2006 IDDY AWARD WINNER

The UK Leverages Open Federation and Interoperability to Serve Citizens

Case Study: The Government Gateway Service is the authentication server for all e-government services in the UK. The Gateway leverages open federation and interoperability of federation products to secure the electronic delivery of government services to citizens.

Project Background

The UK government is in the midst of a large scale e-government initiative. The Government Gateway is the authentication server for all e-government service access, on a national scale and some eight million registrations have been recorded. To date, adoption of e-government has been somewhat constrained by the difficulty service-user organizations were experiencing in writing to the existing authentication interfaces. The UK government sought to improve interaction through the application of the Liberty standards.

Objectives

This project greatly extends the potential for uptake of the Gateway's authentication service and has set out to meet three specific goals:

• Secure the electronic delivery of government services
• Enable single sign-on in support of "joined up government"
• Break down technical silos that were hindering "transformational government"

The project also extends the accessibility of Liberty standards, potentially into the whole UK local government market.

The IDDY and the E-government Squishy, a popular souvenir from the 2005 UK Local Government Conference

Core Deliverables

The core deliverables for this project were software modules which implemented the Liberty ID-FF and Web Services WS-Federation specifications. These modules were then added to the UK "Government Gateway" application—a centralized authentication server for UK e-government services. Release 1.6.8 went live in June 2006.

Citizen Empowerment

The Gateway authentication service is explicitly aimed at citizens (for example, authenticating in order to submit online tax returns). However, before this project, the citizen still had to sign on separately with each service provider. This project opens the way to single sign-on across participating central and local government organizations, whether these use ID-FF or WS-Federation as their authentication protocol. Now that Release 1.6.8 has been launched, the Cabinet Office have begun to advertise its availability to UK citizens via the Radio and Television media.

Technology

The Gateway server application is written in Microsoft BizTalk and implements a proprietary authentication protocol to a back-end database. This was perceived by the target user communities as overly hard to write to, and was not supported by mainstream off-the shelf products. As a result of this project, the Gateway now exposes Liberty and WS-Federation interfaces.

Looking at ROI

The key strategic ROI for this project was that it supplemented the existing (proprietary) Government Gateway authentication protocol with two industry-standard protocols, Liberty and WS-Federation. This has two effects: first, it demonstrates the Gateway's ability to support interoperability of the two protocols; second, it gives the 'customers' of the Gateway (including all UK local government authorities) the option to use off-the-shelf products that support the Liberty ID-FF protocol.

Definition of Terms

Identity (n) **1.** the most basic element in a high value relationship **2.** the individual characteristics by which a person, business, business partner, government agency or other entity is recognized or known

Single sign-on (n) **1.** having the capability of accessing an online system once and having that authentication honored by other system entities, often service providers **2.** sometimes called SSO

Identity Provider (IdP) (n) **1.** a service that authenticates identity; often a trusted party such as a bank, mobile operator, or an

Internet Service Provider (ISP) Service Provider (SP) (n) **1.** a federation partner that provides services to an end user; service providers typically do not authenticate users but instead request authentication decisions from an identity provider

Federation (n) **1.** an association comprising of any number of service providers or organizations **2.** a model based upon trust in which user identities and security are individually managed and distributed by the service providers or member organizations **3.** where the individual organization is responsible for vouching for the identity of its own users and the users are able to transparently interact with other trusted partners based on this first authentication **4.** resembles the credit card model in that vendors accept an individual's ability to pay and then that ability is authenticated/verified through a single location

Circle of Trust (n) **1.** a trusted group of identity and service providers who share linked identities and have pertinent agreements in place **2.** where an individual or a business inputs a password once and minimal necessary credentials are shared among the Circle of Trust's members **3.** a step strongly linked to federation, where multiple entities are involved, and there are business, policy and technical relationships in place **4.** also known as "trust circle"

Helping to Prevent Identity Theft

Today, the local authorities can more easily use the Government Gateway as a centralized authentication service and there is less need for each authority to develop or implement its own secure authentication mechanism. In the UK, local authorities are under constant budgetary pressure, and frequently cut or out source IT services based on cost—which in turn often reduces the effectiveness particularly of IT security measures. This project provides local authorities with a single, consistent and robust security mechanism at minimal cost and effort on their part.

Addressing Privacy Concerns

This project is primarily aimed at the G2C segment rather than consumers. However, in the local government market the line between citizen and consumer is often far more blurred (for example, in the provision of contracted-out leisure services). Potentially, easier access to the Government Gateway for authentication could be used to improve the online security of these public/private sector partnerships.

The IDDY's Impact

The UK government is now beginning to inform the UK citizens of the availability of this gateway through radio and TV advertise-ment. "Winning the IDDY Award will act as a serious 'shot in the arm' for this campaign and help the on-going adoption of this much needed service," said Sun's Bipin Dattani.

ABOUT THE LIBERTY ALLIANCE

Liberty Alliance is a global alliance of companies, non-profit and government organizations developing open standards for federated network identity, interoperable strong authentication and Web services. Liberty Federation and Liberty Web Services provide consumers and organizations with a more convenient, privacy respecting and secure way to control online identity information. The Liberty Alliance management board currently consists of representatives from AOL, Ericsson, Fidelity Investments, France Telecom, General Motors, HP, IBM, Intel, Novell, NTT, Oracle, RSA Security and Sun Microsystems. Membership in Liberty Alliance is open to all commercial and non-commercial organizations. A full list of members, as well as information about how to become a member, is available at www.projectliberty.org /membership.