

One Key Fits All

So many Web sites, so many user names, so many passwords. OpenID may be the solution.

By Elaine Mills

REGULAR INTERNET users know how difficult it can be to manage all of the different user names and passwords required by the many Web sites they frequently visit. Wouldn't it be better if there were a simple and secure way to log on to all Web content?

Tech giants such as **Microsoft Corp.** and **Sun Microsystems Inc.** have attacked the "single sign-on" problem with a variety of solutions, none of which has been widely adopted. Windows Live ID, for example, only works with Microsoft-owned and -affiliated sites. Critics say that another attempt, Security Assertion Markup Language, produced by an alliance led by Sun, is too complex and cumbersome for the average Web site.

Some users are promoting what they say is a simpler solution, created by a blogging-software developer in San Francisco, that has been adopted by thousands of Web sites. OpenID, as it's called, is attracting serious attention from Microsoft, AOL, **Google Inc.** and **Yahoo Inc.**, each of which says it is looking at ways to use the software across its own extensive Internet properties. Microsoft recently adopted OpenID for use with its HealthVault Web site, an online service that allows consumers to store, manage and selectively share medical data.

OpenID is open-source, or non-proprietary, meaning others can adapt it to their own needs. It was created in 2005 by the blogging-software company **Six Apart Ltd.** for users of its LiveJournal.com, a blogging and social-networking site that is now owned by the Russia-based Internet company **SUP**. The software continues to be used mainly by blogs that require user IDs and passwords, and by social networks. But proponents predict it will become an important building block in an industrywide effort to make it easier to surf the Web without so many passwords.

Such a goal can help online businesses as well. Web-site operators spend millions each year helping users recover forgotten passwords, according to Cambridge, Mass.-based Forrester Research Inc. Companies also lose business whenever a customer fails to negotiate the log-in process.

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"OpenID provides a way of transcending the walled-garden model and moving freely between different sites," says Joseph Smarr, chief platform architect of the social-networking site Plaxo.com. **Plaxo Inc.**, Mountain View, Calif., is an early adopter of the standard. "This results in increased traffic, which is not only good for our business, but everyone else's too."

Some critics have raised privacy and security concerns about OpenID, saying the technology makes it easy for issuers of the IDs to track users' activities on the Web. Others cite concerns about vulnerability to phishing, a form of Web fraud. But more than 22,000 Web sites already accept OpenID, according to the OpenID Foundation, an industry-supported nonprofit. Bill Washburn, executive director of the Portland, Ore., foundation, says he expects that number to reach 50,000 before the end of the year.

Mixed Experiences

Despite its promise, however, OpenID remains a far-from-universal passport. For example, there are multiple issuers and versions of OpenID, and each site that uses OpenID decides which version or issuer it will accept. Major issuers include MyOpenID.com, a Web site run by **JanRain Inc.**, an open-source developer and designer of OpenID software based in Portland, Ore. Yahoo and AOL also issue OpenIDs for use on both affiliated and nonaffiliated sites, but currently neither company accepts it on their main Web sites. A spokesperson for JanRain acknowledges that different versions currently result in inconsistent user experiences. But the company says that as more sites adopt OpenID 2.0, a new, more secure version, inconsistencies in user experiences will disappear.

The format of the IDs looks slightly different for each site that issues them. But they all work on the same principles. Those who go to MyOpenID.com choose a user name and password and provide an email address. They will then be assigned a Web-site address that serves as their OpenID. Afterward, when the users visit selected sites, they type their OpenID into the dialog box next to the OpenID icon. Their browser is then redirected to MyOpenID.com, where they type in their OpenID password.

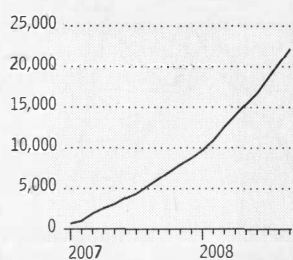
In this way users can gain ac-

bounced back to their OpenID provider to authenticate their identity. So OpenID doesn't eliminate the need to log in altogether, but it enables users to use the same credentials to sign into different Web sites.

Figuring out which sites accept which version of OpenID is mostly done by trial and error, although it's fairly common for

Opening Up

The number of Web sites where users can log on with OpenID



Source: JanRain Inc.

sites to trust MyOpenID as an identity provider. Some sites have an OpenID selector or a pop-up menu with a list of the OpenID providers they accept.

Registered Yahoo users can get OpenIDs from OpenID.yahoo.com. Yahoo.com itself still requires members to sign in with a unique and Yahoo-specific user name and password and doesn't accept OpenIDs from other providers. "We're still in the evaluation and development phase," says Raj Mata, senior director in Yahoo's membership platforms division. "As the technology matures and consumers become more comfortable with OpenID, we'll explore how best to incorporate it into our properties and across the Yahoo Network."

Time Warner Inc.'s AOL incorporates users' AOL or instant-messaging screen names into the OpenIDs that it issues. While AOL itself doesn't accept sign-ins using its OpenID, it will work on such AOL sites as My.Netscape.com—a beta site still in testing—the news and social-networking site Propeller.com, and collaborative creative-writing site Ficlets.com. The company says it is working on adopting technology that will allow it to roll out OpenID across its larger sites, including AOL itself.

Representatives of AOL and Yahoo, meanwhile, say it is likely at some point in the future that

Privacy advocates have criticized OpenIDs because the companies that issue them theoretically can track all of the Web sites that users visit, giving the issuer a much more coherent view of a person's online activity than was previously possible. OpenID issuers could then offer marketers targeted advertising opportunities for which they can charge premium prices, says Pam Dixon, executive director of the World Privacy Forum, a nonprofit based in Cardiff by the Sea, Calif.

Security Concerns

Some security experts and privacy advocates also warn that OpenID users are at heightened risk from phishing attacks. This is when a fake Web site masquerades as a real one to capture user names, passwords and other sensitive information such as credit card details. Obtaining someone's OpenID could provide a master key to many of the Web sites the OpenID user frequents, along with personal data the user has divulged on those sites.

The OpenID Foundation's Mr. Washburn concedes phishing is a valid concern, but says this criticism can be directed at most of the Web, where users and sites interact with relatively little security. Moreover, he says, OpenID in its current form isn't meant to become the dominant protocol for single sign-ins. As an open-source technology, he says, it is simply a platform for others to build on.

Several OpenID providers are looking for ways to bolster the software's security features and so make it better protected for commercial transactions. Recently AOL partnered with **VeriSign Inc.** to bring AOL users a strong authentication option, whereby they can use their AOL-issued OpenIDs in combination with security tokens issued by VeriSign, a Mountain View, Calif., provider of third-party-authentication solutions.

Microsoft, meanwhile, is using OpenID to authenticate users of its HealthVault medical-records site. The site accepts authentication from two OpenID providers: VeriSign and **TrustBearer Labs**, a privately held provider of authentication devices such as smart cards, based in Fort Wayne, Ind.

A Microsoft spokesperson says the software giant is also looking at incorporating OpenID into some of its other products, but that compatibility issues remain. The spokesperson says vulnerability to phishing is a concern, and that Microsoft is working with a number of companies on a possible fix.

Meanwhile, Mr. Washburn sees increasing opportunities in a wide-open playing field. "It is not a competition where one technology will emerge as the clear victor, such as was the case with Blu-ray vs. HD-DVD," he says. In the end, he says, "there will be no one solution, but instead a well-articulated array of flourishing identity