Business-to-Business EIPP:
Presentment Models and Payment Options

Part One: Presentment Models

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Disclaimer: This document is a collaborative effort of the Business-to-Business Task Force membership, under the guidance of NACHA's Council for Electronic Billing and Payment (CEBP). The information in this publication reflects the opinion of the Council, and is intended for educational purposes only.

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Purpose Statement

The purpose of this document is to provide an objective, educational tool on Internet-based Electronic Invoice Presentment and Payment (EIPP) in business-to-business transactions. It is intended to help businesses understand the different approaches available, or emerging, in the market today. The authors believe that broader understanding will drive adoption of EIPP.

The information in this document is designed for billers, payers, financial institutions, technology providers, and other industry participants to:

- Educate customers, colleagues, and the general public on EIPP
- Promote a common language and context for EIPP
- Describe and review available EIPP options

Special Note

This version of the paper covers the "B2B Presentment Models." The section on "B2B Payment Options" is under development, and will likely be released early in the second quarter of 2001.

Introduction

In the short time since the release of the first web browser in 1993, the Internet has evolved from a mere information dissemination vehicle into a robust transaction environment. Industries are rushing to develop new tools and infrastructure to support expectations for an interactive Internet, but, ironically, still struggle with changing fundamental user behavior; most business processes are still transacted through paper media, including billing and payment.

While some larger businesses have used Electronic Data Interchange (EDI) to automate business processes, the costs are prohibitive to many companies. The Internet is emerging as the venue for non-EDI businesses to automate inter-company transactions.

Electronic Bill Presentment and Payment (EBPP) – the business-to-consumer (B2C) process by which bills are presented and paid through the Internet – is gradually becoming a standard tool for companies that regularly bill large numbers of individual consumers.

Electronic Invoice Presentment and Payment (EIPP) – the process by which companies present invoices and make payments to one another through the Internet – is a promising tool in the business-to-business (B2B) environment that has not yet achieved significant adoption rates.

The motivations to migrate toward EBPP and EIPP include:

- Shortened transaction cycles and accelerated revenue cycles
- Improved cash flow management
- Increased marketing opportunities
- Improved productivity
- Reduced direct costs (e.g. postage and printing)
- Enhanced customer service

While both B2C and B2B transactions have some similar processes, the B2C environment is generally much simpler. In consumer EBPP transactions, companies typically present bills on a web site for consumers to view and pay.

B2B, on the other hand, involves more participants and more complex processes, creating a longer, more intricate value chain. Business transactions include procurement, contract administration, fulfillment, financing, insurance, credit ratings, shipment validation, order matching, payment authorization, remittance matching, and general ledger accounting. Each of these steps may be governed by complex business rules. For example, trading partners may require multiple billing accounts per customer, with a separate workflow review process for each.

Furthermore, B2B transactions are more likely to be disputed than B2C transactions. Invoices are often "not paid as billed," and transactions often need to account for discounts, promotions, and special buyer relationships.

The complexity of the B2B market has been compounded by the emergence of e-commerce. Traditional business processes and relationships are challenged by new technological capabilities (e.g. extranets, Application Service Providers), and by an emerging necessity to accommodate both established and spontaneous relationships in a real-time environment.

In an effort to promote greater understanding of the new e-commerce environment for B2B electronic invoicing and payment, this document outlines three current EIPP models: Seller Direct, Buyer Direct, and Consolidator, and for each model presents a:

- Model Overview – describes and defines the model
- Process Flow – explanation of the steps in the transaction process between buyer and seller
- Usage Analysis – discusses assumptions and attributes about who would use the model
- Key Model Differentiators – distinguishes the model from other models, and identifies benefits and challenges from both the buyer and seller perspective
- Implementation Considerations – describes different options for implementing the given model

1. Seller Direct

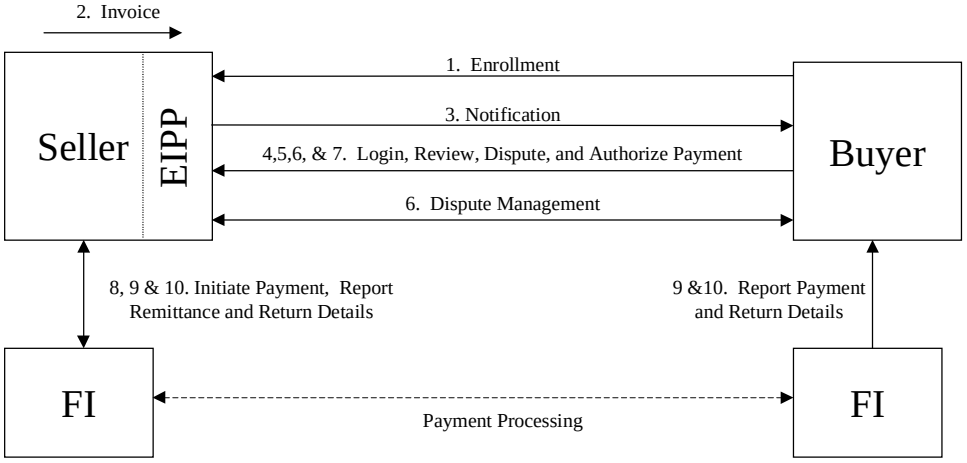
1.1 Model Overview

The seller controls the EIPP application in the Seller Direct model. This model comprises a one-to-many relationship, linking one seller to its multiple buyers for invoice presentment. A seller deploys this model by requesting – or requiring – that its buyers view invoices on the seller EIPP system.

The seller's EIPP system may provide additional functions (e.g. workflow protocols, payment initiation, seller accounts receivable (A/R) integration, buyer accounts payable (A/P) updates, dispute management, analysis tools, etc.) Often, an email notification is sent to alert the buyer that a new invoice(s) is available.

1.2 Process Flow

The transaction flow in a Seller Direct model occurs as follows:



ENROLLMENT

1. Using a standard web browser, the buyer navigates to the seller's web site and enrolls in the seller's EIPP program. The seller may pre-populate some enrollment information from its system of record.

PRESENTMENT

2. The seller generates and/or transfers invoice information to the EIPP system. This data transfer could take the form of a file transfer or more direct application integration.
3. The seller's EIPP system notifies the buyer organization that the buyer's invoice is ready for viewing.
4. The buyer logs into the seller's web site to access invoice information pertinent to that buyer only.
5. The buyer reviews and analyzes the invoice information presented. The seller's system may include workflow protocols to route invoices for approval within the buyer organization, including to accounts payable.

DISPUTES

6. The seller EIPP system allows the buyer to communicate any disputes to the seller. Based on a set of predetermined business rules, disputes may be automatically accepted, rejected or reviewed by the seller.

PAYMENT

7. The buyer may authorize invoice payment for either the full amount or for a partial payment.
8. The seller's financial institution processes the payment transaction.
9. The EIPP system transmits a remittance file to the seller, which may be used to update their A/R system. The seller may offer A/P integration services to the buyer.
10. The financial institutions confirm execution of the payment via their reporting services.
11. Payment return or rejection information may be reported to both the buyer and the seller by their respective financial institutions.

1.3 Usage Analysis

The Seller Direct process is an established model. It is typically used when a trade relationship already exists between a seller and its buyers, where payment requirements and credit terms have been established. Sellers that implement an EIPP application typically issue a high volume of invoices, or have invoices of high value. The Seller Direct model is used by manufacturing, telecommunications, utilities, health care and financial services industries.

In this model, buyers must be willing to use an invoicing process designed and controlled by the seller. Some sellers may offer incentives to persuade buyers to adopt this model. In other cases, a dominant seller may require that its buyers use the seller EIPP system.

Example

Buyer enrolls in Seller's EIPP program. After purchasing goods, Buyer views two new invoices on Seller's EIPP system, using a web browser. The first invoice is correct as presented and Buyer initiates an electronic payment. Buyer disputes the second invoice because of a short shipment; this information is communicated to Seller and the invoice amount is adjusted. Buyer reviews the adjustment to initiate payment.

1.4 Key Model Differentiators: Summary of Benefits and Challenges for Seller Direct

Seller Benefits

- Seller controls all aspects of the system, including data requirements and options for transaction processes (e.g. enrollment, presentment, payment, and disputes).
- Seller has the ability to integrate the EIPP system with other company applications (e.g. accounts receivable and customer care).
- Seller is positioned to capitalize on the use of its web site and may present related marketing and regulatory messages.
- Seller reduces number of trading partner sites it must interact with for invoicing and payment.

Buyer Benefits

- Buyer has low implementation costs – viewing invoices only requires a web browser.
- Buyer may benefit from economic incentives offered by the seller to encourage enrollment and use.

Seller Challenges

- Seller is responsible for EIPP start-up and operational costs, and must ensure adequate scalability and security.
- Seller must require – or convince – buyer to use seller EIPP (may require a change in buyer's current process). Seller who does not dominate a market may have to offer incentives to buyer.
- Seller may have to provide multiple data output formats to, and/or integrate system with buyers' A/P process.

Buyer Challenges

- Buyer - who purchases from many sellers - must access multiple trading partner sites for invoicing and payment, and may encounter multiple enrollment, presentment, and access requirements.
- Buyer must integrate A/P system with multiple seller sites.
- Buyer must comply with seller's payment options.

1.5 Implementation Considerations

There are various options in the marketplace for implementing a Seller Direct model. The following text highlights some considerations for both "in-house" and "outsource" solutions.

- In-house EIPP Software Solution

An “in-house” software solution means that the seller is responsible for development and operational resources. In this solution, the seller hosts all invoice data, and would be solely responsible for maintaining third party relationships with entities such as payment processors. The seller is in complete control of customization needs, including system features, and integration with other company applications.

- Use of Third-Party EIPP Software Vendor for an In-house Solution

Instead of developing its own solution, a seller may want to use a third-party software vendor to implement an in-house EIPP application. In this case, the seller selects an EIPP software vendor and integrates the software into its current environment. Fulfillment of the seller’s needs is dependent on the flexibility of the third party software vendor to interface with legacy systems. The vendor may provide integration capabilities with entities such as payment processors, but the management of relationships is the responsibility of the seller. The seller hosts all invoice data, enabled by the third-party software. The seller is responsible for providing its own resources to operate and maintain the EIPP system.

- Use of Third-Party EIPP Servicer/Application Service Provider (ASP)

A seller with limited information technology resources may want to outsource an EIPP solution to a third party. An Application Service Provider (ASP) operates and maintains the EIPP system on behalf of the seller. In this case, the EIPP application is hosted by the ASP which provides an interface or direct integration with the seller’s web site. The ASP may manage payment processor relationships. Fulfillment of the seller’s needs is dependent on the features offered by the ASP’s service and the flexibility of the ASP to integrate with the seller’s legacy systems.

2. Buyer Direct

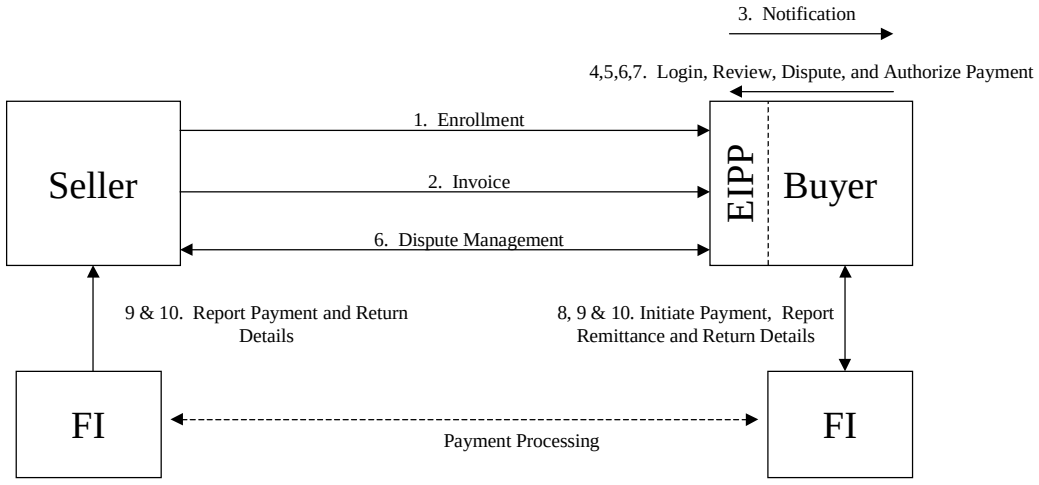
2.1 Model Overview

The buyer controls the EIPP application in the Buyer Direct model. This model comprises a one-to-many relationship – with one buyer providing an interface for many sellers. A buyer deploys this model by requesting – or requiring – that its sellers post invoices to the buyer EIPP system.

An EIPP application hosted by the buyer will usually link to the buyer's A/P system. The buyer's EIPP system may provide additional functions (e.g. workflow protocols, payment initiation, seller accounts receivable (A/R) integration, buyer accounts payable (A/P) updates, dispute management, analysis tool, etc.). Often, an email notification is sent to alert the buyer that a new invoice(s) is available.

2.2 Process Flows

The transaction flow in a Buyer Direct model occurs as follows:



ENROLLMENT

1. Using a standard web browser, the seller enrolls in the buyer's EIPP program at the buyer's web site. The buyer may pre-populate some enrollment information from its system of record.

PRESENTMENT

2. The seller generates and transfers invoice information to the buyer's EIPP system. The seller must adhere to the buyer's requirements for format and data transfer.
3. The buyer's EIPP system may notify relevant staff that the seller's invoice is ready to view.
4. The buyer accesses the invoice information by logging into the EIPP web site. The buyer may also have access to the invoice via their A/P system.
5. The buyer reviews and analyzes the invoice information presented. The buyer's system may include workflow protocols to route invoices for approval within the buyer organization.

DISPUTES

6. The EIPP system allows buyer to communicate disputes to the seller for review and resolution.

PAYMENT

7. The buyer may authorize and initiate invoice payment for either the full or partial payment.
8. The buyer's financial institution processes the payment transaction.
9. The buyer's EIPP system will update its A/P system. The buyer's EIPP system may also offer A/R integration services to the seller.
10. The financial institutions confirm execution of the payment via their reporting services.
11. Payment return or rejection information may be reported to both the buyer and the seller by their respective financial institutions.

2.3 Usage Analysis

The Buyer Direct process is an emerging model that recognizes the dominant position buyers often have in B2B transactions. Large buyers who want to maintain control of purchase-order-driven invoicing and the payment process normally drive buyer solutions, such as the Buyer Direct model.

This model is particularly applicable to buyers whose purchases result in a high volume of invoices. Typically, a trade relationship already exists between the buyer and seller. Other businesses interested in the Buyer Direct model are targeting specific industry groups or segments. This focus allows a buyer who continually interacts with an industry to develop value-added processes for specific industries.

Example

Seller enrolls in the Buyer's EIPP program. After Buyer purchases goods, Seller posts two invoices to the Buyer's EIPP system. The first invoice is correct as presented and Buyer initiates an electronic payment. Buyer disputes the second invoice because of a short shipment; this information is communicated to Seller and the invoice amount is adjusted, then posted to the Buyer's EIPP system. Buyer reviews the adjustment to initiate payment.

2.4 Key Model Differentiators: Summary of Benefits and Challenges for Buyer Direct

Buyer Benefits

- Buyer controls all aspects of the system, including data requirements and options for transaction processes (e.g. enrollment, presentment, payment, and disputes).
- Buyer has the ability to integrate the EIPP system with other company applications (e.g. accounts payable, purchasing/receiving).
- Buyer reduces the number of trading partner sites it must interact with for invoicing and payment.

Seller Benefits

- Seller may receive payments more quickly – with direct submission of invoices to integrated buyer EIPP system.
- Seller's ability/willingness to use buyer's system may strengthen the relationship.

Buyer Challenges

- Buyer responsible for EIPP start-up and operational costs, and must ensure adequate scalability and security.
- Buyer must require – or convince – seller to use buyer EIPP (may require a change in seller's process). Buyer that does not dominate a market may have to offer incentives to seller.
- Buyer may need to develop support for multiple seller systems linkages (e.g. data input formats and/or integration with seller A/R process).

Seller Challenges

- Seller – with multiple buyers - increases the number of trading partner sites with which it must interact, and may encounter multiple enrollment, invoice transmission, and access requirements.
- Seller must integrate A/R with multiple buyer sites.
- Seller must comply with buyer payment options.

2.5 Implementation Considerations

Similar to the Seller Direct model, a Buyer Direct model can be implemented through: an in-house EIPP software solution; a third-party EIPP software vendor for an in-house solution; or an ASP (*see page 9*).

3. Consolidator

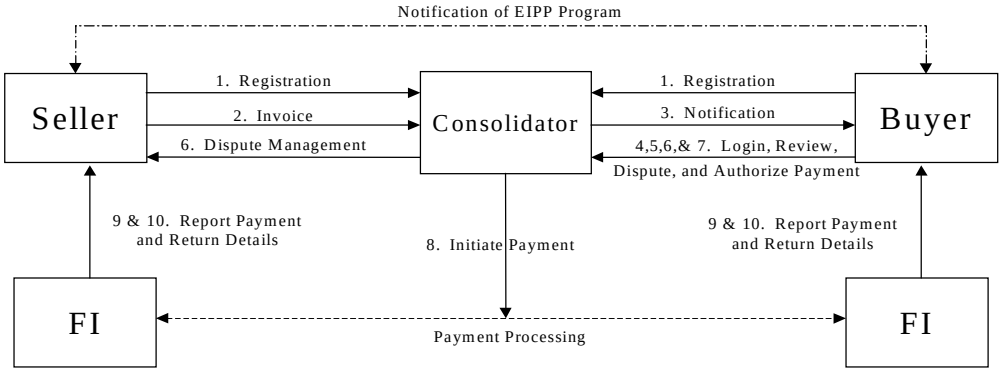
3.1 Model Overview

The consolidator controls the EIPP application in the Consolidator model. This model comprises a many-to-many relationship – providing an interface between multiple sellers and buyers. A consolidator acts as an intermediary, collecting or aggregating invoices from multiple sellers for multiple buyers, eliminating the need for point-to-point connections. The structure of a consolidator may vary from market to market based on the needs of buyers and sellers in each industry served by the consolidator. Consolidators are generally third parties and may provide, directly or through partners, a variety of additional financial services such as factoring, escrow, insurance, credit ratings, and payment processing.

Both sellers and buyers may use this model. The seller requests that its buyers view and pay invoices through the consolidator. Alternatively, a buyer may request that its sellers present invoices through the consolidator. The consolidator's EIPP system may provide additional functions (e.g. workflow protocols, payment initiation, seller accounts receivable (A/R) integration, buyer accounts payable (A/P) updates, dispute management, analysis tool, etc.) Often, an email notification is sent to alert the buyer that a new invoice(s) is available.

3.2 Process Flow

The transaction flow in a Consolidator model occurs as follows:



ENROLLMENT

1. Using a standard web browser, the seller and/or buyer navigates to the consolidator's web site and registers in the consolidator's EIPP service. Once registered, trading partners are notified of the EIPP program.

PRESENTMENT

2. The seller generates and transfers invoice information to the consolidator's EIPP system. The seller must adhere to the consolidator's requirements for format and data transfer.
3. The consolidator EIPP notifies the buyer organization that the buyer's invoice is ready for viewing.
4. The buyer logs into the consolidator's web site to access invoice information pertinent to that buyer only.
5. The buyer reviews and analyzes the invoice information presented. The consolidator's system may include workflow protocols to route invoices for approval within the buyer organization.

DISPUTES

6. The buyer typically communicates disputes to the seller through the consolidator EIPP. Pre-determined seller business rules may be provided to the consolidator by the seller to automate the dispute resolution process.

PAYMENT

7. The buyer may authorize invoice payment authorization for either the full amount or for a partial payment. The consolidator then initiates the payment.
8. The payment transaction is processed by either the buyer's or the seller's financial institution. In some cases, the consolidator may assume the role of a financial intermediary.
9. The consolidator will provide the seller with a remittance file to update their A/R system. The consolidator may also offer A/P integration services to the buyer.
10. The financial institutions confirm execution of the payment via their reporting services.
11. Payment return or rejection information may be reported to both the buyer and the seller by their respective financial institutions.

3.3 Usage Analysis

The Consolidator process is an emerging model, evolving in response to the adoption hurdles of buyers and sellers using a multiplicity of systems with varying requirements. A consolidator provides a remedy by simplifying invoice presentment, allowing trading partners to interact through one party. The use of a Consolidator model is not limited to a specific buyer or seller profile. As with other invoice presentment models, a range of payment options may be offered.

Example

Buyer, Seller One, and Seller Two enroll with Consolidator. After Buyer purchases materials, Seller One and Seller Two each post two invoices to Consolidator. Buyer views all the invoices on the Consolidator site, and authorizes payment for Seller One's invoices. Buyer initiates an electronic payment for Seller Two's first invoice, but communicates a dispute – through the Consolidator – about a short shipment for the second invoice. Seller Two may adjust the invoice amount. Buyer initiates appropriate payment.

3.4 Key Model Differentiators: Summary of Benefits and Challenges for Consolidator

Seller Benefits

- Seller reduces number of trading partner sites it must interact with for invoicing and payment; multiple buyers can be reached through one connection to a Consolidator.
- Seller leverages shared technology infrastructure to standardize interaction with buyers (e.g. enrollment, presentment, payment, and possibly disputes).
- Seller may leverage Consolidator services and features that seller may not have (e.g. resolution of multiple data formats and transmission protocols, analytic tools, security, scalability, etc.).

Buyer Benefits

- Buyer reduces number of trading partner sites it must interact with for invoicing and payment; multiple sellers can be reached through one connection to a Consolidator.
- Buyer leverages shared technology infrastructure to standardize interaction with sellers (e.g. enrollment, presentment, payment, and possibly disputes).
- Buyer may leverage Consolidator services and features that buyer may not have (e.g. resolution of multiple data formats and transmission protocols, analytic tools, security, scalability, etc.).

Seller Challenges

- Seller may have to convince – or require – buyer to use Consolidator EIPP.
- Seller must comply with Consolidator enrollment requirements and payment options.
- Seller may not be able to integrate Consolidator functions with existing systems such as A/R and customer care.
- Seller messaging (i.e. marketing, regulatory) to buyers may be limited.

Buyer Challenges

- Buyer may have to convince – or require – seller to use Consolidator EIPP.
- Buyer must comply with Consolidator enrollment requirements and payment options.
- Buyer may not be able to integrate Consolidator functions with existing systems such as A/P and purchasing/receiving.

3.5 Implementation Considerations

By serving multiple sellers and buyers, the consolidator may attract more buyers to each seller (and vice versa), without the necessity of having an established relationship.

ASP's will most likely assist consolidators, since broad connectivity among trading partners benefits all players. An ASP consolidator may be able to amortize functionality development across more buyers and sellers, which may allow the consolidator to provide more flexibility, customized formats, and AP/AR system connectivity options. However, a consolidator could also evolve from a seller direct or buyer direct system.

One of the key hurdles for a Consolidator model is the interoperability of the Consolidator's system with the systems of the buyer and seller. Using established (e.g. ANSI x12) or emerging (XML) standards may lower this hurdle.

Conclusion

Electronic Invoice Presentment and Payment is coming to the market from a number of directions. EIPP first gained acceptance from the seller side. Increasingly, buyers wish to take advantage of the process efficiencies of electronic transactions, and service providers are emerging to serve buyers. Consolidators are emerging between multiple buyers and sellers to serve the needs of both sides.

This paper provides an overview of the primary approaches to business-to-business EIPP in the market today. The Task Force recognizes, however, that there are variations on these three models, and that additional approaches may emerge. Some of the variations are presented in the *Implementation Considerations* in each section. Other variations may bridge business-to-consumer approaches and business-to-business approaches, resulting in some companies leveraging the same platform to bill both their consumer and business customers. An examination of B2C electronic bill presentment and payment models can be found in "An Overview of Electronic Bill Presentment and Payment (EBPP) Operating Models," developed by the Council for Electronic Billing and Payment and available on the Council's web site (http://cebp.nacha.org).

Buyers and sellers will continue to innovate, thus the models presented will evolve and change. It is important that EIPP adopters understand the key elements of EIPP and its benefits.

Profiting from EIPP does not require that every business implement the technology at the outset. Sellers and buyers alike have an opportunity to shape approaches, as well as reap the benefits of streamlined business processes, to their advantage and the advantage of their customers or suppliers. As awareness of the benefits to EIPP increases, companies will become more interested in adopting this technology.

Glossary for B2B Models and Payment Options

Accounts Receivable (A/R) -. System that tracks the amount due to Seller from all Buyers.

Accounts Payable (A/P) -. System that tracks the amount owed by Buyer to all Sellers.

ACH - Automated Clearing House - payment system for electronic funds transfer between financial institutions.

Aggregators - Service Bureaus that provide Billing and/or Payment Consolidation Services.

ANSI X12 - American National Standards Institute Committee that regulates EDI financial payments standards.

API - Application Programming Interface - a set of specifications, standards or conventions that enable programs to exchange information.

ASP - Application Service Provider - third party vendor used by seller to outsource the presentment of electronic invoices.

ASP - Hosted Systems - third party **A**pplication **S**ervice **P**rovider providing front end, data center or transaction processing capabilities for either Buyer or Seller.

Authentication - The process of verifying the identity of a user of a secure system. Also, used to verify the integrity of a message. This is often through the use of ID's and passwords.

B2B - Business to business.

B2C - Business to consumer.

Bank Routing Number - The number uniquely identifying a bank for payment processing. Also referred to as ABA Number or Routing Transit Number.

Browser - software program that is used to look at various kinds of Internet resources.

Buyer - customer, payer.

Buyer Direct - EIPP model connecting one buyer to many sellers. Sellers post their invoice data to the buyer's site.

CCD - Cash Concentration/Disbursement - ACH corporate/business payment format.

CEBP – NACHA's Council for Electronic Billing and Payment.

Consolidator - An EIPP model connecting many buyers and many sellers.

Credit Card Processor - A financial institution or third party that process credit card transactions.

CTX - Corporate Trade Exchange - ACH corporate/business payment format that includes ANSI X12 or UN/EDIFACT payment-related records.

Dispute Management - EIPP system function that allows buyer to notify seller of invoice disputes and the seller to respond to the buyer.

EIP - The term Electronic Invoicing and Payment (EIP) is synonymous with EIPP.

EIPP - Electronic Invoice Presentment and Payment for B2B transactions.

EFT - Electronic funds transfer - electronic payment such as ACH or Wire.

EBPP - Electronic Bill Presentment and Payment - Electronic presentment of consumer bills that contain a mechanism that enables the consumer to pay the bill. (business-to-consumer transactions)

EDI - Electronic Data Interchange - a computer to computer exchange of standard business data according to agreed upon data formats.

Electronic Payment - Any non paper-based type of payment.

Encryption - computer generated algorithm that allows secure communication between parties.

ERP - Enterprise Resource Program - integrated, corporate-wide applications such as Accounts Receivable, Accounts Payable, Purchasing, Customer Relationship Management, Treasury, etc.

Exchanges - Forum/Clearinghouse for buyers, sellers or commodities to partner to provide economies of scale and reduced development expenses.

HTML - HyperText Markup Language - screen display language for Internet.

IFX - Interactive Financial Exchange - API standard for the exchange of financial data and instructions independent of a particular network technology or computing platform. It builds on previous industry experience including OFX and GOLD, which are currently implemented by major financial institutions and service providers to enable electronic exchange of financial data between themselves and their customers.

Interoperability - standards and file formats promoting interaction between systems.

Invoice Detail - Information from a seller that provides invoice line level information to a buyer. This may include specific invoice event information such as credit card charges, telephone calls, or kilowatts used.

Invoice Summary - The summary information from a seller that is essential to a buyer to understand what is owed. Typical information may include; Amount Owed, Date Due, Seller, Seller's Account Number. Also: Summary Record, Summary, Invoice Summary, Invoice Summary Record, Bill Summary Record.

Invoice Notification - A process whereby a buyer is notified that an electronic bill is available for review and payment.

Invoice Cycle - The period of time between the recurring events of updating, invoicing, and charging for services rendered.

ISP - **Internet Service Provider** - A vendor that provides access to the Internet.

Legacy – any existing system (e.g. proprietary, enterprise resource planning, customer service application, etc.) that may require integration with the EIPP solution.

Master Card RPPS - Electronic bill payment and presentment network that provides electronic routing, posting, and settlement.

NACHA - National Automated Clearing House Association - Association of corporations and financial institutions that provides governance for ACH processing. It establishes the standards, rules, and procedures for financial institutions to exchange ACH payments. NACHA also promotes electronic payments, provides education for members.

Non-repudiation - a security feature that verifies to the sender that the receiver of the message received the message, and that the integrity of the content was not compromised.

Payment Authorizations/Instructions – Instructions for routing/posting the payment (e.g. into which bank account payments should be deposited).

Payment Systems - Processes by which payment instruments move from one party to another. Checks, wire transfer, credit card, or ACH are the means of moving money from one bank account to the other.

Posting - The process of recording debits and credits to account balances.

Remittance Information - Account Receivable information required by the Biller to effectively post customer bill payments.

Seller - biller, vendor. Entity providing product or services.

Seller Direct - EIPP model connecting one seller to many buyers. Buyers connect to the seller's site to view invoices.

SSL - Secured Socket Layer - A security protocol to enable encrypted, authenticated communications across the Internet.

Three-way matching - accounting control procedure matching purchase order, shipping or receiving documents, and invoice before payment is authorized.

Visa ePay - electronic payment solution.

XML - Extensible MarkUp Language - interactive database Internet language.

Appendix A – Comparison Charts for B2B Presentment Models

A.1 Model Overview

	Seller Direct	Buyer Direct	Consolidator
Entity relationships	Single seller, many buyers	Single buyer, many sellers	Many to many
Invoice location	Seller site	Buyer site	Consolidator site

A.2 Process Flows

Process	Seller Direct	Buyer Direct	Consolidator
Enrollment	Buyer enrolls with seller	Seller enrolls with buyer	Buyer and seller enroll with consolidator
Invoice data posted	Seller posts to seller EIPP	Seller posts to buyer EIPP	Seller posts to consolidator EIPP
Invoice presentment	Buyer views on seller EIPP	Buyer views on buyer EIPP	Buyer views on consolidator EIPP
Review, routing, A/P integration	Seller may offer workflow protocols for buyer	Buyer may have workflow protocols	Consolidator may offer workflow protocols
Dispute resolution	Buyer communicates to seller	Buyer communicates to seller	Buyer communicates to seller through consolidator
Invoice approval and payment authoriz.	Buyer approves and authorizes payment	Buyer approves and authorizes payment	Buyer approves and authorizes payment
Funds transfer	Seller FI initiates debit to buyer FI	Buyer FI initiates credit to seller FI	Initiated by seller FI or buyer FI
Settlement and Remittance	Buyer FI debits buyer account; seller's FI credits seller account	Buyer FI debits buyer account; seller's FI credits seller account	Consolidator provides remittance file for seller A/R and buyer A/P

A.3 Usage Analysis

	Seller Direct	Buyer Direct	Consolidator
Model status	Established	Emerging	Emerging
Trade relationship	Existing relationship	Existing relationship	Existing Relationship
Buyer profile	Buyers required to use seller's system	Dominant company	Varies
Seller profile	Dominant company	Sellers required to use buyer's system	Varies

A.4 Key Model Differentiators – Summary of Benefits and Challenges

EIPP System	Seller Direct	Buyer Direct	Consolidator
Enrollment	Seller controls	Buyer controls	Consolidator may control
Features and functions	Seller controls	Buyer controls	Consolidator may control
Payment options	Seller determines	Buyer determines	Consolidator, and/or seller, and/or buyer
Data access	Seller controls	Buyer controls	Consolidator controls
Integration with other company applications	Seller determines	Buyer determines	Consolidator may or may not offer integration services
Related messaging	Seller determines	Buyer determines	Consolidator may or may not provide messaging
Number of trading partner sites to access	Reduces for seller; increases for buyer	Reduces for buyer; increases for seller	Reduces for seller and buyer
Incentives offered to trading partners	Sometimes	Unknown	Unknown
Operational resource requirements	Seller responsible	Buyer responsible	Consolidator responsible
Scalability	Seller responsible	Buyer responsible	Consolidator responsible
Security features	Seller controls	Buyer controls	Consolidator controls

About the Authorship

Members of the Business-to-Business Task Force of the Council for Electronic Billing and Payment (CEBP) developed this paper to provide an objective, educational tool on EIPP. The National Automated Clearing House Association (NACHA) facilitates the CEBP.

The CEBP provides a forum for stakeholders to cooperate on education and standards development for electronic billing and payment. Since 1993, the Council has focused on building consensus within the business-to-consumer EBPP marketplace. For example, the Council's "EBPP Business Practices" document fulfilled the need for defining EBPP expectations and responsibilities, and is fast becoming the measure for evaluating EBPP services and service providers.

The Council recognized that processes for business-to-consumer differ from business-to-business. Therefore, the CEBP formed the Business-to-Business (B2B) Task Force in May 2000 to focus on B2B issues, and to make recommendations for further Council actions.

With the same spirit of consensus development as the Council's EBPP efforts, the B2B Task Force is circulating this paper to educate stakeholders on the B2B models for Internet-based electronic invoice presentment and payments (EIPP). This version of the paper covers the "B2B Presentment Models." The section on "B2B Payment Options" is under development, and will likely be released early in the second quarter of 2001.

More information on the CEBP is available at: http://cebp.nacha.org.