisoner incidents and staff observations whilst offender is in custody

Required prison functions	**Required probation functions**
Detail internal prisoner movements and prisoner visits	Produce court reports and sentence plans
Detail of administration processes from sentence to prisoners' management in custody	Electronically refer offenders to intervention providers through a catalogue
Prison population and accommodation management function	Automatic generation of letters and notifications to the offender, solicitor and breach officer
Record prisoner finances and help manage prisoner property	Automatic generation of breach file with all relevant details
Detail prisoner work, training and leisure activities	An appointment schedule and attendance recording facility for offenders on supervision to support national standards monitoring
Provide facility for prisoner data search and enquiry	Victim details
Record all prisoner requests and complaints	Improved contacts, capturing contact information from external agencies
Ability to share basic prisoner details with the healthcare system	Basic Skills Assessment template
	Capability to interface with external agencies and providers

Source: NOMS

Other solutions were not explored

2.6 A single offender database represented a technically realistic solution to support end-to-end offender management and replace ailing legacy systems. There were, however, other possible solutions not explored fully. For instance, the development of a management information system linking multiple databases might have been easier and cheaper, but the full costs of such an approach were not estimated. There is no evidence of the team considering factors such as the nature of supporting infrastructure and the existence of common levels of service, which should have informed the selection of the technical solution in 2004.

The chosen solution – TAG – appeared to be a good fit with prison requirements but not with probation

2.7 A comparison by HMPS in 2003 of the TAG system functionality against business requirements found that TAG met 73 per cent of prison service functional requirements with the remainder met in part. Thus TAG appeared to provide a reasonable fit with prison requirements. In 2004, when C-NOMIS superseded PRIME, NOMS evaluated TAG against probation requirements. TAG met in full only 29 per cent of Probation's 275 functional requirements **(see Figure 8)** and did not meet 31 per cent at all.

Customisation was high

2.8 The level of customisation required to TAG is shown by the large number of changes made: around 800 change requests in 2005 and 2006. Alongside the over-optimistic initial assessment of TAG, high levels of customisation were caused by the fact that, in 2004, the practicalities and IT system requirements for Offender Management

remained unclear. The Offender Management Model was itself at the design stage (see box below). The difficulties in developing a common approach were compounded through prison and probation operating as separate entities, and the decentralised probation structure with 42 autonomous areas each with its own way of doing things. There is no documentary evidence of NOMS formally assessing Offender Management business requirements against TAG functionality, although the offender management team were consulted in developing requirements.
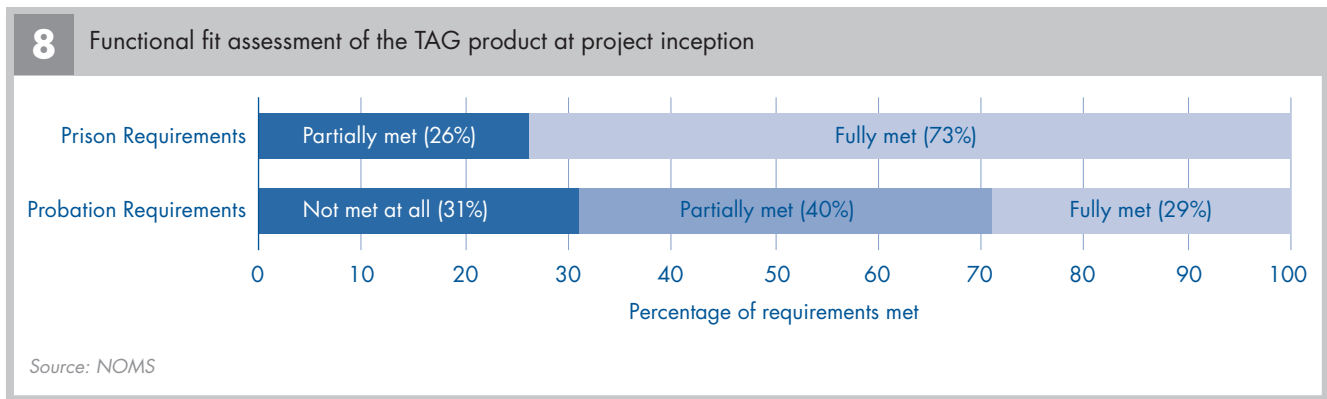

Offender Management

The Offender Management Model launched in May 2006 requires a single Offender Manager based in the community to be responsible for an offender throughout their sentence, whether the sentence is served in custody or the community. They have responsibility for assessing an offender's risk of harm and the factors underlying their offending behaviour, planning the sentence, supervising the offender and ensuring the sentence is carried out. Offender Management has been rolled out in phases:

- Phase 1, from April 2005, focused on offenders given community orders and licences managed by the Probation Service.

- Phase 2, from November 2006, focused on offenders assessed as high or very high risk, prolific and persistent offenders and those serving determinate sentences over 12 months. This required probation and prison to deliver offender management in partnership.

- Phase 3, from January 2008, applies to those imprisoned for public protection.

Offender management now covers all offenders in the community (235,000 at the end of 2006) and an estimated 18,000 (22% of those in custody on 26th September 2008). The scope of future roll-outs is undecided.

Source: National Audit Office and NOMS' Offender Management Caseload Statistics

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8 Functional fit assessment of the TAG product at project inception

Prison Requirements: Partially met (26%), Fully met (73%)

Probation Requirements: Not met at all (31%), Partially met (40%), Fully met (29%)

Percentage of requirements met

Source: NOMS

2.9 Despite the results of its own functional fit assessment, NOMS' formal project documentation failed to reflect the additional risks and costs associated with the customisation of TAG. The 2005 final business case stated that with additional development and modification TAG could meet the requirements of probation, prisons and NOMS. The Home Office Group Investment Board was told 'a requirements gap analysis has found that all needs can be met 'out of the box' or with some degree of customisation that have been incorporated into the cost estimate.' The judgement that TAG would require limited development to fit the needs of NOMS was flawed, and was a key factor in programme cost increases.

The handling of business change

"At the centre of the programme history is a misunderstanding of the close relationship between business processes (and simplification of process) and technology. IT was seen as a tool to implement current processes with all their existing flaws."

Accenture 2008

2.10 NOMS treated C-NOMIS as an IT project rather than a major IT-enabled business change programme. The initial project budget of £234 million did not include an allocation for business change and an early OGC review found that the business capability and functionality of C-NOMIS was not fully appreciated across NOMS. So, for example, the project team lacked support from senior people to persuade business owners to streamline processes. Staff seconded to the project team comprised the main vehicle for involving users in project development. Formal communication channels between the business and project team were not established until March 2006 (prisons) and February 2007 (probation).

2.11 The impact of a lack of effective engagement with users was that conflicts were generally resolved by changing the project rather than adjusting business processes. EDS, in its 2007 programme review, identified that the number of functional requirements that C-NOMIS had to deliver increased by 16 per cent **(see Figure 9)**, and considered that the majority of these either clarified the original project or addressed omissions.

2.12 In our view, the challenges were not only technical. The C-NOMIS project tried to deliver a complex IT solution into an already complex and changing business environment, recognised as a key risk in 2005. The project costing and approval process assumed that business processes would be standardised and adapted to fit the IT, rather than vice versa, but they were not, in part because some processes were prescribed by legal and policy

requirements. And the risks of starting the project at such an early stage in the evolution of NOMS and the offender management concept were not recognised sufficiently.
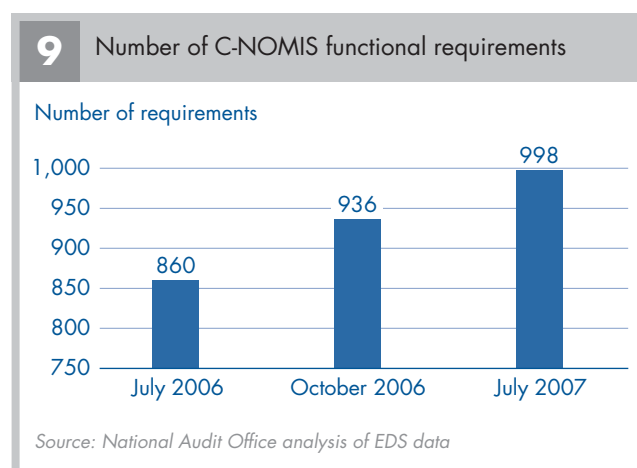
Contractual arrangements

"We recommend that a fixed price agreement is concluded with EDS at the earliest opportunity and that EDS provides a statement of scope, assumptions and responsibilities for the remaining project phases."

Internal Audit 2007

2.13 Using a contract change notice to an existing framework agreement, the Home Office contracted with EDS for the development, implementation and operation of a C-NOMIS central data service, central infrastructure and support services. By selecting the supplier without a competitive tendering process, the project team was not required to develop a full clear specification which would have reduced subsequent risks. NOMS selected EDS because of the urgent timescales, synergies and economies of scale achievable, since they were responsible for HM Prison Service's technical infrastructure. A former project director told us that, in retrospect, the decision to not follow open tendering procedures was flawed given the level of uncertainty surrounding the project.

2.14 Contracting arrangements between NOMS and Steria (NPS's infrastructure provider under the Offender Management National Infrastructure (OMNI) contract), for cleansing and migrating probation data to C-NOMIS, were never completed because of other priorities for NOMS. Thus there was an inadequate contractual vehicle for a project of this size and complexity. Although Steria planned to proceed through a formal change to the OMNI contract, work instead commenced through a simple Instruction to Proceed letter, extended twice up to the end of December 2007.

9 Number of C-NOMIS functional requirements

Number of requirements

- July 2006: 860
- October 2006: 936
- July 2007: 998

Source: National Audit Office analysis of EDS data

2.15 NOMS did not adequately consider the issue of intellectual property rights in its initial procurement process. The proprietor of the TAG application, Syscon, engaged under a sub-contracting arrangement with EDS to develop the C-NOMIS application, has benefited from the value created by the project. It is now marketing an improved TAG product worldwide containing 20 per cent new or enhanced functionality[5] derived from C-NOMIS. As the extent of the customisation of TAG became clear during 2005 and 2006, NOMS should have reopened commercial negotiations to achieve a discount on the contract or a future revenue sharing arrangement.[6] In 2007, the project's new commercial director started negotiations with Syscon to achieve a two-year holiday on future support and maintenance costs as a goodwill gesture, valued at around £2 million, but negotiations failed to reach a conclusion when Syscon was bought by another company.

Supplier management

"The processes adopted by both the authority and EDS have been too rigid and have resulted in long delays in decisions and implementation." "Interpersonal relationships have been allowed to deteriorate to unacceptable levels."

Review of EDS/NOMS relationships by NOMS Non-executive Board Member 2006

2.16 Initially NOMS selected a time and materials arrangement for the development of the C-NOMIS application but the controls and contingencies necessary to manage such an agreement were not in place. In 2004, the Home Office Group Investment Board raised concern over the arrangement, referring to OGC's preference for a fixed cost regime. Under the arrangement, NOMS held the project risks but did not mitigate them by either including a contingency in the budget, as a supplier would under fixed price by adding a risk premium, or employing robust programme and financial management processes such as earned value tracking and change control. This shortcoming was highlighted by an internal audit report in August 2007. The project team assumed they could 'concentrate on controlling the areas of high risk of cost sensitivity'.

2.17 For time and materials arrangements to work, trusted partnership arrangements need to be established between client and supplier. Up until mid-2006, difficult supplier relations, stemming from a lack of communication and poor supplier management, characterised project development. An OGC report in June 2006 highlighted the negative tensions and the strong sense of polarisation between EDS and NOMS. A joint EDS and NOMS review then concluded that 'interpersonal relationships had been allowed to deteriorate to an unacceptable level, both management structures have been confusing and historically EDS staff were not of the necessary quality.' From EDS's perspective, NOMS' perception of EDS simply as a source of skilled labour presented difficulties for them to add value and contributed to their failure to escalate issues and provide high quality staff. A lack of supplier representation on the Project Board exacerbated the issues.

2.18 In the early phase of the project, NOMS had little ability to sanction EDS for late delivery because its contractual agreement meant that it had to allow EDS an additional two month period to carry out remedial work before it could take any punitive action. In summer 2006, EDS and NOMS negotiated delivery of the pilot release for a fixed price. This pilot, and subsequent fixed price deployments, were delivered on time.

2.19 In our 2006 report *Delivering Successful IT-enabled Business Change*, we identified the need for organisations to act as intelligent clients.[7] We found organisations were more likely to succeed if they formed productive relationships with suppliers, possessed the capacity to offer technical challenge and were clear about the additional skills needed to supplement existing capabilities. NOMS' ability to act as an intelligent client was hindered through little technical understanding and a reliance on supplier knowledge, with large volumes of work outsourced. Poor relationships contributed to project milestones not being met.

Governance and resource issues

"Overall governance of the Programme is not sufficiently clear"…."the Programme Director's support organisation is insufficient at present for such a complex programme."

Home Office Health Check 2007

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5   As measured by the number of functional and non-functional screens, a proxy measure for a full function point count.
6   Open Source Software, Guidance on implementing UK Government Policy,OGC, 2002.
7   National Audit Office (2006) *Delivering Successful IT-enabled Business Change*, report by Comptroller and Auditor General, HC 33-I Session 2006-07.

Governance

2.20 Operating within the newly created NOMS entity presented difficulties for the project. NOMS was itself a merger of two bodies with contrasting cultures. The overall governance and resources applied to the project, however, were not adequate given the scale of the task. Roles and responsibilities were blurred; there was inadequate oversight by senior management; and insufficient skilled resource was applied to the project. Getting these elements right is key to the success of high risk projects.[8]

2.21 Governance structures changed a number of times throughout the project. **Figure 10 overleaf** shows the governance structure for the project at its inception. There were several issues.

■   The project was too large for the structure. The Project Board had to represent so many different interests that it became too large to provide effective oversight. For example, between October 2005 and October 2006, 39 different people attended. The minutes show the Board did not actively monitor delivery and did not discuss programme finances until April 2007. Findings from an internal audit of the project in April 2006 were not discussed, and OGC reported 'insufficient real thinking time at the board.'

■   Roles and responsibilities were not clearly defined, for example, between the Project Board, the Business/Technical Support Group and the project team. The C-NOMIS project team was entrusted with the day-to-day running of the project and coordination across the various workstreams (which grew to 40).

■   Critically, the part of NOMS administering the funding, the Offender Information Service (OIS), and the project team did not work together. This disjunction contributed to the lack of budget monitoring: the project team thought OIS was monitoring expenditure and vice versa.

■   A vacuum of leadership contributed to the confused responsibilities between the project team, OIS and NOMS business areas, presenting challenges for both suppliers and the project team. The Project Board had little contact with the project team and the Senior Responsible Owner (SRO) had other full-time responsibilities. As a result a number of major decisions on the scope and timing of system releases were taken without proper authority.

2.22 In September 2006, steps were taken to reorganise the SRO's responsibilities to allow more time for C-NOMIS. The project was also partially restructured as a programme with a programme director overseeing the project director although, in its August 2007 review of current governance structures, internal audit still reported that 'there was a lack of clarity of roles and responsibilities of the overall programme management team.'

2.23 NOMS and its parent Department should have taken a more active role in monitoring C-NOMIS. The Board relied on the Project Board to escalate issues to it through NOMS' routine reporting system covering all projects in its Change Programme. This system, however, consistently rated the project as "green", meaning that it appeared to be proceeding satisfactorily to time and budget. As a result, despite the project's strategic importance and size, the NOMS Board did not ask for or receive specific project progress reports from the SRO until August 2006, and so were unaware of arising issues. The significant risk of further delays highlighted by OGC in July 2006 was also given insufficient attention by the NOMS Board.

2.24 Throughout the project there were a number of critical external and internal reviews, but messages did not always get through and reviews did not have the impact they should have had:
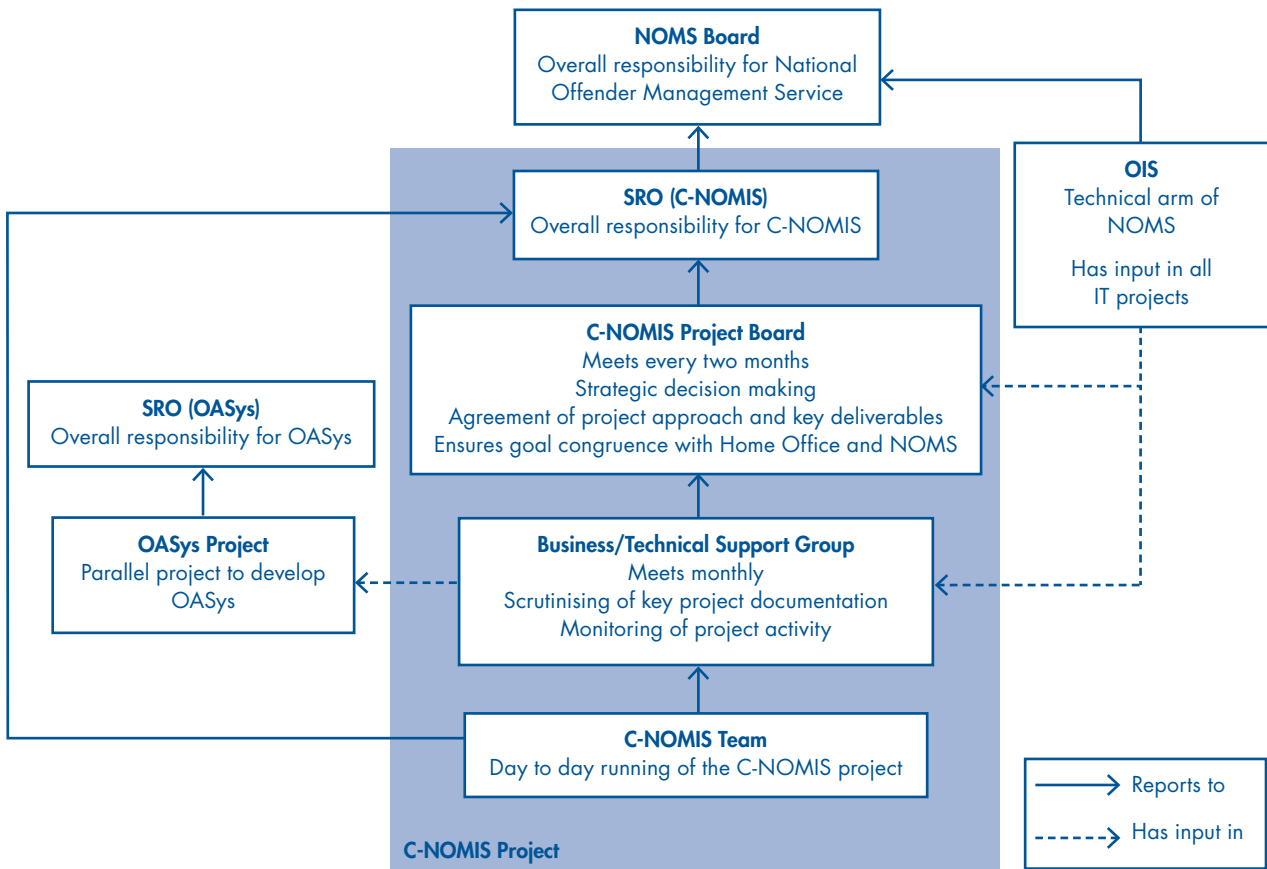
■   OGC recommended planning be strengthened in 2005 and again in 2006 but, in July 2007, found that a C-NOMIS plan, linking resources and key delivery milestones, remained incomplete.

■   Despite OGC recommending that an independent full-time time assurance resource be involved with the project in 2004, the lack of such a resource was highlighted by internal audit three years later.

■   Between October 2004 and July 2006, OGC performed three Gateway reviews, two of which received a red RAG[9] status. Findings from these reviews were not always acted upon.

NOMS did respond positively to other recommendations. Following OGC recommendations in July 2006 and a joint supplier and client review in late 2006, a new integrated partnership relationship was introduced between NOMS and EDS.

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8   National Audit Office, *Driving the Successful Delivery of Major Defence Projects: Effective Project Control is a key Factor in Successful Projects,* HC 30 Session 2005-2006. See also *The Cancellation of the Benefit Card Project,* National Audit Office HC 857 Session 1999-2000 and *Improving IT procurement: The impact of the Office of Government Commerce's initiatives on departments and suppliers in the delivery of major IT-enabled projects,* National Audit Office HC 361-1, Session 2003-2004.

9   Gateway reviews use a red, amber, green notation to indicate whether a project is ready to move to the next stage.

10   C-NOMIS governance structure

NOMS Board
Overall responsibility for National
Offender Management Service

OIS
Technical arm of
NOMS

Has input in all
IT projects

SRO (C-NOMIS)
Overall responsibility for C-NOMIS

C-NOMIS Project Board
Meets every two months
Strategic decision making
Agreement of project approach and key deliverables
Ensures goal congruence with Home Office and NOMS

SRO (OASys)
Overall responsibility for OASys

OASys Project
Parallel project to develop
OASys

Business/Technical Support Group
Meets monthly
Scrutinising of key project documentation
Monitoring of project activity

C-NOMIS Team
Day to day running of the C-NOMIS project

C-NOMIS Project

→ Reports to

- - → Has input in

Source: NOMS

Skills and resources

2.25 The role of the SRO is to take overall responsibility for project delivery and communicate to senior management project progress and risks.[10] To date, three different SROs have been responsible for C-NOMIS and NOMIS. The first SRO, in post until March 2007, had little experience of managing large IT projects. In 2006, OGC recommended the SRO spend more time on the project to instil greater support and credibility and NOMS took action to provide some additional support.

2.26 Since inception, C-NOMIS has also faced challenges recruiting suitable staff. There was no communications manager until December 2005, no dedicated financial controller until February 2007 and by April 2007, almost three years into the project, key posts remained

unfilled. The challenges in recruiting staff stemmed from programme headcount restrictions, lack of available skills within both NOMS and the Ministry of Justice and delays in obtaining security clearance. The lack of civil service recruits meant greater reliance was placed on more expensive contractors.

Project management

"There is no overall NOMIS Programme plan with key delivery milestones linked to key resources". Home Office Health Check 2007 "I knew we had problems when I asked for the budget and was told there wasn't one".

New SRO 2007

10   *Managing Successful Projects with PRINCE2 OGC*, The Stationary Office.

Planning

2.27 The C-NOMIS project's poor governance arrangements coupled with headcount constraints and skill shortages led to inadequate planning. Managing C-NOMIS as an IT project required the Project Board to coordinate up to 40 individual workstreams, something it delegated to the project team. While the workstreams had their own plans, a report by Internal Audit found each was operating as a functional silo. From our analysis of the Project Board's minutes, we found no evidence of a long term plan drawing together these separate streams being discussed until July 2006. This plan constituted a limited schedule covering the tasks over three months to deploy the pilot software. Our analysis of external project reviews showed planning weaknesses were a consistent area of concern (see paragraph 2.24).

2.28 Alongside the poor planning of deliverables, our assessment of the plans showed poor scheduling of key management activities. We found no evidence that activities such as quality reviews and stakeholder events were scheduled in line with good practice guidance. When governance arrangements changed from those of a project to a programme in 2007, NOMS did not produce documentation showing the organisational structure's business processes, people, information systems and data as recommended in OGC guidance.[11]

Financial monitoring and cost estimation

2.29 The lack of a dedicated financial team before 2007 led to significant cost components being underestimated or omitted from the initial project cost estimation of £234 million, poor cost control during the project, and uncertainty over the extent of cost escalations:

■ **Poor initial cost estimations.** Management and support costs were underestimated by £21 million, and the costs of live service support by £115 million. The lack of contingency funding was unrealistic, since NOMS bore all of the project risks under a time and materials-based contract. In 2004 OGC highlighted the failure to analyse cost estimates and this warning was reinforced by the Home Office's Group Investment Board in 2005 which felt costs had not been fully explored.

■ **Failure to understand VAT implications:** The C-NOMIS project proceeded under an incorrect assumption that VAT was recoverable, despite a Group Investment Board recommendation that further advice be obtained. HM Revenue and Customs ruled, in January 2006, that project VAT

was irrecoverable as offender management crossed different organisations, including the private sector and charities, and supplier contracts referred to work outside HMPS and NPS. A VAT liability of £99 million, including £17.5 million already spent, increased lifetime costs. A more recent ruling, in relation to contracted-out prisons only, has reversed this position (see paragraph 3.14).

■ **Lack of financial controls:** Before the moratorium, forecast costs were not actively managed and cost control focused on monitoring spending against the annual budget rather than matching cost against project deliverables, which would have highlighted cost increases and delays. A failure to monitor costs against progress meant the cost impact of delays identified in June and July 2006 was not appreciated. The two year project delay added a total of £115 million. Prior to 2006-07 the ability to control costs was hampered by booking all costs to a single cost centre. This situation was compounded by unclear financial accountability and the disjunction between OIS and C-NOMIS (see paragraph 2.21).

Change control

2.30 At the start of the project, controls over changes to requirements were weak and informal. In June 2005, an OGC Gateway Review highlighted the need to strengthen these controls, but a Change Control Board did not become fully operational until early 2006. Although a formal change control strategy was in place from August 2005, in line with PRINCE2 methodologies, internal audit found the strategy was not routinely followed.

2.31 No process for assessing the cumulative impact of individual change requests on project budget or delivery timetable was in place. Our review of the board minutes found large change requests being discussed and approved collectively by board members, but no assessment of the cumulative effect. In addition, until a change database was introduced in April 2006, there was inadequate recording of individual changes and their costs, such that internal audit could only estimate that there had been between 300 and 400 change requests in 2005. The extent to which these were properly costed before being actioned is not known. Since April 2006 there have been a further 400 change control requests. EDS found over one-third of change requests were complex and had a material impact on the scope of C-NOMIS requirements.

11   *Managing Successful Programmes, OGC*, The Stationary Office.

PART THREE

Progress since the moratorium in 2007

3.1 In August 2007 the Minister of State put a moratorium on the C-NOMIS project as the 2007-08 projected expenditure of £111 million exceeded the £69 million budget. This Part covers:

■ what the revised NOMIS programme aims to deliver and progress so far;

■ the impact of delays and re-scoping on the costs and benefits; and

■ NOMS' fitness to deliver.

The rescoping process

3.2 The moratorium stopped further software development, testing and the migration of data records from legacy IT systems. NOMS then undertook a strategic review to identify a suitable and affordable approach. The challenge was to deliver the essentials necessary to meet the original goals of the project in an affordable way and meet its funding constraints.

3.3 We found that the strategic review followed a robust approach by objectively comparing options in line with industry practice (see Appendix 2). The review team assessed seven different options using a balanced scorecard considering strategic alignment, value and benefits, achievability and risks. The lifetime costs of the options, including the Do Nothing option, ranged from £513 million to £657 million, based on high level estimates provided by suppliers. NOMS rejected the Do Nothing option because it estimated that the inefficiency, high cost and risk of business failure associated with legacy systems would cost £543 million over the period to 2020.

3.4 In December 2007, the NOMS Board selected the lowest cost option (Option A in **Figure 11**) at a cost of £513m. The Board considered the balance of costs and benefits (Net Present Value) against the actual funding available and selected what it believed to be the best and most affordable option and which had the second highest net present value of the options considered. The Board considered but rejected the option of delivering a slimmed down version of C-NOMIS to prisons and probation as unaffordable, although recognising that it provided the best strategic fit and highest net present value. The C-NOMIS option (Option D in Figure 11) was the only option which would provide a single database of offender records, but some in NOMS viewed continuing with C-NOMIS as high risk because of the potential demand for additional customisation and problems adapting business processes to the new system.

3.5 The technical solution that NOMS is now pursuing has evolved since the NOMS Board approved the outline business case in December 2007. At that time the option which included a national probation case management system (PCMS) and data share was estimated to cost £627 million (Option G in Figure 11). During 2008, the PCMS project team evaluated in detail two packages already in use by some probation areas for a national system and selected the Delius system for its better fit with probation requirements and lower technical risk. Since then, the project team has found ways to strip out some costs to keep the solution within the overall funding envelope, principally by transferring probation area records into a single national database without the data cleansing anticipated in Option G. NOMS expects that, over time, single offender records will be created as probation areas gradually remove duplicates and merge records.

3.6 The NOMIS programme has already implemented the local version of the Delius system in probation areas with an urgent need to replace existing systems so, by April 2009, around one-third of probation staff will already be familiar with it.

Continuing risks and consequences of the rescoping exercise

3.7 The re-appraisal of the approach to probation case management systems has led to delays in commencing other elements of the NOMIS programme. A delivery date in summer 2008 was planned for Data Share, although it has not yet been delivered, and March 2010 for an OASys[12] upgrade. The NOMIS programme business case should have been presented to the NOMIS Programme Board in July 2008, but presentation is now likely to take place in Summer 2009, following the conclusion of contractual negotiations for all projects within the programme.

3.8 The development of C-NOMIS for prisons has resumed, although there are currently some delays with some 60 per cent of deliverables up to two months late. NOMS has calculated the cost of slippages to be £1.18 million. Both the supplier and programme team, however, are confident of delivering the full application in April 2009 in order to commence roll-out.

3.9 The National Delius option is still at the early analysis stage, and developing a new solution (even one based on an existing application) could prove to be more complex than anticipated. In addition, successful delivery depends upon progress being made by Steria, under the OMNI transformation project (itself held up by the delays to the C-NOMIS project) to house the data and develop access and search facilities.

3.10 Internal audit has already raised concerns about the ability of the programme to meet the cost models given the reliance on unvalidated cost figures and the low level of contingency. At this early stage of development of Delius and Data Share, it would be prudent for NOMS to allow 40-50 per cent contingency instead of the 24 per cent in the budget.

11 Comparison of the estimated costs and benefits of three of the seven options considered by the NOMIS Programme Board in December 2007

	Option A – The least cost option	Option D – The slimmed down C-NOMIS option[1]	Option G – The option most similar to current way forward
	Prisons: C-NOMIS **Probation:** replace legacy systems with CRAMS case by case **Custom Data Share** **OASys**	**Prisons:** C-NOMIS **Probation:** C-NOMIS **OASys**	**Prisons:** C-NOMIS **Probation:** National Delius **Custom Data Share** **OASys**
Strategic alignment	Good	Very close	Good
Benefits	Good	Strong	Strong
Net present value	£27m	£170m	£0
Achievability risk	Medium risk	Medium-high risk	Medium-high risk
Lifetime costs	£512.9m	£563.5m	£627m
NOMS' overall assessment	Chosen option	Best business case but unaffordable and high risk	Rejected as unaffordable

Source: NOMS

NOTE

1 This version of C-NOMIS excluded interfaces with other parts of the criminal justice system, contracted-out prisons and some existing probation service functions.

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12 OASys improves the understanding of offenders' risks and needs through providing a structured assessment tool. Currently, the legacy HM Prison Service OASys and NPS e-OASys are separate IT software applications although there is some facility to share assessments on a single individual.

Assessment against NOMS' original aims

3.11 The changes to the NOMIS programme since 2007 means that the original aims of the project are unlikely to be met in full without future enhancements **(Figure 12)**. Under the revised programme, the scope of the system has changed from a single database to separate case management systems for prison and probation. As a result, some of the benefits initially envisaged, such as the support for end-to-end offender management and improved information sharing, have been compromised. Appendix 3 shows the information flows between prisons, probation services and other agencies at present, as planned under C-NOMIS and under current plans.

3.12 Published in 2006, the Offender Management Model identified the facility for offender managers to read and write to a single case record in real time as an 'absolute priority'. Implementing the Model without the supporting IT has led to interim solutions and adaptation. Through our discussions with stakeholders we identified the following challenges to offender management which the current solution presents.

- Where the offender is in custody, it is more difficult for offender managers to retain control and responsibility over offenders without sight of the interventions available or undertaken, sentence plans and the factors impacting an offender's risk assessment.

- The risk that offender managers do not have full information about those they are managing remains. Although it will be much easier for offender managers to find out where and when particular offenders have been dealt with before and their current risk profile, obtaining detailed information held by the prison service will still require telephone and email enquiry and manual amalgamation of records. Obtaining information from other probation areas should improve particularly if, over time, probation areas remove duplicates and merge records in the National Delius Database to create single offender records.

- Some administrative features supporting offender management are not available, such as the ability to have real time access to offender discharge information.

NOMS is currently considering the roll-out of offender management to a wider range of offenders which may affect how the Model is applied in future.

3.13 At the outset the Criminal Justice IT fund provided funding to the C-NOMIS project to support information exchange and allow courts, Police and Inspectorates access to data. It was estimated that such access would achieve efficiency savings of £7 million per annum and improve offender assessments. Under the revised programme, this information exchange will no longer be fully supported. Offender information will not be shared more widely across the criminal justice system, for example with drug and education providers and, voluntary organisations and the Parole Board. The importance of efficient and effective information sharing has been outlined in a number of reviews (see Appendix 4) and raised during our stakeholder discussions.

3.14 The exchange of information between contracted-out prisons and state prisons is important to the streamlined functioning of the prison system as a whole. NOMS excluded contracted-out prisons from the revised programme because it did not have provision within its budget to pay the VAT which providing services to the private sector attracts. NOMS has now resolved this issue with HM Revenue and Customs who have agreed that the use of Prison NOMIS by the 11 contracted-out prisons would not constitute business use on their part; hence NOMS will be able to continue to recover VAT incurred if it implements Prison NOMIS in contracted-out prisons.

3.15 Partners, such as the Parole Board, the Youth Justice Board and the Learning and Skills Council either have already or are in the process of developing their own databases at their own expense. Separate systems increase duplication, the risk of error and may present difficulties creating future interfaces. We have been told there are Ministry of Justice standards to influence technical system development but these are not well-communicated across the Department.

3.16 Despite the reduction in scope of NOMIS, the revised programme should deliver a number of benefits to prisons and probation:

■ Alongside replacing the ailing prison case management system with a more useable and modern database, NOMIS provides additional functionality and brings together previously disparate prison systems, such as visitor booking and prisoner expenses. Most importantly, it introduces a single case management database across all prisons to support the more efficient and secure exchange of information between institutions.

■ All probation areas will receive a common centralised version of a redeveloped case management system, National Delius, to replace the seven systems currently in place. A common system will allow probation areas to exchange information more efficiently through the ability to perform national offender searches and a common data format.

■ Going forward, the new national system for probation provides the potential for data sharing with prisons.

■ The development of a single, centralised offender risk assessment system across both prison and probation will allow the more efficient exchange of information relating to the risks posed by the offender, supporting end-to-end offender management.

12	Comparison of original project aims against revised programme scope

Objectives of the C-NOMIS project (2004)	Whether objectives likely to be met under revised programme
Objective 1: improve positive offender outcomes (i.e. reduce re-offending) through end-to-end offender management across probation and prison services and including providers from the private and voluntary sectors.	**Likely to be met in part.** Shared risk assessments (through OASys) will provide up-to-date information on offender risks, but there are significant barriers to end-to-end offender management: ■ for offenders in custody, communication barriers are likely to significantly impede offender management: sentence planning must take place by phone, email or post; and ■ private and voluntary sector providers have no access to offender systems.
Objective 2: introduce more assertive case management and contestability in service providers to improve outcomes and value for money.	**Uncertain.** Commissioning of services in the community by outside providers is still at an early stage. It is not clear how C-NOMIS was intended to be used to meet the objective.
Objective 3: integrate IT support across custody and community sentences to facilitate the breaking down of barriers between prison and probation.	**Uncertain.** NOMS did not explicitly state how integrated IT systems would facilitate the breaking down of barriers between prison and probation but, with the development of separate offender management systems for each service, it is unlikely that the revised programme will, on its own, affect the relationship between the two services.
Objective 4: improve means of monitoring compliance with National Standards: including more demanding community sentences and greater control and oversight of persistent offenders.	**Likely to be met in part.** National case management systems for probation and prisons should assist monitoring once planned management information suites are built.

Source: National Audit Office

Impact of the delays and rescoping on costs

3.17 At the end of October 2007, £161 million had been spent on the project overall. We have not been able to ascertain precisely what this money was spent on because NOMS did not record expenditure against workstream before July 2007, but we believe most was spent on developing the C-NOMIS application and testing it in prisons. When rescoping the programme, NOMS sought to use what it had already paid for, where possible, to minimise wastage. Nevertheless, the overall impact of the project delay and change in project scope has led to additional costs or wasted expenditure in a number of areas.

■　Capital expenditure on software development and hardware which is no longer required under the rescoped programme. For example, money paid to contractors to develop C-NOMIS for probation is probably in the region of £13.5 million, and NOMS has written off £150,000 of expenditure on training suite equipment it is unable to reuse.

■　Additional costs incurred by EDS after the moratorium, amounting to £1.2 million, to close down work in hand.

■　NOMS' own costs in managing the development of C-NOMIS for probation and in rescoping the programme, which NOMS estimates as £1.45 million.

■　Additional expenditure incurred by the business as a result of the delay in replacing worn out legacy systems, for example the cost of additional staff time in carrying out procedures when IT systems are down. Based on information supplied by NOMS, we estimate the total cost of delay in implementing new systems to be around £17 million.

■　Efficiencies foregone as a result of the reduced programme scope. For example the Interim Accredited Programme System (IAPS) used across probation to monitor programme attendance and completion will no longer be replaced. NOMS estimated that incorporating IAPS functionality into the single database would achieve efficiency savings of £3.4 million a year or £10.2 million over three years.[13]

3.18 We estimate the financial impact of NOMS failure to deliver the original C-NOMIS programme on time to be at least £41 million **(see Figure 13)**. This figure is, however, likely to be an underestimate because it does not include expenditure on the programme incurred through inefficiency and mismanagement, for example through poor supplier management. Nor does it include the wasted effort and value of benefits foregone across the criminal justice system because interfaces with C-NOMIS will no longer be built (see paragraph 3.15). For example, the Learning and Skills Council estimates that it wasted a year pursuing solutions for an offender learning record system capable of joining up with C-NOMIS.

NOMS' fitness to deliver

3.19 Following the moratorium, NOMS and, in particular, the NOMIS programme team reviewed what went wrong with the original project and worked hard to address past weaknesses and put in effective structures going forward, although further work is needed in some areas.

■　Changes to the **governance and leadership** of the programme have led to a greater focus on delivery and improved supplier relations and reporting lines. The current Senior Responsible Owner, appointed in April 2008, has previous experience of delivering large, time and materials-based IT contracts. The direct relationship between client and supplier created through EDS's presence on the NOMIS programme board has led to both parties being better informed and a better relationship.

■　**Commercial arrangements** introduced with the new contract change notice for Prison NOMIS are an improvement. For the first time there are penalties for late delivery, albeit only up to five per cent of amounts invoiced. There is also a prescribed change control process. At EDS's request, NOMS agreed a further time and materials contract because of accounting implications for the supplier. Both EDS and senior NOMIS staff say they are confident the partnership needed to deliver this type of contract is now in place. In August 2008 the first monthly contract management meeting was held to discuss issues arising from weekly checkpoint meetings at a more senior level and measure supplier performance against joint plans.

13　The National Delius Database, when implemented in 2011, will go some way towards improving efficiency by reducing the rekeying of data. The £10.2 million has been reduced to £8.2 million in Figure 13.

■ **Financial controls** have improved significantly following the appointment of a programme financial controller, a dedicated finance manager responsible for Prison NOMIS, regular reporting to the programme board, and clearer budgetary authority lying with the programme. Our review of the current financial tool, however, showed that it was not sufficiently sophisticated to show the cost implications of potential events and decisions; key cost drivers were not properly reflected; and no sensitivity analysis had been undertaken since Summer 2007. There is a gap in financial controls between the Project manager and supplier as information such as expected cost and time to completion is missing. Without this information, the Project manager cannot identify where money has been spent or what has, or is forecast, to cost more than planned. A way of matching spending against deliverables, for example, earned value analysis, is not yet established although NOMS is pursuing this in its current contract negotiations with potential suppliers.

■ The programme now has in place key **project management staff**, although challenges in recruiting staff to some posts (as described in paragraph 2.26) have meant that some project components are not being provided the necessary support, contracting costs have increased, there have been problems drawing together NOMIS programme components and delays in completing benefit realisation work and communication plans. As at 1 July 2008, there were 137 posts, of which 20 (15 per cent) were vacant and 48 (35 per cent) were filled by contractors.

■ **Business change:** The lack of a common defined way of working across 42 locally managed probation areas still presents challenges for the introduction of a single case management system. Although National Standards[14] provide a high level standard for managing offenders, there is no common national way of working. Currently, there is no budget available for probation business change. Managing the introduction of a national probation case management system as a technical solution rather than a business change programme risks repeating problems previously experienced.

13	Cost implications for NOMS of delays and changes in scope	
		Cost impact (£m)
Expenditure on probation elements of C-NOMIS no longer required[1]		
Development of probation code for combined C-NOMIS system by Syscon		4.1
EDS costs on probation work no longer to be implemented		4.6
Design of data migration tools for probation service by Steria		4.8
Investment in training suites and hardware written off		0.15
Sub-total		**13.65**
Costs relating to the moratorium[2]		
EDS demobilisation costs		1.2
Sub-total		**1.2**
NOMS' internal costs[2]		
NOMS' management of probation elements no longer required		0.7
Local probation area preparation for C-NOMIS		0.5
Rescoping exercise		0.25
Sub-total		**1.45**
Costs stemming from delays and benefits foregone[3]		
Impact of delays on the OMNI-T programme covering probation infrastructure		6.5
Cost to the business from failure of existing systems		10.6
Cost of reduced efficiency from not replacing IAPS		8.2
Sub-total		**25.3**
Total		**41.6**

Source: National Audit Office analysis of NOMS' and supplier data

NOTES

1 Actual expenditure incurred by NOMS.

2 Estimated expenditure based on NOMS' and supplier estimates.

3 Forecast cost implications estimated from NOMS' benefit realisation work after allowing a 20 per cent discount for optimism bias.

14 National Standards, set by NOMS, dictate how offenders should be managed on a daily basis, for example, by detailing the timescales for completing risk of harm assessments.

APPENDIX ONE

Study scope and methodology

1 This study set out to examine the value for money of NOMS' management of the NOMIS programme, focusing on the events that led to the demise of the original NOMIS programme and how far the revised programme announced in early 2008 meets the objectives of the initial programme.

2 This section outlines the research methods used over the course of our examination, which took place between July and September 2008.

Review of programme documentation

3 We reviewed programme documents from the inception of NOMIS to the latest documentation outlining the way forward including business cases, contracts and legal documents, NOMS and NOMIS board minutes, planning documentation such as project plans, benefits realisation strategies and governance charts, and requirements gap analyses. We used the documentation to assess: the soundness of the initial decision making process; the adequacy of cost and programme monitoring arrangements; and progress against key milestones and level of senior management involvement. Where appropriate we used OGC and NAO guidance to provide a framework for our analysis.

Programme technical analysis

4 We contracted Accenture, a global management consulting and technology services company, to provide technical IT expertise throughout our fieldwork. Accenture assessed the original 2004 and 2007 rescoped NOMIS programme from a technical perspective and reviewed the accompanying cost models. In particular we asked Accenture to conclude on the technical feasibility of the initial and revised NOMIS solution and whether the revised programme made best use of technical achievements to date.

Semi-structured interviews with programme staff

5 We interviewed some 45 key individuals responsible for programme delivery, including the senior business owners and project managers for each of the four elements of the programme, technical specialists and finance representatives. We also spoke to former programme team members, to understand the reasons for past decisions, and suppliers, to obtain a balanced view of the issues faced by the programme. Through these interviews, we aimed to develop a clear understanding of the issues encountered by the programme and how they were addressed.

Stakeholder consultation

6 To gauge the level of consultation carried out by the NOMIS team and assess how NOMIS fitted stakeholder needs we visited three probation areas and two prisons. The probation areas visited (West Mercia, Surrey and Devon and Cornwall) were selected based on their current case management system. Our prison visits (HMP Ford and HMP Winchester) covered an open and a Category B prison. Towards the end of fieldwork, we held a number of telephone interviews with staff at HMP Camphill on the Isle of Wight, which had been part of the C-NOMIS pilot. These interviews improved our understanding of C-NOMIS functionality, how well it fits business needs and whether the roll-out was well managed.

7 We held two focus groups with representatives from the Learning and Skills Council, HM Court Service, the Youth Justice Board, the Howard League and NACRO. Through these sessions we assessed information needs across criminal justice bodies, the value of the NOMIS product to these stakeholders, and how well-informed they were of the progress and changing outputs of the programme.

Quantitative analysis

8   We collected and analysed a range of financial data from NOMS including cost models, budgetary documentation and internal cost increase analyses. We analysed in detail the financial tool behind the costs for the revised NOMIS programme, actual costs incurred and financial reports presented to the NOMIS Board showing extent of cost increases. This analysis helped us draw conclusions on the appropriateness of financial control in place for a project of the size and scale of NOMIS.

9   We analysed non-financial data collected from the programme team relating to staff to understand the level of staff vacancies and the split between consultancy and civil service staff.

Review of secondary data

10   The NOMIS programme has been subject to a number of independent reviews by internal audit, the Office for Government Commerce and, at the request of the programme team, external consultants. We undertook a detailed review of their findings to gain a third party perspective on the NOMIS programme and assess how well NOMS responded to recommendations made by independent reviewers.

APPENDIX TWO

Technical Report Management Summary

The programme to deliver end-to-end offender management across Prison and Probation has suffered from cost overruns, scope changes, delays, restructuring and insufficient governance. Our task in this report, focusing on certain technical aspects highlighted by the NAO, is to identify causes and illustrate any risks for the future success of the NOMIS programme. Overall, there have been weaknesses in technical decision making, and management and commercial process.

Technical review of the 2004 programme

At the centre of the programme history is a misunderstanding of the close relationship between business process (and simplification of process) and technology. IT was seen as a tool to implement current processes with all their existing flaws. By not changing business requirements to fit the solution where possible, the package became unaffordable to implement and eventually required a radical re-scoping.

1 The assumption that TAG[15] would be an off-the-shelf solution with minimal customisation was invalid for Probation and to a lesser extent for the prison service, and it had not been proven on the scale required for the UK. This was the main reason for delay and cost increases.

2 In assessing the technical solution of a single database for end-to-end offender management we conclude that:

i A single database solution is realistic and doable, and similar successful solutions exist in the public sector (e.g. the National Insurance Recording System), but the programme did not appreciate, and therefore plan for, the complexity of doing this for separately governed organisations with separate technical infrastructures.

ii A single database is not required to provide end-to-end offender management, but it does give the best real-time view of offender information.

iii Separate technical solutions with a management information system reporting solution is a feasible alternative to a single database solution and could have been easier, cheaper and delivered benefits sooner. This alternative was not sufficiently considered.

3 Extending an existing contract saved time and money because it allowed a quick start with a supplier that understood the current situation in prisons, but the time and materials agreement meant there was no financial incentive for the supplier to deliver within budget, and the programme did not have controls or contingency to manage this. As a result, management lacked early warning of programme failure, and we did not find evidence of the supplier alerting NOMS that there were problems.

4 High level technical requirements were communicated at the outset to suppliers, but it is normal for requirements to get more detailed during detailed analysis. The programme should have budgeted contingency to account for the normal process of requirements clarification, and re-estimated costs for a decision to proceed after detailed analysis. This could have identified the financial and time delay impact of product customisation by late 2005 instead of 2007 when the financial problems were first escalated.

15 TAG is the name of the chosen commercial off the shelf package provided by Syscon.

Technical review of the 2007 NOMIS Programme

The revised 2007 programme is broadly on track, but the scope of information sharing between Prison and Probation has been reduced to the minimum data set (e.g. offender identifiers, location, offender manager, sentence details and dates).

5   The analysis to select the revised programme was a good approach, providing an objective comparison of seven options aligned with industry practice. Now that the programme has spoken to stakeholders at the working level, the Probation and Data Share components of the approved solution have evolved since the outline business case. We suggest that the National Delius with Data Share option now being assessed (previously considered unaffordable by the analysis) should be analysed with the same degree of formality together with stakeholders, which means comparing with all previously rejected options.

6   Past technical achievements for Prison NOMIS are being used in the revised programme, but the Probation components which have been built for C-NOMIS will not be used, so the investment in this to date will be lost.

7   The solution being assessed is technically realistic and achievable, but there is an assumption that the 42 Probation areas will accept a common national solution, which will require a common way of working. Since the 42 areas work in different ways today, it is important to define and agree a common national way of working for Probation before building the technical solution. A technical solution to meet all of the different Probation area requirements is unrealistic, and would result in significant delay and cost overrun.

8   The data share component of the proposed NOMIS solution delivers far less than was originally envisaged for end-to-end offender management across prison and Probation. We have concerns that the planned tactical solution is likely to require additional funding in the future to replace or improve it, and this should be a consideration in the full business case.

A review of the cost estimates

The cost estimates in 2005 were fundamentally flawed. The approach for 2007 is stronger, but risks still remain such as uncertainty in the estimates for rebuilding Delius and developing a bespoke Data Share given the early stages of planning.

9   The 2005 cost estimate of £197 million considerably under-estimated the extent of customisation required which resulted in the programme taking two years longer than expected, and this is the main factor in the cost estimate increasing to £597 million[16] by 2007. In addition, the lack of a dedicated finance team resulted in costs being missed entirely (e.g. Management and Support costs of £21 million).

10   The 2007 Cost Model needs to be revised in the new business case to reflect the changes in the Probation system and Data Share approaches which are both in an early planning phase so the cost estimates will be uncertain. We recommend allowing 40-50 per cent contingency to mitigate this risk, and then when the requirements are clear after detailed analysis re-estimate the cost and negotiate a fixed price.
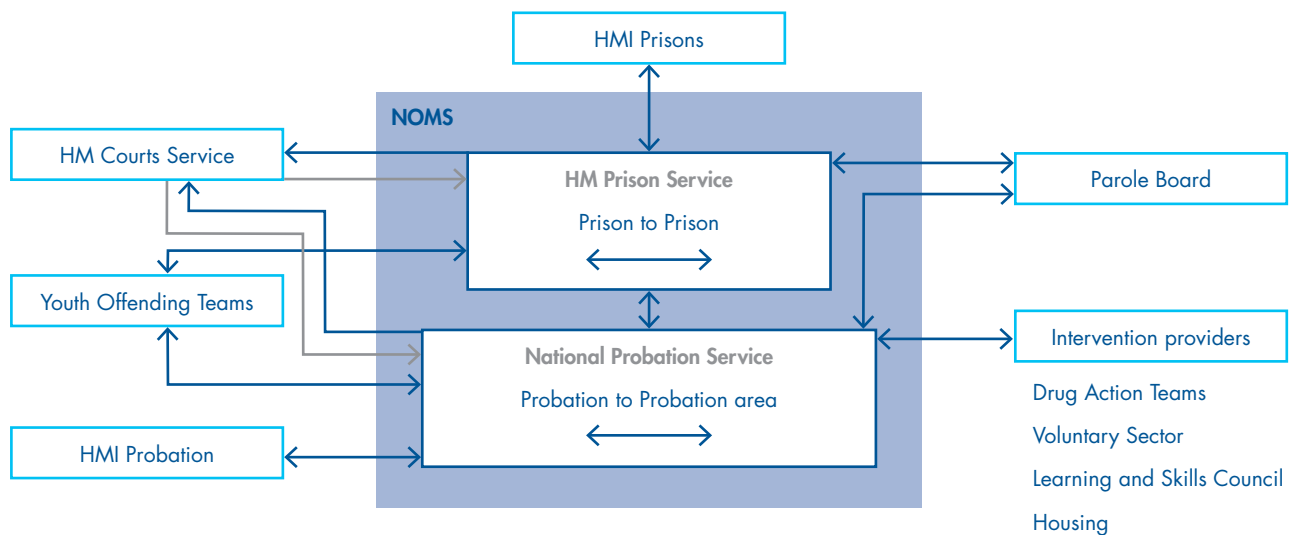
Accenture Technical Report, September 2008

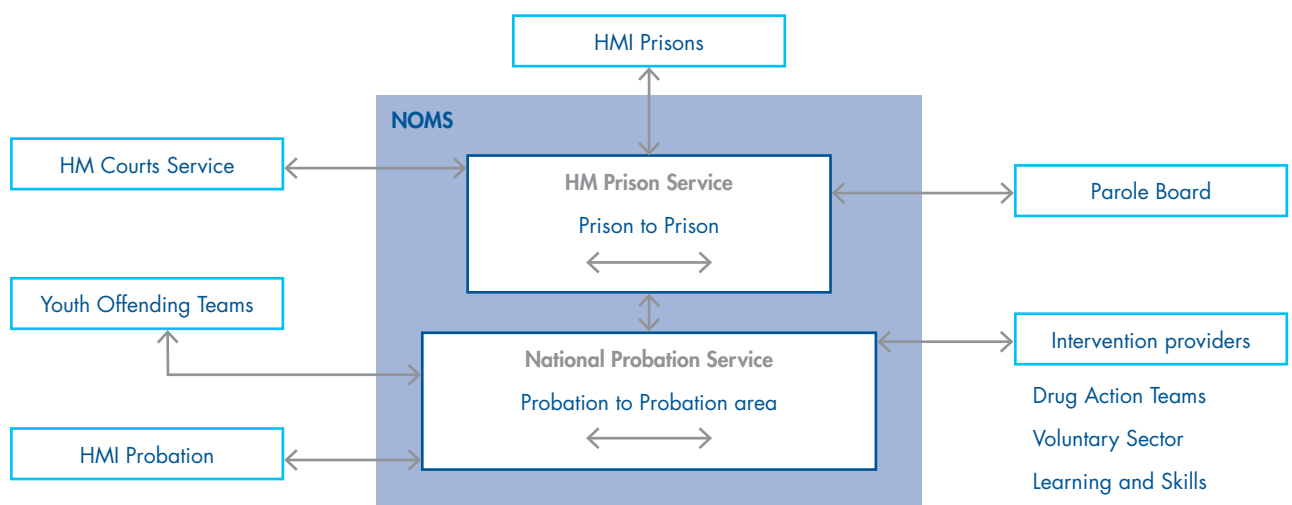16   Figures do not included costs of capital and depreciation.

APPENDIX THREE
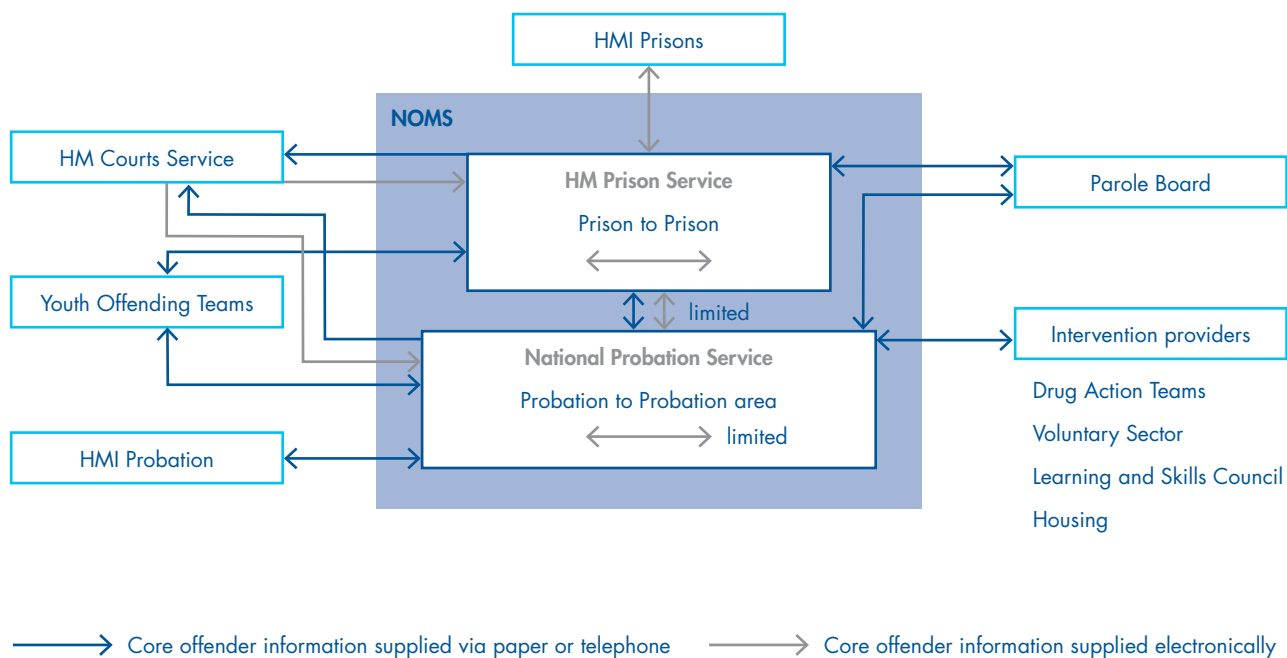
Offender information exchange pre and post NOMIS

Pre NOMIS – key offender information exchange

C-NOMIS – key offender information exchange

Revised NOMIS – key offender information exchange

Core offender information supplied via paper or telephone   Core offender information supplied electronically

External review recommendations on information exchange

Source	Findings relating to information exchange[1]	NAO analysis of progress
Hanson and White: Independent review of serious further offence, HM Inspectorate of Probation, February 2006	1) The transfer of information between Probation and third party suppliers is crucial in the supervision of offenders. 2) OASys is fundamental in identifying high risk offenders. 3) Recording all case details in a central database is key to successful supervision.	Transfer of information to third parties is limited under the revised NOMIS programme. Prison and probation OASys will be replaced with a single offender assessment system, but managers will not be able to access up-to-date case records.
Rice: Independent review of serious further offence, HM Inspectorate of Probation, May 2006	1) A lack of information on an offender's previous sentence caused misjudgements. 2) The identity of the Offender Manager and who had lead responsibility was confused. 3) As NOMIS enables better co-ordination of information and visibility of assessments, it is essential.	The data share strand of NOMIS should make clear the designated offender manager, a shared offender assessment system will improve visibility of information but the lack of single database will mean information on previous sentences is not shared.
Report of the **Zahid Mubarek** public inquiry, June 2006	Paper-based records resulted in insufficient information being transferred. This increased the risk of high-risk prisoners not being identified and then going on to commit further offences.	A shared OASys will mitigate the risk of insufficient information transfer, although managers in the community will not have access to up-to-date prison case records. Within the prison system, up-to-date risk assessments and case information will be available.

NOTE

1   Information flows were not the only or necessarily the main issues reported on in these cases.

GLOSSARY

C-NOMIS

The project to develop the cTAG/iTAG commercial software package and its deployment in both the Prison and Probation Services. The project became the NOMIS Programme after plans were revised during the Ministerial moratorium.

COPS

Contracted-Out Prisons. At present there are 11 privately managed prisons in the UK.

Custody Plus

A short period in custody of up to three months followed by a longer period under supervision in the community of a minimum of six months. The court specifies the lengths of the two parts and attaches specific requirements to the supervision part of the sentence to address the rehabilitative needs of the offender.

Data Share

A common repository of data, fed from case management systems that enable offender managers and staff within Offender Management Units in the National Probation Service and public prisons to quickly and simply identify the location of an offender, and the location and contact details of the offender manager/offender supervisor for that offender.

Delius / National Delius

Delius is one of seven case management systems operating in parts of the National Probation Service. As part of the Probation Case Management System project, Delius will be upgraded to become National Delius and will be rolled out to all probation areas.

Earned Value Management

A project management approach which provides more accurate status information. It enables the project team to establish how much of the project has been delivered and at what cost, compared to how much was originally planned.

EDS

Electronic Data Systems is a US company, specialising in business process outsourcing, information technology application development and the transformation services using IT.

IAPS

Interim Accredited Programme Software is a national IT application that records an offender's attendance, completion and reasons for non-completion on an accredited programme. Some Probation areas also use it as a case management tool.

IIS

Inmate Information System. A management information system updated daily with information drawn from LIDS. It provides statistical information to NOMS, police and the Parole Board and also allows day-to-day management of the Discretionary Conditional Release (parole) and Home Detention Curfew schemes.

LIDS	The Local Inmate Data System is a legacy system that supports each prison establishment in managing Reception Processing, Activities, Prisoner Movement and Inmate Finance.
Net Present Value	An investment appraisal technique that is used to calculate the present value of future cash flows from an investment. Future amounts are discounted back to today's values to reflect the risks facing the project and the erosion of the value of money over time.
OASys/e-OASys	An evidence-based tool for assessing the risks posed by offenders, and to provide a systematic basis for planning their management within the overall objective of reducing re-offending. OASys is the generic name for the system, e-OASys is the version used by the National Probation Service.
OMNI	The Offender Management National Infrastructure (OMNI) contract was signed on 1 January 2006 by the National Probation Service and Steria, a French IT services provider. The agreement's duration is six and a half years.
Sunk costs	Past expenditures which cannot be recovered.
PRIME	The Prisons Information Management Environment project was the forerunner of the C-NOMIS project. Its scope was to develop a replacement for the Prison Service's legacy LIDS systems.
Prison NOMIS	A project within the NOMIS Programme begun after the moratorium. It is intended to replace the Prison Service's LIDS legacy system with the TAG application.
Quantum Contract	A Private Finance Initiative agreed between HM Prison Service and Electronic Data Systems (EDS) in February 2000 that will run until 2012. It provides an integrated and networked information system to improve access for HM Prison Service personnel to prisoner information.
Steria	The IT services company undertaking infrastructure improvements in the Probation Service under the OMNI contract.
Syscon	Syscon Holdings Limited, a Canadian company, specialising in offender management systems. Their TAG application forms the basis of the C-NOMIS case management software. In June 2007, the company was acquired by Securus Technologies, Inc of the US.
TAG	The generic name for SYSCON's commercial off-the-shelf software product called cTAG/iTAG.