

# FBA

## Freight Bill Automation

Freight Invoice and Payment Processing Hits the Technology Highway

### Featuring Insights On

Challenges with  
Freight Bill Processing

Primary Objectives of  
Freight Bill Automation

Case for Automation

What is Freight Bill  
Automation?

Featured Provider:  
Certuspact LLC

## Introduction

Automating invoice processing remains a high priority for many AP organizations. Electronic data capture, e-invoicing, and workflow tools are increasingly being applied to the purchase-to-pay (P2P) process in order to increase efficiency and reduce costs. Unfortunately, there is no one-size-fits-all solution that can address every scenario within the P2P universe. As a result, niche solutions have evolved that focus on discrete segments of the P2P environment, particularly those that are extremely complex and require sophisticated data support. Freight, telecom, and utility bills fall into this category, with all three requiring, among other things, robust rate monitoring capabilities in addition to standard P2P automation tools.

Rare is the enterprise that escapes the challenges of freight bill processing. The greater your exposure to different carriers, modes, business lines, locations, currencies and so forth, the greater your freight bill burden. The greatest burden rests with enterprises that manufacture or distribute goods, especially those facing high transaction volume environments, although virtually no organization is exempt from shipping costs of some kind.

The primary challenge with regards to processing freight bills revolves around efficiently verifying the tariff and then processing the payment. Once you build up volume with more than a couple of business lines, carriers, modes, or locations it becomes increasingly difficult to retain visibility across the entire process.

Manual processes and paper documents are the primary culprits when it comes to processing challenges. Similarly, it is the lack of actionable data that prevents shippers from making better logistical decisions capable of optimizing performance while controlling costs. Freight bill automation (FBA) delivers the solution sets that address the issues of processing efficiency, cash management, and global decision support.

Given the growing demand for Freight Bill Automation solutions, PayStream has developed this Market Discovery Report titled ***Freight Bill Automation (FBA): Freight Invoice and Payment Processing Hits the Technology Highway***. This report spotlights freight bill processing automation and payment tools, and is designed for accounts payable, procurement, accounting, finance, treasury, shared service, logistics and IT managers interested in:

- Exploring freight bill automation solutions to achieve much higher payment accuracy and provide high levels of control, while still reducing the cost of administration
- Understanding the business case for the use of technology and managed services to improve freight bill automation
- Taking the next step toward freight bill automation adoption

This report is designed for organizations with an active interest in automating freight bill processing, but who need help identifying appropriate strategies, solution scenarios, and vendors. This report provides a succinct overview of the freight billing arena, discusses the different FBA solution types and their benefits, profiles two leading vendors in this area, and offers suggestions for technology selection.

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## What is Freight Bill Automation?

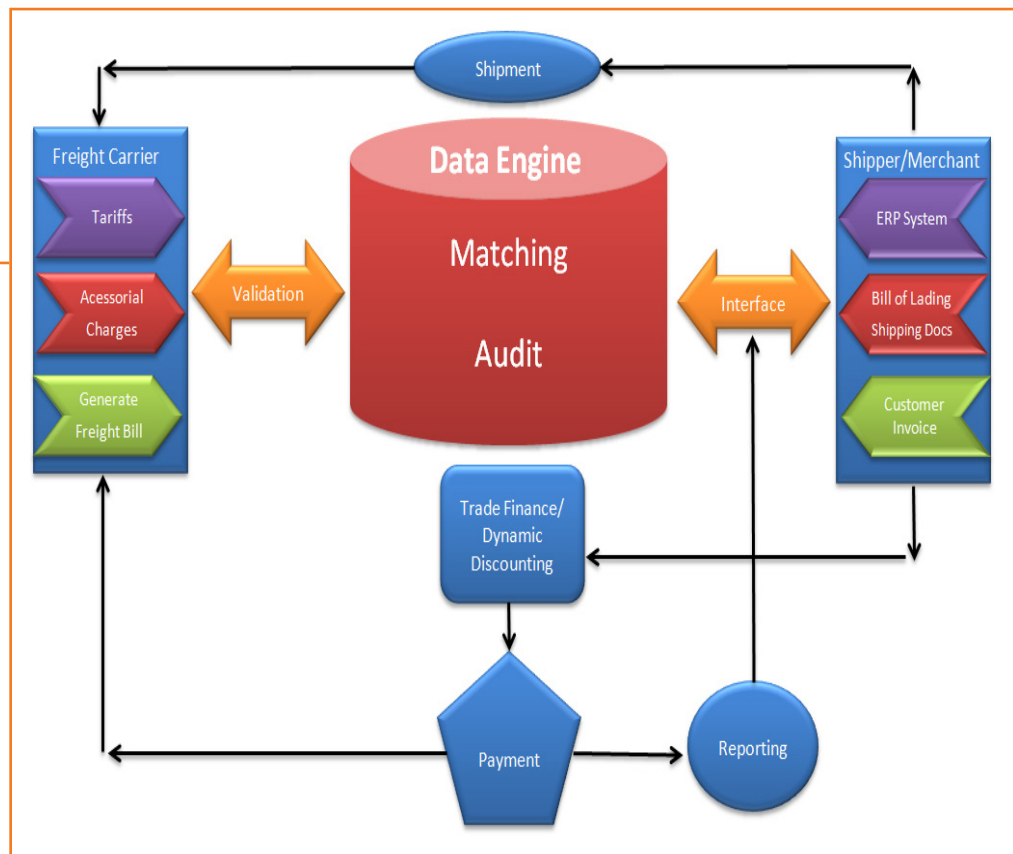
Automating freight bill processing requires the integration of a set of tools that provide electronic data capture, a database of up-to-date rates and tariffs, matching algorithms, automated workflow, electronic payment mechanisms and robust analytics. Additional complexity is added when there are multiple shipping locations with their own data sources and multiple freight carriers.

Freight Bill Automation (FBA) encompasses a set of software and services that provide for the electronic processing and payment of freight bills, through a system that:

- Maintains a current inventory of approved vendors, rates and contracts
- Compares each bill to the agreed rate, contract and policy
- Allocates expenses to appropriate GL codes
- Matches the Bill of Lading with the Invoice
- Transmits discrepancies back to the freight carriers
- Allows shippers and carriers to access relevant information online
- Schedules and processes automated payments
- Provides detailed data and analytics
- Evaluates historical usage to optimize every aspect of your shipping and logistics operations

**Figure 1**  
**UNDERSTANDING FBA SOLUTIONS**

FBA solutions are built around a rate engine that relies on up-to-date tariff data to accurately calculate freight, and that in turn collects the details required to automate freight bill processing and payment.



FBA solutions deliver efficiency, cost savings and optimization. By converting paper documents to electronic data, greater processing efficiencies are realized. Meanwhile, the stronger solutions assure accuracy via an electronic matching process, eliminating overpayments and the need for post-audits. Furthermore, the data captured by an FBA system is used to create decision support tools for optimizing the distribution environment.

Historical data can be used for:

- Optimizing contracts and rates
- The physical distribution network and mode mix
- Financial performance
- Processing performance and costs
- Better evaluating you customer and product profitability and portfolio mix

This intelligence in turn generates additional cost savings, operating efficiencies and customer satisfaction. As you will see, the benefits of implementing an FBA solution can be very substantial.

## Challenges with Freight Bill Processing

Paper documentation is the clear enemy of freight bill automation. Printing, mailing, forwarding, processing mail, and mail time all add time and cost. Documents containing errors diminish productivity gains when inputted into an automated system that does not support rate verification.

Additional errors, and redundant labor, can be expected whenever there is a re-keying process that takes data from paper documents generated by one system and is then entered in another system.

In addition, manually matching a printed freight bill, bill of lading and other shipping documents, and rates from a freight tariff or contract is time consuming – even more so if any discrepancies are found. All this results from the lack of visibility that is inherent to manual, paper-based processes.

Depending on your environment, eliminating paper and paper processes will involve implementing e-commerce and electronic content management technologies ranging from:

- Scanning and imaging with optical character recognition (OCR) or intelligent document recognition (IDR)
- Electronic data feeds (XML, EDI, etc.)
- Online data interfaces
- Workflow engines

In addition, a variety of database functions are required including:

- Data standardization
- Data verification
- Matching algorithms
- Monitoring tools
- Trading partner management

While many of these capabilities are already present in many organizations, seldom have they been integrated to create a seamless, fully automated freight bill payment process. System limitations and processing gaps are typically supported by paper-based protocols serving as bridges between islands of information. Integrating the different islands of information related to freight bill processing is unfortunately beyond the capabilities or resources of most internal IT organizations. Manual freight bill payment processing, therefore:

- Consumes more labor than necessary
- Is prone to processing errors
- Is transaction rather than process focused

The inability to look at the big picture is the elephant hiding behind the sofa. The ability to accurately account for, understand and forecast costs and cash flow is a huge issue, as is ensuring compliance with the regulatory environment and internal policies. Without visibility it is likewise difficult to effectively manage a global business or identify areas for improvement.

Shipping inefficiencies resident within distribution networks can be substantial, but are relatively invisible without contextual references. Without actionable data, it is impossible to optimize shipping from both a cost and efficiency perspective, specifically:

- Standardized benchmarking data is not available for evaluating future performance
- It is hard to see how much shipping is in a lane or to follow distribution patterns of various product lines, making optimization problematic
- Consolidation opportunities across all modes – parcel, truck, air, rail, ocean – are difficult to identify
- Information assets that facilitate negotiation of better rates are lacking

**Table 1**  
**COMPARING TRADITIONAL AND BEST-IN-CLASS FBA MODELS**

Traditional Model	Best-In-Class Model
Paper Remains a Significant Factor: Paper is converted to electronic formats using imaging and other electronic data capture tools or via manual data entry	Paperless: documents and data transmitted in electronic (EDI, XML, etc.) machine readable formats
GL code information is limited or non-existent	Automated GL coding
No remittance details or only paper remittance provided	Electronic remittance information provided
Carriers have limited access to information	Carriers see information as shippers
Short Pays allowed	The correct amount is paid the first time
Post-audits remain lucrative although some pre-audit tools may be used	Robust pre-audits eliminate need for post-audits
Individual and discrete communication channels	Network model: one network connection facilitates electronic communication with all other participants
Discrepancies resolved by communicating via email, phone, and fax	Collaborative dispute resolution via network interface affording real-time, electronic communication
Installed software requiring IT support and periodic upgrades	Software-as-a-Service (SaaS)—latest, updated solution available on-demand
No trade finance	Integrated trade finance available to shipper and carrier

## Thirteen Primary Objectives of FBA

Every freight bill automation solution shares the same objectives of cost containment and increasing processing efficiencies. To a certain extent then, FBA appears to be a commodity product, and if that is the case, the low cost provider should be favored. However, that is a flawed perspective as we will illustrate. First, we need to identify the thirteen objectives of freight bill automation:

- Timely and accurate payment of freight bills
- Enforcement of strict adherence with approved tariffs and contracts, regulations and internal policies
- Comprehensive pre-payment audit of line item charges
- Global solution supports multiple languages, currencies and cross-border transactions
- Elimination of errors and disputes with carriers
- Flexibility and special handling in order to automate non-standard situations
- Straight-through-processing (fully automated with no human intervention) of a high percentage of all freight bills
- Efficient and cost-effective processes and collaborative tools for handling discrepancies
- Pass through of appropriate GL codes back to the primary accounting system
- Robust analytics and decision support tools to optimize costs cash flow and process efficiencies
- Reporting and data retrieval mechanisms to provide full transactional transparency
- Access to trade finance and discount mechanisms
- Comprehensive management control mechanisms

Attaining all these objectives will require a certain degree of balance. Because of this dynamic tension, it is important to identify the specific practices of the FBA solutions you evaluate. This is because you are not so much buying their software and services as you are the practices that are embedded in their solution. How the FBA vendor achieves these thirteen objectives, and balances any tension between objectives that interact with each other, depends on the processes that are part of their solution. As a result, you will be best served by the FBA solution whose 'Best Practices' most closely match your own.

So how do you initiate an FBA process built on best practices? Here are five steps:

- **Capture high value data:** The strength of FBA is its ability to capture data from all relevant sources, normalize it, and then convert it into intelligence. Taking this a step further, advanced FBA solutions send and receive normalized data via EDI, further reducing the effort associated with data capture. Once this is done, you cannot only automatically approve freight bills, you can also generate advance analytics.
- **Ensure accurate payment through robust pre-audits:** This requires a system that can match documents from shipper and carrier while ensuring audits are performed for authorized vendors, contracts, rates, regulations, accounting controls, etc.

- **Create global visibility:** The ability to manage everything related to freight across lines, locations, and divisions is essential. Shippers and carriers need to have access to the same information in order to collaborate on-line to resolve discrepancies.
- **Improve business decisions through reporting and analysis:** While there are benefits from FBA related to payment accuracy and processing efficiency, additional remunerations are derived from optimizing operations and financial processes.
- **Develop a three year roadmap and plan for action:** Rome was not built in a day, and neither are world class business operations. Once you have a vision of what can be done and where your organization wants to go, you can start equipping yourself for the journey. Make sure you enlist sponsorship from the top, create a baseline and measure progress.

## The Case for Automation

Most CFO's underestimate the cost of freight bill processing because they have limited visibility into their procurement and billing processes. Unseen complexities make it difficult to manage freight bill processing and therefore drive up its cost.

Traditional freight bill processing is labor intensive and error prone and adds unnecessary costs in the following three ways:

- Direct overcharges total 5 to 8 percent of all freight bills
- Incorrect ratings create another 5 to 16 percent in overcharges
- Lack of proper data and visibility can further increase freight bill processing costs by as much as 25 percent

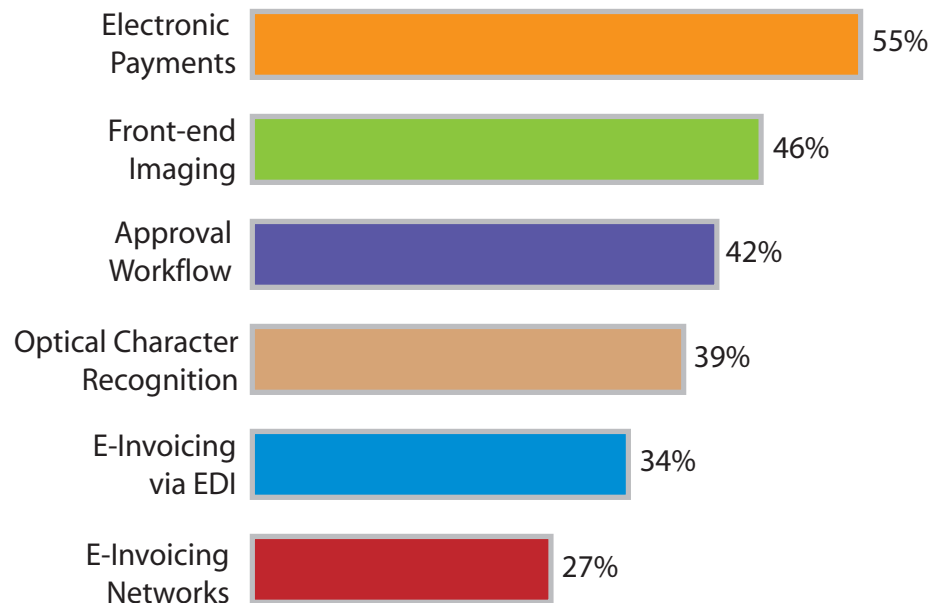
A comprehensive best-in-breed FBA system effectively reduces the need for post-payment audit efforts by ensuring that payments are processed more accurately. Automating the process reduces labor related to both payment processing and subsequent auditing efforts.

Most firms rely on their ERP/accounting systems to handle some portion of freight bill processing, but these are seldom capable of handling all the complexities you may run up against. To buttress these systems, many firms will create custom solutions or implement peripheral solutions such as imaging, but even so you still have auditing, rate calculation and matching issues. Many others use electronic spreadsheets in conjunction with their ERP systems, but spreadsheets require frequent updating and can be prone to translation errors.

The vast majority, continue to rely on manual processes to manage freight bill processing. Automation, whether using a service providers technology or installed software, is the only proven method to eliminate both the errors and inefficiencies inherent in traditional freight bill processing.

**Figure 2**  
**USAGE OF AP  
AUTOMATION  
TECHNOLOGIES**

Except for electronic payments, the other technologies used in FBA have not been adopted by a majority of AP organizations.



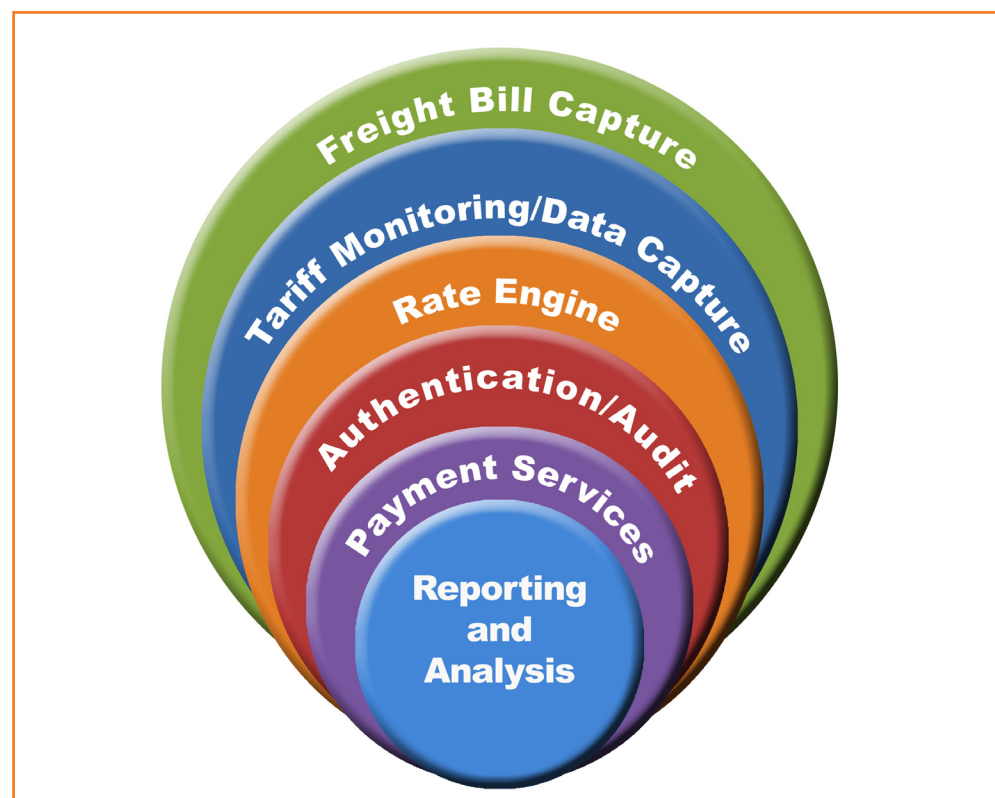
## The FBA Universe

Freight Bill Automation consists of six primary components. The central component is the rate engine, which ensures that all processed freight bills are accurate and eligible for payment. To do that the system draws order data from the ERP or accounting system along with the tariffs or contracts (approved by the shipper) from the freight carriers and then authenticates this data against captured freight bills. Subsequently, payments are processed and metrics tracked. A more detailed explanation of the functions involved in each of these components follows:

- **Freight Bill Capture:** To be effective, FBA solutions must be able to capture billing documents irrespective of their format and delivery method. Interfaces must provide for paper, fax, email, electronic file, or EDI sources. Intelligent data capture and other translation tools are also necessary to convert unstructured documents into structured data. The best solutions utilize networks where all data is received and disseminated in standardized electronic formats such as EDI.
- **Tariff Monitoring:** FBA systems rely on up-to-date tariffs, contracts, and policies in order to verify every transaction. This includes all sorts of accessorial charges such as fuel surcharges. In addition, all rates must also be approved by the customer – any tariff or contract discrepancies need to be worked out in advance by the freight company and their customers in order to eliminate unnecessary discrepancies after the fact.
- **Rate Engine:** The central component of FBA, the rate engine must be

**Figure 3**  
**FBA UNIVERSE**

FBA solutions consist of six major components. The central focus is the rate engine and authentication process, but analytical tools also generate major benefits.



able to calculate all charges on a line item level. Without a rate engine, comprehensive pre-payment audits are impractical, if not impossible.

- **Freight Bill Authentication/Audit:** One of the major advantages of FBA over previous freight bill processing services is the ability to authenticate freight bill charges prior to payment and to ensure compliance with regulations and internal policies. Traditionally, audits were performed post-payment as part of a recovery service, which was less cost-effective and efficient than the pre-payment FBA model.
- **Payment Services:** Payment capabilities include not just on-time remittance processing, but also trade financing. When the FBA vendor includes a banking arm, there are opportunities for it to provide intermediate financing and dynamic discounting between the freight companies and its FBA clients. How the payment process is funded can, therefore, be a key differentiator between FBA vendors.
- **Reporting & Analysis:** The data captured during freight bill processing provides valuable intelligence not only for monitoring and improving freight bill processing, but even more importantly for optimizing the entire shipping and distribution network from a cost and efficiency perspective. The data tools provided by a FBA solution are therefore very important to the FBA value proposition.

#### ***Only Automation Delivers a Comprehensive Solution***

Anything besides a comprehensive, automated, and upfront freight bill processing solution is a potentially costly proposition. FBA solutions fill the gaps inherent to a firm's existing systems to provide total coverage in a cost effective manner. The combination of a best in breed software solution supported by effective managed services can virtually relieve an organization of all freight bill handling activities.

## Key Insights: What You Should Do Now!

### ***There is a strong business case for freight bill automation:***

The clearly definable benefits FBA solutions deliver provide a compelling case for consideration, especially considering the tangible ROI for both small and large organizations. Freight bill processing is well established and the current state of the technology greatly enhances both the feasibility and flexibility of freight bill automation solutions.

### ***The march is on:***

Research shows that FBA is rapidly gaining traction, and as it does, is evolving from relatively straightforward processing and audit solutions to a blend of technology-based payment processing tools supported by managed services. As a result, organizations of all sizes are now able to benefit from FBA.

### ***Don't fall behind:***

To remain current with leading best practices around freight bill payments, businesses must embrace a strategy that ensures the enterprise's freight environment is delivering the goods in the most cost-effective manner possible. Those who do not will continue to struggle with costly inefficiencies that whittle away profits.

### ***Lots of qualified choices, but many options can be confusing:***

Our analysis of qualified solution providers revealed a surprising array of relatively easy-to-implement and feature-rich tools. When considering an FBA solution, most businesses should first evaluate their existing IT infrastructure against the freight bill processing landscape in which they operate. Leveraging existing assets can be prudent if they include the necessary expertise, features and technology to achieve a wide-ranging FBA solution.

We believe most firms will benefit by partnering with a full service FBA vendor. Supplementing existing processes with managed services, such as those provided by freight bill exception support outsourcing services, can provide additional benefits. This brings us back to the issue of matching the practices embedded in the vendor's FBA solution with the freight bill processing best practices most compatible for your organization. Establishing a high-quality FBA control process should be your central concern. With that in mind, you should ask:

- Are the regulatory, policy, cost containment, cash management and accounting controls we have in place sufficient?
- What percentage of our bills contains errors?
- Are we properly allocating charges to products? Customers? Sources?
- Are we effectively and efficiently communicating with our trading partners?
- How can we ensure that we have a controlled, scalable process?
- What is our plan to manage the bill review process before bills are paid?
- Do we have a process that supports our needs on global basis?

The answers to these questions will help you identify your weaknesses and clarify your improvement opportunities. They will also provide a rudimentary idea of the cost savings you may be able to realize from an FBA solution. Finally, the answers begin to outline the requirements an FBA solution must meet in order to address your present and future needs.

## Certuspact LLC Overview

Certuspact provides a freight bill automation process that performs pre-payment auditing of a freight invoice, including receipt of the invoice, rating the invoice, invoice error resolution, invoice approval, general ledger allocation, preparation of invoice for payment, and reports on freight spend. Users can attach document images to the invoice online, from their workstation as a customer requirement or to support a charge. The system also checks for duplicate invoices, duplicate shipments and duplicate line items, can handle credit notes and process additional billings for a shipment. Certuspact is a web-based 'thin client' solution that allows customers and carriers to collaborate with each other; users need only a computer and internet access to process invoices. All invoices are received electronically and audited and approved prior to payment, with human intervention needed only when there is incorrect or incomplete data. Carriers that do not have EDI capabilities can upload their invoice into the application by capturing the invoice data on a pre defined excel spreadsheet. Additionally, the solution is scalable with most services offered on an a la carte basis.

### **Data Collection**

Invoices are typically received in XML format, with other electronic options (EDI, flat file, etc) supported as well. Invoices are uploaded into the application and accessible to relevant users at the time Certuspact receives and acknowledges the receipt of the electronic file. Required document images that are uploaded into the application by a user will be visible within a couple of minutes. A standard interface is used to connect to various ERP systems, and Certuspact also interfaces with Sage Accounting software. Implementation typically takes two to six weeks, and is aided by a predefined XML schema that defines the data elements that are required for invoices. The most crucial aspect of the implementation is the last stage, which involves the gathering of rates, GL rules, user contact names for carriers and customers, providing XML schemas to carriers, FTP site addresses and login detail. Additionally, Certuspact offers a test website for carriers to test XML invoices. Once the setup is complete, rates are interpreted and uploaded into Certuspact using a spreadsheet template.

### **Rate Calculation**

Based on the customer's predefined rates and rate bases, Certuspact's rate engine will determine whether the correct calculations have been performed on an invoice. Detailed and specific expected amounts calculated will be compared to the billed amounts and discrepancies with error descriptions will be on the invoice and visible to relevant users. Invoices, depending on whether they comply with the customer's rules will be managed with work flow logic to present the invoice to the responsible user for action. Certuspact's unique rate engine solution, amongst many other features, will not only check whether a correct volume rule has been applied, but will also indicate if an incorrect rate basis has been used. The rules engine also ensures that the correct rate has been applied in the relevant time frame for the shipment and whether seasonal peak rates are applicable. One challenge customers or shippers normally struggle with is when a customer's rate agreement is in a different currency than the invoice currency. Let us show you our unique solution.

### **Payment Services**

As a basic business model, Certuspact does not take control of a customer's funds

to pay carriers. Certuspact believes that this practice can create a conflict of interest between relevant parties.

Certuspact provides disbursement detail by preparing approved invoices in the Sage ERP system for payment, extracting these invoices in the format specified by the customer, and periodically presenting this file to the customer for disbursement. The company can work directly with the customer's financial institution to ensure that funds are drawn from the customer's account and transmitted directly to vendors based on the Certuspact payment file. This program is currently in place with a well known bank already. Disbursement details can be provided for any currency.

### ***Reporting and Analysis***

Certuspact offers reports on two platforms. The first platform is a reporting tool within the system that users can access and perform self service on a standard set of reports. The second platform is a specific ad hoc report that Certuspact can develop for customers and can be scheduled on a regular basis. The ad hoc report will then be made available in the self service report platform of the application.

### ***Security and Control***

Internal controls and security are of paramount importance to Certuspact. The application uses a secure network that encrypts data transfers. User access is controlled and an audit trail with action taken on each invoice is recorded with the date, time, action taken based on action required and who the user was. This history is available per invoice to all relevant users.

Certuspact accommodates multiple locations and multi-divisional organizations by allowing a hierarchy of organizations that can be formed for the customer and carriers, with different requirements for subgroups within a particular hierarchy.

Freight Bill  
Automation

Solution Profile

## About PayStream Advisors, Inc.

PayStream Advisors is a technology research and consulting firm that improves the way companies plan, evaluate, and select emerging technologies to achieve their business objectives. PayStream Advisors assists clients in sorting through the growing complexities of IT applications related to business process automation with the goal of making objective, analytical, and actionable recommendations. Wherever business process automation technology is an issue, PayStream Advisors is there to help. For more information, call (704) 523-7357 or visit us on the Web at [www.paystreamadvisors.com](http://www.paystreamadvisors.com).

### About the Analyst

A graduate of The University of Michigan, David Schmidt began his commercial credit career in 1976 with Dun & Bradstreet. He is co-author of "Power Collecting: Automation for Effective Asset Management", (1998, John Wiley & Sons, NYC), the seminal text on receivables automation. He is a contributing editor for Credit Today, and has been published extensively in other credit management and business finance publications including Business Credit Magazine, Business Finance Magazine, and Collection Advisor. He is a member of the Credit Research Foundation (CRF), the Federation of Credit and Financial Professionals, and the National Association of Credit Managers (NACM). As a solution area specialist, David has been the lead analyst on several PayStream Advisor research reports focused on receivables, credit and collection technologies as well as tax compliance automation and reporting.

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