

MERSEYSIDE FIRE AND RESCUE SERVICE

ICT STRATEGY

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SECTION 1 - EXECUTIVE SUMMARY

1 Preface

The purpose of this study is to provide an Information and Communication Technology (ICT) Strategy for Merseyside Fire and Rescue Service (MF&RS). The ICT strategy will cover the next three years and be subject to regular reviews by the ICT Strategy Board¹.

The Strategy has been developed by a joint Project Team having conducted a number of workshops and interviews with MF&RS department representatives, its internal ICT team and the Marconi staff responsible for the ICT support function.

The Strategy has been formulated in two Phases - Phase 1 comprises of three sections:

- Section 1 - Executive Summary
- Section 2 - The Strategy in Detail
- Section 3 - Recommendation Roadmaps and Supporting Information

Phase 2 will be undertaken post approval of phase 1 and will incorporate the Information Management Strategy.

It is clear that the future will see major changes for MF&RS Service delivery in order to meet the challenge proposed by the modernisation² and e-government agendas, general technology developments and peoples' expectations. Whilst the strategy focuses on ICT, the strategy takes a broad view and raises issues for the future regarding organisational development, structure, culture and new ways of working to enable business excellence.

The continuing and overriding aspiration of the MF&RS is to maximise effective use of its information, technology and systems for the benefit of the community and underpin the Service Vision:

To Make Merseyside a Safer Community

By continuing to work in partnership with the community to provide a value for money service which will:

- Further Reduce Death injury and property loss due to fire and protect the people and the environment including visitors to the region
- Provide a high quality fire and rescue service within the resources that are available in accordance with best value principals

ICT will play an integral part in achieving both the organisation's and individual service aims and objectives that are:

¹ The formulation of an ICT Strategy Board is in progress

² For the Fire Service this means change to the structure of the Service, in its institutions and in the working practises and procedures of all that work in the Service.

- Prevention and Protection - To take action to prevent fires and other emergencies whilst protecting life and property in the event of such an emergency.
- Emergency Response - To respond to all requests for emergency assistance with a level of resources appropriate to the risk
- Business Continuity - To provide prevention, protection and post incident recovery services to businesses on Merseyside
- Organisation - To deliver an effective modern and learning organisation

To discharge these aims the ICT requirements for the Service in the future depends upon setting a clear vision to describe the End State that the Service wishes to attain:

'One Team One Vision'

'That will deliver a gateway into a complete set of information systems and a centralised information architecture that supports the whole of the organisation and its partners'.

It is important to state that ICT is an enabler and only works effectively when designed to make the best use of information and therefore the underlining message of this strategy is the need for the organisation to make the best use of its information resources:

- Deliver the right information to the right place, at the right time
- Develop new and innovative ways of handling and using information
- Optimise processes and systems

Implementing the strategy will require departments to adopt coherent and compatible information policies in support of better service delivery and more efficient ways of working underpinned by the quality of the organisations ICT service provision.

Information is a corporate asset and ownership becomes an increasingly important aspect as we move forward towards this 'joined up' approach. ICT facilities to assist departments achieving their business objectives are essential and information in the disparate systems must be consistent.

The modernisation process will change the method of MF&RS delivery and the adoption of this ICT Strategy will provide a platform for MF&RS to achieve its overall objectives, in a planned and controlled environment.

The basic considerations to enable this change process to be realised are:

- Use ICT and information to enable better decision making and improved performance management
- Ensure implementation of electronic government (e-Fire³) and develop mechanisms for the delivery of electronic services
- Improve the quality and response for ICT equipment and service provision across the organisation
- Provide appropriate training plans and review staff ability to access and use ICT

³ E-fire is the use of electronic means to communicate effectively internally, with external organisations and members of the public via a range of communications media

- Provide an integrated infrastructure that enables growth, is secure and resilient and is responsive
- Enable easy flow of information between systems and departments
- Provide information that is tailored to the recipient's needs on an anytime anywhere principle

The strategy is a broad, pragmatic framework that provides a direction for ICT development that will underpin the Service's overall priority to make Merseyside a safer community

2 ICT Organisation

The Strategy sets out its vision for a gateway into a complete set of information systems and a centralised information architecture that supports the whole of the organisation and its partners.

'The ICT organisation vision is based on the idealised aim, of becoming a "benchmark of excellence" for ICT services'

Improvements in the ICT organisation⁴ will increase business value and also produce less tangible but significant benefits for MF&RS by effectively bridging the gap between corporate vision and operational activity.

Information management and technology is fundamental in the delivery and management of the MF&RS and requires the bringing together of all related functions along with users, ICT specialists and business processes. To establish a common purpose to make the best use of existing systems and new technologies.

It is recommended that MF&RS put in place a new governance arrangement for ICT and form a strategic ICT board whose membership will include the Director of ICT.

The Executive Director should chair the strategic board, the board should:

- Undertake a restructure of the ICT organisation
- Implement processes and policies that ensure inter working of all areas of ICT with the new ICT organisation
- Review of departmental initiatives and where appropriate register these as projects
- Migrate existing and new projects into a new project programme
- Plan to deliver the Strategy

(Appendix 4 proposes a strategy delivery plan)

3 Costs

The ICT Strategy is a key part of the MF&RS budgets and investment strategy. It must continue to deliver savings by reducing the dependence on manual process and enabling best value to be implemented. The business case for ICT investment proposals will need to demonstrate how these aims will be achieved. This will need to be applied to the recommendations so that resource can be focused on key developments that add most value to the organisation.

⁴ A separate report is being submitted to members for consideration of ICT organisational change

Whilst the capital programme has identified significant investment plans, implementing the ICT strategy will require a review of the capital programme. The ICT provisions outlined represent a re-alignment of ICT to meet the MF&RS business needs and where necessary supporting information, business case, cost benefit analysis and best value processes will need to be applied.

4 Conclusion

Two of the most important concepts in ICT today are Knowledge/Information Management and Web Services, both of which are MF&RS delivered. It is critical that the strategies and corporate objectives of these fundamentally related departments are visible and aligned to the overall MF&RS Service Plan and to the aims of this Strategy.

To achieve many of the information and access related objectives determined during the consultation exercise, much guidance and collaboration with the user departments will be necessary.

This concept is fundamental and runs throughout this document.

Corporate direction requires knowledge that depends on collation of information, which is accurate, and useful. Technology enables the storage, security, integrity of and access to this information in a timely manner. The latter cannot be determined without the former.

MF&RS needs to review its current ICT structure to reduce overlap and confusion and develop a Strategic ICT Board to implement and review the ICT Strategy.

In summary the ICT Strategy moves MF&RS to a position whereby it can meet the demands and challenges of the future.

The following table gives high level recommendations; a full list with target dates is given in section 3.

5 Summary of Recommendations:

Rec'n No.	Moving From (2005) 'As is'	Moving to (2008 and beyond) 'Recommendation'
3.1.1	Two ICT Departments and various related ICT functions operating across the organisation	'One Team One Vision' - An Integrated ICT organisation working to an agreed ICT service delivery plan
3.1.2	Informal ICT Strategic direction	A Strategic ICT Board will implement and manage the ICT Strategy
3.1.3	An ICT Strategy dependent on business strategies and plans	A corporate ICT Strategy which promotes co-operative working and enables ICT to be incorporated into departmental service strategies and plans
3.2.1	Isolated procurement decisions not aligned to a formalised ICT Strategy	Product procurement decisions made within the context of the ICT strategy and in line with best value /cost benefit under corporate control
3.2.2	Some projects and initiatives are not strategic	Register all strategic projects and include approved initiatives review priority based on those that add most value and resource appropriately
3.2.3	Informal ICT security, disaster recovery and business continuity plans	Security to be aligned to appropriate legislation e.g. Security Policy to BS7799 also address and incorporate a comprehensive ICT risk assessment and disaster recovery plan into the corporate risk management strategy
3.3.1	Information 'owned' by a department or partner	Information 'joined up', open to all (subject to data protection/security control) and available anytime anyplace
3.3.2	Imbalance between technology equipment and service needs	Formal collaboration with all areas of the organisation and implementation of technology improvements that are timely and add value
3.4.1	Basic use of Internet and Web technology	The Internet/Intranet combine to form a core communication gateway. Web technology will be an integral part of software applications
3.6.1	Various application products selected against individual service needs	Corporate application products selected against shared information needs

3.6.2	Duplication of Information Sets across systems combined with redundant data	Establish common basic Information Sets that are accurate, timely and up to date
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SECTION 2 - THE STRATEGY

1 Introduction

Merseyside Fire and Rescue Service has consulted with its ICT support organisation Marconi to address a requirement for a coherent and effective Information and Communication Technology (ICT) Strategy.

This project has identified that MF&RS is making significant investment in its ICT infrastructure and is considering organisational changes to improve its ICT services. In partnership with Marconi there is much to praise in the work that has been undertaken and is planned.

It is clear that the future will see major changes with Service delivery in order to meet the challenge proposed by government and ICT will be a prime enabler. Whilst the strategy focuses on ICT it takes a broad view and raises issues for the future regarding organisational development, structure, culture and new ways of working to achieve business excellence.

The continuing and overriding aspiration of the MF&RS is to maximise effective use of its information, technology and systems for the benefit of the community and underpin the Service Aims for 2005/6 that are:

- Prevention and Protection - To take action to prevent fires and other emergencies whilst protecting life and property in the event of such an emergency.
- Emergency Response - To respond to all requests for emergency assistance with a level of resources appropriate to the risk
- Business Continuity - To provide prevention, protection and post incident recovery services to businesses on Merseyside
- Organisation - To deliver an effective modern and learning organisation

Under the control of the ICT Strategy Board the Service will evolve its ICT logically to make best use of developing technologies, information systems and processes.

This document addresses the ever-changing needs of the service and the community it serves.

It is important to note that this is a living document that has to be managed and adjusted over time in order to reflect changes in service objectives and to align it with application developments, whilst maintaining and refreshing the necessary ICT infrastructure.

The budgetary implications of the strategy will need to be reviewed regularly.

2 CURRENT POSITION

It is helpful to look at the current situation "where MF&RS are now" within the context of the Demographics, Organisation and the provisioning of ICT Services, Applications and Infrastructure in the support of the Service's business.

2.1 Demographics

Merseyside Fire & Rescue Service covers the 5 local council districts which make up Merseyside, which is situated in the north west of the United Kingdom.



The Service covers an area of 653 square kilometres and has a population of 1.4 million; there are 3 administrative centres ● vehicle workshop and 26 community Fire Stations ● as shown above.

2.2 Key Functions

The Executive Directorate of Finance, ICT and Procurement controls the ICT function.

There are two ICT areas of responsibility at present, the MF&RS internal ICT Team and the Marconi (Facilities Management Contract) Support and Maintenance ICT Team.

The ICT organisation is under review and references the Current Position/Key Findings documents as referenced in the bibliography

2.2.1 MF&RS ICT Related Functions

The Corporate Communications Directorate undertakes development of the Service's Web site and Intranet.

The Finance Directorate undertakes the monitoring and administration of the current Managed Service contract for the Finance System.

The Strategic Planning Directorate undertakes the work associated with Information Management, Projects and Service Planning/IRMP along with the administration of the GIS system.

Other information professionals exist within the organisation such as those working on ICT related projects, they typically report to the controlling directorate.

There are also a number of system administration functions undertaken within departments providing a support service for specific system users

At present these are;

Red Kite, PIMS, FSEC, EMS, Blue 8 and Training for Competence, they are predominantly managed by uniformed officers⁵.

2.3 Core Business Systems

MF&RS run a number of core systems⁶ in support of its business these are:

- Sophtlogic (Management Information System) this system has a number of modules including, Rotas and Availability, Stores, Personnel, Fleet Management, Training and Fire Safety
- Financial Systems (e.g. Midland, BACS, Delphi Millennium Payroll)
- Vision (Command and Control Mobilising system)
- Key departmental systems and smaller applications
- Office systems and e-mail services (Microsoft Exchange version 5.5.) running Surf Control e-mail filtering software. The e-mail client is MS Outlook 2000
- Internet System (Microsoft Windows 2003 ISA Internet server running Surf Control web filtering and monitoring software). The client browser software is Internet Explorer version 6
- Intranet System (Windows 2003 Internet Information Server)

2.3.1 Sophtlogic MIS

Sophtlogic is a fully integrated Management Information System (MIS) that is made up from a suite of application modules.

The Service recently conducted a study to determine the suitability and value of each MIS module. The outcome of the study established that the MIS system would not meet the future requirements of MF&RS.

Therefore, a decision was reached that there would be no further investment in the MIS and that it would effectively be 'phased out'. A project to phase it out is in progress, however it is critical to business continuity that operational continuity is maintained during any transition period.

Details of the modules and current status can be found in section 3; Recommendations - Current Applications Section.

2.3.2 Finance

Fox IT provides financial systems for the Authority under a facilities management contract⁷. The contract is effective until 2005.

⁵ The peripatetic nature of these staff undertaking this role can lead to risk in supporting users and application development. It is proposed that Application Sponsors are introduced see section 3.3

⁶ For a full list of systems see bibliography

Fox have sub-contracts for the specific systems including:

- Midland for the payroll system
- Cedar for the financial systems

There is a reporting tool available 'Business Objects' that provides crystal reports.

The Authority owns the software and hardware outright. Software is installed on a server at Fox site in Warrington.

The Finance Systems provide:

- The General Ledger (the accounting system) which contains all expenditure information, this interfaces with the payroll system.
- Creditor Payments
- Debtor Billing

The Finance directorate plans for a new system are based on e-financials ensuring data sharing standards and integration are optimised and the solution is in line with the e-government agenda.

2.3.3 Vision

The Command & Control System 'Vision', was implemented and commissioned Feb 2005 and is at the heart of the emergency operational response service.

The system is made up of a number of servers, desktops, and data communications links and fire station mobilisation equipment including computers and printers.

There are several key issues for the Service regarding the implementation and use of the 'Vision' System:

- Disaster/ Contingency planning
- Interoperability
- Development – Vision and it's access/reporting module 'BOSS'

It will be necessary to ensure that these issues are resolved as a priority and as such are included in the recommendations⁸

2.3.4 Key Departmental Systems

Various departments also use a number of smaller applications and these too require review, standardisation and also cost/benefit analysis. Examples include Scanfile, Croner, Vensons Multiquote and Wallchart. A full list can be found in the Software Appraisal reference document.

Office Systems and e-mail services

MS Office is widely used within the organisation however there are a number of different versions in use.

⁷ A Tender process is underway for a new managed service that will provide for finance and payroll

⁸ Included in Recommendations Road Map see 3.5.10

e-mail is managed using Microsoft Exchange version 5.5. Microsoft Outlook 2000 is the e-mail client.

A Windows 2000 server running Surf Control e-mail filtering software is configured at the network gateway so that all mail in and out of the organisation is subject to a set of controls and rules, is filtered and can be monitored at any stage for a wide variety of activities. This system is hosted off-site (Stack Computers) behind the firewall such that unwanted data does not enter the network.

2.3.5 Internet Access

Corporate Internet access is channelled through a Microsoft Windows 2003 ISA Internet server, which is also running Surf Control web filtering and monitoring software.

This system manages calls to and from the Internet via a 100Mb laser link to the Internet Service Provider (ISP), Stack Computers, and then via a 1Mb rented connection from the ISP to the Internet.

The client browser software is Internet Explorer version 6.

2.3.6 Intranet and the MF&RS Web site

A Windows 2003 Internet Information Server provides the platform for the Intranet and the Merseyfire Web site, www.merseyfire.gov.uk.

For extra security, the web server is now hosted within the MF&RS network domain on a server that is located behind the firewall at Stack Computer (this site has a direct connection to the Service network and as such is part of its domain). The server has two logical partitions these host the developing Intranet, which faces inwards and is accessible only by MF&RS staff and the Website, which faces outwards.

The Web site is published on the Internet and is accessible by anyone using a browser, inside or outside the network.

2.4 Infrastructure

This section defines the current technical architecture and platform that is used to support the Applications and Systems used by MF&RS.

2.4.1 Data Network

MF&RS has 30 sites including the Service Headquarters (SHQ), Safety Training Centre (STC), Mobilising and Communications Control (MACC), Transport Workshop and 26 Fire Stations.

The Wide Area Network (WAN) is used for data traffic only at present. The WAN is a star configuration emanating from SHQ, the network is Internet Protocol (IP) and Quality of Service (QoS) enabled and each site has 10/100Mb LAN facility deployed.

All but Derby Road were upgraded as part of the "network evolution project" (completed Oct 2004) and are now linked at 2Mb back to SHQ. Derby Road has a 10Mb link with SHQ.

The network topology is 'host centric' (hub and spoke) with SHQ as the hub. This means that core servers and core communications are hosted at this site.

Data resilience for sites is predominantly provisioned for the mobilisation function. Should the backbone network fail either PSTN or ISDN lines operate automatically to maintain continuity.

2.4.2 Computing Platform

The current, predominantly client-server platform is classified as a Windows NT4 domain as it uses traditional domain services (Primary / Backup Domain Controllers, Exchange, WINS, DHCP, etc).

However, most servers are running the Windows 2000 or 2003 operating system.

In this environment data processing is shared between the desktop client PC and the servers. The client server solution is configured so that most applications/programs reside on a user's desktop with application data stored on servers.

There are currently around 700 PCs and laptops, and 42 servers serving a user base of 1100.

2.4.3 Mobile Computing

Since the implementation of the Citrix Remote Access System (RAS), there now exists a secure and expandable system by which authorised users can access servers and applications from anywhere outside the network via the Internet.

The RAS system was designed predominantly for home-based working using broadband connectivity or mobile working using datacards (GPRS, 3G, etc).

Senior staff use handheld devices running the BlackBerry technology. This is an alternative tool for accessing e-mail on the move.

2.4.4 Telephony

The service has 30 sites each has its own telephone system.

Each location and associated telephone system or Private Branch Exchange (PBX) is stand-alone i.e. each has its own unique set of telephone numbers and extension numbering range.

Some of the PBX's in use at the sites are over 6 years old although the SHQ system software was upgraded in 2002 when the service moved HQ, most of the integral components were transferred from the old HQ (Hatton Garden) PBX and these too are over 6 years old.

2.4.5 Radio - Wide Area (VHF)

In common with the majority of the Emergency Service organisations, the service has its own Private Mobile Radio (PMR) infrastructure which provides communication between mobile resources and the MACC at Derby Road.

Mobile radio units are permanently installed in approximately 56 Fire appliances.

2.4.6 Radio - Local Area (UHF)

Communication on the Fire Ground (at scene) is achieved using UHF hand portables. In many instances these communicate directly in "back to back" mode with units working on a single frequency simplex channel.

Given the age of such schemes it seems likely that ODPM will be considering upgrade/replacement strategies for these schemes in the medium term.

UHF radiating feeder system is used in the Mersey Tunnels.

2.4.7 Portable Radios (Packsets)

The purchase of additional radios (Motorola GP340) is going ahead. The intention is to have a total of 200 packsets in the Service. Additional batteries are also being purchased. The use of repeater/converter equipment is being investigated in order to allow the user to contact MACC via a packset radio.

2.4.8 Appliance Radio and Equipment

Appliances are currently equipped with VHF Mobile Radios and AVLS units with GPRS radio modems.

2.4.9 Support Vehicles Equipment

Support vehicles are equipped with a range of technology including VHF, UHF radios and mobile telephony, PC's, printers, Fax and Video recorders. Video cameras are used for incident recording and telemetry equipment is available for video footage recording at the 'fire ground' and display on Plasma screens in the vehicle. There is also equipment in the vehicle to receive and record video footage relayed from the Police helicopter.

2.4.10 CCTV

Standalone CCTV security systems are installed at MACC, SHQ and two stations. CCTV is also being tried on two appliances in an attempt to combat violence toward staff and theft from vehicles. If the trials are successful the system may be extended to the rest of the fleet, 50+ appliances.

2.4.11 Videoconferencing

There is a portable Videoconferencing facility at SHQ (conference Rooms) it consists of a Tandberg T550 VCS includes camera and a single boundary microphone and 28" Video Monitor.

The system output can be projected through the existing LCD projector within the conference room and speech replayed via TV or wall mounted speakers.

The system uses ISDN however MF&RS assisted by Marconi are investigating the possibility of using videoconferencing across the WAN to enable Video/conferencing to/from sites.

2.5 Conclusion

The current position for MF&RS has been considered under demographics, ICT functions, core business systems and the infrastructure and technologies that underpin the organisation at this time.

The Strategy Plan will be developed using Industry Standards and Best Practise principles that will address each of the four key 'supporting pillars' that ensure comprehensive assessment and development of Organisational ICT.

It is acknowledged that the current Service boundaries, aims and ODPM driven initiatives, may change and core business systems and infrastructure must be developed in order to maintain and enhance Service delivery.

This development should be in line with the strategy as outlined in the following paragraphs.

3 MEETING THE CHALLENGE

A new governance structure will be required to enable ICT decisions to be correctly aligned with business needs to achieve the aim of 'one team, one vision'. It is recommended that the ICT Strategy Board, with appropriate representation is formed to undertake this role.

The ICT Strategic Board will act as the sponsoring group for all major corporate ICT development in the Service. It will have oversight of ICT policies including the IS Policy.

It is also recommended that the Service adopt an ICT Service Delivery Plan which is transparent to the customer and efficiently, meets the needs of the business and includes:

- Single point of access for ICT support and ICT service delivery
- Application maintenance
- Applications initiation and development
- Application management
- 3rd party support and sub-contractor management (24 x 7)
- User requirements capture and approval process for ICT hardware, software and business applications

Purchasing agreements should ensure that staff involved are able, as directed by agreed process, to undertake the purchasing and provision of:

- Hardware
- Software
- Licenses
- Business applications
- Business application helpdesk support
- Technology refresh spend

Under the control of the ICT Strategy Board a strategy delivery plan should be defined. This will address priorities and resource requirements and ensure sound planning is applied to implementation and change as well as ensuring the on going integrity of the business.

The delivery plan should detail what is to happen in each area of the organisation and produce a series of projects that constitute the recommendations and evolution plans of the Strategy.

3.1 ICT Organisation

The ICT organisational structure should exhibit the following characteristics:

- Consolidated support to business units by co-ordination amongst team based on a shared purpose
- Re-alignment of IT staffs skill to service demand
- Drive for value and innovation benefits realisation maintaining business focus
- Better communication and co-ordination between all Information and Technology staff across the organisation
- Responsive to changing management and business needs
- Business planning and continuity

- Reviewing ODPM - ICT Strategies
- Best Practise in all areas

Review and agree the appropriate Service Performance Measures for ICT services and sub-contractors as indicated in 4.5 - ICT measures.

Provide appropriate resources to deliver the projects identified in this Strategy.

Project management within the ICT organisation will have the following characteristics:

- An agreed project planning methodology as directed by the Strategic Planning Directorate
- Project Management controls to include:
 - Project Schedule
 - Change Control and
 - Configuration Management

3.2 Business Systems

A rationalisation of the current business systems (applications) and licenses is required. The software appraisal document is the base line for this activity referenced in the bibliography.

This project has identified that there are issues related to:

- Duplication of databases and information
- Data management
- Roles and responsibilities
- Production of management information
- Gaps where no technology exists in departments
- Effectiveness of existing applications
- Lifecycle and development of existing applications
- Total and individual costs
- License controls

This holistic analysis has never been undertaken previously and is the benchmark from which to move forward.

In order to align technology effectively with the business requirements of the organisation, it is critical that ALL developments, initiatives, projects and legislative changes etc., are co-ordinated with the ICT department ensuring timely and appropriate resource.

An important initial stage in the process of integration compliance is to conduct feasibility studies into the use of various potential electronic delivery channels. The results and implications of these studies should be incorporated into this strategy.

Information exchange will be made easier by the adoption of Government standards in the following areas:

- The government framework for metadata should be adopted for all metadata descriptions

- The use of XML as standard for exchanging data and metadata together is recommended, as this will keep MF&RS in the mainstream of developments in the public sector. All new applications should include XML as a means of data exchange
- The use of Data Transfer Services (DTS) between SQL compliant databases is recommended as the transport mechanism for data between applications
- Security standards as specified by government should be applied
- Holding data in agreed government schemas
- Development of a centralised LLPG⁹ gazetteer

The organisation should have the following aims and development plans:

- Systems Rationalisation
- Integrated systems with the portal
- Systems Interoperability
- Single point of data entry and 'one version of the truth'

The benefits of which will be:

- negate the duplication of cost, time, effort and resources for the maintaining, managing and supporting existing applications
- reduce the number of ad hoc databases and improve the quality of the data
- enable the Service to move towards a 'Web based service delivery' for internal staff, external customers and partners

Adopting this approach for all applications should become normal practice.

3.3 Application Sponsors

These are nominated individuals who shall be responsible for an application or group of applications. These sponsors should be assigned according to the following criteria:

- For an application that sits logically within a department (e.g. the Attendance Management/HR application), the sponsor should be drawn from senior staff in the department that uses the application;
- A special case of this is the performance management (Owl Enterprise) application that draws data from across the organisation, the performance indicators are owned by the Performance Management Directorate and so that each station should own the application and any data that may feed it;
- For modular applications that span a number of departments (e.g.. the Management Information System [Sophtlogic]), sponsorship should reside at the module level. An appropriately constituted working group established by the ICT organisation should make decisions that involve all modules; and

⁹ LLPG is the Local Land and Property Gazetteer

- The Director of ICT should have ownership of the technical aspects, which are generic and organisation wide in nature. Day to day sponsorship responsibilities may be delegated within functions as appropriate, e.g. to the Head of Knowledge Management.

Application sponsors shall be responsible for the efficient use of the application(s) e.g.

- Ensuring that appropriate training is arranged;
- Ensuring that the application is fit for purpose; and
- Bring new or changed information requirements to the attention of the ICT organisation
- Quality assurance, including data management

The ICT organisation should be responsible for administering user access to applications on behalf of the application sponsor.

To create a properly managed approach to the creation, prioritisation and implementation of new or changed information management systems requirements, all such requirements must be channelled from the application sponsor to the head of the ICT organisation.

Application sponsors shall be involved with the process of specification, development and/or procurement of new or extended applications, as lead by the ICT Strategy Board.

3.4 Infrastructure

Technology is revolutionising our lives as it continues to develop at an ever-increasing rate. Traditionally, in Public services, technology has been viewed as essentially an operational device and as an enabler of change. Today, it has become a driver of change with the potential to transform services. As important as this is, it still needs to be seen as secondary to business needs and we need to be wary of technology solutions driving the Service.

A key role for ICT professionals is to monitor and evaluate new technology in order to identify the opportunities that these may bring.

A number of key technologies have great potential for the Service and they are set out below.

3.4.1 Data Network

Now that the service has a scaleable wide area network with high availability to ensure that future requirements can be supported, it is recommended that business improvement opportunities, which become possible using this network, should be explored, including:

Desk-Top Integration and Unified Messaging -.VoIP, FAX Integration, Contact Centre, Multi Media Support and Voice Mail etc¹⁰

3.4.2 Computing Platform

Migrate to a Windows 2000/2003 domain with Active Directories during the latter part of 2005.

It is recommended that all-remaining Windows NT4 client devices, are upgraded to/replaced with the Windows XP client operating system.

¹⁰ Included in the Recommendations Road Map 3.4.13 - 15

The migration to Active Directories using Windows 2000/2003 will enable the software upgrade and hardware clustering of the e-mail systems

3.4.3 Network Storage, Document Management and Disaster Recovery

Centralising all enterprise data will require additional arrays of storage disks and the replacement of the current fibre hubs with fibre switches.

Due to the obsolescence of many main site servers and the fact that they are located at several sites the standards of data directories and the management of data volumes is inconsistent. All NT4 file/backup domain controllers should be replaced with Windows 2003 servers.

Main site users' data should be centralised by migrating it to the cluster/SAN systems at SHQ.

This will also enable much faster and more effective backups, from SHQ for the majority of data volumes, to the off-site location.

Document management will be a dominant application in the next 12 to 18 months as the MF&RS Knowledge Department grows and as Government legislation for freedom of information and e-mail archiving really come into play.

It is envisaged that the SAN systems currently in use at SHQ will be enhanced with additional storage virtualisation devices and software modules to meet the challenging information management and disaster planning requirements of the future.

This is a complex, Multi-faceted strategic development for storage, but the on-going benefits for managing information and thus knowledge, will be significant.

3.4.4 Alternative Computing Technology -Thin Client Server Environment

Whilst the predominant server technology in use is client-server, Citrix thin client technology was introduced in 2001 with the strategic intention of a phased implementation to become a more predominant computing technique

Thus, a Citrix farm was installed in 2001 to provide thin client computing for a single Oracle based application, Sophtlogic. Strategically it was installed for a planned roll out over three years for additional applications, including the Remote Access System (RAS),

For 2005 it is expected that the Citrix investment be further exploited so that bandwidth intensive applications are included, enabling thin client terminals for specific user groups to centralise fully their applications. These activities must coincide with platform upgrade.

Further use of the Citrix investment should continue with the expected implementation of Web access management tools enabling portal type delivery of key applications.

3.4.5 Printing

There are currently 210 printers throughout the organisation, 70 of them are located at SHQ. At SHQ this means one printer for every three staff. The cost of consumables for these printers is extensive and there is little in the way of management of this expensive hidden-cost activity. It is recommended that as printers fall outside of their support pack warranty period, they are not replaced but the users are directed to larger laser units nearby.

As a number of large laser devices become obsolete, replace several with one leased, Multi-function unit (such as the Ricoh Units currently operating in General Office departments at SHQ), which will service the requirements of whole floors.

The latter will lead to a situation where there exists one supplier of printers, paper, consumables and maintenance in a call-off contract arrangement.

3.4.6 Internet

There are no further upgrades planned for this service for the next 18 months except perhaps to increase further the ISP to Internet bandwidth as e-government activities increase and bandwidth is compromised.

Monitoring and capacity planning will be required and tools are proposed to ensure this is undertaken. The Service should ensure that its web site is DDA¹¹ compliant.

3.4.7 Intranet

Strategies for development and deployment of the Intranet pages and database lie with Corporate Communications. When the facility is developed and ready for deployment networked PCs and laptops are able to access it as they have Internet Explorer pre-installed.

It is expected that key information sets and application links will be made available via the Intranet

3.4.8 E-mail

E-mail management software will be upgraded to Exchange 2003 late 2005, early 2006, and will be configured to operate across the SAN.

Improvements to e-mail monitoring and security were implemented this year and will not require improvement for at least 18 to 24 months, apart from additional licences.

Improvements to e-mail access outside of the network will continue with the Blackberry system interface and continued roll out of Blackberry devices.

3.4.9 Mobile Commerce

3.4.9.1 Remote Access System

To enable multiple users to connect remotely and concurrently, and to do it as securely and efficiently as possible so as to maintain the integrity of the Service's networks, an Internet-based Remote Access System (RAS) is used with encryption. Further security and bandwidth efficiencies are achieved with the RAS system by implementing what is termed Citrix thin client technology, as discussed earlier.

The following policies are recommended to ensure the system works effectively for remote staff:

- Windows 2000/XP laptop
- 3G/GPRS data card where coverage is good for mobile access (train, etc) and/or
- Broadband installed at home

3.4.9.2 BlackBerry Technology

¹¹ DDA - The Disability Discrimination Act 1995 was introduced with the intention of comprehensively tackling the discrimination that many disabled people face. Changes to the DDA that came into effect in 1999 and 2004 have now created a legal duty for websites to be made accessible.

Some users have identified that their only requirement out of the office is to access e-mails. In this situation, laptops are too big and impractical for just one application occasionally used throughout the day and PDA's are too slow. For this requirement BlackBerry technology is appropriate.

This technology differs from thin client in that it bypasses the RAS system and creates another form of secure tunnelling through the mobile phone network (in MF&RS case Orange) and into the network. A BlackBerry server sits alongside and interfaces to the Exchange mail servers. The BlackBerry is quicker for sending and receiving mail as there is another system in between pulling mail off the Exchange systems and actively pushing it out to the device.

3.4.9.3 Personal Digital Assistant (PDA)

Although BlackBerry devices and the Internet based RAS solutions have outweighed the merits of using PDA's for accessing general back office applications such as e-mail, potential to develop specific applications to operate with ruggedised PDA's should be explored during 2005 e.g. for use by HFRA staff

3.4.10 Security

Information security is paramount. To protect applications, the information they contain and the infrastructure they run on, it is essential that good security practice be adhered to throughout the organisation. Information security is achieved through policies, procedures, standards, practices, organisational structures and software functions¹².

Improvements to security continue with strategies planned that will exploit the cluster technologies already in use and enable even better levels of data security.

3.4.11 Telephony

To Service has recognised the need to update and enhance some of its telephone systems and as such has implemented a project to address this requirement¹³

3.4.12 FiReControl

One of the objectives of the FiReControl Project will be to deliver Regional Fire Control Rooms equipped with new ICCS and Command & Control Systems that will replace existing MACC systems. Whilst Control will move to a Regional level it seems likely that Brigades will retain their current county-based structures. FiReControl will raise some important issue including:

- Export of MF&RS data including Risks and Gazetteer to the new Regional C&C System. Some new interfaces will be provided from the new Regional Control directly into MF&RS Fire Stations. There may be issues surrounding separation of 'operational' and 'administrative' systems and upgrade of station-end equipments

¹² Security to be aligned to appropriate legislation e.g. security policy to BS7799

¹³ Included in Recommendation Road Map 3.4.13

- Interfacing between the FiReControl Regional Systems and MF&RS systems for functions such as completing staff attendance information at watch change, delivering performance reports etc¹⁴. Whilst some of these issues will fall partially within the scope of FiReControl the Service should consider how their own systems might need to be developed to interface to Regional Control, for example, by ensuring inter-system interfaces use Open Standards employing widely recognised data exchange formats
- It is recommended (3.2.24) that a project be initiated to review these needs and ensure that XML schemas and data standards through the development of a common basic data set (CBDS) will be established¹⁵.

3.4.13 Firelink

It is planned that all Fire and Rescue Services PMR radio systems will be replaced as part of the ODPM's National Firelink Project.

The aim of the Project is to standardise the radio equipment to include mobile data, to establish better inter agency communications facilities and to increase the coverage areas including full national roaming. These are the principal drivers for change; all brigades will be operational on the new system by the end of 2008. At the time of writing no dates had been identified for MF&RS.

It should be noted that the following are not included in the Firelink project.

- Alerters
- 'At incident' radio (UHF)
- Administrative Paging
- Systems

It is necessary to consider now the systems that interface with the radio, mobilisation and communication processes as used in the day to day fire service. Any requirements for Appliance/ICU-based cross-band (UHF-Firelink) repeaters need to be considered i.e. 'at incident radio' interconnections with Firelink.

A key requirement for the ODPM is to co-ordinate the Firelink and FiReControl projects. If the Firelink network becomes available in advance of the Regional Control Rooms there may be case for MF&RS to migrate its existing Control away from the VHF wide area scheme and onto the Firelink service. This would not necessarily involve a rework of MF&RS.

For C&C systems the connection into Firelink could be as simple as fixed mobile access. Such a migration would need to be subject to a full risk/benefit analysis.

Another area meriting further consideration is the management of interworking with neighbouring brigades during the role out of Firelink.

It is recommended that a project be initiated to review these needs¹⁶.

3.4.14 Mobile Data & AVLS

¹⁴ Included in Recommendations Road Map 3.6.18

¹⁵ In line with guidance and common standards required and promoted across the service by the ODPM

¹⁶ Included in Recommendations Road Map 3.6.18

Firelink will deliver Mobile Data and AVLS functionality for appliances and some other vehicles. It will provide the AVLS & Mobile Data Hardware but is not currently expected to provide sophisticated Fire-specific mobile data applications.

Implementation of Mobile Data / Mobile Computing applications typically raises a raft of issues: -

- Collection and Creation of information, e.g. convert paper Building Plans to AutoCAD etc., add risk information,
- Create portable version of geocoded Gazetteer,
- Create Mobile Data Set,
- Establish test and release procedures for updates,
- Establish distribution mechanism for updates,
- Establish feedback, maintenance and update procedures.

Some of these issues may be addressed directly by the FiReControl Project. However it seems highly likely that the Service will be required to provide at least the base data and play a major role in creating and controlling updates.

It is recommended that a project be initiated to review these needs¹⁷.

3.5 Conclusion

The strategy is a broad, pragmatic framework, complementing existing corporate policies and strategies. It provides a platform to improve services to the community by committing to the Service's overall priority to provide Quality Services and Value for Money.

Throughout this strategy document a number of recommendations have been highlighted that need to be undertaken, from the initiation of products and work streams that will develop supporting strategies through to the implementation of specific technology and a change in the culture of the Service.

Many of the findings have common threads relating to the organisational elements that have a bearing on the successful delivery of the strategy.

These elements are:

- Structure & Organisation - the organisational and management framework and policies for business processes, human resources and supporting tools
- Change management and BPR
- **Process** – relates to information and its management
- **People** - the human element that use, create and communicate information and retain information as knowledge
- **Information** - Intelligence and Knowledge¹⁸
- **Technology** – tools to support the organisation, processes and people in managing and exploiting information and knowledge
- Current Applications
- New Applications

¹⁷ Included in Recommendations Road Map 3.6.18

¹⁸ Information Management Strategy will be incorporated in Phase 2

Each element has a set of relevant recommendations that are detailed in Section 3.

The foundation of the Strategy rests on the four pillars that are:

People, Process, Information and Technology¹⁹

One key element (pillar) is the Information Management Strategy that is to be incorporated in Phase 2

There is an extensive list of recommendations that need to be prioritised and grouped into a set of achievable projects. Included in the appendices is a recommended Strategy Delivery Plan that sets out how this can be achieved.

¹⁹ These elements are recognised as best practise foundations for building organisational efficiency

4 FUTURE DIRECTION - 'GUIDING PRINCIPLES'

4.1 The Idealised ICT Service

The Strategy sets out its clear vision for ICT and IMS developments whereby there will be a gateway into a complete set of information management systems that will be supported through a centralised information architecture that supports the whole of the organisation, members and its partners.

In proposing this vision, a view has been formed in terms of what an idealised ICT service might look like, what business processes it might have and what information management systems and technology it would support.

The vision is based on the idealised aim, of becoming a "benchmark of excellence" for its ICT services, which has a number of characteristics:

- Continuing to provide high quality and efficient services whose performance is monitored and continually improved through innovation
- Consults with all stakeholders
- Provides services electronically that are cost effective, timely and are in line with the service plan
- Improves departmental efficiencies through business process reengineering (BPR) techniques of reviewing existing processes 'As is' and the new ways of working through the use of technology
- Improves communication and inter-working internally and externally
- Enables seamless access to information repository irrespective of time or location

The idealised ICT Service of the future should:

- Enable the organisation to use information strategically to improve service delivery to its local population
- Develop workforce skills through the provision of integrated training
- Provide seamless access to information repository irrespective of geographic location across business areas supported by relevant ICT infrastructure and software
- Support the business community, all of its partners and users ensuring all have simple and secure access to ICT facilities

4.2 Idealised Infrastructure - 'Detailed Direction'

Key to supporting the information lifecycle and business processes of the future are technologies that "*talk to each other*" across the organisation and links appropriately to key partner organisations. The technology should support flexible working and provide seamless and appropriate role access, 'single sign on' to information and data portals.

The vision for the infrastructure is that a MF&RS Secure Intranet Portal will become the interface and desktop for all employees providing a common configurable information window that meets the needs of roles within MF&RS.

E-mails, calendar, workflow actions, management reports and alerts and externally published information all combined to create a role based portal.

Role 'profiles' can be configurable so that for example operational fire fighters would be a unique configuration. Thus their role profile would present them with a set of information and access to those specific systems they require.

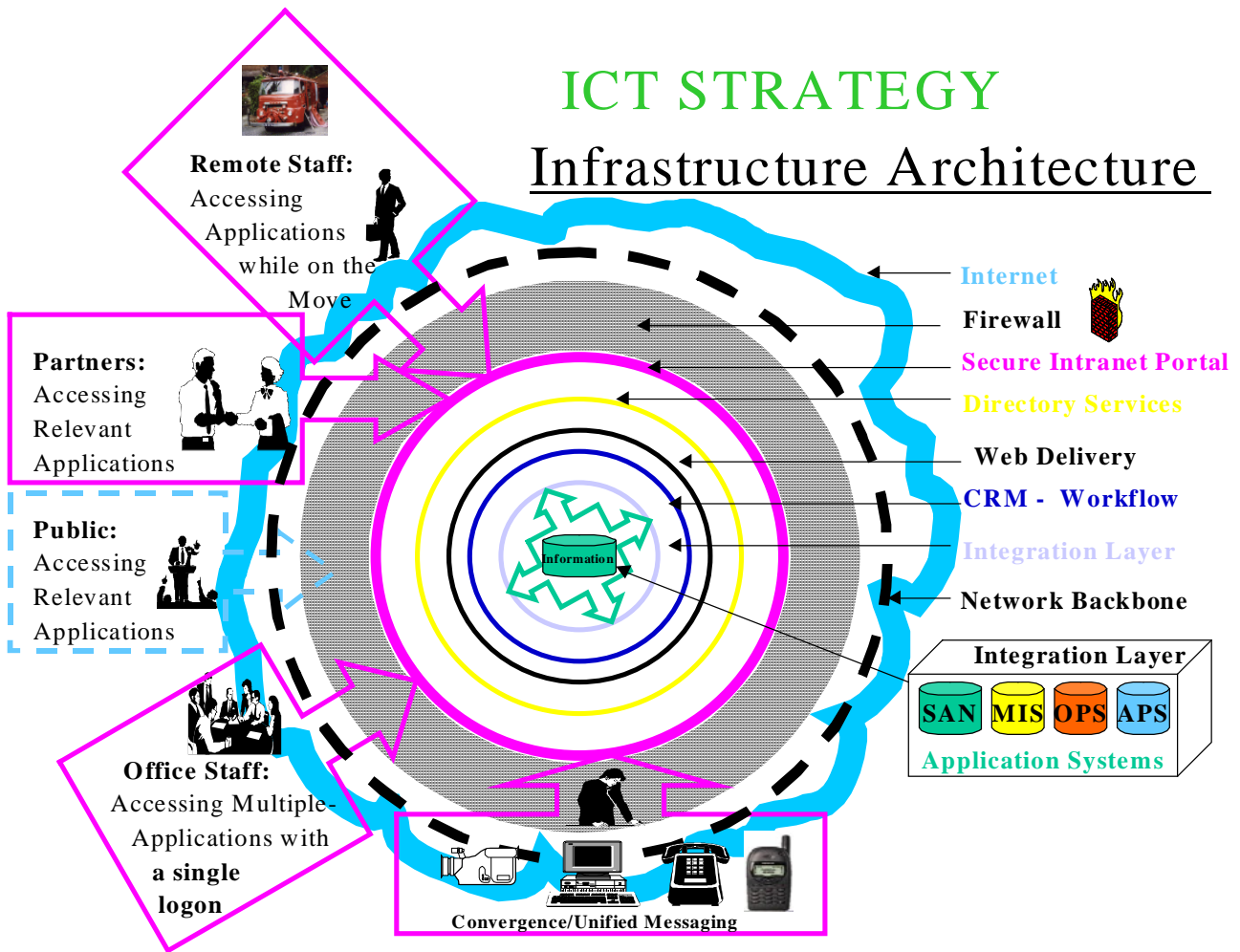
The portal will become a single point of access to all relevant information, applications and processes for internal and external users.

The security contained within the portal will allow for integration of Internet and Intranet along with front and back office systems creating joined up working.

Enabled by Internet technology the portal will support a wide variety of access methods and can provide the integration requirements for applications, information and processes.

Supporting this future direction results in features which the ICT strategy must address:

- Secure Portal that provides a gateway (window) into a complete set of information and transaction processing services for both internal staff and external partners, stakeholders and the public
- Rationalisation of Applications into which data is deposited and Web enabling of those remaining
- Centralised information architecture that supports all departments in a timely manner e.g. Out of Hours provision.
- Standard set of ICT policies and procedures that are followed by all parts of the Service
- Recognition of the strategic importance of ICT-related services to the Service's business.
- A repository of knowledge that is widely accessible and supports individual learning and avoids reinventing of wheels
- The vast majority of transactions with public, partners and other stakeholders are conducted electronically
- A robust and flexible technical infrastructure that supports and enables business information, process and structural changes



4.3 Infrastructure Characteristics

4.3.1 Services and Access

ICT must support access to the Service’s knowledge repositories and wider external information sources.

The ICT Infrastructure must enable access through the wide range of mediated and direct electronic channels.

4.3.2 Quality of Service and Security

The underlying ICT infrastructure must be able to support 24x7x365 days' operation

The ICT infrastructure should be able to scale without performance degradation

The ICT infrastructure must be capable of supporting varying levels of security in its dealings with groups of individuals inside, and outside the organisation. Any scheme used should comply with national as well as local standard security policy and recommendations

There must be integral security and audit facilities in the infrastructure underpinning such access.

4.3.3 Management Support

The ICT infrastructure deployed must be capable of supporting the associated management needs; document management, record management and associated legislation providing the information and knowledge required for operational management and policy decisions

There must be underlying audit mechanisms to track and account for system/application change activity.

4.3.4 Service Interoperability

The Service will have to support and adhere to the standards imposed by the Government including e-GIF²⁰, e-GMS²¹ and other interoperability and schema standards.

The strategy laid out is predicated on exploitation of web-related standards and topologies and the adoption of national standards.

4.3.5 Database Technologies

Database topologies must support the range of transaction types

All core strategic applications should for ease of deployment have GUI²² that is Web based.

The technology deployed must support rapid re-purposing of content and information to other delivery channels at very low cost.

Database and network facilities must have the capacity to handle the full-range of electronic media, including voice, data, and video along with multimedia conferencing.

The Service should standardise on a Database Management system recognising that “feeder” systems might come from other database sources.

The Service should aim for database rationalisation and the removal of redundant data under the guidance of the Knowledge Directorate

4.3.6 Service Delivery & Support

Any ICT procured solutions will need corporate approval and will address the holistic need and seek, wherever possible, to deploy commodity solutions with minimum bespoke change

The back-end systems will need to deliver much higher levels of automation/electronic working than currently and be structured in such a way as to allow ubiquitous access subject to the necessary security constraints.

4.3.7 Flexibility

The detail of future business change will continue to evolve therefore any ICT infrastructure must have the potential to scale and support the full breadth of any such deployments. Given the nature of the ICT change required, the strategy must be capable of an incremental implementation in terms of the new infrastructure having the capacity to provide seamless access to application services.

²⁰ E-GIF defines the technical policies and specifications governing information flows across government and the public sector.

²¹ E-GMS defines the Government Metadata Standards

²² GUI is a Graphical User Interface - typically point and click mouse operation

4.4 Supporting the Vision

Supporting this vision of an ideal ICT service MF&RS must:

- Facilitate easy communication – good quality (internal and external)
- Have in place ICT policies and procedures that enable inter working
- Have in place seamless information sharing protocols
- Provide appropriate tools such as hardware and software for the job
- Support the development of better e-communication with partners
- Have a information management strategy that takes into account the full information life cycle
- Have in place the necessary structure that will support the strategy policies and procedures
- Adopt a business case approach to ICT

It is understood that the Information Management Strategy (IMS) is to be formulated by the knowledge management function within the Directorate of Strategic Planning.

The IMS should be integrated with this ICT strategy.

The objective of an Information Strategy is to outline how the demand for information can be satisfied and managed and thus ensure that the service obtains maximum value from its information resources.

Information is key to service delivery and for monitoring service quality. It is therefore essential that:

- An information strategy is developed and implemented
- Information is linked to external data sources where appropriate
- A system is in place to monitor government policies and the implication for the Service
- A centralised list is maintained of all systems available in the organisation

In moving towards achievement of any of the above points MF&RS has several key requirements it must address.

These are proposed in no particular order of priority as:

- To support collaborative working and sharing of information between partner organisations
- To develop an information architecture that supports emerging information needs of department managers
- To improve public, partner and external stakeholder interactions with the Service
- To facilitate improved project management and cross-boundary collaboration and participation of the user and ICT representatives
- To implement the ICT training strategy for system administrators, sponsors, users and support staff

- To facilitate the management, sharing and exploitation of the organisation's knowledge base
- To support the monitoring and reporting of performance-related data at all levels of the organisation.
- To provide value-added web application services to internal and external stakeholders
- To communicate information effectively on the Service's policies, programmes, plans and services; to its own staff, the media, customers, stakeholders and the public at large
- To adopt best practice in the management and operation of Web services, including conformance to relevant Government policy and guidelines

4.5 ICT Measures

The new ICT organisation will be required to devise a comprehensive measures programme.

This will consist of a set of measures that addresses both the internal and external processes and outputs under the following key areas:

- Costs both Revenue and Capital Spend
- Processes both Internal and External Outputs
- Customers Service and Collaboration
- Innovation and Growth

New performance measures should increase the scope of the measurement focus beyond just financial to encompass less tangible benefits of Quality, Service and Speed.

Once agreed upon the ICT organisation can establish target measures based on the critical success factors for each area and derive a benchmark against which it can measure performance and improvement.

Once the strategy is established and MF&RS ICT related functions are co-ordinated with the new ICT organisation a conceptual 'One Team' holistic approach can be undertaken, concentrating on improving or re-engineering those processes most critical to MF&RS strategic success.

SECTION 3 - RECOMMENDATIONS

Recommendation 3.1 - Structure and Organisation:															
Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	'One Team One Vision' - An Integrated ICT organisation working to an agreed service delivery plan	H	ICT Strategy Board		→										
2	A Strategic ICT Board be formulated that will implement and manage the ICT strategy	H	ICT Strategy Board		→										
3	A corporate ICT Strategy which promotes co-operative working and enables ICT to be incorporated into departmental service strategies and plans	H	ICT Strategy Board		→										
4	Ensure that corporate development of the internet/intranet is in line with user department needs for information publication	M	Corp/Comm Directorate & Knowledge Directorate			→									
5	Review/develop an integrated training plan for all network users that links to the corporate training programme	H	Head of ICT & Training Dept		→										
6	Review Applications Management, Administration , Development and Support functions across all systems and bring under corporate control	M	ICT Strategy Board & Knowledge Directorate			→									

Recommendation 3.1 - Structure and Organisation:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007					
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
7	Put in place appropriate SLA's and KPI's- Across all systems and departments	L	ICT Strategy Board				→										
8	Review and update all ICT Policies and Standards	H	Head of ICT		→												
9	Ensure all departments adopt coherent and compatible information policies in support of better service delivery and efficient working methods	M	Knowledge Directorate	*													
10	Ensure the service is continually assessing technology, service and integration development with all its partners	M	Head of ICT		→	→	→	→	→	→	→	→	→	→	→	→	→
11	Ensure the ICT organisation proactively addresses service/department plans	H	Head of ICT and User Directorates		→	→	→	→	→	→	→	→	→	→	→	→	→
12	Adopt a corporate approach to Document Management in order to optimise use of Scanfile and as per Information Management requirements.	M	ICT Strategy Board & Knowledge Directorate	*													
13	Implement policy/guidelines for lifecycle of application management	H	ICT Strategy Board			→											
14	Personalised information databases need to be server based to limit risk	H	ICT Strategy Board				→										

Recommendation 3.1 - Structure and Organisation:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
15	Initiate a project to address the business/applications needs arising from the FireLink and FireControl projects include related needs for mobile data systems	M	ICT Strategy Board			→										
16	Produce information security and business continuity plans and policies in co-operation with the Information/knowledge management team	H	Knowledge Directorate	*												
17	Complete User Requirements and Solution Specifications for each business system in use and proposed	M	Knowledge Directorate	*												
18	All-relevant and accurate ICT information must be held in a master ICT service provision archive and database	M	Head of ICT			→										
19	Implement a Documents Management System	H	Knowledge Directorate				→									
20	Put details of staff and their responsibilities on the Intranet	M	Corp/Comm Directorate		→											

Recommendation 3.2 - Process:

Recommendation * to be determined by Directorate		Priority	Comments	2005/6				2006/7				2007/8					
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1	Complete information/process flow capture and analysis of information exchange across systems and departments with a view to process re-engineering	M	Knowledge Directorate	*													
2	Product procurement decisions made within the context of the ICT strategy and in line with best value /cost benefit under corporate control	H	ICT Strategy Board		—————→												
3	Register all projects and include approved initiatives review priority based on those that add most value and resource appropriately	H	Knowledge Directorate & Head ICT		→												
4	Security to be aligned to appropriate legislation e.g. Security Policy to BS7799 also address and incorporate a comprehensive ICT risk assessment and disaster recovery plan into the corporate risk management strategy	H	Knowledge Directorate & Head ICT		→												
5	Agree process to support ongoing use and development of the strategy and use of this document	M	ICT Strategy Board		→												
6	Implement a process to control the procurement of ICT equipment	H	Executive Director Finance		→												
7	ICT reporting must include capacity planning, projects, systems performance along with action plans arising	L	Head of ICT		→												

Recommendation 3.2 - Process:

Recommendation * to be determined by Directorate		Priority	Comments	2005/6				2006/7				2007/8				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
8	Ensure disaster/data recovery procedures and plans are adequate, back-up and off-site storage is available for all systems and locations	H	Head of ICT			→										
9	Develop an ICT Intranet portal that provides - service descriptions, ICT catalogue, project and development Plans and all ICT related information	M	Corp/Comm Directorate Web developer	*												
10	Undertake Integration programme across applications and optimise interfaces between systems	M	Knowledge Directorate & Head of ICT	*												
11	Put in place on-going PC and related technology replacement programme	M	ICT Strategy Board			→										
12	Raise awareness of ICT policies, procedures and processes	H	Head of ICT			→										
13	Place all policies and procedures on the Intranet	M	Web Developer	*												
14	Put all available training courses on the intranet	L	Corp/Comm Directorate & Training Dept	*												
15	Maintain an accurate list/control of all software licenses, applications and systems deployed, support and maintenance arrangements and all associated costs	M	Head of ICT			→										

Recommendation 3.2 - Process:

Recommendation * to be determined by Directorate		Priority	Comments	2005/6				2006/7				2007/8				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
16	Establish clear process for systems development – The formulation of system development plans will require project teams to include ICT and the user dept staff	M	ICT Strategy Board			→										
17	Document the standards and processes required for application/systems procurement e.g. requirement capture, evaluation, cost benefit analysis, testing, implementation and acceptance along with return on investment analysis etc	M	Executive Director Finance & Head of ICT	*												
18	Maintain an accurate list of all software licenses, applications and systems deployed, support and maintenance arrangements and all associated costs	M	Head of ICT			→										
19	Implement a new ICT Measures Programme	H	Head of ICT			→										
20	Eliminate "silo purchasing" of ICT related equipment and ensure all departments/staff are advised and adhere to a corporate purchasing procedure	M	Executive Director Finance		→											
21	Incorporate the Information Management Strategy with this strategy in close co-operation with the ICT organisation	M	Knowledge Directorate			→										
22	Review and realign all ICT projects and migrate to new programme for delivery in co-operation with Project	M	Program Manager	*												

Recommendation 3.2 - Process:

Recommendation * to be determined by Directorate		Priority	Comments	2005/6				2006/7				2007/8					
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	Management																
23	Agree processes that maintain an accurate asset data base for all ICT equipment (one database)	M	Head of ICT			→											
24	A project be initiated to review the integration needs for Regional Controls, that XML schemas and data standards through the development of a common basic data set (CBDS) are established. In line with guidance and common standards required and promoted across the service by the ODPM	H	Knowledge Directorate		→												

Recommendation 3.3 - People:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	Information 'joined up', open to all (subject to data protection/security control) and available anytime anywhere	H	Knowledge Directorate & Head ICT			→	→	→	→	→	→	→	→	→	→	→
2	Formal collaboration with all areas of the organisation and implementation of technology improvements that are timely and add value	H	Head ICT & ICT Strategy Board			→	→	→	→	→	→	→	→	→	→	→
3	Ensure staff requesting ICT guidance and technical direction are given timely and consistent advise	H	Head of ICT			→	→	→	→	→	→	→	→	→	→	→
4	Clearly define roles and responsibilities in ICT	M	Head of ICT		→	→										
5	Staffs must have a clear understanding of the ICT service, and the related procedures and policies	H	ICT Strategy Board		→	→										
6	Assist with Web development by interfacing between departments needs, systems and the web developer	L	Corp/Comm Directorate	*												
7	Move inappropriate information from public folders onto the Intranet	M	Corp/Comm Directorate & Knowledge Directorate	*												
8	Ensure all staff have appropriate access to PC's	M	ICT Strategy Board		→	→										
9	Ensure all staff have a user account and e-mail address	H	ICT Strategy Board				→	→								

Recommendation 3.3 - People:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
				10	Ensure all staff have equitable access to training and development in particular basic training for using the network and its facilities	H	ICT Strategy Board			→					
11	Establish clear process for systems development - The formulation of system development plans will require project teams to include ICT and the user dept staff	M	ICT Strategy Board			→									
12	Ensure appropriate training is provided for relevant users of new and existing applications	H	ICT Strategy Board			→									
13	Ensure ICT professionals are adequately trained to support systems, technology and applications developments as these are implemented	L	Head of ICT			→									

Recommendation 3.4 - Technology:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	The Internet/Intranet combine to form a core communication gateway. Web technology will be an integral part of software applications	H	Head of ICT & Corp/Comm Directorate		→											
2	Provide dynamic proactive support by developing better monitoring tools, measures and processes to manage capacity and recommend performance improvements	M	Head of ICT				→									
3	Adopt a standards specification for all ICT equipment hardware and software	M	Head of ICT		→											
4	Upgrade network platform operating system to Windows 2000/2003, implementing Active Directories	M	Head of ICT				→									
5	Continue the implementation of the Thin Client Strategy	M	Head of ICT		→											
6	Replace all out-dated PCs with new hardware running Windows XP	L	Head of ICT				→									
7	Replace NT4 servers with Windows 2003 servers, relocate all remote server data to central SHQ servers for improved management, security and backup	M	Head of ICT				→									
8	Undertake the rationalisation of printers and agree printer strategy replacement program	M	Head of ICT				→									
9	Enhance SHQ cluster servers with Storage Virtualisation systems in line with Knowledge	M	Head of ICT		→											

Recommendation 3.4 - Technology:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007					
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	Management/Legislation requirements and provide a facility for designing dynamic disaster recovery options for data																
10	Undertake the provisioning for additional networks points and access ports at SHQ	L	Head of ICT														
11	Ensure that ICT have a stock holding of equipment for immediate issue - This will include standard items of Hardware and Software e.g. Desktop PC, Laptop, Printer, Desk top and mobile phones etc.	H	Executive Director Finance & Head of ICT														
12	Continue to roll-out Broadband/3G, Internet-based secure remote access facilities, plus Blackberry technology to enable flexible mobile working	M	Head of ICT														
13	Migrate to a corporate telephony solution and voice mail (replace answering machines) and rationalise lines	M	ICT Strategy Board														
14	Implement Unified messaging to enable faxing, e-mail and voice mail integration at the desktop across all locations	M	ICT Strategy Board														
15	Address Multi Media Support for video streaming, e-learning on line packages, video conferencing and CCTV security	M	ICT Strategy Board														
16	Exploit Citrix investment to implement application Portal	M	ICT Strategy Board														

Recommendation 3.4 - Technology:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
17	Pilot and Develop PDA applications and associated backend databases to enable electronic data collection during HFRA activities	M	ICT Strategy Board			→										

Recommendation 3.5 - Current Applications:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Phase out Sophtlogic Management Information System (MIS) on a modular basis as indicated in 2-7 below, in accordance with applications refresh programme	H	ICT Strategy Board	→											
2	MIS Rotas and Availability module - To be replaced by Attendance Management System.	H	ICT Strategy Board	→											
3	MIS Stores (Purchasing and Stores) Module - Address in accordance with e-procurement strategy	H	ICT Strategy Board					→							
4	MIS Personnel Module - Clearly define specification for Replacement HR package	H	ICT Strategy Board					→							
5	MIS Fleet Management Module - Review/develop strategy for Central stores/corporate asset management system.	M	ICT Strategy Board					→							
6	MIS Training Module - Complete user requirements and solution specification that meet IPDS and corporate training requirements	M	ICT Strategy Board									→			
7	MIS Fire Safety Module - Ensure replacement software is web enabled to allow sharing of information through portal	L	ICT Strategy Board									→			
8	Formulate and agree programme for applications refresh	H	ICT Strategy Board	→											
9	Fox IT Financial Systems – Migrate to e-financials upon successful completion of procurement process	H	ICT Strategy Board					→							
10	Vision – BOSS Implement development and management project to optimise use of functionality,	H	ICT Strategy Board					→							

Recommendation 3.5 - Current Applications:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007					
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	interoperability and disaster/contingency planning																
11	Blue 8 GIS - Develop and enhance (IRMP)	H	ICT Strategy Board & Knowledge Directorate	---	---	---	---	---	---	---	---	---	---	---	---	---	→
12	To ensure retention of FSEC data post closure of project, correlate information with that held on MIS Fire Safety database	M	ICT Strategy Board & Knowledge Directorate				→	→	→								
13	Review Red Kite Equipment Management System for suitability of purpose and overall ability to meet wider requirements for BA and Ops Stores	M	ICT Strategy Board			→	→	→									
14	Develop and expand Owl Enterprise Performance Management Software	M	ICT Strategy Board	---	---	---	---	---	---	---	---	---	---	---	---	---	→
15	Upgrade SSI Autocad L/T (Estates) to SSI AutoCAD version used by CAD team. Network system enabling all departments to access relevant information.	H	ICT Strategy Board			→	→	→									
16	Replace ICS with RSG black box recording system used by Workshops.	M	ICT Strategy Board	→	→	→	→										
17	Replace (Access) Training for Competence Database with comprehensive IPDS system	M	ICT Strategy Board							→	→	→	→	→			
18	Drop or Enhance EMC (Pearson Package) CBT and on line learning opportunities	L	ICT Strategy Board & Training	*													

Recommendation 3.5 - Current Applications:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
19	Conduct a risk mitigation for all applications and systems	H	ICT Strategy Board			→										
20	MS Office suite and other software should be at the same version release across the organisation. The use and value of 'other software' must be reviewed	L	ICT Strategy Board			→										

Recommendation 3.6 - New Applications:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007						
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
1	Corporate application products selected against shared information needs	H	ICT Strategy Board		→													
2	Establish common basic Information Sets that are accurate, timely and up to date	H	ICT Strategy Board		→													
3	Implement new Hydrant Management software (as per Blue 8 development)	H	ICT Strategy Board		→													
4	Ensure Hydrant Management data is shared with Blue 8 and Vision C&C	H	ICT Strategy Board			→												
5	Procure and implement new IPDS software to replace MIS Training and (Access) Training for Competence databases	M	ICT Strategy Board							→								
6	Complete user requirements and solution specification for procurement of Health and Safety system	H	ICT Strategy Board		→													
7	Complete user requirements and solution specification for procurement of Attendance Management system	H	ICT Strategy Board		→													
8	Estates Team - Complete user requirements and solution specification for purchase of National Building Specifier	M	ICT Strategy Board					→										

Recommendation 3.6 - New Applications:

Recommendation * to be determined by Directorate		Priority	Comments	2005				2006				2007				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Software															
9	Complete User Requirements and Solution Specifications for each new business system	H	ICT Strategy Board & Knowledge Directorate													

APPENDICES

Appendix 1 - Strategic Context Reference List and Source

Reference:

Our Fire and Rescue Service

Url:

http://www.odpm.gov.uk/stellent/groups/odpm_fire/documents/downloadable/odpm_fire_022434.pdf

Reference:

The Fire and Rescue National Framework 2005/6

Url:

http://www.odpm.gov.uk/stellent/groups/odpm_fire/documents/page/odpm_fire_029700.pdf

Reference:

Modernising Government

Url:

<http://www.govtalk.gov.uk/>

Reference:

E-government

Url:

<http://www.govtalk.gov.uk/>

Reference:

E-government strategy

Url:

<http://www.merseyfire.gov.uk/pages/e-gov/e-gov.htm>

Reference:

Service plan 2004/5

Url:

http://www.merseyfire.gov.uk/pages/reports/pdf/SERVICE_PLAN_2004-05.pdf

Reference:

E-fire policy

Url:

<http://www.merseyfire.gov.uk/pages/reports/e-fire.htm>

Reference:

IRMP

Url:

<http://www.merseyfire.gov.uk/pages/reports/pdf/IRMP.pdf>

Reference:

IPDS

Url:

<http://www.merseyfire.gov.uk/pages/ipds/ipds.htm>

Reference:

District Auditors ICT facilities management report.

Url:

NA (Hard Copy)

Appendix 2 -Bibliography

Material collated by the Project team and existing Documentation:

- ICT Projects List
- Software List
- Applications/Systems List
- ICT Policies
- ICT Project/Development Check List
- ICT Evaluation Outcome
- ICT Strategy Workshops/Interviews Attendees List
- Users Comments/Captured Reference Notes

Current Location:

These documents are available from the MF&RS ICT Department

Important Note:

All-relevant and accurate ICT information must be held in a master ICT service provision archive and database. This should include all information and documents collated as a result of recommendations contained herein as well as those accurate, up to date and valid documents already in place.

A procedure for managing this portfolio and this Strategy Document should be implemented.

It is envisaged that the information collated will encompass all elements of the ICT service provision, that is to say, issues of a system, technical, operational and managerial nature. This master archive will be a controlled document.

Appendix 3 - Communications Strategy

1 Purpose

The purpose of the ICT strategy is to set direction for ICT within MF&RS. The dissemination of the strategy to ensure "buy in" is critical to its successful implementation.

It is important to establish a two-way communication with all users in order to:

- Ensure that everyone understands what the strategy is intended to achieve
- Understand what the strategy means to them
- Informs stakeholders of progress
- Engages them on a regular basis to address issues, needs and development
- Enables a Two Way process of Education and Awareness

2 Process

There are a number of actions that can be done to communicate the strategy:

- Need to clearly articulate the aims of the strategy
- How it will be delivered, time scale and management (process)
- The benefits to the departments and users
- Progress towards achievement
- Measure and Report (ROI)

3 Methods

There are a number of methods that can be deployed:

- Hold a series of workshops/open days/presentations to address all departments/sections to ensure all get the message
- Regular ICT Surgeries
- Project management and control

4 Future

Communications mechanisms for the future include:

- Publish Strategy on the Intranet and Updates
- Publish ICT Delivery Plans for related Projects
- Publish 'Hit List' Outcome of consultation/surgeries
- Regular ICT Strategy forums/workshops
- Undertake regular Health Checks

5 Principles

To ensure stakeholders are able to digest the information, the overarching principles must be governed by the need to be: Concise, Consistent, Simple and Timely. We will Listen, Review, Act, Measure and Feedback and engage ALL Stakeholders - Region FS and Emergency Services, Local Government and Associated Agencies

Appendix 4 - ICT Strategy Delivery Plan

Having undertaken the task of understanding the current status of all the factors that are relevant to the achievement of the Strategy and fixed the 'baseline', the next step is to resolve the processes to be taken and the tactics to be employed to deliver it.

It is expected that this will follow a number of logical stages:

1. Acceptance of the ICT Strategy Document June 2005
2. Members Approval
3. Communicate the Strategy proposals to the rest of the organisation
4. The formulation of the delivery plans will be necessary in order to establish the priority of works, time scale, costs and resource required for each Directorate/Department of the Organisation

Agreement to undertake any further investigation activities that may arise from any of the above will need to be incorporated into the overall strategy delivery plans.

Delivering the Strategy requires careful planning given the limited resources and the need to progress the strategy it is recommended that the ICT Strategy Board be formed to plan its delivery.

The ICT Strategy Board should commission an ICT Strategy Implementation Team (SIT) to undertake the planning tasks as directed by the Board in co-operation with the technology partner, project programme manager and the appropriate Directorates.

The following outlines the delivery planning to be undertaken by SIT:

- **A Project Review** - to determine the status of all ICT related projects and assessment of their priority and alignment with the strategy and the organisations project programme
- **A Delivery Plan** - that details the order in which the various projects and components of the overall strategic agenda should be delivered. This will ensure sound planning is applied to implementation and change as well as ensuring the on going integrity of the business. It should detail what has to happen in each area of the organisation and produce a series of projects that constitute the recommendations and evolution plans of the Strategy
- **A Communication and Education Plan** - To address both the expectations of all stakeholders and the overall management of change for each area of the business
- **A Resource Plan** - to ensure the right people are available at the right time and to optimise the use of scarce resources
- **Risk Mitigation and Business Process Change or re-engineering** - these matters need to be covered as a matter of course

These plans must cover each of the elements of the strategic agenda as identified in the ICT Strategy recommendations:

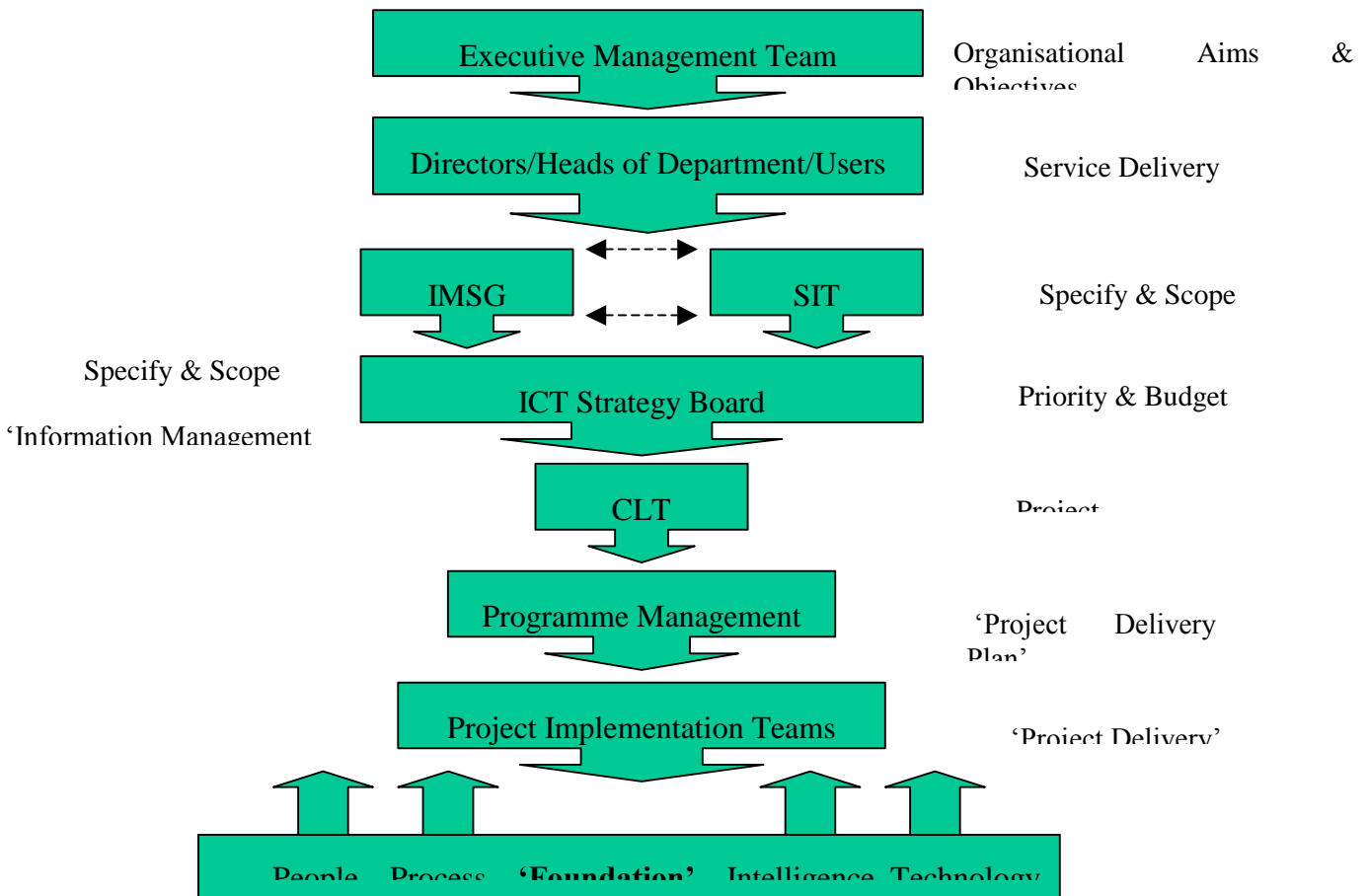
Structure & Organisation, Process, People, Technology, Current Applications, New Applications

These elements/recommendations (projects) establish the conditions necessary for the first steps to ICT evolution at MF&RS.

Key issues to be resolved by SIT for authorisations by the Board are:

- Project Definition and Prioritisation (include agreed initiatives registration) and assessment of delivery time scale, resource required and costs/budget allocation
- Realignment of the project programme as agreed with the programme manager

- Clear definition of the scope of work and deliverables required - these need to be agreed with all involved as differing ideas and expectations are likely given the tasks involved
- Resource identification and agreement from all areas of the organisation and partnerships - staff commitments are vital in definition, review and testing deliverables
- The form in which plans, progress reporting and documentation will be constructed and the procedures necessary for review and sign-off at key milestone stages
- The document management requirements and the standards and guidelines to be observed or produced in order to move forward
- The financial monitoring and reporting required and processes necessary to ensure compliance, control finance and ensure best value/cost benefit analysis
- Education Programme - It will be important to ensure that SIT are available to aid decision making as a significant part of the roll out strategy will be continual education and analysis of what is possible and advising managers accordingly. Control Structure is as follows:



DOCUMENT CONTROL

Maintenance and Distribution

This document is subject to formal change and control procedures as required by the Quality Management System (QMS).

Documents Control

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Amendment History

Issue	Date	Change Description	Author
Draft 1	09/12/04	First Draft	Anthony Downer/Norma Kelly
Draft 2	07/01/05	Second Draft - modified taking on board responses to 1 st issue and the need to: <ul style="list-style-type: none">▪ filling the gaps▪ Revising the content "slim down"▪ New Layout of the document	"

ABBREVIATIONS

AVLS	Automatic Vehicle Location System
CCN	Change Control Notification
CCTV	Closed Circuit Television
DHCP	Dynamic Host Configuration Protocol
FAX	Facsimile
GIS	Geographical Information System
GPRS	General Packet Radio Service
GPS	Global Positioning System
GSM	Groupe Speciale Mobile, 2 nd generation digital mobile
HFRA	Home Fire Risk Assessment
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
LAN	Local Area Network
LCD	Liquid Crystal Display
MACC	Mobilisation and Communication Centre
MMIP	Multi Media Integration Project
NVQ	National Vocational Qualification
ODPM	Office of the Deputy Prime Minister
PABX	Private Automatic Branch Exchange
PMR	Private Mobile Radio
PSTN	Public Switched Telephone Network
QoS	Quality of Service
SAN	Storage Area Network
SOP	Service Operating Procedure
SQL	Structured Query Language
UHF	Ultra High Frequency
VCS	Video Conferencing System
VHF	Very High Frequency
VoIP	Voice over Internet Protocol
WAN	Wide Area Network
WINS	Windows Internet Name Service
XML	Extensible Markup Language
3G	Third Generation (Mobile)