# What is the Government Gateway?

## Background

This paper provides a brief introduction to the Government Gateway. The Gateway plays a major role in ensuring successful delivery of the UK's e-government initiatives.

The government has an ambitious strategy for electronic service delivery. Key objectives include:

- 50% of transactions should be available electronically by 2002 and 100% by 2005
- public services should be customer centric
- services should be delivered in a joined-up manner
- all online services need to be secure and trusted

The aim of electronic service delivery is to provide better, customer-driven and more efficient public services. Enabling citizens and businesses to transact electronically with government organisations and agencies is a key part of this strategy. The Internet is being used as the core delivery channel for enabling these improvements in service delivery. With its associated open standards and technologies, the Internet provides a major means of establishing electronic relationships between government organisations and their customers.

## Functions of the Government Gateway

The cornerstone of this UK-wide strategy is the Government Gateway. The Gateway provides:

- authentication and authorisation services – which ensure that users are who they claim to be and that they have the right to access a specific service or set of services

- a single sign-on facility and single-credentials that are supported across all government services, national, regional and local – so that users can have one user ID and password, or a digital certificate, for use with all online public services

- a common transaction and routing facility – which guarantees the reliable delivery of documents and messages. This includes both documents between business and citizens and government, as well as the routing of documents between government organisations

- a secure messaging facility – enabling secure communication between business, citizens and government organisations

- an integration tier – offering reliable delivery of standards-based information into the connecting organisation, including the option for customised local integration into existing systems and applications

- a payments facility – offering both unauthenticated and authenticated payments, ranging from credit and debit cards through to direct debit

The Gateway is part of the UK's critical information infrastructure and provides a highly secure environment, a resilient "always on" service and a capacity to handle high volumes.

The provision of this common infrastructure shared across national, regional and local public services:

- avoids the duplication of the common facilities and services necessary to connect individual government organisations to each other and to customers over the internet

- delivers joined-up services by provisioning a common authentication service thereby enabling a user to interact with many government organisations in a single transaction using a single identity

- enables both the private and public sector to provide customer-driven applications that can interact with government in a consistent manner

## Benefits of the Government Gateway

The Gateway acts as an intelligent hub. It is responsible for providing authentication services, verifying the integrity and validity of submitted transactions, and for routing them to or between appropriate government organisations.

Over time, it is anticipated that the Gateway will handle the majority of the estimated 5-6 billion of annual government-related transactions. The Gateway has a goal of providing a minimum of 99.95% availability, which may move to 99.999% availability as it becomes an increasing cornerstone of government business.

The Gateway facilitates joined-up working between all stakeholders. This allows government organisations to communicate with their electronic business users and citizens using a common, consistent mechanism. The Gateway infrastructure also enables them to communicate between themselves – so a central government department, for example, can use the Gateway to securely route forms to a local authority. Hence the potential user community is in excess of 30 million citizens, agents and businesses. The number of national, regional and local government organisations is estimated to be in excess of 1,000.

The benefits of using the Government Gateway include:

- *reduction in costs to e-enable services* – core Gateway functionality such as single sign-on, secure two way electronic communication, common document authentication and routing, open standards and multi-platform support, and support for multi-channel delivery through open programmatic interfaces, ensure that public sector organisations do not need to develop their own solutions for transactions, secure e-mail, authentication etc. Instead they can make rapid use of these common Gateway services.

  Indicative costs for designing a web site that provides these types of facilities are between £1M and £3M or more, and this does not include the costs associated with hosting and supporting the site. Implementing a digital signature signing capability can cost up to £250,000 per instance along with additional costs of £40,000 for each new certificate provider (presently there are two certificate providers already supported by Gateway, with more expected, taking the anticipated total to over ten). Each organisation would face those costs alone if existing core infrastructure is not used. More importantly, there can be no cross-government authentication unless there is a single virtual record that all public sector organisations can trust. The Gateway reduces the costs of implementation, reduces risk and decreases project delivery time-scales

- *a proven way of connecting back-office systems* – the Gateway provides a cost-effective and fast way for connecting existing systems using open interoperability standards

- *single sign-on and masking of back-office structures* – the Gateway delivers joined-up transactions where one user service can be directed to many parts of government. The complexity of back-office systems are masked from the citizen and business

- *reduction in time to deliver projects* – organisations can narrow the scope of the work required to deliver e-services since the Gateway already offers services that provide part of the solution. The focus of government organisations can be on e-delivery of rich and meaningful services to their users, rather than on all the peripheral components (such as authentication, payments etc) that sit around the service

- *ability to deliver customer centric projects* – the Gateway provides the infrastructure to enable joined-up transactions. This enables citizen- and business-focused services to be developed, regardless of the number of departments or local authorities that are involved in the process

- *interoperability* – through GovTalk, the UK Government's data interoperability standard, the Gateway promotes best practice on the use of XML and schema creation to provide interoperability based on open standards

- *others* – savings in running costs as more services are delivered; reduction in fraud; savings from

reduced print, production and postage costs; the cost of delivery by leveraging central infrastructure is likely to be 25-35% of silo-based implementation; joined up processes reduce overhead throughout government

## Conceptual Overview

The Gateway was designed to simplify and accelerate the UK e-Government programme. It achieves this by ensuring that the common building -block components of e-Government services are provided once, in a flexible, modular and scalable way.
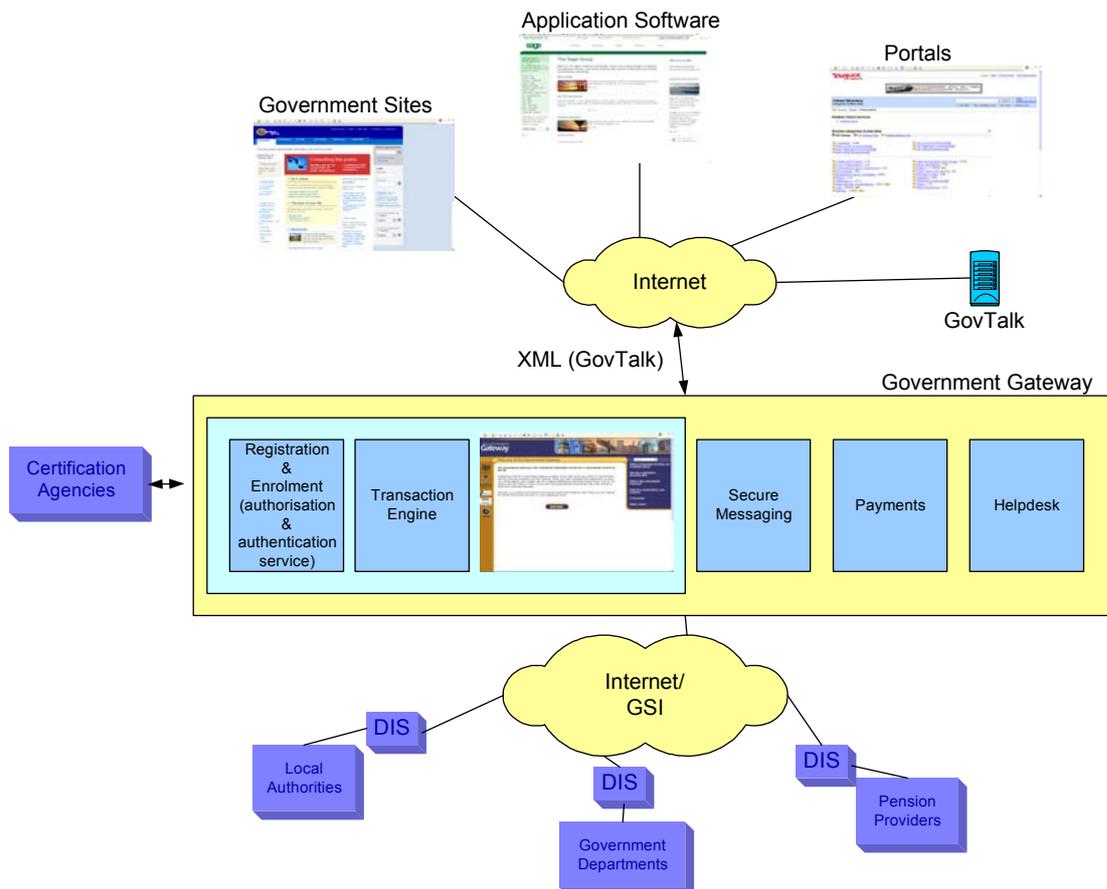


It is the responsibility of government organisations, as part of their e-Government strategies, to develop e-GIF (e-Government Interoperability Framework) compliant transactions that can be accepted electronically by the Gateway and, in conjunction with the Gateway service provider, to devise the business rules associated with each type of transaction. As the Gateway uses entirely open interoperability standards – XML, HTTP and SOAP – and is fully aligned with the e-GIF, the process of developing and e-enabling transactions is simplified.

## Gateway Core Modules

The Gateway has been designed around three main core modules:

- Registration and Enrolment (R&E) – *authentication and authorisation services, enabling single sign-on across all government-related sites*
- Transaction Engine (TE) – *a common transaction authentication and routing infrastructure*
- Departmental Integration Service (DIS) – *reliable open-standards (SOAP/XML) two-way communication between organisations and the Gateway together with potential application integration features (onward mapping between XML and local data formats within an organisation)*

## Gateway Additional Modules

In addition to its core functions, the Gateway also provides a range of associated services. These are:

- Secure Messaging – *a secure two-way communication channel between government organisations, businesses and citizens*
- Helpdesk – *a service for government organisations making use of Gateway-powered services*
- Payments – *a central payments service, either used standalone or embedded as part of a larger transaction*

## Gateway Services

The Gateway supports an increasing range of online services. For citizens, Inland Revenue's Tax Self-Assessment uses the Gateway, enabling users to submit their tax returns electronically in a trusted and secure fashion either online, or from PC-based application software. For businesses, the Gateway provides support for the Inland Revenue's PAYE services and also for HM Customs and Excise VAT returns. New services are being added all the time.

## Further Information

For media-related enquiries, please contact the Office of the e-Envoy.

More details are available from the Office of the e-Envoy (www.e-envoy.gov.uk). Departments requiring assistance in developing or launching Gateway-enabled services should send an email request to:

gatewayservices@cabinet-office.x.gsi.gov.uk

Queries from partners or developers, and comments about the site structure or content, of the Gateway Partnerlink site should be sent to:

gatewaypartnerlink@cabinet-office.x.gsi.gov.uk