



Office of the *e-Envoy*

Leading the drive to get the UK online

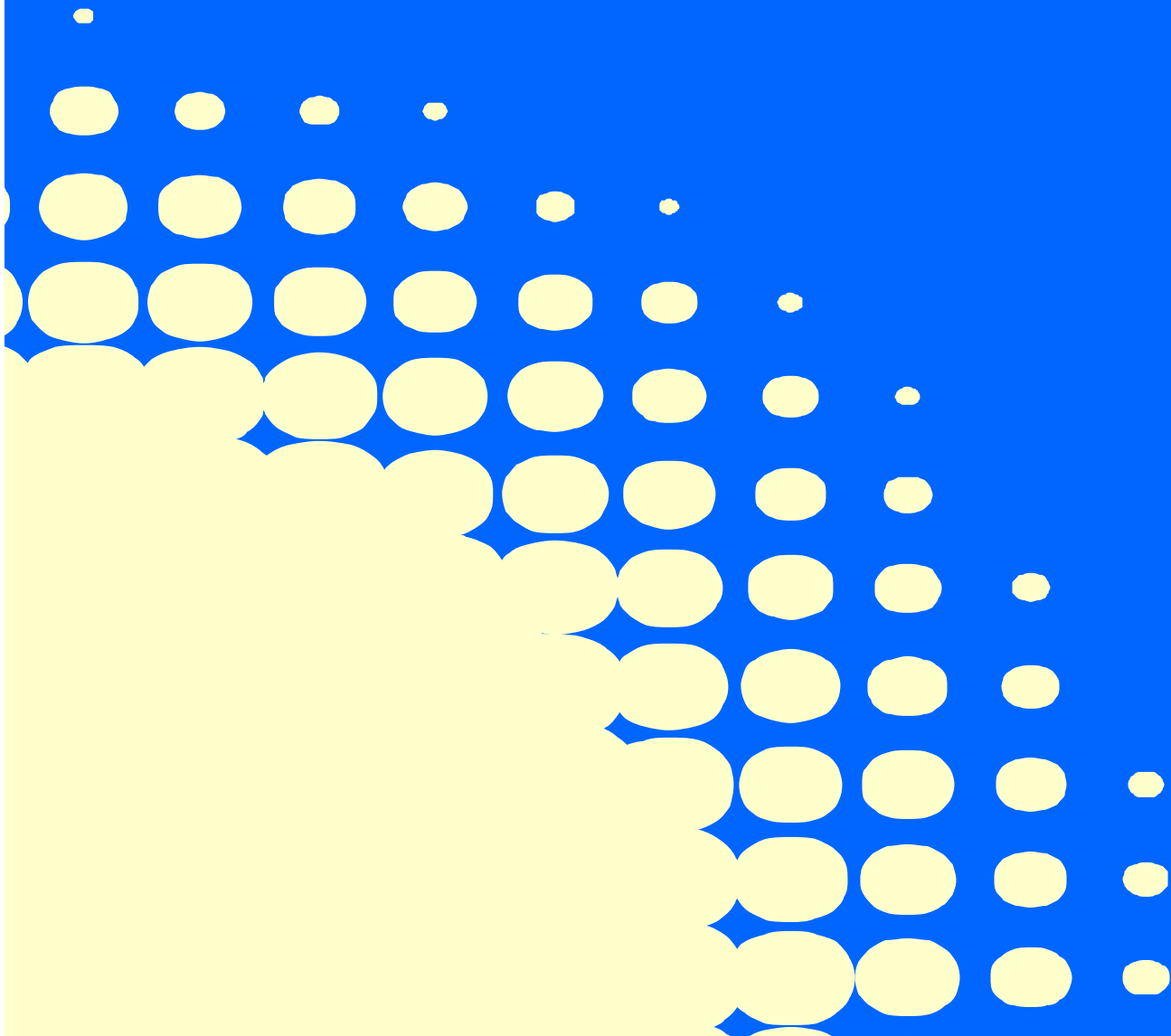
delivering



e-Government Interoperability Framework

Part One: Framework

Version 5.0
25th April 2003



e-government



VERSION 5

April 2003

Ministerial Message

Foreword by Douglas Alexander Esq MP

Minister of State, Cabinet Office



The **Interoperability Framework** is now firmly established as the foundation of our **e-Government strategy**, enabling the public sector to accommodate the rapid pace of technological change. Many parts of the rest of the world are following our example as alignment across national boundaries, as well as within them, has become an important consideration. It is our aim to ensure that the Framework keeps in line with developments in Europe and the rest of the world. Within the UK itself important lessons are being learned as a whole range of e-services are being introduced to meet the needs of citizens and businesses.

What emerges clearly from our experience is the fact that, in terms of e-service delivery, compliance with the Framework is essential for the public good. The technical specifications and policies contained within it have already proved indispensable for getting the UK online. These specifications increasingly allow information to flow seamlessly across the public sector and provide citizens and businesses with better access to government services. In addition, by adopting Internet and World Wide Web standards, the Framework aligns government with the rest of industry and serves as a basis for reducing the costs and risks associated with carrying out major IT projects.

We will continue to update the Framework on a regular basis to aid this essential strategy. Supplementary advice and guidance will be made available on the UK GovTalk™ website. I am sure the Framework will continue to be an indispensable aid for many years to come, and I look forward to seeing the benefits of compliance becoming ever more apparent as we develop our transforming government agenda to its full extent.

A handwritten signature in black ink, which reads "Douglas Alexander". The signature is written in a cursive, flowing style.

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Executive summary

Better public services tailored to the needs of the citizen and business, as envisaged in the UK online strategy, require the seamless flow of information across government. The e-Government Interoperability Framework (e-GIF) sets out the government's technical policies and specifications¹ for achieving interoperability and ICT systems coherence across the public sector. The e-GIF defines the essential pre-requisites for joined-up and web enabled government. It is a cornerstone policy in the overall e-Government strategy.

Adherence to the e-GIF specifications and policies is mandatory. They set the underlying infrastructure, freeing up public sector organisations so that they can concentrate on serving the customer through building value added information and services. It will be for the organisations themselves to consider how their business processes can be changed to be more effective by taking advantage of the opportunities provided by increased interoperability.

The main thrust of the framework is to adopt the Internet and World Wide Web specifications for all government systems. Throughout this section use of the term "system" is taken to include its interfaces. There is a strategic decision to adopt XML and XSL as the core standards for data integration and management of presentational data. This includes the definition and central provision of XML schemas for use throughout the public sector. The e-GIF only adopts specifications 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.

The Framework also sets out policies for establishing and implementing metadata across the public sector. The e-Government Metadata Standard will help citizens find government information and resources more easily.

Stipulating policies and specifications in themselves is not enough. Successful implementation will mean the provision of support, best practice guidance, toolkits and centrally agreed schemas. To provide this, the government has launched the UK GovTalk™ web site. This is a Cabinet Office led, joint government and industry facility for generating and agreeing XML schemas for use throughout the public sector. Schemas can be found at <http://www.govtalk.gov.uk/schemasstandards/xmlschema.asp> GovTalk™ is also used for wide consultation on a number of other e-Government frameworks and documents.

¹ The term 'Specifications' used in the document includes standards approved by recognised standardising bodies. Where the specification refers to such a standard and alternatives are being offered as part of a procurement, then purchasers are obliged by EC law to consider such alternatives provided they offer equivalent functionality.

The site also provides best practice guidance, FAQs, advice on training and toolkits, and outlines the management processes.

The aims of the e-GIF will not be achieved overnight. The strategy needs to be managed as a long-term ongoing initiative and must therefore be supported by robust processes. These processes, including the roles and responsibilities of key stakeholders, committees, management and working groups, are outlined in the document.

It is also essential to ensure that the e-GIF remains up to date and aligned to the requirements of all stakeholders and able to embrace the potential of new technology and market developments. The e-GIF introduces an Internet based change management process which has been designed to engage and serve the stakeholder community in a dynamic way and to bring in innovations from industry on a global basis.

Section 1 Policy and scope

1.1 Modern joined-up government demands joined-up ICT systems. Interoperable systems working in a seamless and coherent way across the public sector hold the key to providing better services, tailored to the needs of the citizen and business and at a lower cost.

1.2 Clearly defined policies and specifications for interoperability and information management are also key to staying connected to the outside world and aligned to the global information revolution. The e-Government Interoperability Framework (e-GIF) provides these. It is a fundamental framework policy for the e-Government strategy.

1.3 Government information resources are not only of value in themselves. They are valuable economic assets, the fuel of the knowledge economy. By making sure the information we hold can be readily located and passed between the public and private sectors, taking account of privacy and security obligations, we can help to make the most of this asset, thereby driving and stimulating our economy.

About the e-GIF

1.4 This document is in two parts:

Part 1: Framework. Contains the high level policy statements and management, implementation and compliance regimes.

Part 2: Technical policies and specifications. Contains the technical policies and tables of specifications, and a glossary and abbreviations list.

1.5 The e-GIF defines the minimum set of technical policies and specifications governing information flows across government and the public sector. They cover interconnectivity, data integration, e-services access and content management. This version of the e-GIF also incorporates policies originally outlined in the e-Government Metadata Framework, published in May 2001. The government is committed to ensuring that these policies and specifications are kept aligned to the changing requirements of the public sector and the evolution of the market and technology, so please consult the web site for the latest version of the e-GIF specification at <http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Key policies

1.6 These are the key policy decisions that have shaped the e-GIF:

- alignment with the Internet: the universal adoption of common specifications used on the Internet and World Wide Web for all public sector information systems
- adoption of XML as the primary standard for data integration and presentation tools for all public sector systems
- adoption of the browser as the key interface; all public sector information systems are to be accessible through browser based technology; other interfaces are permitted but only in addition to browser based ones
- the addition of metadata to government information resources
- the development and adoption of the e-GMS (e-Government Metadata Standard) based on the international Dublin Core model
- the development and maintenance of the GCL (Government Category List)
- adherence to the e-GIF is mandated throughout the public sector.

1.7 The selection of e-GIF specifications has been driven by:

- interoperability - only specifications that are relevant to systems interconnectivity, data integration, e-services access and content management are specified
- market support - the specifications selected are widely supported by the market, and are likely to reduce the cost and risk of government information systems
- scalability - specifications selected have the 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
- openness - the specifications are documented and available to the public at large.

Scope

1.8 The e-GIF covers the exchange of information between government systems and the interactions between:

- UK Government and citizens
- UK Government and businesses (worldwide)
- UK Government organisations
- UK Government and other governments (UK/EC, UK/US etc).

1.9 It is recognised that compliance with the e-GIF cannot be imposed on citizens, businesses and foreign governments, but the UK Government will make it clear to all that this is their preferred method of interface.

1.10 "UK Government" includes central government departments and their agencies, local government, the devolved administrations as voluntary partners, and the wider public sector, e.g. non-departmental public bodies (NDPBs) and the National Health Service.

1.11 The e-GIF specifications are mandated on all new systems that fall within the scope defined in paragraph 1.8 above. In order to take advantage of the new services being provided through UK online (www.ukonline.gov.uk and the Government Gateway), the Knowledge Network, or other systems which are part of electronic service delivery targets, legacy systems will need to comply with these specifications. For systems that fall outside the scope and mandate, the e-GIF is recommended in all public

sector procurements and major upgrades to other departmental legacy systems. Guidance on complying with this mandate is given at Section 5.

1.12 The e-GIF does not standardise the appearance of information on the human interface, which can be provided by various user channels e.g. Internet, public kiosks, Digital TV, WAP phones. The e-GIF does standardise the interchange requirements for the delivery of data to such interfaces and tools for the management of the presentation of such data.

1.13 The technical policies for interoperability across the public sector cover four key areas: interconnectivity, data integration, e-services access and content management. This is the minimum set necessary to support the range of transactions and services provided by government and to integrate information systems within government.

Relationships with other initiatives

1.14 The e-GIF is one of the policy frameworks for the e-Government strategy of which it is an integral part. For the other frameworks, including those covering security, confidentiality and channels, see <http://www.govtalk.gov.uk> or [http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/frameworks-top/\\$file/frameworksindex.htm](http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/frameworks-top/$file/frameworksindex.htm)

1.15 The e-GIF also informs the Open Source Software (OSS) Policy published in summer 2002, which includes the key point that UK Government will only use products for interoperability that support open standards and specifications in all future developments. See [http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/frameworks-oss-policy/\\$file/oss-policy.htm](http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/frameworks-oss-policy/$file/oss-policy.htm)

1.16 On the international scene the e-GIF and e-GMS have attracted considerable attention, and are being considered by the EU IDA (Interchange of Data between Administrations) programme as bases for European standards.

Your involvement

1.17 Continual engagement of all our stakeholders (listed in Section 5) in the development and implementation of the e-GIF is a fundamental policy objective. Government departments and their agencies, NDPBs, local government, the NHS, industry and the citizen are all encouraged to comment and suggest ways of improving the strategy and provide support and implementation of the e-GIF. Our preferred way is through the Internet on the dedicated UK GovTalk™ web site. Please go to <http://www.govtalk.gov.uk> to join in the discussion forum or make your input into 'Request for Proposals' and 'Request for Comments' (RFC Section).

Section 2 Implementation support

2.1 This section covers the processes by which the e-GIF and the tools needed to implement it will be developed, applied and maintained.

Priorities

2.2 Although the Office of the e-Envoy will eventually provide XML schemas for all services, the programme for delivering schemas and agreeing further interoperability specifications will be primarily driven by the needs of citizen and business facing services. Priority will be given to schemas that serve the requirements of services or processes that are generic across many public sector organisations. Facilitation of new, joined-up services and inter-organisational process developments will also be given precedence.

XML schemas production

2.3 A primary role of the Interoperability Working Group is to promote the production and management of the XML schemas necessary to support the data interoperability requirements of the e-Government strategy.

2.4 XML schemas will be developed by specialist groups (see Government Schemas Group below), or by open submission to the GovTalk web site. The Government Schemas Group will manage the acceptance, publication and any subsequent change requests for the schema. XML schemas that have been accepted by the group will be published at <http://www.govtalk.gov.uk/schemasstandards/agreedschema.asp> and are open for anyone to make comments.

2.5 The Government Schemas Group sets the design rules to be used by the XML schema developers and will use these to validate schemas proposed for publication. These rules can be found at <http://www.govtalk.gov.uk/schemasstandards/eservices.asp>. The rules include compliance with W3C specifications as described in Part 2.

2.6 The Government Schemas Group will track international XML specifications development through links with standards organisations such as W3C and OASIS. These links will provide provisional schemas, which will be taken as one of the inputs for government-wide consultation and adoption if appropriate.

e-Government Metadata Standard

2.7 Developed by the OeE in consultation with central and local government organisations, the e-GMS defines the structure and rules governing metadata used by the public sector. This standardisation is essential if the data is to be truly interoperable, and if citizens are to be able to find government information and services without knowledge of the structure of government and the allocation of responsibilities within it.

2.8 The e-GMS is based on the internationally recognised Dublin Core standard, but has additional elements and refinements to meet the specialist needs of the public sector. It will be further developed as needs arise and encoding schemes become available. It can be found at

<http://www.govtalk.gov.uk/schemasstandards/metadata.asp?page=1&order=title>

2.9 The e-Government Metadata Standard will be further developed and maintained according to the following principles. Some of these are necessarily contradictory, and it will be the task of the e-Champions' Metadata Working Group to ensure a practical balance is maintained between conflicting requirements.

2.9.1 It will be independent. It will not be software, application or project based.

2.9.2 It will be simple to use by those with widely varying experience of preparing resource descriptions.

2.9.3 It will be compliant with other UK Government standards and policies, such as the Government Data Standards Catalogue.

2.9.4 It will be compliant with international standards. Preference will be given to standards with the broadest remit, so appropriate international standards will take preference over EU standards, and EU standards will take preference over UK standards.

2.9.5 It will be stable. Changes to a standard that will become embedded in all information systems will require considerable effort, time and resources to implement.

2.9.6 It will be extensible. Additional element refinements can be added where it can be shown that these are essential. A balance will need to be struck between the need for extensibility and the need for stability.

2.9.7 It will be inclusive, taking into account the many existing content management metadata schemes, with the aim of minimising the need to rework existing products.

2.9.8 Above all, it will meet the information retrieval and management needs of government.

e-Services Development Framework

2.10 The e-Services Development Framework provides a structure for developing semantic specifications and standards for electronic data interchange and messaging services. The focus is on preserving the information content so that it can be used by the information receiver without loss or change of meaning.

2.11 The Framework will help to implement the vision of interoperability and seamless information flow across government as well as the wider public sector.

2.12 The benefits of good standards-based e-Services accrue to all stakeholders – users, suppliers, out-sourcers, government IT departments and the general public. They include:

- reduced duplication of data and data entry
- risk reduction and avoidance of duplication of development through re-use of technical patterns, components and resources
- easier system integration and reduced maintenance.

The Framework is evolving and is currently being trialled in a number of areas. The latest version can be found at

<http://www.govtalk.gov.uk/schemasstandards/eservices.asp?page=1&order=title>

www.govtalk.gov.uk

2.13 The GovTalk^(TM) web site <http://www.govtalk.gov.uk> forms a fundamental part of the e-GIF implementation strategy. It supports the whole initiative and incorporates the management processes so that government can consult and take decisions using the power and speed of the Internet.

2.14 GovTalk provides implementation support through the production of centrally agreed, freely available XML schemas that can be reused throughout the public sector to reduce the costs and risks of developing data interchange systems. The web site will be used to seek proposals for schemas, publish them for comments and receive requests for changes to them. The site is designed to encourage widespread participation in the development of the schema set and is completely open for the submission of proposals and comments to encourage innovation from the public sector and industry.

2.15 The web site will also be used to provide help and guidance for XML schema developers. This will include best practice guidance, case study material, and advice on toolkits to support the production of XML schemas, and specifically to help with the conversion of legacy system data.

2.16 It is also now being used for wide consultation on a number of other e-Government frameworks and documents. It is intended to make adoption of the e-GIF policies and specifications simple, attractive and cost effective.

Membership of working groups

2.17 Public and private sector organisations working on UK Government interoperability projects may be invited to become full members of the various working groups mentioned in Section 3. They can attend meetings, and take part in decision making and direction setting for the groups. The list of full members will change over time as new interoperability projects are started and existing ones are completed. All organisations involved in public sector XML based projects and any other specifications forming part of the e-GIF may become associate members, and have information about new proposals and changes sent to them by e-mail.

2.18 The current membership of the groups can be found at <http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Section 3 Management processes

3.1 The roles and responsibilities of central government, other public sector and industry organisations are outlined below. Whilst this is not meant to be exhaustive it does indicate the main functions.

Office of the e-Envoy (OeE)

3.2 The Office of the e-Envoy in the Cabinet Office is the lead authority for implementing and maintaining this framework. In collaboration with departments, local authorities and other public sector bodies, the Office of the e-Envoy will:

- lead the development and maintenance of the e-Government Interoperability Framework and provide the management infrastructure to support the processes
- act as the focal point for co-ordinating interoperability efforts throughout government and ensuring a rapid response to proposals and priorities of government
- manage co-ordination with other governments and international bodies
- co-ordinate the development and maintenance of:
 - agreed XML schemas for use throughout government
 - the Government Data Standards Catalogue (GDSC)
 - the e-Government Metadata Standard (e-GMS)
 - the Government Category List (GCL)
 - the e-Services Development Framework (e-SDF)
 - advice on toolkits for interfaces and conversions
 - best practice guidance
- manage the government and industry wide consultation process
- manage the <http://www.govtalk.gov.uk> web site
- maintain a register of known users in the public and private sectors
- manage the Government Processes Group
- manage the Government Schemas Group
- manage the Metadata Working Group
- manage the Smart Cards Working Group
- manage the compliance process and ensure that interoperability policies and roles are adhered to
- manage interaction with similar initiatives and specifications bodies elsewhere across the world, including W3C, WS-I, IETF, OASIS, DCMI and others.

3.3 The full participation of government departments, their agencies, NDPBs, the NHS, devolved administrations and local government is essential to successfully delivering interoperability in the public sector.

Although central direction will be provided where required, much of the action will take place in individual public sector organisations that will need to:

- contribute to the continuous development and improvement of this framework
- ensure that e-GIF compliance is a fundamental part of their organisational e-business and IT strategies
- produce a 'roadmap' for implementing the organisation's conformance with the framework
- work with users of their services or data to identify those services that can usefully be made more widely available
- ensure that they have the skills to define and use the specifications needed for interoperability
- establish a contact point who understands the impact of requests for change and can respond 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
- take the opportunity to rationalise processes (as a result of increased interoperability) to improve the quality of services and reduce the cost of provision.

Industry

3.4 This framework is based on government working in open partnership with industry and has been developed through close working with our industry partners. It proposes joint working and development of the policies and specifications for interoperability, relying heavily on industry worldwide to comment and to provide innovative solutions. Specifically, the following roles will need to be filled:

- application of the policies and specifications agreed in this framework to systems delivered to the public sector
- participation in the consultation process through the Request for Comment (RFC) and Request for Proposals (RFP) processes
- introduction of innovations in technology and business to continually improve this framework and the delivery of its objectives 'at Internet speed'
- participation in the Office of the e-Envoy's various working groups.

The citizen

3.5 e-Government is essentially about government better serving the needs of the citizen. The e-GIF is an enabling framework for delivering the services seamlessly and coherently. The government welcomes and encourages the citizen to provide comments, suggestions and innovations that may help it to improve information access and service delivery. <http://www.govtalk.gov.uk> is available for these consultations.

e-Champions

3.6 The e-Champions are senior government officials within central and local government and the NHS. They form the overall management committee that owns the e-GIF.

More information about the e-Champions can be found at

[http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/ukonline-echampions/\\$file/e-champions_menu.htm](http://www.e-envoy.gov.uk/oeo/oeo.nsf/sections/ukonline-echampions/$file/e-champions_menu.htm)

e-Envoy's Industry Consultation Group

3.7 An independent Industry Consultation Group has been established to provide a longer-term view of technology trends and how they may influence the work of the Office of the e-Envoy. The membership of this group has been selected so that the very best leadership can be brought to bear in driving the overall direction and strategy for the e-GIF and other policy frameworks.

Terms of Reference for the e-ICG can be found at

<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Interoperability Working Group

3.8 This group operates under the e-Champions e-Government Group. The Interoperability Working Group produced this document and is responsible for all aspects of the framework including policies, specifications, implementation and management. Membership of the group is open to all public sector bodies as represented in the e-Government Group. Additionally, industry members may participate in the group on a permanent or call off basis.

Terms of Reference for the group are published on

<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Government Processes Group

3.9 A key input to the production of an XML schema is the schema requirement. This sets out from a business perspective the processes and data requirements that the schema is required to support. This group, which reports to the Interoperability Working Group, draws together representatives from across the public sector to produce schema requirements for the Government Schemas Group. As part of their work they also identify opportunities to rationalise processes and data handling where this would benefit the citizen or the machinery of government. Ad hoc sub-groups will be convened to address separate business domain issues and schema requirements e.g. e-procurement and financial reports.

Terms of Reference for the group can be found at

<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Government Schemas Group

3.10 The primary roles of the group are to set the specifications for, and co-ordinate the production of, XML schemas for use across the public sector. This group, which reports to the Interoperability Working Group, draws together representatives from across the public and private sectors to develop schemas requested by the Government Processes Group, and endorse schemas produced elsewhere in the public sector. Schemas produced and endorsed by this group pass through the e-GIF approval process and are published on GovTalk, where they are available for use by other projects throughout the public sector.

Terms of Reference of the group can be found at

<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Metadata Working Group

3.11 This group, which reports to the Interoperability Working Group, provides advice and comments on all metadata aspects of the e-GIF, and develops and maintains the e-Government Metadata Standard and the GCL.

Terms of reference for this group can be found at

<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Smart Card Standards Working Group

3.12 This group, which reports to the Interoperability Working Group, is overseeing the incorporation of smart card standards into the e-GIF.

Section 4 Change management

4.1 The e-GIF specifications will inevitably change and will have the capability to change quickly when required. The change management process must ensure that the e-GIF remains up to date and is aligned to the requirements of all stakeholders and to the potential of new technology and market developments. The following paragraphs describe an inclusive Internet based consultation process that will encourage participation and innovation. They also describe how changes to e-Government resources specifications will be managed.

4.2 'e-Government resources' are key components of the e-Government strategy. Examples include the Government Data Standards Catalogue; the Government Category List; the e-Services Development Framework; Parts One and Two of the e-GIF; and published XML schemas that are used to define the structure and content of messages between systems.

4.3 XML schemas, and other code-based resources, will be treated as special cases. XML schemas will need to undergo a test program before being used in an electronic service. Changes to XML schemas will also have to be carefully assessed, as they can potentially have a high impact. Such changes are particularly difficult to manage in large organisations. In some organisations it is estimated that a year is needed to implement a change to a core schema. As a consequence changes to agreed XML schemas need to be managed carefully, with proper processes in place to ensure that all involved parties to the change are properly consulted and agree to the change. A formal change control procedure will reduce the impact of change on an existing e-service.

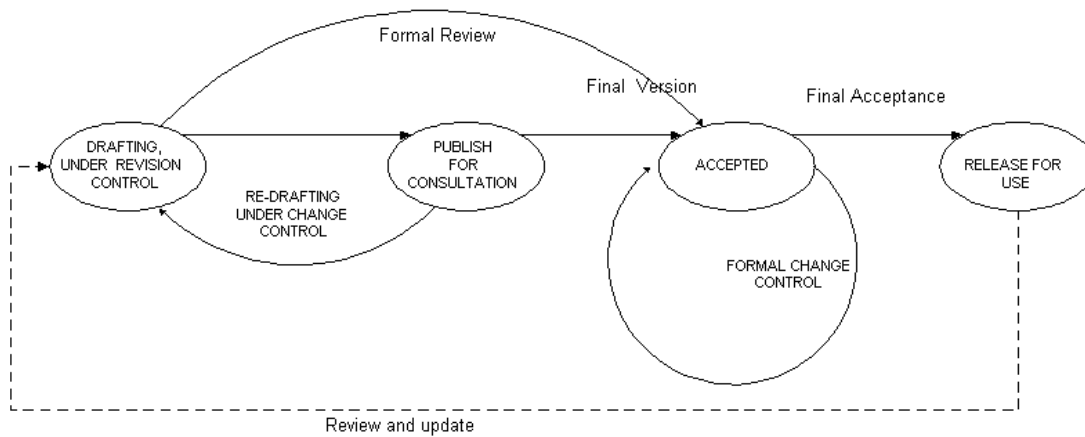
4.4 Also, given that the XML schemas carry data that forms part of organisations' business information exchange processes, there is the potential for mutual dependency between the business processes of a number of organisations, encapsulated in the agreed XML schemas.

4.5 XML schemas also have an interdependency with the Government Data Standards Catalogue, and so changes to both should be carefully co-ordinated.

e-Government resource owner

4.6 Every e-Government resource must have a designated owner (a role or organisation, not a named person). The ownership of the changes should be vested in the organisation(s) that own(s) an e-Government resource. However, the change may not affect just this owning organisation, so it is essential that 'user' or peer level organisations have the opportunity to contribute to the change process, in a structured and formal way.

Lifetime of an e-Government resource



4.7 As an e-Government resource develops, changes are made informally and work progresses using revision control. The e-Government resource may be published for consultation (see details below). At this stage the resource should come under formal change control. Full details of the change control procedures are available at <http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Consultation and innovation

4.8 Some resources, such as the e-GIF, will need to be published for formal consultation. The length and methods of consultation should follow the government guidelines currently in force. However, all assets should be made available for comment by interested parties if they do not undergo formal consultation.

4.9 The overall strategy for Transforming Government identifies three basic forms of dialogue: public sector to public sector; public sector to business; and public sector to the citizen. If interoperability specifications are to fully support the strategy then they must be open to the widest form of consultation that involves all these players. The e-GIF consultation process will target organisations that are known to be interested in the specific specifications, having been identified as participants in the service or users of existing specifications, but will be open to all. Unsolicited comments and suggestions will be encouraged over the web site.

Request for Comments (RFC)

4.10 All draft policies, specifications and XML schemas will be posted on GovTalk with a Request for Comments on the proposed draft or change. Registered stakeholders will be notified by e-mail of the RFC but the web site offers an invitation to anyone to comment on the draft document. All comments received will be acknowledged and the outcome of the RFC will be published on the site. The consultation process does not preclude unsolicited comments on currently agreed policies and decisions, which are also encouraged.

Request for Proposals (RFP)

4.11 Whereas the RFC process asks for comments on proposed solutions, the government also requests innovative solutions to problems where the solutions are not clear. In this case, a Request for Proposals will be posted on the web site, outlining the requirement. The aim is to attract innovation and the most cost-effective solution to the problem, using the worldwide industry and the population base. If a particular proposal is taken forward, this will be published on the site.

Updates to the e-GIF

4.12 Part One of the e-Government Interoperability Framework will be reviewed annually and updated as necessary.

4.13 Part Two will be revised and updated every six months, subject to guidance from the e-Champions e-Government Group and the e-Envoy's Industry Consultation Group. Supplementary guidance will be issued between formal updates where this is considered necessary.

Versions of Part One will retain the current numbering sequence: v 4.0, v 5.0 etc.
Versions of Part Two will use the sequence v 4.0, v 4.1, v 4.2 etc., then v 5.0, v 5.1, v 5.2 etc.

4.14 Published issues will be available at
<http://www.govtalk.gov.uk/schemasstandards/egif.asp?page=1&order=title>

Section 5 Complying with the e-GIF

Introduction

5.1 Adherence to the e-GIF is mandatory, as stated in paragraph 1.11, and this section provides general guidance on what compliance means in that context and how it will be enforced. It is intended to inform all those involved in the development and provision of public sector systems and services of their responsibilities and the timetable for conforming to the e-GIF. Throughout this section use of the term "system" is taken to include its interfaces, which are the prime focus of the e-GIF policies and specifications.

5.2 The scope of the e-GIF is set out in paragraphs 1.8 – 1.13, and also includes those functions within private/commercial organisations that develop and/or deliver licensed government services. However, the prime responsibility for ensuring compliance rests with the government purchasing or licensing authority.

What does complying with the e-GIF mean?

5.3 At the highest level complying with the e-GIF means:

- providing a browser interface for access
- using XML as the primary means for data integration
- using Internet and World Wide Web standards
- using metadata for content management.

5.4 These four elements are fundamental but equivalent standards and additional interfaces are permissible. For example, the majority of government users and all public users will use a browser interface, although organisations will have the additional option of Notes client access to a .nsf facility for knowledge management and workflow internally within the Knowledge Network.

5.5 The ultimate test for interoperability is *“the coherent exchange of information and services between systems”*. If this is achieved then the system can be regarded as truly interoperable. Furthermore it must be possible *“to replace any component or product used within an interface with another of a similar specification while maintaining the functionality of the system”*. To be e-GIF compliant, a system should satisfy both these requirements.

5.6 At a detailed level, testing for compliance needs to be done against the policies and specifications listed in the e-GIF. The scope of systems will vary tremendously and the test is therefore not one of

“Does the system comply with all the policies and specifications?”

but

“Does the system contravene any of the policies and specifications?”.

5.7 The aspects of the system where the tests need to be applied are:

- interconnection
- data integration
- e-services access
- content management.

5.8 The principles and specifications are set out in Part 2.

Use of XML schemas and data standards

5.9 Systems are expected to use agreed XML schemas and agreed data standards listed in the Government Data Standards Catalogue, both of which are available on GovTalk. Should suitable schemas or data standards not be available, or those available deemed inadequate in some way, the system purchaser/sponsor should invoke the RFP/RFC processes immediately.

Timetable

5.10 In practice, it is expected that organisations will not be able to participate effectively and at minimum cost in future data interchange processes unless they comply with the e-GIF specifications. The compliance rules and timetable are that:

- all new systems that fall within the mandate will provide interfaces that conform to the specifications, or equivalents, in the e-GIF by default. They may also provide additional interfaces. New systems should be developed to comply with the e-GIF specifications in force on the day approval is given to the business case (i.e. the latest versions of Part One and Part Two). Should changes be made to the e-GIF thereafter which impact on the system development, then a full assessment should be made of the cost and benefit of accommodating the changes before the system goes live or subsequently
- legacy systems that fall within the mandate will need to provide interfaces that comply with the specifications or equivalents within the following timescales:
 - for systems that are part of meeting Electronic Service Delivery targets, the timetables for meeting those targets will be acceptable
 - for systems that need to link to UK Online and the Knowledge Network, the timetable for making those connections will be acceptable;
 - for other legacy systems within the mandate, the interfaces should be provided on demand or through replacement.

5.11 Systems that fall outside the scope and mandate will generally be internal administration legacy systems, i.e. those that have no interface to external customers or connection to external systems. For these systems it is recommended that every opportunity should be taken to comply with the e-GIF, e.g. through upgrade or enhancement activity. This may involve commissioning additional work from suppliers.

Stakeholders

5.12 The stakeholders who need to know and understand what complying with the e-GIF means are:

5.13 e-Business Strategists, who should ensure that their e-business strategy mandates compliance with the e-GIF. They should be aware that compliance with the e-GIF will be part of the conformance check for the release of funding by the e-Envoy and HM Treasury.

5.14 Senior Responsible Owners/Business Project Managers/Sponsors, who are responsible for ensuring the relevant e-GIF policies and specifications are applied.

5.15 Project Approval Bodies including Funding Officers and Gateway Reviewers, who are responsible for ensuring that their approvals process includes a sign-off for e-GIF compliance.

5.16 Government procurement officers, who are responsible for ensuring compliance with the e-GIF is included in procurement procedures and contracts.

5.17 Suppliers, e.g. software vendors, consultants, who need to be aware that they are required to adopt the e-GIF policies and specifications or equivalents if they wish to supply their products or services to government.

5.18 Project auditors, e.g. departmental auditors, NAO, Audit Commission, Parliamentary committees, who need to ensure their systems audits and reviews include a check for e-GIF compliance.

Compliance responsibilities

5.19 The ultimate responsibility for compliance rests with the system's Senior Responsible Owner or Sponsor. Compliance is by self-regulation using normal departmental checking arrangements throughout the system's development life-cycle. It will be for service organisations themselves to consider how their business processes can be changed to be more effective by taking advantage of the opportunities provided by increased interoperability.

5.20 The approval authority and final arbiter on all questions relating to e-GIF compliance is the OeE (Technology Policy), (e-mail: govtalk@e-envoy.gsi.gov.uk) which will provide help in defining departments' internal compliance regimes where required. The e-GIF team will monitor compliance through the Interoperability Working Group and other liaison groups.

Public sector communities

5.21 The compliance rules for these basic specifications apply to all public sector bodies, but the public sector includes identifiable communities which exchange some types of information with their own members. Examples of this are the exchange of

detailed clinical documents within the health sector using the DICOM standard and the Z39.50 standard for the exchange of bibliographical data between libraries. Any specialised data interchange specifications must be in addition to, and must not conflict with, the e-GIF interoperability requirements. In particular, the use of such specifications should not be a barrier if there is a possibility of future interchange of the information outside the community.

Maintaining compliance with new versions of the e-GIF

5.22 The e-GIF is relatively new and will evolve for some considerable time as new policies and specifications are adopted and new areas of interoperability addressed. This will make it difficult, if not impossible, for systems to always be fully compliant with the e-GIF. The e-GIF is formally updated regularly (see paragraph 4.12), and as part of that update cycle departments will be consulted, through the Interoperability Working Group and the public consultation processes, on the changes to be made in each new version. The OeE will only introduce new policies and specifications following these full consultations with departments and other stakeholders, and thus seek to minimise the burden of change on departments whilst at the same time maintaining the principle of effective and open interoperability.

5.23 A pragmatic approach will need to be taken and only if an acceptable business case can be made should a new system in development or an existing system be changed to adopt a new standard immediately it becomes mandated. New specifications may have to be introduced when the system is replaced or undergoes a major enhancement, particularly if its interoperability is necessary for the delivery of e-services or joined-up government.

5.24 This could also have an impact on suppliers' contracts, and it will be necessary to ensure that new long-term contracts do not go out of date.

Failure to comply

5.25 If a system fails the test on any of the aspects listed above then a migration strategy will need to be produced and agreed by OeE (Technical Policy). Failing to comply and the absence of an acceptable migration strategy will lead to the following courses of action:

- compliance with the e-GIF is one of the criteria that will be used when assessing/evaluating departmental e-Business Strategies and deciding on the release of funding by the e-Envoy and HM Treasury. It should be recognised that failing to comply will make it very hard to produce an effective strategy
- new systems failing to comply with the e-GIF will not get project approval and funding from the appropriate bodies within their organisations
- systems seeking to link to UK Online, the Government Gateway or the Knowledge Network and failing to comply with the e-GIF will be refused connection
- suppliers who are not prepared to meet the e-GIF specific requirements or equivalents (which do not adversely affect functionality) raised in procurements, etc will not meet the specification.

5.26 If no metadata is added to online documents the information can be hard to locate via UK Online or internet portals and search engines.

Additional guidance

5.27 An e-GIF Compliance Advisory Service is provided by the National Computing Centre (NCC). The service provides a structured web-based commentary about the e-GIF and a self-assessment questionnaire. Full details of the service are available at <http://www.egifcompliance.org>

5.28 Whilst the above provides general guidance on the e-GIF compliance requirements, many situations will need to be assessed on a case-by-case basis and detailed questions of compliance in these situations should be addressed to OeE (Technology Policy), (e-mail: govtalk@e-envoy.gsi.gov.uk). Additional guidance will be made available in the form of Best Practice, Case Studies and FAQs on the UK GovTalk^(TM) website.

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