



Office of the
Deputy Prime Minister

Creating sustainable communities

FIRECONTROL PROJECT

Outline Business Case Volume 1 (Abridged Main Text)

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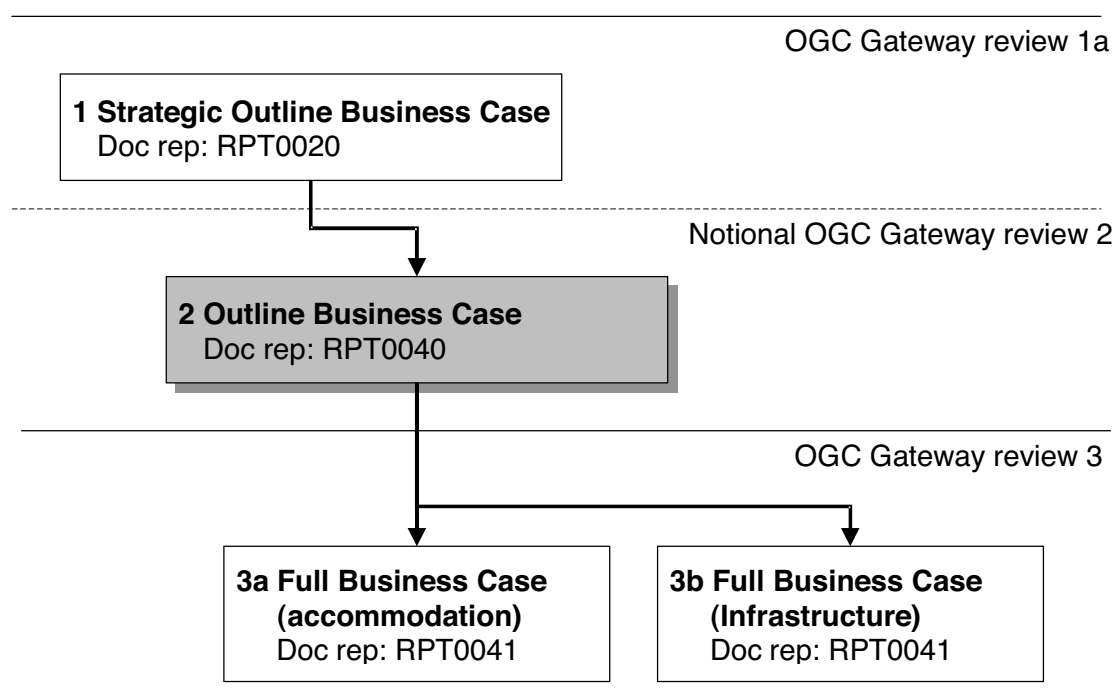
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INTRODUCTION

1. This introduction answers the following questions:
 - What is the purpose of this document?
 - How is it structured?
 - Who should read it?
 - What are the next steps?
2. This is the Outline Business Case for the FiReControl project. It fulfils three main objectives:
 - Firstly, to inform fire control procurement and funding decisions
 - Secondly, to support external scrutiny of the project
 - Thirdly, to provide the foundation for the benefits management process.
3. It is the second of a set of three documents, prepared to define the basis for proceeding with the project and aligns with OGC gateway reviews, as illustrated below:



4. The Outline Business Case supports decisions surrounding a notional OGC gateway review 2 point in the project¹. The OBC will be refined and reissued as the Full Business Case when regional lease arrangements are agreed and national infrastructure provision

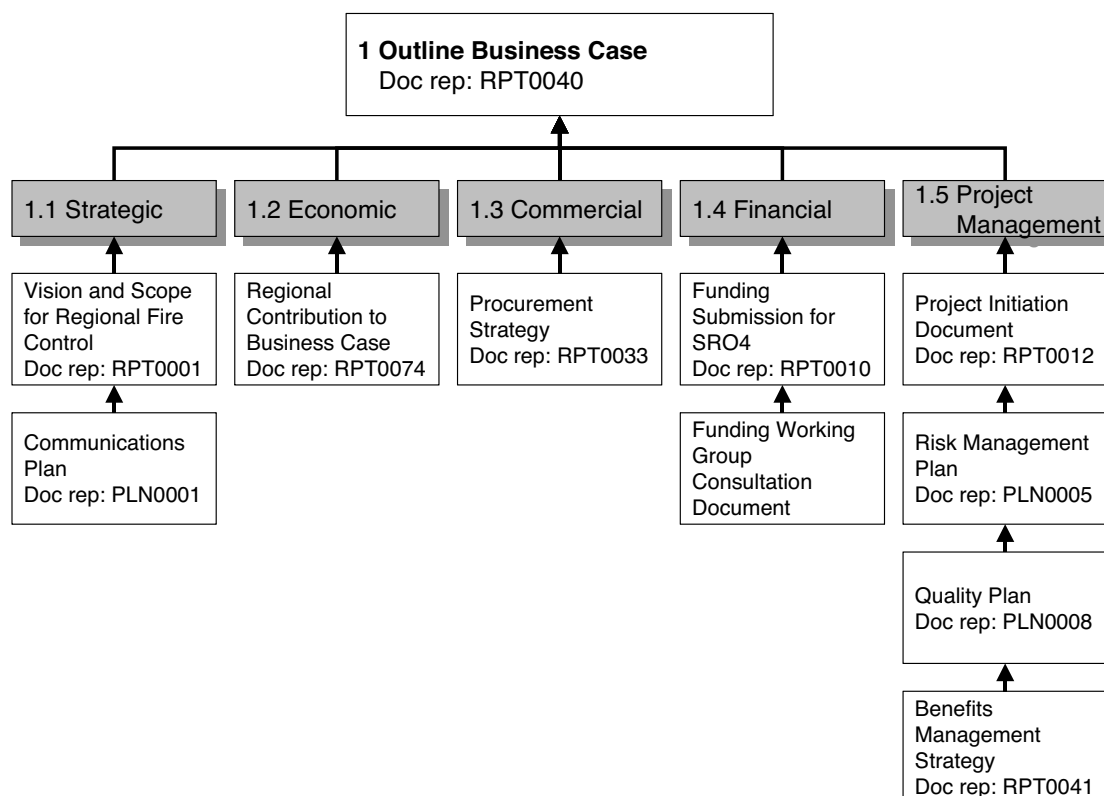
¹ The Project Assurance Team will undertake a health check in lieu of a Gateway 2 review. This is because the scope of the Gateway 1 review was extended to include procurement, and hence the level of development of the products reviewed was significantly greater than that normally associated with this stage in a project.

contracts have been awarded. The OGC gateway review 3 will be in two parts to take into account the separate completion of the national accommodation and infrastructure procurements (refer to the Commercial Case Section of this document for the milestones associated with the two procurement routes).

5. This document is split into five, self-contained parts:

- A **Strategic Case** that establishes the strength of the business need.
- An **Economic Case** that identifies appropriate investment options. This section provides assurance that: a) the costs, benefits and risks associated with each option have been identified and balanced; and b) the project will provide value for money throughout its planned lifetime
- A **Commercial Case** that sets out the commercial deal sought, and assesses the implications of the preferred procurement options on value for money. This part of the business case addresses the degree to which risk can be transferred to suppliers.
- A **Financial Case** that confirms that that project is affordable, and identifies actions that need to be taken to secure funding; and
- A **Project Management Case** that provides assurance that the project is achievable. The capability of the delivery organisation and the key approaches to be followed are outlined in this section.

6. Each part of the business case integrates outputs from a number of project work streams, as follows:



Refer to Appendix H, Documents Referenced, for the version numbers of documents consistent with this business case.

7. All 46 FRAs in England, including London, have contributed to this business case through their regional project teams. The cost forecasts returned by the FRAs are fundamental to the accuracy and credibility of the business case, and have been checked and re-submitted to authorities for validation before being included in the calculations. They form the basis for assessing savings and overall value for money set out in this document.
8. The primary audience for this document is:
 - The SRO for the FiReControl project, who will brief the Project Board and approve the document
 - Regional Management Board Chairs, who will scrutinise the business case from a local government perspective.
9. This document is presented as two volumes:
 - Volume 1: Main text
 - Volume 2: Appendices.
10. Circulation of this document will be restricted. This is normal practice at this stage in the project to safeguard the integrity of the procurement process. There are fewer restrictions on circulation of the Full Business Case, which is produced at the conclusion of the main procurement. It is important however to balance the requirement for a professionally operated procurement process with the need for local authorities to understand and endorse the business case, which will have an impact on national and local budgets. Consequently, as part of the quality review process, input is being sought from RMB/FRA chairs, as follows:
 - Firstly, RMB chairs and their advisors have reviewed the full document in its entirety (refer to RPT0040 version 0.4)
 - Secondly, this abridged version of the document has been drawn up for review by all FRA Chairs, in which commercially and otherwise sensitive information has been removed. This document may be distributed internally within the FRS at the discretion of the FRA Chairs.

The comments received from this review will be considered for the version that will be approved by the SRO and sent, with recommendations, to the responsible minister. Comments should be collated at a regional level before returning to psocirculation@odpm.gsi.gov.uk and graeme.pauley@odpm.gsi.gov.uk.

EXECUTIVE SUMMARY

11. The FiReControl project is part of the modernisation and resilience programmes in the ODPM. It will deliver integrated, networked, standard, fire and rescue controls at a regional level, in England. This Outline Business Case confirms that there is a robust justification. The recommendation to the Senior Responsible Owner (SRO) is to proceed with the project, including completing the procurements in order to produce the Full Business Case, then make the necessary investment decisions, i.e. contract award and agreements to lease.
 12. The FiReControl project's objective and outline scope were created following a series of studies and papers, resulting in policy decisions on the control aspects of the Fire and Rescue Service. These policy decisions were:
 - Amalgamating the Fire and Rescue Service control rooms in England into larger control rooms would be the approach to be taken for meeting fire and rescue service business objectives and supporting the modernisation agenda
 - Despite the significant financial benefits that might be gained from supra-regional control rooms, the implementation of nine regional fire and rescue control centres in England would provide the greatest opportunity for satisfying essential business requirements, whilst encountering the fewest barriers to implementation.
 13. The FiReControl project has been established to develop and implement the changes. It contains both national and regional/local elements. Whilst the decision to proceed (or not) will be taken at a national level, regional and local stakeholders will be affected. Their input and involvement is being sought and incorporated through a wide range of exercises and stakeholder forums, as well as through staff seconded to the national project team. Work to date has developed the details, i.e. what the changes should be and how they should be implemented.
 14. The headlines for this business case are:
 - The establishment of regional controls will save money and deliver wider benefits, including resilience and performance improvements
 - The commercial deals sought ensure that risk is managed by the appropriate party whilst maintaining value for money
 - The requirement is affordable. The finance and governance options have been identified and are the subject of consultation
 - Best practice is being applied to the management of the project, including stakeholder management and benefits realisation.
 15. This business case is made up of five self-contained parts that present the argument for investment from five different, but related, perspectives:
 - Strategic
 - Economic
 - Commercial
 - Financial; and
 - Project management.
-

16. The **Strategic Case** establishes the strength of business need for regional fire and rescue service control centres, in England. It creates a compelling argument for investing in regional fire and rescue controls by:
- Presenting the vision for FiReControl as a service model
 - Explaining how this vision supports current policies and initiatives, such as the Fire and Rescue Service National Framework and the New Dimension Programme
 - Revealing the factors that are driving a need for immediate action, particularly the urgent requirement to provide resilient and scaleable fire and rescue controls that form part of the UK's Critical National Infrastructure.
17. In addition the Strategic Case outlines business objectives and criteria for success, and explains how external factors are being managed by the project team, specifically how key stakeholders are being engaged.
18. The **Economic Case** provides assurance that the relationship between costs, benefits and risk has been assessed adequately, and that the investment will prove to be Value For Money.
19. Previous studies have already identified that regional scale fire and rescue emergency control centres would be optimal for a combination of financial and governance reasons, and that regional scale control centres would be best delivered if they follow the Government Office boundaries in England. This would result in nine control centres, including London. The analysis performed in previous studies is not repeated. However, the options considered, and the rationale for selecting regional amalgamation, are presented, in summary form, to provide assurance that sufficient innovation took place during the concept definition stage of the project.
20. The remainder of the Economic Case provides the evidence that implementation of regional control centres will provide superior Value For Money compared to the current position. The main conclusions from a multi-faceted analysis are that:
- Regional controls satisfy all of the business objectives and related success criteria that have been identified, whereas continuing with the current position would fail to implement mandatory resilience requirements.
 - Regional controls will deliver substantial benefits with very few negative outcomes. The benefits include increasing resilience to the level appropriate for critical national infrastructure, tangible performance improvements, achieving business change and support for wider strategic imperatives, within the context of the modernisation programme.
 - Implementation of regional controls should result in significant cost saving for the fire and rescue service compared to the current position. The cost of providing control services will be reduced by 30% (£23M) under steady state operating conditions. This is equivalent to a reduction in the national cost of £438 per 1000 head of population served per year or a positive NPV_{3.5} of £42M² during the period under consideration (FY2004/05 to FY2017/18). The payback period is nine years from project start, or five years from the cut over of the last FRA to the new control arrangements. The estimated marginal cost of meeting CNI resilience requirements is £1.6M per control centre building. This is roughly equivalent to 10% of the anticipated rental payment.

² The 3.5 suffix denotes a discount rate of 3.5% applied to the cash flow

- The figures presented are more conservative than the SOBC. This is largely due to a better understanding of the requirement and hence costs. Strictly speaking, the headline figures should not be compared directly because the method of calculation and the time period under consideration are different. For the first time, this business case compares forecast costs under the new control arrangements with hard information about the current position that has been supplied by FRAs.
- Risk has been analysed from three distinct, but mutually inclusive, perspectives. Optimism bias (which is based on a Treasury model) suggests that expected cost of delivering the new arrangements would roughly balance the savings to be achieved in the period under consideration, and that delivery could be delayed by six months. Sensitivity analysis (which identifies key assumptions and flexes related parameters in the cost model against the range of value supplied by our technical advisors) confirms that the figures presented in the business case are prudent and that significantly greater savings could be achieved. Finally, a basic assessment of the project risks is included. Further work is planned to develop a bottom-up economic analysis of the risk register and link it to the top-down sensitivity analysis already undertaken.

21. The **Commercial Case** sets out the commercial deal sought for FiReControl. It provides a summary of the FiReControl procurement strategy, including the justification for the selecting the approach outlined. It is explained how the service is acquiring suitable accommodation and infrastructure through two, distinct, national procurement exercises, which are driven by the need to manage significant delivery risks:

- Accommodation will be acquired through a Private Developer Scheme (PDS). This procurement is dominated by concern that sufficient sites be brought forward by developers to enable effective competition to take place. The adoption of a PDS has helped to maximise market response. An OJEU notice has been placed under the EU restricted procedure. The procurement route has been designed to enable any problems in acquiring suitable sites to be identified, and corrected, at a relatively early stage in the project.³
- Infrastructure will be acquired as a managed service from a single supplier. The successful integration of technology infrastructure and related services is critical to the success of the FiReControl project. The ODPM is looking to the market to suggest appropriate integration solutions. It will procure a national prime contractor to deliver all of the regional control infrastructure and related services. The intended payment and reward scheme is a powerful mechanism for reducing delivery risk. An OJEU notice has been placed, under the negotiated procedure. The procurement route has been designed to allow different levels of risk transfer, and hence pricing arrangements, to be explored with suppliers.

22. During the period under consideration, the commercial deal sought has a positive influence on costs and savings. The cost profile during transition is smoothed, which has beneficial impact on the total cash cost and discounted cash flows. Coupled with the substantial transfer of risk to the provider, outlined above, this significantly enhances the FiReControl, value for money, proposition.

23. The creation of an intelligent customer function, a requirement for third party benchmarking and a mandatory demonstration of reasonableness are targeted at delivering competitive prices and maintaining quality levels to the end of the

³ In order to aid site identification, regional submissions were also encouraged. Only one regional submission was received and none were successful at reaching the short list.

infrastructure service contract. In addition, exposure to delays caused by third parties will be minimised.

24. The **Financial Case** identifies the resources required to deliver the new control arrangements, sets out current funding commitments and outlines the proposed mechanism for ensuring adequate funding during transition and steady state. A funding working group was set up in June 2004 to consider the financial issues arising from the establishment of regional controls. It quickly became clear that, because of the nature of the project, the finance issues could not be considered in isolation from the governance issues. The group accordingly extended its remit. The outcome of the group's deliberations have been distilled into a consultation paper for RMBs and FRAs.
25. The **Project Management** case provides assurance that FiReControl aims and objectives are achievable. It outlines the governance structure for FiReControl as a distinct project and as part of the wider Resilience Programme. The project is being managed and controlled using the latest OGC guidelines and advice, in line with the PRINCE 2 methodology. The project management and control methods emphasise risk and quality management. In addition, the approaches developed for managing change and benefits will ensure sustainable business change and the realisation of identified benefits.

THE STRATEGIC CASE

26. The strategic case establishes the strength of business need for regional fire and rescue service control centres, in England. It answers the following specific questions:

- What is the vision and scope?
- How does this vision support relevant policies and initiatives?
- Why is there a need for immediate action?
- What are the main business objectives and criteria for success?
- How will the project team manage business constraints and strategic stakeholders?

Vision and scope

27. The FiReControl strategic vision is presented as a high-level service definition. It is structured around the following questions:

- What is the scope of the new fire and rescue control service?
- Where will the responsibility for delivering services lie?
- What principles guide development and operation of the new service?

28. The following services will be delivered on a common basis for each region, and will form the core service delivered under the new control arrangements:

- Emergency call handling
- Dispatch, monitoring and support of operational resources from local fire and rescue services
- Participation in contingency planning for major incidents
- Associated business support functions, including:
 - o Validation of updates to the national Gazetteer performed at FRA level
 - o Provision of management information
 - o IT support
 - o National co-ordination of regional control centres.

29. There may be limited regional or local variations in service provision. The scope of non-core services and any regional variation are the subject of further investigation with regional stakeholders. Any additional services provided on a regional basis will not be backed up during fallback, and are therefore not encouraged.

30. The performance of existing arrangements for delivering core services (including call-handling and dispatch functions) is perceived to be excellent. Business improvement goals are restricted to:

- Supporting ongoing improvement in responding, when there is a genuine need
 - Supporting ongoing improvement in mobilising the right level and type of resources, when required
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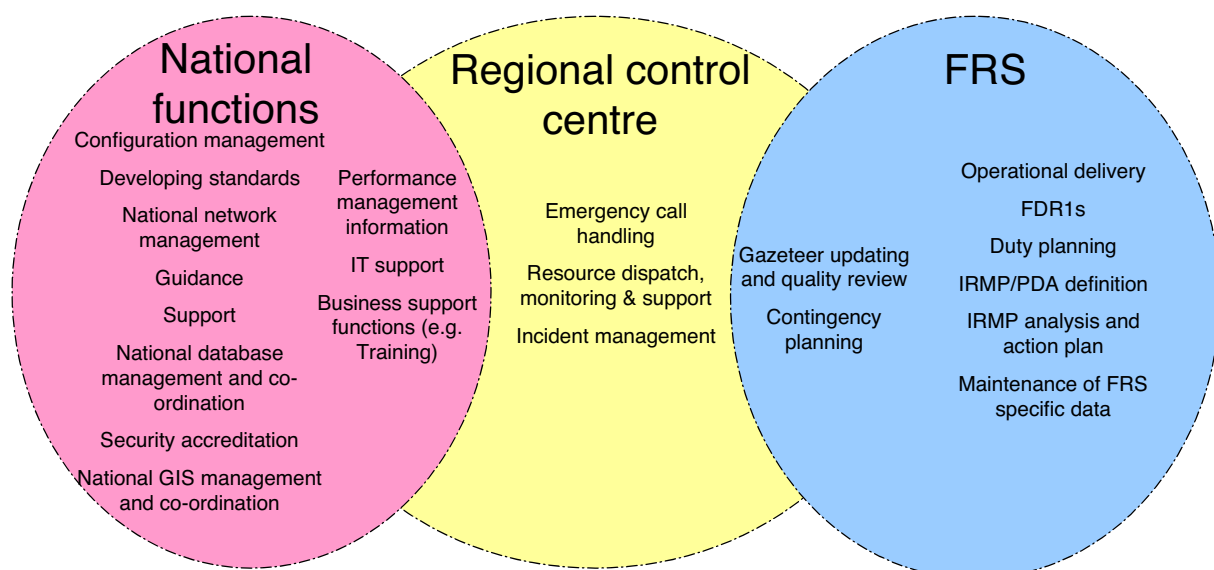
- Improving Fire and Rescue Service's capability to continue control centre operations following business difficulties, such as loss of a control centre
- Improving the Fire and Rescue Service's ability to handle large scale incidents
- Delivering improved information to the front-line through provision of mobile data
- Improving the overall cost-effectiveness of providing Fire and Rescue control services
- Better management information for Fire and Rescue Services, individually and regionally
- Better statistical information.

31. In addition, qualitative improvements will be sought in the way in which services are delivered. For example:

- Supporting IRMP and the more targeted use of operational resources
- Bringing enhanced collaboration between other emergency services when managing major incidents.

32. A detailed analysis of the services that will be delivered by Fire & Rescue Service Regional Control Centres, and the associated business improvement goals, is presented in the Vision and Scope for Regional Fire Control, Doc Rep RPT0001. The performance goals for the new processes are set out in RPT0231 Performance Standards.

33. Regional control centres will be responsible for providing fire and rescue controls. However, some control activities are best managed at a national and FRS level. The diagram below sets out the proposed division of responsibility.



A national project delivered regionally

34. The FiReControl project will establish and transition to a regional Fire and Rescue Control Service that will:

- Provide regional control centres that deliver a cost-effective service, and ensure best practice delivery across the board, but are responsive to local needs

- Facilitate delivery of the Fire & Rescue Service modernisation agenda in full
- Ensure the highest appropriate levels of security, resilience and service integrity
- Work closely with the other emergency services to plan and manage the joint response to major incidents
- Enhance the safety of the Fire & Rescue Service and of the public
- Make use of modern technology infrastructure, mobilising systems and related services
- Deliver the right information at the right time to support effective decision making
- Encourage retention and development of staff
- Encourage diversity in the workforce
- Provide a pleasant, effective working environment that is designed to meet best practice and satisfy ergonomic and environmental guidelines.

All aspects of the development and operation of the new service will be guided by these principles.

Support for relevant policies and initiatives

35. Investment in regional control centres is consistent with a wide range of departmental and governmental studies, policies and initiatives. This section answers the following questions:

- What are the pertinent studies, policies and initiatives?
- How relevant is the FiReControl vision outlined above?

36. It is structured as two tables. The first table presents policy and direction setting directly related to the Fire and Rescue Service:

Studies, Policies and initiatives	Outline of content	Relevance of the FiReControl vision
New Dimension programme	Seeks to ensure that Fire and Rescue Authorities are sufficiently trained and equipped to deal safely and effectively with major chemical, nuclear, biological and conventional terrorist incidents on a national scale.	1) Provides security and resilience of a suitable standard for Critical National Infrastructure 2) Enables handling of large-scale incidents and resource management through regional control centre infrastructure 3) Contributes directly to increased commonality in equipment, procedures and practices 4) Enables more effective resource management, within and between regions 5) Provides a shared approach to resource and risk management, building on the national control database, which the new control service will manage and deliver on behalf of New Dimension 6) It ought to be possible for the New

Studies, Policies and initiatives	Outline of content	Relevance of the FiReControl vision
Government White paper “Our Fire and rescue Service” (2003) and the subsequent Fire and Rescue National Framework (which is refreshed periodically) and Fire and Rescue Services Act (2004)	The Modernising Government White Paper (March 1999) promoted more responsive and high quality public services that match what people need. Within this context the Fire and Rescue Services White Paper sets out a comprehensive programme of reform to ensure that the public has the Fire and Rescue Service it needs and deserves, and the overriding objective of saving lives is satisfied. This means: • Doing more to prevent fires occurring in the first place • Better targeting of resources to meet risk; and • A more effective response to new challenges, such as terrorism and major incidents like flooding. The Framework sets out what the Government will do to improve the service and what support it will provide to Fire and Rescue Authorities. This includes the implementation of IRMPs and regional management boards. The Act introduces a new legislative framework to support the reform agenda.	Dimension national monitoring function to be discharged within the matrix of regional control centres and the two regional control centres that deal with national responsibility and database co-ordination. 1) Provides security and resilience 2) Improves efficiency and effectiveness, and hence provides superior value for money 3) Enables a prompt and effective response to incidents at local, regional and national levels 4) Supports national reporting 5) Provides a rewarding environment to work in and improved career opportunities for Control Officers.
Integrated Risk Management Plans (IRMPs)	The old ‘standards of fire cover’, which set out the speed and weight of response to fires depending on building density, were insufficiently flexible to allow Fire and Rescue Authorities to respond to the needs of their communities. In future they will be replaced by local Integrated Risk Management Plans (IRMPs) that set out each Fire and Rescue Authority’s strategy for:	The new control service processes will be informed by IRMPs, and will themselves generate data, which will help the IRMPs to evolve. Note: The regional control centres will be capable of supporting local operational management decisions. For example, dispatching in line with local risk assessment and management policies.

Studies, Policies and initiatives	Outline of content	Relevance of the FiReControl vision
	- Reducing the number and severity of incidents - Reducing the severity of injuries - Reducing the commercial, economic and social impact of incidents - Safeguarding the environment and heritage; and - Providing value for money	
Regional Management Boards	Regional Management Boards were established April 1st 2004. They are expected to: - Establish regional control centres - Integrate common and specialist services, such as fire investigation - Put in place effective resilience plans for large scale emergencies - Introduce regional personnel and HR functions - Develop a regional approach to training; and - Introduce regional procurement within the context of a national procurement strategy.	FiReControl will establish regional control centres. As part of this there will be: - Regional HR policies within the framework of a more standardised approach - A more resilient approach to training that delivers national standards within each region - Regional procurement of auxiliary services, such as facilities management and catering, for control centre accommodation, within the context of the national procurement strategy
Fire and Rescue Service reviews	Since 1970 there have been seven fire and rescue service reviews; the most recent being “the Future of the Fire Service: Reducing Risk, Saving Lives” (Dec 2002). There is a history of lack of change. Progress has occurred, but the pace of reform and modernisation overall is not sufficient to keep pace with external social and political changes.	The FiReControl project provides an opportunity to implement rapid and sustainable, reform and modernisation in Fire and Rescue Service control room services.
Audit Commission report “In the Line of Fire” (1995)	The report highlighted the need for greater co-operation between authorities on the purchase of equipment and improved efficiency in purchase management. Fire and Rescue Authorities were statutorily required to review their	FiReControl will involve national procurement of technology infrastructure and related services, national procurement of accommodation and regional procurement of accommodation related services, within the context of national guidelines.

Studies, Policies and initiatives	Outline of content	Relevance of the FiReControl vision
	procurement arrangements in 2001/02. A review by HM Fire Service Inspectorate concluded that a centrally driven Best Value review had not made sufficient progress in achieving efficiencies.	Note: ODPM has recently issued consultation papers for a national strategy for procurement for the Fire and Rescue Service. The FiReControl procurement will be consistent with this strategy.
Mott MacDonald study into The future of fire and rescue service Control rooms in England and Wales (2000, updated 2003)	Concluded that vertical integration best meets the requirements of the Fire and Rescue Service, and that regional scale fire and rescue emergency control centres would be optimal Recommended that the regional scale control centres would be best delivered if they follow the Government Office boundaries in England, resulting in 9 control centres, including London. In Wales the optimum solution is one control centre.	Implements the recommendations of the MMD study in England.
The Firelink project	ODPM is funding the procurement of a new national radio system for Fire and Rescue Authorities to increase resilience and interoperability within the service and with other emergency services. It will replace the radio systems currently owned and managed by authorities.	Effective national radio services are an essential component of a modern control room. Firelink systems will be installed in the new regional control centres to deliver secure and reliable communication channels for voice and data service requirements. Firelink provides the infrastructure to deliver the service nationally and therefore provides the capability to resources deployed to handle large scale incidents.
Integrated Personal Development System (IPDS)	Will develop the skills and experience of retained firefighters in the context of local needs, driven by IRMPs.	The national and regional training arrangements developed for FiReControl will be integrated with IPDS, as far as possible.
FRS procurement strategy	It is proposed to establish a national organisation to co-ordinate purchasing within the FRS. It is likely that additional functions will be incorporated into the proposed structure to improve efficiency.	The organisation of FiReControl national functions (in particular contract management) and regional control centres will be consistent with the proposed new structures.

37. The second table presents general government policy and direction setting:

Studies, Policies and initiatives	Outline of content	Relevance of the FiReControl vision
Civil Contingencies Bill	Includes provision to require Fire and Rescue Authorities to work with other emergency services in producing comprehensive plans for major and catastrophic incidents.	Directly supports co-operation between emergency services to handle large-scale incidents 1) FiReControl infrastructure provides inter-regional planning, management and resource allocation in support of New Dimension 2) FiReControl infrastructure provides communication and database support for New Dimension deployment and upward reporting to Ministers 3) Resilient design of FiReControl centres allows shared information so that a designated control centre can manage a New Dimension incident and another control centre on the network can plan, resource and manage inter-regional and national aspects, whilst retaining visibility at the lower level
Social inclusion, neighbourhood renewal agendas	In 1997 the Government put in place a new agenda to tackle both the causes and consequences of social exclusion, aimed at improving social justice, strengthening communities and supporting long-term economic growth. Research shows that those most likely to be at risk from and adversely affected by fire are those in the lower socio-economic groups. The Government proposes to place a statutory duty on Fire and Rescue Authorities to promote fire safety through the forthcoming Fire and Rescue Services Bill.	The new control service and supporting accommodation, infrastructure and processes will support Fire and Rescue Authorities to promote fire safety indirectly.

There is a need for immediate action

38. There are strong environmental, political, social, technical and economic factors that, in combination, provide a compelling argument for immediate change. The table below answers the following questions:

- What are the factors driving change?
- What is the impact on the Fire and Rescue Service?
- What are the implications for the FiReControl project?

Factor driving change	Impact on the fire and rescue service	Implications for the FiReControl project
The terrorist attack on the World Trade Center in NY (2001)	Changed perceptions about scale of risk and preparedness of the emergency and rescue services. Existing, control centres do not provide a sufficiently integrated, resilient or scaleable service, either regionally or nationally.	The control centres will make up part of the critical national infrastructure. They will help to co-ordinate the response to a terrorist or New Dimension scale incident in England. They must be sufficiently joined up, scaleable and resilient for this role.
Currently the UK core communication backbone infrastructure is not resilient	A failure within the telecommunications backbone will directly impact Fire and Rescue control capability, e.g. in 2004 a major fire affected underground cabling, which severely affected communications within Manchester.	Reduced reliance on local telecommunications infrastructure through the commissioning of a balanced resilient network of control centres that can accept degradation in a graceful manner, with no single points of failure affecting control centres or the national network.
A continuing trend for the number of calls per incident to increase	Control rooms handle increasing volumes of calls. Many of these do not involve fires. For example, traffic accidents and flooding. This trend is likely to continue with an enhanced front line response role for the Fire and Rescue Service, and the increasing usage of mobile phones.	Regional control centres will provide greater capacity and promote efficiency and effectiveness. Control centre load will be managed by transferring calls to alternative regional control centres, with spare capacity.
A wide disparity in fire control unit costs	Small control rooms do not appear to be cost effective.	The Office is seeking economies of scale, which can be achieved through the establishment of regional fire control centres. The aim is to achieve consistent fire control unit costs that are equivalent to, or exceed, the best in class currently achieved, without any loss in service performance or quality Further economies can be achieved by the fire and rescue service through rationalisation of support functions, such as HR, procurement and training. This is outside the scope of the FiReControl project, but should be taken into account in planning and implementation.
The 2003 dispute over Fire and Rescue Service pay and conditions of service	The staff and employers agreed to increased pay in return for reform and modernisation of fire and rescue service practices and institutions.	Historical restraints and barriers to change have been reduced. The Fire and Rescue Service is more open to innovation.

Factor driving change	Impact on the fire and rescue service	Implications for the FiReControl project
Increasing environmental hazards	The role of the service is changing to front line response to the risks from natural and man-made disasters, including: • Major transport incidents • Chemical, biological, radiological and nuclear exposure • Severe weather conditions • Explosions and collapsed buildings • Rescuing trapped people	The network of control centres must be capable of supporting incident response at local, regional and national levels. The regional control centres make up part of the Critical National Infrastructure. They must be secure and resilient.
Infrastructure refresh	Smaller local fire and rescue services are unable to bear the cost of implementing state-of-the-art control room infrastructure. Some control rooms have not been updated for 10 years.	The FiReControl project will install modern technology infrastructure.
Firelink project	The implementation of regional control centres should be dovetailed with the roll out of Firelink, which is the project delivering a national radio system for Fire and Rescue Authorities. It is planned that the new radio system will roll out from 2005 to the end of 2008.	Harmonising the project timetables would mean that: • The costs of interim installation in existing control rooms, will be reduced. • FiReControl accommodation and infrastructure delivery must be completed over similar timescales to the Firelink roll out • The costs of implementation in some regional control centres may be substantial

Business objectives and criteria for success

39. It is important to define distinct, unambiguous, business objectives for the FiReControl project and understand the factors that will contribute to their successful delivery. These objectives and their related success factors will be used as the basis for evaluating FiReControl supplier bids and the acceptance of the goods, works and services provided by both internal and external suppliers (refer to the Commercial Case for details of the FiReControl procurement strategy). This section answers two questions:

- What are our business objectives?
- How can they be delivered successfully?

40. The purpose of this investment is to deliver integrated, networked, standard, fire and rescue controls at a regional level, in England. This can be broken down into four discrete sub-objectives:

- To enhance resilience in the national fire control capability

- To support enhanced efficiency and effectiveness in fire and rescue service delivery
- To work effectively with local fire authorities to deliver sustainable business change
- To support the wider change agenda within the fire and rescue service.

41. In addition, it must be demonstrated that all public sector investments are both affordable and value for money.

42. The following table presents the criteria for successfully delivering each sub-objective:

Sub-objective	Criteria for successful delivery of business objectives
To enhance resilience in the fire & rescue service control capability (which will become part of the Critical National Infrastructure)	The solution must satisfy the requirements for Critical National Infrastructure and support accreditation to Government standards.
	The solution must provide the capacity for “inter-working” and “fall-back” between fire control centres in adjacent and geographically separate locations.
	The solution must encourage common process standards and procedures
	The solution must provide common national infrastructure and interlinked controls
	The continuity of existing fire and rescue control services must be assured during transition to the new regional facilities
To support enhanced fire and rescue service efficiency and effectiveness	The solution must support the rationalisation of fire and rescue control facilities across England into 9 regional fire control centres, and be sufficiently scalable to support Scotland or Wales (if required)
	The solution must provide a high quality, real-time response to incidents at local, regional and national (including New Dimension levels of demand) that meets or exceeds current “best in class” service levels and performance
	The solution must be scalable and hence capable of supporting changes in demand over both short time periods (for example, handling a specific incident) and long time periods (for example, general trends in incident type and volume over the investment period)
	The solution must enable call taking services to be transferred (whole or in part) between any other region in England, without loss of data
	The solution must enable control, mobilisation and incident management services to be transferred between one or more alternative facilities in England, without loss of data.
	The solution must deliver New Dimension command and control, resource management and database management capability
	The solution must interface effectively with the Firelink national radio service
	The solution must support management reporting and analysis at a local, regional and national level
To work effectively with local and regional fire	There must be a consistent approach to implementing the solution across all regions

Sub-objective	Criteria for successful delivery of business objectives
authorities to deliver sustainable business change.	The roles and responsibilities of stakeholders in the national, regional and local authorities, and the FiReControl suppliers must be clear and well defined
	The interfaces and communication channels between national, regional and local authorities, and the FiReControl suppliers, must be clear and well defined
	A partnering style relationship must be developed between the ODPM and regional Project Teams, based on mutual respect and shared goals.
To support the wider change agenda within the fire and rescue service	The solution must support the requirements identified by the New Dimension programme
	The solution must provide hosting sites for Firelink equipment, linked to the ICCS
	The solution must support the implementation of Integrated Risk Management Plans
	The solution must provide services that support a shift of focus from fire fighting to fire prevention, such as Management Information
	The solution must support wider HR targets and programmes

Management of business constraints and stakeholders

43. This section examines to what extent investment outcomes are within the control of the FiReControl project team. It is structured around the following questions:

- What external factors are likely to constrain delivery of FiReControl business objectives, and to what degree can they be controlled by the project team?
- Who are key FiReControl stakeholders, and how can they be managed effectively?

Constraints

44. By their nature, external constraints to achieving business objectives are difficult to manage from within the project. Nevertheless, actions can be taken to control their impact, and hence reduce project risk. The following table presents the principle constraining factors identified for FiReControl at a national level. It sets out the likely impact on project success, and the control actions planned or already taken by the national project team:

Constraints to delivering objectives	Impact on project success	Control actions planned or already taken
The speed of decision making in the regions	The FiReControl project has very tight deadlines. Slow decision making could seriously affect delivery timescales. The pace of establishment of regional project teams is critical.	• Developed an effective communications plan • Making decisions centrally, where appropriate seeking assurance for relevant stakeholder groups • Providing high levels of support to regional stakeholders making decisions

Constraints to delivering objectives	Impact on project success	Control actions planned or already taken
		Recruited Business Change Managers based in the regions
The appetite for change within Local Authorities	Local Authorities are responsible for implementing change on the ground and officers have a number of priority initiatives	- Developed an effective communications plan - Providing high levels of support to regional stakeholders delivering change - Recruited Business Change Managers, based in the regions - Seconded FRS personnel to the project.
The identification of suitable sites within each region	Suitable sites may not be identified in every region. Fallback approaches will inevitably delay delivery.	- Proceeded as soon as possible with the accommodation procurement to quantify the risk - Warmed the market - Ensured that it is easy for developers and public sector owners to put forward sites
The funding available	There is a trade-off between achieving security and resilience requirements, and the cost of implementation.	Endeavouring to achieve FiReControl aims and objectives within the budget available Note: There is limited scope for changing the requirement within the overriding requirement for a networked, national, solution.
The Fire and Rescue Service is organised at a local authority level	There is no body setting national policy and standards for ways of working, technology or people factors	- Establishing national functions, including a Design Authority, where appropriate - Where possible, selecting Commercial Off-The-Shelf (COTS) solutions or commodity services that (by default) define architecture and standards - Working with key stakeholder groups to ensure agreement is reached nationally (e.g. LGA, CFOA, Employers' Organisation)
Devolved responsibility for fire and rescue services in Scotland, Wales and Northern Ireland	Currently Scotland and Wales are outside scope. There would be additional benefits from inclusion of Scotland and Wales in the national network. Control centres in these countries will need to work in partnership with English control rooms. This may not	Included requirements for solution to be extendable into Wales and Scotland if required

Constraints to delivering objectives	Impact on project success	Control actions planned or already taken
	be possible due to the installed ICT infrastructure.	
The Firelink project	The new control arrangements depend on radio infrastructure and services provided by Firelink. FiReControl should be dovetailed with Firelink delivery timescales.	- Established overarching programme governance arrangements for resilience projects - Ensured joint membership of FiReControl and Firelink Boards - Established operational level interface meetings - Established a joint policy forum across resilience projects
The New Dimension programme	The processes and ways of working for large, and ND scale, incidents need to be developed in conjunction with the ND programme. This work is progressing and being included in FiReControl requirements where agreed. Late changes to the FiReControl requirement would be charged on a time and cost basis.	- Established overarching programme governance arrangements - Established a joint policy forum across resilience projects
EU procurement regulations	Prescribe the procurement route, and timescales	No action possible

45. In addition to these constraints, the regional project teams have identified a number of actions that need to be effectively planned and managed by FRAs to secure delivery of FiReControl aims and objectives. These can be grouped under the following broad headings:

- Recognition where there is a need for effective short-term cover during transition. This includes establishment of recruitment and retention strategies that will ensure controls are staffed adequately whilst staff are being trained to move to regional centres, possible re-letting of accommodation for a limited period and possible extensions to existing service contracts.
- Recognition where long -term commitments will need to be terminated early. This includes an early review of all leasing arrangements and service contracts related to the provision of control services under current arrangements, e.g. infrastructure or facilities management, and the commencement of negotiations with suppliers.

46. The benefits management process will support effective delivery, refer to paragraphs 248 to 256.

Stakeholders

47. There are a large number of stakeholder groups with different levels of interest in the project. Within these groups, different information needs have been identified. Consequently, the method, timing and content of the engagement with each stakeholder type is tailored to meet those needs. Nevertheless, within each group identified there must be an overall consistency of message.

48. Due to the large number of stakeholders with a high interest and influence on the project a carefully managed, communications function is important. Currently, this function performs five main tasks:

- Maintenance and operation of a web site accessible to the public
- Internal communication with ODPM stakeholders
- Internal communication with regional stakeholders
- External communication
- Direction setting and management.

49. The key activities related to each task are presented in the table below:

Task	Activity
Web site	Strategy and design
	Content drafting and update
	Responding to incoming mail
Internal communication within ODPM	Communicating with the ODPM
	Keeping abreast of key project developments
	Internal liaison
	Communicating within the national FiReControl project team, including provision of regional updates, maintenance of visit diary and write-ups from events
	Communicating with other projects
Internal communication with the regions	Developing a regional communications plan and agreeing with regions what their responsibilities are with regard to communicating with their local stakeholders
	Establishing relationships with people responsible for regional communications (regional reps)
	Holding face to face meetings with regional reps
	Supporting regional reps to deliver regional communications
	Engagement of staff from FRAs in the region via workshops and newsletters (currently the national project team is undertaking a significant communications initiative for control room personnel; visits have been offered to every Watch in every Control Room in England)
	Engaging with the FiRePro network. Answering questions.

Task	Activity
	Individual members from the business change team responsible for maximum of two regions. The prime role is to act as the conduit between the national project team and the regional project team
	Business change representatives spend time in their regions to develop and understanding the particular issues in their regions and develop relationships with the regional project team.
	Providing an advisory service to regional and FirePro reps.
	Engaging, where appropriate, with locally elected Councillors
External communication	Monitoring and reacting to the media: as the programme progresses, seeking to place stories not just reacting
	Engaging and informing national stakeholders. Developing consistent messages and “strap lines”.
	Contributing to publications and conferences, etc.
	Engaging national stakeholders, including the proactive release of information
	Consult and engage the Practitioners' Forum and Control Project Sounding Board (which is attended by key trades union representatives) as appropriate
Direction setting and Management	Providing communications strategy
	Providing a communications plan for each stage and particular key products (eg. location announcements)
	Establishing and maintaining stakeholder, contact and interaction logs

Summary of the Strategic case

50. The Strategic Case establishes the strength of business need for regional, fire and rescue service, control centres, in England. It creates a compelling argument for investing in regional fire and rescue control services by:

- Presenting the vision for FiReControl as a service model
- Explaining how this vision supports current policies and initiatives, such as the Fire and Rescue Service National Framework and the New Dimension Programme
- Identifying the factors that are driving a need for immediate action, particularly the urgent requirement to provide a resilient and scaleable fire and rescue control service that forms part of the UK's Critical National Infrastructure.

51. The strategic case sets out the business objectives for the new control arrangements and the criteria by which successful delivery will be measured.

52. Finally, the strategic case provides confidence that the project team has identified the relevant business constraints and stakeholders, and has effective strategies in place for managing them.

53. The next part of business case (the Economic Case) provides assurance that achievement of the business objectives outlined above, will be value for money.

THE ECONOMIC CASE

54. This part of the business provides assurance that regional controls will provide value for money.

Introduction

55. Previous studies have concluded that control rooms in England and Wales should be vertically integrated and that nine regional control rooms (including London) would be the most effective way to implement a vertically integrated service in England. Consequently, this part of the business case need only consider whether the establishment of regional controls will provide Value For Money compared to the current position. The table below sets out the two positions that are to be assessed:

Positions	Description
Current position	Continuing with the current arrangement of 46 control rooms in England.
Regional controls	Amalgamating fire control in England to create regional control arrangements that match the Government Offices for the Regions.

56. Value For Money (VFM) is defined as the optimum combination of whole life costs and quality that meets business requirements. This is a national business case judged upon the national requirement to achieve Value For Money. Satisfying the national requirement includes national procurement exercises (refer to the Commercial Case). In addition to the national requirement, there is a statutory requirement for LAs to achieve Best Value for the elements of the fire control service that they have overall responsibility for delivering, e.g. catering services at RCCs.

57. The remainder of this section is structured around the following questions:

- Did sufficient innovation occur during concept definition?
- How closely are the two positions aligned with the stated business objectives?
- What is the cost of ownership for regional controls?
- What business benefits are anticipated from amalgamating regional controls?
- How sensitive are the forecast costs and savings to key assumptions and variables, i.e. risk?

Concept definition

58. The Mott MacDonald (MMD) study "The future of Fire and Rescue service Control Rooms in England and Wales" (April 2000) identified that an optimum arrangement for fire and rescue service control centres would be nine regional controls. However, the final recommendation of that report would have resulted in a reduction to 21 control centres. Although sub-optimal, it was recommended that this was more achievable within the (then) current constraints.

59. The results of the MMD study were updated in 2003 to take into account significant changes to the environment in which fire and rescue services operate. A major contributor to this being the impact of New Dimension and its associated planning assumptions, as well as the findings and recommendations of the Independent Review

of the Fire Service and Government policy as set out in the White Paper, "Our Fire and Rescue Service" (June 2003). This report concluded that:

- Vertical integration best meets the requirements, and that regional scale fire and rescue emergency control centres would be optimal
- The regional scale control centres would be best delivered if they follow the Government Office boundaries in England, resulting in nine control centres, including London. Furthermore, in Wales the optimum solution would be one control centre.

60. The report went on to recommend that regional control centres should be implemented as a matter of urgency to harmonise their delivery with the Firelink (national radio service) project timetable.

61. This business case does not repeat the analysis performed in previous studies. The options considered, and the rationale for selecting vertical integration, are presented here in summary form to provide assurance that sufficient innovation took place during the concept definition stage of the project.

62. The MMD options analysis was undertaken in two stages:

- Firstly, consideration of the broad options available for Fire and Rescue Service control rooms in England and Wales
- Secondly, consideration of the sub-options for implementing the preferred option (vertical integration)

Consideration of fire control options

63. MMD considered the following long-list of options:

Name	Description
Do-Minimum	Continuing with the current arrangement of 49 Fire and Rescue Service control rooms in England and Wales
Fire-Fire	Amalgamating Fire and Rescue Service control rooms at FRA level into larger control rooms
Shared control rooms	Establishing joint control rooms where different emergency services would be co-located and share facilities and infrastructure. Each emergency service would retain its own staff for call handling.
Joint control rooms	Establishing control rooms where call handling would be common to all emergency services. Each service would retain its own staff for command and control.
Fully integrated control rooms	Establishing joint control rooms in which the processes and procedures for all emergency services would be integrated. Multi-disciplined staff would operate under a common management structure. Call taking, mobilising and command and control would be common for all three services.
Transfer of responsibility to the PTO	Giving the responsibility for emergency service call handling to the Public Telecommunications Operator (PTO). Currently, the PTO provides initial screening. Under this option the external service would be extended to include all call handling. The local Fire and Rescue Services would retain command and Control.
Outsourcing	Outsourcing (i.e. privatisation) of the operation and management of Fire and Rescue Service control rooms

64. It should be noted that there was no “Do Nothing” option. Local authorities must continue to provide effective fire and rescue services within England and Wales. The “Do minimum” option reflects continuation of the current approach to achieving this goal. This is important, because the relative merits of doing something must be compared against continuing with the current position as the baseline.

65. Four options were discounted at an early stage in the analysis:

- **Do Minimum** because it failed to meet the requirements of the new business environment. It was concluded that a rolling infrastructure refresh programme would not, in itself, result in substantial advances in control room service delivery. Furthermore, it was noted that little progress had been achieved by local authorities since the publication of the original MMD report. This was put down to the absence of a coherent national approach, coupled with improvement initiatives that focused too heavily on achieving local, and hence sub-optimal, cost reduction. These findings were endorsed by the HMFSI report (Analysis of the Best Value Reviews of Control and Communications), which found that few authorities appeared to have approached the reviews with an open mind, taking account of national guidance and principles of Best Value. It concluded that nearly all authorities had opted to maintain the ‘status quo’ and had produced reviews that would, at best, introduce marginal improvements.
- **Outsourcing and Transfer of Responsibility to the PTO** because significant drawbacks for these options had been identified in the original report, which were deemed to remain valid in the new business environment. These included disadvantages associated with cost, ownership and technology, which implied significant implementation and management problems, plus a level of risk to FRS operations that was unacceptable.
- **Fully Integrated Control Rooms** because the management and implementation issues were considered to be too onerous. Again, the first report had identified a number of drawbacks, which were deemed to remain valid in the new business environment. These included:
 - Different service requirements and objectives for fire, ambulance and the police service, resulting in cumbersome and potentially contentious control arrangements
 - Differences in business objectives
 - Differences in technology, organisational boundaries and working practices; and
 - The overall risk of a reduced response capability for the fire and rescue service.

66. The remaining options short list contained one vertical integration option (Fire-Fire) and two horizontal integration options (Shared Control Rooms and Joint Control Rooms). The options assessment was conducted as follows:

- **A qualitative analysis** against three dimensions of change:
 - Service delivery benefits
 - Efficiency gains
 - Organisational development.

Each of these three dimensions represented an area in which it was believed that measurable improvements could be achieved through changing current

control room arrangements. The first two dimensions were perceived to represent direct improvement opportunities, whereas that latter was perceived as an enabler. It was concluded that improvement could be achieved separately along each dimension. However, the strong degree of linkage between them meant that a too narrow focus on progress in one dimension would be inherently self-limiting. A viable option would therefore need to provide a balance between all three.

- An **experiential analysis** that related the findings from domestic and international case studies to the three dimensions of change identified above. This analysis was incorporated into the qualitative analysis, with particular regard to the level of implementation risk inherent in horizontal integration.
- A **Requirements analysis** that assessed the ability of each option to meet a set of business requirements that had been identified within the new working environment for fire control. Each requirement was categorised within one of the three dimensions of change. It should be noted that these requirements have been superseded by the business objectives and success criteria presented in paragraph 42 of this document.
- A **cost analysis** that took the cost of ownership of each option over a 10 year period and converted it into a single (net present) value that could be used for direct comparison.

67. This analysis, performed by MMD, resulted in a clear preference for the vertical integration option because:

- Firstly, it was the only option that would demonstrate a positive Net Present Value (£43M over a 10 year period from project start). This means that the option would be cash generative, during the period under consideration, after taking into appropriate discount factors.
- Secondly, the forecast savings would be considerable compared to the Do-Minimum option (£115M at 2003 prices)
- Thirdly, it would support more of the business requirements presented than the other options

68. Having determined that vertical integration is the most attractive way forward for Fire and Rescue Service control rooms in England and Wales, choices remained about how to implement vertical integration. The most important choice was the degree of amalgamation to take place in fire control arrangements; this ranged from no integration (in effect the Do Minimum option) to a single, national control centre. The following factors constrained the practical options available:

- Firstly, **the unit cost per incident**. Control rooms that deal with the most incidents are the most cost effective. Furthermore, there is level of demand below which costs rapidly escalate owing to the need to maintain minimum manning levels.
- Secondly, **management efficiency and effectiveness**. Regional boundaries matching the Government Offices for the Regions provide an appropriate level for control of activities, project management and funding.
- Thirdly, **technical feasibility and resilience**. There are technical challenges to be overcome at all levels of integration. The main technical constraint is the ability to achieve resilience. It should be noted that there is little resilience in the

existing controls, which are not networked and operate different systems, working practices and procedures.

- Fourthly, **political considerations**. The integration of fire control rooms has a political dimension that must be taken into account. There is a limit to the degree of integration that the public, the Fire and Rescue Service and its representative bodies are likely to find acceptable.

69. Taking these factors into account, three specific options were considered by MMD, as follows:

Id	Name	Description
SO1	Sub-regional controls	Amalgamating fire control arrangements in England and Wales to achieve improved unit cost and management efficiency, without significantly changing ownership and location. This is achieved by setting a minimum threshold of 30,000 incidents per control centre.
SO2	Regional controls	Amalgamating fire control in England and Wales to create regional control arrangements that match the Government Offices for the Regions.
SO3	Supra regional controls	Amalgamating fire control in England and Wales to create three supra-regional control arrangements.

70. The specific options were assessed using the same approach as for the broader options outlined above (refer to paragraph 69). MMD's main conclusions were as follows:

- The **qualitative analysis** confirmed the findings of the original report. Specifically, that the Sub-regional Control option (SO1) had the lowest barriers to implementation, but would fail to deliver all of the potential cost savings and service delivery improvements that could be obtained through the other two options.
- The **requirements analysis** confirmed that three options would satisfy a majority of the business requirements to a greater or lesser degree. Consequently, assessment was based on relative rather than absolute contribution. This analysis indicated that regional control rooms would be likely to contribute the most towards achieving business requirements.
- The **cost analysis** suggested that all three options should have a positive NPV. Moreover, the size of the returns achievable would be directly related to the degree of the amalgamation. This was largely due to an expected reduction in staffing costs. Nevertheless reductions in infrastructure maintenance and support costs, and facilities management costs, would also contribute to the overall benefit from amalgamation of fire control services. MMD's analysis suggested that implementation of sub-regional control rooms, handling around 30,000 incidents, would be more or less cost neutral, whereas three supra-national control rooms could result in financial benefit of £85M or more at 2003 prices. Sensitivity analysis did not change the ranking of the options. Furthermore, it suggested that a reduction in incidents handled due to implementation of IRMP would tend to increase the relative gains from amalgamation of services.

71. Overall the MMD concluded that, despite the significant financial benefits that might be gained from supra-national control rooms, the implementation of nine regional fire and rescue control rooms in England provided the greatest opportunity for satisfying essential business requirements, whilst encountering the fewest barriers to implementation. In February 2004, following a period of consultation, the responsible minister issued a

statement in parliament confirming ministerial decisions to implement nine regional control centres and reject options with fewer control centres.

Alignment with business objectives

72. Alignment with business objectives is fundamental to the quality of the investment in FireControl. The following table provides assurance that regional amalgamation will fully support FRS business objectives and satisfy the criteria for successful delivery. It also demonstrates that the current position fails to meet mandatory resilience requirements:

Objective	Success criteria	Current	Region
To enhance resilience in the national fire control capability	The solution must satisfy the requirements for Critical National Infrastructure and support accreditation to Government standards.	No	Yes
	The solution must provide the capacity for “inter-working” and “fall-back” between fire control centres in adjacent and geographically separate locations.	No	Yes
	The solution must encourage common process standards and procedures	No	Yes
	The solution must provide common national infrastructure and interlinked controls	No	Yes
	The continuity of existing fire and rescue control services must be assured during transition to the new regional facilities	N/a	Yes
To support enhanced fire and rescue service efficiency and effectiveness	The solution must support the rationalisation of fire and rescue control facilities across England into nine regional fire control centres	No	Yes ⁱ
	The solution must provide a high quality, real-time response to incidents at local, regional and national (including New Dimension levels of demand) that meets or exceeds current “best in class” service levels and performance	No	Yes
	The solution must be scalable and hence capable of supporting changes in demand over both short time periods (for example, handling a specific incident) and long time periods (for example, general trends in incident type and volume over the investment period)	No	Yes
	The solution must enable call taking services to be transferred (whole or in part) between any other region in England, without loss of data	No	Yes
	The solution must enable control, mobilisation and incident management services to be transferred between one or more alternative facilities in England, without loss of data.	No	Yes
	The solution must deliver New Dimension command and control, resource management and database management capability	No	Yes
	The solution must interface effectively with the Firelink national radio service	Yes ⁱⁱ	Yes
	The solution must support management reporting and analysis at a local, regional and national level	No	Yes

Objective	Success criteria	Current	Region
To work effectively with local fire authorities to deliver sustainable business change.	There must be a consistent approach to implementing the solution across all regions	No	Yes
	The roles and responsibilities of stakeholders in the national, regional and local authorities, and the FiReControl suppliers must be clear and well defined	N/a	Yes
	The interfaces and communication channels between national, regional and local authorities, and the FiReControl suppliers, must be clear and well defined	N/a	Yes
	A partnering style relationship must be developed between the ODPM and regional Project Teams, based on mutual respect and shared goals.	N/a	Yes
To support the wider change agenda within the fire and rescue service	The solution must support the developing requirements identified by the New Dimension programme	No	Yes
	The solution must support the development and implementation of effective Integrated Risk Management Plans	Partial	Yes
	The solution must provide services that support a shift of focus from fire fighting to fire prevention, such as Management Information	Mixed	Yes
	The solution must support wider HR targets and programmes	Unknown	Yes ⁱⁱⁱ

Notes for table:

- i. The solution also needs to be scalable into Scotland and Wales
- ii. Based on the assumption that Firelink achieves the necessary level of accreditation, or obtains a temporary exemption of accreditation, pending the arrival of FiReControl
- iii. There is an opportunity to increase diversity within regional control centres. However, control room staff currently only represent Approximately 3% of the FRS workforce. Diversity benefits can only be achieved with the participation and agreement of employers.

Cost of ownership

73. Amalgamation of regional controls will save money for the Fire and Rescue Service. The following table presents the cost of ownership for fire and rescue control services during the period under consideration, savings are in parentheses:

	Current position	Regional controls	Saving	Change (%)
Total cash cost (£M)	1,017.7	937.8	(79.9)	8%
Net Present Value (£M)	796.7	754.5	(42.3)	5%
Annual cost (£M)	75.6	53.0	(22.6)	30%
Unit cost (£)	1,529.2	1,071.6	(457.6)	30%

Notes for table:

- i. The figures for the current position are a forecast, based purely on the information provided by individual authorities. They have assumed at least one infrastructure refresh/upgrade cycle during the period under consideration.
 - ii. The figures for regional controls are for a fully networked, resilient solution for the nine regions in England, including London. The solution includes procurement of a national infrastructure prime contractor, and new, regional, control centre buildings under a Private Developer Scheme. Migration costs for systems outside the FiReControl scope are excluded. As are requirements for New Dimension.
 - iii. All figures are based on 2004 prices.
 - iv. The period under consideration is taken to be from project start (first quarter FY2004/05) to the expected exit from the infrastructure contract (final quarter FY2017/18).
 - v. The total cash cost is the total cash flow during the period under consideration, excluding depreciation and the cost of capital.
 - vi. The net present value is the discounted cash flow, where the discount rate is the same as the time cost of money (3.5%).
 - vii. The annual cost is the average annual cost or saving under steady state operating conditions. For the current position this is FY2004/05 to 2006/07. For regional controls this is FY2011/12 to 2013/14.
 - viii. The unit cost is calculated by dividing the annual cost of providing national control services, under steady state operating conditions, by the population served (in 1000s). This is consistent with the Fire Formula Spending Share and the recommendations of the Funding Working Group.
74. Once steady-state operating conditions are achieved, the cost of providing control services, under the new, regional, resilient, networked arrangements, will be 30% lower than continuing with local controls. This equates to a predicted improvement in unit cost of £458 per 1000 head of population served. Since control centres generate no revenue, these savings represent very significant economies that could be used to deliver the priorities of the fire and rescue service, notably fire prevention.
75. FiReControl will break-even within nine years of project start and within five years of the last FRA cutting over to the new arrangements. This will result in net cash savings of £80M (NPV_{3.5} £42M) in the period up to the renewal of the national infrastructure services contract.
76. Sensitivity analysis (refer to paragraphs 121 to 139 below) demonstrates that the figures presented are prudent and that it is possible to achieve savings of almost £112M (NPV_{3.5} £66M) if more aggressive assumptions on staffing, infrastructure and accommodation are made.

77. The remainder of this section is structured around the following questions:

- How is the overall cost of ownership made up?
- How do current forecasts compare with the figures from the earlier Strategic Outline Business Case?
- What is the cost of meeting CNI resilience requirements?
- How does the commercial deal sought enhance Value For Money?

Cost elements

78. The cost is made up from the following elements:

Cost category	Cost element	Description
Staffing	Transition	One-off payments for labour retention, redundancy and early recruitment
	On going	Salaries and other employment costs, including on going training
Accommodation	Acquisition	The cost of acquiring suitable accommodation for the control centres. This can be in the form of a one-off capital cost or rent.
	On going	Facilities management and rates
Infrastructure	Acquisition	The cost of acquiring ICT infrastructure and mobilising systems and training the workforce to use it effectively
	On going	Services, including support and maintenance, security and the provision of the WAN, LAN and second generation FSEC
Management	Project management	The one-off costs of procuring accommodation and infrastructure, and managing change effectively
	On going	Control functions best performed at a national, rather than regional level
Other	Other	Any other costs or savings from regional contributions.

79. The table below shows how the average, steady state, annual operating costs for the current position and regional controls are made up (savings are in parentheses):

Cost Category	Current position (£M)	Regional controls (£M)	Difference (£M)
Staffing	54.1	32.0	(22.1)
Accommodation	3.9	12.8	8.9
Infrastructure	16.8	7.5	(9.3)
Management	0.9	0.7	(0.2)
Other	(0.1)	0.0	0.1
Total	75.6	53.0	(22.6)

Notes for table:

- i. The figures for the current position are based purely on the information provided by individual FRAs.
- ii. The figures for regional controls are for a fully networked, resilient solution for the nine regions in England.
- iii. The annual cost is the average annual cost or saving under steady state operating conditions. For the current position this is FY2004/05 to 2006/07. For regional controls this is FY2011/12 to 2013/14.
- iv. All figures are based on 2004 prices.

80. It can be seen that staffing represents the largest cost element under both the current position and regional controls. Consequently, the largest relative savings will be generated in this area. There are additional contributions from the economies of scale achieved through the national infrastructure services contract, the avoidance of infrastructure replacement costs (including related project management), and the economies of scale achieved in servicing control centre accommodation. These savings are offset against the cost of providing new accommodation and the requirement for a WAN, which is included in the infrastructure costs.

81. The charts below illustrate the relative proportion of the annual cost that each element represents, and how this changes under regional amalgamation:

Comparison with previous forecasts

82. The figures from the FiReControl Strategic Outline Business Case (SOBC) and Outline Business Case are not directly comparable. Firstly, the figures presented in the SOBC were based on deviations from a nominal baseline, whereas the figures in this business case are based on the difference between detailed forecasts for the current position (i.e. an accurate base line) and the implementation of regional controls. Secondly the period under consideration is different, reflecting a refined understanding of project timescales and the commercial deal sought. That notwithstanding, it is inevitable that comparison will be made between the headline figures from both studies.
83. The table below illustrates that the outline business case presents a more conservative estimate of the economies to be achieved by regional amalgamation than the SOBC:

Cost/saving	SOBC	OBC
Cash cost/saving (£M)	(120.6)	(79.9)
Net Present Value (£M)	(86.3)	(42.3)
Annual cost (£M)	(21.5)	(22.6)
Unit cost (£)	(435)	(458)

Notes for table:

- All figures are based on 2004 prices.
- For the SOBC, the period under consideration was taken to be a 10 year period starting FY2004/05 (this was consistent with previous studies)
- For the OBC, the period under consideration is taken to be from project start (first quarter FY2004/05) to the expected exit from the infrastructure contract (final quarter FY2017/18).
- The cash cost/saving is the net cash flow during the period under consideration.
- The net present value is the discounted net cash flow, where the discount rate is the same as the time cost of money (3.5%).
- The annual cost is the average annual cost or saving under steady state operating conditions. For the SOBC and the OBC this is FY2011/12 to 2013/14
- The unit cost is calculated by dividing the annual cost of providing national control services, under steady state operating conditions, by the population served (in 1000s). This is consistent with the Fire Formula Spending Share and the recommendations of the Funding Working Group.

84. The difference in the headline figures is largely attributable to a greater appreciation of the resilience requirement and the cost of possible solutions, developed since the SOBC was drafted. The scale of the change is within normal bounds for this stage of the project. It is important to note that:

- The previous study was based on estimated costs for continuation of local arrangements under the current position. This business case is based upon actual returns that local authority senior management has had the opportunity to review
- The detailed requirement has been refined to deliver greater support for the resilience and modernisation agendas. This includes resilience that meets the requirement for CNI, the provision of station end equipment, installation of second generation FSEC, extensive use of electronic data and the opportunity to migrate FRA communications to the mobilisation network

- The headline costs and savings presented in this business case are founded upon prudent assumptions. It is anticipated that local authorities will be able to significantly outperform the figures presented, e.g. regional employers have the authority to implement radical changes to working practices and certain FRAs have an opportunity to realise tangible gains from disposal of assets. Furthermore, new FRA HQ buildings will be freed from the resilience requirements for the control rooms.

85. Appendix C, Comparison with SOBC, sets out key assumptions, and explains how circumstances have changed, or thinking has moved on since the SOBC.

What is the cost of meeting CNI resilience requirements?

86. The FiReControl solution will form part of the Critical National Infrastructure (CNI) of the UK. It is therefore necessary to separate the national requirement for CNI from the underlying requirement for a secure, resilient, networked control solution. This section answers the following questions:

- What is resilience?
- What is the resilience requirement for regional controls?
- What is the additional requirement for CNI and how much does it cost?

87. For the purposes of this analysis, resilience is an inbuilt ability to suffer failure or damage, yet deliver a continuous service. Resilience is also about enabling the FRS to recover, at both a regional and a national level, from any major incident resulting in a disruption to service provision.

88. Regional Control Centres need to operate as a resilient national network that has the capacity to provide fallback support should any centre cease to be operational. This will require effective inter-working between FRAs, on a national scale, to provide the necessary levels of service. In addition, as part of the country's critical national infrastructure, RCCs must satisfy robust resilience criteria to ensure that they are capable of providing continuous emergency services to the public, as well as being adequately equipped to support the response to any kind of large-scale incident, ranging from an environmental disaster to a terrorist attack. Accreditation to governmental resilience standards will ensure that the FRS, the Government and, most importantly, the public have the utmost confidence in fire and rescue control services.

89. The current position is no longer acceptable. Existing fire and rescue control rooms operate in very different ways from each other. There is disparity at many levels, including management standards, operational protocols, resource availability, conditions of service and financing. This prevents the current arrangements from offering a common, national, interoperable response capability. In addition, neighbouring authorities are unable to provide seamless fallback capabilities to each other in event of a major incident or spate conditions.

90. The infrastructure required to support a resilient, networked control service also satisfies the requirements for CNI. However, the buildings that house the controls will need to be constructed to a higher standard and contain additional features, such as a second standby generator. The marginal capital cost per building to meet the CNI requirement is estimated to be £1.6M, which would increase the rent payable on each building by about 10%.

Impact of the commercial deal

91. This section compares the FiReControl cash flow model, which is based on the commercial deal sought with infrastructure and accommodation suppliers, with a pure cost model, which is based on the underlying costs as they are incurred.

92. The commercial deal sought has a largely beneficial impact on the cost of ownership:

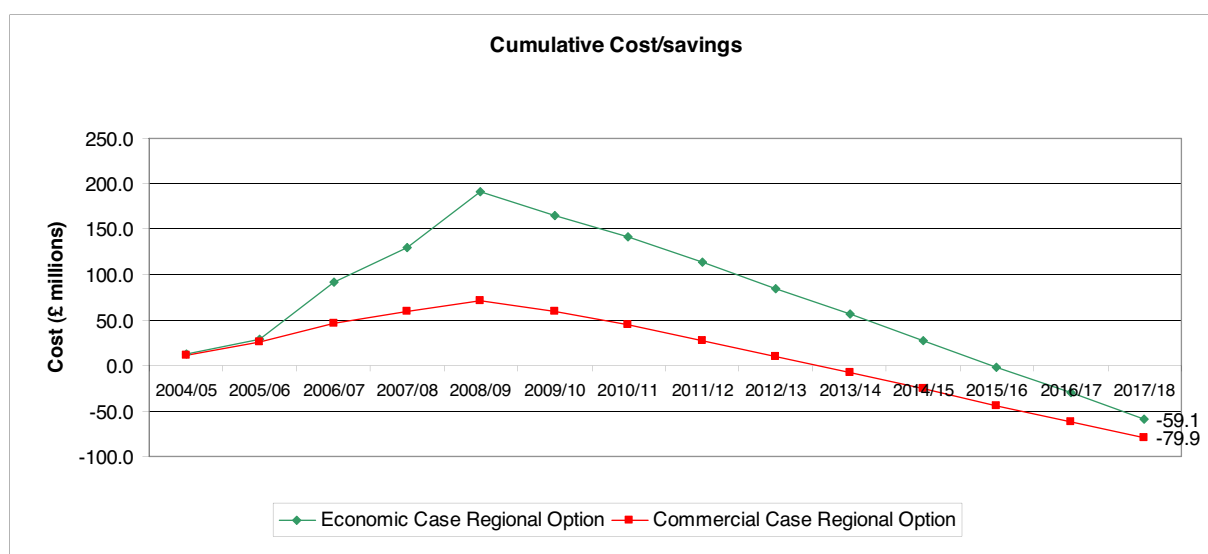
- The total cash cost and discounted cash flow are improved by £21M and £34M respectively during the period under consideration; this ensures that the project remains broadly cost neutral when optimism bias is applied
- The payback period is reduced by more than two years
- The cash flow is smoothed considerably during transition to the new arrangements;

but

- The cost of acquiring accommodation over the anticipated lease term is higher than the one-off capital cost of acquiring the site and building and fitting out the accommodation (NPV_{3.5} £23M); and
- Payment of an annual rent accounts for 24% of running costs under steady state operating conditions.

93. In addition, the commercial deal transfers a significant level of risk from the public to the private sector.

94. The chart below illustrates the reduction in payback period under the commercial deal sought:

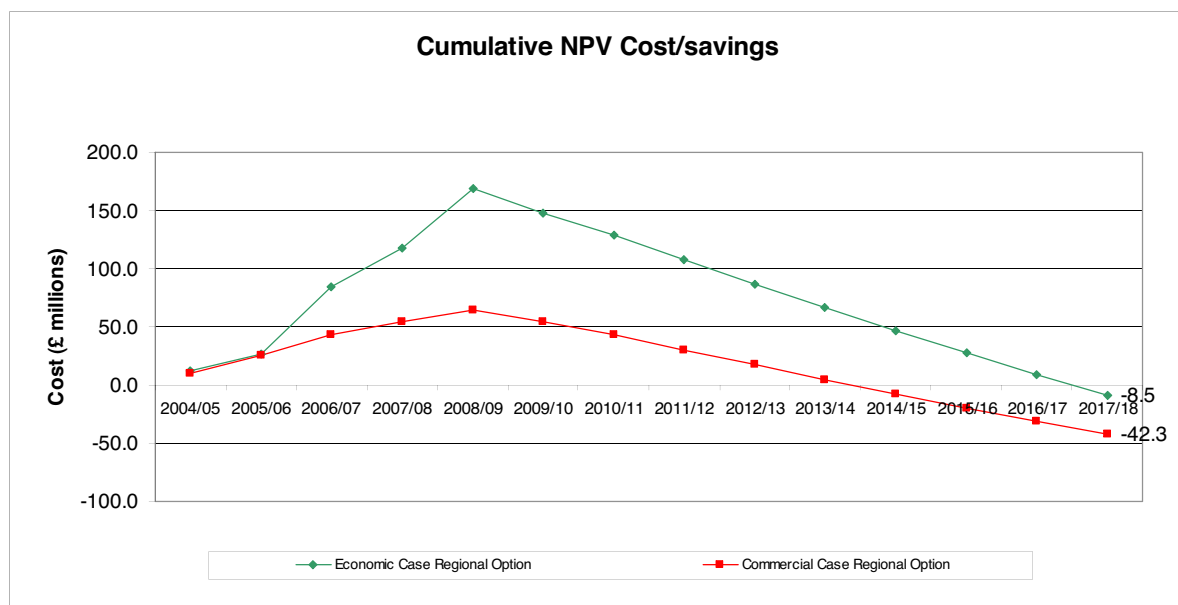


95. Each point represents the cumulative cash costs or savings in any particular financial year. Points above the line indicate net cash costs since project start. Points below the line indicate net savings⁴. The time required for the project to break even is indicated by the point at which the cost/savings line cuts the horizontal time axis. It can be seen that the intended commercial deal smooths the cash cost profile (i.e. the peak is flattened),

⁴ It is important to note that these are net national costs or savings for ODPM and FRAs taken together.

and that the payback period is substantially reduced. This is due to the private sector financing site acquisition and construction of the accommodation, and deferred payment for infrastructure installation under the intended payment and reward scheme. In FY2008/2009 there is an advantage of £120M in the cumulative cash cost under the commercial arrangements. The distance of the final point below the line indicates the overall saving during the period under consideration.

96. The chart below indicates that the commercial deal has an even more significant impact on the discounted cash flow:



97. Each point represents the total cash costs or savings in any particular financial year, discounted by the time value of money⁵. It can be seen that the intended commercial deal significantly reduces the payback period, pulling it well back into the period under consideration. This is due to upfront costs having a greater impact on the discounted cash flow than savings achieved later.

98. The FiReControl cost and savings models are presented as a series of tables in Appendix B, FiReControl Costs and Savings. The commercial arrangements underpinning the commercial “should-cost” model are outlined in the next part of the business case (the Commercial Case), which presents a detailed analysis of the impact on VFM.

The benefits model

99. Business benefits are at the heart of delivering Value For Money. A benefit is defined as a desirable, planned outcome from the FiReControl project. This section addresses the following questions:

- What benefits are anticipated from regional amalgamation?
- How far do the current position and regional controls contribute to delivering these benefits?
- How should these benefits be apportioned to the FiReControl project?

⁵ It is important to note that these are net national costs or savings for ODPM and FRAs taken together.

- Are there any negative consequences that must be taken into consideration?

100. The benefits anticipated from the amalgamation of fire control rooms can be grouped into four categories, in order of importance, as follows:

Category	Description	Example
Resilience	So called “hard” benefits associated with increased levels of security and integrity.	The ability to maintain service under stress conditions. For example, the ability to fall back and restore services without losing data or service quality.
Performance improvements to the existing service	Financial and other “hard” benefits derived from increasing the efficiency of fire and rescue services, whilst maintaining or improving service quality.	A reduction in annual operating costs of 30% compared to continuing with current arrangements. Improved call service capacity management, resulting in capacity utilisation maintained within design limits.
Business change	Benefits associated with changes to the organisational culture, working conditions or morale of fire and rescue control personnel.	An improved control centre working environment.
Strategic enabler	Financial, hard or soft benefits that can be attributed to FiReControl because it directly, or indirectly, supports or enables other projects and initiatives.	Economies achieved by New Dimension programme through sharing arrangements with FiReControl.

101. Within these categories, twenty, distinct, benefits related goals have been identified. For each goal it is necessary to identify one or more measure and target. The goals identified to date are summarised in Appendix A, Draft FiReControl benefits model. It should be noted that the measures and targets presented are provisional at this stage. Also, there are no benefits goals associated with the introduction of new services.

102. For each of the potential benefits identified, the two positions have been assessed and graded as follows:

- A: Significant benefit can be achieved and demonstrated; high targets can be set and progress measured
- B: Some benefit can be achieved and demonstrated; less demanding targets can be set and / or progress may be difficult to measure
- C: Little or no benefit can be achieved or demonstrated.

103. The following table illustrates how individual grades have been aggregated to supply an overall assessment:

Category	Current position	Grade	Regional Controls	Grade
Resilience	Limited opportunities to improve the security of the infrastructure only	C	A fundamental design consideration for the new control room Implements New Dimension national control function	A
Performance improvements to the existing service	Some scope for continuous improvement at an individual service level (it is recognised that there are a number of plans for sub-regional amalgamations that have been initiated)	C	Amalgamation provides a significant opportunity to achieve economies, respond to New Dimension scale incidents, and improve capacity management and the services provided to the police and ambulance services. Electronic data management will facilitate quicker, more effective, attendance of incidents through the transfer of initiation data and Automatic Vehicle Location Systems (AVLS). Efficiency will be further improved through better status management and routine messaging.	A
Business change	Natural progression of incremental improvements rather than step change	B	The physical environment and changes to working practices will contribute to a significantly improved working environment, health and safety and career progression path for control room staff Transfer of initiation data to appliances will improve firefighter safety and effectiveness.	A
Strategic enabler	The current position is not strategic	C	Directly supports regionalisation and modernisation policies, and the New Dimension programme. Significant cost avoidance for New Dimension and Firelink projects. Routine messages will potentially supports better information management and the introduction of relevant standards, however this may prove difficult to measure.	A
Overall assessment	Provides limited opportunity for achieving the benefits identified	C	Significant contribution to achieving most benefits, particularly those in the high priority categories.	A

104. A detailed analysis is presented in Appendix A, Assessment of Benefits Contribution.

105. Within any organisation it is common for more than one project or initiative to lay claim to the same benefits. For example, both FiReControl and the New Dimension programme will contribute to increased national resilience. Ideally the Boards of each project or programme with an overlapping benefits model will agree how to apportion the benefits and adjust the respective business cases accordingly. This involves changes to both the economic and financial cases within the business case, and is sometimes referred to as portfolio management.
106. Alternatively, benefits can be reclassified as enablers to achieving an overall business goal, which only appears in one (primary) benefits model. In this way, progress towards achieving targets can be reported separately within each project without the need to agree upon a mutually acceptable allocation. However, using this approach the full value of a project may not be accurately expressed in its business case.
107. Given the need for rapid progress, and the current maturity of portfolio management systems within ODPM, it has been decided to adopt the enabler approach, except when a specific cost saving has been identified. Proposed enablers are indicated in Appendix A, Draft FiReControl benefits model.
108. Not all aspects of change are positive. One less desirable business outcome from the FiReControl project has been identified: Physical separation from front line activities. This is presented in detail in the Appendix A, Potential “Dis-benefits”, with proposed mitigating actions.

Risk analysis

109. The future is inherently uncertain. Furthermore, an element of unfounded optimism tends to creep into assessment of all human endeavours. It is therefore necessary to systematically review the risks to achieving FiReControl objectives.
110. Risk has been assessed in three different, but mutually inclusive, ways:
- **Optimism bias:** in which an “expected value” for capital cost and project duration are calculated using historical precedents
 - **Sensitivity analysis:** in which costs and savings are flexed based on a deep knowledge of the underlying assumptions
 - **Risk assessment:** in which a risk profile has been generated from the project risk register

Optimism Bias

111. Experience of public and private sector procurement projects has shown that there is a tendency for forecast costs and time scales to contain a significant optimistic bias, i.e. cost estimates are often too low and project duration estimates too short. Furthermore, at the Outline Business Case stage of a project there is often insufficient data available to perform a detailed assessment of economic risk.
112. In the absence of a quantitative analysis of project risks, it is possible to adjust the figures presented for optimism bias, based on historical precedent. As the project progresses, the calculation can be adjusted to reflect improved certainty about the project requirements, costs, timescales and mitigation of risk.
113. Where there is insufficient data from previous projects to perform the necessary calculations, the Treasury has developed a suitable model that can be applied to the cost and delivery schedule for certain types of public sector projects. In the Treasury model “expected values” are obtained by applying an appropriate adjustment to the project

capital cost and duration. The adjustment is based on a critical assessment of various mitigating factors set out in the Treasury guidance. The derivation of the expected values for FiReControl is presented in Appendix D, Optimism Bias. The table below presents the results of this analysis on net costs and savings (savings are indicated by parentheses).

	Base Case	Delay project	Increase project costs		
	No bias	Expected value	Expected value	Upper limit	Lower limit
Total Costs and savings (£M)	(79.9)	(68.5)	(2.3)	106.2	(73.1)
Net present value (£M)	(42.3)	N/a	21.3	107.0	(36.7)
Steady state annual savings (£M)	(22.6)	(22.6)	(19.6)	(14.0)	(22.4)
Unit cost (£)	(457.6)	(457.6)	(395.7)	(283.1)	(452.5)

Notes for table:

- i. The expected cost lies between the upper and lower limits for optimism bias provided in the Treasury guidance
 - ii. The base case is made up from the figures presented above
 - iii. The delay project figures are forecast for an expected delay of 6 months in delivering infrastructure
 - iv. All figures are based on 2004 prices
 - v. The period under consideration is taken to be from project start (first quarter FY2004/05) to the expected exit from the infrastructure contract (final quarter FY2017/18)
 - vi. The total cash cost is the total cash flow during the period under consideration, excluding depreciation and the cost of capital
 - vii. The net present value is the discounted cash flow, where the discount rate is the same as the time cost of money (3.5%)
 - viii. The annual cost is the average annual cost or saving under steady state operating conditions (FY2011/12 to 2013/14)
 - ix. The unit cost is calculated by dividing the annual cost of providing national control services, under steady state operating conditions, by the population served (1000s).
 - x. The project delay expected cost is based on the full cost of maintaining the national and regional project teams and the supplier development teams as well as rent for completed accommodation. The figures presented are based on an estimated "burn rate" hence an NPV has not been calculated.
114. Taking the optimism bias analysis at face value, there would be an expected delay in delivering new control arrangements of six months. Alternatively, a doubling of infrastructure development costs and other increases in the cost of delivery would render the project broadly cost neutral during the period under consideration. However, regional controls would still result in annual savings of £14.0M per year under steady state operating conditions.
115. The worst case would delay delivery of the infrastructure solution in relation to practical completion of the accommodation. This would potentially create a situation where rent would be paid and the infrastructure development and project teams would have to be maintained without savings being realised. Application of the optimism bias at this point has the largest impact on delay costs, which are reported in the table above.

116. Optimism bias will become less relevant as the project develops beyond the Outline Business Case. There will be greater certainty about the about pricing and delivery, and other factors will become more influential in the assessment of risk⁶.

Sensitivity

117. A sensitivity analysis has been performed on forecast FiReControl costs and savings. It answers the following questions:

- What are the assumptions and variables that have the largest impact on the costs of regional amalgamation?
- What is suitable range of values for these variables, and how does this impact costs and savings?
- How dependent are the forecast savings on the accuracy of the costs forecast from the information provided by local authorities?

118. The net costs and savings for FiReControl are the difference between the cost of maintaining the current position compared to establishing regional controls. The accuracy of the costs forecast in the current position have a very significant impact on the scale of the savings, e.g. increasing the reported costs for the current position by 10% would result in a threefold improvement in the NPV.

119. The table below sets out the best and worst cases defined by setting the most sensitive variables in the cash cost (commercial) model for regional controls at the extremes of their likely range of values.

Cost/saving	Base case	Worst case	Best case
Total Cost/saving (£M)	(79.9)	44.3	(131.9)
NPV (£M)	(42.3)	33.1	(80.7)

Notes for table:

- i. The base case is defined by the current set of assumptions and associated variables
- ii. The worst case is defined by setting variables at the least advantageous end of the range identified: staffing +8%, accommodation build cost +20%, WAN cost + 25%, Mobilising and Resource Management System +20%
- iii. The best case is defined by setting variables at the most advantageous end of the range identified: staffing –15%, accommodation build cost –10%, WAN cost –5% and MRMS cost – 10%

120. Results of the sensitivity analysis are presented in the following sections with further detail available as a table in Appendix E, Sensitivity Analysis.

Key assumptions and variables

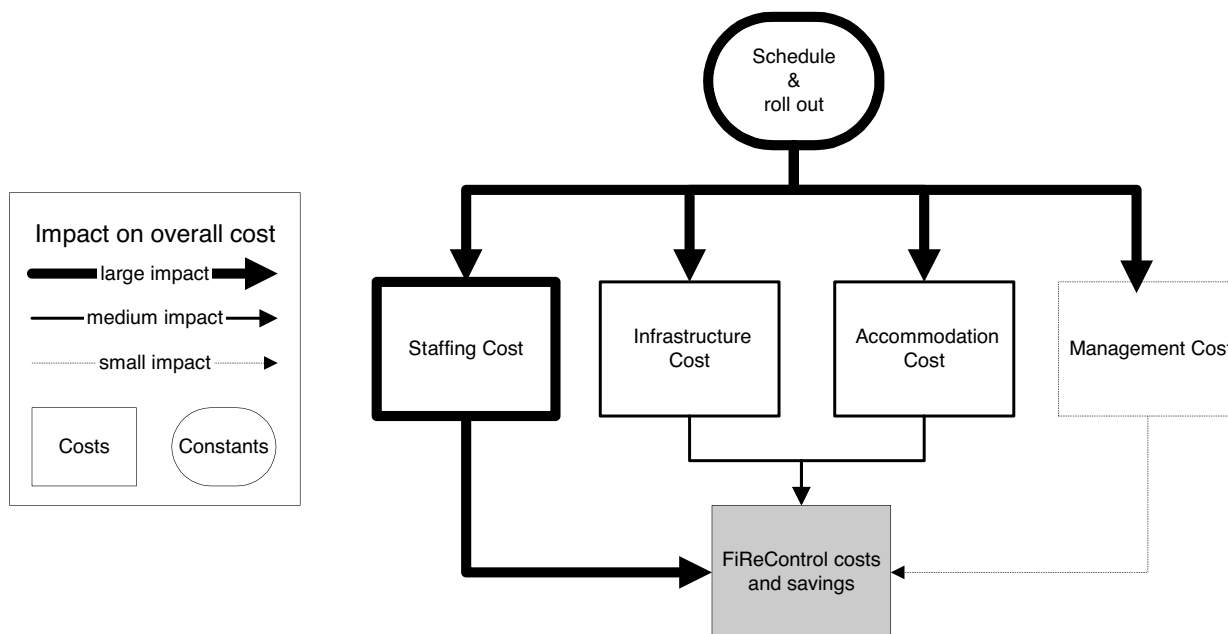
121. The should-cost (cash flow) model for FiReControl is made up of four distinct sub-models:

- Staffing cost

⁶ The optimism bias model emphasises infrastructure and accommodation acquisition costs. It has relatively little to say about people and organisational change issues.

- Accommodation cost
- Infrastructure cost
- Management cost.

122. The diagram below illustrates that Staffing Cost model has the biggest impact on FiReControl costs and savings, and the Management Cost model has the least impact:



123. It also shows that assumptions about the schedule for completing the acquisition of accommodation and infrastructure, and the rollout to the new control arrangements within a region, have a significant impact on all of the cost and savings models. The current planning assumption is that practical completion of the accommodation in the nine regional control centres will follow a 3:2:4 profile during financial years 2006/2007 to 2008/2009. The table below illustrates how infrastructure delivery and rollout milestones are scheduled around this profile.

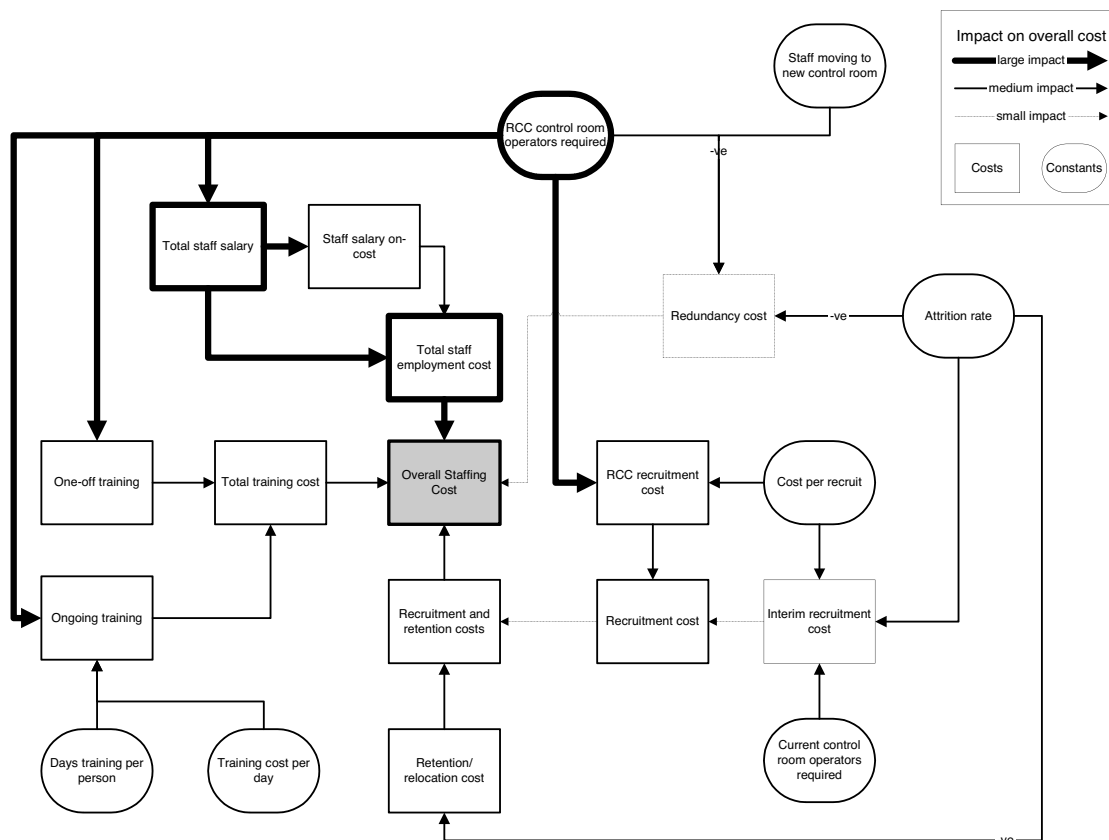
Region	Accommodation practical completion		Rollout starts		Rollout ends	
	Year	Quarter	Year	Quarter	Year	Quarter
1	2006/07	1	2006/07	3	2007/08	1
2	2006/07	1	2006/07	3	2007/08	1
3	2006/07	1	2006/07	3	2007/08	1
4	2007/08	1	2007/08	2	2007/08	4
5	2007/08	1	2007/08	2	2007/08	4
6	2008/09	1	2008/09	1	2008/09	3
7	2008/09	1	2008/09	1	2008/09	3
8	2008/09	1	2008/09	1	2008/09	3
9	2008/09	2	2008/09	3	2008/09	4

Notes for table:

- i. Figures for regions have been averaged. The order of roll out has no impact on the business case
 - ii. All years and quarters are financial
 - iii. Rollout start and end points refer to the FRAs within a particular region, i.e. row of the table
 - iv. Rollout can only start when the building and infrastructure have been accepted.
124. Delaying practical completion of the first buildings shifts the whole delivery profile, but has a relatively limited impact on overall project costs and savings. Extending the rollout schedule within a region will delay the achievement of benefits, each six-month extension in rollout time being equivalent to a loss of roughly £11.4M. Delaying delivery of the infrastructure will have the most significant consequences because:
- Rent is likely to become payable before the first FRA has cut over to the new arrangements
 - The national, regional and infrastructure project teams will need to be maintained for an extended period
 - The achievement of benefits will be delayed; and
 - There may be additional costs in maintaining the current control arrangements.
125. The remainder of this section deals with the three most significant sub-models.

Staffing Cost

126. The diagram below illustrates that assumptions about the number of control room operators required are the key drivers for determining the overall staffing cost:



127. Estimates for the number of control room operators required in the new control rooms ranges from 510 to 650 Full Time Equivalents (FTEs). The business case is built upon a prudent assumption of 600 FTEs. This figure can be achieved without significant changes to existing working patterns. The table below illustrates how flexing the number of control room operator FTEs required in the control room impacts the business case:

Assumption	Assumed value	Range of values	
	600 control ops	510 control ops	650 control ops
Total Cost/saving (£M)	(79.9)	(115.7)	(60.4)
NPV (£M)	(42.3)	(68.7)	(27.9)

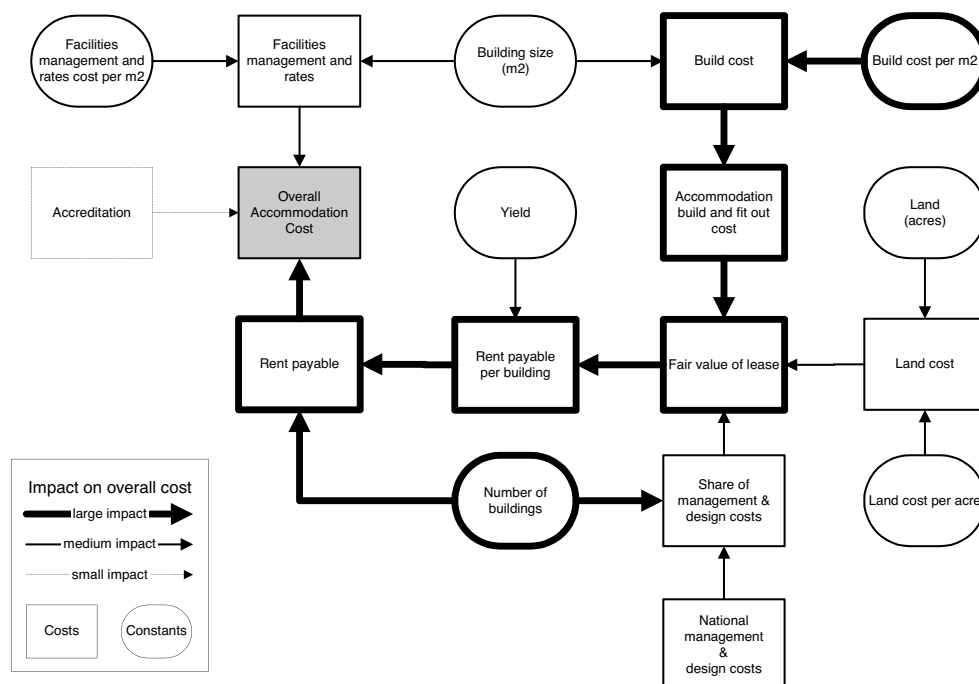
Notes to table

- All figures are based on 2004 prices.
- The period under consideration is taken to be from project start (first quarter FY2004/05) to the expected exit from the infrastructure contract (final quarter FY2017/18).
- The total cash cost is the net cash flow during the period under consideration, excluding depreciation and the cost of capital.
- The net present value is the discounted cash flow, where the discount rate is the same as the time cost of money (3.5%).

128. Each additional control room operator FTE adds about £400k to staffing costs during the period under consideration.

Accommodation cost

129. The diagram below illustrates that assumptions about unit building and fitting cost and the number of buildings required are the key drivers of accommodation cost:



130. The unit cost of building and fitting-out the accommodation is relatively high (2875/m²) due to the nature of the requirement. Estimates range from 3450/m² to 2590/m². In addition, a decision about whether a new control centre will be needed for London is yet to be taken. The business case is built on the prudent assumption that a new building will be required.

131. The table below illustrates how flexing the unit cost and number of buildings required impacts the business case:

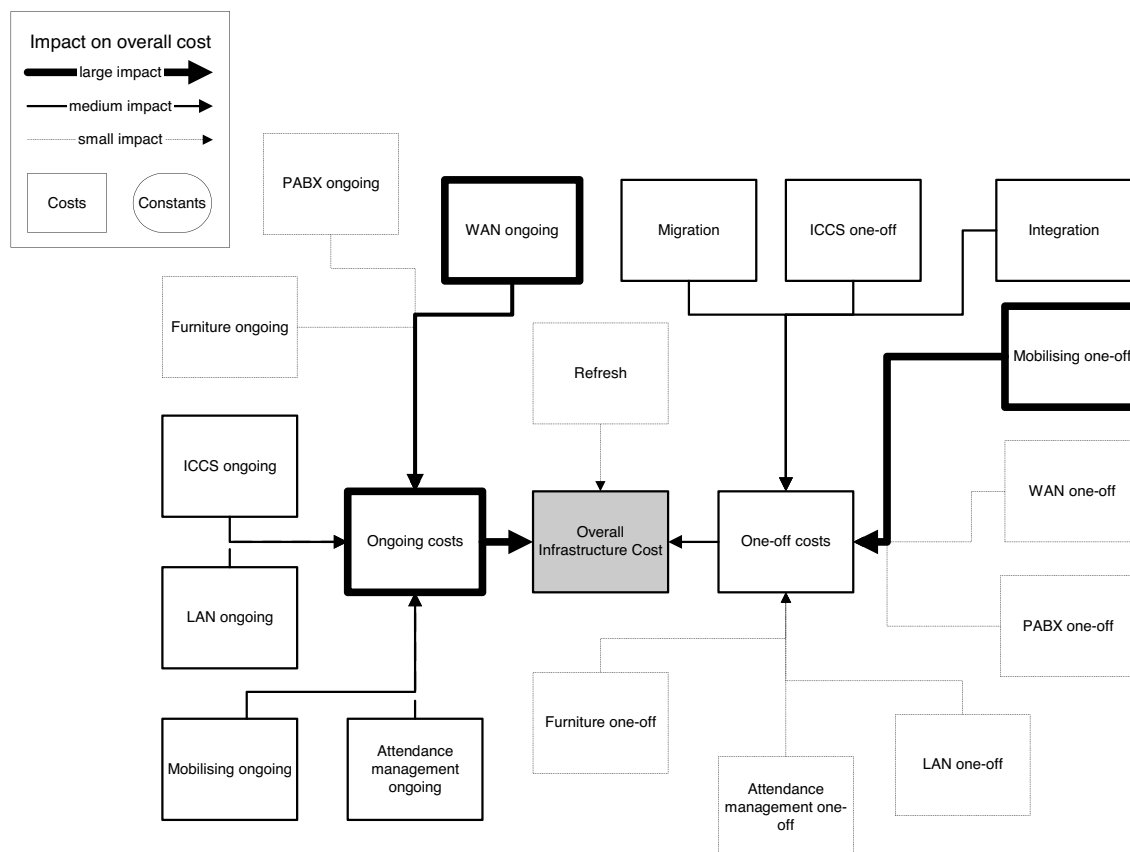
Assumptions	Assumed value	Range of values		
	London moves Build cost 2875/m ²	London does not move	Build cost +20%	Build cost -10%
Total Cost (£M)	(79.9)	(91.9)	(62.6)	(88.6)
NPV (£M)	(42.3)	(50.8)	(29.7)	(48.6)

Notes to table

- i. Infrastructure will be installed in the existing accommodation if London does not move

Infrastructure cost

132. The diagram below illustrates that assumptions about the price of the WAN and the mobilising system are the key drivers of accommodation cost:



133. The WAN provides the national network for FiReControl. The price is expected to range from £1.4M to £2M per year depending on the location of the RCCs. Other key determinants of price are distance from the fibre optic backbone, the number of providers in the region (price competition) and the bandwidth of the connection.

134. The price of the mobilising system is dependent on the amount of bespoke development required. Estimates range from £27M to £36M for capital, resource costs and ongoing support.

135. The table below illustrates how flexing the price of the WAN and mobilising system impacts the business case:

Assumptions	Assumed value	Range of values	
		Ongoing WAN +25% MRMS +20%	Ongoing WAN -5% MRMS -10%
Total Cost	(79.9)	(55.2)	(87.4)
NPV	(42.3)	(23.6)	(48.0)

Notes to table

- i. Ongoing WAN is the cost WAN services
- ii. MRMS is the development, installation and ongoing support for the Mobilising and Resource Management System

Dependency of forecast savings on accuracy of current position

136. The forecast savings are the difference between the detailed cost models developed for the current position and regional controls. The table below illustrates that, even if the costs for the current position have been significantly under estimated, regional amalgamation will generate a saving over the period under consideration. Percentages indicate the amount by which each key variable would need to be flexed to result in no overall costs or benefits.

Cash costs	Base	Staffing	Infrastructure	Accommodation
Assumption	100%	89%	61%	0%
Current position total cost (£M)	1017.7	937.8	937.8	969.2
Regional controls total cost (£M)	937.8	937.8	937.87	937.8
Net cost/saving (£M)	(79.9)	0.00	0.00	(31.4)

NPV	Base	Staffing	Infrastructure	Accommodation
Assumption	100%	92%	74%	0%
Current position total cost (£M)	797.7	754.5	754.5	758.4
Regional controls total cost (£M)	754.5	754.5	754.5	754.5
Net cost/saving (£M)	(42.3)	0.0	0.0	(4.0)

Notes to tables

- i. "Staffing" is the ongoing cost of staffing control activities, under the current position
- ii. "Infrastructure" is the total cost of providing infrastructure (capital and revenue), under the current position
- iii. "Accommodation" is the total cost of providing accommodation, under the current position

137. As the largest cost element, staffing is the most significant factor in analysing the accuracy of the current position (refer to paragraphs 79 to 81 above). Reported staffing costs would need to be overestimated by more than 8% to eliminate projected savings (net present value). Similarly, reported infrastructure costs would need to be overestimated by more than 25% to eliminate project savings (net present value). Reducing the reported accommodation costs to zero, would still deliver a net saving over the period under consideration.

138. Current accommodation costs appear to be substantially under-reported. Two reasons account for this. Firstly in all cases, costs appear to have been forecast on a marginal basis, i.e. a share of the facilities management and rates. Secondly, the forecasts do not take into account the situation where moves to new headquarters accommodation are planned, and the accommodation would have housed control rooms. In this situation the control room accommodation would have been required to meet current resilience requirements, including site location and size. In addition, assumptions have had to been made about the frequency and scope of technology refresh and associated project costs.

139. Taking into account the difficulties inherent in developing an accurate forecast it is possible that the figures reported could be underestimated by as much 20%. The following table illustrates the impact of underestimating the total cost of the current position on forecast savings, e.g. an underestimate of 10% in the forecast costs would more than double the cash savings, or treble the NPV.

Cost/saving	Base	5% uplift	10% uplift	20% uplift
Cash cost/saving (£M)	(79.9)	(130.8)	(181.7)	(283.5)
Net Present Value (£M)	(42.3)	(82.1)	(122.0)	(201.6)
Annual cost (£M)	(22.6)	(26.4)	(30.2)	(37.8)
Unit cost (£)	(457.6)	(534.0)	(610.5)	(763.4)

Notes to table

- i. Figures are calculated by increasing the total cost of the current position by the percentage indicated

Project Risks

140. The project support office has defined and established a risk management approach, including a formal project risk register (refer to paragraph 240 in the Project Management Case). Project risks have been grouped in terms of the categories defined for the resilience programme, and the impact and likelihood of each risk category being triggered has been assessed. Appendix F, FiReControl Risks, contains the outcome of this analysis, which identifies the highest risk in each category. The results are summarised as the following risk profile:

Resilience Risk Profile

		Likelihood			
		Low	Med	High	Very High
Impact	Very High			A	
	High	E	G	B C D F	
	Med		H		
	Low				

Risk threshold

141. It can be seen that, currently, there is one risk category above the risk threshold, which indicates that immediate action and particular care must be taken in managing the risk:

- **Governance and management capacity (A):** the recent history of delivering IT / change projects in the public sector has demonstrated a less than 50% success rate. There is therefore a risk of unsuccessful delivery of the infrastructure and change components of regional controls, which could result in delay or even total project failure. Mitigation of this risk include: application of the Office of Government Commerce (OGC) best practice toolkit; a thorough assessment and specification of requirements; stringent management of development and testing; as well as, engagement with the regions and contractors throughout the process.

142. There are currently four risk categories close to the threshold:

- **Strategic Change / impacts (B):** there is a history of militancy in the fire and rescue service. Changes to staffing levels and other modernisation agenda issues may precipitate industrial action, which could delay implementation of one or more RCCs or disrupt the overall timetable. This will be combated through development of employment strategies that maximise buy-in from the workforce and a highly effective communication process, both within and external to the FRS. [This section covers political risks and mitigation strategies]
- **Critical dependencies (C):** there is a risk that the current provisional timescales may not be achieved. This would delay benefits, increase project cost and potentially impact other parts of the resilience programme, such as Firelink. Mitigation includes effective national and regional planning and a review of milestones and the delivery timetable following the national procurements.
- **Financial resources (D):** achievement of business benefits depends on the ability of regions to deliver change. Failure to deliver economies would reduce the resources available to further service aims and objectives, and might impact on Council Tax. The development of a partnering relationship between the national work streams and regional project teams is essential to the success of regional amalgamation. The benefits realisation strategy will ensure that key stakeholders, such as Chief Fire Officers and the new RCC business managers, are involved in delivering change and monitoring and reporting progress. The

strategy is built upon the prudent approach taken to identifying and quantifying the benefits presented in this business case.

- **FRS and brigade resources (F):** there is a risk that too few existing staff will apply for positions in the new RCCs. This will depend to a large extent on forthcoming location announcements and individual circumstances. Nevertheless, it is possible to alleviate the risk, at least in part, by sensitively managing the selection process.

143. For the remaining risk categories the usual approach of transferring risk to the party best able to manage it has been adopted. Some risk can be transferred to the infrastructure and accommodation suppliers. Specifically, ICT suppliers will be responsible for the integration of control room technology infrastructure within and between regional control centres and the availability of ICT support. Refer to the Commercial Case below for a more detailed discussion of risk transfer.

144. For inclusion in the Full Business Case, it is intended that the risks in the project risk register be assessed for their impact on the assumptions and variables identified as significant in the sensitivity analysis above. In this way the bottom-up and top-down risk analyses can be brought together.

Summary of the economic case

145. The economic case provides assurance that the relationship between costs, benefits and risk has been assessed adequately, and that the investment will prove to be Value For Money.

146. Previous studies have already identified that regional scale fire and rescue emergency control centres would be optimal for a combination of financial and governance reasons, and that regional scale control centres would be best delivered if they follow the Government Office boundaries in England. This would result in nine control centres, including London. The analysis performed in previous studies is not repeated. However, the options considered, and the rationale for selecting regional amalgamation, are presented, in summary form, to provide assurance that sufficient innovation took place during the concept definition stage of the project.

147. The remainder of the Economic Case provides the evidence that implementation of regional control centres will provide superior Value For Money compared to the current position. The main conclusions from a multi-faceted analysis are that:

- Regional controls satisfy all of the business objectives and related success criteria that have been identified, whereas the continuing with the current position would fail to implement mandatory resilience requirements.
- Regional controls will deliver substantial benefits with very few negative outcomes. The benefits include increasing resilience to the level appropriate for critical national infrastructure, tangible performance improvements, achieving business change and support for wider strategic imperatives, within the context of the modernisation programme.
- Implementation of regional controls should result in significant cost saving for the fire and rescue service compared to the current position. The cost of providing control services will be reduced by 30% (£23M) under steady state operating conditions. This is equivalent to a reduction in the national unit cost of £458 per 1000 head of population served per year or a positive NPV_{3.5} of £42M during the period under consideration. The payback period is nine years from project start, or five years from the cut over of the last FRA to the new control arrangements. The marginal cost of meeting CNI resilience requirements is £1.6M per control

centre building. This is roughly equivalent to 10% of the anticipated rental payment.

- The figures presented are more conservative than the SOBC. This is largely due to a better understanding of the requirement and costs. Strictly speaking, the headline figures should not be compared directly because the method of calculation and the time period under consideration are different. For the first time, this business case compares forecast costs under the new control arrangements with hard information about the current position that has been supplied by FRAs.
- Risk has been analysed from three distinct, but mutually inclusive, perspectives. Optimism bias (which is based on a Treasury model) suggests that expected cost of delivering the new arrangements would roughly balance the savings to be achieved in the period under consideration, and that delivery could be delayed by six months. Sensitivity analysis (which identifies key assumptions and flexes related parameters in the cost model against the range of value supplied by our technical advisors) confirms that the figures presented in the business case are prudent and that significantly greater savings could be achieved. Finally, a basic assessment of the project risks is included. Further work is planned to develop a bottom-up economic analysis of the risk register and link it to the top-down sensitivity analysis already undertaken.

148. The next part of the business case sets out the commercial deal sought and the justification for the approach taken

THE COMMERCIAL CASE

149. This part of the business case establishes the commercial deal sought for FiReControl. It provides a summary of the procurement process, the purpose of which is to achieve deals with providers that are mutually satisfactory, and deliver required outcomes, at an affordable price, whilst remaining value for money over the life of the contracts. It is structured around the following questions:

- What is the scope of works, goods and services to be purchased?
- What is the preferred procurement approach, and how does it affect value for money?
- What is the intended procurement route and timetable?
- How will value for money be ensured over the life of the contract(s)?

Procurement scope

150. The following FiReControl project objectives have a procurement element:

- **Providing suitable accommodation:** regional fire and rescue control services must be located in buildings and locations that meet the security and resilience requirements for the Critical National Infrastructure. It is necessary to identify suitable sites and either refit existing buildings, or construct and fit-out new buildings. The accommodation will need to be serviced and maintained throughout the period of occupation;
- **Providing enabling infrastructure:** regional fire and rescue control business processes will be enabled by a resilient communications infrastructure that is integrated with specialised command and control systems. It will be necessary to procure ICT infrastructure and systems, and related services, including integration, training, and support and maintenance;
- **Supporting transition:** timely recruitment of control centre staff is essential to ensure continuity of service. Support services that may be supplied by external providers include, marketing, selection and legal advice. The requirement and possible approach for acquiring such services is in preparation.
- **Supporting the national business change programme:** a national project team has been established by ODPM. This team is responsible for developing and procuring appropriate process, people, technology infrastructure and accommodation solutions, managing the national project, and supporting regional project teams in delivering change. Regional Management Boards have established equivalent regional teams, who are responsible for delivering change through local managers.

151. The FiReControl procurement strategy deals with the national procurement of the two most substantive requirements outlined above: provision of suitable accommodation and provision of enabling infrastructure (refer to RPT0033 Procurement Strategy V1.0). National and regional project teams are outside the scope of the strategy, as are any on-going business support requirements, e.g. within the national functions.

152. The next section sets out the rationale for the national procurements and how this impacts value for money.

Procurement approach

153. Provision of accommodation and infrastructure will be handled as two, separate, national procurement exercises. It was decided not to bundle accommodation and infrastructure procurement together because:

- Firstly, the market assessment undertaken suggested that there would be significant risk that suitable sites would not be identified. The accommodation procurement was initiated as rapidly as possible to mitigate this risk. The overall project risk was reduced by decoupling infrastructure procurement from the acquisition of suitable accommodation;
- Secondly, the accommodation procurement needed to be run in regional lots, whereas the infrastructure requirement is for a national solution. Furthermore, the suppliers are in separate market places. It would needlessly increase the complexity of the procurement if the two processes were brought together under a single OJEU notice. It should be noted that the PFI option has been discounted (refer to paragraphs 161 and 171 below).
- Finally, the Office is left with responsibility for managing the risk of integrating accommodation and infrastructure delivery, within the context of delivering the new, regional control network. It is not practical to effectively transfer business integration risk for a competitive price. However, some of the risk is being mitigated through the employment of professional advisors. A national project team is in place to provide enterprise wide integration and support for business change (refer to paragraphs 242 to 247 in the Project Management Case).

154. Separating the two, national procurement exercises means that the Contracting Authority may sign the agreements for lease before the infrastructure services procurement is completed. This risk can be qualified by the market demonstrating that it is able to provide a suitable infrastructure solution, within the required time and cost envelope, at an early stage in the procurement process.

155. The remainder of this section sets out rationale for the preferred procurement approach for accommodation and infrastructure. It answers the following questions:

- What options were considered?
- How were they assessed?
- What is the impact of the preferred approach on project costs, risks and savings?
- What is the overall impact of the commercial deal sought on the economic and financial cases?

Provision of accommodation

156. Selection of the accommodation procurement approach was dominated by the expected difficulty in identifying suitable sites in each region. Estates and technical advisers suggested that at least the majority of regional fire controls could be new builds in all regions. Having reviewed the requirement and site selection criteria, they considered it unlikely that existing, suitable buildings would be identified, under public or private ownership.

Option selection

157. Four procurement options were considered by the project team:

- Option1: Crown build and fit out on freehold land
- Option2: Crown fit-out of freehold building
- Option3: Private Finance Initiative (PFI)
- Option4: Private Developer Scheme (PDS).

158. The results of the assessment are summarised in the following table, where each option has been graded against the assessment criteria as follows:

- A: significant advantage
- B: some advantage
- C: some disadvantage
- D: unacceptable.

159. All The shaded criteria must be satisfied by a grade of C or above for the option to be taken forward:

Assessment criteria	Option			
	1	2	3	4
Demonstrates fair site selection through competition	C	C	A	A
Procurement achievable within delivery timescales	C	C	D	C
Minimises requirement for up-front funding	D	D	A	B
Market interest and ability to deliver	C	D	C	B
Control over the standard design and relevant standards	A	A	C	A
Adoption of a best practice approach	C	C	A	C
Overall assessment	D	D	D	B

160. It can be seen from the table above that the Private Developer Scheme (option 4) is the best fit for the assessment criteria, because it is the only option in which all of the shaded criteria are satisfied by a grade of C or above. In addition, the preferred option must demonstrate value for money. This is dealt with separately below.

161. Taking each option in turn:

- **(Option1) Crown build and fit out on freehold land:** would probably fail to ensure sufficient sites were brought forward by public owners to enable competitive evaluation against the site selection criteria. Our technical advisors suggested that many landowners would not be keen to sell freehold (or long leasehold interests) land if it were part of a larger scheme. Moreover, landowners are often funds for which land sales would not create suitable institutional investments. Furthermore, the returns available to developers tend to be lower on freehold design and builds compared to leasehold transactions, further reducing potential market interest. In addition, this option would require capital funding. Nevertheless, it would provide the greatest control over delivery of facilities. However, this should be weighed against the anticipated difficulty the Contracting Authority would encounter in passing-on responsibility for achieving overall delivery timescales and standards to contractors.
- **(Option 2) Crown fit-out of freehold building:** is very similar to option 1, but is less preferable because current market assessment suggests that identification of suitable buildings (under public or private ownership) would be unlikely in most regions.
- **(Option 3) Private Finance Initiative (PFI):** would allow the conversion of capital funding into a revenue-funded project and financial risk to be transferred to the

private sector. Facilities and estates management could be included in the service offering, which would support implementation of a national standard design, and the best practice principle of a single point of responsibility with the integration of design, build and maintenance. However, a relatively lengthy, negotiated procurement route would be required to agree a suitable solution and pricing mechanism. It is therefore unlikely that an effective procurement exercise could be completed within the required delivery timescales. In addition, there is serious uncertainty as to whether competition managed by the PFI provider would generate sufficient suitable sites and ensure Value For Money.

- **(Option 4) Private Developer Scheme (PDS):** is the preferred option. Adoption of a restricted procurement procedure would satisfy the need to demonstrate fair site selection and be achievable within project timescales. Furthermore, dependent upon the proposals put forward by developers, there is a possibility of converting of capital funding into a revenue-funded project.

162. Despite a clear preference for option 4, there remained some uncertainty whether the PDS route would generate sufficient suitable sites or competition to ensure Value For Money. The procurement route outlined in the next section was designed to allow an inadequate response be identified during the pre-qualification phase and hence corrective action could have been taken. Such a course would, however, have increased costs and affected funding and delivery schedules. It was therefore important to perform the accommodation procurement at the earliest opportunity, to quantify the risk before procuring infrastructure services.

Value for money

163. Under the PDS approach, the cost of purchasing the site, building and fitting out the accommodation, plus any directly-related management costs and professional services are all recovered by the owner of the building in the form of a monthly rent. The main value for money considerations are:

- What known factors will affect the rent payable for the accommodation?
- What is the impact of the commercial deal sought on costs and savings?

164. Accommodation leases will be established through competition at a regional level. Bidders are being asked to tender for terms of 15, 20 and 25 years. Consequently, different lease lengths could apply in different regions. However, the market will probably consider a 15 year lease term too short a period to recover the capital outlay in constructing and fitting out a building. Furthermore, the residual value of the accommodation is likely to be limited due to the specialist nature of the requirement. This will tend to increase rental yields. A figure of 6.0% for a 20 year term is anticipated.

165. The Contracting Authority will have the power to prevent sale to an organisation it deems inappropriate. This could affect the liquidity of the investment and hence impact rental yields. Also, potential landlords may wish to restrict assignment of the lease to another Government Department only. However, the Contracting Authority will still be able to sub-let to any other covenant.

166. It is unlikely that there will be a meaningful, open market value, attributable to the accommodation because of the specialised nature of the requirement. The agreement for lease stipulates a rent review mechanism of 2.5% per annum, compounded uplift on the fixed rental value every five years; this is in line with Treasury guidance.

167. The Office has achieved significant economies of scale through developing a single national design for the accommodation, which will be shared by all the regional

developments. The up front costs of will also be shared. The Contracting Authority has stipulated in the agreement for lease that the developer will provide two contributions to cover the cost of project management and consultancy fees. One of these contributions is payable on signature of the agreement for lease, with the other payment due on practical completion of the building. The developer will price these contributions into the rental calculations over the lease term.

168. The PDS approach has a significant impact on costs and savings:

- The whole-life cost of the PDS approach is likely to be higher than build and fit-out by the Crown. This must be offset against a significant reduction in risk to the project through stimulating market interest in bringing forward suitable sites. In addition, greater market interest should lead to improved price competition amongst developers.
- There is a significant opportunity cost to crown build and fit out. The PDS scheme potentially frees up funds that can be put to work in other areas. In addition the public sector would carry all of the risk if it owned the accommodation.
- The PDS approach has a smoothing effect on the cost profile for the new control service. It considerably reduces the potential burden on the fire and rescue service during transition to the new arrangements. It also improves the total cash savings and discounted cash flow (NPV) during the period under consideration;
- The annual cost savings will be diminished, once steady state operating conditions have been achieved, under a PDS approach⁷;
- The payback period is significantly shortened under a PDS approach.

169. The impact of the PDS approach on FiReControl costs and savings are outlined in the following table, increased savings are indicated by brackets:

Impact	Cash cost		NPV (£M)		Comment
	(£M)	(%)	(£M)	(%)	
Whole life cost likely to be higher than build and fit out by the crown	+74.8	+61	+21.8	+19	The economic life of a building is the same as the lease term (20 years). For this calculation it is assumed that the terms of the leases will be adjusted to be co-terminus. The rental yield will depend on the level of risk assumed by the owner, its ability to raise finance and the lease term. Our technical advisors indicate that a yield of 6.0% per year would be a prudent assumption for lease terms of 20 years or more Maintenance and rehabilitation costs are excluded from the rent.

⁷ The commercial deal is compared with figures for capital costs that exclude depreciation and the cost of capital.

Improved savings during period under consideration ⁱ	(11.7)	(10.0)	(25.6)	(24)	Avoidance of up-front costs has a significant, beneficial impact on the discounted cash flow
Increased cost during steady state ⁱⁱ	+10.8	??	n/a	n/a	The rent for the accommodation is 20% of the annual cost

Notes for table:

- i. Defined as the period from project start to the anticipated end of the infrastructure services contract, including extensions (FY2004/2005 to FY2017/2018 inclusive)
- ii. FY2011 onwards

Provision of enabling infrastructure

170. The successful integration of technology infrastructure and related services is critical to the success of the FiReControl project. Different technologies from different suppliers must be made to work together reliably. Moreover, the interfaces between customer and supplier(s) must work efficiently to ensure prompt resolution of problems and issues. There are a number of specialist integrators that could take on a task of this scale and difficulty. Alternatively, one of the underlying technology suppliers could act as an integrator for all or part of the solution.

171. Given the numerous infrastructure and supplier combinations to choose from, and the innovative nature of the resilience requirement, ODPM is looking to the market to suggest appropriate integration solutions. It should be noted that a Private Finance Initiative (PFI) was not proposed as a viable option, because the OGC and Treasury advise against the use of PFI for technology procurement. This advice is supported by the recent experiences of public bodies in procuring emergency control centre services through PFIs, e.g. the London FRA and the Metropolitan Police C3I project.

Option selection

172. The procurement must result in the successful installation of infrastructure that will support the new processes established within and between regional control centres. The critical building blocks are:

- A Mobilising and Resource Management System (MRMS)
- An Integrated Communications Control System (ICCS)
- Voice distribution elements comprising a PBX and an ACD
- Data distribution elements comprising a Local Area Network (LAN) and business support systems, such as email and word processing capability
- Voice and data network services, including telephony connectivity and Wide Area Network (WAN) connectivity respectively with compatible station end terminals.
- National radio services
- Video overview display.
- Management Information System (MIS) database with data import and reporting tools
- Availability / attendance management swipe or proximity card system
- Retained availability management interactive voice response system

- Mobile data applications
- Database, GIS and file storage
- Supplementary mobile bearer
- Service management for maintaining the system
- Furniture
- Network and system security
- Training

173. There are numerous ways that the building blocks can be bundled together. Four general options were considered, according to their sources of supply:

- Option 1: Procure Each Infrastructure Element Separately
- Option 2: Procure Infrastructure Elements in Small Bundles
- Option 3: Procure Infrastructure Elements in Large Bundles
- Option 4: Procure Infrastructure Elements Together.

174. The results of the options assessment are summarised in the following table, where each option has been graded against the assessment criteria as follows:

- A: significant advantage
- B: some advantage
- C: some disadvantage
- D: unacceptable.

Assessment criteria	Option			
	1	2	3	4
Technical advantage	C	C	B	B
Alignment with Firelink contract	C	C	B	B
Number of interfaces to be managed	D	D	B	A
Integration risk reduction	D	D	C	A
Ability to manage the procurement process	D	C	B	B
Overall assessment	D	C	B	A

175. It can be seen from the table above that the preferred option is to procure infrastructure elements together (option 4). Firstly, none of the other options attracts an A grade. Secondly, all of the other options attract a grade of C or D for at least one criterion. In addition, the preferred option must demonstrate value for money. This is dealt with separately below.

176. Taking each option in turn:

- **Option 1: Procure Each Infrastructure Element Separately:** the large number of interfaces between suppliers would create an unacceptable integration risk for both the project and the delivery of fire and rescue services. In addition, procurement would be complicated by the number of tenders and contracts that would need to be managed. However, separately competing each element would help to achieve low prices.
- **Option 2: Procure Infrastructure Elements in Small Bundles:** offers some integration and technical advantages. However, a separate integrator would be

required and procurement would remain relatively complicated. Overall, the level of risk is too high for this option to be progressed further.

- **Option 3: Procure Infrastructure Elements in Large Bundles:** would significantly reduce the level of integration risk and complexity of the procurement. However, a separate integrator would still be required. Consequently, the Contracting Authority would retain some integration risk. In addition, the need for consortia to form might limit the number of bids received. Finally, it would be necessary to stimulate the market to encourage innovative consortia and ensure sufficient price competition.
- **Option 4: Procure Infrastructure Elements Together:** is the preferred option, because it would enable integration risk to be effectively transferred to the private sector. However, there would be a financial cost for managing this risk. Procurement through a single integrator would also significantly simplify the process for the Contracting Authority. However, the need for consortia to form might limit the number of bids received. Consequently, it would be necessary to stimulate the market to encourage innovative consortia and ensure sufficient price competition.

177. Long term the authority seeks the best combination of cost and convenience. Over time, the role of the infrastructure services prime contractor in providing training services will be reduced to maintaining and updating training material, and occasional courses to refresh trainers on the infrastructure only.

Value for money

178. Under the preferred procurement option, infrastructure and related services are acquired from a prime contractor. The value for money considerations are:

- What is the most effective way to transfer risk to the prime contractor?
- What is the impact of the commercial deal sought on costs and savings?

179. There are two sub-options for acquiring infrastructure from a prime contractor: managed service or procure and maintain in-house. The table below illustrates the superior level of risk transfer afforded by a managed service. The following scoring mechanism has been used to indicate how well risk is transferred:

Degree of risk transfer	Score
Retained	0
Partially transferred	1
Transferred	2

Risk	Procure and Maintain	Managed Service
Development of bespoke features on the mobilising system (initial)	2	2
Development of bespoke features on the mobilising system (on-going)	0	1
Project Management	2	2
Integration (technical within scope)	2	2
Integration (technical FRA side)	0	1
Integration (ongoing services)	1	2
Integration (business processes)	0	0
Training (one-off)	2	2
Management of sub-contractors	2	2
Fluctuation in supply of scarce IT and maintenance staff	1 (first line support provided)	1 (possibility of full transfer depending on shape of deal)
Technology upgrades at future date	0	2
Change in government funding criteria	1	2
Total score	13	19

180. A key advantage of a managed service is that it will enable the partial transfer of integration risks from the FRS, such as interfacing to back office systems. It also provides the possibility of transferring the risk of resourcing maintenance and support activities in full. Business integration will be the only significant risk retained by the Contracting Authority under the proposed arrangements. It should be noted that outsourcing (i.e. privatisation) of fire and rescue control services is the only way to effectively transfer this risk, and that this option was rejected at the concept definition stage, refer paragraph 65.

181. The payment and reward mechanisms for the application development and infrastructure roll-out and integration are designed to encourage delivery of an effective application and enabling infrastructure without forcing the provider to take on a substantial financial risk, e.g. carrying too much work in progress. Such risks would be transferred back to the Authority as expensive risk margins built into the price. Alternatively, they may endanger delivery by causing excessively risk adverse behaviour from the Contractor.

182. There are two types of payment:

- For achieving live operation of the RCCs
- For providing ongoing services

183. The Contracting Authority proposes to make payments in stages. There are three distinct payment profiles, as follows:

- Payment for the **development of the required systems**, which takes place at designated points in the development lifecycle.
- Payment for the **deployment in the RCCs**. This takes place separately for each of the nine RCCs, at designated points, beginning with the placing of an order for the RCC systems and ending with their operational acceptance. There is an additional payment when all the RCC systems in the national network have successfully been deployed and accepted.
- Payment for the successful **transition of individual FRSs into the RCC**. This involves three levels of ongoing payment. The first level is attained when the first FRS in a region migrates into the RCC. The second level is attained incrementally as each FRS in the region completes the transition. The last payment level is attained when all the FRS in all the regions have transitioned.

184. The tables below set out the payment streams outlined above in more detail:

Development of the required systems	Proportion of price (%)
Progress payment – when progress has been made on development to a required level	20
Prototype test – when interim offline testing has taken place	20
Completion – when offline testing has taken place	40
Final payment – when the first RCC has gone live and the system has been operationally accepted	20
Total	100

Deployment in an RCC	Proportion of price (%)
Three months from order date – for the RCC	10
Completion - when offline testing has taken place in the RCC	70
Final payment - when the RCC has gone live and the system has been operationally accepted	17.5
Whole network – when all RCCs in the national network have gone live and been operationally accepted	2.5
Total	100

Transition of each FRS into an RCC	Proportion of price (%)
Completion – when the first FRS in a region has moved into a RCC	80
Final payment – when all FRSs in the region have moved into a RCC	17.5
Whole network – when all FRSs nationally have moved into RCCs	2.5
Total	100

Note for tables: All pricing tables are presented in the appendices to Volume 4 of the ISOP.

185. Once a level of payment for ongoing infrastructure services has been attained, the reward scheme is designed to achieve excellence in service provision over the full term of the contract, without forcing the provider to take on too much financial risk, which would result in expensive premiums being added to the price. Ongoing service charges relate mainly to maintenance and ongoing costs such as WAN and telephony. For these charges, the Contracting Authority will establish a service credit regime that is related to Service Level Agreements and Key Performance Indicators. This regime will put ongoing service charges at risk to availability and performance, which will be measured in terms of:

- **Availability:** performance must be above an agreed threshold for payment to be received by the provider. Failure to achieve exacting targets will result in service credits being applied.
- **Quality:** payment for services that pass the availability threshold will still be at risk. Failure to achieve exacting targets will result in further service credits being applied.

186. The application of service credits will be engineered to encourage desirable behaviours, e.g. rapid resolution of service problems will result in some service credits being reinstated.

187. It is proposed that the infrastructure and systems for each regional control centre be commissioned three months before practical completion of the accommodation. The contract for providing ongoing infrastructure services will be activated when the first FRA cuts over to the new arrangements. The contract term will be eight years, with a possible three-year extension. Experience suggests that a new infrastructure services contract is most likely to be entered into after 11 years. This limits the period under consideration for costs and savings from FY2004/05 to FY2017/2018.

188. The total cash cost for provision of infrastructure under the proposed commercial arrangements is the same as that presented in the economic case. This is because the economic case is built up from market price points representative of typical commercial arrangements for the provision of infrastructure services. However, the cost profile and hence discounted cash flow (NPV) are different. There is a marginal improvement in discounted cash flow under proposed commercial arrangements.

189. The impact of the proposed commercial arrangements on FiReControl costs and savings are outlined in the following table, improved savings are indicated by brackets:

Impact	Cash cost	NPV (£M)	Comment
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	(£M)	(%)	(£M)	(%)	
Small saving during period under consideration ⁱ	0.00	0	(0.19)	(0.13)	The payment profile has a small beneficial effect on the discounted cash flow. Assumes no service credits
No change during steady state ⁱⁱ	0.00	0	n/a	n/a	Assumes no service credits

Notes for table:

- i. Defined as the period from project start to the anticipated end of the infrastructure services contract, including extensions (FY2004/2005 to FY2017/2018 inclusive)
- ii. FY2011 onwards

Procurement Route

190. This section outlines the procurement route and timetable for FiReControl. It is structured around the following questions:

- What are the constraints that must be considered in selecting an appropriate procurement route?
- What is the best procurement route for accommodation and infrastructure?
- What risks are associated with the preferred procurement routes?

191. The implementation of regional control centres needs to be fully aligned with the roll-out of Firelink, which is the national radio system for Fire and Rescue Authorities. It is planned that the new radio system will roll-out from 2006 to 2008.

192. The FiReControl project must comply with European procurement rules, as shown by the following table:

Type of contract	Threshold ⁱ (ECU)	Threshold ⁱ (£)	Corresponds to following procurement elements
Public Works	5,923,624	3,834,411	Build and fit for a 2,875m ² building with N+2 redundancy in one region (site acquisition costs are excluded)
Public Supply	154,014	99,695	Delivery of a turn-key solution for one site
Public Service	154,014	99,695	Supporting and maintaining technology infrastructure at one site.

Notes for table: Source OGC web site Sept, 2004

193. European regulations prescribe three procurement routes:

- **Open procedure:** in which any eligible organisation is invited to tender. The open procedure is only appropriate for straightforward, commodity purchases. Where it is known, in advance of competition, that there are only a limited number of bidders with the appropriate capability, then it is more efficient to pre-qualify bidders. This reduces expense for both the Contracting Authority and the market.

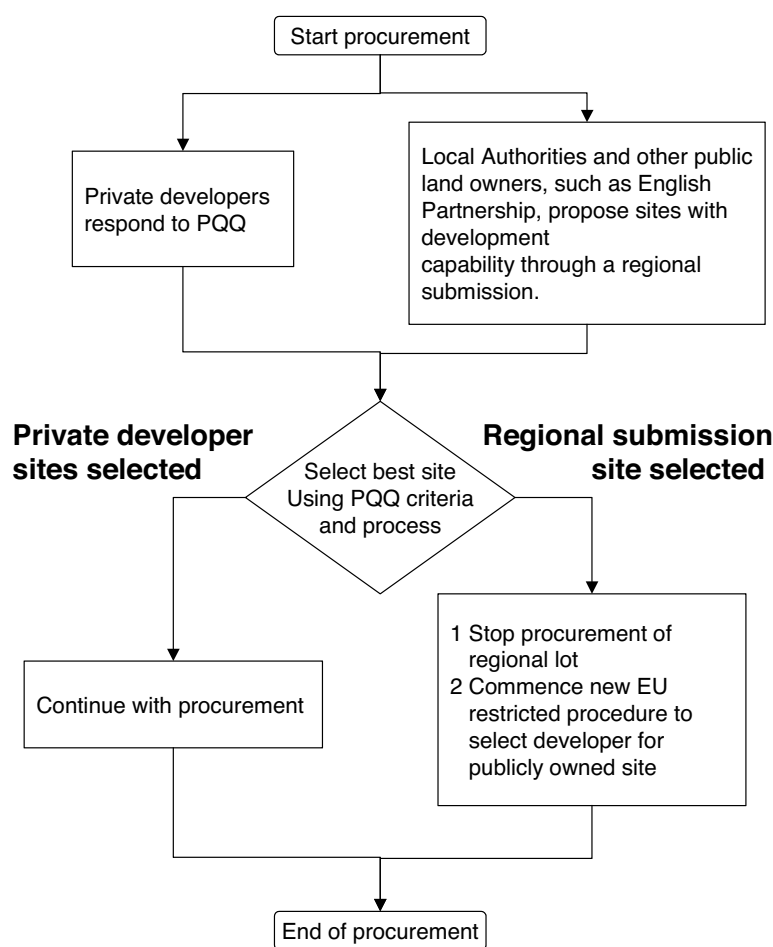
- **Restricted procedure:** in which a pre-qualification stage is used to restrict the number of bidders invited to tender.
- **Negotiated procedure:** in which a pre-qualification stage is used to restrict the number of bidders invited to negotiate. The negotiated route should only be used where it is not practical to define detailed requirements in advance, or significant innovation is sought from the market.

Provision of suitable accommodation

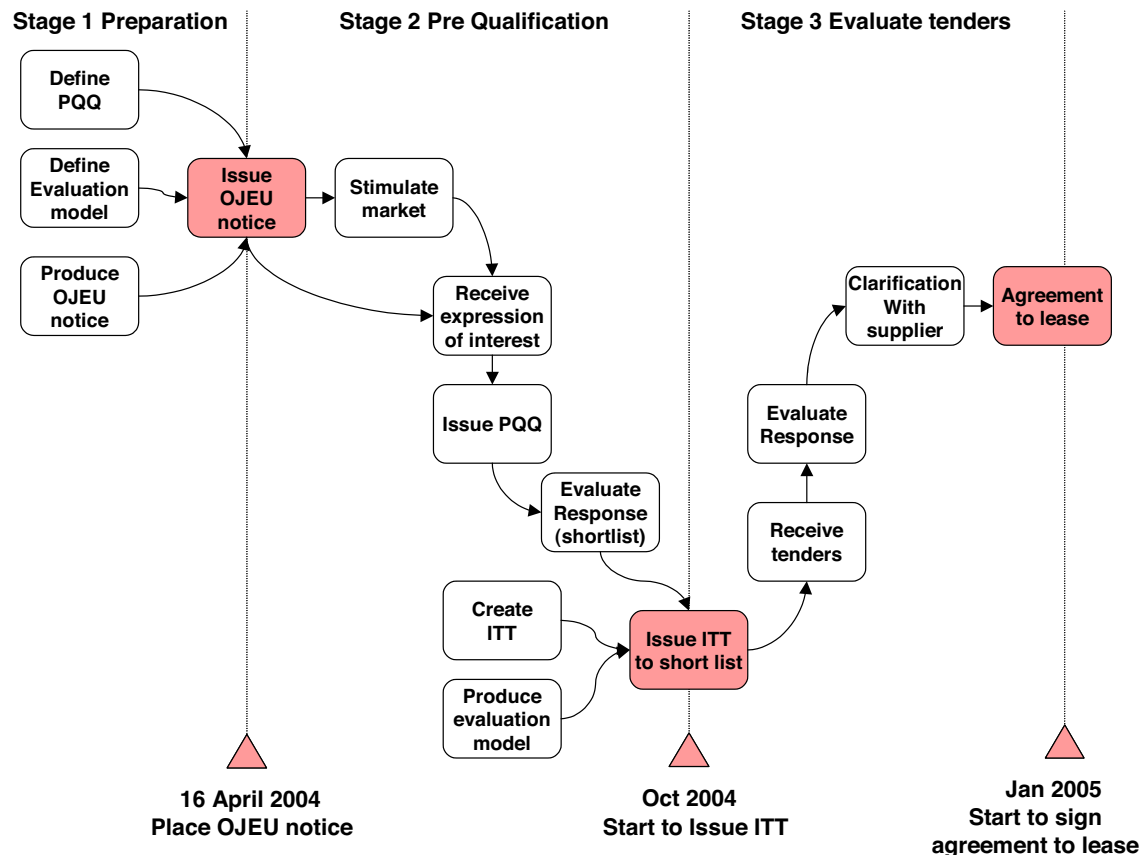
194. The restricted procedure is most appropriate for accommodation acquisition because:

- It is known in advance of competition that there are only a limited number of bidders that are capable of delivering accommodation requirements, which discounts the open procedure
- The requirement is well defined and innovation is not being sought. This discounts the negotiated procedure.

195. Provision of accommodation is being competed as eight regional lots using the EU restricted procedure. Within each region there are two routes, illustrated by the following flow chart:



196. The diagram below illustrates the key steps and milestones in the national accommodation procurement under the restricted procedure for private developers. This corresponds to the left-hand path in the flow chart above.



197. There are three broad stages:

- **Stage 1 Preparation:** in which the selection criteria for sites were developed into an evaluation model for the Pre-Qualification Questionnaire (PQQ). The PQQ stage was used to identify suitable sites. It was carefully crafted to comply with EU regulations.
- **Stage2 Pre qualification:** in which each supplier that expressed an interest in bidding was invited to complete the PQQ. Representatives from the region (including local town planners and property professionals) participated in the selection process, resulting in a short-list in each region.
- **Stage 3 Evaluate tenders:** in which the short-listed suppliers are being invited to respond to detailed tender documents, including the lease agreement, detailed design and related contracts. The Contracting Authority will then clarify details with the chosen supplier before signing an agreement to lease.

198. Local Authorities and other public land owners, including English Partnership, were encouraged to identify potential public sector facilities or sites and put them forward via Regional Management Boards for consideration. These responses were evaluated using the same criteria for site selection employed in the PQQ, within the same timeframes.

199. If a publicly owned site had proven to be more attractive than privately owned sites in a region, then the procurement in that region would have been stopped and a new restricted EU procurement process commenced to identify a developer or contractors that were able to prepare the site and perform necessary construction and fit out. The

accommodation would then have been sold and leased back to the regional entity. This would have been likely to increase delivery timescales by about six months or more in each region to which it applied. The procurement stages for build and fit out would have been the same as those already outlined above (refer to paragraph 196).

200. The main risks associated with this procurement route are:

- The agreements for lease may be signed before pricing for the infrastructure services contract is finalised
- In some regions there might be only one site in the tender (this has not been the case)
- In some regions there might be only one bid received
- The first three sites should achieve practical completion within 14 months from receipt of planning consent; this may not allow enough time for bespoke elements of the control room systems development to be completed
- Gaining planning permission for the buildings;

201. The impact and mitigation of these risks are presented in the table below:

Risk	Impact if risk triggered	Likelihood	Mitigation
Timing of agreements for lease	Agreements to lease signed whilst there is a theoretical possibility that the full business case is not accepted.	High	OGC gateway review of the full business case split into two parts: 3a for accommodation and 3b for infrastructure contracts. Business case built on prudent assumptions.
One site going to tender, or one bid received	No competition if bidder falls away.	Medium	PDS route is the best way to encourage a healthy market response. Process designed so that it is relatively cheap to bid. Potential ability to benchmark against other lots
Systems not ready in time	Increased time delay between practical completion and cutover of first FRA, in each of the first two or three control centres, to the new arrangements. Rent may become payable before occupation.	Medium	Lease contract enables first rent payment to be deferred by six months after practical completion
Gaining planning consent	Need to fall back to different supplier. Likely to result in delay to project.	Low	Planning consultants appointed to evaluate sites during selection process and report. Planning brief to be provided as part of the ITT.

			Confidence in attaining planning consent was a key criteria to get through to the ITT stage of competition Lease conditional on gaining planning consent. ODPM can terminate contracts if developer has not made a submission or achieved consent within specified time periods.
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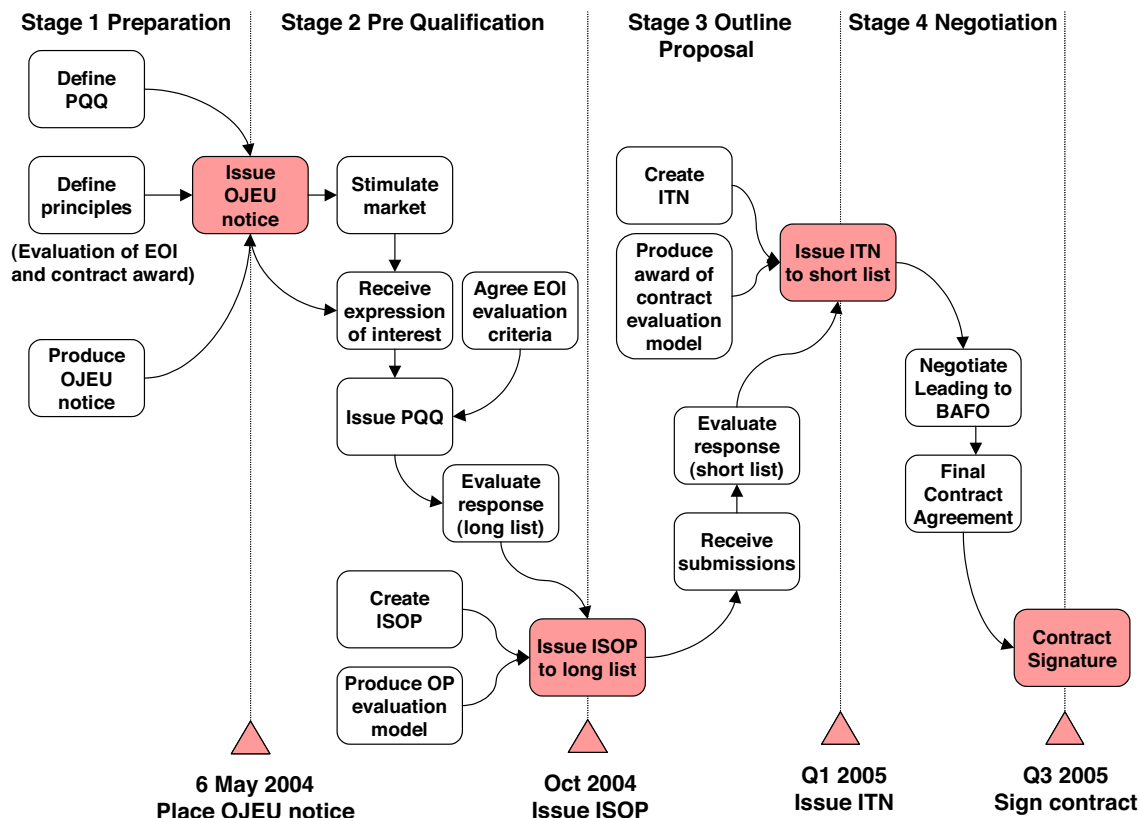
Provision of enabling infrastructure

202. The negotiated procedure is most appropriate for infrastructure acquisition because:

- It is known in advance of competition that there are only a limited number of bidders that are capable of delivering technology infrastructure requirements, which discounts the open procedure
- It allows different levels of risk transfer, and hence pricing arrangements, to be explored with suppliers (refer to paragraph 153 above).

203. There is sufficient time available to conduct a negotiated process because infrastructure installation follows delivery of suitable accommodation.

204. Provision of infrastructure will be competed nationally. There is no advantage in running competitions by region or groupings of regions, because different regional suppliers would significantly increase integration and operational risk. Specifically, a separate integrator would be required for the national network. In effect, regional competition is variation of infrastructure procurement Option3: Procure Infrastructure Elements in Large Bundles, which has already been shown to be less preferable than procuring all the infrastructure elements together (refer to paragraph 175 above).



205. The diagram above illustrates the key steps and milestones in the national technology infrastructure procurement under the negotiated procedure. There are four broad stages:

- **Stage 1: Preparation:** in which the selection criteria for prime contractors were developed into an evaluation model for the Pre-Qualification Questionnaire (PQQ).
- **Stage 2: Pre qualification:** in which each supplier that made an Expression Of Interest (EOI) in bidding was invited to complete the PQQ, resulting in a long-list of more than five potential prime contractors.
- **Stage 3: Outline proposal:** in which the long-listed suppliers will be Invited to Submit an Outline Proposal (ISOP). This will be a detailed submission including responses to technical, commercial, contractual and delivery requirements. The assessment will produce a short-list and enable the market to demonstrate that it is capable of delivering a viable solution at a relatively early stage in the procurement process
- **Stage 4: Negotiation:** in which the Contracting Authority will then enter into negotiation with the short-listed suppliers, selecting a chosen prime contractor, based on the Best And Final Offers (BAFOs) received. The criteria for award of contract will be developed from the criteria for evaluating outline proposals (Stage 3).

206. This procurement route is inherently low risk. The principle risk identified at this time is that there will be a sub-optimum mix of contractors. The evaluation of responses will include assessment of the desirability of the proposed sub-contractors. Furthermore, the contract will enable the Authority to select sub-contractors, if this is deemed necessary.

207. In addition, it is important to appreciate that the WAN is the main ongoing infrastructure cost element. Sources of supply and costs are very sensitive to location

Ensuring Long Term Value For Money

208. The national procurement routes outlined above will enable ODPM to acquire accommodation and infrastructure in a way that minimises risk to the project and achieves competitive prices. This section addresses the aspects of the commercial deal that have to be in place to ensure value for money is achieved throughout the term of the contract. It is structured around the following questions:

- What kind of relationship is sought with the suppliers?
- How will supplier-facing functions be organised?
- How will superior value be maintained throughout the contract term?
- How will dependencies between contracts be handled?

209. A traditional, transactional relationship with accommodation and infrastructure suppliers is appropriate, because the Contracting Authority and the FRAs will retain risk for overall integration of the fire and rescue control service (accommodation, technology infrastructure, processes, people and organisation) and hence delivery of control centre service outcomes. Furthermore, no significant changes to the requirement are anticipated during the contract life. Consequently, there is little benefit in developing “strategic partners” within this commercial relationship because suppliers are not forced to share the same aspirations as the Contracting Authority.

210. Even though the commercial relationship will be largely transactional, there is a need for effective, proactive supplier management. The main functional elements of the “intelligent” customer function currently performed by the national project team can be summarised as follows:

- **A design authority:** which defines technical strategy, architecture and standards to be applied, approves designs, and assures that architecture and standards are being adhered to. It is also responsible for benchmarking solutions against the market and maintaining the quality of deliverables. This function applies to the management of both accommodation and infrastructure delivery contracts
- **Change delivery:** which supports the fire and rescue service to achieve business outcomes, provides national project and programme management, and manages stakeholder communication
- **Business assurance:** which develops business requirements and the business case. This function assists Regional Project Teams to perform acceptance and [DN- lets discuss with RB] realise, monitor and report benefits
- **Service delivery:** which monitors supplier service performance, facilitates change control, gathers customer intelligence, and develops new business requirements
- **Financial management:** which ensures adequate funding exists throughout the contract term and pays suppliers
- **Commercial and contract management:** which establishes points of contact between the supplier and customer, escalates and resolves problems, and handles contract change, including configuration management

211. Further work is required to determine how the “intelligent customer” will evolve once the contracts have been awarded. Specifically:

- A definition of the appropriate organisation and governance for the management of the interface between the Contracting Authority and its suppliers
 - Positioning the new arrangements so that they could become part of the organisation, which may be established under the Fire Service Procurement Strategy. The Office is currently consulting on the national strategy.
 - Selection of appropriate locations for the intelligent customer functions to be situated
 - Development of a practical transition strategy for the intelligent customer.
212. It will be necessary to ensure that the infrastructure services contract remains competitive. The principle mechanisms for sustaining value are likely to be benchmarking and demonstration of reasonableness by the service provider. It is intended that the Contracting Authority will have the right to benchmark ongoing services, using a third party. In addition, it is intended that the service provider will be required to provide a value for money comparison against its customer base.
213. The prime contractor will be expected to demonstrate that the commodity services it sources remain competitively priced, e.g. re-competing these services every three years. For some infrastructure service elements, such as telephony and WAN connectivity, it is intended that the Contracting Authority will have the power to compel the prime contractor to work with suppliers procured through existing governmental framework agreements.
214. The Contracting Authority intends to ensure that, so far as practicable commercially, the contracts for FiReControl infrastructure and Firelink minimise payment to the respective contractors for delivery delay caused by third parties. On the same basis Contracting Authority will try to ensure that there are cost recovery mechanisms in place to mitigate at least part of its exposure to suppliers.

Summary of the commercial case

215. The commercial case sets out the commercial deal sought for FiReControl. It provides a summary of the FiReControl procurement strategy, including the justification for the selecting the approach outlined. It is explained how the FRS is acquiring suitable accommodation and infrastructure through two, distinct, national procurement exercises, which are driven by the need to manage significant delivery risks:
- Accommodation will be acquired through a Private Developer Scheme (PDS). This procurement is dominated by concern that sufficient sites be brought forward by developers to enable effective competition to take place. The adoption of a PDS has helped to maximise market response. An OJEU notice has been placed under the EU restricted procedure. The procurement route has been designed to enable any problems in acquiring suitable sites to be identified, and corrected, at a relatively early stage in the project.
 - Infrastructure will be acquired as a managed service from a single supplier. The successful integration of technology infrastructure and related services is critical to the success of the FiReControl project. The ODPM is looking to the market to suggest appropriate integration solutions. It will procure a national prime contractor to deliver all of the regional control infrastructure and related services. The intended payment and reward scheme is a powerful mechanism for reducing delivery risk. An OJEU notice has been placed, under the negotiated procedure. The procurement route has been designed to allow different levels of risk transfer, and hence pricing arrangements, to be explored with suppliers.
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216. During the period under consideration, the commercial deal sought has a positive influence on costs and savings. The cost profile during transition is smoothed, which has beneficial impact on the total cash cost and discounted cash flows. Coupled with the substantial transfer of risk to the provider, outlined above, this significantly enhances the FiReControl, value for money, proposition.
217. The creation of an intelligent customer function, the requirement for third party benchmarking and a mandatory demonstration of reasonableness are targeted at delivering competitive prices and maintaining quality levels to the end of the infrastructure service contract. In addition, value will be protected from delays caused by third parties.
218. The next part of the business case demonstrates that suitable arrangements for funding the establishment and ongoing activities of new control arrangements have been considered.

THE FINANCIAL CASE

219. This part of the business case outlines the resources required to deliver regional controls and the current funding position. It answers the following questions:

- What resources are required to deliver FiReControl?
- What funding commitments have been made?
- What agreement has been achieved about the funding mechanism?

220. The objective of the FiReControl project is to deliver integrated, networked, standard, fire and rescue controls, at a regional level, in England. Resources are required to:

- **Employ staff:** the entity established to provide regional controls will employ control centre staff. To ensure continuity of service, it may be necessary to pay incentives to retain key staff and perform timely recruitment. There will also be one-off costs associated with employees whose roles have become redundant.
- **Provide suitable accommodation:** regional fire control centres must be located in buildings and locations that meet the security and resilience requirements for Critical National Infrastructure, including New Dimension operating requirements. Accommodation is being procured in separate regional lots.
- **Provide enabling infrastructure:** regional Fire and Rescue controls business processes will be enabled by high quality communications infrastructure that is integrated with specialised mobilising and resource management systems. The ODPM is seeking a single, national, prime contractor to be responsible for delivering control centre technology infrastructure and related services, such as integration, training, security, maintenance and support.
- **Manage the project:** a national project team has been established by ODPM to design and procure the regional fire and rescue control solution and support regional project teams.
- **Achieve accreditation:** all aspects of the regional fire control service must be accredited to governmental standards because it will form part of the Critical National Infrastructure. The ODPM is responsible for achieving accreditation across the entire system. Working alongside relevant national functions, the entity responsible regional for providing regional control services will be responsible for adherence to standards and maintaining accreditation.
- **Manage the FiReControl system:** after the FiReControl project has delivered the new regional fire and rescue control service there will be an ongoing support requirement, e.g. national databases for FireControl and New Dimension must be kept up to date, regional Fire and rescue service capacity must be monitored, and accommodation and infrastructure suppliers managed. Final decisions on where responsibilities sit and how they are to be organised, managed and funded are yet to be taken.

- The table below outlines FiReControl funding commitments:

Resource requirement	Funding sources and commitments
Employ staff	Staff will be employed by the regional control centre entity
	Employers bear the costs of redundancy, recruitment and “golden handcuffs”. The ODPM will consider claims under the New Burdens principles.
Provide suitable accommodation	The capital cost of constructing and fitting out accommodation will be converted into revenue through a leasing arrangement (refer to paragraph 160 in the Commercial Case). The regional entity will pay the rent. The predictability of the annual rent will assist local authorities in setting annual forecasts and budgets.
	The ODPM has committed to fund those elements of the national requirement for resilience that are over and above the requirement for a resilient control service that provides fall-back capability and interoperability between sites. It is currently estimated that this amounts to around 10% of the rent payable. This will be reviewed in the light of responses to the accommodation ITT.
	The running costs of the buildings are the responsibility of the regional control centre entity.
Provide enabling infrastructure	The ODPM has committed to fund the acquisition of new ICT infrastructure and systems. This includes training to support cut over to the new control arrangements for control centre and FRA personnel.
	The relevant regional entity will fund the requirement for ongoing infrastructure services, training and maintenance and support.
Manage the project	The ODPM has committed to fund the requirement for the national project team, including advisors and technical experts, and secondees to the national project team.
	Local authorities and regions will fund the requirement for regional project teams and other local arrangements for delivering FiReControl. The ODPM will consider claims under the New Burdens principles.
Achieve accreditation	The ODPM will fund the requirement for accreditation of the national networked system to Governmental standards.
Manage the FiReControl system	The arrangements for managing the national system and how they are funded are under development

221. A funding working group was set up in June 2004 to consider the financial issues arising from the establishment of the FiReControl project. It quickly became clear that, because of the nature of the project, the finance issues could not be considered in isolation from the governance issues. The group accordingly extended its remit. The group was chaired by the FiReControl SRO and included representatives from the ODPM, Local Government Association (LGA), treasurer representatives from each type of Fire and Rescue Authority (FRA) and the Chief Fire Officers’ Association (CFOA).

The outcome of the group's deliberations have been distilled into a consultation paper for Regional Management Boards and FRAs.

222. In addition to clarification of the commitments outlined above, the group's main conclusions and recommendations were as follows:

- The FiReControl control project is unique in its governance structures. Government is taking overall responsibility because it is a national resilience project, but the final management of the regional control centres and delivery of the service will rest with FRAs. Structures will evolve as the project evolves.
 - The paper proposes that local authorities will meet the costs of operating regional control centres, and key supporting national functions, from their share of the Formula Spending Share (FSS) rather than a specific formula grant. In theory, control costs could be supported by allocating the required proportion of the FSS, i.e. top slicing. However, the formula relates to the provision of all fire and rescue services. It is not generally appropriate to change the FSS to reflect a particular activity. The paper, therefore, recommends that the operating costs of the RCC be met from the FSS for the FRAs in the region in which the RCC is located, and that the allocation mechanism be left to the regions themselves.
 - The paper addresses the issue that the acquiring new control centre accommodation under a PDS might create unequal funding commitments for local authorities. Two drivers of inequality were identified: firstly, standard size buildings may not be matched to regional workloads; secondly, there are different numbers of FRAs with each region. The paper recommends that the relative population served by the RCC be used to allocate the rent for accommodation between regions, and that this cost be met from the FSS for the FRAs in that region using the mechanism agreed at a regional level. This would be relatively straightforward to implement and simple to use, minimise transfers between authorities and avoid the creation of perverse incentives, such as increasing the number of incidents responded to.
 - The paper concludes that the commercial deal sought should support transition to the steady state funding arrangements outlined above. Firstly, the arrangements for lease will include a rent-free period that seeks to provide a time window for all FRAs to cut over to the new control arrangements before rent becomes payable. New Burdens principles would be considered in any case where the migration was not completed before the rent became payable. Secondly, ongoing infrastructure services charges will be structured to take effect proportionately as each FRA cuts over. Thirdly, the remaining costs, such as facilities management, would fall during the guarantee period for the building, during which the charges will be relatively low.
 - The paper confirms that the Office recognises that new burdens principles should apply to the resource required to support FiReControl transition. The ODPM has therefore agreed with the LGA how to reach conclusions on the potential sum due under new burdens in FY2005/2006. It is likely that the mechanism for funding the transitional costs under new burdens will be a grant, since this is the quickest and simplest way of compensating authorities for costs, which they have, in some cases, already incurred. Subject to the agreed procedures working as expected, ODPM and LGA will discuss future years' potential New Burdens (for FY2006/07 and 2007/08). Appendix G, Cost Profiles, presents possible cost profiles for FRAs regions that transfer to the new arrangements at the start, middle and end of the rollout process.
 - The proposals for the future management and ownership of RCCs need to reconcile the inherent tensions between the national and local agenda in different parts of the
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country in a viable model. There is no precedent for a regional structure to deliver an operational function such as this. The chosen solution needs to address political sensitivities, fit in with the wider national resilience agenda and guarantee service levels and resilience, which up until now has at best been variable across fire controls in this country. Local authorities need to have a clear and accountable role in any new structure. The proposals for the future management and ownership of RCCs need to get the best fit between the national, regional and local agendas in different parts of the country. The chosen solution needs to ensure proper accountability, take into account political sensitivities, fit in with the wider national resilience agenda and guarantee comparable service levels across the country. Local authorities need to have a clear and accountable role in any new structure.

- Having set out the financial, legal, political and other arguments for and against different structural options, the paper recommends that RMBs work together to set up a single RCC governance solution based on a Company Limited by Shares, or a Company Limited by Guarantee, being established in each region. This company might be linked with the national procurement entity FiReBuy.

223. The FWG consultation paper has been sent to the RMBs and FRAs to obtain their views on the recommendations. The RMBs will submit their responses to the paper in January 2005.

Summary of the financial case

224. The financial case identifies the resources required to deliver the new control arrangements, sets out current funding commitments and outlines the proposed mechanism for ensuring adequate funding during transition and steady state. A funding working group was set up in June 2004 to consider the financial issues arising from the establishment of regional controls. It quickly became clear that, because of the nature of the project, the finance issues could not be considered in isolation from the governance issues. The group accordingly extended its remit. The outcome of the group's deliberations have been distilled into a consultation paper for RMBs and FRAs to obtain their views.

THE PROJECT MANAGEMENT CASE

225. This part of the business case provides assurance that FiReControl aims and objectives are achievable. It provides an outline summary of material contained in the Project Initiation Document (RPT 0012), Risk Management Plan (PLN0005), Quality Plan (PLN0008) and the developing benefits realisation and change management plans. It is structured around the following questions:

- What are the objectives and scope of the FiReControl project?
- How will the project be governed?
- How will the project be managed and controlled?
- How will sustainable business change be achieved?
- How will benefits be realised?

Project objectives and scope

226. This business case supports investment in regional fire and rescue controls, whereas the objective of the FiReControl project is to establish that service capability through a carefully managed transition process. This results in a subtle, but important, difference between the business objectives presented in paragraphs 39 to 42 of the Strategic Case and the FiReControl project objectives outlined below.

- To develop and deliver processes and ways of working for the regional fire and rescue controls
- To develop and deliver the people to operate and manage the regional fire and rescue controls
- To develop and deliver the technology infrastructure and establish on-going support and maintenance services for the regional fire and rescue controls
- To provide suitable accommodation from which the regional fire and rescue controls will operate.
- To migrate existing fire and rescue controls (and other stakeholders interfacing with the fire and rescue service) to the new control centres enabling the specified benefits to be realised in accordance with the overall solution.
- To develop and implement national functions to provide the ongoing services that are required to sustain the regional fire and rescue controls
- To ensure that all aspects of the solution are fully integrated and comply with Critical National Infrastructure (CNI) requirements

227. The FiReControl project will establish regional, fire and rescue control centres, located in the nine Government Regions of England. This will require:

- Identification and selection of regional control centre locations
- Design and construction of new control centres, in the regions, in accordance with national security requirements
- Leasing arrangements for new buildings
- Identification and selection of new technology infrastructure for control centres, including hardware, software, networking, support and maintenance contracts

- Delivery of infrastructure with standard interfaces
- Design of new regional and national organisation and management structures, including job descriptions
- Design of new processes for regional control centres and the national functions
- Formulation of performance standards (service level agreements) between the regional control centres and FRAs
- Convergence of a number of FRS operating procedures and naming conventions to allow RCCs to enable resilience
- Interfacing with a new national radio system and provision of MDTs in appliances
- Provision of the second generation FSEC
- Replacement of station end equipment at fire stations
- Convergence of current FRS processes to interface with new regional processes
- Data migration from existing FRA level IT service to new regional control centres
- Policy and guidance on HR issues
- Design and development of training materials for new and revised processes
- Selection and recruitment together with training of regional control centre staff and the staff that will work in national functions
- Managing the transition from the existing service to the new service.

228. The following areas are outside the scope of the FiReControl project:

- The fire and rescue control services in Northern Ireland. Also, currently, Scotland and Wales. These have the opportunity to join FiReControl.
- The disposal, re-use or refurbishment of existing fire and rescue control rooms made obsolete by the creation of the regional control centres
- Upgrading of existing technology infrastructure in FRAs to receive or pass information
- Interim upgrades to control room infrastructure required before transition to the new solutions.

Project governance

229. The FiReControl project is unique in its governance structure. Government is taking overall responsibility for delivery, due to the national resilience elements. However, the final management of RCCs and delivery of the service will rest with FRAs.

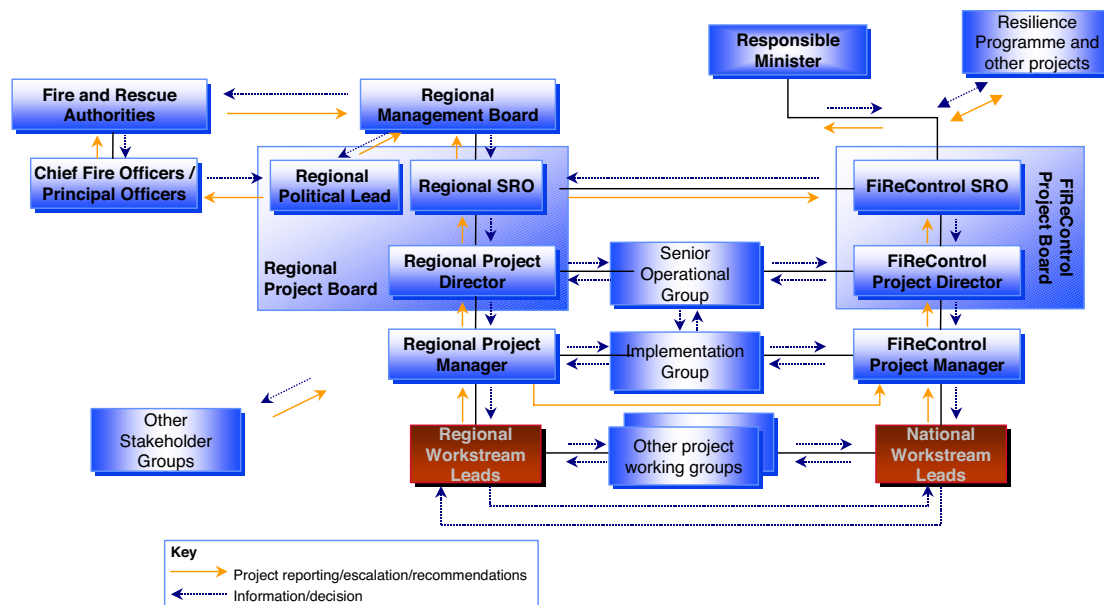
230. The project aims to provide collective regional ownership for the service coupled with individual responsibility for the delivery of each fully operational regional control centre. Regional projects are responsible for delivering the business change necessary to realise the benefits set out in this business case and to migrate successfully to the new operational environment. Certain functions will be carried out at a national level to ensure continued operation as a national network.

231. Changes and delivery support within individual Fire and Rescue Services will be the responsibility of the respective Chief Fire Officer (CFO) and FRA, and they will be responsible for delivery to the Regional Project Boards (RPBs) and RMBs. Within the

project structure, the regional project boards report to the main project board and the Senior Responsible Owner for the project.

232. The diagram below sets out the governance structures established:

Overall FiReControl Project Governance Structure



233. The structures will evolve as the project evolves. They reflect the accountabilities of the various parties to the project.

234. Two key issues are relevant to signing off the project:

- As the project proceeds it will require various decisions, approvals and acceptances and these must be taken by parties with relevant responsibilities (current and/or future), with involvement of other parties to provide assurance in decision-making
- It will be necessary to identify the approval route for major commitments, individual documents, decisions, etc on a case by case basis. In order to guide this activity, the project will work to a set of protocols

235. The approval route for major commitments, documents, decisions, etc will be worked out on a case by case basis, consulting RMBs through the LGA. A series of protocols is being drawn up to guide this activity.

Programme governance

236. Due to interdependencies between the Firelink, New Dimension and FiReControl projects, joint governance arrangements took effect from July 2004 to form the ODPM Resilience Programme. All these projects will continue to have their own Project Boards, which will meet periodically. The function of the Resilience Programme Board is to coordinate the implementation of the three projects having regard to:

- Scope, timetables and phasing
- Interfaces and critical dependencies
- Communications strategy

- Contacts with FRSs, FRAs, RMBs, etc.
- ODPM's wider policies on Fire, Resilience and Regional Development.

237. This will be reviewed and developed further.

Project management and control

238. The FiReControl project is being managed and controlled using the latest Office of Government Commerce (OGC) guidelines and advice, as well as PRINCE2 principles.

239. The project has a dedicated Project Support Office (PSO), which is responsible for producing appropriate project management procedures, and for the application of these procedures across the project. The PSO provides Project Management support to the Project Manager, the project management team at ODPM and the regional offices. It also assists with the establishment and management of all project documentation and procedures, including monitoring and reporting progress. Details of the project plan, structure and governance are presented in the Project Initiation Document (PID), Doc Rep RPT0012.

240. The FiReControl project is deemed to be mission critical and has been assessed as High Risk. It is therefore essential that the risk management approach developed by the PSO be communicated and adhered to by national and regional project teams. Refer to the Risk Management Plan, Doc Rep PLN005, for details of the approach developed.

241. The PSO helps the Project Manager, Regional Project Managers and work stream leads to operate the quality management approach. The SRO determines acceptable tolerances for time, scope and cost within the change control process. Details of the FiReControl quality management approach are presented in the Quality Plan, Doc Rep PLN008.

Implementing sustainable business change

242. Within the national project team there is a dedicated 'business change' team whose main focus is to provide support and guidance to the regional project teams who will facilitate lasting business change in the regions. This section outlines the approach adopted. It is structured around the following questions:

- Who will be affected by the change?
- What are the unique characteristics of the Fire and Rescue Service, and how is this reflected in our approach?
- What are the main operational challenges, and how will they be managed?

243. To provide sustainable business change, it is necessary to have a thorough understanding of the people that are undertaking and undergoing the change. Two key groups within the service will be affected:

- **Current control room staff and management:** it is a project priority to engage with control staff and achieve their co-operation. In addition to good practice, there are two important reasons: firstly, the need to encourage staff to work in the new control centres (given the specialist nature of the job and the short project time scale, employment of an entirely new workforce is neither seen as feasible nor desirable); secondly, the need to ensure that the staff that are not moving to the new control rooms, feel sufficiently valued, and that they continue to provide a adequate level of service, in existing control rooms, up to the point that control services cut over to the new arrangements.

- **The operational strands at FRA level:** who will have to use and integrate with the new fire control centres. Although they will be affected less by the change, it is still essential to communicate with operational staff and provide them with sufficient briefing and training.
244. Historically, the Fire and Rescue Service has not been organised and managed in a way that supports effective decision making. Consequently, devolved decision making and information may not always flow effectively from senior to junior staff. Regional workshops, visits to control rooms, newsletters to all staff, and the project web site are being used to disseminate information and to counteract the spread of any mis-information.
245. The Fire and Rescue Service has a unique organisational culture, characterised by long service and low turnover. It is common for many members of one family to work for the Fire & Rescue service. These features have created a workforce with a strong, group cultural identity. Each region is different, e.g. the number and size of FRAs varies considerably. There are also more subtle differences, such as the sense of regional identity. To manage change effectively, it is necessary to appreciate and respect local differences and concerns. The business change team has allocated specific regions to particular individuals within the national project team. These regional contacts work closely with the regional project teams to develop both a strong rapport and a deep understanding of regional needs and responsibilities.
246. The main operational challenges identified by the business change team, include:
- The time-consuming nature of stakeholder engagement, which is likely to create tension with the short delivery time scales for FiReControl
 - Onerous security and resilience requirements, which are likely to limit the level of choice available
 - The degree to which some elements of the Trade Unions have sought to discourage involvement of their members in the change process, to date.
247. The team will answer these challenges by:
- Identifying early on what can be influenced and what can not
 - Providing open, honest, accurate, timely, public information through the FiReControl website
 - Avoiding making promises that cannot be kept
 - Having a clear strategy for dealing with the unions at a national, regional and local level.
-

Benefits management process

248. The benefits to be achieved through the FiReControl project are presented in Appendix A, FiReControl Benefits. These range from hard financial gains to softer organisational improvements. Whatever the type of benefit, projects rarely achieve expectations unless the process of benefits realisation is actively managed. This section outlines the benefits management process. It answers the following questions:

- What are the objectives of the benefits management process?
- What are the main process steps?
- Who is responsible for operating the process?
- What are the signs of a well-run process?

249. The main objectives of the FiReControl benefits management process are:

- To provide hard evidence that benefits are being achieved with public money
- To assist regional project teams to establish and operate benefits management plans, effectively, in partnership with the national project team;
- To support the development and maintenance of the FiReControl business case; and hence support continuous improvement (best value) in the FRS.

250. Experience indicates that the following four features are common to successful benefits management exercises:

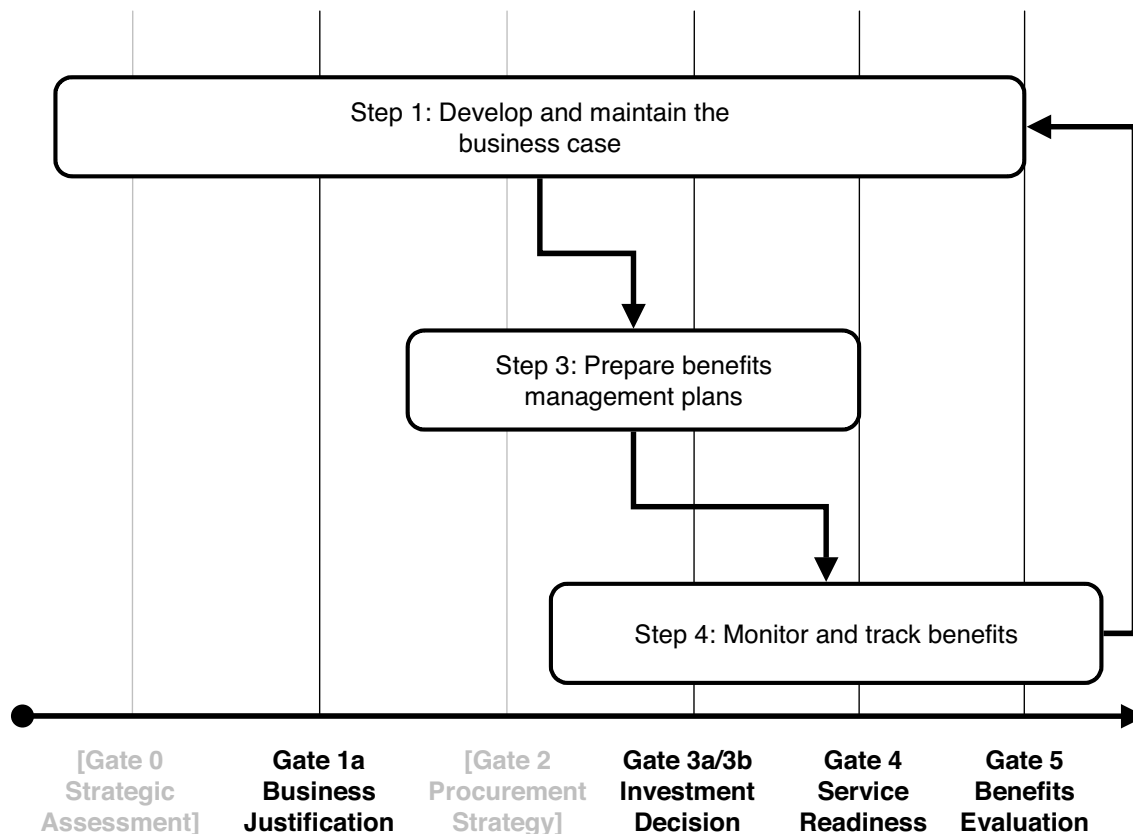
- **A robust business case:** the business case is more than a mechanism for obtaining funding. The cost, benefit, risk model defined in the business case is the corner stone for the process of realising benefits. The national project team will work closely with regional project teams to help them contribute to the overall business case. This will encourage local ownership of costs, benefits and risks, and ensure the continuing validity of their treatment in the overarching business case.
- **Named individuals within the fire and rescue service must be accountable for achieving specific benefits goals:** typically this means breaking down benefits goals until a level is reached that is consistent with the accountabilities of specific business managers. The national project team will work with regional project teams to ensure that specific benefits goals are represented in local business plans.
- **Progress must be monitored and controlled using existing, or planned, management information systems and processes:** the administrative overhead involved in tracking and reporting benefits can be contained: firstly, by limiting the number of benefits actively managed; and, secondly, by ensuring that progress reports can be generated from existing, or planned, management information systems and processes within the Fire and Rescue Service. The national project team will work with regional project teams to align FiReControl benefits tracking and reporting with the capabilities of local management information systems and information management teams. The national project team will assist with ongoing reporting and monitoring of benefits, and help to develop straightforward ways to communicate progress, such as regional and national benefits dashboards, and the establishment of baselines.
- **A robust, well operated and well understood, project change control process:** which should be used to manage changes to project scope, time scales and quality, as well as handling external impacts. For the FiReControl project all changes will be

triggered through an issues management process operated by the regional and national project teams.

251. The benefits management process contains three main steps:

- Step1: Develop and maintain the business case
- Step2: Prepare the benefits management plan
- Step3: Monitor and report benefits.

252. The relationship between these steps and key project review milestones is presented diagrammatically below:



Note to diagram: the OGC gateway reviews 0 and 2 have be replaced by a single gateway 1a. Furthermore, Gate three will be split into a Gate 3a for accommodation procurement and a Gate 3b for infrastructure procurement.

253. The following key individuals and groups are involved in delivering process outlined above during the project lifetime:

- National project team
- Regional project team
- CFOs and their management teams, including operational managers responsible for delivering fire and rescue control services, and managers of support functions, such as information management
- Business change managers (office of government in the regions)
- The Senior Operations Group and other important stakeholder representative bodies

- Regional Management Board
- National Project Board.

254. After project close the national functions will assume responsibility for the national level activities previously performed by the national project team. Similarly the RCC heads and their staff will assume responsibility for the local activities previously performed by the Regional Project Managers and their teams.

255. Some signs and consequences of good versus poor practice are as follows:

Well run process	Poorly run process
Measurable benefits are achieved within the time scales planned.	The expected business benefits are not delivered by project implementation.
There is a focus on financial and other so-called “hard” benefits.	Business benefits are delivered later than scheduled.
	The benefits model within the business case is dominated by enabling or soft benefits rather than financial or hard benefits.
Alignment with business unit plans and initiatives.	The SRO is unable to monitor and track benefits.
Integration with the wider governmental programme	Benefits from other projects and initiatives are put at risk.
Clear accountability for benefits delivery is established.	No one responsible for delivering benefits.
	More than one project or group claims credit for delivering the same benefit.
The impact of changes to the project can be assessed quickly and easily.	Changes are made to the project without assessing their impact on benefits realisation.
An audit trail exists.	The Office is unable to demonstrate benefits from public expenditure.
	Post implementation review is problematic.

256. A full description of the FiReControl benefits management approach, including a detailed list of activities and who is responsible for performing them, can be found in The Benefits Management Strategy (RPT0041).

Summary of the project management case

257. The project management case provides assurance that FiReControl aims and objectives are achievable. It outlines the governance structure for FiReControl as a distinct project and as part of the wider Resilience Programme. The project is being managed and controlled using the latest OGC guidelines and advice, in line with the PRINCE 2 methodology. The project management and control methods emphasise risk and quality management. In addition, the approaches developed for managing change and benefits will ensure sustainable business change and the realisation of identified benefits.



FIRECONTROL PROJECT

Outline Business Case Volume 2 (Abridged Appendices)

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APPENDIX A FIRECONTROL BENEFITS

258. This appendix presents both the FiReControl benefits model and a qualitative assessment of the contribution that the Current Position and Regional Controls could make towards realising these benefits. It is structured around three questions:
- What is the benefits model proposed for FiReControl?
 - Have any “dis-benefits” (or negative outcomes) been identified?
 - How do the two positions under consideration contribute to the benefits identified?

Draft FiReControl Benefits Model

259. The following table presents benefits that have been identified for the FiReControl project in terms of:
- Their relative importance, denoted by the category into which they have been placed
 - Possible measures and (where applicable) targets.
260. Enablers are benefits that will be achieved by separate projects. They cannot be presented in the FiReControl business case as benefits because this might result in double accounting. Enablers are indicated by an “E” in the category column.
261. It should be noted that further work is required to refine and develop the benefits model. This will be undertaken with Chief Fire Officers and the managers of the new regional control centres under the benefits management process (refer to RPT0041 Benefits Management Strategy).
-

Benefit		Category	Possible measures	Comment
Br1	The ability to fall back and restore call taking services without losing data	Resilience	Output measures: • Call taking service availability during fall back episodes (target: the same as business-as-usual conditions, i.e. > 99.99%) • External customer satisfaction rating for call taking services during fall back episode (target: the same as business-as-usual conditions) • HMG accreditation within planned timescale Process measures • Capacity utilisation = volume of calls / design capacity, for sites handling fall back (target: should not exceed 95% for more than 1 hour in any 24 hour period) • Time to achieve complete fall back • Calls lost during transition (target: zero) • Data records lost during transition (target: zero) • Data lost during re-synchronisation (target: zero)	Call handling can be routed to any control room with spare capacity It should be possible to design out the technical risk that calls and data will be lost when the service falls back or during resynchronisation at the end of a fall back episode. Measures apply to real or test situations. They can be separated into output and process related measures. Service levels are yet to be decided.
Br2	The ability to fall back and restore resource / incident management services without losing	Resilience	Output measures: • Resource / incident management service availability during fall back episode (target: the same as business-	Resource / incident management must be performed from a single location, accessible to suitably trained and experienced staff. This implies pre-

Benefit		Category	Possible measures	Comment
	data		- as-usual conditions, i.e. > 99.99%) - Internal customer satisfaction rating for resource / incident management services during fall back episode (target: the same as business-as-usual conditions) - Resource mobilisation error rates (target: maintain or improve performance as measured by BVPI) - HMG accreditation within planned timescale Process measures - Capacity utilisation = volume of transactions / design capacity, for sites handling fall back (target: should not exceed 95% for more than 1 hour in any 24 hour period) - Overtime levels (specified variation from norm) - Time to achieve complete fall back - Data records lost during transition (target: zero) - Data lost during re-synchronisation (target: zero)	determined locations for each regional control room to fall back to. It should be possible to design out the technical risk that data will be lost when the service falls back or during resynchronisation at the end of a fall back episode. Measures apply to real or test situations. They can be separated into output and process related measures.
Br3	Improved security of fire control premises	Resilience	Output measures: - Number of times uncontrolled access has been gained to secure areas (target: zero) - Damage and theft rate within building (target: zero)	Uncontrolled access includes fire and rescue service and other personnel that should not be present in specified areas without accompaniment. Measures can be separated into output

Benefit		Category	Possible measures	Comment
			- HMG accreditation within planned timescale Process measures: - Number of attempts detected or reported (no target)	and process related. Payment and reward mechanism for FM service provider must encourage access attempts to be detected and reported.
Br4	Improved security of core ICT infrastructure and related services	Resilience	Output measures: - Number of data records lost due to external incident or human error (target: zero) - Number of times uncontrolled access gained to data or personal details (target: zero) - Damage and theft rate (target: zero) - HMG accreditation within planned timescale Process measures: - Percentage of back-ups completed on time (target: 100%) - Number of attempts detected or reported (no target)	Core ICT infrastructure includes telephony and WAN services, PBX, ACD, ICCS, LAN, desktop and command and control systems Measures can be separated into output and process related.
Br5	Improved security of non-core ICT infrastructure and related services	Resilience	Output measures: - Number of data records lost due to external incident or human error (target: zero) - Number of times uncontrolled access gained to data or personal details (target: zero) - Number of files or records infected by	Non-core ICT infrastructure and services includes all systems and services used to support control room activities, such as word processing, email services, internet browsers, general administration and stores management systems. Measures can be separated into output and process related.

Benefit		Category	Possible measures	Comment
			viruses (or equivalent) (target: zero) • Number of times email or internet browsing services are unavailable, or operating at reduced performance, due to security measures undertaken (target: zero) • Damage and theft rate (target: zero) • HMG accreditation within planned timescale Process measures: • Percentage of back-ups completed on time (target: 100%) • Number of attempts detected or reported (no target)	Payment and reward mechanism for infrastructure provider must encourage access attempts to be detected and reported.
Bp1	Cost savings	Performance improvements to the existing service	Output measures: • Total operating cost (target: less than or equal to value presented in the full business case) • Average cost per 1000 head of population • Average cost per call handled • Average cost per incident handled Process measures: • Labour costs as a percentage of total cost (no target) • Infrastructure maintenance and support cost as a percentage of total cost (no target)	Cost savings will be achieved after FRAs have transitioned to the new control centres. Total operating cost includes FRAs, the new control centre entities and the national function (or equivalent) Measures can be separated into outputs and process The establishment of shadow control rooms to perform activities previously undertaken by control officers must be avoided.

Benefit		Category	Possible measures	Comment
Bp2	Better call service capacity management	Performance improvements to the existing service	- Accommodation costs as a proportion of total cost (no target) - Number of FTEs performing control room roles (target: the same or better than design complement) Capacity utilisation = volume of calls / design capacity (target: moving average between minimum and maximum design thresholds) Overtime levels (target: zero) Customer satisfaction survey (target: continuous improvement)	Need to develop reasonably sophisticated capacity utilisation model.
Bp3	Enhanced working with ambulance and police services	Performance improvements to the existing service		Fire control operates on a partnership basis with ambulance and police services. Co-ordinated through the 999 liaison committee. Currently no service levels agreed. Customers identified by the 999 liaison committee)
Bp4	Ability to deal with large scale incidents	Performance improvements to the existing service	Output measures: - Resource / incident management service availability during large scale incidents (target: the same as business-as-usual conditions, i.e. > 99.99%) - Internal customer satisfaction rating for resource / incident management services during large-scale incidents (target: the same as business-as-usual conditions) - Resource mobilisation error rates	This benefit may be hard to measure in a meaningful way because response times are likely to be affected by a disaster. For example, flooding will affect movement of equipment. There is an urgent need to devise performance measures for large-scale incidents. Measures can be separated into outputs and process

Benefit		Category	Possible measures	Comment
			during large scale incidents (target: the same as business-as-usual conditions) Process measures - Capacity utilisation = volume of transactions / design capacity, for sites handling large scale incidents (target: should not exceed 95% for more than 1 hour in any 24 hour period) - Overtime levels (target: no variation from norm)	
Bp5	More consistent service provision	Performance improvements to the existing service	Reduced variation in key service indicators, such as cost per incident Smaller variation in best and worst performing regions (target: continuous improvement)	Ideally from the perspective of service consumers
Bb1	Improved working environment	Business change	Level of absenteeism (target: reduction of days lost pre 2004) Time keeping (target: 100%) Overtime hours (target: zero) Periodic user satisfaction survey (target: continuous improvement)	
Bb2	Greater diversity of operators in control room	Business change (E)	Periodic diversity survey Grievances (target: reduction of severity and rate compared to pre 2004)	
Bb3	More rewarding jobs for	Business	Average level of qualifications achieved	

Benefit		Category	Possible measures	Comment
	control room staff	change	(target: improvement on pre 2004 average) Periodic staff satisfaction survey (target: continuous improvement)	
Bb4	Greater safety for fire officers	Business change	Lost time injury rates for control room personnel (target: continuous improvement) Lost time injury rates for front line staff (E)	Must include all contractors and visitors to building as well as permanent staff Targets for enablers set outside the FiRecontrol project
Bs1	Supports rationalisation of services at a regional level	Strategic enabler (E)	Death rates for front line staff (E) Number of operational fire control centres at a local level (target: zero)	
Bs2	Supports better gathering of statistics	Strategic enabler (E)	Percentage of standard reports that can be populated automatically (target: 100%) Amount of re-keying of data (target: zero) Periodic satisfaction survey of fire and rescue service chiefs and information managers (target: continuous improvement)	Infrastructure and supporting processes need to be implemented as part of the national control centre.
Bs3	Supports better management information	Strategic enabler (E)	Percentage of standard reports that can be populated automatically (target: 100%) Amount of re-keying of data (target: zero) Periodic satisfaction survey of fire and rescue service managers (target: continuous improvement)	Dependent on the implementation of MIS interfaced to command and control systems and the report generation wrapper. Ideally the system procured will provide standard reports and provide users with the capability to generate custom reports.

Benefit		Category	Possible measures	Comment
Bs4	Supports the implementation of Firelink	Strategic enabler (E)	Output measures: - Whole life cost Process measures: - Number of fire control rooms where Firelink infrastructure is installed then superseded by regional control rooms (target: zero)	46 ICCS in local control rooms would need to be upgraded or replaced to enable the interface to digital radio infrastructure. Upgrade can be almost as expensive as installing new systems. In addition there is operational risk for each FRAs in installing or upgrading its ICCS. This may be better managed as part of a regional project. FiReLink and FiReControl transition plans will need to be co-ordinated. Measures can be separated into output and process.
Bs5	Supports the implementation of New Dimension	Strategic enabler (E)	Cost avoidance attributed to sharing of FiReControl services, accommodation and infrastructure.	Integration of the New Dimension requirement with FiReControl

Potential “dis-benefits”

262. The following table presents expected, negative consequences from the FireControl project, in terms of:
- A brief description of the current situation
 - The expected impact of establishing regional control centres
 - Mitigating factors.

	Negative consequence	Current situation	Expected impact	Mitigating factors
DB1	Physical separation from front line activities	Currently control rooms often share accommodation with other fire and rescue services and functions. Except in the larger metropolitan areas, control rooms are often physically located close to front line operations. Control room staff are exposed to other aspects of the fire and rescue service and often have direct contact with front line staff.	Possibility of organisational silos developing. Reduced appreciation of front line activities and attitudes	London and other larger metropolitan control centres have not experienced particular difficulties to date. Despite this, care must be taken in designing processes and training. There is also an on-going requirement to maintain an effective relationship between the control room and frontline activities.

Assessment of benefits contribution

263. The table below outlines the degree to which continuing with the current position and amalgamating fire control at a regional level (regional controls) are likely to result in measurable business benefit. For each of the 19 potential benefits that have been identified the two positions have been assessed and graded as follows:

- A: Significant benefit can be achieved and demonstrated; high targets can be set and progress measured
- B: Some benefit can be achieved and demonstrated; less demanding targets can be set and / or progress may be difficult to measure
- C: Little or no benefit can be achieved or demonstrated.

Id		Benefit	Category	Grade	Current position	Grade	Regional Controls
Br1		The ability to fall back and restore call taking services without losing data	Resilience	C	The current infrastructure does not support fall back. Historically the pace of organisational change has been slow. This trend is likely to continue.	A	The new infrastructure, changes to working practices and higher levels of staff competency will significantly improve ability to fall back restore services, seamlessly.
Br2		The ability to fall back and restore resource / incident management services without losing data	Resilience	C	Same as Br1	A	Same as Br1
Br3		Improved security of fire control premises	Resilience	C	Existing standalone accommodation does not meet the latest security standards.	A	Accommodation can be located and built to satisfy latest security standards. There will some trade-off between implementation cost and achieving

Id		Benefit	Category	Grade	Current position	Grade	Regional Controls
Br4		Improved security of core ICT infrastructure and related services	Resilience	B	Limited improvement possible dependent on local implementation and service agreements.	A	an ideal solution. The infrastructure and related services can be designed to significantly enhance security
Br5		Improved security of non-core ICT infrastructure and related services	Resilience	B	Same as Br4	A	Same as Br4
Bp1		Cost savings	Performance improvements to the existing service	B	The introduction of flexible rostering and other changes to working practices to implement IRMP is likely to result in some headcount reduction or reallocation of staff. However, this will be dependent on local interpretation and must be offset against the cost of training and raised competency levels.	A	Amalgamation provides a significant opportunity to reduce headcount. The introduction of IRMP will have a further positive effect.
Bp2		Better call service capacity management	Performance improvements to the existing service	C	The current infrastructure supports limited transfer of call handling and dispatch. It is difficult to reallocate work- load due to the large number of small control rooms.	A	The new infrastructure, processes and staff training will support the transfer of call handling an dispatching
Bp3		Enhanced working with ambulance and	Performance improvements to the existing	C	Limited improvements to interfaces and working practices are possible.	B	The new infrastructure can support better interfaces to the police and ambulance services

Id	Benefit	Category	Grade	Current position	Grade	Regional Controls
	police services	service				New control rooms and working practices will support the management and control of large scale incidents
Bp4	Ability to deal with large scale incidents	Performance improvements to the existing service	C	Fragmented, local control rooms and associated working practices are unable to cope with New Dimension scale incidents.	A	The infrastructure, processes and levels of staff competency are designed to handle New Dimension scale incidents
Bp5	More consistent service provision	Performance improvements to the existing service	B	Continuous improvement opportunities exist	A	Standardised infrastructure, processes, procedures, recruitment and training will significantly contribute to a reduction in service variability
Bb1	Improved working environment	Business change	B	Technology refresh will provide some improvement	A	The physical environment and changes to working practices will contribute to a significantly improved working environment for Control Room staff.
Bb2	Greater diversity of operators in control room	Business change (E)	B	An increasing focus on fire prevention should help to improve access to work. For example, by supporting family friendly working hours.	A	The new accommodation, layout and infrastructure directly supports diversity by providing improved access to buildings and systems, and enhanced lifestyle support services, such as a crèche.
Bb3	More rewarding jobs for control room staff	Business change	B	The implementation of IRMP and an increasing focus on fire prevention may help to create more rewarding jobs	A	The scale of operations at regional level and high levels of standardisation creates a more attractive structure with greater opportunities for career advancement.
Bb4	Greater safety	Business	B	No changes for control room staff	A	The physical environment and

Id	Benefit	Category	Grade	Current position	Grade	Regional Controls
	for fire officers	change		The implementation of IRMP and continuous improvement should improve safety for front line staff		changes to working practices will help to reduce stress and improve the health and safety of control room staff. Better provision of information and equipment will assist front line staff.
Bs1	Supports rationalisation of services at a regional level	Strategic enabler (E)	C	Does not support rationalisation	A	Directly supports rationalisation
Bs2	Supports better gathering of statistics	Strategic enabler (E)	C	Many sources of information so potentially large overhead. The current infrastructure is not designed to support the collation of national standards data.	B	Less sources of information so reduced overhead. Dependent on the implementation of MIS interfaced to command and control systems and the degree to which information management is within scope. May be difficult to measure
Bs3	Supports better management information	Strategic enabler (E)	C	Many sources of information so potentially large overhead. The current infrastructure is not designed to support information management at regional or national levels	B	Less sources of information so reduced overhead. Dependent on the implementation of MIS interfaced to command and control systems and the degree to which information management is within scope. May be difficult to measure
Bs4	Supports the implementation of Firelink	Strategic enabler (E)	C	The FiReLink is currently at BAFO stage of negotiations with suppliers based on current numbers of control	B	Potentially large cost savings a reduction in service delivery risk through reduced number of

Id	Benefit	Category	Grade	Current position	Grade	Regional Controls
				rooms		installations. However, this has to be offset against contract changes and possible differences in implementation priorities.
Bs5	Supports the implementation of New Dimension	Strategic enabler (E)	C	New Dimension implementation may be possible. Significant costs associated with implementing national mobilisation and control systems.	A	The new control room infrastructure and process will support New Dimension, resulting in significant cost avoidance.

APPENDIX C COMPARISON WITH THE SOBC

264. The Strategic Outline Business Case (SOBC) was distributed to Regional Project Directors earlier this year. The cost and saving figures presented in this business case are more informed than the SOBC. This is largely due to a better understanding of the requirement and costs. For the first time, the forecast costs of amalgamating controls on a regional basis are compared with information about the current position that has been supplied by FRAs.
265. This appendix is structured around the following questions
- How were costs and savings presented in the SOBC?
 - How have circumstances changed, or our thinking moved on?
266. Strictly speaking, the headline figures should not be compared directly, because the method of calculation and the time period under consideration are different.

Cost and savings headings

267. Costs and savings were presented in the SOBC under the following broad headings:
- Ongoing staffing costs
 - Transition costs
 - Accommodation costs
 - Infrastructure implementation costs
 - Ongoing infrastructure costs
 - Project management costs
 - Other costs (any additional costs or savings from regional contributions).
268. The table below sets out key assumptions that apply to all cost headings and highlights where circumstances have changed since the SOBC, or our thinking has moved on:

Id	Previous assumption	Comment
A0.1	The scope of analysis is restricted to the Fire and Rescue Service	No change Actions taken by the Fire and Rescue Service will impact other emergency services and organisations. Costs and savings incurred outside the Fire and Rescue Service are assumed to be relatively insignificant. They are not taken into account in this analysis.
A0.2	No attempt has been made to quantify the value of lives saved, injuries avoided or reduction in damage to property	No change Such a calculation would be based on a large number of assumptions. Furthermore, it would tend to distract attention from the direct economies and costs associated with the FiReControl project.
A0.3	The number of incidents will remain constant over the 10	Forecasts of the number of incidents based on historical data for each FRS has been used to

Id	Previous assumption	Comment
	year period under consideration	determine the staffing levels for each region The number of incidents has fluctuated considerably in the past 10 years. Future stability will depend on the success of initiatives, such as reducing road traffic accidents and arson. Furthermore, response to these incidents will be affected by IRMPs.
A0.4	The regional option is made up of 9 regional groupings of FRAs including London and excluding Scotland and Wales.	No change Fire and rescue services in Wales have already achieved economies from amalgamation into three sub-regional control rooms. Further economies and benefits, such as greater resilience and ability to handle large incidents, might be achieved if Wales were included in the project. Similarly, there are potential economies from including Scotland in FiReControl.
A0.5	The Invest to Save Budget projects (ISBs), which are also known as Tri-service control rooms, are excluded from the current analysis	ISBs are included as far as the three live fire and rescue controls are concerned.
A0.6	The boundaries of the Fire and Rescue Service control regions should follow Government Offices for the Regions boundaries	No change
A0.7	Financing costs are excluded	The cash cost model is based on the commercial deal sought with suppliers. This includes paying rent for accommodation and charges for infrastructure services. Prices will include the supplier's financing arrangements.
A0.8	The period under consideration is 10 years. This is an arbitrary period, that is not fixed in time.	The period under consideration starts in FY2004/05 and finishes in 2017/18, which is when the infrastructure contract would likely be re-competed.
A0.9	Costs are in 2003 prices	Costs are in 2004 prices

On going staffing cost

269. The establishment of regional controls is expected to generate a considerable reduction in ongoing staffing cost over the period under consideration. Economies will be achieved through amalgamation of control rooms (economies of scale) and changes to control centre processes and staffing models that will result in more effective allocation of resources. In the previous study, these economies were partially offset by the cost of additional staff for non-core work,

such as updating national data repositories. It should be noted that the previous study presented the estimated cost savings rather than the forecast cost.

ICT infrastructure implementation costs

270. The SOBC treated ICT infrastructure implementation costs differently for the two options under consideration:

- Current position: an on-going refresh of control room infrastructure throughout, which will be completed within the period under consideration
- Regional control rooms: install and commission at the start of the project amalgamation of control rooms results in a significant saving in ICT infrastructure implementation costs over the period under consideration due to economies of scale.

271. In this business case, the scope of the ICT infrastructure implementation contract has expanded to include furniture, security, one-off training costs, and mobilisation through end-user equipment. In addition, not all the planned expenditure reported by FRAs will be eliminated in the period leading up to transition. Nevertheless, the one-off costs of implementing the new infrastructure (excluding training) are very similar to the original estimate. It should be noted that the previous study did not deal with training explicitly.

Ongoing ICT infrastructure cost

272. Amalgamation of control rooms will result in significant economies in ICT infrastructure maintenance and support costs during the period under consideration. These savings must be offset against the cost of providing a national resilient communications network, which is now part of the requirement. In addition the scope of ongoing infrastructure services includes training, furniture and security, which was not explicit in the previous study.

It should be noted that the previous study presented forecast cost savings rather than the forecast cost.

Project management costs

273. Estimates of the project management costs for the FireControl option have increased since the previous study. There are two main reasons:

- Firstly, the previous study estimated project costs as 20% of capital outlay. This is a typical engineering assumption, which would exclude provision for business change and the additional costs of procuring accommodation and infrastructure that meets the resilience requirements for Critical National Infrastructure
- Secondly, the previous study did not include provision for ongoing support costs, which includes the national functions.

The project management costs forecast by regions for the current position are offset against the FiReControl project costs in the business case.

APPENDIX G COST PROFILES

274. This appendix presents possible profiles for the major cost headings identified by the FiReControl Funding Working Group. ODPM resource commitments are excluded.

275. The profiles are presented as two charts, corresponding to regions cutting over to the new control arrangements at the start and towards the end of the current roll out plan. Each row represents a cost heading. Within each row, shaded bars indicate when that cost is currently anticipated to fall on FRAs within the region. The legend below explains the meaning behind the different shading used:

Legend

-  = All brigades within the region
-  = Some brigades within the region
-  = May occur after FiReControl established

Cutover within a region at the beginning of the planned rollout

	FY 2004-05				FY 2005-06				FY 2006-07				FY 2007-08				FY 2008-09				FY 2009-10				FY 2010-11				FY 2011-12				FY 2012	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Resource requirement																																		
Project management																																		
Regional project team																																		
Physical move (including move manager)																																		
Risk mitigation and contingencies																																		
People																																		
Redundancy payments																																		
Legal costs																																		
Retention strategies																																		
Training (ongoing)																																		
Interim recruitment																																		
Permanent recruitment																																		
Salaries																																		
Accommodation																																		
Disposal and decommissioning of existing controls																																		
Contract termination																																		
Ongoing charges for regional controls																																		
Technology																																		
Disposal and decommissioning of existing equipment																																		
Contract termination																																		
Migration from existing systems																																		
Maintenance and support																																		
Ongoing services (WAN, third party, etc)																																		
Ongoing systems training																																		
Development of local interfaces																																		
Controls																																		
Regional entity (excluding early recruitment)																																		
National functions (excluding early recruitment)																																		

Cutover within a region towards the end of the planned rollout

	FY 2004-05				FY 2005-06				FY 2006-07				FY 2007-08				FY 2008-09				FY 2009-10				FY 2010-11				FY 2011-12				FY 2012	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Resource requirement																																		
Project management																																		
Regional project team																																		
Physical move (including move manager)																																		
Risk mitigation and contingencies																																		
People																																		
Redundancy payments																																		
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National functions (excluding early recruitment)																																		