Introduction

With the collapse of the Internet stock bubble, the conventional wisdom is that the so-called New Economy and the impetus for e-business have collapsed as well.

But is conventional wisdom correct?

Before the crash, IDC recognized that the dot-com sector was overheated, but it also understood that it represented just a small part of overall investment in Internet technologies and services. More than 90% of that spending came from brick-and-mortar companies.

In an effort to gauge the extent and depth of what may turn out to be the greatest paradigm shift in the IT industry's history, earlier this year IDC launched the most comprehensive study ever conducted of e-business adoption around the world. How fast are businesses building Web sites? How complex are those sites? What are they spending on e-business, and what are they planning to spend? What are their expectations for these investments? How integral are their initiatives to the core business?

The conventional wisdom turns out to be wrong. Perception and reality don’t match. Even against a backdrop of a slowing global economy and the fallout in the tech sector from the dot-com crash, businesses around the world are increasing their spending on e-business by 20–30% this year, hoping to grow online revenue more than 50%, and building internal and external Web sites at an unprecedented rate.

For companies making the investment, e-business offers an opportunity to improve productivity, revenue, and competitiveness. For IT vendors selling products and services to support e-business, this means long-term opportunity on an unprecedented scale.
This white paper outlines the key findings from IDC’s 2001 eWorld Survey, plucking just a few items from among the 7 million data elements in the study to show that the migration to ebusiness is still under way in full force.

**The 2001 eWorld Survey**

IDC’s 2001 eWorld Survey, conducted in the first half of 2001, began with two surveys in 27 countries. The survey results, which in print would occupy 150 feet of shelf space, tabulate:

- 13,000 responses from CIOs and IT managers in 27 countries via a telephone survey
- 2,000 responses from Internet executives in 12 countries conducted over the Web

These survey findings were then compared and contrasted with more than 60,000 consumer surveys from the past six months and then analyzed in conjunction with IDC’s other market models and forecasts for IT spending, Internet commerce usage and spending, software and services adoption, hardware shipments, and enterprise application deployments.

The geographic scope of eWorld, its corporate sponsors, and Webcast panel participants are listed at the end of this report, as well as at www.idc.com/eworld2001.

**The Internet Access Explosion**

**Perception:** Everyone who wants to be is already on the Internet (it’s old hat).

**Reality:** We’ve just begun to build the ebusiness landscape.

**Drivers:** Users coming to the Internet at an accelerating rate; the need for businesses to be globally competitive; the “network effect” of going online.

As shown in Figure 1, Internet usage is still in its infancy.

Between now and 2005, we will more than double the number of users on the Internet, from 400 million in 2000 to 977 million in 2005. This year, 100 million new users will come online. By 2005, these users will be using almost 2 billion devices to go online, including PCs, phones, handhelds, videogames, and perhaps even automobiles and other embedded devices.

At the same time, the number of employees on intranets will triple, from 118 million in 2000 to close to 400 million in 2005.
Not only will more people come online, but so will more companies. Although *eWorld* was a study of companies with access to the Internet, the survey screener indicates that Internet access is not ubiquitous; differences existed in businesses by size and country. (The survey looked at business establishments, and, in China and South Africa, only at businesses in major urban areas.)

### The eBusiness Buildout

**Perception:** eBusiness is dead. The dot-com crash wiped it out.

**Reality:** Brick-and-mortar companies have not gotten the news; they have high expectations for Web initiatives.

**Drivers:** Past and continuing investments in Web presences and online commerce; lower costs of entry; more devices on the Net; easier integration between front- and back-end systems.

To reach customers (both individuals and businesses), businesses around the world are continuing to invest in getting onto the Web. Ten million businesses had Web sites in 2000; 25 million will by 2005 (see Figure 2). Today, less than 60% of small businesses with access to the Internet have Web sites. In five years, that number will be more than 80%.

Businesses are finding that their need to invest in network capabilities is greater than ever, and they seek to enhance productivity by giving employees better Net access, wherever they may be. The Internet is still seen as a great equalizer, leveling the playing field for organizations and countries of all sizes. Anyone can leverage network effects (nonlinear returns on investments in network infrastructure and marketing) once they have come to the table.
Expectations from *eWorld* respondents for ebusiness remain high. From 2000 to 2001, they expect online revenue to increase from 5% to 8% of total sales and spending on Web initiatives to grow 24%, from 15% to 17% of IT budgets. Just as toll-free long distance service opened up new channels for sales and support, the Web enables new channels for commercial intercourse having richer media content and higher functionality, the potential of which has only begun to be realized. eBusiness certainly isn’t going away.

**Business-to-Consumer Commerce**

**Perception:** Business-to-consumer ecommerce (B2C) is dead.

**Reality:** The number of brick-and-mortar companies selling to consumers over the Web will double this year; home Internet shoppers will triple in four years.

**Drivers:** The need for brick-and-mortar companies to build out Web channels; increased demand for media and information brought about by higher bandwidth and more online content.

B2C volume will grow from $118 billion at yearend 2001 to $707 billion by yearend 2005. The number of B2C commerce sites will grow from 3 million to 13 million in that period. Even though business-to-business (B2B) is bigger than B2C, 75% of Web sites target consumers. Figure 3 summarizes B2C scope and growth.
This isn’t just a Western phenomenon. Consumers in developing countries are becoming avid Web buyers. In Asia/Pacific, about 40% of users make purchases on the Web (ranging from 18% in Thailand to 65% in Korea).

B2C dot-coms are in for an interesting couple of years. Successful retailing for most goods now requires multichannel marketing, sales, and support. Because few dot-coms are able to develop traditional channels on their own, they will need to partner with brick-and-mortar enterprises that have had limited success on the Web so far and provide them with ecommerce solutions in exchange for channel presence. In addition, growing bandwidth will bring multimedia opportunities such as digital photos, music, and video to ebusiness enterprises.

In short, the channel equation seems to be: New World + Old World = Brave New World.

**The Mobile Web**

**Perception:** Mobile is the future.

**Reality:** Not in the United States, and not if companies don’t start revamping their Web sites.

**Drivers:** Most mobile Internet users have tethered alternatives, and demand for mobile capabilities will lag until mobile devices, services, standards, and software improve.
Two “mobile gaps” exist: 1) The United States’ lag behind the rest of the world (which will persist); and 2) the lag between demand and supply of mobile services; even though 20% of users are mobile, only 11% of companies currently have mobile-enabled Web sites.

How people will access the Net is being transformed. Today, 324 million PCs, 42 million Internet access devices, and 64 million phones can reach the Net. In 2005, 817 million PCs, 466 million Internet access devices, and 707 million phones will be enabled, with phones accounting for 35.5% of the total. Eventually, distinctions will blur between types of devices, but not until standards are more uniform and mobile usability improves.

By 2005, 1 billion people worldwide will have Internet access devices, and mobile Web users will increase from 13% in 2000 to 60% in 2005. While this implies a vast potential for mobile Internet, demand won’t materialize simply because users are enabled. Rather than fixating on third-generation (3G) technology as a panacea, ebusinesses should mind the 3Cs: focus on Customers, provide services in Context, and make mobile Internet use as Convenient as possible.

In the short term, companies not supporting mobile users may rush to support them once critical mass is reached. Figure 4 compares mobile Web-site support for representative countries with the percentage of Internet users who will be mobile in two years. One would expect that once 100 million or more users are mobile, that almost every Web site would want to support them.

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**Figure 4**

**Mobile Supply Versus Demand: Mobile Site Support and Users in Two Years**

<table>
<thead>
<tr>
<th></th>
<th>% of mobile users</th>
<th>% of sites that support mobile</th>
</tr>
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<tbody>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
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<td>Germany</td>
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<tr>
<td>United Kingdom</td>
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Source: IDC's 2001 eWorld Survey and Internet Commerce Market Model, version 7.1
For vendors, this gap offers a major opportunity for IT vendors to provision this buildout and to arm the service suppliers that are sure to get called in to help ebusinesses go mobile.

**The Infrastructure Gap**

**Perception:** eBusiness is all about Web sites.

**Reality:** eBusiness is also about existing systems — and a lot of work has yet to be done.

**Drivers:** Sales, logistics, supply chain, customer relationship, and database software investments can and must be leveraged by corporate Web sites.

The gap between what companies expect of their ebusiness investments and what their existing ebusiness infrastructures are capable of exists in two dimensions:

- The capabilities of the Web sites themselves
- Integration with core business systems

Taking the latter point first, we note that companies are becoming aware that their Web sites cannot be islands of automation. Serious ebusiness strategies require back-end integration, yet only about one in 10 commerce sites is linked with either enterprise resource planning (ERP) or supply-chain applications, as Figure 5 shows.

![Figure 5](image)

% of U.S. companies saying Web integration with core business systems is very important

% of U.S. companies with Web sites fully integrated with these applications

Source: IDC’s 2001 eWorld Survey

Among other factors, requirements for personalization and real-time content assembly are driving the integration trend, as are emerging standards such as XML and SOAP, enabling advanced infrastructure architectures. Streaming media content management and professional
services provisioning are examples of applications that require buildouts of Web technology and legacy integration.

At the same time (to address the first point), company Web sites are not yet particularly rich. While almost 30% of Web sites in the world can now take orders, less than 10% can handle online payments. And only one in 10 has both commerce and call center support.

IDC estimates that today, only 4% of Web sites could be considered both “rich and complex,” meaning handling multiple functions at the site and significant back-end integration; yet by 2005, at least one in four will be at that level. Serious money will be spent undertaking such renovations.

eBusiness for Small Business

**Perception:** eBusiness is for Big Business.

**Reality:** Small businesses are embracing ebusiness.

**Drivers:** Declining server, communications, hosting, and other service provisioning costs; opportunities to access new and larger marketplaces.

Although small businesses direct less of their IT spending to ebusiness than large companies, this year one in eight IT dollars in small business will go toward ebusiness, up 26% from last year.

And while only 59% of small businesses with access to the Internet have Web sites versus 91% of large businesses, those that do have Web sites can be as sophisticated as their larger counterparts. Twenty-seven percent of small business Web sites support commerce, compared with 31% of large companies, and 25% of small business Web sites have call center support, as opposed to 28% of large companies (see Figure 6).

Small companies also have almost as much support for online payments and mobile users as larger companies.

Small enterprises can benefit from the Web by gains in productivity and by tapping markets not previously available to them. While many small firms are particularly challenged by the complexity of inhabiting the Net, they need not make giant leaps to get there. Online capabilities can gradually evolve from email to simple Web sites, then to providing pre- and post-sales online environments, then leveraging their Web investments to make internal processes more efficient, and from there to building ecosystems of partners, suppliers, institutions, and customers.

eMarketplaces

**Perception:** eMarketplaces are a mystery, if not history.

**Reality:** Brick-and-mortar companies know about emarketplaces and plan to use them.

**Drivers:** Efficiencies and synergies conferred by many-to-many mediated business relationships; mounting emarketplace success stories.
eMarketplaces are no mystery: Almost three-quarters of U.S. respondents know what e-marketplaces are, and 67% of companies worldwide do. What's more, the percentage of respondents that expect...
to participate in an emarketplace this year in any way will top 20%, although the numbers vary considerably by country (see Figure 7).

There are some nuances in the data. Slightly more companies (26%) expect to participate as buyers in emarketplaces than as sellers (22%), and more large businesses than small businesses expect to participate.

It is certainly true that the first generation of emarketplaces — mostly dot-com–inspired — have had trouble. The next wave is largely being spearheaded by distributors that are well connected in their industries. Another trend is private exchanges, spearheaded by large producers in vertical industries, which are able to bring the full complexity of their enterprise systems to bear.

Momentum toward emarketplaces exists in Europe, as companies try to reach new customers and improve their internal efficiencies. However, strong interest also exists in emerging economies, especially regarding private exchanges and in building local (national) marketplaces in such countries as China and Korea.

Companies have avoided engaging in emarketplaces due to a natural reluctance of doing business with competitors and out of fear that regulators will declare the arrangements to be anticompetitive. These concerns will ease as it becomes more apparent that well-structured many-to-many connections are more efficient than one-to-one B2B relationships.

**Perception:** “In 2007, Chinese will be the number 1 language on the Internet.” (Accenture advertisement)

**Reality:** No, it will be English.

**Drivers:** English remains the principal language of international business, finance, and scientific communication, and for conducting affairs of the European Union.

In 2005, 30% of Web users will be native English speakers, 14% will speak Chinese, and 10% Japanese. About half of Web users will have some other native tongue, but many of them will also be acquainted with English. So it doesn’t appear that English will be eclipsed on the Web any time soon.

Regardless, many sites will have reason to handle multiple languages. Already, 20% of U.S. sites support other languages (with Spanish, second after English, followed by French), and 50% of Canadian sites support non-English-language users. Conversely, 46% of German Web sites, 45% of French Web sites, and 26% of Japanese Web sites now support English (see Figure 8).

Today, more than one-third of Web sites have multiple languages. But multiple languages do not mean the site is necessarily truly localized. For instance, less than one in eight sites can take payments in foreign
currencies or handle local support. Huge opportunities await companies that provide translation and localization software and services.

Nevertheless, embracing multilingual Web products entails significant commitments. Before constructing multilingual Web sites, companies must thoroughly research overseas markets to determine if what they sell is or might be in demand there. They also need to determine how “world-ready” their existing Web architecture is, and whether their business processes are conducted with capable and scalable technologies. Renovations should be done now, as the economy slows, to hasten expansion into new markets and to reduce costs of doing business.

The eBusiness Bottom Line

**Perception:** The tech stock crash means the ebusiness opportunity is all hype.

**Reality:** No, it means stocks were valued for the wrong reasons. Plenty of opportunity still exists.

**Drivers:** Maturing Web technologies; mobile and ubiquitous computing; increasing advantages to and comfort levels with purchasing online goods and services.

While it’s distressing to watch dot-com stocks implode at the same time as a global economic slowdown, nothing new is going on here. We’ve seen high tech stumble before.

Recall, for instance, that in 1983 and 1984, several PC companies, flying high on youthful energy and IPOs, also crashed unceremoniously. The
world as we knew it did not end; in fact, the PC industry's greatest profits lay ahead, in the 1990s. Many commentators at the time were quick to predict the demise of PCs — because they were expensive, slow, and unfriendly, didn't enhance productivity, and so on. But the technology moved forward, and, in a decade, the PC market had grown by an order of magnitude, driven mostly by companies that were founded or went public after the crash.

The *eWorld Survey* was taken well after the dot-com bubble had burst and technology stocks had fallen, yet *eWorld* companies are still bullish on the Web and ecommerce.

IDC believes this means that spending on technology to support Web initiatives will nearly quadruple to $2.2 trillion by the end of 2004, as Figure 9 illustrates. Accomplishing this buildout requires significant levels of commitment and investment and will generate many new opportunities for both strategic partners and IT vendors.

Clear understanding of both the demand and supply sides is important and requires diligence. Accurate assessments of demand are particularly important to succeed in ecommerce in a global economy. Because each country has particular consumer proclivities and its own commercial culture and regulatory environment, the need for thorough local research is paramount.
On the supply side, investors must assess the capabilities of companies that are increasingly heavily dependent on IT infrastructures. Financial analysts and institutions thus must work with technology analysts to evaluate the value propositions of given companies. Those IT vendors whose technologies and solutions can support global enterprises will be rated higher by Wall Street analysts.

While large enterprises may have a competitive edge, chasing ebusiness opportunity is not a game for only big players. Hundreds of companies are considered “primary business partners” for eWorld companies, and ecosystems are still nascent. Even in an industry dominated by the likes of Cisco, Compaq, Dell, IBM, Intel, Microsoft, Oracle, and Sun, start-up vendors still have significant opportunities to advance world-class solutions and to succeed, perhaps even eclipse, dominant players. After all, most of the above were start-ups themselves 20 years ago.

**Conclusion**

Over the next few years, ebusiness will move goods and services and will consume IT goods and services as companies tap into broader markets and deploy new technologies. Just as PC technology empowered users and LAN/WAN networks connected them inside and outside enterprises, emerging and embedded devices inhabiting the Internet will provide new clientele and spawn new distribution channels.

eBusiness has gone through a transition from Phase 1 (the dot-com era) to Phase 2 (the infrastructure buildout). The transition hasn't been entirely happy, but having illusions stripped away usually involves some pain. We can console ourselves by noting that we have four times as much opportunity between now and 2005 as we had from 1997 to 2000. If ebusinesses stick to business fundamentals, adopt global orientations and world-class technologies, partner aggressively, and focus on customer needs, opportunities may expand even faster than we foresee.

Four years hence, we are unlikely to remember our current uncertainties. It's a good bet that we won't be talking about ebusiness by then, either. Perhaps we'll use terms such as “virtual enterprises” or “regional exchanges,” but mostly we'll just call it “business.” As usual.
**2001 eWorld Survey Geographic Scope**

*eWorld* data was collected in the following regions and countries:

**Asia/Pacific**
- Australia
- China
- Japan
- Korea

**North America**
- Canada
- United States

**Latin America**
- Argentina
- Brazil
- Colombia
- Mexico

**Eastern Europe***
- Czech Republic/Slovakia
- Hungary
- Poland

**South Africa**
- Western Europe
- France
- Germany
- Ireland

**Latin America**
- Italy
- Netherlands
- Norway
- Portugal
- Spain
- Sweden
- United Kingdom

* Data from Eastern Europe was not included in this white paper.

**2001 eWorld Survey Sponsors**

IDC thanks *2001 eWorld Survey* sponsors for their support and cooperation in conducting and presenting the study:

- Cisco Systems
- Compaq
- eTranslate
- Market Probe Inc.
- The Industry Standard

Their suggestions, as well as those of IDC analysts worldwide, helped to sharpen survey instruments by simplifying language, avoiding acronyms and jargon, conducting cross-cultural pretesting, and weeding out ambiguities.