

STATE SERVICES COMMISSION
Te Kōmihana O Ngā Tari Kāwanatanga



**New Zealand E-government
Interoperability Framework
(NZ e-GIF)**

Version 3.1

PART 2 – POLICY

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State Services Commission

Te Kōmihana O Ngā Tari Kāwanatanga

About this document

This document outlines the policy behind the e-GIF and its development. The intended audience for this Policy section includes:

- policy analysts
- advisors
- business analysts
- anyone involved with interoperability strategy and projects.

It includes the following sections:

- [What is the e-GIF?](#) Short descriptions of e-government, interoperability, and the e-GIF, how the e-GIF will benefit New Zealand, and how the e-GIF is maintained.
- [Who must comply and when?](#) Who must comply with the e-GIF, how to transition to e-GIF compliance, exemptions and special provisions.
- [Principles](#): Short descriptions of anticipated outcomes of the e-GIF, requirements for project and operational management, and governance principles.
- [Developing the e-GIF](#): Outlines of procedures for extending the e-GIF, submitting a new standard, developing the framework, and issues under review or proposed for future working groups.

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1 What is the e-GIF?

The E-government Interoperability Framework (e-GIF) is a set of policies, technical standards, and guidelines. It covers ways to achieve interoperability of public sector data and information resources, information and communications technology (ICT), and electronic business processes. It enables any agency to join its information, ICT or processes with those of any other agency using a predetermined framework based on “open” (i.e. non-proprietary) international standards.

While a universally agreed definition of "open standards" is unlikely to be resolved in the near future, the e-GIF accepts that a definition of “open standards” needs to recognise a continuum that ranges from closed to open, and encompasses varying degrees of "openness". To guide readers in this respect, the e-GIF endorses "open standards" that exhibit the following properties:

- **Be accessible to everyone free of charge:** no discrimination between users, and no payment or other considerations should be required as a condition to use the standard.
- **Remain accessible to everyone free of charge:** owners should renounce their options, if any, to limit access to the standard at a later date.
- **Be documented in all its details:** all aspects of the standard should be transparent and documented, and both access to and use of the documentation should be free.

The e-GIF performs the same function in e-government as the Road Code does on the highways. Driving would be excessively costly, inefficient, and ineffective if road rules had to be agreed each time one vehicle encountered another.

1.1 What is e-government?

E-government is about government agencies working together to use technology so they can better provide individuals and businesses with government services and information. It is not a massive ICT project. Much of it is about establishing common standards across government, delivering services more effectively, and providing ways for agencies to work together using technology.

E-government presents New Zealand with some tremendous opportunities to develop higher quality, cost-effective, government services and a better relationship between New Zealanders and their government.

For the latest version of the New Zealand E-government Strategy, see <http://www.e.govt.nz/about-egovt/strategy/nov-2006/>

1.2 What is interoperability?

The December 2001 [E-government Strategy Update](#) defines interoperability as “the ability of government organisations to share information and integrate information and business processes by use of common standards”.

The June 2003 [E-government Strategy Update](#) underscores this point: “Common data and information technology policies and standards underpin the service delivery architecture and are integral to the E-government Strategy.”

The November 2006 [E-government Strategy Update](#) “confirms the key role of collaboration, standards and interoperability, and an enterprise architecture for government in achieving the Strategy's goals.” It defines Building Standards and Interoperability as “Government adopting and using common standards to ensure agencies and their partners can work together, and users can access government services and information”.

From a technical standpoint, interoperability is achieved when the coherent, electronic exchange of information and services between systems takes place.

For e-government in New Zealand, interoperability relates specifically to the electronic systems that support business processes between:

- agencies
- government and people
- government and business.

This does not mean a central agency is simply dictating common systems and processes. Interoperability can be achieved by applying a framework of policies, standards and guidelines that leave decisions about specific hardware and software solutions open for individual agencies, or clusters of agencies, to resolve.

This document sets out this framework.

1.3 What will the e-GIF accomplish?

Using the e-GIF will:

- help government agencies to work more easily together electronically
- make systems, knowledge and experience reusable from one agency to another
- reduce the effort needed to deal with government online by encouraging consistency of approach

- reduce the reliance on tapes and disks to exchange data, as these carry their own security issues and are not scaleable for the level of interoperability many services will need in future.

1.3.1 Practical example: Consolidating customer resources

Adhering to the e-GIF becomes critical when two or more agencies work together to deliver a service online. Agencies in this situation are encouraged to look at services from a “customer” perspective.

A hypothetical example is opening a café or restaurant. At present, this involves interactions with a number of agencies:

- The Companies Office and Inland Revenue, which provide a shared service for people wanting to start a business. As people incorporate their company, they are able to apply for an IRD tax number. By entering information into the “IRD Details” screen during the online company incorporation process, their application will be sent via an automated link to Inland Revenue. (Until recently new companies had to deal with the Companies Office and Inland Revenue separately).
- Occupational Safety and Health ([OSH](#)) for accident forms, hazardous substances policy, etc.
- Accident Compensation Commission ([ACC](#)) for levy forms and workplace safety policy, etc.
- The local council for signage, a certificate of food hygiene, etc.

At present, most of this information is available online, but only by visiting each agency’s website for its respective services.

Consider this example in an interoperable future: all services for opening a café or restaurant, delivered by multiple agencies, available through a single website: <http://www.openingmycaferestaurant.govt.nz>. The applicant would enter relevant details, then the agencies would exchange relevant information among themselves and the applicant to supply all the required services.

This is the kind of interoperability envisaged in the next phase of e-government. To achieve such interoperability, the agencies need an enduring, agreed set of standards for exchanging data between all parties. The e-GIF sets out these standards.

(See also Section 3.2, [Aims of the e-GIF](#).)

1.4 *Managing the e-GIF*

1.4.1 Stewardship

The following people manage the e-GIF:

- The **State Services Commissioner** is the **Steward** of the e-GIF, with accountability and corresponding decision-making authority for its ongoing development and management.
- The **Information and Communication Technologies Branch (ICT Branch)**¹ of the State Services Commission is the **Custodian**, with responsibility for the day-to-day operation of the e-GIF under the oversight of the e-GIF Management Committee.
- The **e-GIF Management Committee** is made up of public servants from the senior ranks of agencies adopting the e-GIF. The Committee acts for the State Services Commissioner to ensure:
 - the value of the e-GIF as a “collective asset” that supports the future capability and performance of both individual agencies and the public sector as a whole, and one that is maintained and enhanced across time
 - the benefits of the e-GIF (increased agency and public sector capability, performance, efficiency and effectiveness) outweigh its costs (decreased agency-level autonomy, administration costs, etc.).
- **Working Groups** are established to regularly review the technical aspects of the e-GIF.
- All **agencies** that are required to adopt the e-GIF may take part in its governance and appeal decisions made by the Steward and Management Committee.

1.4.2 Who to contact

You can contact the Custodian at e-gif@ssc.govt.nz.

¹ The Information and Communication Technologies Branch (ICT Branch) of the State Services Commission, was formed from the E-government unit on 1 July 2005.

2 Who must comply and when?

The e-GIF is a forward-looking document. It specifies a set of standards to be applied when developing or upgrading technology. This section outlines who must and who is encouraged to comply, how to make the transition, and how to apply for an exemption.

2.1 *Who must or is encouraged to comply*

2.1.1 **Mandatory compliance**

From 1 July 2002, Cabinet has made using the e-GIF **mandatory** for:

- all Public Service departments
- the New Zealand Police
- the New Zealand Defence Force
- the Parliamentary Counsel Office
- the Parliamentary Service
- the Office of the Clerk
- the New Zealand Security Intelligence Service.

2.1.2 **Suggested compliance**

The benefits of the e-GIF are not specific to the Public Service or central government. Cabinet has **encouraged** adoption by:

- organisations in the wider State sector
- local authorities.

The e-GIF is also open to use by:

- non-government organisations
- the business community
- the public
- other jurisdictions.

2.2 How and when to comply

In general, all organisations that must or are encouraged to comply with the e-GIF (see Sections 2.1.1 and 2.1.2), should review their implementations against the e-GIF whenever:

- a new version of the e-GIF is released
- they are contemplating new implementations
- they are contemplating upgrading implementations, and/or
- they are reviewing their overall technology strategy.

See the following sections for details.

2.2.1 Transitions

The adoption of the e-GIF must allow for a sensible transition. Recognising this, Cabinet agreed on 13 June 2002 that current information systems, software applications, or electronic data/information resources did not need to comply immediately with the e-GIF.

Any **new** information system, software application, or electronic data/information resource (or current instances of these being redeveloped or replaced), or systems for interfacing with these, must comply with the e-GIF except where:

- it is certain that interoperability will never be a requirement, or
- the current version of the e-GIF does not, and could not, include policies, standards or guidelines concerning the technologies the agency needs (not wants) to employ.

If an agency has one of these exceptional instances, it needs to consider the customer perspective (see Section 1.3.1). Although the agency system may have been developed to operate in isolation, New Zealanders may one day need it, transparently or otherwise, to work with other services from other agencies. Is it certain that the new system, application or resource will never need to support or interact with any new, enhanced, or replacement system, application, interface, service, process, or resource? Experience shows that in most cases, the e-GIF will apply.

2.2.2 Information sharing and matching agreements

In many, but not all, circumstances, interoperability requires the exchange, sharing, or matching of personal information. The [Privacy Act](#) may well apply in these situations, particularly Part 10 and schedules 3 and 4. For information-matching programmes, the Act mandates a Technical Standards Report.

Agencies planning data exchange are encouraged to:

- contact the [Office of the Privacy Commissioner](#) about the circumstances of the exchange (it may fit with one of the information-matching programmes authorised by Parliament)
- review their existing (offline) data management agreements and:
 - extend them to include issues relating to electronic exchange
 - add them to the Technical Standards Report or
 - prepare new agreements or Memoranda of Understanding
- seek legal advice.

See also:

- Section 3.3 Governance of shared inputs.
- Part 3, [Section 1.10](#) Information Systems and Data Management Policies and Standards.
- Checklist for data exchange issues to be covered in a Memorandum of Understanding (MOU) or data sharing agreement. Please email e-GIF@ssc.govt.nz for access to this document.

2.3 Exemptions

Where an agency believes there are grounds for exemption from the e-GIF, it must:

- conclusively demonstrate, to the satisfaction of the e-GIF Steward, where the current version of the e-GIF cannot meet requirements or why an alternative approach to achieving interoperability is justified
- where sensible, contribute to updating the e-GIF.

Where an exemption is approved, it will apply only to a specific:

- information system, software application, data/information resource, or business process (not to the agency's entire information and technology environment and/or business processes)
- agency or agencies (not to an entire sector)
- time period (not indefinitely).

For more information, including a template for applying for an exemption, see <http://www.e.govt.nz/standards/e-gif/faqs.html>.

2.3.1 Special provisions

Specialist systems employed, or sponsored, by the security and intelligence agencies are automatically exempted where it is not appropriate for them to comply with the e-GIF.

3 Principles

3.1 Outcomes for government

The e-government programme seeks the following outcomes, which will be helped by applying the e-GIF:

- **Convenience and satisfaction:** Services provided anytime, anyhow, anywhere; people will have a choice of channels to government information and services that are convenient, easy to use, and deliver what is wanted. This outcome will be achieved when:
 - many services are fully or partially delivered electronically (as appropriate)
 - traditional service delivery channels (counter, postal, telephone, etc.) continue to exist but are enhanced by the use of technology.

By interoperating using the e-GIF, agencies will provide services and information electronically in the way that people want.

- **Integration and efficiency:** Services that are integrated, customer-centric and efficient; information and services will be integrated, packaged, and presented to minimise cost and improve results for people, businesses, and providers. This outcome will be achieved when:
 - front-office integration is well developed, with many services redesigned and bundled together in ways that better meet customer needs
 - back-office integration is advancing through adopting the e-GIF and progressively building components of the service delivery architecture.

By interoperating using the e-GIF, agencies can work together electronically, acting more like a single enterprise than a collection of individual agencies.

- **Participation:** People will be better informed and better able to participate in government. This outcome will be achieved when:
 - online participation becomes an increasingly important part of policy development and service delivery
 - democratic processes may be electronically enabled (e.g. e-voting in local body elections).

By interoperating using the e-GIF, agencies can make information available to people in ways that help them to participate in the processes of government.

3.2 Aims of the e-GIF

The e-GIF aims to improve the practical application of information and communications technologies (ICT) between the public and government, within and between agencies, and within a global context.

3.2.1 Improving the public face of government

People generally access government services out of need rather than choice. Their needs are seldom confined to the business of a single agency. Rather, people typically have to deal with several agencies to achieve their goals or meet their obligations.

One of the aims of the e-government programme is to make it easier for people to deal with multiple agencies by making good use of ICT. By making ICT systems and the processes they support interoperate, people will find it easier to do business with government as a whole. This does not mean that everyone has to be online to benefit from interoperability. If agency ICT is interoperating effectively, people dealing with public servants face-to-face or on the phone will also receive better service.

3.2.2 Improving agency use of ICT

Adopting common technical standards for ICT means agencies can focus more on the business outcomes the systems are designed to support rather than on technical choices that have little impact on service delivery.

Common technical standards also mean the collection of ICT systems across government is more valuable than the sum of its parts. Disparate systems that cannot work together are only valuable in and of themselves.

Adopting common technical standards also means that, across government, knowledge of these technologies will be concentrated rather than spread across numerous alternative and often proprietary technologies.

3.2.3 Operating in a global environment

The Internet, and the value it can deliver to government and people, relies on an agreed, standards based approach. By using the same standards based approach, agencies support the infrastructure of technologies that they increasingly rely on to deliver services and conduct the business of government.

Adopting common standards also helps governments in various jurisdictions to interoperate. This becomes important when dealing with matters that can only be handled in a regional or global way.

3.3 Governance of shared inputs

Agencies interoperate to:

- make better use of information and communications technologies (ICT) within government
- deliver an integrated service directly to people or business.

In both cases, collaborating agencies jointly provide inputs and must allocate the decision-making rights accordingly. Guidance on how to go about allocating decision-making rights is available from the [ICT Branch of the State Services Commission](#).

3.3.1 Project management

Before committing significant expenditure on an initiative involving more than one agency, those involved should agree and put in place appropriate project management processes (see “[Guidelines for Managing and Monitoring Major IT Projects](#)”).

3.3.2 Operational management

There should be some form of agreement for the ongoing operation of any initiative involving more than one agency. The content of the agreement will depend on the nature of the initiative, but the following areas should be considered:

- roles and responsibilities of each agency
- processes undertaken by each agency and the required service levels
- performance measurement for each agency’s service and problem resolution
- data quality and problem resolution
- cost recovery between agencies.

3.4 Governance principles

The following principles underpin the governance of the e-GIF and its operation:

- The e-GIF will align with the [E-government Strategy](#) and the recommendations of the [Review of the Centre](#).
- There will be a clear chain of accountability flowing from a Cabinet Minister with appropriate portfolio responsibilities.
- Adequate organisational resources and capabilities must support the governance arrangements.

- The governance arrangements will be consistent with public sector legal requirements.
- The principles of stewardship and custodianship apply, as set out in the [Policy Framework of Government-held Information](#) [CAB (98) M 22/27 refers].
- Roles, responsibilities, and accountabilities will be clear.
- The governance arrangements will build confidence in, and commitment to, the e-GIF from all its stakeholders.
- With regard to the day-to-day operation of the e-GIF, the governance arrangements will show a close fit with the responsibilities and capabilities of the organisations involved.
- The processes for maintaining, developing, and implementing the e-GIF should be inclusive and as consensual as possible.
- The governance arrangements must account for the complexity of e-government stakeholders and operating environments.
- Agencies that are required to adopt the e-GIF will be given the opportunity to take part in its governance.
- Agencies that are required to adopt the e-GIF will have access to a process for raising concerns over decisions made by the Steward or the Management Committee.
- The collective interests of government should be balanced with the interests of individual agencies and their stakeholders. Where this is not possible, the collective interest should be given greater priority.
- Decision-making processes will be transparent.

4 Developing the e-GIF

4.1 *How to extend the e-GIF*

The Custodian and Steward of the e-GIF encourage agencies to submit technical standards, especially schemas that have been developed for an agency's specific business needs or for the needs of several agencies in a sector or area of business.

Including these in the framework ensures such standards are widely recognised in the New Zealand public sector and can be applied, where appropriate, to meet business needs elsewhere in the sector.

The governance processes put in place for the e-GIF aim to balance the collective interest of government with the interests of individual agencies and their stakeholders. Where this is not possible, collective interest should be given greater priority.

4.2 *Submitting a new standard*

The e-GIF is regularly reviewed and updated by issuing a revised version of this document. However, extensions to the e-GIF can be suggested at any time. This should be done by first contacting e-gif@ssc.govt.nz.

Proposed extensions will be reviewed by working groups that advise the e-GIF Custodian. The Custodian makes recommendations to the e-GIF Steward, through the e-GIF Management Committee.

Agencies that are required to adopt the e-GIF may appeal decisions to the Management Committee.

The standards submission process, together with a template to propose a new standard, can be found at <http://www.e.govt.nz/standards/e-gif/faqs.html>. Note that the agency proposing the standard is expected to take a share in the development and governance of the standard.

4.3 *Principles for developing the framework*

As well as the [principles](#) outlined in this document, a number of guiding principles have been developed for the long-term. For further information email e-gif@ssc.govt.nz.

4.4 Alignment with other framework initiatives

Open standards feature strongly in the e-GIF. [OASIS](#), [W3C](#), [ISO](#) and other standards organisations are developing standards with a global user base in mind.

The New Zealand e-GIF also draws from other jurisdictions, most notably the United Kingdom and Australia.

Agencies and service sectors are encouraged to draw from open standards to facilitate a greater level of uptake for bundled services in the future.

4.5 Issues under review

The 2005 e-GIF Review Group recommended the following strategies for further developing the e-GIF:

- **Extending the layer model:** The layer model ([See Part 1, Section 1.1](#)) categorises the technology standardised by the e-GIF structurally but not functionally. In practice, standards have a context. Some standards may only work in a particular situation or for a particular domain, or depend on the use of other standards, or represent high level aggregations of lower level components. One possibility is to include additional descriptions to the standards, such as “applicable to”, “used by”, “used with”, “pre-requisites” and/or “relies on”. Another possibility is to create an additional category, or layer, for the emerging use of implementation profiles for XML-based standards.
- **Changing Recommended (R) to Emerging (E):** There is some confusion about the word “Recommended” in the current e-GIF compliance status levels ([see Part 1, Section 1.3](#)). For example, a new version of a product might be better, therefore recommended, but actually less interoperable until more agencies use it. Ultimately, we would like to see the new version used, and therefore we recommend it when upgrading. Another ambiguity is that some may believe that if a standard is “Adopted”, it is the standard and, therefore, why would another be “Recommended”? To address these concerns, another word such as “Emerging” might replace “Recommended” in future for this status level.
- **Adding review cycle information:** Since standards proceed through a cycle of compliant statuses, review cycle information could be included to indicate how long each standard is in force and when it is due for review.
- **Continuous review cycles:** With technology changing constantly, the e-GIF needs to be updated continuously to remain relevant.
- **Using [RFC 2119](#):** This RFC could be used to clarify the interpretation of key words related to the standards. It standardises use of the words “must”,

“must not”, “required”, “shall”, “shall not”, “should”, “should not”, “recommended”, “may”, and “optional” when specifying requirement level.