

Case Study:

GM DRIVES FEDERATED IDENTITY

The Company

General Motors Corp. (NYSE: GM), the world's largest automaker, has been the global industry sales leader for 75 years. Founded in 1908, GM today employs about 327,000 people around the world. With global headquarters in Detroit, GM manufactures its cars and trucks in 33 countries. In 2005, 9.17 million GM cars and trucks were sold globally under the following brands: Buick, Cadillac, Chevrolet, GMC, GM Daewoo, Holden, HUMMER, Opel, Pontiac, Saab, Saturn and Vauxhall. GM operates one of the world's leading finance companies, GMAC Financial Services, which offers automotive, residential and commercial financing and insurance. GM's OnStar subsidiary is the industry leader in vehicle safety, security and information services. More information on GM can be found at www.gm.com

Challenge

As a large manufacturer, GM continually looks for ways to reduce cycle times, improve employee, partner, and customer satisfaction, and more tightly integrate business processes. But for a large organization dealing with literally hundreds of environments, identity management has loomed as an enormous technical and business issue. In the mid-nineties, GM knew they needed to address this mission-critical issue of identity management.

Application

B2E2B

"We believe that federation is going to become a mandatory part of doing business on the Web. For the consumer, it makes their life so much easier by reducing the need for multiple IDs and passwords. Federation is also attractive because it provides a way to maintain privacy and secure identity. With all the problems around ID theft, this is very important."

John Jackson
Director of Software Technology
GM

Starting Up the Liberty Alliance

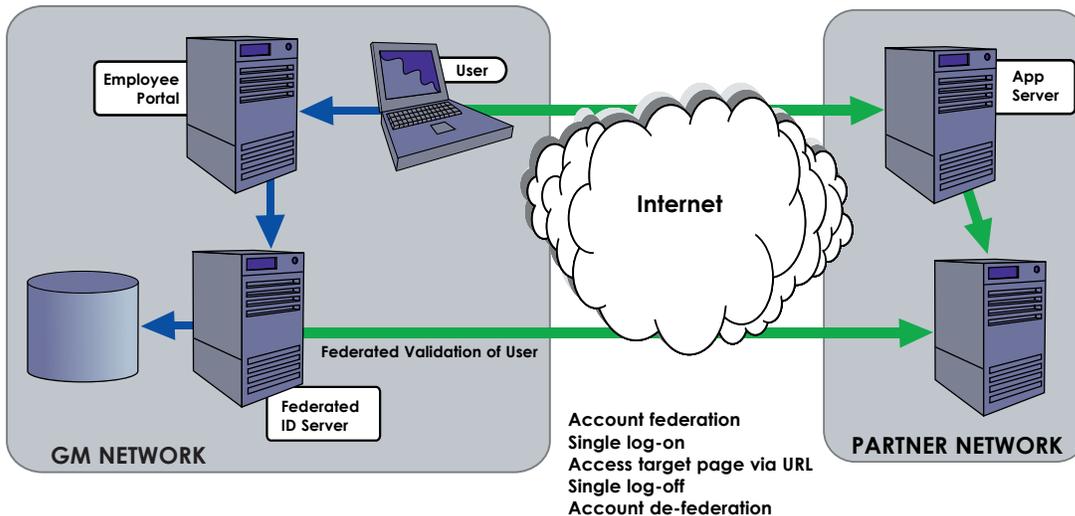
Technology matters were complicated by the fact there was no de facto standard for identity management across multiple platforms. That's why GM and fourteen other organizations founded the Liberty Alliance and went on to develop and deliver specifications for federated network identity. "General Motors joined Liberty Alliance because we believed that it was important for the industry to have some choice in the technology around identity management," said John Jackson, GM's director of software technology. "We never believed that a single provider—regardless of whether it was the federal government, Microsoft, or a large bank—would be able to serve the entire Internet. It was important to us that multiple identity providers be able to work together."

Why Federation Makes Sense

"Federated identity" is still a relatively new term in the e-marketplace. When organizations use industry standards and specifications to establish "Circles of Trust" among trading partners, they are acting as a federation. Federated identity management allows a user to sign on once, and visit multiple Web sites, without having to go through the authentication or authorization process again and again. In most cases, the user allows each Web site or federation member to maintain and control their profile separately, versus a centralized management approach where one authority controls and disseminates the user's information as requested. Users are also provided with more control over their personal information and can choose which accounts they want to federate (link).

GM Deploys Liberty Specifications in Employee Intranet

GM is currently testing the Liberty federated specifications within its employee Intranet, called MySocrates. MySocrates provides access to many of the outsourced HR services that GM employees receive including health benefits and 401(k) plans. "While MySocrates has always offered central access to these services, our employees had to log in and authenticate themselves each time they accessed an individual service. It was time-consuming and onerous," said John Jackson. "Our goal was to make access more seamless and efficient for our employees—but at the same time, protect their privacy. As you can imagine, most people wouldn't want to share the same password and profile with their 401(k) provider and healthcare provider. Federation makes this employee control possible."



THE SOLUTION SPECIFICS

Solution providers:

Sun Microsystems and Workspace.

Functionality:

The solution is designed to seamlessly link the GM employee portal, MySocrates, to business partners' sites.

Goal:

To simplify information access and provide single sign-on and sign-off.

Scope:

The production system currently supports 180,000 users.

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

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 regarding how to do business and interact with identity providers 2. where an individual or a business inputs a password once and 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."

“On the business side, the efficiencies and improvements made possible by federation are limited only by our imaginations”

John Jackson
Director of Software Technology
GM

Extending Federation Throughout the Enterprise: Additional GM Deployments

GM is currently exploring ways to extend federation throughout their enterprise.

DealerWeb: This application provides each of GM’s 14,000 dealers worldwide with access to a variety of applications, such as online auctions. With federations, dealers will have seamless access to applications from GM and GMAC. They will have a foundation in place to enter into federated relationships with other business partners.

OnStar: GM is also looking at ways to incorporate the Liberty specifications into OnStar, the nation’s leading provider of in-vehicle safety, security, and communication services using wireless technology and the Global Positioning System (GPS) satellite network. OnStar safety and security services include automatic notification of air bag deployment, stolen vehicle location assistance, emergency services, roadside assistance, remote door unlock, and GM Goodwrench remote vehicle diagnostics. OnStar Hands-Free Calling allows drivers to make and receive hands-free, voice-activated calls from their vehicle.

Supply Chain Applications

As lines among manufacturer, supplier and customer blur, the issue of security becomes increasingly important. That’s why in more intimate electronic trading environments, user access must be segregated and isolated. The federated identity model enables an organization to provide controlled authentication access to only what is needed for the business transaction. By deploying new federated network identification standards, organizations address the issues around:

- transmitting confidential information
- assuring identity
- balancing authentication risk and liability among trading partners
- segregating access

In this trading model, XML provides the flexibility to adapt to standards-compliant interfaces and link to internal and proprietary data structures. And corporate purchases can be aggregated through one central relationship with a supplier, leading to stronger buying efficiencies and improved vendor relationships.

The Benefits of Federation

- Provide your customers, citizens, employees and business partners more control over identity information
- Supply superior security, control, and privacy-improving trust
- Mitigate against breaches and identity theft with no single point-of-failure
- Provision accounts and securely provide access to designated resources both within and outside corporate borders
- Build identity into the foundation of all transactions and personal data services activities
- Eliminate excess passwords and securely implement single sign-on
- Offer a far more satisfactory on-line experience and new levels of personalization
- Create seamless and secure business relationships
- Improve authentication with existing internal resources
- Improve shareholder value and compliance procedures by offering a means for better reporting accuracy
- Reduce risk through a more balanced authentication process

Advice from an Early Adopter

GM was one of the first **Fortune 50** companies to aggressively deploy federation. John Jackson offers up this advice on federation:

- Recognize that federation will be a mandatory part of doing business on the Web.
- Take the time to get your identity infrastructure in order and under control.
- Understand that it's not so much a technical challenge as a business challenge. Be sure to allocate the time to work through the business issues.
- Take the time to educate employees on the technology and concepts. Federation sells itself.

About the Liberty Alliance

The Liberty Alliance Project (www.projectliberty.org) is a global alliance of companies, non-profit and government organizations developing open standards and business, policy and privacy guidelines for federated network identity. Federated identity offers businesses, governments, employees and consumers a more convenient and secure way to control identity information and is a key component in driving the use of e-commerce, personalized data services and identity-based Web services. Liberty specifications are deployed worldwide by organizations that include American Express, AOL, BIPAC, General Motors, Fidelity Investments, France Telecom, Nokia, NTT and Sun Microsystems. Membership is open to all commercial and non-commercial organizations. A full list of Liberty Alliance members, as well as information about how to become a member, is available at www.projectliberty.org.