

Electronic Bill Presentment and Payment

Presenting and paying bills electronically over the Internet has the potential to revolutionize repetitive billing—providing significant cost savings and other benefits to billers, bankers, and consumers alike.

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Bills are a fact of life. Paying them has long been one of the thankless chores of adulthood. Surprisingly, the businesses that send out all the bills don't like them much more than consumers do. Traditional, paper-based billing is often viewed as a nonstrategic function—a cost center that simply represents a requirement to get paid.

The repetitive billing process involves very little positive customer interaction, while bringing with it high administrative overhead and complex, time-consuming tracking and follow-up. As a result, many corporations outsource repetitive billing as a means of reducing expenses and focusing resources on core competencies. This is particularly true in the retail and services industry. Large department stores, credit card companies, petroleum retailers, utility companies, magazines, and newspapers commonly use service providers to print and mail statements, as well as to handle any cross-promotions that need to be included with the mailings.

The actual collection of payments is commonly outsourced as well. Consumers are directed to mail their payments along with MICR-encoded payment coupons to a post office box. A financial institution that offers lock-box services collects the payments, processes them, and credits the biller's account. Although computer technology has streamlined the process, a significant amount of manual handling is still involved, slowing the process and creating the potential for costly and time-consuming errors.

The Internet economy is changing all this. With more and more people able to access the World Wide Web, electronic bill presentment and payment (EBPP) offers the potential to revolutionize repetitive billing—delivering tremendous benefits to billers, bankers, and consumers alike.

A rapidly growing, highly focused market opportunity

Driven by expanding Internet usage worldwide and the rapid growth of electronic commerce, EBPP is attracting considerable interest from a wide variety of organizations. Billers and consumers are looking for a way to save money and reduce the time and effort involved in the bill-paying process. Financial services companies, telecommunications providers, and others see EBPP as a means to participate in the lucrative e-commerce marketplace.

Though still in its infancy, electronic bill presentment and payment clearly represents an outstanding market opportunity for financial institutions; telecommunications providers; and even organizations such as government postal authorities, which stand to lose substantial business as the rise of e-commerce reduces the volume of mail generated by billers' invoices and consumer payments. This assertion is borne out in a number of studies by industry analysts, most recently in a detailed report compiled by Killen & Associates of San Francisco, California.

Killen projects that the rapid growth of EBPP will place it in close competition with credit card processing as early as 2005, with worldwide EBPP transactions reaching 38 billion annually compared with an annual volume of 27 billion credit card transactions in the United States (by far, the largest credit card marketplace). Further, Killen declares that EBPP will become the "killer app" that will cause electronic commerce to really take off. Although electronic presentment of bills may be a relatively new concept, more than one in three U.S. households are already using some automatic bill-payment method for one or more bills.

Today, three major markets account for nearly 90 percent of the repetitive billing market:

- Europe (39 percent)
- North America (30 percent)
- Asia-Pacific (18 percent)

The European market may be a little slow to embrace EBPP initially—in large part because of the wide acceptance of the existing system of electronic payments such as Giros, which handles recurring payments efficiently and affordably. But the

potential advantages of EBPP, properly positioned, should eventually win over consumers and corporate users worldwide.

Moreover, approximately 5,000 organizations in these three geographic markets generate roughly 60 percent of all repetitive bills. These organizations include not only credit card companies, insurance firms, magazines and newspapers, mortgage banks, large retailers such as department stores and gasoline stations, tax collection agencies, and utility companies, but also emerging enterprises such as Internet service providers and wireless companies. That means that this relatively small group of organizations can be expected to generate nearly 23 billion EBPP transactions annually within five years. That's a lot of business from a highly focused target market.

A boost for other online services

In addition to providing an enormous volume of transaction processing business, EBPP promises to expand the market for other online products and services that address:

- *Purchasing.* This includes both consumer shopping on the Web and business-to-business e-commerce, which is becoming increasingly popular for the procurement of supplies and services.
- *Customer service and support.* To troubleshoot problems and obtain needed assistance, customers can use a PC instead of calling a toll-free number. In addition, Internet-enabled call centers will allow enterprises to provide immediate customer service to consumers, enhancing customer satisfaction and loyalty.
- *Home banking and cash management.* Consumers can check balances, transfer funds, or obtain information on interest rates with a mouse click; corporate treasurers and financial managers for small businesses can plan and execute sophisticated cash management strategies from their desks.

Forces driving the development of EBPP

The emergence of EBPP as a viable solution is being driven by a long list of forces within today's business environment.

Cost savings

Not surprisingly, in an increasingly competitive and highly cost-conscious world, prospective users look first to the potential cost savings of EBPP. And these savings are substantial. Studies show

that, on average, it costs the biller from US\$1.00 to US\$1.50 to process and send a paper-based invoice. That assumes that a significant degree of automation is already involved in the process. Presenting that same bill electronically reduces the cost to 20 to 50 cents each, a savings of as much as US\$1.00 per bill. Multiply that by millions of customers receiving bills every month, and it's easy to see why billers are so interested in EBPP.

Enhanced customer relationships

In many ways, EBPP's ability to enhance customer relationships will be even more important than its potential for cost savings. Businesses have an opportunity to gain a clear competitive advantage by using the billing process as a means to strengthen and better maintain customer relationships. With EBPP, invoices can be made available online at the customer's convenience, 24 hours a day, 365 days a year.

For promotions, rather than stuffing throwaway flyers in with bills, billing organizations can design interactive media that address individual buying preferences and usage, to reach consumers in more proactive, personalized ways. This capability will elevate traditional customer service and customer care to a higher plane—customer relationship management (CRM).

Innovative CRM programs will enable all billers—both billers and service providers—to identify opportunities to build customer loyalty through exemplary service, highly refined cross-selling, one-to-one marketing, and recognition programs for continued patronage. Billers will also be able to utilize real-time billing information as part of their CRM efforts to improve service to their most creditworthy—and often most profitable—high net-worth customers.

On the whole, EBPP can serve as the catalyst for a business's move into broad-based electronic commerce, taking full advantage of Internet technologies for a wide array of business functions.

Rapid growth of Internet usage

The rapid growth in the use of the Internet is a big driver of EBPP. Studies project that half the population in the United States will have access to the Internet by 2001. While other regions of the world trail the United States, the number of users in Europe, Asia, Canada, Latin America, and elsewhere is rising rapidly.

Not only are people using PCs to go online, but they are also connecting through a growing array of wireless devices such as wireless phones, PDAs, Internet appliances, and cable television

systems. Once a consumer is online, EBPP will look even more attractive.

A new use for ATMs

The next generation of Web-enabled automated teller machines will feature extensive online bill-paying capabilities in addition to their many other functions. These capabilities will ensure that even the shrinking percentage of the population that does not have access to the Web can take advantage of EBPP by going to their nearest ATM. Several banks in New York are already running pilots that allow customers to conveniently pay their utility bills at ATMs.

Support by government agencies

Public utility commissions and other government agencies that play an active role in overseeing credit activities are emerging as major proponents of EBPP as a means of serving consumers more efficiently and cost-effectively.

Support from the card industry and bank issuers

Payment card leaders, such as Visa, MasterCard, and American Express, and leading bank issuers are also expected to move to adopt EBPP as the economic and service advantages become clear. These organizations, along with key service providers, are all major billers and will enjoy the substantial savings that other billers expect to receive.

Banks as financial services providers

Banks have other strong reasons to adopt EBPP that go beyond their role as card issuers. Financial institutions today are competing hard to expand their retail customer base in the unpredictable Internet age. The “personal financial portal” will become yet another battleground to gain mindshare among retail prospects. EBPP solutions that allow customers to easily and conveniently pay bills online can serve as an important means of attracting customers to a bank’s financial portal.

Financial institutions will also benefit by using EBPP to leverage expertise across business units within the bank. For example, a major bank that is a large card issuer and also has a significant retail business will be able to use EBPP to reduce costs for its payment card group, while also generating a new source of revenue for its corporate business through cash management services.

Benefits of EBPP

EBPP provides a broad spectrum of benefits for all the parties involved in the process: billers, bankers, and consumers.

EBPP brings great promise for businesses and customers alike, including competitive advantage, operational efficiency, and customer convenience.

Billers: on the leading edge of e-commerce

In the short run, billers will probably be most attracted by EBPP's potential to keep them on the leading edge of e-commerce. But they can also accomplish the following by using EBPP:

- Improve customer service
- Build brand awareness
- Be viewed as leaders in their industry

Over time, other major benefits will accrue. EBPP can reduce billing and remittance expenses, streamline cash management, and enable the merchant to fully leverage the billing touchpoint to cross-sell desired products and services, while strengthening control over the entire process.

Financial institutions: a business advantage

Financial institutions, too, can use EBPP for business advantage, allowing them to

- Generate more fee income and capture automated clearing house (ACH) origination fees
- Reduce the expenses of their payment card business unit
- Offer a highly competitive service that will attract more billers
- Protect the banking industry's franchise in the payments business

Over time, the tremendous cost savings gained will offset the substantial infrastructure investment required to get EBPP off the ground.

Consumers: convenience and control

Equally important, consumers will be attracted to EBPP by a number of benefits, including

- The greater convenience of electronic payments
- Ease of integration with financial management applications such as Intuit Quicken and Microsoft® Money
- Billing information and other electronic records that are easier to store and manage
- Greater control over how and when bills are paid

Security and data integrity are also important issues for consumers, and EBPP solutions that are currently being developed incorporate powerful encryption and other safeguards to ensure that payment transactions and personal information are protected.

Multiple business models

As various organizations have begun to implement EBPP solutions, several successful business models have emerged. The two leading models are direct presentment and consolidation.

Direct presentment model

With direct presentment, the biller presents information directly to the consumer via the biller's website (see figure 1). For example, American Express customers today can register for an EBPP service that allows them to view their monthly statements and pay their bills online by going to the American Express website. A variation on this approach is for the biller to deliver statements as HTML files directly to consumers via e-mail.

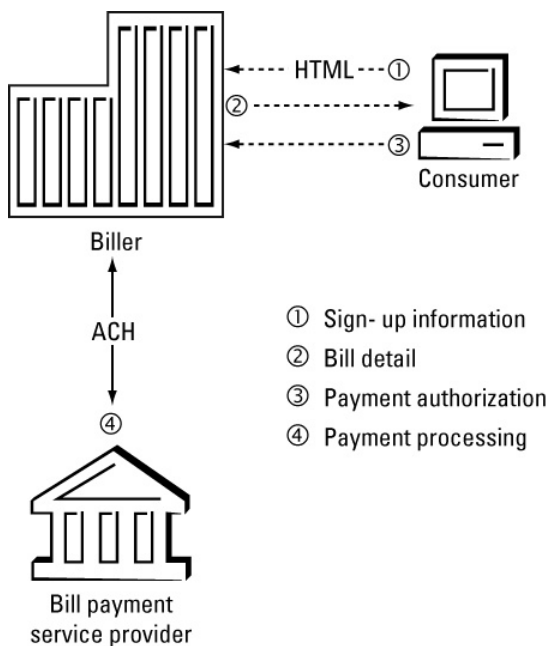


Figure 1. In the direct presentment approach, billers work directly with the consumer via their websites.

Thin Consolidator model

Under the consolidation model, a third-party service provider referred to as a consolidator presents multiple bills from a single

website. There are two variations on the consolidation model. Using an approach called Thin Consolidator, the service provider presents summary information about each of the bills that is due and payable, while the various billers retain control of the detailed billing information (see figure 2). The consumer can pay through the Thin Consolidator's website, or be connected to a biller's website via a hotlink from the consolidator, to get additional information or receive answers to questions.

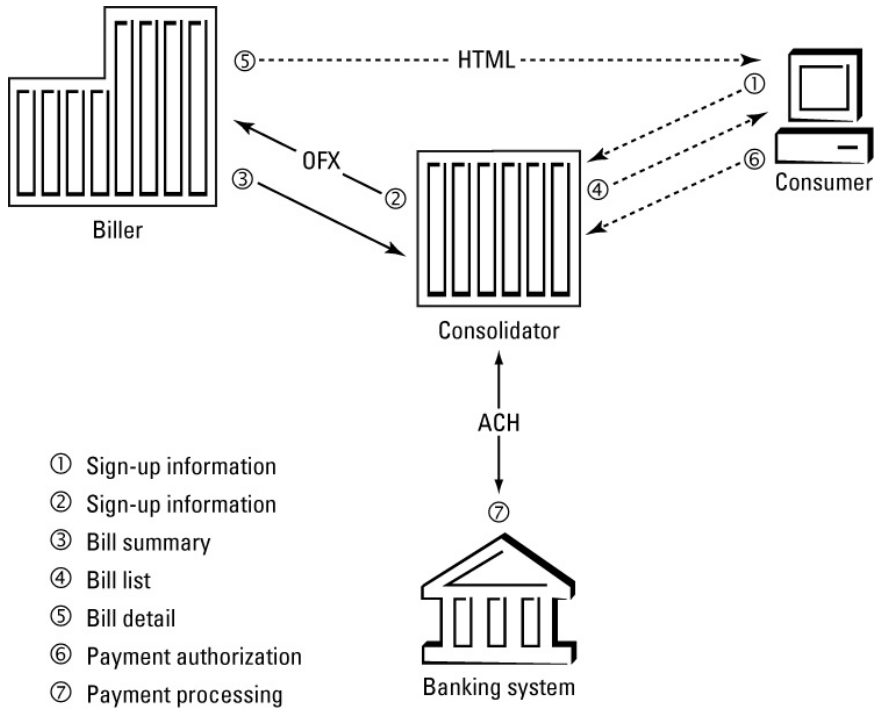


Figure 2. Using the Thin Consolidator approach, the service provider consolidates payment information and services from many billers.

Thick Consolidator model

On the other hand, Thick Consolidators present and control both summary and detailed information for the billers they represent (see figure 3).

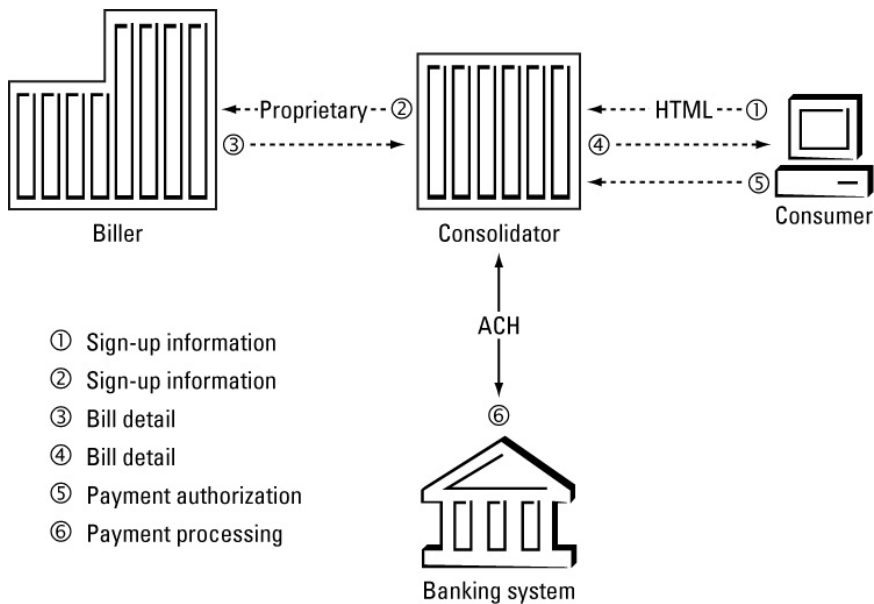


Figure 3. Thick Consolidators present and control both summary and detailed information for multiple billers.

Which model to use?

Each of these models has supporters and detractors, reflecting the motivation of the different players. For example, the consumer’s desire for a “one-stop” bill-paying solution requires summary consolidation, typically provided by third-party service providers. But the biller favors direct presentment, which focuses the consumer’s attention solely on the biller’s website rather than on a bill-paying service’s website.

Direct presentment faces considerable difficulty winning over consumers in large numbers. Research has shown that most consumers are unwilling to visit more than two or three websites to handle their bills. People choosing EBPP are doing so to save time over traditional paper-based bill-payment methods. Requiring consumers to visit 10 to 20 websites each month, log in, provide security information, and work through the steps needed to pay their bills detracts from some of the benefits of the online payment process.

For large corporate customers, however, some direct presentment solutions may be ideal. For example, a long-distance company may be able to meet a large corporation’s complex data reporting requirements more easily than a consolidator would, providing detailed billing information in a form that can be integrated with the company’s enterprise resource planning (ERP) system. But for

the majority of consumers—which is the focus of this paper—direct presentment is not likely to be a popular solution.

Consumers are most likely to gravitate toward one of the consolidation models; the resistance will come from the billers. The information that a business collects on its customers represents its crown jewels. Billers will be very reluctant to share this information with consolidators, for fear that these businesses may turn around and sell the data to direct marketers or even to a biller's competitors.

But with proper safeguards, it seems likely that the Thin Consolidator model will emerge as the winning solution for consumers. The customer gets the convenience he or she is looking for—a single website to visit to handle the majority of his or her bills. At the same time, billers provide only summary information to the consolidator—customer name, account number, amount due, and date due—while retaining control over the billing detail that both protects the consumer's privacy and guards against a competitor interfering with the buyer-seller relationship. And, equally important, the biller receives the cost savings, relationship building, and other benefits offered by electronic bill presentment and payment.

Requirements for EBPP solutions

To compete in the EBPP marketplace, banks and telecommunications providers must offer comprehensive solutions that include such fundamental elements as support for multiple business models, multiple payment options, ample customization, and simplified enrollment.

Developing an effective, efficient EBPP solution is not a simple undertaking. There are a number of technology and business requirements that must be met to provide an appropriate infrastructure for EBPP. Here is an overview of the most critical requirements.

Support for direct presentment and consolidation models

Solutions must be able to support both direct presentment and consolidation models for EBPP, to satisfy the needs of the widest range of customers.

Data extraction and transformation

Effective solutions need to support the extraction and transformation of data in a variety of widely used formats. These capabilities will enable billers to easily provide access to data—identified based on one or more standards—and transform it into meaningful output for viewing or printing.

Easy customization

Billers will want to customize their bills to satisfy customer requirements and achieve a desired look and feel. Consolidators have to support many different currencies, languages, and numbering systems to work with billers in various countries or regions. Solutions must allow customization to accommodate changing needs.

Multiple viewing options

People pay bills at various times in different ways: in the evening on their home PC, in the office on their desktop workstation, or

when they are traveling on business. For this reason, customers need to be able to receive billing and payment information in various ways: via Web browser, e-mail, fax, or magnetic media.

Sometimes, bills may even need to be paid when a customer doesn't have access to a computer. Because of this, alternatives such as interactive voice response (IVR) should also be available.

In addition, billing information should be easily imported into leading personal financial management software, for cash management and tax purposes.

Enrollment and service

It is crucial to provide customers with fast, efficient enrollment and comprehensive service options. Questions are an integral part of the billing process. Customers need an e-mail address or other vehicle that they can use to get timely assistance when required.

An EBPP solution must have a means of notifying customers when statements are online, when a payment has been received, or perhaps when an attempt to pay has failed. Typically, this task will be handled by e-mail, but again IVR technology may be needed as an option when computerized methods bring no response.

User authentication

Authentication can be handled through a number of methodologies, such as user passwords, digital certificates, or the swiping of smart cards.

Multiple payment capabilities

Customers will want to retain all the flexibility they currently have for paying their bills, including the option to pay in full or to make a partial payment, to set up automatic payments, or to schedule payments to be made at some future time. In addition, customers will want to be able to pay by e-check, by credit or debit card, or by transferring funds from a particular account.

Also important is the ability to download data to a customer's PC to automatically update his or her personal financial management database.

Payment tracking and billing history

EBPP offers customers the opportunity not only to track payments but also to analyze billing history for trends and possible problems.

These features can often take advantage of a biller's existing account billing history system.

Integration with bank accounts

To be most effective, a solution should be integrated in some way with a customer's banking information, so that he or she has needed information when paying bills.

Support for marketing and promotional efforts

Finally, it is important that EBPP solution providers build in the capability to advertise, cross-sell, and up-sell products and services to targeted groups. The solution should take full advantage of CRM and other data mining capabilities to support one-to-one marketing. In addition, it should offer push or broadcast messaging for mass marketing to large groups.

The need for standards

To be widely accepted, any EBPP solution must also be standards-based. Used by billers, consolidators, financial portals, and the personal financial management software running on home and office PCs, these standards define the formats and protocols required to exchange information regarding billing, payments, and other personal financial transactions.

Currently, there are two widely followed standards. One is Open Financial Exchange (OFX), developed by Microsoft, First Data, and others. The other major standard is the Integrion Gold standard developed jointly by IBM and other members of the Integrion Network, including more than a dozen key U.S. banks.

A more recent effort by the Banking Industry Technology Secretariat (BITS), the banking industry's technical coordination agency, seeks to merge these two standards into something called the Integrated Financial Exchange, or IFX. BITS has been instrumental in driving Integrion Gold and OFX toward desired harmony under the IFX standard, to avoid the cost of having two similar but competing standards in the marketplace.

Compaq's role in EBPP

For more than 20 years, *Compaq NonStop*[™] servers have provided unparalleled scalability, fault tolerance, and data integrity in addition to the outstanding performance required for business-critical applications. These qualities make Compaq *NonStop*[™] servers the platform of choice for EBPP solutions.

With the consolidation model, massive amounts of billing data must be brought together and managed. In addition, thousands of users may need to access this data at the same time. As EBPP grows in popularity, transaction volumes are likely to increase exponentially. *Compaq NonStop*[™] servers provide powerful performance, plus the capability to grow systems by an almost unlimited amount simply by adding processors. Further, linear expandability ensures that consolidators will receive a full processor's worth of performance for each new processor that is added.

The *Compaq NonStop*[™] server platform also provides the absolute availability consumers demand. These servers stay up and running during routine maintenance and upgrades, and despite problems such as software bugs, user errors, loss of power, or even natural disasters. Reducing downtime to near zero assures that users anywhere in the world can access their billing information at any time, while reducing operations costs for consolidators or billers.

And finally, Compaq is an expert at providing the security and data integrity required for financial solutions. Our servers are at the heart of critical applications relied on by securities exchanges, banks, and nationwide EFT networks. EBPP solutions must be able to protect sensitive customer data, provide absolute assurance of customer identification, and match security procedures to the level of risk involved.

Compaq has extensive skills in implementing technology solutions in the e-commerce space. We are working closely with a broad spectrum of partners in the financial services industry, telecommunications industry, and other businesses to develop best-in-class solutions that incorporate the fundamental strengths of the *Compaq NonStop*[™] platform with the business capabilities that customers are looking for.

The company has 550 locations in 114 countries. Compaq ranks among the top five systems integrators in the world. The company has 29,000 service employees including 15,000 Microsoft-trained

specialists, 3,000 UNIX[®] system engineers, and 2,200 professionals certified on the Windows NT[®] Server platform. Service and support are available around the clock, so customers will never need to be inconvenienced.

Summary

Like electronic commerce in general, EBPP is more than a vision. It represents a real opportunity today for banks, telecommunications providers, and other organizations that are willing to build the technology and support infrastructure needed to achieve and maintain a leadership position.

Electronic bill presentment and payment is an exciting opportunity made possible by the unprecedented growth of the Internet. Repetitive billing is a high-cost, nonstrategic function that most businesses do today simply to get paid. Alternative approaches such as EBPP save time and money, and are likely to find quick and enthusiastic acceptance.

Although EBPP will require a significant initial investment to launch, the return over a period of time can be expected to be substantial. Compaq—a global leader in information technology and systems integration—is ideally positioned to lead the way in pioneering efficient, cost-effective solutions that will bring electronic bill presentment and payment to millions of consumers around the globe.

For More Information
Website: www.compaq.com

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