



SSOCIRCLE

Case Study:

SSO for All:

SSOCircle Makes Single Sign-On Available to Everyone

Although single sign-on (SSO) technology based on Liberty standards is being rapidly adopted by businesses, governments and educational institutions, it hasn't made it to the general, user-facing Web. Typical Internet users still regularly log in separately to different online services and vendors and are forced to manage multiple passwords.

The lack of SSO for the general-use public Web also encourages users to save their multiple passwords in their browser or accept cookies that keep their computer logged in for weeks at a time. While more convenient than managing multiple digital identities, this practice is also an enormous security risk. Anyone who gains access to that user's machine can access all sorts of personal information and even send emails or make purchases in that person's name. In addition, as the range of activities conducted online grows with the expansion of Software as a Service (SaaS) offerings, the problem gets compounded further. There is clearly a need for a simple, secure consumer-oriented SSO solution.

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Chris Mueller

SSOCircle Co-Founder

The Solution

Enter SSOCircle. In 2006, a group of like-minded consultants, with backgrounds in building Internet Service Provider (ISP) infrastructures and applications, decided the time was right to create a SSO solution for everyone. They envisioned something open, a service that could be both quickly deployed and make federation possible over a wide range of use cases.

So they got together and developed a SAML 2.0 Identity Provider, a service that allows anyone to join as a user or integrate with their existing system as a Service Provider and participate in what they came to call SSOCircle. "A lot of people have problems setting up an identity provider and getting started with SAML," explains Chris Mueller, a founder of SSOCircle. "So our first goal was to set up an identity provider, get people started and grow our offering from there. It was a first step."

This new offering was launched in January 2007 and in one year, SSOCircle has grown to include more than 500 participants, and also dramatically increased the scope of their functionality and offering.

Key Facts

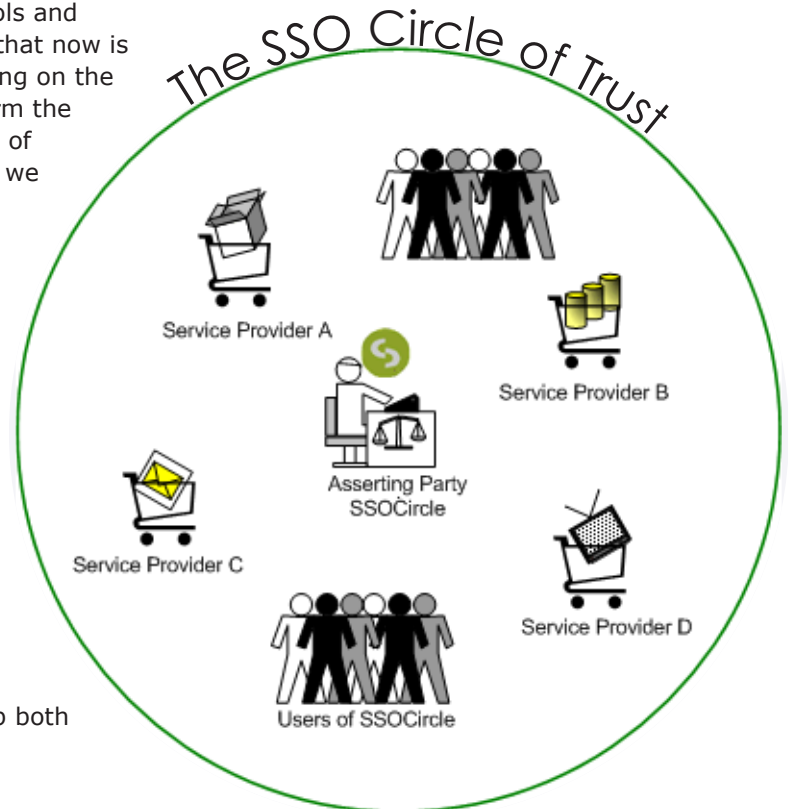
- **Organization:** SSOCircle
- **Location:** Frankfurt, Germany
- **Solution:** Identity provider service designed for everyone
- **Launched:** January 2007
- **Multi-Protocol Support:** SAML 2.0; OpenID
- **Key Features:** Strong authentication; integration with Google Apps

A Cycle of Constant Improvement: Integrating Multi-Protocol Support

Once the SAML-based offering was up and running, the SSOCircle team decided to improve it—and launched a pilot to support OpenID. Their thinking was: Rather than simply adding to a list of competing approaches, why not make it possible to federate across identity solutions?

“After having watched SSO and federation protocols and products during the last years, we are convinced that now is the time that technologies converge and, depending on the deployment use case, only a few protocols will form the basis for common deployments,” says Hu Liu, one of SSOCircle’s founding partners. “That’s why today, we are focusing on SAML 2.0 and OpenID. We hope to provide a useful platform to ease SSO and federation deployments.”

The pilot was successful and SSOCircle officially became the first public identity provider supporting SAML 2.0 and OpenID protocols. Today SSOCircle support now includes attribute exchange through OpenID Simple Registration Extension. This means users are now able to share profile attributes (like name or email address) between the IDP and the Relying Party. Users can easily use their SSOCircle account at any of the wide range of OpenID relying parties. By entering <http://<yourSSOCircleID>.ssocircle.com> as their personal OpenID URL at the service site, users access a SSO experience that opens up both the SAML and OpenID worlds.



Integrating with Google Apps

In order to open the benefits of SSO to the wider public, SSOCircle used the SAML 2.0 standard to integrate their offering closely with the popular Google Apps suite of online services. “You can use Google Mail, you can use your calendar, you have a start page and it is all done with SAML single sign-on,” Mueller elaborates. “So for most people, I think this is the first real example of integrating with SAML and a *real* service provider, a *useful* service provider, not just samples.”

“As the industry continues to bring a steady stream of new capabilities and standards to the market, SSOCircle makes SSO available to everyone, fostering convergence, accessibility and security.”

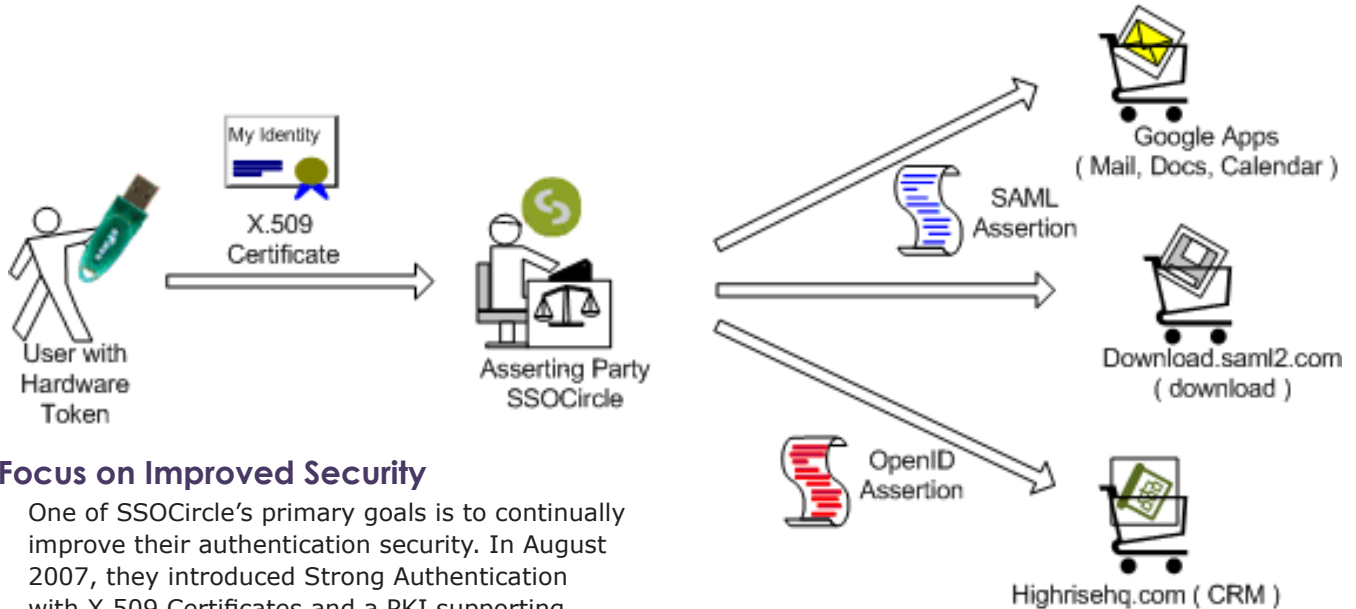
Britta Glade

Director of Marketing at the
Liberty Alliance

The combination of tight integration with Google Apps and the ability to access a growing list of OpenID-enabled services makes SSOCircle’s offering able to include a broad range of diverse Web activity under the same identity umbrella. Offering a bridge that connects SAML and OpenID means that SSOCircle can take advantage of each one’s strengths in different contexts.

There’s a good example even within the context of Google’s products: The more secure SAML 2.0 solution is used for access to business applications like email that might contain sensitive information, and the more publicly accessible OpenID is used as an identification method for leaving comments on blogs hosted at the Blogger site.

Identity Provider: SAML and OpenID



A Focus on Improved Security

One of SSOCircle's primary goals is to continually improve their authentication security. In August 2007, they introduced Strong Authentication with X.509 Certificates and a PKI supporting automatic enrollment of Certificates. Using certificate-based authentication reduces the threat of phishing. With certificate-based login there is no need to let a password travel over the network.

SSOCircle also recently announced support of USB hardware smart card tokens called ePass. These tokens are a combined smart card and smart card reader with a USB interface. This will enable SSOCircle users to protect themselves from keystroke loggers and other potential threats at public terminals or on computers that aren't their own. With this device, users can be 100% sure that nobody can trap their password and get access to a site's services. This is a significant improvement over existing solutions. Because of the driverless tokens no software needs to be installed at a public terminal.

"You just put it in, start your Firefox and get your certificate from the stick, and then single sign-on with the certificate to the identity provider. If SSOCircle says okay, then the SAML assertion is sent to Google and you are signed on," explains Mueller. "If you leave the public terminal and take your stick with you, nobody can access your account. It makes single sign-on really secure and demonstrates the added value for connected service providers." Mueller adds that in the coming months, SSOCircle will also support biometrics and integrate a fingerprint sensor.

Benefits to Enterprises/Organizations

- Secure access to service
- Less set up and administrative costs
- Value added through SSO to other services by joining the COT

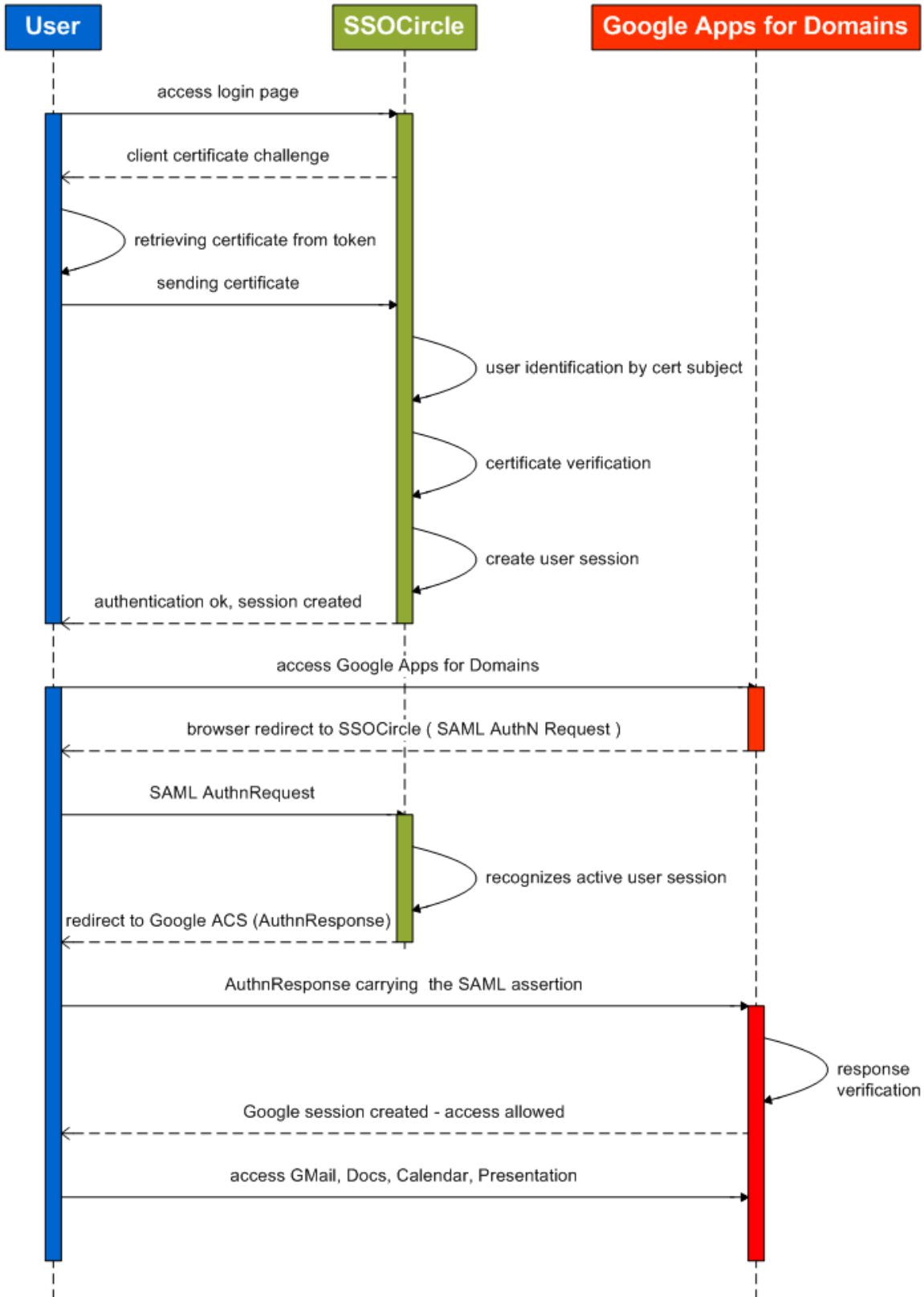
Benefits to Consumers/Users

- Single Sign-On
- Control over trust settings
- Better password protection

Deployed Technologies

- OpenSSO
- ZXID
- Feitian Strong Authentication Token

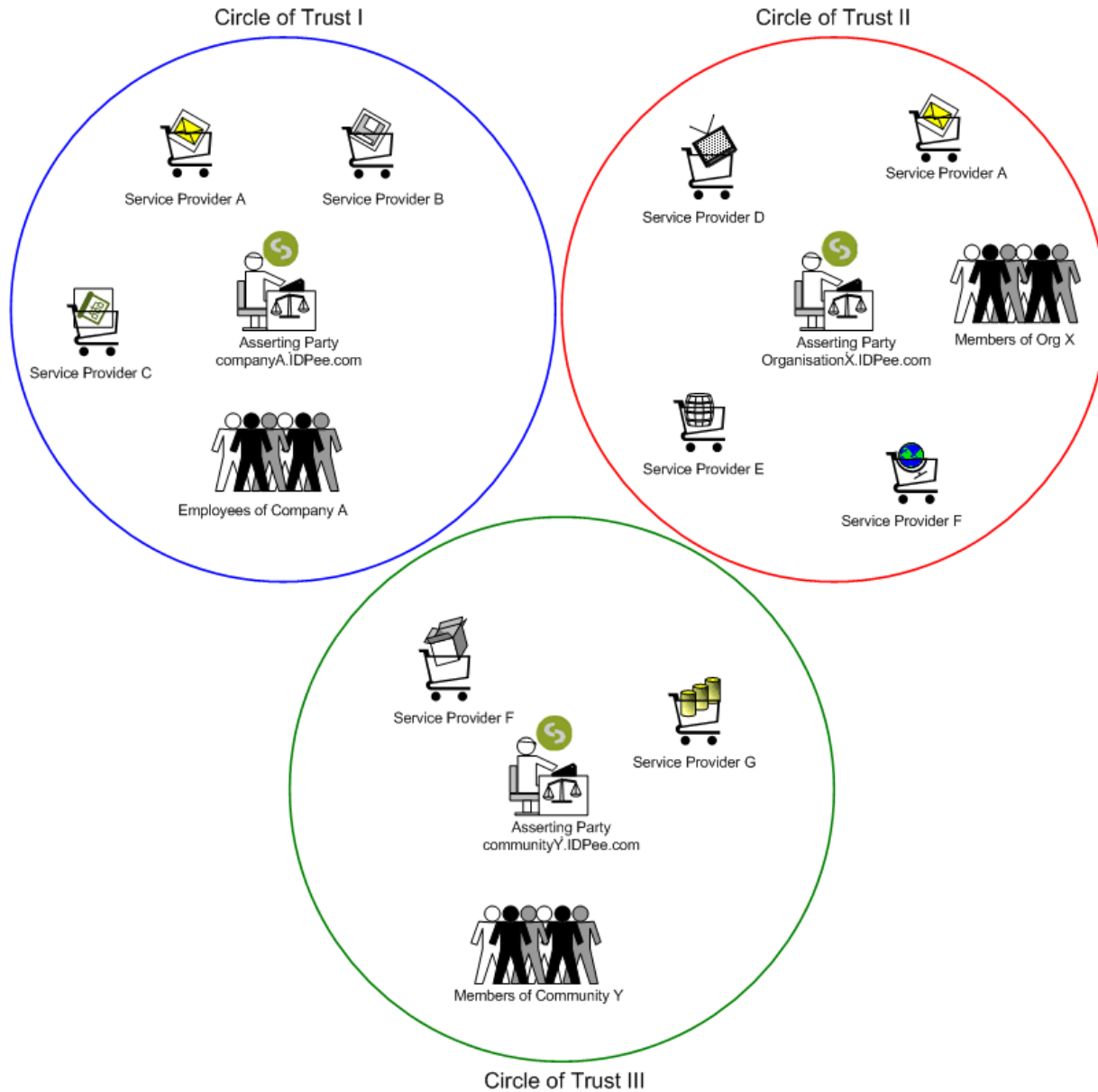
Signing On to Google Apps Using Strong Authentication



Moving to the Future: Identity Provider in a Box

Sometime in 2008, SSOCircle plans on offering a service that is a “white label identity provider in a box.” This service will be targeted to small to midsize companies that don’t want the hassle of having to set up the whole identity provider infrastructure. This product would basically enable companies to have their own private Circles of Trust.

“This way if one service provider (e.g., a marketplace) requests from their partner to set up their own identity provider, the partner would be able to leverage the hosting service, and direct their own circle by building a trust relationship with the marketplace. A solution that speeds up account processes and saves costs for administration at moderate infrastructure costs for the partner. This is our target: the companies that don’t want to invest a lot in setting up and operating an identity provider infrastructure,” explains Mueller.



What’s Next

Mueller and his team at SSOCircle are well positioned for the future. According to Mueller, the potential of identity and federation market is forecasted to reach \$730m in 2010, and taking into account that, according to analysts, 25% of business software will be delivered as SaaS about that time, the market for hosted identity services estimates approximately \$180m.

About SSOCircle

SSOCircle is a group of consultants each with more than 10 years of business experience mostly in building large ISP hosting infrastructures and applications. From the beginning of SSOCircle their mission has always been to help jump-start single sign-on deployments by providing an open identity provider for everyone and ready-to-use solutions. Supporting multiple protocols and introducing strong two-factor authentication together with simplified enrollment clearly demonstrates the power of a secure identity provider service. Visit www.ssocircle.com and participate in building the SSOCircle of Trust.

About Liberty Alliance

Liberty Alliance is the only global identity organization with a membership base that includes technology vendors, consumer service providers and educational and government organizations working together to build a more trusted Internet by addressing the technology, business and privacy aspects of digital identity management. The Liberty Alliance Management Board consists of representatives from AOL, BT, France Telecom, HP, Intel, Novell, NTT, Oracle and Sun Microsystems. Liberty Alliance works with identity organizations worldwide to ensure all voices are included in the global identity discussion, and regularly holds and participates in public events designed to advance the harmonization and interoperability of CardSpace, Liberty Federation (SAML 2.0), Liberty Web Services, OpenID and WS-* specifications. More information about Liberty Alliance as well as information about how to join many of its public groups and mail lists is available at www.projectliberty.org.