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UK Government Interoperability Framework

Draft Version: 0.4 for global consultation

28th March 2000

Executive Summary

Modernising government, joined-up government requires joined-up information systems. Interoperable systems working in a seamless way hold the key to efficient, transparent and integrated services.

The UK Government Interoperability Framework (UK GIF) provides the policies and standards for achieving interoperability and information systems coherence across the public sector. It is a cornerstone framework policy for the **e-government strategy**.

The UK GIF has adopted Internet and Worldwide Web standards for all government systems. It also adopts standards that are well supported in the market place. It is a pragmatic strategy that aims to reduce cost and risk for government systems whilst aligning them to the global Internet revolution.

Adherence to these policies and standards is mandatory. They are an essential pre-requisite to joined-up web enabled government. They set the underlying infrastructure, freeing up public sector organisations and enabling them to concentrate on serving the customer through building value added information and services.

Recognising that specifying policies and standards in themselves are not enough, the UK GIF provides the strategy for implementation. Support is provided through best practice guidance, toolkits and centrally agreed data schemas, which are for use throughout the public sector. This is achieved through UK government's participation in GovTalk – an initiative in which governments and industry work together to accelerate the delivery of electronic services. The implementation strategy also initiates the Portal Schemas Project that aims to prioritise and focus data schema generation on the electronic services that will be delivered through the Government Portal.

The aims of the UK GIF will not be achieved overnight. The strategy needs to be managed as a long-term ongoing initiative. This gives rise to the need for management processes. The processes for governance including the roles and responsibilities for key stakeholders, role of committees and achieving compliance are also a fundamental part of the UK GIF. These have been fully outlined.

Of even greater importance is the need to ensure that that the UK GIF remains up to date and aligned to the requirements of all stakeholders and to the potential of new technology and market developments. The UK GIF introduces an Internet based Change Management process which is designed not only to engage and serve the stakeholder community in a dynamic way but also to bring in innovations from industry on a global basis.

UK Government Interoperability Framework

DOCUMENT CONTROL

Role	Name/Position	Date
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Abstract

This document is the Draft UK Government Interoperability Framework. It is a part of the **e-government** strategy. This is a draft version of the paper. It is intended for public sector and industry wide consultation.

Distribution

Information Age Ministers Group
Industry Consultative Committee
Information Age Champions
IAGC Data Interoperability Standards Working Group
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Change Control

Version 0.1	-	draft for initial comments.
Version 0.2	-	draft for discussion by IAGC Data Interoperability Working Group
Version 0.3	-	draft for review by WG
Version 0.4	-	draft for global consultation

CONTENTS

Section 1
Overview

1.1 Introduction

The ambitions for modernising and information age government demand joined-up information systems.

Providing better services tailored to the needs of the citizen and business and at a lower cost requires seamless information flow across government. At the same time clearly defined policies for interoperability and coherence are needed to stay connected to the outside world and aligned to the global information revolution. This revolution is fuelled by the explosive growth of the Internet and its technologies.

The UK Government Interoperability Framework (GIF) sets out the government's technical policies and standards for achieving interoperability across all government departments and the wider public sector. It also gives the framework for seamless data flow and integration for inter and intra departmental systems.

The UK GIF delivers the crucial pre-requisites for inter-working between departments, the integration of departmental services and their delivery to the citizen and business as joined-up service.

The UK GIF is a fundamental Policy Framework for **the e-government Strategy**

1.2 Scope

The scope of the UK GIF includes the interactions between:

- UK Government Department and other UK Government Departments
- UK Government and wider public sector
- UK Government and Foreign Governments (e.g. UK/EC, UK/US etc)
- UK Government and Businesses (worldwide)
- UK Government and UK Citizen

UK Government includes Central Government Departments and their Agencies. The wider public sector includes Local Government, Devolved Administrations, Non Departmental Public Bodies and the National Health Service.

1.3 Main Features

The UK GIF comprises three major components: Policies and Standards, Implementation Strategy and Management Processes.

1.3.1 Policies and Standards

The policies and technical standards for pan-government interoperability are specified in section 2 of this document. These are seen as the minimum set necessary to support the range of transactions and services across government and to integrate information systems within government. These policies and standards have also been chosen to interconnect and align government to the Internet driven revolution.

The policies and standards in the UK GIF cover three key areas of the architecture: Interconnectivity, Data Integration, and the Browser.

The main thrust of the specification has been to adopt the Internet and World Wide Web standards for all government systems. There is also a strategic decision to adopt XML as the main standard for data integration. This strategy includes provision of XML Schemas for use throughout the public sector.

1.3.2   Implementation Strategy

The second part of the UK GIF in section 3 provides the crucial implementation support for the policy. This policy has introduced the adoption of XML Schemas as the cornerstone for government data interoperability and integration. But adopting a standard, in itself, is not sufficient.

We need to provide government organisations with data schemas that have been agreed for use through out government. We also need to provide users with Information, Best Practice guidance and Tool Kits to make implementation an easier reality. This essential support has to be provided in a high quality and cost-effective manner.

Our strategy for meeting the above requirements is through participation in the **GovTalk** project. This is a global initiative, led by a large industry consortium, which is developing the infrastructure support required for XML. We intend to use this project as a major source for information, best practice guidance and toolkit support. The project will also provide provisional data schemas, which will be taken as one of the inputs for government wide consultation and adoption if appropriate.

We will also set up a specific government group called UK GovTalk and a web site named **GovTalk.gov.uk,** which will contain all the draft and agreed data schemas. This group and the web site will provide focussed government implementation support for use of XML throughout the UK public sector.

1.3.3   Management Process

The work of integrating and evolving information systems is an ongoing process. Our approach and policies must not only support and enhance our business process but also ensure that we stay tuned to the possibilities of new technological advances and innovations.

The UK GIF management process has two fundamental components. Firstly there is a governance process that describes the roles and responsibilities, committee structures, and procedures for the ongoing development and management of the UK GIF initiative. Secondly there is an Internet based change management process that is designed to introduce a global consultation and change process for capturing maximum innovation and involvement.

Compliance to the UK GIF policies and standards are mandatory for government systems. The compliance process is a crucial part of the management strategy. This and other management processes are covered in Section 4 of this document.

1.4 Relationships with other Initiatives

The UK GIF is one of the Policy Frameworks for the **e-government strategy** of which it is an integral part. Relationship with other initiatives is described below.

1.4.1 GSI

The policies and standards specified in this Framework are consistent and will be kept aligned with the Government Secure Intranet (GSI) developments.

1.4.2 Electronic Service Delivery

Following the publication of the government's e-commerce strategy in e-commerce@its.best.uk report, the government is now looking at strategic options and priorities for services to the citizen and how government should be organised to deliver these. These citizen focused services, once defined and agreed, will act as major driver for the types of data schemas that will need to be agreed and delivered as a priority.

1.4.3 Government Portal

The Government Portal delivers a major element of the Government's Information Age Agenda.

The Portal will provide an easy to use, trusted and personalised service allowing the citizen to deal with government on a one-to-one basis, whilst presenting government as an integrated organisation. It aims to be the citizens 'personal window' on government and the preferred method for the public to engage with the public sector.

The UK GIF sets up the Portal Schema Project. This project is targeted and managed to produce XML schemas required specifically for the services to be delivered through the Government Portal (me.gov and the Gateway).

1.4.4 Metadata Framework

The Metadata Framework is an associated policy framework to the UK GIF and another plank of the e-government strategy. It will provide semantic definitions for public sector metadata, enabling meaningful information search results. The Metadata working group works closely with the Interoperability working group and the two framework policies are closely aligned.

1.5 Your Input

Involvement of all our stakeholders in the development and agreement of the UK GIF is a fundamental policy objective. Government Departments, Non Departmental Public Bodies, Local Authorities, Industry and the citizen are encouraged to comment and suggest ways of improving the strategy and support for UK GIF. Our preferred way is through the Internet. The latest version of this document can be found on www.citu.gov.uk and on www.iagchampions.gov.uk . Please use the submission process to make your input. Or alternatively, use the contact details below.

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Section 2
Policies and Technical Standards

2.1 Introduction

The UK Government Interoperability Framework (UK GIF) aims to support pan UK Government interoperable services to the public, using the minimum set of specifications necessary to support a range of transactions. The UK GIF specifications have been selected to meet the criteria below:

♦ **Interoperability** - defines policies, standards and specifications for pan government interoperability
♦ **Market support** - the specifications are widely supported by the market
♦ **Scalability** - allowing capacity to be scaled to satisfy changed demands made on the system, such as changes in data volumes, number of transactions or number of users.
♦ **Publicly available** - the specifications are documented and available to the public at large.

2.2 Overall Policy

The overall UK Government policy is to:

♦ Adopt standards that are well supported by market leading products, hence reducing costs and risks for government systems
♦ Adopt the common standards used on the Internet and World Wide Web
♦ Design Information Systems so that as much information as possible is accessible via common commercial browsers
♦ Ensure all appropriate Government Information Systems are capable of being connected to the Internet
♦ Get Government Information Systems connected to Internet via the Government Secure Intranet, which ensures the appropriate security protection.

2.3 Data Integration Policy

UK Government policy is to use:

♦ XML and XML schema for data integration
♦ XML and RDF for data modelling and schema definition
♦ XML, XSL and DOM for data presentation
♦ The application and usage of XML schema within Government is defined in Section 3 (Implementation Strategy) of this document.

2.4 Data Integration Standards and Specifications

The UK Government standards and specifications for data integration and transformation are:

Component	Standard
Meta data / Meta language	XML (eXtensible Markup Language)

Component	Standard
Meta data definition	XML schema Government XML schema to be developed.
Data transformation/presentation tools	XSL (eXtensible Stylesheet Language)
Data Modelling Language	RDF (Resource Description Framework)
Document modelling	XML Document model (DOM).
Data definition and schema standardization process	"The application and usage of XML schema within Government". See Section 3.

2.5   Interconnection Policy

UK GIF policy for Internet and Intranet connectivity is:

♦ To provide protection against the security vulnerabilities of using downloaded executable content code that is not authenticated.
♦ UK GIF policy for specific areas of pan Government interconnection is defined below:

UK Government policy for e-mail is:

♦ To use a product that supports interfaces which conform to the SMTP/MIME
♦ To use S/MIME V3 for messaging security unless security requirements dictate otherwise.

UK Government policy for Directory:

♦ The UK Government Directories Schema are to support a range of communication services including message handling, telephone and facsimile services as well as interactive access to a range of other applications.

UK Government policy for Domain Naming:

♦ Projects are to follow the UK government schema on allocation of IP addresses
♦ DNS is to be used for Internet/intranet domain name to IP address resolution.

UK Government policy for File Transfer Systems:

♦ UK Government Intranets are to support FTP. Restart and recovery facilities of FTP are to be used when transferring very large files.

UK Government policy for Terminal Emulation:

♦ Web based technology is to be used in applications that previously used Terminal Emulation whenever possible.

UK Government policy for Networks:

♦ Departments are to interconnect using IPv4, noting that UK Government is considering the adoption of IPv6 in the near future.

2.6   Interconnection Standards and Specifications

The UK Government standards and specifications for interconnectivity are:

Component	Standard
Hypertext transfer protocols	HTTP v1.1 (RFC 2068) Hypertext standards include on-line wide-area publishing services.
E-mail	E-mail products that support interfaces that conform to the SMTP/MIME. The UK government messaging Naming and Addressing policy and procedures for "*department*.gov.uk" are IS Notice 94, see URL: www.ccta.gov.uk/services/list/domains.htm. The messaging Naming and Addressing policy and procedures for "*department*.gsi.gov.uk" are delegated to the GSI contractor.
E-mail Security	S/MIME V3 shall be used where appropriate for pan government messaging security unless security requirements dictate otherwise.
Directory	X.500 core schema as defined in CWC GSI technical note No1. LDAP V2 is to be used for general purpose directory user access.
Domain name services	DNS (RFC 1035) The Domain Naming procedures for "*department*.gsi.gov.uk" are delegated to the GSI contractor.
File transfer protocols	FTP (RFC 959) (with restart and recovery) and HTTP (RFC 1945) for file transfer.
Bulletin board services	NNTP (RFC 977)
LAN/WAN Interworking	IPv4 (RFC 791)
Transport	TCP (RFC 793) UDP (RFC 768) only within the GSI, not across the firewall to the Internet.

2.7   Browser Policy

UK GIF policy for the Browser is:

♦ To design Information Systems so that as much information as possible is accessible via common commercial browsers.
♦ All appropriate Government Information Systems should be capable of being connected to the Internet.
♦ To support plug-in to the Browser or dedicated viewers where necessary which provide support for the standards and specifications listed in the Browser standards and specifications table below.
♦ To provide protection against the security vulnerabilities of using downloaded executable content code that is not authenticated.
♦ To adopt as Browser standards those common elements supported by commercial market leading products.

2.8   Browser Standards and Specifications

The UK Government standards and specifications for the browser and viewers are:

Component	Standard
Viewer Document file types	Adobe Acrobat (.pdf), minimum viewer is version 3
	Lotus Notes
	Microsoft Word (.doc), viewer for Word 97/2000
	Rich Text Format (.rtf)

Component	Standard
	Plain/Formatted Text (.txt)
Viewer Spreadsheet file types	Microsoft Excel (.xls), Excel 97/2000 Spreadsheet File viewer
	Delimited file (.csv)
Viewer Presentation file types	Microsoft PowerPoint (.ppt), Powerpoint Viewer 97 (2000 Release)
Hypertext Interchange Formats	Those parts of HTML v4.0 commonly implemented by Netscape Navigator v4 and MS Internet Explorer v4 and v5, plus their interoperable extensions.
Character Sets and Alphabets	UNICODE. Amendment 1: 1996 to ISO/IEC 10646:1993: Transformation Format for 16 planes of group 00 (UTF-16).
Graphical/still image information exchange standards	JPEG (ISO 10918)
	Graphics Interchange Format (.gif)
	Portable Network Graphics (PNG)
Audio/video Streaming Data	Real Audio
	Real Video
	Windows Media File (.wmf)
	Apple Quicktime
	Waveform Audio File Format
	8ì Law
Animation	Macromedia Flash (.swf)
	Dynamic html (DHTML)
Scripting	ECMA 262 Script
Moving Image and audio/visual information exchange standards	MPEG-1 (ISO 11172) Conversion is provided by most mainstream packages
General purpose file compression	.tar, .zip and .gz file types

Section 3
Implementation Strategy and Support

3.1 Introduction

The agreement of interoperability policies and standards across government is of course a vital pre-requisite. Section 2 of this document has specified those standards. The government has adopted Internet and World Wide Standards including XML as the cornerstone for government data interoperability and integration.

But policies and standards are not enough. It is only the first step to achieving the goal of seamless interoperability. If we are to be successful, we must provide a clear implementation strategy and provision of support to all stakeholder organisations throughout the public sector.

The purpose of the Implementation Strategy is to provide public sector organisations with guidelines on how to plan, deploy and assure solutions consistent with the policies and standards defined in the UK Government Interoperability Framework (UK GIF).

The implementation strategy, outlined in this section, is intended to make the adoption of the policies and standards simple, attractive and cost effective. It provides implementation support through information and best practice guidance, centrally agreed Data Schemas and Tool Kits for conversions of legacy data. The strategy is to meet these requirements through the development of the UK GovTalk initiative.

3.2 Principles and Priorities

Achieving data interoperability and coherence across the public sector is a monumental task. Our strategy in determining priorities is driven by the needs of the citizen and business. This means that data standardisation and schema activities will be prioritised so that we can deliver services that are of high priority in serving the citizen and business.

Priority will also be given to data schemas that serve the requirements for services or processes that are generic across many departments. Facilitation of new, joined-up services and inter-departmental process developments will also be given precedence.

When considering a service, the underlying business processes will be examined, and where possible re-engineered, taking into account practical and legal constraints. Implementation will therefore be achieved through taking an incremental, service-by-service approach, with public sector organisations working together to generate and share data standards and schemas for joined-up services.

The main electronic mechanism for delivery of the above services is the Government Portal. The forum for collaboration between public and private sector organisations will be the GovTalk initiative.

3.3 GovTalk - Global

GovTalk is a global, industry-wide initiative. It is developing at worldwide, regional and national levels. It is intended to help governments accelerate the process of modernisation by taking advantage of World Wide Web Consortium (W3C) standards, including XML standards.

It is an initiative in which governments and industry work together to accelerate the delivery of integrated electronic services. GovTalk addresses the need for interchange between Government and Citizen, Government and Business and within Government itself. In each case it offers an approach - independent of the underlying technology - to quickly integrate existing systems and business processes.

GovTalk provides a framework for promoting interoperability between the constituent departments of government and with citizens and businesses. It will also provide a repository holding simple and consistent XML schema, based on best practice, upon which specific XML schema representing the processes of government can be built. This will be supported by appropriate toolkits, methodologies and best practice information for rapid deployment of GovTalk based projects. It also provides a forum for discussion, and will provide an opportunity for feedback on the development of toolkits, methodologies and best practices.

3.4 GovTalk - UK

UK public sector organisations and private sector companies will form and manage the UK GovTalk group. It will be facilitated through the Cabinet Office.

The UK GovTalk group will take advantage of the toolkits, methodologies and best practice guidance available worldwide, but provide further detail on UK specific issues. A worldwide repository will contain schema appropriate throughout the world, and a separate UK based repository – managed by the UK GovTalk group – will maintain XML schema specific to UK government processes and requirements. The UK GovTalk will be hosted on an Internet server named **GovTalk.gov.uk**.

The UK GovTalk will provide:

- Organisation and Coordination
- Repository of UK specific XML schema
- Toolkits for interface and conversion
- Best practice for projects across UK government.

3.4.1 Provide Organisation and Coordination

An organisation is required to act as a focal point for co-ordinating interoperability efforts throughout government and ensuring a rapid response to proposals and priorities of government. The organisation will have to establish and manage lines of communication to enable the development and a use of the interoperability standards.

The establishment of the UK GovTalk Group will be led by the UK Cabinet Office. The group's membership will be open to the participation of public sector organisations and private sector companies working on UK Government projects. It is a highly collaborative approach between the public and private sector organisations.

This group will also coordinate on behalf of UK Government interaction with the global GovTalk initiative. Although, this does not preclude particular public sector organisations making direct inputs into global GovTalk initiatives if this is more appropriate.

The group will track similar strategic developments overseas and particularly in Europe, where the European Commission have projects in place to develop citizen centred XML schema.

3.4.2 Provide UK Specific XML Schema

This is a core output for the group. It involves the management of a UK specific XML Schema Repository, which provides agreed XML data schemas for use throughout the public sector.

Specifically:

- The group will oversee the quality of schema, manage the configuration of schema, and ensure that the repository is both populated and used appropriately. The group will develop Terms and Conditions for the use of the repository

- The repository will be populated through activities of the IAGC Data Interoperability Standards Working Group and the IAGC Metadata Working Group, and through individual projects being implemented throughout government. The GovTalk group will define the process of accepting schema into the repository

- The repository will act as a focus for the use of XML schema within UK government, linking as appropriate to GovTalk initiatives elsewhere across the world

- The schema will be freely used throughout government, but the **GovTalk.gov.uk** site will maintain a record of their usage throughout government

- The group will ensure that there is an effective search mechanism for the repository

- The group will ensure that there is a mechanism for receiving feedback and assessing the impact of new and changed schema.

3.4.3 Provide Toolkits

The public sector, in common with industry, has countless legacy systems with incompatible data structures. This needs to be made coherent through interface or conversion to XML schemas. If this is to be efficient and cost-effective, toolkits for conversions are essential. The UK GovTalk Group will:

- Identify the Government requirement for toolkits, taking into account the specific projects being undertaken across government

- Provide conversion toolkits downloadable from the **GovTalk.gov.uk** site

- Encourage ease of integration of tools so that the full development cycle can be supported

- Make available information on relevant toolkits and information about expertise

- Provide a mechanism for obtaining feedback on the use and usefulness of toolkits.

3.4.4 Provide Best Practice Guidance

Information and knowledge sharing on best practice is crucial for success. This will be provided through UK GovTalk and will include:

- Case studies on the successful implementation of the strategy

- Best practice guidance on using XML for input of data, output of data, and as transaction data. Both batch and interactive modes of operation will need to be supported

- Learning points of less successful projects and the development of associated best practice

- Encouragements and incentives for the adoption of best practice

- Providing a mechanism for receiving feedback and assessing the impact of new and changed best practice

- Reflection of best practices in the toolkits and the assurance programme.

3.5   Portal Schemas Project

The Government Portal is a flagship project for delivery of a major element of the government's Information Age agenda. It will provide highly personalised and integrated services in an efficient and cost effective manner. The Portal has three major components:

- The **front** end, being developed under the working title '**me.gov**'
- The **middle** layer which has the working title of '**government gateway'**
- The **back** end that links existing and new Departmental services.

The services delivered through the Portal (**me.gov** and the Gateway), require agreed standards and data schemas to be applied across the portal elements and all participating systems across government. It will act as a major driver for the data standardisation and schema generation activity.

The **Portal Schema Project** will be set up to manage the generation and timely delivery of agreed XML data schemas required for government services delivered through the Portal. This project will be integrated and managed as a part of the overall Portal Programme.

The initial set of Portal services will be known at the end of April when the contract for **me.gov** will be let. Minimally, the White Paper commitment of a joined-up *Change of Address Service* will be provided through the Portal. The XML Data Schemas required for this service will be one of the first outputs of the Portal Schema Project.

Section 4
Management Processes

4.1 Introduction

The UK Government Interoperability Framework has to be managed as a long term, ongoing initiative. This section describes two fundamental areas for its management, the processes for Governance and Change.

Overall, the management processes must deliver the output of data interoperability and coherence without imposing time-consuming constraints; as such the processes need to be:

- Customer driven (citizen/business and government)
- Open
- Fast
- Consistent
- Involve/engage key players
- Foster innovation

Governance describes the roles and responsibilities, committees and compliance. Change management describes how the UK GIF will be updated and introduces the process for widespread consultation and change processes designed to capture maximum innovation and involvement of all stakeholders in government and in industry.

4.2 Governance

The interoperability framework embraces government, business and the citizen. Each has a role to play in the development of the framework. This section outlines the roles and responsibilities for key groups. It also outlines the decision-making structures and the processes for encouraging compliance and coherence.

4.2.1 Roles and Responsibilities

The role and responsibility for the centre, public sector organisations and industry is outlined below. This is not meant to be exhaustive but indicates the main functions.

Central IT Unit

The Central IT Unit (CITU) in the Cabinet Office is the lead organisation for implementing this strategy. In collaboration with the Departments and other public sector bodies CITU will:

- Lead and maintain the Data Interoperability Framework and provide the management infrastructure that supports the processes

- Act as the focal point for co-ordinating interoperability efforts throughout government and ensure a rapid response to proposals and priorities of government

- Maintain an overall 'Roadmap' of compliance across the public sector and known users in the private sector

- Lead the formation of the UK GovTalk Group

- Through UK GovTalk it will coordinate the provision of:
  - Agreed XML Schemas for use throughout government
  - Toolkits for interfaces and conversions
  - Best Practice guidance

- Manage the **GovTalk.gov.uk** site
- Manage the Portal Schemas Project
- Manage the government and industry wide consultation process
- Manage the compliance process and ensure that such interoperability policies and roles are adhered to.

Public Sector Organisations

The role of Government departments, their agencies, NDPBs, NHS, Devolved Administrations and Local Government is crucial if we are to succeed in delivering interoperability in the public sector.

Although central leadership will be provided where required, much of the action will take place in individual Departments, organisations and their projects. Some of the key roles for the public sector organisations are described below. Public sector organisations will:

- Contribute to the continuous development and improvement of this strategy
- Implement the polices and standards and make use of the data schemas
- Determine which of their processes are to be included in the government portal
- Work with users of their services or data to identify services that can usefully be made available to others
- Identify the systems that support these services or process the data for impact analysis. The speed of implementation of standards will depend on how well each organisation understands the impact of the standard, or changes to a standard, will have on their existing systems
- Ensure that they have the skills to use and define the standards needed for interoperability
- Establish a contact point to respond to requests for change within the stated time period
- Budget for and supply resources to support the processes
- Identify the relevant customer(s) or stakeholders within their organisation and ensure their interests are represented
- Produce a 'roadmap' for implementing the organisation's conformance with the strategy
- Take the opportunity to rationalise processes to improve the quality of services and reduce the cost of provision.

Industry

This strategy is based on government working in open partnership with industry. It has been developed in consultation with our industry partners and proposes joint working and development of the policies and standards for interoperability. It relies heavily on industry worldwide to comment and provide innovative solutions. Specifically we see the following roles:

- Apply the policies and standards agreed in this framework to systems delivered to the public sector
- Fully participate in the consultation process through the Request for Comment (RFC) and Request for Proposals (RFP) processes

- Bring in innovations in technology and business to continually improve this strategy and the delivery of its objectives
- Provide skills government needs to make things happen at the pace required.

4.2.2 Management Groups

This section describes the management groups involved in taking forward the UK GIF.

Information Age Champions

The Information Age Government Champions (IAGC) are senior government officials at board level within central and local government and the NHS. They have collective responsibility for the **e-government strategy** of which this policy framework is a part. The IAGC is the overall management committee who owns UK GIF.

Interoperability Working Group

This group operates under the IAGC. It is responsible for all aspects including policies, standards, implementation and management. The Interoperability Working Group has produced this document. The membership of the group is open to all public sector bodies as represented in the IAGC. Additionally, industry members may also participate in the group on a permanent or call off basis.

UK GovTalk Group

This operates under the Interoperability Working Group and consists of lead government departments and representatives of the industry consortium engaged in the UK GovTalk initiative. The role of this group is to generate XML Schemas and produce best practice guidance and toolkits. This group will closely coordinate their work with the requirements of the Government Portal. The work of this group is key to the implementation strategy and is described in Section 3 of this document.

Advisory Board

An independent government and industry Advisory Board will be established to provide a longer term view of technology trends and how they may influence the UK Government Interoperability Framework. The membership of this group will be selected so that the very best leadership can be brought in to drive the overall direction and strategy for the UK GIF.

4.3   Compliance

The UK GIF sets the basic standards for pan-government interoperability and coherence. These standards are a pre-requisite to joined-up web enabled government. They set the underlying coherent infrastructure on which value added information and services can be built. The government sees the achievement of these goals as paramount.

In view of the above, the government has seen it necessary to make compliance to the UK GIF mandatory for interactions falling within the scope of the UK GIF as described in 1.2. However, in exceptional circumstances, where a valid business case can be demonstrated to the Interoperability Working Group, a waiver may be accepted. Direct information interchanges between departments or within departments need not comply if they do not use the common infrastructure. Even in these cases, compliance with standards will be necessary where the information is also shared with

other organisations. Systems developed after the publication date of a relevant standard should either comply with the processes or apply for a waiver.

Organisations will be required to register compliance with the centrally held database for IT projects. This database will be available to all public sector organisations so that other compliant projects and information can be viewed and used in the wider network. This will also ensure that they are informed of any changes proposed for the standards they use.

It is expected that the policies and standards set out in the UK GIF will be used by government organisations involved in project audits, reviews and approvals - for example, the NAO and HMT. It is also expected that public sector organisations will set up their own processes for approving and auditing projects based on these guidelines.

4.4   Change Management

The purpose of change management is to ensure that that the UK GIF remains up to date and aligned to the requirements of all stakeholders and to the potential of new technology and market developments. This section outlines the two key areas for successful change management, consultation and communication and then integrates these processes into the ongoing UK GIF change management cycle.

4.4.1   Consultation

The overall strategy for Information Age government identifies three basic forms of dialogue: public sector to public sector; public sector to business; public sector to the citizen. If interoperability standards are to fully support the strategy then they must be open to the widest form of consultation that involves all these players. The process will target organisations that are known to be interested in the specific standards, but will be open to all who may wish to comment.

Aside from the standards themselves, the public and businesses will be encouraged to comment on the quality of the services being delivered through the interoperability framework. Two specific Internet based mechanisms will be used.

Request for Comments (RFC)

The Interoperability Working Group will host a Request For Comment site on the Internet. It will publish all draft policies and specifications with a request for comments on the proposed policy or change. Registered stakeholders will be sent an e-mail notifying them of the RFC. All comments received will be published on the site. The outcome of the RFC will also be communicated on the site. The RFC process does not preclude unsolicited comments on currently agreed policies and decisions.

Request for Proposals (RFP)

Whilst the RFC process asks for comments on proposed solutions, the Interoperability Working Group will also host a site seeking proposals for requirements where the solutions are not clear. The aim will be to attract innovative and the most cost-effective solution to the problem using the worldwide industry and population base. If a particular proposal is taken forward, this will be published on the site.

4.4.2   Communication

It will be important for the success of the interoperability standards to inform potential users of their existence and of any changes proposed for the standards they already use. Clear communication lines will be established and managed as part of the management processes supporting the standards.

The Interoperability Working Group will also establish mechanisms to receive feedback from users and industry on the Quality of Services offered on UK GovTalk and on other areas of the framework.

4.4.3 UK GIF Change Management Cycle

The policies and standards that form the interoperability framework will change over time. Inclusion of new standards and modifications to existing, and utilised standards will have to be managed under a change control regime. This process must conform to the overall policy for management processes of being both open and fast. It applies to any standards relevant to the interoperability framework, and particularly to the definition of XML schema. The full cycle for change management is illustrated below and described in the following steps.
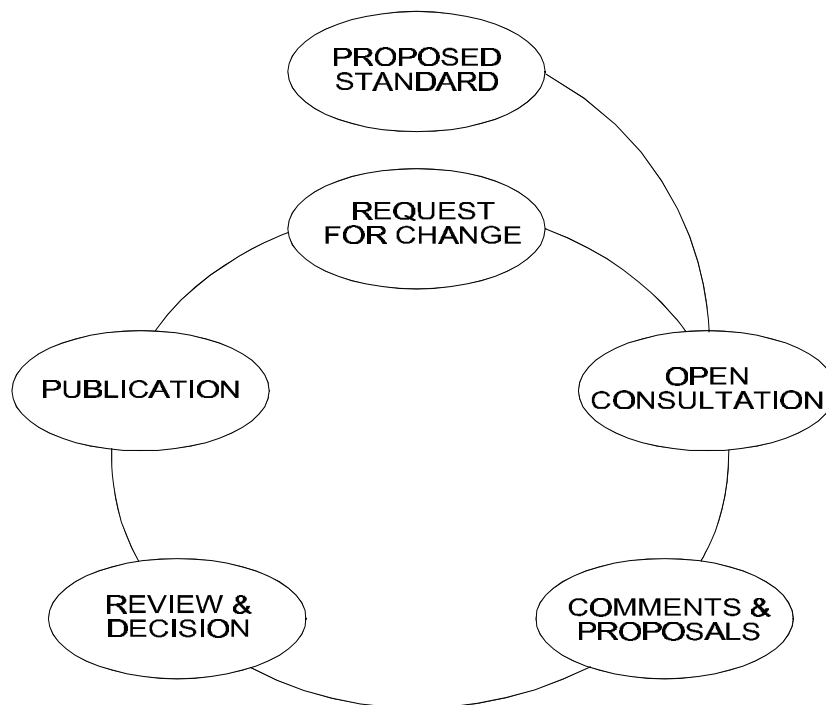
1. **Proposed Standard.** The probable start event for the creation of a standard will be the identification of a new process for the government portal, but any process that requires interoperability may lead to a new standard. This would also be the entry point for responses to Requests for Proposals (RFPs). The RFP will be considered by the Interoperability Working Group and submitted to the open consultation process. A proposed new standard will need a champion, usually from the lead organisation in the business process, to put it forward to the Interoperability Working Group for consultation.

2. **Open consultation.** Draft new standards and suggested amendments to existing standards will be notified to organisations with a direct interest in the standard and posted on the Internet for general comment.

3. **Comments and proposals.** It is intended that this process should be completely open to encourage interest in the framework and innovation in the interoperability environment. Comments will be invited from all quarters but will be required within **2 weeks** of the proposal being posted.

4. **Review and Decision**. The Interoperability Working Group will identify a review panel for each proposed standard to consider the comments and amend the proposal, if appropriate, within 1 week. The Information Age Government Champions will arbitrate where there is an unresolved conflict of interests between participating organisations.

5. **Publication.** Organisations with a known interest in the standard will be notified directly and the standard will be published on the Internet. In the case of XML schema, they will be placed on UK GovTalk. Following publication, the standard is open to requests for change. The Interoperability Working Group will periodically review standards to assess their take up and value.

6. **Request for change.** When the standards are published anyone with an interest in their use may propose a request for change, which then enters the consultation/ comment/ review/ publication cycle. As with new proposals, the intention is to be open and innovative so requests will be considered from anyone with an interest in the government interoperability environment.

4.4.4 Change authority

The Information Age Champions are the authority for change but they delegate authority to the Interoperability Working Group. Specific proposals will be reviewed by panels created by the Working Group. The panels will include the champion appointed by the Interoperability Group and key user(s) of the standards.

4.4.5 Configuration Management

The overall change management process will be supported by a configuration and change control system. This will identify the current versions of standards in use and also which organisations and projects are using them.