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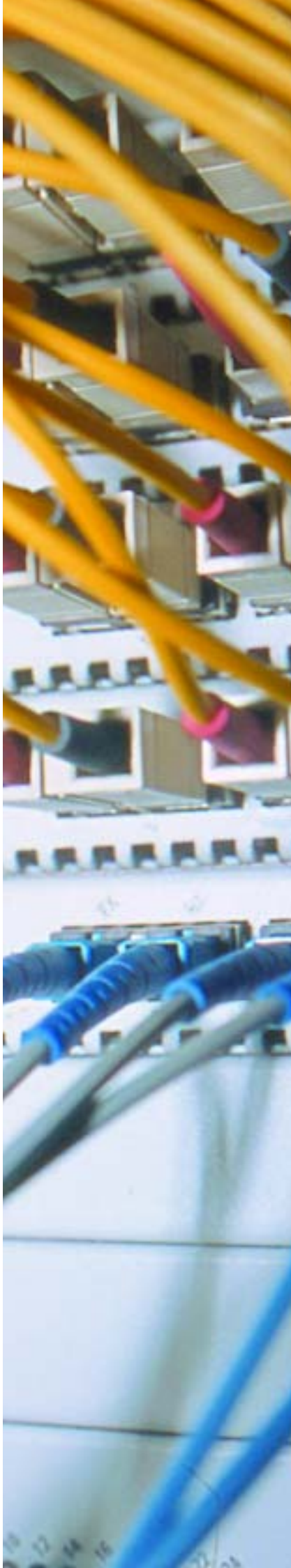**OSIRIS: THE PFI CONTRACT FOR INFORMATION TECHNOLOGY IN THE NATIONAL ASSEMBLY FOR WALES**

OSIRIS: THE PFI CONTRACT FOR INFORMATION TECHNOLOGY IN THE NATIONAL ASSEMBLY FOR WALES

Report by the Auditor General for Wales,

presented to the National Assembly on

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This report has been prepared for presentation to the National Assembly under the Government of Wales Act 1998.

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This report was prepared for the Auditor General for Wales by the National Audit Office Wales. The National Audit Office team comprised Gillian Body, James Verity, Rob Powell and Wayne Harris.

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EXECUTIVE SUMMARY

1   In January 1997 the then Welsh Office entered into a seven-year Private Finance Initiative (PFI) contract, with Siemens Business Services (SBS), to provide an information technology infrastructure of networked computers and office automation software. This was the first PFI contract for an information technology infrastructure to be negotiated in the United Kingdom. The contract, known as Osiris, was based upon a monthly charge per user logging onto the network, and was originally expected to cost around £20 million over seven years.

2   The establishment of the National Assembly for Wales in 1999 significantly changed business needs. What was a system designed for office work had to cater as well for the very different needs of a democratic assembly with 60 members and with constituency offices throughout Wales. The alternative would have been to have separate systems for Members and their support staff on the one hand, and officials on the other. The Welsh Office decided that this was impractical and SBS's contract was extended through renegotiation, using its existing change provisions, to provide the additional services required.

3   The Osiris contract expires in January 2004. The Assembly is currently involved in the procurement of its replacement, which is known as Merlin. This has a broader scope than Osiris, including both additional services and the explicit intention to develop more efficient business processes. The Assembly Government expects to award this contract in July 2003.

4   This report sets out the work conducted by the National Audit Office Wales to examine:

◗   whether the original contract was a good deal;

◗   the extent to which the extended contract remained a good deal; and

◗   how well Assembly officials have managed the Osiris contract.

Summary of findings and recommendations

On the original Osiris contract

5   At the start of the Osiris procurement, the Welsh Office intended to use private sector expertise to provide office automation, but expected to employ a facilities management type contract. Eventually the Welsh Office decided that PFI offered better value for money and therefore negotiated solely on this basis. The contract was awarded to SBS and took effect on 13 January 1997. We found that:

◗   the Welsh Office selected PFI because it offered faster roll-out, nine months compared to a phased roll-out of three to four years under conventional procurement;

◗   no written evidence of a formal Public Sector Comparator was available to show that PFI offered better value for money, although the Welsh Office had calculated that the net present value of PFI was higher than conventional procurement;

◗   the contract was awarded to SBS because the net present cost of their bid was 43 per cent lower than the other bidder; in the view of the Welsh Office this represented good value for money. It was the only bid affordable within the available budget;

◗   SBS delivered a functioning system on time;

◗ several incidents during the early period of the contract worked in favour of the Welsh Office. For example, SBS had to employ significant numbers of additional staff, paid the compensation for a major e-mail crash and incurred costs on a development project which did not subsequently proceed. These incidents suggest that a degree of risk had been shared with SBS; and

◗ although some risk had transferred to SBS, the key risk was that of user numbers. Even before the transfer of functions to the Assembly, user numbers had increased substantially and as a consequence the projected overall cost of the contract had risen by 25 per cent.

On the extension of the Osiris contract

6   The National Assembly's additional information technology requirements included a considerably larger infrastructure, Intranet and Internet services, Document Management Systems and services to support Assembly Members and the process of government in Wales. This represented a step change in the scope of services provided under the Osiris contract (the services provided and projected overall contract costs at various key milestones are summarised in Appendix B). There was only a short amount of time available to deliver these key services in time for the transfer of functions to the Assembly, with considerable uncertainty surrounding key variables, such as the location of the Assembly building.

7   The Welsh Office decided to extend SBS's contract, rather than conduct a separate procurement, to provide the additional services, which were delivered by SBS in time for the transfer of functions to the Assembly. To achieve this, SBS started the work before its final price had been negotiated. After protracted negotiation a cost of £19.2 million was agreed to provide the additional services, a 34 per cent reduction from SBS's opening offer. After renegotiation, in December 1999, the projected cost of the entire contract had increased to £46.2 million.

8   We reviewed various aspects of the renegotiation, and found that:

◗ the advent of devolution and the need to adhere to EU procurement regulations put the Assembly in a very difficult negotiating position, and meant that it had little option other than to extend SBS's contract. Delivering the services on time represented a significant achievement in very difficult circumstances;

◗ the extension highlighted the inflexibility of the Osiris contract. The lack of mechanisms, such as benchmarking and market testing, to assess the value for money of services, meant that the focus of the renegotiation was inevitably on the affordability of SBS's proposals rather than value for money;

◗ the extended contract was not such a good deal for the Assembly. A failure fully to reflect the terms of SBS's best and final offer in the final original contract meant that the Assembly was obliged to spend £377,000 to secure a technology refresh (upgrading systems with the latest industry standard hardware and software). The agreed cost model also included a higher projected profit margin and more generous provisions for inflation than the original contract. These were consistent with market norms at this time;

◗ costs under the extended contract have risen substantially as a result of both a 76 per cent increase in the basic user charge to reflect the additional services provided to the Assembly, such as the need to extend the network to all Members' constituency offices, and continued rising user numbers. The current total forecast cost of the contract is £64.4 million; and

◗ although user numbers are a key cost driver, and despite the experience of the Osiris contract to date, Assembly officials did not carry out any sensitivity analysis on different levels of user numbers. Nor did Assembly officials take any steps to protect the Assembly against user numbers rising.

On contract management

9 Securing a good deal from a PFI contract requires much more than effective contract negotiation at the outset. Effective, proactive contract management, throughout the contract term, can maximise the benefits achieved through partnership. We examined contract management by looking at indicators of Osiris performance, and the relationship between the Assembly and SBS, and found that:

◗ although service delivery under Osiris was generally good, the relationship between the partners worked better operationally than at strategic level. Consequently Osiris delivered little innovation;

◗ the main problem reported by Osiris users was the slowness of connection to the network when accessed remotely from home or a constituency office. This issue is outside the scope of the Osiris contract and is caused mainly by the capacity of the telecommunications infrastructure in Wales. The inclusion of telephony within the Merlin contract and, in due course, overall improvements to the infrastructure through the Broadband Wales programme, are designed to reduce this problem;

◗ there has been limited control of expenditure on Osiris, principally because those who make decisions affecting expenditure on Osiris (such as the recruitment of additional staff which impacts on user numbers, the main cost driver) are not directly accountable for the effect of such decisions on the Osiris budget; and

◗ Assembly officials have not established a process for the regular review and evaluation of the costs and benefits achieved through the Osiris contract. This has been exacerbated by the failure, with one limited exception, to invoke open book accounting for which the contract provides. This is a key means of securing a good deal from PFI contracts, and the failure to invoke this facility is a significant omission.

10 We recommend that the Assembly:

i) integrate mechanisms, such as benchmarking and market testing, into future contractual change procedures, to increase flexibility and the rigour with which value for money is assessed when negotiating to meet changing business needs;

ii) extend sensitivity analysis to examine the impact of changes in key variables when negotiating contracts;

iii) take appropriate steps to protect itself against key risks in contracts materialising, for example including within the contract mechanisms such as profit sharing and charge banding;

iv) review the cost effectiveness and scope of extended help desk services for Assembly Members and desktop video conferencing;

v) establish more robust governance arrangements in future contracts, ensuring that senior executives from each partner are actively involved in the contract as it develops;

vi) improve accountability for Osiris expenditure so that those making decisions, which affect the number of users, are responsible for the financial consequences of their decisions;

vii) establish a robust framework for evaluating the costs and benefits delivered by major information technology contracts; and

viii) ensure that open book accounting is used as an integral part of the management of future contracts, such as Merlin.

Concluding comment

11 The Osiris contract was the first PFI contract for an information technology infrastructure negotiated in the United Kingdom. It achieved one of its main aims - of providing a functioning system to users far more quickly than would have been possible under conventional procurement. Devolution was a one-off event. Although the Welsh Office had a limited amount of time in which to manoeuvre and was confronted by extremely difficult and unusual circumstances, it succeeded in providing the enhanced system for the transfer of functions to the Assembly.

12 However, this has come at a price. The continued rise in user numbers, before, during and after the renegotiation of the contract, has led directly to steep increases in costs above those projected. There are a number of reasons why this has happened. But the Welsh Office/Assembly officials' failure to conduct adequate sensitivity analysis on the potential impact on costs of user numbers rising, together with the absence in the contract of provisions to mitigate their effect, have been significant omissions. The Merlin project for the replacement for Osiris is wider in scope than its predecessor, and gives the Assembly the opportunity to learn from its experience of Osiris.

PART 1   INTRODUCTION

1.1 In January 1997 the then Welsh Office entered into a seven year contract with Siemens Business Services (SBS) to provide office automation through a networked information technology infrastructure known as Osiris (Office Systems Infrastructure Review and Implementation Strategy). This was intended to cover all of the Welsh Office's operations, providing networked hardware and standard office automation software, including electronic mail. Prior to 1997, only half of the 2,000 staff of the Welsh Office had a computer on their desk. Nor was there a network connecting all parts of the organisation, although there were isolated local networks and a limited number of external links to particular groups and divisions.

1.2 The deal with SBS was the first contract for an information technology infrastructure agreed under the Private Finance Initiative (PFI), and was originally expected to cost £20 million over seven years. Consequently much of the best practice subsequently learned about PFI in this context emerged after the Osiris contract had been awarded. In commenting on such an early deal, this report seeks to identify best practice for the future.

1.3 In September 1997 a referendum supported devolution in Wales. The new National Assembly for Wales (the Assembly) had significant additional information technology requirements, which led to the extension of the original contract with SBS. The extended contract covered the needs of Assembly Members and their staff, Intranet facilities, information technology systems in the Assembly Chamber and extended the network to constituency offices and Assembly Members' homes. After the extension the overall cost of the contract over its seven-year life was expected to be £46.2 million[1]. Due mainly to the fact that the numbers using the system have risen, the current forecast total cost is £64.4 million. (The report contains several estimates of the projected cost of the overall contract at different times in its life. A summary of these costs and their dates, together with other changes during the contract period, is provided in Appendix B.)

1.4 The Assembly is currently in the process of negotiating a contract to replace Osiris in January 2004; it intends to award the contract in July 2003. This system will be known as Merlin and is expected to cost around £220 million over ten years. The scope of Merlin is wider than Osiris: as well as additional services relating to information and communications technology, one of the aims of the Merlin project is explicitly to generate better, more efficient ways for the Assembly to conduct its business.

1.5 This report examines the Osiris contract in the context of the ongoing Merlin procurement, and attempts to identify the key issues from which the Assembly needs to learn. More details on progress with the Merlin procurement are in Appendix C.

1.6 A chronology of events relating to the Osiris contract can be found at Appendix D.

Scope and Methodology

1.7 This report examines the value for money achieved through this PFI contract, focusing on:

◗ whether the original contract was a good deal;

◗ the options available to meet the additional needs created by devolution, and whether the extended contract continued to represent a good deal; and

◗ the Assembly's management of the Osiris contract, focusing on system performance and the Assembly's relationship with SBS.

1.8 In carrying out the study we:

◗ reviewed documentary evidence relating to the original Osiris contract and the process of negotiating its extension to meet the additional needs of the Assembly;

◗ interviewed key personnel in the Assembly and SBS;

◗ surveyed Assembly Members and their staff to assess user satisfaction;

◗ conducted a joint survey of other Osiris users with the Assembly's Internal Audit service;

◗ examined data on the performance of Osiris; and

◗ conducted a review of documentary evidence relating to the Merlin procurement.

Full details of the study methodology are in Appendix A.

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1   VAT is reclaimable in arrears on most elements of the Osiris contract. All figures exclude VAT unless otherwise stated.

2.1 This part of the report looks at the original Osiris deal, and examines the key issues surrounding the original procurement process:

◗ the decision to select PFI as the funding vehicle;

◗ the decision to select SBS;

◗ the appropriateness of risk transfer from the public to private sector; and

◗ how effectively the contract functioned prior to devolution.

Osiris began as a traditional procurement but later became a PFI deal

2.2 The decision to develop office automation in the Welsh Office was taken on the basis of a business case produced in December 1993. In the business case the expected cost of procuring a networked infrastructure of computer hardware and standard office automation software was estimated to be £11 million over seven years.

2.3 The anticipated benefits of introducing office automation were considerable. Based on estimated staff efficiency gains of five per cent, the Welsh Office expected to achieve benefits worth £3 million a year, representing a total saving of staff time worth £16 million over seven years. Treasury and Ministerial approval to proceed with the procurement was granted in 1994.

2.4 As a result of its relatively low level of information technology, the Welsh Office decided to involve the private sector in delivering its new infrastructure. The advertisement placed in the Official Journal of the European Communities in September 1994 did not stipulate the funding mechanism for the procurement, although it did indicate that the Welsh Office would be willing to consider novel approaches to funding.

2.5 At this time PFI was developing as a potential means of making additional capital funding available to the public sector and improving value for money by transferring risk to private sector partners, although there had been no PFI deal for an information technology infrastructure project. The potential benefits and disbenefits of PFI are set out in **Figure 1** opposite.

2.6 In July 1995 the Welsh Office shortlisted three suppliers and negotiations started on the basis of conventional capital funding alone. Subsequent discussions with the suppliers indicated that a PFI deal might be possible, and negotiations therefore proceeded on the basis of both conventional and PFI procurement. However, in January 1996 the Welsh Office abandoned this dual track approach having decided that PFI offered the best value for money, and so negotiated on this basis only. The key reasons for this decision were:

◗ PFI would enable the benefits of office automation to be delivered far more quickly than conventional procurement where constraints on the available capital would have necessitated a phased roll-out over three to four years. Full roll out under PFI was expected to take nine months; and

◗ PFI offered the opportunity to draw on private sector expertise, experience and innovation in delivering effective information technology systems.

2.7 In deciding on the merits of pursuing PFI, public sector bodies usually establish that it offers better value for money than traditional procurement. Cost benefit analysis through a risk-adjusted Public Sector Comparator (the cost of public sector provision of the same service plus the cost of risks that would be transferred to the private sector under PFI) shows the relative value for money of PFI compared to conventional procurement. The proposed PFI deal only proceeds if its net present value (see box) is higher than that of the Public Sector Comparator, or if the public sector identifies other business benefits that outweigh the lower net present value.

Net Present Value

Because of inflation and other factors, a similar sum of money is worth more today than it is tomorrow. This has significant consequences for making decisions about major investment. Where relevant cashflows extend well into the future the timing of income and expenditure relating to a project therefore has a significant effect on its value for money.

When a project is assessed, relevant cashflows are discounted to reflect their future value in terms of today's prices. This allows a fair comparison to be made between different investment options.

The sum of these discounted cashflows is known as the net present value. The higher the net present value the more attractive the option.

Figure 1

Potential benefits and disbenefits of the PFI approach

Benefits	Disbenefits
Risk is shared with the private sector, being placed in the hands of the party best equipped to manage particular risks.	Although the contractor should be better able to manage risks if they are allocated appropriately, there is the possibility that it may not handle them well.
By specifying and basing payment on the desired **outputs** the public sector only pays for what is actually delivered by its private sector partner.	The payment includes charges for the contractor accepting certain risks, such as design and implementation.
Clear **specification** of the desired **outputs**, rather than how they are to be delivered, encourages innovation.	The public sector should be careful to ensure that innovative methods of service delivery do not reduce the level or quality of service and continue to meet its needs.
Because payment is only made when systems have been delivered, PFI deals tend to produce **faster delivery of benefits**, thus improving value for money and reducing the risk of late delivery.	PFI contracts are long-term in nature. Although benefits are generally delivered quickly at the start of the contract, it is important that the public sector ensures that they continue to meet their changing business needs throughout the contract term.
More projects can proceed at the same time because payments are spread out over time. Responsibility for assets transfers to the contractor, meaning that the public sector is no longer involved in providing services that are not part of its core business.	The public sector commits itself to a long-term contract, committing future revenues.

Source: National Audit Office Wales.

2.8 We found no written evidence that the Welsh Office had produced a full Public Sector Comparator. However, relevant files record that the nominal cost of the PFI route was likely to be between £300,000 and £800,000 higher than conventional procurement. The net present value of the PFI option was estimated to be between £960,000 and £2.2 million higher than that of conventional procurement because of the likelihood of realising the benefits of office automation more quickly. We did not find a detailed supporting calculation showing how the figures were achieved, and the assumptions that were used. In the absence of such information we are unable to judge retrospectively whether the basis on which the Welsh Office decided to proceed with PFI was well-founded.

The decision to award the contract to Siemens Business Services was reasonable

2.9 The Welsh Office took appropriate specialist advice throughout the procurement process. The Central Communications and Telecommunications Agency (CCTA) and the Central Information Technology Unit in the Cabinet Office provided significant support. This support was especially important given the unprecedented nature of letting a PFI contract for an information technology infrastructure project and the fact that the Welsh Office had little experience of PFI.

2.10 One of the three shortlisted suppliers withdrew from the negotiations, leaving two bidders to negotiate and submit their best and final offers in May 1996. Both bids complied with the Welsh Office's pre-determined evaluation criteria. The Welsh Office conducted a thorough analysis of the two bids, based on cost, benefit and risk. Clear, pre-determined evaluation criteria were used, taking into account life cycle costs, likely benefits and the suitability of bidders to enter into a long-term partnership. The cost of each bid was also adjusted for risk.

2.11 The total cost of SBS's bid was £16.1 million compared to the other bidder's £31.7 million, some 49 per cent lower. The Welsh Office used discounting to calculate the net present cost of the two bids. Net present cost is similar to net present value, except that it includes only costs, rather than costs and revenue. The risk adjusted net present cost of SBS's bid was 43 per cent lower than the other bidder. The annual cost of SBS's proposal was also affordable within the available budget, whereas the annual cost of its rival's bid was considerably higher than the available budget.

Risk was shared appropriately under the terms of the original contract

2.12 One of the key principles of PFI is to place risk in the hands of the party best able to manage it. If there is no risk transfer from public to private sector the additional value of using PFI is considerably diminished and it is unlikely that value for money will be achieved. The cost of retaining risks in the public sector under conventional procurement is one of the main justifications for taking the PFI route. In the case of information technology, for example, a fundamental risk is that of technological obsolescence. In most PFI deals, for serviced assets such as hospital, school or prison buildings, the asset outlives the deal. In information technology the deal often outlives the asset and there is a consequential risk of investing heavily in assets whose value depreciates rapidly as they are superseded by the latest technological innovations. Consequently the term of a PFI deal for information technology tends to be much shorter than that of a hospital, school or prison.

2.13 The risk of obsolescence is just one of the risks which must be considered in any information technology deal. Other key risks include those of specification, design, implementation and performance.

2.14 The main characteristics of the Osiris contract are shown in **Figure 2** below, and the allocation of risks between the two parties in **Figure 3**. The key feature of the Osiris contract was a monthly charge for each user that logged onto the network. Even if a computer was provided, if its user did not log onto the network in a given month there would be no charge. If the number of potential users reduced, SBS's revenue would decrease proportionately.

Figure 2

Key features of the original Osiris contract

◗ the Osiris contract was based around a **user charge** levied for each user logging onto the network in a particular month. This charge included the design, provision and maintenance of hardware, software and the network infrastructure, training, support, Help Desk facilities and technology refresh (upgrading systems with the latest industry standard hardware and software);

◗ the Assembly could order items beyond the standard Osiris build from a **catalogue of additional services** which were individually priced;

◗ the contractual **change provisions** prevented price increases during the first two years of the contract. Thereafter prices could increase once a year by two per cent less than the average of the last six retail price index increases;

◗ the contract included incentives for SBS to provide suitable levels of **system performance**. This was based on a consolidated availability calculation with a target of 98.9 per cent availability. If availability were lower than this service credits would accrue to the Assembly on a sliding scale down to 87 per cent, beyond which no payment would be made. Conversely if performance exceeded 99.1 per cent incentive payments would be made to SBS on a sliding scale to reward the enhanced availability;

◗ similar arrangements applied to **service restoration times** and the quarterly number of system failures for individual users;

◗ a **Transfer Payment** was set up enabling the Assembly or a replacement supplier to purchase the residual assets at the end of the contract. This was intended to mitigate the obsolescence risk, providing an incentive to supply the latest technology so that SBS was not left with obsolete equipment which the Assembly did not want to purchase when the contract expired. Effectively the Transfer Payment represents SBS's confidence in the residual value of the assets when the contract expires;

◗ the obsolescence risk was reduced by the inclusion of a general duty for SBS to provide **technology refreshment** during the life of the contract;

◗ provision for **termination** in various circumstances including payment to SBS if the Assembly exercised its discretionary break option. This included an Asset Acquisition Fee enabling the Assembly to purchase the assets provided under the contract; and

◗ in their best and final offer, SBS's stated target **profit** margin was lower than prevailing conditions in today's market.

Source: National Audit Office Wales.

Figure 3

Allocation of risk under the original Osiris contract

Risk Transferred to SBS	Risk Shared	Risk Retained by Welsh Office
Design/Sizing - errors in design such that the system was not available could lead to reduced or non-payment to SBS	**Usage** - if user numbers declined, SBS's revenue would also reduce. If user numbers increased the Assembly would have to pay extra.	**Ultimate business risk** - although the value of PFI deals depends on the extent to which risk is transferred to the private sector partner, the ultimate business risk of failure remains firmly in the public sector.
Development - SBS took on the risk of developing systems which would deliver the required availability levels at risk of lower or non-payment.	**Late delivery of benefits** - the Service Credit penalised SBS for the late delivery of benefits.	**Termination risk** - substantial termination charges existed to reflect profit foregone through termination.
Implementation - SBS was incentivised to deliver as quickly as possible, as no user charges would be paid until the system was fully operational.	**Legislative change** - the partners would share the risks arising from the implications of new legislation.	
Operating Cost - the Assembly paid a flat rate to SBS regardless of their costs. If delivery of the systems cost more than SBS anticipated, charges would not increase beyond the provisions of the original contract.	**Organisational change** - similarly both partners would work together to identify and deliver solutions arising from significant organisational change.	
Obsolescence - the Transfer Payment and technology refresh provisions encouraged SBS to maintain up to date systems.		
Training/Education - SBS was responsible for the training of all users, regardless of levels of staff turnover.		
Availability/Performance - non-availability meant that SBS's payments would reduce via the service credit regime on a sliding scale finishing with nil payment.		

Source: National Audit Office Wales.

2.15 The evaluation of bids was based around three assumptions about user numbers:

◗ Osiris would only be rolled out to staff at certain, more senior, grades;

◗ divisional offices would not be connected to Osiris; and

◗ the average annual number of users would decline. Bidders were informed of this possibility and the best and final offers were evaluated on the basis that the most likely scenario was an annual average of 1,463 users. At the time of contract signature a reduction in user numbers below the agreed level was generally regarded as a significant risk for SBS.

Initially the Osiris contract worked effectively

2.16 After a six-month transitional period the contract went live in January 1997. By October 1997 the Osiris network had been fully rolled out to the Welsh Office's operations. The speed of the roll out reflects the advantage of fast delivery and supported the decision to proceed with PFI on this basis (paragraph 2.6).

2.17 Initially the allocation of risk worked in favour of the Welsh Office. **Figure 4** overleaf contains three case studies, which demonstrate how the allocation of risk penalised SBS and protected the Welsh Office's interests.

Case Studies showing the initial effectiveness of the contract

Case Study 1 - Operating Cost Risk

In order to comply with their contractual obligations SBS had, by the time the contract was renegotiated, employed nearly three times as many staff in the Welsh Office than they had included in their best and final offer. The additional operating cost of employing the extra staff was met by SBS.

Case Study 2 - Development Risk

During the early stages of the partnership the Welsh Office and SBS jointly worked up proposals for an Intranet and Document Management Systems. This project was known as Osiris E and was generally expected to proceed. However the projected annual cost led to the rejection of the project. The decision not to proceed came after SBS had invested a considerable sum of money in developing Intranet and Document Management solutions. SBS could not recover these costs because no contractual obligation existed. Effectively SBS made this investment at their own risk in the expectation that the project would proceed. This shows the potential risks to suppliers arising from political and organisational uncertainty.

Case Study 3 - Performance risk

In 1997 the Osiris network's server crashed, resulting in e-mail being unavailable for eleven days. This was the result of an error in designing the network. As a penalty for this incident, SBS had to make a substantial compensation payment to the Welsh Office.

We estimate that the combined cost to SBS of these three incidents was approximately £1.45 million.

Source: National Audit Office Wales.

Figure 5

Comparison of User Numbers in Evaluation Model and Actual User Numbers
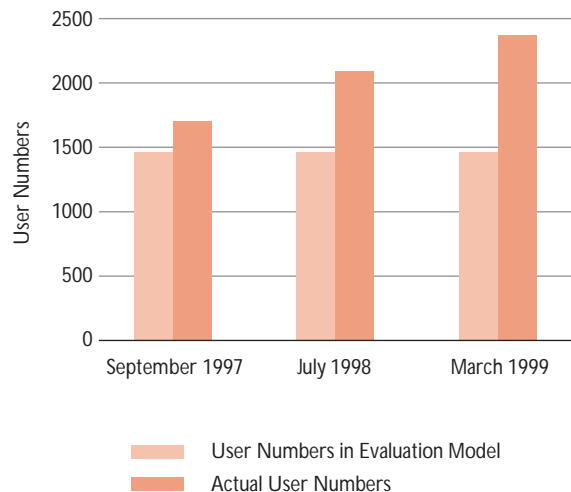

Source: National Audit Office Wales

2.18 An indicator of the appropriate transfer of risk is the profit achieved by SBS. Risk transfer, and compensation payments made to the Assembly for failure to manage particular risks, can erode margins attained by SBS. The Assembly estimates that the maximum profit SBS could have made on the contract in its early years was well below the target stated in their best and final offer, reflecting the genuine transfer of risk and its relationship to reward.

As a result of rising user numbers the projected total cost of the contract increased even before the transfer of functions to the Assembly

2.19 Although the contract was awarded on the basis that only certain staff and locations would have access to Osiris, it soon became apparent that a corporate information technology infrastructure needed to be all-inclusive in order to be effective. Consequently all staff and divisional offices were included, and user numbers rose. By March 1999 user numbers had risen to 2,361. Actual user numbers are compared to those used to evaluate bidders' best and final offers in **Figure 5**.

2.20 Since the costs of Osiris to the Welsh Office were closely linked to levels of user numbers, forecast total costs also rose. We estimate that between September 1997 and March 1999 the projected cost of the overall contract rose by 25 per cent to £26.4 million because of rising user numbers. The Official Journal of the European Communities notice of contract award stated that foreseeable expenditure on the contract was likely to be around £20 million although this could be exceeded to allow for full implementation.

2.21 The Welsh Office conducted sensitivity analysis (see box) on user numbers during the evaluation of bids to assess the effect of different levels of user numbers on costs. The most extreme increase in user numbers considered by the Welsh Office was a rise of 500 users in Year 4, producing a maximum of 1,875 users between 2000 and 2003. However user numbers had passed this level by the end of March 1998.

Sensitivity Analysis

This is an important technique used to assess major investment projects. The technique assesses the potential impact of key uncertainties, or risks, to the viability of a particular project. Treasury guidance strongly encourages the use of sensitivity analysis in investment appraisal. In the context of Osiris the overall cost is most sensitive to fluctuations in user numbers.

Key Points about the operation of the Osiris contract prior to devolution

◗ Osiris was rolled out to the majority of users within nine months, much faster than would have been possible under a conventional procurement.

◗ There was genuine transfer of risk at the start of the contract.

◗ User numbers rapidly increased above the level on which the contract had been negotiated, leading to a 25 per cent rise in total projected costs.

◗ The contract was based around an all-inclusive monthly charge per user, and a service credit regime, which rewarded exceptional performance and penalised poor performance by SBS.

◗ Sensitivity analysis was carried out on the basis of user numbers but did not consider a sufficiently broad range of scenarios.

PART 3   COSTS INCREASED CONSIDERABLY AFTER THE OSIRIS CONTRACT WAS EXTENDED

3.1 The transformation in 1999 of the Welsh Office from a government department to a devolved assembly represented a fundamental change in the nature of the organisation and its business needs. Devolution generated significant additional information technology requirements. What was essentially an office automation system had to cater as well for the very different needs of a democratic assembly with 60 members and with constituency offices throughout Wales. In around three years the organisation changed from a single centralised office with a small number of local outstations and a ministerial office in London to one with two central points and over one hundred separate access points. This had considerable implications for the Osiris network and, allied to a challenging timescale, forms the background to the extension of the contract. This part of the report examines:

◗   the reasonableness of the decision to extend the existing Osiris contract to meet the additional information technology needs of the Assembly;

◗   the process of negotiating the extension of the contract;

◗   costs and whether the extended contract continued to represent a good deal; and

◗   the effect of uncertainty about business needs on the cost of the extended contract.

The Assembly had little option other than to extend the original Osiris contract to provide the additional services

3.2 After the referendum decision supporting devolution, the Welsh Office published an information systems strategy for the Assembly in June 1998. This provided two options:

◗   minimum investment whereby Assembly Members, researchers and Assembly support staff would be provided with standard facilities available at that time plus minimum additional facilities to enable the Assembly to function efficiently; and

◗   a strategic investment option which involved upgrading the existing Osiris platform as well as providing new facilities.

3.3 In July 1998 the Welsh Office decided to pursue the strategic investment model to deliver additional benefits through the most effective use of the latest information technology. The main components of the strategic investment model are shown in **Figure 6**.

Figure 6

The Strategic Investment Model

◗   continuation of all existing applications and services;

◗   upgraded hardware and operating platform of NT4 and Office Professional 97, with subsequent upgrade to Windows 2000;

◗   Intranet for all users;

◗   Members' applications, including video conferencing facilities, remote access and Chamberweb (the computer system enabling Members to access information and communicate with each other, and their staff, while in the Assembly Chamber);

◗   Internet publishing facilities;

◗   facilities in constituency offices;

◗   Document Management System; and

◗   upgraded wide area networks and high speed links between Cathays Park and Cardiff Bay.

Source: National Audit Office Wales.

3.4 For various reasons the Welsh Office found itself in an extremely difficult position as it could neither finalise its information systems strategy nor start negotiations on providing the additional services until the location of the Assembly was known because of the extent to which the specification depended on this decision. Each of the proposed locations had different implications for the network. For example if the Assembly had been sited in Cathays Park, where civil servants were already located, the cost of upgrading the network would have been considerably less than if it had been situated in Swansea. The final decision to locate the Assembly in Cardiff Bay was taken in April 1998. The basis of this decision is fully explained in the Auditor General for Wales' report *Accommodation arrangements for the National Assembly for Wales* (November 2000).

3.5 The timing of this decision left the Welsh Office thirteen months in which to deliver the substantial additional services required for the Assembly. This included the complete refurbishment of the office in Cardiff Bay to provide an Assembly Chamber, committee rooms, Members' offices, as well as

installing systems in Members' constituency offices and homes across the whole of Wales. The network expanded from around sixteen locations in 1996 to eighty-eight in 1999. There were three options at this time, to:

- ◗ run a competition for the additional services to run alongside those provided by SBS;

- ◗ terminate the original contract with SBS and run a competition to provide all of the services; or

- ◗ extend the existing contract with SBS.

The factors shaping the Assembly's option appraisal are summarised in **Figure 7 opposite**.

3.6 The short timetable for delivery, allied to the time required to run a competition and the substantial exit costs of terminating the agreement with SBS, meant that the Welsh Office had little option other than to extend the existing Osiris contract and negotiate the extension with SBS, the existing supplier.

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Key points on the decision to extend the original Osiris contract to meet the additional needs of the Assembly

- ◗ The advent of the Assembly and its significant additional information technology requirements was a one-off event.

- ◗ Delivery of the additional services in time for the transfer of functions to the Assembly was business-critical. The location of the Assembly was uncertain, which further pressurised the timescale for delivery.

- ◗ For a number of reasons the Assembly had little option other than to extend SBS's contract, and the decision to do so was reasonable given the information and advice available at the time.

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The process of extending the original Osiris contract was protracted

3.7 The Welsh Office began negotiations with SBS in December 1998. The target was to conclude negotiations by the end of March 1999. In fact the price of the additional services was not agreed until December 1999 and the eventual extended contract was signed in February 2000. One particular concern was the possibility of challenge from the European Union or another provider if the Assembly went outside the terms of the existing contract. The Assembly's legal advice was

that the risk of legal challenge would be minimised if the basis of the original contract remained unchanged, further restricting the Assembly's scope to negotiate. The process of examining the Assembly's legal position inevitably extended the time the negotiations took.

3.8 During autumn 1998, SBS began work on providing the additional functions to Members, their support staff and staff servicing the Assembly and the Cabinet, before costs had been agreed. At this time SBS was taking on risk by working without a clear statement of requirements or contract for the services provided.

3.9 The Welsh Office could not afford to risk undertaking protracted negotiations prior to work commencing because of the business-critical requirement to deliver fully functional information technology systems in time for the transfer of functions to the Assembly. The Welsh Office sent SBS a letter of intent indicating their desire to extend the contract and confirming that if negotiations were not brought to a satisfactory conclusion SBS would be paid for any reasonable costs incurred during this period. In September 1999, before the contract was signed, the Assembly began to make monthly payments on account of £200,000.

3.10 In March 1999, SBS made an initial offer of £29 million to provide the additional services for the remaining length of the contract. The level of the bid in annual terms was more than double the amount that the Assembly was paying at the time. Nor was it affordable within the budget allocated for information technology provision.

3.11 The parties continued to negotiate the cost of the extended contract throughout 1999. In April 1999 SBS disclosed their cost model, which included a very comprehensive range of possible costs. The cost model included several elements which had not formed part of the costs in SBS's original best and final offer, such as the cost of the time of directors in SBS head office and of staff bonuses.

3.12 A particularly contentious issue in the negotiations, which led to a protracted dispute and stemmed from a failure fully to reflect the terms of SBS's best and final offer in the originally negotiated contract, was that of technology refresh. The circumstances surrounding this dispute and its eventual cost to the Assembly are explained in **Figure 8 on page 16**.

Figure 7

Evaluation of the options for providing the additional services to meet the needs of the Assembly

Option	Advantages	Disadvantages
Run competition for additional services to run alongside existing contract with SBS	◗ Compliance with EU Procurement Regulations ◗ Competition likely to generate best deal	◗ Technical problem of two suppliers working on a single corporate infrastructure ◗ Operational problem that the time required to run the competition may have prevented systems being delivered on time ◗ Difficult to ensure fair competition when SBS have competitive advantage from time working in Welsh Office
Terminate contract with SBS and run fresh competition for all services	◗ Compliance with EU Procurement Regulations ◗ Competition likely to generate best deal ◗ Single supplier working on the network	◗ Estimated cost of terminating SBS contract was £12 million; at this time the anticipated cost of the additional services was £13.5 million. Making the termination payment effectively meant paying for the same services twice ◗ New competition estimated to cost £300,000 to run ◗ Operational problem that the estimated two years required to run the competition would have prevented systems being delivered on time ◗ Difficult to ensure fair competition when SBS have competitive advantage from time working in Welsh Office
Extend the SBS Contract	◗ Speed of delivery ◗ Single supplier working on the network ◗ Satisfaction with existing SBS service ◗ No compensation payment	◗ No competition and tight timetable placed SBS in an extremely strong negotiating position ◗ Risk of breaching EU Procurement Regulations, but the Welsh Office considered the risk to be small, a view supported by independent legal advice

Source: National Audit Office Wales.

3.13 After receiving SBS's original offer, Assembly officials questioned stringently the assumptions in areas such as training, staffing levels, profit margin and the treatment of inflation. More detail of the negotiations in these key areas can be found in **Figure 9 overleaf**.

3.14 On 8 December 1999 SBS made an offer of £19.2 million to provide the additional services. This represented a 34 per cent reduction from SBS's initial offer of £29 million in March 1999. Although this was still 42 per cent higher than the outline estimate of £13.5 million within the original information systems strategy, the reduction from SBS's original offer was substantial, justifying the considerable time and effort taken by the Assembly. The £19.2 million offer was accepted, and the extended contract signed in February 2000.

Contractual weaknesses meant that the focus of the Assembly's negotiating team was more on affordability than value for money

3.15 Just as the Welsh Office before them during the original procurement, Assembly officials took considerable professional advice throughout the renegotiation (see paragraph 2.9). Although the Assembly made strenuous attempts to examine value for money issues during the renegotiation of the contract, it proved extremely difficult to obtain reliable data against which to compare SBS's

Figure 8

Technology Refresh Negotiations

SBS's original best and final offer included two software refreshes and one hardware refresh. Technology refresh is the process of upgrading systems with the latest industry standard hardware and software over the course of the contract term.

In 1999, existing Osiris users used Office 95 while new users under the extended contract would use Office 97. When negotiations began, the Assembly's negotiating team expected to be able to secure a hardware refresh and a software upgrade to a common platform of NT4 and Office 97 without further charge, believing that user charges had already paid for it.

During the negotiations SBS refused to provide the refresh, pointing out that the originally negotiated contract did not specify any particular duties in respect of technology refresh, merely imposing a general duty to provide 'all developments, modifications and enhancements … in order to ensure that the services remain in line with then current industry standard practices'. SBS did not consider it necessary to provide a technology refresh at this time, and would only do so if they were appropriately remunerated for bringing forward the technology refresh and the consequent early termination of leases. Initially SBS sought a one off payment of £400,000 and recurrent costs of £414,000 a year to provide the technology refresh at this time.

Essentially this dispute resulted from the terms of SBS's best and final offer not being fully reflected by the Welsh Office in the originally negotiated contract.

Eventually the two parties came to an agreement whereby the Assembly made a one-off contribution of £377,000 for the technology refresh to reflect the costs of terminating the leases of existing equipment. Given the likely cost of litigating and the crucial importance of achieving a common operating platform throughout the new organisation, Assembly officials considered it reasonable to accept these terms. Had the best and final offer been correctly reflected in, or appended to, the originally negotiated contract, this expenditure would have been unnecessary and the technology refresh would have been delivered without further charge.

Subsequently the Assembly decided not to take up the second software refresh, considering that the benefits did not justify the cost of the disruption caused by installing new software so soon after the last upgrade.

Source: National Audit Office Wales.

Figure 9

The handling of key issues in the renegotiation

Training - the initial SBS offer included extremely high volumes of training per user. This was a key concern of the Assembly's negotiating team as the estimated levels of training appeared prohibitively high. After protracted negotiations the total number of training days included in SBS's final offer was considerably reduced, although the contract still included provision for training on all aspects of the extended system.

Profit Margin - During the negotiations SBS sought a target profit margin that was very substantially higher than that in their original best and final offer. After taking advice from CCTA, the parties agreed a projected profit margin that was lower than SBS had originally sought. Although this was higher than that stated in their original best and final offer, they considered it reasonable for a contract of this type and consistent with norms at the time.

Inflation - SBS included inflationary provisions within their initial bid, which exceeded potential increases allowed by the original contract. The original contract allowed increases to the overall user charge according to a formula based on the Retail Price Index. Under this formula annual increases were likely to have been between 0.5 and 1 per cent. Eventually inflationary increases of 5.5 per cent for wages and 2 per cent for hardware maintenance were agreed, representing £1.18 million of the eventual £19.2 million cost. Although this was far more favourable than the contractual provisions within the original contract, the inflationary provisions were supported by data relating to salary trends in the information technology market. Subsequent trends in information technology salaries have supported the accuracy of this data.

Chamberweb - the Assembly was able to negotiate a 45 per cent reduction in the annual cost of Chamberweb.

Staff Numbers - The Assembly checked SBS's offer carefully to ensure that it did not include any of the additional staff deployed under the original contract above the number in the original best and final offer. The Assembly satisfied itself that the additional staff were not included in SBS's offer and that the majority of the additional staff were needed to provide the additional services for all users. The final offer represented a 31 per cent reduction in the cost of the salaries and related expenses for the additional staff compared to SBS's original offer.

Hardware and software costs - the Assembly strove to benchmark key costs within SBS's various offers. It was difficult to identify how much was being spent on each element of service within the user charge because it included several separate elements, such as hardware, software, help desk and training. The Assembly attempted to use the government information technology catalogues G-CAT and S-CAT but found that suppliers would not provide hypothetical quotations with little chance of gaining any work. Eventually SBS's suppliers, Computacentre, provided a letter simply stating that prices were as least as good as would have been obtained through the G-CAT process. This letter is not supported by any comparative prices and is the only evidence suggesting that the cost of equipment was reasonable.

Source: National Audit Office Wales.

proposed costs. This was primarily the result of the absence in the contract of mechanisms such as benchmarking and market testing, and was exacerbated by the time pressure surrounding the renegotiation of the contract. Despite their best endeavours it was inevitable that the negotiating team tended to focus more on the affordability, rather than the value for money, that the deal offered.

3.16 Since PFI deals are based on suppliers bidding an overall price to deliver specific business outputs, it can be difficult to identify individual elements of the service against which to compare costs, as is shown in Figure 9 above. PFI deals are long-term in nature and need to be flexible and capable of responding to change, especially in information technology deals where the pace of technological change can radically alter the client's requirements. Good PFI contracts therefore include change procedures, which enable the partners to agree changes to the services provided when business needs alter.

3.17 The Assembly's business needs were considerably wider than those of the Welsh Office. While the Osiris contract allows changes to be suggested and implemented, it does not contain robust mechanisms to test the value for money they offer.

3.18 More recent contracts frequently protect the interests of the public sector through the inclusion of change arrangements that enable the price of proposed new services to be benchmarked or market tested (see below). There was no such mechanism in the Osiris contract (in common with other early PFI contracts) to mandate SBS to provide information supporting the reasonableness of their charges. Such provisions are particularly important in a rapidly changing area, such as information technology. Commercial organisations and benchmarking clubs can assist with the benchmarking process and reduce the overhead on the Assembly.

3.19 SBS is accustomed to benchmarking provisions in other more recent information technology contracts that it holds. Their experience is that such provision breeds trust about costs and value for money. The importance of ensuring that there is not only the flexibility to introduce change but arrangements to ensure that additional services provide value for money is stressed in the Comptroller and Auditor General's report *Managing the relationship to secure a successful partnership in PFI projects* (HC 375, November 2001).

Key Points on the renegotiation process

◗ In order to ensure that the additional services were delivered on time, SBS began work on providing services before costs had been agreed; consequently the Assembly was in a weak negotiating position.

◗ Negotiations were protracted, and there was a significant dispute over technology refresh which led to expenditure of £377,000 because the terms of SBS's best and final offer had not been fully reflected in the original contract.

◗ The Assembly eventually agreed to pay £19.2 million for the additional services, a substantial reduction of 34 per cent from SBS's initial offer.

◗ The cost model for the extended contract allowed a higher projected profit margin and more favourable treatment of inflation than the original contract. Both were consistent with prevailing market norms at that time and subsequently.

◗ The renegotiation inevitably focused more on affordability than value for money because benchmarking costs proved difficult and the original contract was inflexible and contained few robust value for money mechanisms.

We recommend that the Assembly:

◗ integrate mechanisms, such as benchmarking and market testing, into future contractual change procedures, to increase flexibility and the rigour with which value for money is assessed when negotiating to meet changing business needs.

Benchmarking and market testing

Benchmarking compares the performance of different organisations in such areas as price, performance, costs and outputs. Organisations exchange information, which can be used to analyse performance and ask pertinent questions.

Market testing compares value for money by consulting the market to identify the price of alternative suppliers relative to the price of the same goods or services offered by the existing supplier.

The additional services were delivered on time, but costs increased considerably

3.20 The partnership successfully delivered functional systems to the Assembly in time for its opening on 8 May 1999, and quickly rolled out facilities to constituency offices as they opened during the remainder of 1999. This represented a significant achievement, especially given the long and complicated nature of the negotiations that took place simultaneously. However costs rose substantially because of increases in:

◗ the basic user charge; and

◗ user numbers.

The basic user charge increased as a result of the extended contract

3.21 The parties decided that, rather than charge for the additional services in isolation, their cost should be incorporated into the user charge. This was because many of the additional functions were common to all users, not simply the new users.

3.22 Under the extended contract the charge per user increased by 76 per cent to reflect the increased costs involved in providing the additional services required by the Assembly. One of the main reasons behind the increase was the requirement for SBS to provide the infrastructure for a far more extensive network, now including constituency offices and Assembly Members' homes. Average expenditure per user also increased by 16 per cent between 2000-2001 and 2001-2002. Projections for the remainder of the contract suggest that the average expenditure per user will continue to increase. When we drew this to the Assembly's attention they found that the main cause was a substantial increase in expenditure on applications that are not part of the standard Osiris package. The cost of bonus payments under the service credit arrangements has also increased substantially.

User numbers and hence contract costs have increased substantially

3.23 Since the transfer of functions to the Assembly in May 1999, the number of users of the Osiris network has increased by 63 per cent from 2,486 at the end of June 1999 to 4,062 at the end of June 2002. This latter figure is 41 per cent higher than the anticipated level of users disclosed to SBS

during the negotiations to extend the contract (2,875 until April 2002, after which numbers would reduce by five per cent) annually. The difference between forecast and actual user numbers is shown in **Figure 10**.

Figure 10

User Numbers and Annual Cost of Osiris Contract

- ▲ User numbers predicted at renegotiation
- ◆ Actual and projected user numbers
- ▮ Actual and projected cost
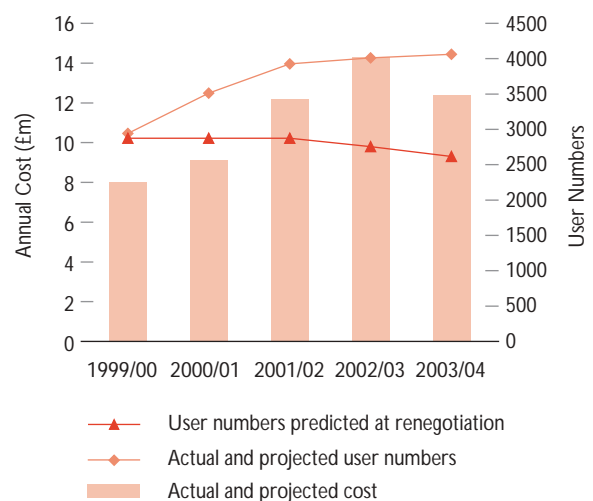
NOTE

The cost for 2003-2004 is lower as the contract expires after ten months of the financial year.

Source: National Audit Office Wales

3.24 This increase in user numbers precipitated a 39 per cent increase in the cost of the Osiris contract, taking estimates considerably beyond the £46.2 million estimated immediately after the contract was extended. The estimated total cost of the contract currently stands at £64.4 million.

Assembly officials did not conduct sensitivity analysis on user numbers or seek to mitigate their consequent impact on costs

3.25 Assembly officials informed SBS that they should base their costing of the additional services on a single scenario, whereby user numbers would remain stable at a level of 2,875 until April 2002, after which they would reduce by 5 per cent annually. Since payment would continue to be based on user numbers, this was the key contractual risk. When the contract was being extended the size and structure of the future National Assembly was

unclear, and depended on unknown political factors. Consequently forecasting user numbers was inherently speculative.

3.26 For the original contract, the Welsh Office had carried out some, limited, sensitivity analysis (paragraph 2.21). However, although user numbers had already risen steeply, when renegotiating the Osiris contract the Welsh Office/Assembly officials did not conduct any sensitivity analysis on the effect of this key cost driver changing.

3.27 Assembly officials were well aware of the need to avoid major changes to the basis of the contract (and possible breach of EU procurement regulations), as the renegotiation involved an amendment to the existing contract to provide the additional services, rather than the creation of an entirely new contract. However, had Assembly officials conducted sensitivity analysis, the possible financial effect of rising user numbers would have been more apparent. This might have prompted officials to seek to protect the Assembly against increasing user numbers if such provisions were compatible with the basis of the original contract. Some of the contractual mechanisms available to the Assembly to achieve this are outlined in **Figure 11**. In return for

the inclusion of such mechanisms, it is likely that SBS would have required volume protection through a guaranteed minimum usage level.

3.28 However, Assembly officials did not negotiate any mechanisms to share with SBS the risk of unexpected increases in user numbers. This compounded the financial effect of the substantial discrepancy between forecast and actual user numbers. As an illustration, we estimate that a discount of ten per cent applied to user numbers above 3,500 would have realised savings of about £340,000 over the life of the contract.

Key Points on the delivery of the extended contract

▶ The additional functions were delivered in time for the opening meeting of the Assembly on 8 May 1999; this was a significant achievement.

▶ Because of the additional functions, and considerable number of new locations, the new user charge was 76 per cent higher than the user charge under the original contract.

▶ Although user numbers, the key cost driver, were already increasing sharply, Assembly officials did not conduct any sensitivity analysis on this variable. Nor did they take any steps in the contract to mitigate the effect of users, and therefore costs, continuing to rise.

▶ The extended contract was based on the assumption that user numbers would remain stable at 2,875 until April 2002, after which they would reduce annually by 5 per cent. Since July 1999 user numbers have risen to 4,062.

We recommend that the Assembly:

▶ extend sensitivity analysis to examine the impact of changes in key variables when negotiating contracts; and

▶ take appropriate steps to protect itself against key risks in contracts materialising, for example including within the contract mechanisms such as profit sharing and charge banding.

Figure 11

Techniques to reduce the effects of fluctuating user numbers

▶ **Charge capping** - whereby there is a limit on the total number of users for whom the Assembly would pay. Additional users above that level do not incur charges.

▶ **Charge banding** - whereby there is a sliding scale of charges, reducing by a certain amount for each incremental increase in user numbers relative to a certain threshold. For example, the user charge might reduce by 5 per cent for each additional one hundred users. Charge banding has been employed in the Health and Safety Executive's recent information technology contract, which is also based on a charge per user.

▶ **Profit sharing** - whereby there is a limit on the profit SBS can make under the contract, and any profits in excess of that level are shared between the partners.

Source: National Audit Office Wales.

Uncertainty about the future business needs of the Assembly led to increased costs

3.29 When the Assembly negotiated the extended contract there were many uncertainties surrounding the new institution and its future business needs. This section of the report examines the impact of these uncertainties after the extended contract came into force, looking specifically at:

◗ service requests;

◗ specific functions, such as desktop video conferencing and extended help desk hours for Assembly Members; and

◗ SBS's profit margin.

The increasing volume of service requests led to additional annual payments

3.30 During the negotiations to extend the contract, service requests were added to the service credit arrangements. A service request is a non-urgent request for SBS to provide various services, such as installing new software, setting up a new user, or moving a workstation because of accommodation changes. The Assembly and SBS agree a target time to deal with an individual service request, and service credits accrue if SBS fail to meet that time. In order to include the cost of meeting the contractual targets, SBS asked the Assembly for an estimate of the likely volume of service requests.

3.31 The Assembly used historical data to estimate that there would be 240 service requests each month. Although service request volumes have an indirect link to user numbers, they relate more to organisational change within the Assembly through the establishment of new premises and changes in existing accommodation arrangements. By April 2002 the monthly volume of service requests had reached almost 600. Consequently each service request took an average of twenty days to resolve. SBS considered the increasing volume of service requests to be outside their control.

3.32 In order to resolve the growing impact of the delays in completing service requests the Assembly is now making additional payments to reduce the waiting time from twenty to fifteen days.

Specific functions of the extended contract have not proved cost effective

3.33 The extended contract included enhanced help desk facilities for Assembly Members. This provided advice on software use between 18.30 and 22.00 on weekdays and between 9.00 and 17.00 on weekends. This service became available in June 2001. Since then there have been so few calls from Assembly Members during the extended hours of availability that the cost of each call was effectively £6,000. The low level of demand may be explained by the limited scope of the service, which does not offer assistance with hardware or network problems.

3.34 Interviews suggest that the use of desktop video conferencing has been limited because of the slowness with which users have been able to use the network when accessing it remotely, especially from constituency offices. The majority of Assembly Members have elected to take up desktop video conferencing. Desktop video conferencing costs a flat fee, which is not triggered by usage. Our survey of Assembly Members and their staff showed that 42 per cent of those who used video conferencing were either dissatisfied or very dissatisfied with it. Combined with the low level of usage, this suggests that desktop video conferencing might not be cost effective.

SBS's profit margin has increased

3.35 Since SBS's costs are not directly proportionate to increases in user numbers, Assembly officials estimated that profit levels for user numbers above 2,875 were considerably higher than margins for users up to this level. Based on Assembly calculations, we consider that SBS's overall profit over the life of the Osiris contract will be consistent with other contracts of this type. However it is likely that the profit margin would have been lower if user numbers had not exceeded the Assembly's prediction of 2,875.

Key Points on the effects of the extended contract

◗ Costs to the Assembly increased because it under-estimated demand for service requests during the renegotiation of the contract; the Assembly is now making additional payments to reduce the time it takes to deal with a service request.

◗ The extended Help Desk hours for Assembly Members and desktop video conferencing do not appear cost effective because of the low level of use.

◗ Based on Assembly calculations, SBS's overall profit margin on the Osiris contract will be typical for this type of contract.

We recommend that the Assembly:

◗ review the cost effectiveness and scope of extended help desk services for Assembly Members and desktop video conferencing.

4.1   Contract management is a critical element of securing an effective PFI deal. Assembly officials estimate the internal cost of managing the Osiris contract as £1.9 million over its seven-year life, 2.9 per cent of the projected overall contract cost. This part of the report considers the related issues of how well the Osiris system has performed, the effectiveness of the Assembly's contract management, and, where appropriate, the lessons to be learned for the Merlin procurement, examining specifically:

◗   the performance of the Osiris system; and

◗   the effectiveness of the relationship between the Assembly and SBS.

The Osiris system generally performed well

Network availability was excellent although speed was a major concern for remote users

4.2   Under the service credit regime the key indicator of Osiris performance is the consolidated availability calculation. This is a complex formula that calculates the overall availability of the Osiris network and other services. Since renegotiation the availability of Document Management Systems and the Intranet has been included in the service credit regime. Consolidated availability has been extremely good. Of the twenty-two quarters to date the Assembly has made incentive payments to SBS nineteen times to reward them for exceeding the target of 99.1 per cent availability. Apart from one major incident and consequent service credit in favour of the Assembly, when e-mail crashed for two weeks (see Figure 4), overall performance has been good, and has improved since the technology refresh took place. This is backed up by the survey results, which showed that the vast majority of users of the network in Crickhowell House or Cathays Park were either satisfied or very satisfied.

4.3   However, availability is not the sole criterion on which the performance of the network should be judged. Network speed is also critical and affects the efficiency and effectiveness with which users can work. Users access Osiris from over one hundred locations and in a variety of ways, either directly through the network infrastructure or by dialling into the network remotely via telephone lines, especially from constituency offices or their homes. Our surveys showed that users considered network speed and reliability to be excellent in the Assembly's main establishments, such as Cathays Park, Cardiff Bay and regional offices. However those who accessed the network remotely, by dialling in from their home or constituency office, perceived network speed to be extremely slow. This was backed up by the results of the interviews and surveys we conducted. The vast majority of survey respondents indicated dissatisfaction with network speed when accessing the network remotely. The box below contains a selection of respondents' comments about remote access to the network.

Comments made by Assembly Members and their staff about connection from constituency offices or their homes

'Dial up access from constituency offices is so slow it wastes stacks of time - I spend half my time waiting for the computer to catch up!'

'I find working in the constituency office almost impossible. I regularly travel to the Assembly building in order to type standard letters.'

'Too slow, especially in the constituency offices. You can make a cup of tea whilst waiting for it to come on.'

'Constituency office service is diabolical….half the time my office effectively has no information technology as my staff and I cannot log on to our computers.'

'The service to the constituency offices needs to be totally re-thought.'

'The only comment I will make, and it really does cause the most dreadful stress, is that the system is so slow in the Constituency Office. I cannot over state how bad it is.'

Source: NAO survey of Assembly Members and their staff.

4.4   Although it is clearly a significant problem for those dialling into the network from constituency offices or their homes, the slowness of the connection is caused not by the Osiris system but by bandwidth (the rate at which information can be transmitted along a telephone line in many parts of Wales). The Presiding Office recently conducted tests of network speed in various constituency offices. Their report concluded that speed was consistent with technical expectations of a connection through the available bandwidth. The report also identified housekeeping actions, which could reduce delays, and guidance is to be provided to relevant users.

4.5 The inclusion of telephony (the technology associated with the electronic transmission of voice, data or fax) in the Merlin procurement is intended to improve substantially the speed with which remote users can access the network. Another factor that will improve connection speed in most parts of Wales is the Broadband Wales programme. In the long term this programme will increase considerably the number of locations where faster access will be available through broadband connections.

Help Desk service was satisfactory

4.6 User satisfaction with the Help Desk service was generally high. A clear majority (89 per cent) of Assembly Members and their staff were either satisfied or very satisfied with the Help Desk service. Among other Osiris users, the majority considered various elements of the Help Desk service good or excellent.

SBS consistently failed to meet agreed targets for fixing workstation hardware problems

4.7 Users rarely experienced problems with their hardware. Currently the average Osiris user experiences a hardware incident once every seventeen months. However, the speed with which SBS resolved an incident has consistently failed to meet mutually agreed targets. Consequently during each quarter of the contract, service credits have accrued to the Assembly because SBS has failed to meet its target of resolving 95 per cent of hardware incidents within eight hours for standard users and four hours for Assembly Members. Although this issue has been raised repeatedly at service delivery meetings, there has been no discernible pattern of improvement.

Training satisfaction was good

4.8 SBS has delivered a substantial number of training courses through a subcontractor under the provisions agreed within the extended contract. Corporately the Assembly has conducted little evaluation of the impact of training on users' performance, although the majority of users trained under the Osiris contract reported that they felt above average satisfaction at the end of the course. This was supported by the results of our survey of users, which showed that the overwhelming majority considered Osiris training to be good or very good.

4.9 The Assembly has used central government project funding (from the Better Government programme) to introduce an Information Technology Skills Academy on a pilot basis between November 2001 and June 2002. This is a drop-in clinic which users can attend with or without an appointment, individually or in a workgroup, to spend time with a trainer looking at a particular training need. The learning experience supplements classroom training provided through Osiris.

4.10 The response to the pilot was extremely favourable. Twenty per cent of Osiris users (over eight hundred) attended the Information Technology Skills Academy. The evaluation report described the pilot as 'an overwhelming success'. Because of its success the scheme is continuing and Assembly staff are currently negotiating with SBS to replace part of the classroom training provision with the Information Technology Skills Academy.

Specific functions of the Osiris infrastructure were satisfactory

4.11 Our surveys showed that 91 per cent of users with access to Chamberweb (described in Figure 6) were either satisfied or very satisfied with it. Interviews with users and staff showed that Chamberweb was regarded as a very useful element of the Osiris system, enabling Assembly Members and their staff to exchange information while the Assembly was in session.

4.12 The majority of respondents were either satisfied or very satisfied with e-mail, Microsoft Office software, Internet/Intranet[2], hardware and Welsh language software.

Key Points on Osiris performance

◗ Performance data and the results of our survey suggest that the Osiris system has generally performed well. Consolidated availability was consistently high and users were generally satisfied with SBS's services. However, under the service credit regime, SBS made compensation payments because the resolution of workstation incidents consistently failed to comply with mutually agreed targets.

◗ The major issue raised by users was the slow speed with which they were able to use the network when accessing remotely via a telephone line, either from a constituency office or from home; this relates to bandwidth and the quality of the telecommunications infrastructure and not the Osiris system.

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2 The Osiris contract does not include the design of the Assembly's Internet and Intranet sites - SBS simply provide access to these services, whose content is designed by other suppliers.

The relationship between the Assembly and SBS worked better operationally than strategically

4.13 Although service delivery has generally been acceptable under the Osiris contract, the most effective PFI deals are built upon a genuine partnership between public and private sectors. To achieve such a partnership, PFI contracts should clearly specify the arrangements for managing the relationship between the partners and ensuring that the partnership works in the interests of both. To this end, good governance arrangements, considering both service delivery and strategic issues, are essential to effective joint working and realising the wider benefits of a PFI approach. This part of the report examines the effectiveness of the partnership relationship, specifically:

◗ the extent to which the partnership delivered innovation; and

◗ the effectiveness of the relationship between the Assembly and SBS, and the arrangements for its governance.

The partnership has delivered little innovation

4.14 One of the main attractions of PFI is that it enables the public sector to specify desired outcomes rather than how they are to be achieved. This leaves the private sector partner free to develop innovative methods of delivery and ensures that the public sector only pays when effective, fully-functioning, systems have been delivered.

4.15 In the case of Osiris, the information technology infrastructure provided under the contract by SBS **enables** the Assembly to conduct its core business functions, rather than **provides** key outputs directly. Consequently the payment mechanism is not based on users' outputs, only their accessing the system. There is no clear means by which an information technology infrastructure providing office automation can be linked to the end product of the Assembly in a way which is sufficiently transparent and quantifiable to form the basis of a payment mechanism. This takes away one of the main potential benefits of PFI procurement (Figure 1).

4.16 Since the output measures which determine SBS's reward in the Osiris contract were based on the number of users logging onto a corporate network and the availability of that network, SBS had little or

no incentive to innovate once a sound network had been established. Only by agreeing additional, innovative services and associated charges could SBS be expected to take the initiative and develop new ways of working. SBS lost money when they carried out development work on the Osiris E project (Figure 4), which subsequently led to a reluctance to undertake such work without an order from the Assembly.

4.17 Some other PFI deals for information technology have involved transaction-based systems, which directly provide key business services or outputs. The private sector partner is paid according to the extent to which core business outputs have been delivered through the solution provided. Such contracts often involve significant transfer of staff from the public sector to the private sector partner. Consequently the private sector partner is incentivised to innovate in delivery. By way of contrast with Osiris, SBS's partnership with National Savings clearly demonstrates this and is outlined in the case study in **Figure 12**.

Figure 12

Case Study of Public Private Partnership between Siemens Business Services and National Savings

This fifteen year Public Private Partnership involved SBS providing operational services on behalf of National Savings from April 1999.

Payments to SBS relate entirely to the operational performance of National Savings' key business functions, full control of which transferred to the contractor. These include, for example:

◗ treasury management - timeliness and accuracy of money movement;

◗ product delivery - timeliness and accuracy of sales, payments and customer service;

◗ customer service research - percentage of satisfaction; and

◗ management information - timeliness and accuracy.

SBS is responsible for the cost of all staff fraud and all customer fraud above a certain threshold. Profit sharing mechanisms are built into the contract. Full transfer of business processes and their improvement is central to this contract, increasing risk transfer and encouraging innovation in delivering the desired results, which are directly linked to the payment mechanism.

In the National Savings example the central focus of the partnership is on the business rather than the IT solution, which is simply a means to achieving wider business objectives. A strategically focused Partnership Board involving senior executives from both partners reflects this.

Source - National Audit Office National Savings Public-Private Partnership with Siemens Business Services, HC 493, 1999-2000

4.18 The Merlin project intends to address the lack of innovation delivered through Osiris, by making changes to business processes one of its main aims (Appendix C).

The relationship worked well at local level but not strategically

4.19 The most effective public-private partnerships are based on each partner developing an understanding of the other's business. Good contractual governance arrangements should establish a framework to identify joint projects which would benefit both partners.

4.20 The Osiris contract included provision for a monthly service delivery meeting and a quarterly service management board. The quarterly service management board had a more strategic remit, with the relevant contract schedule including 'future strategic requirements' and 'major service changes'. During the early part of the Osiris contract there were regular meetings between senior SBS personnel and the Welsh Office. However, these early meetings declined after the decision not to proceed with the Osiris E project, described in Figure 4. The subsequent eighteen-month period of renegotiation, involving senior executives from each party, effectively rendered such meetings unnecessary. Such high-level meetings have not continued after the completion of negotiations.

4.21 Senior personnel from each partner have neither shared their organisation's vision nor identified areas of alignment and possible synergy between their strategies. A more strategic and proactive approach to the partnership, supported by better communication at senior level, might have improved the quality of the partnership.

4.22 The monthly service delivery meeting reduced to three monthly frequency from March 2001, with additional meetings to look at security, training and service request workloads. The content of the service delivery reviews was strongly operational, looking at performance statistics, problems and actions required by each party to ensure effective service delivery. The content of the meetings was not strategic in nature.

4.23 This weakness in the quality of the high level, strategic relationship between the Assembly and SBS has been explicitly recognised in the Outline Business Case for Merlin. A recent PFI information technology contract, let by the Health and Safety Executive, contains a stronger partnership framework, which is described in **Figure 13**.

Figure 13

Case Study of the Health and Safety Executive's Partnership framework

The HSE has recently entered into a ten year PFI contract. The contract contains strong partnership arrangements based upon a partnership forum made up of the following meetings:

1. **Partnership Steering Group** meeting quarterly in the first year and twice a year thereafter. Members are at director level in each organisation and the group's purpose is to provide a framework for managing the relationship at senior level to maximise mutual benefits achieved through the partnership;

2. **Programme Management Board** meeting monthly. Members are high level managers with project sponsorship responsibilities;

3. **Programme Team** meeting weekly, composed of team members responsible for managing services provided under the contract; and

4. **User Group** meeting every two months in the first year and quarterly thereafter.

The contract contains a partnership charter outlining the aims and objectives of partnership working, rights and responsibilities and a code of conduct for partnership working.

As well as the contractual framework, a partnership scorecard was designed to act as a framework for assessing the effectiveness of the partnership.

Source: NAO Wales and Health and Safety Executive.

4.24 The focus of the relationship between the Assembly and SBS has been at the operational level, focusing on service delivery, where both partners consider the relationship to be strong. Personnel from each party work in the same room and resolve issues by reacting to events and circumstances. This has contributed to effective local communications and problem resolution. Indeed the relationship has improved significantly at operational level, after considerable turnover of key SBS staff led to variable service and discontinuity during the first two years of the contract. Staff continuity within the Assembly has facilitated the effective local operation of the contract.

There is room for improvement in the Assembly's control of expenditure on Osiris

4.25 The Assembly incurs costs on the Osiris contract depending on the number of users accessing the system each month. However, the Assembly's internal budgetary arrangements are such that staff are able to instigate recruitment without them immediately recognising the consequent effect on Osiris costs. However in setting its annual budget for the Osiris project the Assembly's Executive Board did assess the likely impact of changes in staff numbers, locations and other factors affecting costs by renewing plans for changes in staff numbers and projects involving the transfer of organisations and functions into the Assembly. One possible effect of local managers not being directly accountable for Osiris spending is shown in the box below.

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Limited control of expenditure on Osiris

A head of group successfully bids for an increase in their budget to recruit a new member of staff at a particular grade. They later decide to recruit two staff at lower grades for the same amount of money as the higher graded individual. Because it is centrally held, there is no incentive for them to consider the impact of this decision on the Osiris budget. The additional cost of Osiris would double in such a situation.

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4.26 The Assembly's Executive Board is putting in place alternative ways of managing the Osiris budget, such as delegation to groups. Although some of these initiatives will be too late to impact on Osiris expenditure, they have considerable potential to improve the management of the Merlin budget.

There was no systematic evaluation and review of the contract

4.27 It is essential that major contracts are regularly reviewed to ensure that the intended benefits are being delivered at an appropriate cost. This is an integral part of effective contract management and should play a key role in joint governance arrangements. Although the Assembly's Internal Audit Service is currently conducting a review of Osiris, there has been no process of regular review and evaluation of the costs and benefits delivered by the contract. Consequently managers and users had little awareness of the overall performance of the contract. The Assembly knows only that the Osiris contract provides a framework that has the potential to improve efficiency and effectiveness but has not quantified the extent to which this potential has been realised.

4.28 Assembly officials only began to analyse Osiris expenditure into basic categories such as user charges, circuits, incentive payments and service requests in 2001-2002. Before this, the Assembly did not keep information that enabled it to analyse total expenditure on Osiris. Although Assembly officials have routinely monitored distinct elements of service delivery, such as training, service credits, consolidated availability and help desk performance, they have carried out little strategic evaluation to quantify the overall costs and benefits delivered by office automation. In part this reflects the environmental instability and change - such as the impact of devolution - since Osiris was rolled out.

There was limited use of open book accounting

4.29 The absence of evaluation and review of the contract was exacerbated by the Assembly's failure to use contractual open book accounting provisions as an integral part of the contract management process. Open book accounting refers to the ability of the Assembly to have access to the books and records of SBS. Open book accounting provisions are a common feature of PFI contracts and are regarded as best practice. The rationale for open book accounting is that, as a customer in a long term contract, the public sector body needs assurance that major contracts deliver value for money, and that costs, charges, overheads and profit margins are reasonable.

4.30 This ability of the purchaser to see the records of the provider is clearly very important where contracts contain profit sharing arrangements (so that the purchaser can verify, for example, the levels of profit reported by the provider). In some cases public sector bodies have recovered several million pounds from their partner through open book accounting. However, even where the direct results are not so easily quantifiable, open book accounting is an important mechanism for establishing a culture between the partners of disclosure, transparency and fairness. It can also have a significant deterrent effect.

4.31 With one limited exception, Assembly officials have not invoked open book accounting provisions of the contract. In June 2000 Assembly officials asked SBS to provide contractors' invoices to compare the actual costs incurred with the sum included in SBS's cost disclosure model at the time of contract renegotiation. Assembly officials are considering the information requested.

4.32 When the original contract was drafted, best practice in open book accounting was not well developed in the field of PFI deals for information technology. The Osiris contract does not contain any profit sharing elements, or provisions for the clawback of excessive profits. Making greater use of open book accounting would not, therefore, have had a direct financial consequence. However, had Assembly officials invoked the open book accounting provision, they would have had a clear picture of whether SBS's costs, charges and profits were reasonable throughout the contract, including the renegotiation. It would also have provided a signal to SBS that the Assembly's contract management would be robust and proactive.

4.33 Assembly officials explained that their decision not to invoke open book accounting more regularly was taken on the basis of lack of resources, and its potential to damage the partnership relationship with SBS - even though SBS themselves were well accustomed to open book accounting in the other contracts they held. In other contracts, limits on the periods of the year when the public sector can request information, subject to reasonable co-operation by the partner, have been used to reduce the burden on the service provider.

Key Points on the partnership between the Assembly and SBS

◗ The Osiris contract did not include a clear link between key business outcomes and the payment mechanism. Consequently the partnership delivered little innovation.

◗ The partnership worked well at the local, operational level, but was not effective at the strategic level.

◗ There was no robust framework for the evaluation and review of the contract.

◗ There was limited control of expenditure on Osiris, which could have been improved if there had been greater accountability for the consequences of decisions which affect the budget. Sometimes staff in the Assembly are able to instigate recruitment, and hence incur costs on Osiris, without the knowledge of those managing the contract.

◗ With one limited exception, Assembly officials have not invoked open book accounting, the contractual provision which gives them access to SBS's records.

We recommend that the Assembly:

◗ establish more robust governance arrangements in future contracts, ensuring that senior executives from each partner are actively involved in the contract as it develops;

◗ improve accountability for Osiris expenditure so that those making decisions, which affect the number of users, are responsible for the financial consequences of their decisions.

◗ establish a robust framework for evaluating the costs and benefits delivered by major information technology contracts; and

◗ ensure that open book accounting is used as an integral part of the management of future contracts, such as Merlin.

APPENDIX A   METHODOLOGY USED BY THE NATIONAL AUDIT OFFICE WALES

1. We used a variety of methods to collect evidence for this study. The main methods were:

    ◗ **documentary review** - we reviewed files relating to the original Osiris procurement, the renegotiation of the contract, contract management and the Merlin procurement to date;

    ◗ a review of performance information relating to the Osiris system, especially relating to the service credit regime;

    ◗ two separate **surveys** of Osiris users to obtain information about user satisfaction, functionality and the overall impact of Osiris. The first, shorter, survey, covered Assembly Members and their staff. The second survey was sent to standard users of the Osiris system. The survey was designed by the Assembly's Internal Audit team, who kindly allowed the National Audit Office Wales to include a small number of additional questions about issues pertinent to this study. The Internal Audit survey contained questions about many aspects of Osiris and its use;

    ◗ **semi-structured interviews** on a range of topics relevant to the study. We interviewed two Assembly Members, a sample of their staff based in Cardiff Bay and a constituency office, staff from SBS and a wide range of relevant Assembly personnel, particularly those involved in:

        ◗ managing the Osiris contract;

        ◗ renegotiating the contract to meet the additional needs of the Assembly; and

        ◗ the Merlin procurement.

    ◗ **reviewed other similar projects** and work carried out on such projects by the Comptroller and Auditor General.

APPENDIX B   KEY OSIRIS COSTS AND MILESTONES

Date	Description	Estimated Lifetime Cost £ million*	Number of Users	Number of Access Locations	Range of Services Provided
May 1996	SBS best and final offer	16.1	-	16	Local and wide area network delivering to the desk Office Automation software, internal e-mail and limited external email. Training provided within user charge.
October 1997	Costs after roll-out	20.9	1,703	16	As above
March 1999	Costs during renegotiations (this includes an estimate of £7.5 million to reflect the cost of the additional functions for the Assembly)	33.6	2,361	88	As above plus Internet external email, Internet browsing, Intranet, electronic document management system, Assembly Chamberweb. Limited desktop videoconferencing. Training provided within user charge.
December 1999	Costs after contract extended agreement	46.2	2,875	88	As above
September 2002	Current forecasts	64.4	4,062	103	As above

*   Total forecast cost of the contract over its full seven-year period.

APPENDIX C   THE MERLIN PROCUREMENT

1.   The Osiris contract expires on 13 January 2004. The Assembly is currently engaged in procuring its replacement, a ten-year contract that will be known as Merlin. An advertisement inviting bids from suppliers was placed in the Official Journal of the European Communities (OJEC) in August 2002. This appendix describes the Merlin procurement process to date.

Merlin options appraisal

2.   Merlin's Outline Business Case contained three options for replacing Osiris:

   ◗   'Sustain' whereby the existing system is replaced on a 'like for like' basis, with telephony added to the scope of Osiris;

   ◗   'Sustain Plus' whereby the existing Osiris system is maintained and supplemented by a wider range of functions which are currently provided outside the main Osiris contract; or

   ◗   'Change', whereby a consortium would provide existing and upgraded information and communication technology services. An additional key element of this option would be the aim to develop better, more efficient ways for the Assembly to conduct its business - the innovation that has failed to materialise under Osiris. This "change management" (also known as business process improvement) has been a feature of other recent information technology contracts.

3.   The Assembly selected 'Change' on the basis that this option had a higher net present value than 'Sustain' or 'Sustain Plus'. Therefore Merlin has a much wider scope than Osiris and, in addition to its change management element, is intended to include many elements of information and communication technology, which are currently outside the scope of Osiris. Such items include telephony, the design of Internet and Intranet sites and web authoring.

4.   The funding mechanism for Merlin has not been decided. The OJEC advertisement indicates that the likely annual cost of the contract is £22 million, representing approximately £220 million over ten years.

5.   The Assembly has followed the Office of Government Commerce's gateway review process, which involves regular independent reviews of the procurement at each key milestone.

The next steps

6.   The timetable involves suppliers submitting expressions of interest in response to the recent OJEC advertisement. Interested suppliers will then be shortlisted according to a pre-qualification questionnaire. The full requirements will then be distributed. After receiving responses the Assembly will produce a final shortlist of suppliers, who will take part in a study period within the Assembly, between December 2002 and January 2003. Final negotiations will take place between March and July 2003, with contract award scheduled for July 2003.

APPENDIX D   OSIRIS CHRONOLOGY OF EVENTS

September 1994	Official Journal of the European Communities advertisement for suppliers to provide Osiris.
July 1995	Shortlist of 3 bidders finalised, after receiving 53 responses to the advertisement.
January 1996	PFI selected as the preferred funding mechanism.
May 1996	Best and final offers received from the two remaining bidders.
June 1996	Contract awarded to Siemens Business Services (SBS).
June 1996-December 1996	Transitional phase where SBS run old Welsh Office systems to prove their capability to operate the main contract.
January 1997	7 year PFI agreement with SBS becomes fully effective.
September 1997	Referendum supports the establishment of the National Assembly for Wales.
October 1997	Osiris fully implemented in the Welsh Office operations in Cardiff, Colwyn Bay and Caernarfon.
January-June 1998	Welsh Office developing Information Strategy for the new Assembly.
July 1998	Assembly decided to extend SBS's contract to meet the additional needs generated by the Assembly.
Summer 1998	Osiris extended to Agriculture Division offices in Carmarthen, Caernarfon and Llandrindod Wells.
Autumn-Winter 1998	Osiris extended to Health Promotion Wales, Tai Cymru and parts of Welsh Health Common Services Agency.
Autumn-Winter 1998	SBS begin work on extending the Osiris infrastructure before costs agreed. Interim payments on account of £200,000 begin.
December 1998	Welsh Office begins negotiations on costs with SBS.
March 1999	SBS's initial offer of £29 million to provide the additional services over the remaining four years of the contract. Dispute over technology refresh.
May 1999	First meeting of the Assembly.
September 1999	SBS revised offer of £21.7 million to provide the additional services.
December 1999	SBS make a final offer of £19.2 million, which is accepted by the Assembly.
February 2000	Extended contract with SBS signed.
August 2002	Advertisement for suppliers to provide 'Merlin' published in the Official Journal of the European Communities.