Case Study:
Bluewin Implements Liberty Alliance Specifications for Single Sign-On

Company

With approximately 2 million customers, Bluewin (www.bluwin.ch) is the largest Internet service provider in Switzerland and a fully owned subsidiary of the telecommunications company SwissCom.
Bluewin is among the first Internet service providers to implement a Liberty-enabled solution. The company provides a range of services geared at both consumers and businesses.

Application

B2C

Challenge

Bluewin sought to simplify single sign-on and eliminate the need for users to input multiple pieces of information in order to enter password protected sites. They also wanted to enhance security and improve access to third-party services.

In order to meet these goals, the challenges extended to areas including managing user identity in a distributed environment, insuring user integrity, enabling federation between different legal and organizational entities, as well as making access to online services as user-friendly as possible.

> "Our customers asked for single sign-on. To them, the Web is like a big shopping mall and they do not expect to have to present their names or log in each time when shopping for goods. With the Liberty identity concept, our customers can shop in the online world much the same way they do in the bricks and mortar world. It's important for us that the customer is active and exercises choice. The Liberty identity provider concept enables that."
>
> **Mike Zumsteg**
> **Head of Bluewin Internet Services**

Solution

Bluewin implemented the Liberty Alliance Identity Federation specifications. In this new environment, Bluewin functions as the identity and attribute provider for a Swiss Circle of Trust. This means that once a Bluewin user has been authenticated by a circle of trust identity provider, that individual can easily be recognized by other service providers within the circle.

The first service provider in the circle of trust is the Swisscom Micropayment service. Other service providers including the famed online chocolate shop, Sprungli, (www.spruengli.ch) will soon follow suit.

Bluewin has implemented the identity provider functionality in an internal development project based on Open Source Framework Source ID. Bluewin is also collaborating with different IT integrators to enable a circle of trust with several participating service providers. This way, Bluewin will be able to offer single sign-on for multiple Swiss sites and will store attributes only once.

The Bluewin identity provider supports Liberty's Identity Federation Framework specifications. Attribute sharing will be enabled in the next phase of development.

Single Sign-On Makes It Easier to Shop Online

Study after study points to the fact that one of the reasons online shoppers "abandon their carts" is because the service provider wants the shopper to fill out a registration form. Users are also hesitant to use "untrusted" sites.

At Bluewin, this changes. When a user visits service provider B (1) the user is offered the opportunity to have that service federated within BlueWin. This means the user can seamlessly access service provider B (SP B) without having to authenticate herself again because authentication is handled on the backend between SP B and the Bluewin identity provider.

The user can also access other Bluewin services providers (SP A – SP i) and only maintain personal data in one place: The Bluewin customer/user database.

DIAGRAM A
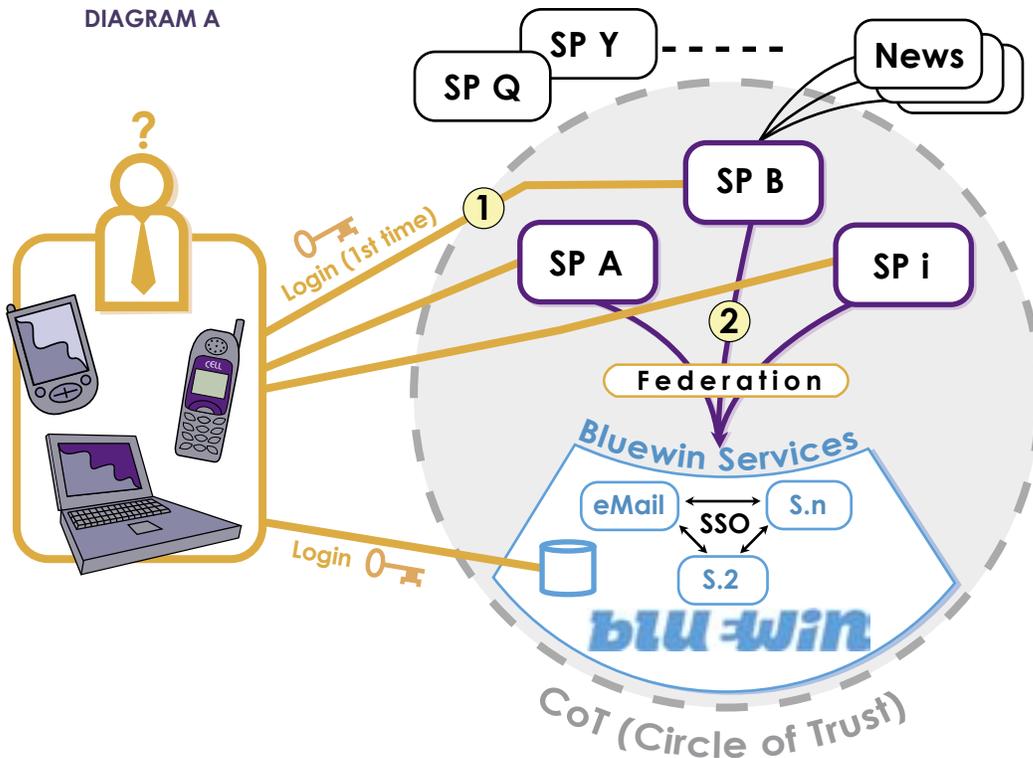
Benefits to Service Providers

Improved customer experience

More cost efficient password management

Increased revenue

Reduced administration for all parties

Why the Liberty Alliance

Bluewin choose to work the Liberty Alliance for the following key reasons:

- **The specifications are open.**
- **There's no lock-in. The need for proprietary implementations was eliminated.**
- **It provides a distributed federated model and enables circles of trust.**
- **Security is appropriately addressed.**

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).

Federation (n) 1. an association comprising of any number of service providers or organizations 2. a model based upon trust in which user identities 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.

DIAGRAM B
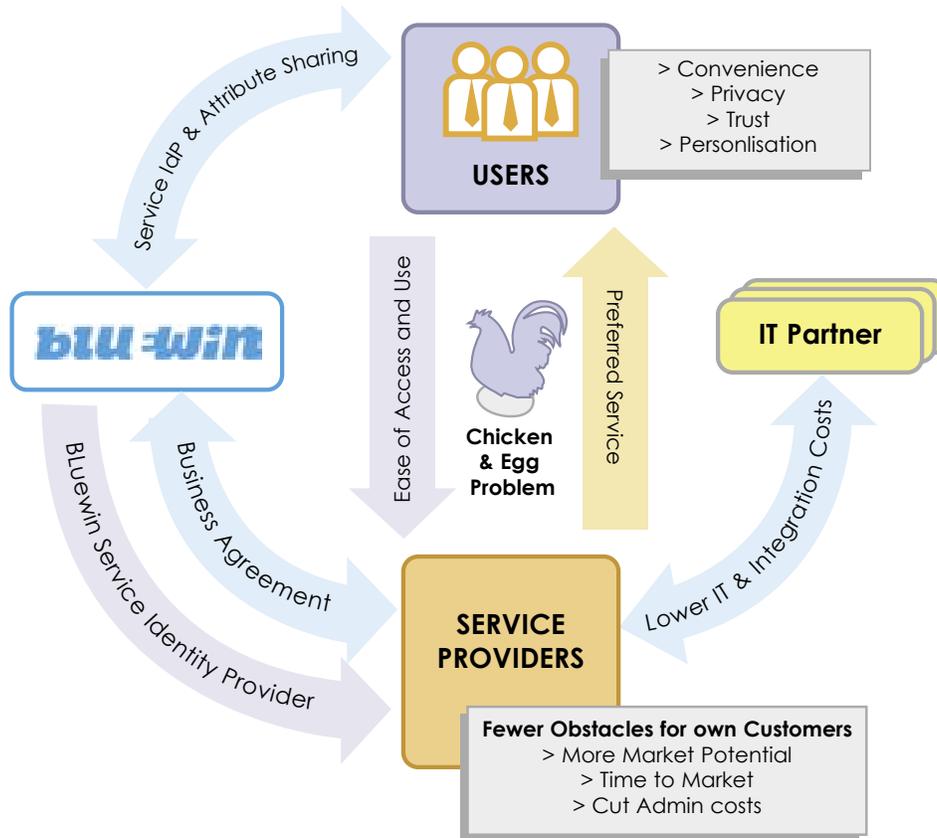

The Business Model and Its Key Benefits

Improving user friendliness was also a key driver for Bluewin. In this new environment, it's simply easier for all parties to transact business. For service providers (and other sites), the Liberty model provides a mechanism to increase revenue and build customer loyalty. At the same time, the model reduces the amount of administration required for both users and service providers.

In addition, the business model can be supported through co-marketing programs. A service provider can, for example, advertise on the Bluewin homepage and when the user clicks on the advertisement, federation is immediately performed---after which automatic log-in is provided.

The Screens: Bluewin Single Sign-on User Experience

The following screenshots illustrate the user experience.

Figure 3
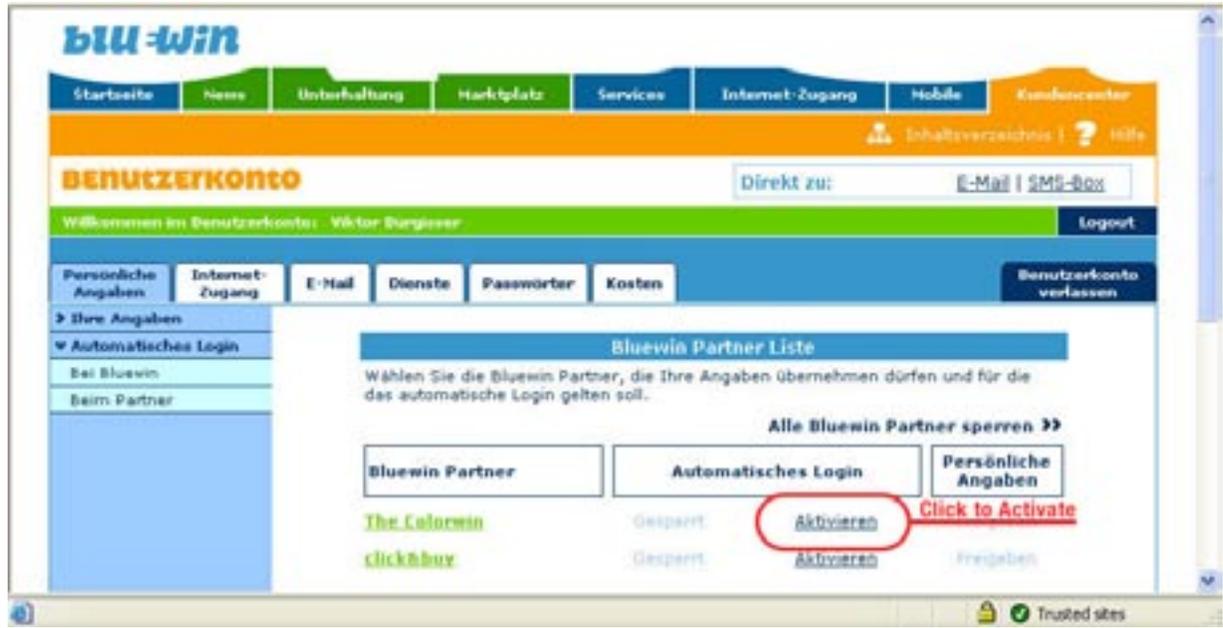
Enabling Federation

When accessing the Bluewin homepage, the user has the possibility to activate federation for selected service providers.

Figure 4
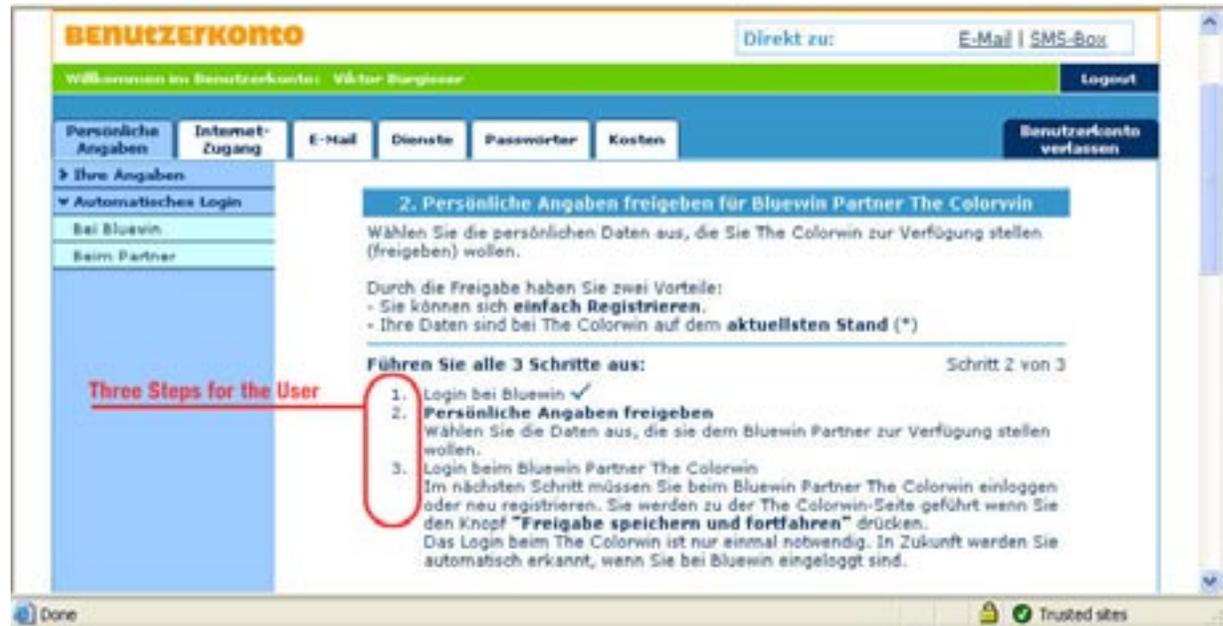
Only three steps to federate

When accessing the next page, the user is guided through the three simple steps required to enable the single sign-on functionality:

• Log-in to the Bluewin service (already completed)
• Attribute sharing with user consent
• Log-in to the service provider site (automated), attribute sharing with user consent

Figure 5

Attribute sharing on Bluewin
The user consent is conveniently set up – no information to type in, only one click per item needed.

Figure 6

Accessing a Service Provider with Single Sign-On
When accessing the Service Provider's home page, the user can log in automatically by clicking the "Bluewin – Automated Log-in" link.

Figure 7

Attribute sharing at Service Provider site
When the user accesses the service provider's password protected area, she can agree to share the attributes of choice – again by only accepting with one click per item.

About the Liberty Alliance

The Liberty Alliance (www.projectliberty.org) is an alliance of more than 150 companies, non-profit and government organizations from around the globe. The consortium is committed to developing an open standard for federated network identity that supports all current and emerging network devices. Federated identity offers businesses, governments, employees and consumers a more convenient and secure way to control identity information in today's digital economy, and is a key component in driving the use of e-commerce, personalized data services, as well as web-based services. Membership is open to all commercial and non-commercial organizations.