Case Study:
Rearden Commerce Delivers SaaS Via Federation

Thanks to federation, Rearden Commerce makes it easier than ever for corporate employees to book and manage travel arrangements. In fact, Rearden Commerce is so good at this, and they get their deployments up and running so fast, that the Liberty Alliance honored them with a 2007 IDDY Award, for Top Identity Management Deployment of the Year.

Based in Foster City, California, Rearden Commerce delivers Software as a Service (SaaS) to more than a million employees in 1,000 companies. Their primary service, Rearden Personal Assistant, leverages federation technology to help users find and purchase the services they need based on their preferences and company policies.

How it works is simple: The Rearden Personal Assistant provides easy access to a marketplace for services, instantly connecting people to more than 137,000 merchants, including airlines, conference-call services, shipping companies, and hotels. The Personal Assistant also provides people with the tools they need to manage those services, like calendar and address book integration, email invites, and mobile alerts.

“We created a network across multiple verticals of everything you need for a trip,” said Chuck Mortimore, Rearden Commerce’s Director of Platform Services. “Keeping in mind that a trip is usually comprised of far more than just flying somewhere and booking a hotel or renting a car. You also might need to get to the airport, park your car when you get there, ship some materials, and book a conference space. We offer direct access to all this and more.”

The Key Identity Management Objectives
Rearden Commerce’s journey to SSO and federation happened very quickly. In fact, it was success that forced them to rethink their delivery strategy and approach to identity management.

In the first six months of 2007, Rearden Commerce experienced nearly 3,000 percent customer growth, deploying its solution to more than half a million end-users.

Managing this growth was a challenge. Rearden Commerce initially built and offered a proprietary single sign-on application, which required customers to hire technical staff, do custom integration work, and keep up with a plethora of protocols. As a result, customer deployments required more time and resources than desired.

Rearden Commerce quickly shifted gears and brought in Chuck Mortimore to re-evaluate their strategy. “It was clear that we needed to 1) achieve multi-protocol, standards-based SSO, 2) provide dynamic provisioning of end-user accounts, and 3) garner commercial support. And SAML 2.0 is essential to achieving those objectives,” said Mortimore. “And SAML 2.0 is essential to achieving those objectives.”

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Rearden Commerce Rethinks the Identity Paradigm

Rearden Commerce knew they had to move forward quickly with a standards-based approach, one which would allow all their customers to purchase commercial products, use existing identity management system capabilities, and securely break down the walls between corporate portals and the tools people want to get to.

Enter Ping Identity Corporation, a provider of secure single sign-on solutions for Internet applications and a Liberty Alliance member. Under Mortimore’s direction, Rearden Commerce decided to deploy PingFederate, a stand-alone federated identity server with multi-protocol capabilities for SAML 1.0, 1.1, 2.0, and WS-Federation single sign-on. PingFederate enables corporations to provide secure seamless access to their employees without any additional user authentication.

This means Rearden Commerce customers can leverage their existing authentication systems and enforce their own password policies, as they are already doing locally on their internal authentication systems.

“They are taking advantage of all the security and identity solutions that they have already put in place,” said Mortimore. “There’s huge value in that alone.”

Rearden Commerce’s initial deployment of PingFederate went live on July 9, 2007, and within one month Rearden Commerce federated with 15 companies supporting 10 to 20 percent of user sessions. Already 50K individuals are “live” and federating. Rearden Commerce expects another 50–75K to come online through the solution by the end of Q3 2007.

Macro Level Deployment Overview

For inbound Single Sign-On, Rearden Commerce is a Service Provider centered hub and spoke model.

In turn, Rearden Commerce manages and asserts identity to a wide variety of partners, either over web services, or Single Sign-On.

Deployment Cluster View

A common pool of clustered Single Sign-On servers serve multiple clusters of Rearden applications.

These servers accept all customer assertions, bridge to Rearden Commerce’s session and provisioning protocols, and direct users to proper clusters.
Expanding Circles of Trust

Today, the current deployment is a Service Provider–centric hub and spoke deployment. Basically, all Rearden Commerce customers act as Identity Providers and Rearden Commerce is the single Service Provider. Each customer authenticates users locally, and then sends SAML Assertions to gain access to Rearden applications.

According to Mortimore, identity federation is attractive because it provides enterprises with a standards-based approach to securely link and exchange identity information across partner, supplier, and customer organizations. It also effectively bridges separate security domains to provide companies with the ability to secure their cross-boundary interactions—removing friction, improving productivity, gaining efficiency, and enabling competitive differentiation. Future plans call for outbound federation with other partners, creating broader and more complex circles.

Dynamic Provisioning

One of the most important features of the Rearden Commerce service is the fact that it leverages attributes and information from each user’s profile in order to establish authorization and limits.

For example, systems administrators come in to Rearden Commerce and say: “Okay, for my company, the vice president of North America can book limos, but everyone else has to take taxis. And these people have the ability to use the dining service and these people don’t. Everyone can fly first class in the month of December.” Requests like this can be met quickly and dynamically since all of the policies are business rules written using attributes of the user’s identity.

Basically, attributes of the user’s identity are sent to Rearden Commerce along with the single sign-on messages. Rearden Commerce extracts these attributes, and either creates a new user, or updates an existing user’s profile. They then create a session for the user and allow them to access the Personal Assistant. As they first arrive, Rearden Commerce looks at their profile and evaluates the business rules that have been established by their company and/or channel. The application is then heavily personalized, based upon these rules and the users, as well as other attributes and preferences.

Selection and Deployment

Partnered with Ping Identity and are using Ping Federate

- Deployed solution and had 15 customers federated in 30 days post launch
- Currently have 45 customers federated and growing
- 25%+ traffic is flowing over SSO
- Integrated with a wide variety of systems, from home grown, to commercial Seeing Single Sign-On as a differentiator, and even a primary motivator in sales process
- Enabled on-demand provisioning over SAML to support rapid addition of users to the platform
- Currently deploying outbound Single Sign-On to partners
Software As A Service

Delivering Software as a Service (SaaS) is a key aspect of Rearden Commerce’s strategy. According to Mortimore, in order to ensure adoption, it’s critical that Rearden Commerce integrates with core IT systems, and user workflows—with single sign-on and Provisioning as critical components of the end-user experience. To support this, Rearden Commerce exposes SAML and WS-Federation endpoints, and can optionally accept attribute assertions that create and/or update user accounts.

Standards-based federated identity was created to support exactly these types of company-to-company secure interoperability scenarios. Since federated identity is based on industry standard protocols such as SAML, a given enterprise or SaaS provider can support any number of federation partner connections with a single piece of infrastructure software, a federated identity server.

“It’s exciting to see Liberty’s identity standards moving into the Software as a Service (SaaS) space,” said Britta Glade, Liberty’s director of marketing. “Rearden’s deployment allows rapid federation options to organizations, supporting 10 to 20 percent of all user sessions, a remarkably high number right out of the gate. This is truly a showcase deployment, given the documented cost savings and ease-of-user benefits that have been achieved.”
ROI Associated with the Deployment

Among end-users, Rearden Commerce realized a 20 percent-plus drop in user access and login errors and there has been a significant reduction in call-center support calls.

Single sign-on has also become a competitive differentiator and is being used as an activation tool. Activation groups are also now self-sufficient—with nothing new to learn, no new protocols to purchase, and no need to repeatedly write new products.

Additionally, internal business operations have become more efficient. The company has re-assigned a developer and QA resource who had previously been assigned to a proprietary SSO solution.

Federation also enables Rearden Commerce to:

- Use existing capabilities to federate with every new partner.
- Leverage existing identity systems.
- Eliminate the need to write new product code to integrate with partners.
- Scale easily to accommodate the company’s tremendous growth.

Customers are also experiencing a range of benefits. One Rearden Commerce customer, which deployed the PingFederate solution, achieved 81 percent user adoption within the first month of deployment. This was a dramatic improvement over the 11 percent user adoption the customer had experienced with their previous booking tool.

Benefits to Rearden Commerce

- Transitioned the management of this function out of core engineering at a faster than expected pace
- Scalability
- Reduced potential for loss of credentials, since the credentials are managed according to existing IdP (customer) policies

Benefits to Corporate Consumers

- Leverages existing identity management solutions
- Standards-based
- Easy provisioning and de-provisioning
- Reduced administrative costs around password reset
- Improved user experience and satisfaction
What's Next

Among end-users, Rearden Commerce realized a 20 percent-plus drop in user access and login errors and Rearden Commerce's leadership has been a catalyst for additional federation deployment opportunities. In fact, Rearden Commerce has learned that many of its customers were beginning internal initiatives to look at federation and SSO as a way to make their product easy to use, more functional, and cost effective. By electing to standardize on industry standards, Rearden Commerce has ensured that everyone has new and unlimited opportunities to federate and offer SSO while keeping tight control over credentials.

About Rearden Commerce

Rearden Commerce, Inc., provides the first online personal assistant that helps people quickly find, purchase and manage the services they need, based on personal preferences and company policies. The Rearden Personal Assistant provides easy access to the world’s largest marketplace for services, instantly connecting people to more than 137,000 merchants. Whether it’s booking a flight or a hotel, making a restaurant reservation, finding event tickets, scheduling a conference call or shipping a package, the Rearden Personal Assistant simplifies the complex services landscape into one user-friendly experience. With Rearden Commerce, the power of the intelligent Web is finally realized. Rearden Commerce is headquartered in Foster City, CA. For more information, visit www.reardencommerce.com.

What It Takes to Win an IDDY

IDDY Award nominations are evaluated based on criteria that include the benefits applications deliver to users and organizations; the ROI the application is demonstrating; and how the solution may successfully address identity issues such as reducing identity theft, meeting regulatory requirements, or providing users with increased security and privacy protection. The program includes an emerging applications category to showcase up-and-coming Liberty-based applications and proof-of-concepts that are driving the next generation of secure and trusted digital identity management solutions. Rearden Commerce was honored as an established deployment and especially recognized for their speed of implementation.

For more information on next year’s competition, contact Russ Deveau at Russ@projectliberty.org.
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, Ericsson, Fidelity Investments, 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.