

## REAL WORLD CASE 2

# Amazon and eBay: The New Face of Web Services

**A**mazon.com Inc. remains as protective as ever of the Web services technology that powers its website. “We don’t go into detail about what our underlying infrastructure looks like,” says chief technology officer Al Vermeulen. At the same time, though, Amazon is throwing open its site to outside programmers, providing access to databases and features that have taken years and something approaching \$1 billion to develop over nearly a decade.

Why secretive one minute but open the next? Amazon has figured out that all that bottled-up intellectual property becomes even more valuable once outsiders get their hands on it. In mid-2003, Amazon took its first step to create a “programmable website” when it launched Amazon Web Services 1.0, a set of APIs that provide third-party programmers and fellow retailers with access to some of its data and basic website functionality.

The idea has proved such a hit that more than 50,000 programmers have signed up. In 3Q 2004, Amazon introduced Amazon Web Services 4.0, which opened its data fields even more.

In 2003, eBay took a small, invitation-only developer program that had been operating since 2000 and opened it to the public, making the API to its e-commerce software available for downloading and supplying a software development kit for it that works with popular developer tools from Borland, Microsoft, and companies that build tools based on the Java programming language.

Today, over 8,000 companies or individuals have become members of the development program, and over 600 applications built by independent developers use eBay’s servers.

Amazon and eBay, in turning themselves into software development hubs, are once again expanding the possibilities—and increasing the pressure—for any company that wants to be a center of e-commerce. As Amazon and eBay popularize the use of programmable websites, other e-businesses might find they, too, want to open their websites up to a community of developers—be they independents, or programmers from customers or business partners who want to add their own innovations to a site. “There’s no reason we can’t have thousands of developer communities for thousands of different websites, even on a small scale,” says Jeff Barr, Amazon’s technical program manager.

Oddcast Inc. is typical of the kind of company that’s helping to make eBay a hub of development. The five-year-old software company develops interactive characters that talk to would-be customers and act as website guides for clients such as Coca-Cola, Intel, and McDonald’s. Using a recording mechanism or text-to-speech software, an eBay retailer can have an avatar pitch to customers about what promotions are available. “Never in a million years would this have been developed by eBay for its customers,” Oddcast CTO Gil Sideman says. So far, a few dozen companies

have signed up for the service. eBay needs to open its environment to outside developers because the company can’t spot all the market niches customers might want.

Here’s a measure of how important this open approach has become to eBay: About 40 percent of the items listed for sale on eBay’s U.S. site come in through its API. That means two of five products are loaded onto the site software-to-software, rather than manually posted using a browser-based form. Major retailers are taking advantage of these tools, and software companies are hustling to make their tools fit the model.

To make this hub-of-development concept work, Amazon and eBay needed to learn how to inspire clever programmers to work on their platforms. They’re succeeding in part because they have the kind of user numbers that interest programmers. But they’re also presenting programmers with a new challenge in the world of Web services: tools and technology for integrating Web platforms. The companies are fast movers when it comes to exposing the capabilities of their platforms at a time when many companies still are cautious about Web services technology. They’re showing that opening up some of their technology vaults can spur the creation of other software apps that expand their market reach.

So just what gets dished up by one of Amazon’s Web services? The output includes product details, search capabilities, customer reviews, sales rankings, wish lists, and registries. Amazon gives programmers the option of choosing “lite” or heavy versions of those categories, depending on their needs. Its ground rules: Programmers must link to the Amazon site, pricing data can only be stored for an hour, data can’t be resold, and applications must be written so that they don’t make more than one call per second to the Amazon site.

Amazon and eBay know there’s hard work to do to get the model and business rules right. But they show no sign of easing up on plans to become as much a destination for developers as they are a destination for shoppers.

### Case Study Questions

1. What are the purpose and business value of Web services?
2. What are the benefits of Web services to Amazon, eBay, and their developer partners?
3. What are the business challenges of Web services? Visit the Web services websites of IBM ([www.ibm.com/solutions/webservices](http://www.ibm.com/solutions/webservices)) and Microsoft ([www.microsoft.com/webservices](http://www.microsoft.com/webservices)), to help with your answer.

Source: Adapted from Aaron Ricadela and John Foley, “New Face of E-Commerce,” *InformationWeek*, July 26, 2004. Copyright © 2004 CMP Media LLC.