

Behind the News

ANALYSIS OF INDUSTRY EVENTS



MasterCard and Visa are competing on payment protocol standards for the World-Wide Web.

An old-style survey reveals new demographics for users of the Internet.

New Setting, Old Story

Stop me if you've heard this one. A new sector of computer technology is making a big hit with users. It has the potential to spread like wildfire except in one important area, where it lacks a widely accepted communications protocol. All the companies participating and observers of the industry agree there should be one standard protocol upon which companies can develop products and market them based on the value of their special features. Are you with me so far?

The major companies get together and decide to develop a standard that every-

one will review and agree on. But suddenly two very powerful companies with large market shares announce they have developed their own protocols, which they hope everyone else will adopt. They will license their protocol but not release the source code. What? You say you've heard this story?

Unfortunately, it isn't one from 1980 or 1985. It's happening now. The arena is the Internet, and the subject is a protocol for authentication and verification of credit card payments. If Visa and MasterCard, the two largest credit card associations, could agree on one standard, they could make life easier for the many software companies ready to offer merchandizing products on the World-Wide Web. All those companies could save development costs, put their products on the market faster, and sell them for a lower price, and the entire development of sales to consumers over the Internet should proceed more smoothly.

Pressed by merchants to get the ball rolling, Visa and MasterCard met. On June 23, 1995, they issued a joint press release stating that "the two associations will integrate their current efforts to provide a method for secure bank card purchases on open networks such as the Internet. . . Working together to build a common security payment standard for bank card acceptance and use is a crucial step in the development of electronic commerce."

However, Visa soon opted out of the talks, and on Sept. 27 Visa and Microsoft jointly announced their Secure Transaction Technology (STT) protocol specification for Internet credit card transactions. Around the same time, MasterCard, backed by IBM, Netscape, GTE, and CyberCash, announced that it had developed its Secure Electronic Payment Protocol (SEPP) specification and released it for review.

Both protocol specifications are well-designed and both accomplish the same end in slightly different ways, industry observers agree. But the two camps are squabbling over how open the rival specifications really are. Microsoft and Visa claim they are making the STT specifica-

tion available at no charge to all card brands, financial institutions, software developers, and the Internet community to create STT-compliant applications. But Microsoft won't release its source code. MasterCard says SEPP is an open, vendor-neutral, nonproprietary, license-free specification. And further, Netscape, part of the SEPP alliance, has released the source code for Secure Courier, its SEPP implementation. There the matter stands.

A Long, Bitter Rivalry

Why the dueling payment protocols? Observers agree it's mainly political and has its roots in the historical rivalry between the two bank card associations. Visa holds about 60 percent of the consumer credit card market, and MasterCard has about 40 percent. The two cards function identically, and the rival companies even process each other's transactions. However, they are fierce competitors in matters such as response time for transaction approvals and have cooperated only when banks and merchants have applied enough pressure.

"I can remember five or six different occasions when there was going to be a joint Visa/MasterCard effort on something or other," says Tom Wills, a former Visa employee who is now a project leader for CommerceNet, an industry consortium in Menlo Park, CA, that is trying to foster Internet commerce. "They never did get very far. It's a brand strategy more than anything else, and there's a history of duality."

In addition, analysts and some of those allied with SEPP feel that Microsoft has jumped the gun in order to embed a protocol in its Web-related products that are ready for market now. "History would say that that was probably a good guess," says Jeff Treuhaft, product manager for Netscape in Mountain View, CA. "I haven't seen any evidence to the contrary, so I assume that's what Microsoft is trying to do with this protocol. The industry as a whole feels it's a dangerous precedent for a single company like Microsoft to have ownership and control over a financial service application."

Michael Sullivan-Trainor, research director for electronic messaging and Internet commerce at International Data Corp. in Framingham, MA, sees the issue as essentially untechnical. "The politics are less around which standard is better and more around how the standards are being delivered," he says. "Microsoft is going to the market, and MasterCard is standing back, saying they're soliciting input. That positioning is also a conflict, because it gives the appearance that STT is out ahead because it's already embedded in products."

If what some are calling a "protocol war" is not settled and both specifications are put into use, the industry will have to adopt--and commercial Web and Internet products will have to accommodate--multiple protocols. Several protocols have been proposed, says Gail Grant, vice president of business development for Open Market, a Cambridge, MA, company spe-

cializing in Web business software and services. "If there are two or more standards, it means that we will have to invest more in the development process, and I believe that it will cost the customer more," Grant says. "Unfortunately, multiple protocols are used in credit card processing, and it has created a morass within the banking industry. I think the best thing for the industry at large would be for everyone to agree on one protocol."

The two sides may yet come together, but analysts see lessening hope for that prospect. "It's going to be hard to say that there will be a hands-down winner," says Sullivan-Trainor. "There are strong vendors on both sides. When you have circumstances like that, they have to agree to cooperate if they hope to advance the major issue, which is encouraging on-line commerce."

Sullivan-Trainor believes the most likely outcome is either a kind of amalgama-

tion of the two standards or an all-encompassing protocol. "The reading in the long term is that there will be a sorting out of this and some sort of meta-standard that incorporates the best features of each," he says. "The perception is that the advancement of electronic commerce is going to be more harmed than helped by individual companies fighting for their own particular protocols. They can create a standard that has enough flexibility to allow for proprietary extensions."

Whatever the eventual resolution, observers expect some secure credit card transactions to begin taking place on the Web within a few months, using whatever products reach the market first and are seen as viable. However, it may take considerably longer to sort out just who has won or lost in this latest standards squabble.

—Don Dugdale

Who's Using the Net and Why

Got something to sell to a well-heeled, well-educated, computer-savvy kind of consumer? Try the Internet. That's the conclusion that CommerceNet and Nielsen Media Research came to as the companies made public the results of what they're billing as the first major non-Internet-based survey of the Internet.

This is the same message that Internet demographic surveys (not to mention common sense) have been sending us. But, at least according to the survey's sponsors, now we have proof.

CommerceNet, a consortium of about 130 companies based in Menlo Park, CA, and dedicated to establishing electronic commerce on the Internet, contracted with ratings giant Nielsen Media Research of New York City to conduct the survey of who's doing what on the Internet—without the bias of using the Internet to survey its own users.

Typically, Internet surveys are conducted over the Net, so results can't be projected onto the population as a whole. CommerceNet contends that Web site studies can overstate Internet use, overestimate the skill level of Internet users, and downplay the size of the female market for Internet services, thereby carrying risky inaccuracies into the marketplace.

Jack Loftus, vice president of communications at Nielsen, compares this situation to the early days of television. "You knew there were a certain number of televisions out there, but you didn't have any scientific knowledge," he says. "As the scientific knowledge became more sophisticated, you could demonstrate to advertisers real people using it. The value of TV as an advertising medium went up."

Undaunted by the vast expanse of uncharted territory to map, Nielsen tackled the Internet population as it would any other large, amorphous, and unruly entity. It picked up the telephone and began calling en masse.

Several months and 280,000 telephone calls later, the company had netted more than 4,000 completed questionnaires consisting of 40 multiple-part questions. Survey respondents were chosen randomly throughout the U.S. and Canada, the only requirement being that the respondent be at least 16 years of age.

To test its theory of bias with on-line surveys, Nielsen placed a portion of the survey on the World-Wide Web during roughly the same time period as the telephone survey. It drew more than 32,000 responses in four weeks. Those results were not tabulated into the final summary.

What's Happening

Nielsen found that Internet users are out there in droves. In fact, based on the survey projections, some 37 million people

(17 percent of the population) throughout the U.S. and Canada have access to the Internet, 24 million of them (11 percent of the population) having used the Net in the past three months. This figure translates into an additional market of some 13 million people with access to the Internet who potentially can be reached by Internet services and advertisers.

Despite the fact that the survey found most users to be males, well-educated, well-paid, and well-versed in the ways of the Web, it also showed that not only men are keeping late hours to keep up with the Net. Women comprise 34 percent of users of the Internet. And although males account for more than three quarters of total use—they use the Internet with greater frequency and for longer duration than females—the gender skew begins to straighten out when it comes to on-line services. Females comprise not only 41 percent of the users of on-line services but are responsible for 37 percent of the total on-line services use. Thus, Internet advertisers and businesses would be well-advised not to overlook the female component.

No matter what their gender, though, Web junkies share in affluence. A full 25 percent of the Web users surveyed indicated their household income was more than \$80,000 per year. Only 10 percent of the total U.S. and Canadian population reaches that monetary level. And while half of all the Web users consider themselves to be in a professional or managerial occupation, only 27 percent of the total U.S. and Canadian population say they have such positions. Likewise with college degrees: A whopping 64 percent of Web users have at least a college degree, while only 29 percent of the general population of the U.S. and Canada do.

Net Working

Who are all these nameless, faceless Internetphiles? When are they accessing the Net, and what are they doing there? If you're an advertiser trying to reach people who are not home, chances are you'll find them at work. The boss may not find this amusing, but the survey showed that a disproportionate degree of Internet use occurs at work. Even though a slightly higher percentage of people have access in the home (more than half of the respondents), people use the Internet more frequently and for longer times at work than they do at home.

However, some 60 percent of respondents say they're using the Internet and the Web to search for work-related information. They use the Net to research

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products and services, to find information on companies and organizations, to research competitors, to collaborate with others, to communicate internally, and to provide customer/vendor support. Perhaps it's better not to ask what that other 40 percent are up to.

Important Trivia

In the end, this stack of statistics boils down to a few simple facts that marketers, advertisers, and other business folk can use as guideposts in making their way across the rocky terrain of the Net. Others can arm themselves with enough Internet trivia to enliven any lunchtime cafeteria talk.

For instance, the Internet has 24 million users, and the World-Wide Web has captured 18 million. Both numbers are growing. Nielsen plans to do a six-month follow-up survey to current respondents in order to begin tracking usage trends, and it plans to expand the survey into other countries as well. Web users are an especially key target for business appli-

cations, given their upscale, professional demographics. Approximately 2.5 million of them have already made purchases over the Web.

The average North American Internet user spends about five and one-half hours per week on line. The average on-line services user, in contrast, cuts to the chase in about the same amount of time it took the O. J. Simpson jury to arrive at a verdict—two hours and 29 minutes.

Perhaps most interesting of all, is one lingering statistic. Projected onto the general population, the time respondents spend on-line translates into about 35 minutes per week per person in the U.S. and Canada using the Internet, and 24 minutes per week per person using on-line services. Although they may seem slight, those figures almost match the number of minutes each person in the U.S. and Canada spends viewing rented videotapes.

—*Mary Margaret Peterson*

The executive summary of the Internet Demographics Survey is being distributed free over the Internet via the Web servers of CommerceNet (www.commerce.net) and Nielsen Media Research (www.nielsenmedia.com). The final report is available for purchase from CommerceNet at (415) 617-8790; e-mail: survey@commerce.net, and Nielsen Media Research at (813) 738-3125; e-mail: interactive@nielsenmedia.com. The final report consists of over 150 pages of tables that provide detailed results, including cross-tabulations of each survey question against approximately 30 user characteristics.