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AFP® PAYMENTS GUIDE

# E-invoicing & AP Automation: Streamlining Payments Operations

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## AFP® PAYMENTS GUIDE

### E-INVOICING & AP AUTOMATION: STREAMLINING PAYMENTS OPERATIONS



Technology is making it easier to automate processes within working capital management. Investments in automation have the potential to better serve clients and help identify fraud. To provide information to CFOs and Corporate Treasurers making decisions about payments operations, MUFG Union Bank, N.A. is pleased to sponsor our ninth AFP Payments Guide titled E-invoicing & AP Automation: Streamlining Payments Operations.

For many companies, payments operations are highly manual and highly inefficient. Advances in technology are delivering benefits such as saving time and freeing resources to focus on high-level work. Processes such as accounts receivable and accounts payable can be greatly enhanced with electronic invoicing and automation, which lead to simplifying procedures and driving efficiencies.

For treasury professionals, this guide delves into how technology can streamline payments operations for organizations of all sizes. It also takes a look at how to address pain points such as aligning accounts receivable and accounts payable processes as well as new tools in pilot for onboarding suppliers.

MUFG Union Bank is committed to supporting the AFP in creating educational resources such as this booklet that can help CFOs and Corporate Treasurers learn more about the latest trends in payments. We are also proud to sponsor the AFP Pinnacle Awards that honor outstanding achievements in treasury and finance.

Best regards,

A handwritten signature in dark blue ink that reads "Ranjana Clark". The signature is fluid and cursive, with the first name "Ranjana" being more prominent than the last name "Clark".

Ranjana B. Clark  
Head of Transaction Banking Americas and Bay Area President  
MUFG Union Bank, N.A.



# INTRODUCTION

Payments operations, which are often manual and monotonous, can be vastly improved by relatively recent advances in technology. Although treasury and finance departments may not currently see the value in investing in their payments operations, the amount of money and time they could be saving is undeniable.

In the latest Payments Guide, underwritten by MUFG Union Bank, we will focus on how accounts receivable (AR) and accounts payable (AP) processes can be greatly enhanced by electronic invoicing and AP automation. These two developments, though not yet widely adopted, have the potential to streamline payments operations for countless organizations.

# E-INVOICING



As noted in a 2016 [white paper](#) by the Payments, Standards, and Outreach Group (PSOG) of the Federal Reserve Bank of Minneapolis, one of the key barriers holding e-payments adoption back in the United States is companies' suppliers unwillingness to send or receive invoice information electronically. Although it's possible to migrate to electronic payments while using traditional invoices, most companies in this situation opt to stick with checks.

The PSOG added that e-invoicing is ideal, as business ultimately seek straightthroughprocessing (STP). In addition to the benefits attained simply by receiving payments electronically, “materially greater benefits are gained in lower costs, cash management, fewer errors, risk mitigation and transparency when the entire process is electronic.”

There are only about 250 e-invoice service providers operating in the U.S. market, and large corporations are generally the only organizations using e-invoicing. E-invoicing makes more sense for larger organizations, given the large amount of invoices they typically field.

U.S. adoption of e-invoicing pales in comparison to the European markets, and has largely been driven by companies looking to augment their payments processes, as opposed to organizations following a government mandate. However, the Office of Management and Budget (OMB) directed certain government agencies to transition appropriate business-to-government (B2G) payments to e-invoicing by the end of 2018, which has resulted in more adoption of the practice by the corporate sector. There is still a long way to go on that front, but other efforts are underway to move the needle on e-invoicing.

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“We performed a preliminary assessment of different frameworks that are out in other markets today—Europe, Australia, etc. What we wanted to understand is, can we modify a framework like that for U.S. requirements, and implement that in our market? And the workgroup we assembled said, ‘Yes, it can be done—but it requires a more detailed assessment of the requirements for developing such a framework.’”

## E-INVOICING FRAMEWORK

The Business Payments Coalition (BPC) is establishing a [framework](#) for widespread adoption of e-invoicing. The goal of such a framework is to create a set of policies, standards and guidelines that would enable businesses to exchange documents and messages regardless of the systems that they use. After a preliminary assessment, the BPC was able to provide recommendations and considerations that could be acted on and implemented.

The BPC’s three-year plan has four stages.

- **Assessment:** Conduct a preliminary analysis of existing global frameworks for suitability in the U.S., as well as assess technical requirements to create an e-invoice delivery messaging infrastructure.
- **Engagement:** Engage key stakeholders (payment service providers, banks, corporate practitioners) about the assessment results.
- **Development:** Establish workgroups of stakeholders to develop technical requirements of the framework and create governance and operational guidelines.
- **Market acceptance:** Encourage stakeholders to adopt the framework requirements.

“We performed a preliminary assessment of different frameworks that are out in other markets today—Europe, Australia, etc.,” said Todd Albers, senior payments consultant for the Federal Reserve Bank of Minneapolis and the convener of the BPC e-invoice workgroups. “What we wanted to understand is, can we modify a framework like that for U.S. requirements, and implement that in our market? And the workgroup we assembled said, ‘Yes, it can be done—but it requires a more detailed assessment of the requirements for developing such a framework.’”

Following that initial assessment, the BPC has convened two workgroups that have been looking at two

different components of the framework. One is focused on creating a messaging infrastructure for businesses to exchange e-invoices. Europe has gone this route, developing an e-delivery network that standardizes the connections between service providers that support companies’ AP and AR departments. “In those frameworks, they’ve standardized the ‘technical stack’ for delivering these invoices between service providers,” Albers said.

The other workgroup is defining an e-invoice semantic model. The purpose of such a model is to allow anyone who receives an invoice to know the exact meaning of the data. “That’s one of the biggest challenges that businesses have to deal with today,” Albers said. “In these types of integrations, they have to understand what is being sent to them by the sender. And the market in the U.S., from an e-invoice standpoint, is very fragmented. We have many different standards that are in use today.”

The BPC published a catalog of all the e-invoice standards in use in the U.S. in 2017. At the time, more than 40 different standards were identified and in use. “So if I’m a small or medium-sized business and I have to deal with all of these different ways to do integration for every single one of my trading partners, that becomes this really big barrier to electronic invoice adoption,” Albers said. “That’s why we’re only seeing around 25 percent adoption between businesses today. Because of the complexity and cost of many integration efforts, there’s really no incentive to expand the exchange of structured invoice data beyond high volume trading partners, especially not for businesses that fall into the ‘long tail’ category. So that’s one of the reasons why you’re seeing email invoicing becoming so prevalent in the market; that’s a low-barrier technology solution to deliver invoices but it creates manual processing on the buyers’ side.”

## WHY STANDARDIZED E-INVOICING?

Should e-invoicing standardization come to fruition, there are clear benefits for AP and AR departments.

Although there has been a lot of talk about faster payments in recent years, where payment speed can truly be increased is in the invoice process. “If I change the settlement from three days down to 30 minutes, that’s great, but you’re going to get more value by accelerating the sending of a structured invoice electronically that is automatically processed into the AP system than you will accelerating the settlement of a payment,” Albers said.

The average time to process a paper invoice can be anywhere from 12 to 15 days. If that invoice can be sent in a structured data format, it can be processed in a matter of hours. “Then you go through your approval process, and that invoice can be ready to be paid, on average, in about three days,” Albers said. “So as a business, I can make smarter decisions on when and how I make payments. On the payment initiation side, a business can develop working capital strategies with their cash, either be accelerating payment to receive a discount, or by extending their days payable outstanding (DPO) by paying with a virtual card. On the receiving side, if I know my invoice is in process or has been approved, I can offer up a discount to help reduce my days sales outstanding (DSO), and I don’t have to call to understand what is the status of my invoice.”

There is also a lot of cost involved in connecting with trading partners. And you might be dealing with multiple providers, platforms and technologies. “So a small business may have to support multiple business processes to either send or receiving invoices—that’s a lot of extra cost,” Albers said. “And it’s not only limited to small and medium-sized businesses. That’s what most businesses have to deal with unless you’re the big dog and you can mandate one way that your partners send invoices to you. A lot of businesses don’t have that clout, and so they have to deal with how their trading partner wants to send and receive that invoice.”

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Standardizing e-invoicing has the potential to improve that process immensely. “The framework can simplify that connectivity and reduce the overall cost,” Albers said.

It can also improve the overall data quality of invoices. Once you have structured data in place, you don’t have to do as much interpretation. And having more accurate data can improve any AI or RPA processes that a company may have in place. “Having good data is invaluable to those processes,” Albers said. “If I’m trying to interpret data based on a scan or a PDF, there are some opportunities still there where the meaning of that data is not fully understood. That gets interjected into those processes and then they may not be 100 percent accurate. So data quality really supports all-sized businesses as we look at more and more of these automation tools.”



There are multiple pain points in accounts payable (AP) processes that payments operations professionals can resolve by using automation.

In a typical AP process, procurement places and receives an order, and then it bounces over to accounts payable when the invoice comes in. The invoice can arrive in many different forms—fax, email, regular mail or electronically—and may be delivered to a person in a different department. The invoice is then forwarded to the appropriate person, such as an accountant or an accounts payable specialist.

Once the invoice gets to AP, the information has to be entered into the system so that it can be paid. This process can be lengthy and laborious, and automation can help drastically.



## SPEEDING UP APPROVALS

First and foremost, AP automation can drastically reduce the tedious process of getting approval for payment.

A consultant who has worked in payment systems and treasury operations for more than 15 years noted that getting approvals manually not only drags out the entire process and reduces efficiency, it also can cost companies a lot of money. “Companies lose the ability to take advantage of discounts and savings,” she said.

The approval process can take a long time because it may have to get routed to an operational employee for approval, and then go back to AP. And there’s always the chance that it will sit on someone’s desk for a while before they get around to approving it.

“Some companies require up to five different approvals for an invoice,” said the consultant. “I don’t know why a company would need that many approvals for an invoice, but it does happen. It’s pretty common to have more than one approval. So a lot of the approval process can be difficult and cause delays.”

To resolve the problem, companies are implementing automation on the approval side. Some have implemented workflow solutions that are integrated into their procurement systems. “That may be where it is, or it may be an add-on to their ERP or accounting software where there is some automated workflow to try and speed up approvals,” the consultant said. “These are offered by vendors, but sometimes companies build some of their own workflow using their existing systems.”

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Automating and speeding up the approval process is highly beneficial for companies because it can enable them to receive significant discounts. And of course, it makes everything less stressful for AP. “When I was a corporate, we used to talk about desk float,” the consultant added. “That’s the amount of time that an invoice would sit on somebody’s desk or as an email in somebody’s inbox before anybody actually took action on it. So by the time it gets to AP, they may be tearing their hair out because the invoice is almost due.”

But how can you truly automate the approval process? These invoices still need to be approved and checked so that the amount is correct. How do you automate something that needs to be reviewed?

Larger companies, such as manufacturers or retailers, typically have an electronic system that issues the PO and is tied in with a receiving system. “When the invoice comes in, if it matches against the PO and receipt, a lot of companies just say, ‘It’s approved,’” the consultant said. “Nobody even looks at it. That is a great way to automate.”

She added: “For example, when I worked for a corporation, the contract would be in there, and you would receive an invoice. It would match against the contract. So you could effectively just receive it and that would mean only one person would touch it, then it would go into the AP system, and it wouldn’t need any more approvals. AP wouldn’t necessarily have to do any manual work on it.”

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“If you have a spend that isn’t necessarily the day-to-day stuff, that stuff tends to be highly manual and more exception-based. That’s where a lot of the fraud could be introduced. Fraudulent vendors will send invoices, and so on the AP side, there’s a lot of vetting to try and make sure the vendors are valid.”

## FRAUD PREVENTION

Automation can also help to prevent fraud. Many companies who use automation use it for what the payments consultant refers to as “ordinary spend”—payments that are expected and are part of the normal course of business. “If you have a spend that isn’t necessarily the day-to-day stuff, that stuff tends to be highly manual and more exception-based,” she said. “That’s where a lot of the fraud could be introduced. Fraudulent vendors will send invoices, and so on the AP side, there’s a lot of vetting to try and make sure the vendors are valid.”

She added that when the process is highly manual, there is a much higher likelihood of a duplicate payment or some other kind of problem. “So the more automation you can get into the process, the less likely it is that there would be of that kind of a problem,” she said.

Furthermore, some of the AP automation software checks for duplicate payments, and may flag things that seem wrong. It may not go so far as to stop the payment, but it will notify someone to take a look manually.

## STREAMLINING THE INVOICE PROCESS

Circling back to the issue of invoices, AP automation can also help a great deal in this regard. Compiling paper invoices or PDFs or Excel files sent via email can be an arduous process for AP. It is also quite common for suppliers to outsource the process to a third party who uploads invoices into a portal, and the buyer’s AP department has to go in and manually retrieve and download it.

Typically, your suppliers won’t all be using the same portal, which creates huge inefficiencies for the buyer. If you have 10 suppliers using 10 different portals, then you need 10 logins and 10 places you have to pull from. That’s not too bad, but what if you have 100 or 1,000 suppliers? “When you’re a big company, this becomes unmanageable and it doesn’t scale,” the consultant said. “So even if you aren’t getting invoices in the mail or by email, these portals are equally difficult; it all creates manual processes for accounts payable.”

To improve the process somewhat, many technology vendors offer add-on tools to AP or ERP systems,

such as optical character recognition (OCR) readers. These tools attempt to read the data off of the invoice and then enter it into AP. This isn’t really automating it, but it is more efficient than relying on an employee to punch it in manually.

However, a key problem with OCR solutions is that every supplier’s invoice looks different. If you have a company that you’re doing business with all the time, you might need to build a template for what their invoice looks like so that the OCR reader can read them easily. Again, if you have 10 major suppliers, that’s no big deal. But if you’re an auto manufacturer with 1,000 suppliers, it would take a lot of time to build that template. Though once you do, every invoice you have can be read.

Accuracy can be a big problem for OCR readers; a lot of them are inherently inaccurate in how they read an invoice—even if a template has been built out. And if an OCR solution reads an invoice improperly, it gets kicked out as an exception and then an employee has to do a manual exception process before it can get to AP.

Still, the payments consultant recommends OCR solutions for high volume situations. “They’re very effective; they can eliminate manual keying,” she said. “Those solutions are good for what they do. They help eliminate a data entry problem.”

There are also add-on solutions that vendors offer for screen scraping invoice portals. So instead of manually downloading the invoices from multiple portals, you can outsource that process to a vendor who will go in and gather that data on your behalf. These vendors have a robotic process automation (RPA) script process that logs into

the different portals, does a screen scrape of the data on the invoice, and then sends it back to the company.

But because companies are outsourcing this responsibility and not getting the invoice data itself, there a lot of extra costs they have to deal with. And what's more, this only deals with a portion of the invoice problem; organizations are still left with some invoices that they have to handle manually. Some companies even outsource their entire AP department to a third part. When they do this, they're not really solving a problem, they're just shifting it to somebody else.

The consultant noted that many of these solutions are highly useful to AP, but they don't address the need for automation, and they don't achieve STP. Many invoicing solutions are very efficient for the supplier, but they're not efficient for the buyer.

This is where the e-invoicing comes in. "With e-invoicing, what you get is structured data," she said. "When you get structured data, you can automate that and then you can get straight through processing. You still have to approve the invoice. It has to get into AP. It still has to be approved, but it eliminates the biggest pain point, which is getting the data into accounts payable to start with."

But again, it comes back to standardization. The data needs to be structured; it has to adhere to some kind of standard, and there are a lot of different standards out there. "You still have to deal with the question of, 'Is it structured and what's the standard that's being used?' There are very, very few solutions out there in the market today for doing structured e-invoicing," she said. "The solutions that are out there, and a lot of the EDI invoicing and solutions with the value-added networks (VANs) that do this stuff, they work really well for enterprise-level corporations with their major suppliers."

She noted that the "heavyweights" like major manufacturers see the value in implementing these e-invoicing solutions with their suppliers because of the volume of invoices. "The automation pays for itself, time and time over," she said.

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“With the development of Same Day ACH, we found that corporates were saying, ‘Maybe the days of having windows in which I submit my payment transactions are becoming a little bit obsolete. So if you have these shortened timeframes for when I have to send my payment instructions, what can we do differently?’”

## CLOSING WINDOWS WITH APIS

The advent of Same Day ACH has also led to greater integration of automation, noted George Throckmorton, managing director, strategic initiatives and network development for Nacha. And with greater proliferation of automation, common nuisances like payment processing windows may soon fall by the wayside.

“With the development of Same Day ACH, we found that corporates were saying, ‘Maybe the days of having windows in which I submit my payment transactions are becoming a little bit obsolete. So if you have these shortened timeframes for when I have to send my payment instructions, what can we do differently?’” said Throckmorton.

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Nacha found that a number of financial institutions are offering application programming interfaces (APIs) for their customers so that they don't need a window for when they can submit payments. "Through the API, the bank is continually connected to the ERP applications so it's feeding payments all through the day," Throckmorton said. "That's true automation—they're not having to do anything."

Throckmorton, who will be discussing [using tools like APIs and blockchain to improve key AP/AR processes](#) at AFP 2019, added that automation through APIs is only really worthwhile if standardization can be achieved. "If everybody is going to do their own thing and they expect a corporate to comply, that's really a burden on the corporate," he said. "So, I love the idea of windows being the way of the past. But can someone standardize it? That's what Nacha is attempting to do."

In a [previous Payments Guide](#), we looked at the push for API standardization that Nacha is driving in the U.S. through its Afinis organization. Right now, API adoption is lagging among because no company wants to have to implement a multitude of products. "If we're successful with an Afinis standard API, we think that adoption will be much stronger than what it is today," Throckmorton said. "It's a lot of work supporting hundreds of APIs; that's not a good thing. You only want to support five or two."

So a supplier can specify their requirements and their customers, in a pre-payment process, can validate to make sure that their information conforms to that supplier specification. It's a matter of reducing friction around obtaining the supplier's requirements. And it's offering an opportunity for a buyer to validate those requirements, so when a payment comes in, the supplier can post it automatically."

The goal of Nacha and Afinis is the standardization and routing of information both pre-payment and post-payment. "We're interested in the validation of it, we're interested in the standardization, and we're interested in the enablement—how we get it to folks in a secure manner," Throckmorton said. "So we're combining standardization with technology like distributed ledgers and cloud services to make that better."

## IMPROVING SUPPLIER ONBOARDING

Robert Unger, senior director, product management and strategic initiatives for Nacha, noted that another key issue many AP departments face is the onboarding process for suppliers. "When you think about supplier onboarding, it's labor intensive, whether it's your shop or you outsource it," he said. "You have to acquire all that information from the supplier—the W9, the payment terms, insurance

certifications, other compliance checks—and it can take two to three weeks."

To resolve the issue, Nacha is currently piloting a blockchain tool to minimize friction around data exchanges. "What we're trying to do here, using this distributed ledger technology, is enable automation of obtaining information from the supplier master, specifically around ACH payment and remittance information," he said.

Nacha is also testing a cloud service that allows a supplier to stipulate its EDI specifications for remittance information. "So a supplier can specify their requirements and their customers, in a pre-payment process, can validate to make sure that their information conforms to that supplier specification," Unger said. "It's a matter of reducing friction around obtaining the supplier's requirements. And it's offering an opportunity for a buyer to validate those requirements, so when a payment comes in, the supplier can post it automatically."



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## AP AND AR ALIGNMENT



Perhaps the biggest pain point for AR and AP operations is a lack of alignment. These two departments often don't trade information with each other; they trade with parties outside of the company. Achieving better alignment is the first step in truly automating this entire process.

AP has to agree to send structured data using certain standards and syntax to AP, so that AP can use it. That's not easy when you have a multitude of companies that trade with each other. So that's why senior-level management buy-in is needed to step in and get both sides better aligned.

"You have to get senior management to really buy in," the consultant said. "And people who have visibility into it need to say, 'You know what? This is a pain point for me. It's a pain point for everybody else. Let's just get together and try and fix this. See what we can do to address it.' And I have seen some anecdotal evidence of that starting to happen, where the senior finance leaders of the companies are going, 'This is just crazy. We have to do something about this.'"



## THE NEED FOR STANDARDS

Clearly, e-invoicing and AP automation are two solutions that can make life easier for payments operations as a whole. But it is also clear that both of these innovative technologies have some hurdles to clear before they achieve widespread adoption. This is why standardization is important for both solutions. With so many organization running disparate systems, streamlining AR and AP processes will never be achieved without proper standards. Once that true standardization is accomplished, then the B2B payments process will improve drastically.



#### About the Author

Andrew Deichler is the multimedia content manager for the Association for Financial Professionals (AFP). He produces content for a number of media outlets, including AFP Exchange, Inside Treasury, and Treasury & Finance Week. Deichler regularly reports on a variety of complex topics, including payments fraud, emerging technologies and financial regulation.



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