

Podcast: *Payments Pros – The Payments Law Podcast*

Episode: Inside ISO 20022: Adoption, Compliance, and Innovation in Payments

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Guest: Frank Van Driessche

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Carlin McCrory (00:04):

Welcome to another episode of [Payments Pros](#), a Troutman Pepper Locke podcast focusing on the highly regulated and ever-evolving payment processing industry. This podcast features insights from members of our fintech and payments practice, as well as guest commentary from business leaders and regulatory experts in the payments industry. I'm Carlin McCrory, one of the hosts of the podcast. Before we jump into today's episode, let me remind you to visit and subscribe to our blog, troutmanfinancialservices.com. And don't forget to check out our other podcasts on troutman.com/podcasts. We have episodes that focus on trends that drive enforcement activity, digital assets, consumer financial services, and more. Make sure to subscribe to hear the latest episodes.

Today, I'm joined by Frank Van Driessche, head of the ISO 20022 practice at the Federal Reserve Financial Services, to discuss ISO 20022, the global messaging standard reshaping the payments industry. We will cover what the practice is, why it matters, and the practical challenges organizations face in adopting it, along with how the standard supports compliance efforts like AML and sanctions screening, the innovation opportunities created by richer payment data, and what's on the horizon. Frank brings over two decades of payments and standards expertise to the role, having previously served in product management and strategy positions across the Federal Reserve System, including as AVP of FedNow product management at the Federal Reserve Bank of Boston and AVP of the Wholesale Product Office at the Federal Reserve Bank of New York. Frank, thanks so much for joining me today.

Frank Van Driessche (02:00):

Thank you for having me, Carlin, and to talk about ISO, of all things.

Carlin McCrory (02:03):

Very exciting. Well, we'll dive right in and start off with, can you just explain what ISO 20022 is and why it's important for the payments industry?

Frank Van Driessche (02:13):

Sure. That's at the same time an interesting and challenging task. A little anecdote maybe there. I once tried to explain my job and ISO 20022 to my dad and handed him a copy of the famous or infamous ISO 20022 for Dummies booklet that was created more than 15 years ago by Swift, the financial messaging service provider. And my dad called

me the day after and shared he wasn't really any wiser after reading the booklet. So I tried again by speaking a little bit to his world. My dad has always been very interested in languages, so I compared ISO 20022 to the Esperanto of the financial industry, explaining that the industry had developed a common language for everyone in the financial industry to adopt in an effort to streamline financial industry communications. And I think that kind of did the trick.

Now, to your question, what is ISO 20022? It is an international standard, as I mentioned, for financial messaging, essentially a common language that corporations, financial institutions, payment system operators, central banks, and many more actors in the payments industry use to exchange payments and payments-related information. And by the way, the standard covers more than just payments. It also covers messages for the securities, trade, foreign exchange, derivatives industry, and many more. But for today's podcast, I suggest we focus on the payments business area. Now, the standard itself is underpinned by two core principles. The first core principle of ISO 20022 is that it has a focus on the business more than on the technical aspect of financial industry messaging. And as a standard or a message is developed, industry players get together and they model the payments business. Who are the actors? What are the processes? What data do they exchange when they deal with a certain payments process or a payments-related process?

And all this is captured through industry conversations, but only in the last step, when we know what the actors are, what information they exchange, what the different flows are, only then they're going to start actually generating messages in a specific syntax. For example, today, most of the ISO 20022 messages are generated in the XML syntax, but we know that also JSON, for example, is a syntax very popular for API communications. So what makes this standard unique is by starting with the business focus, you make it less dependent on technological developments. So if one day there's a new syntax better than XML, better than JSON, you don't have to question the initial business model where everything has been modeled, who's involved in payments. You just need to generate eventually these messages in the newer syntax of that moment. And the second core aspect, and what I consider even more important, is that all that information is stored in what we refer to as the ISO 20022 business model, or a financial repository, if you want. And that is the dictionary that we want everyone to relate to, to use as a common reference when they're active in the payments business. Either to use it as a foundation to underpin your systems and solutions, or to use as a reference to link your own individual data models to. So that's kind of the second piece is that dictionary. And if I may, Carlin, a little example to make this resonate with your listeners, is that when we think about initiating a payment, there's many ways of identifying the party that pays. You can talk about an ordering customer, you can talk about a payer, the sender, the originator of a payment, initiator, and those are only the variations in English. But from an ISO 20022 point of view, they have one exact term to refer to the party that makes a payment, and that is the debtor. And these common concepts that

everyone can relate to and link back to their own vocabulary bring the much needed clarity in the financial industry.

Carlin McCrory (06:11):

Can you provide some background on your role and the role the Federal Reserve Financial Services plays in ISO 20022?

Frank Van Driessche (06:18):

I'll start maybe with my role. We'll come back to the FRFS in a second. So I head up the FRFS ISO 20022 practice, which is the team that looks at ISO 20022 holistically across the Federal Reserve Financial Services. So we focus on getting the foundations right as we adopt ISO 20022, rolling out the standard in line with its core principles, in line with internationally agreed best practice and data harmonization and interoperability efforts. Even more important, the ISO 20022 practice makes sure that the implementations of the standard across the different payment systems that we operate are aligned. So that is our core mission.

Next to that, we spend a lot of time educating our community on all things ISO 20022. We publish thought leadership pieces like the ones we publish as part of our web blog series called Harnessing the Power of ISO 20022. We get on stage to talk ISO 20022 at conferences and obviously we work with organizations like yourself on today's podcast to spread the word about ISO 20022. When it comes to the role the FRFS plays around ISO 20022, we see ISO 20022 as an innovation enabler as we build the payment systems of the future, either brand new ones like the FedNow Service instant payment system that went live in 2023, or through modernization of our existing services like last year's adoption of ISO 20022 by the Fedwire Funds Service. More broadly for the US market, we collaborate with many players around the table as part of our ambition to create a single harmonized US payments data model for payments, instant, wholesale, retail, cross-border payments. And we obviously want the data model to be aligned with the rest of the world. So internationally, we are very active on several ISO 20022 standard bodies and even more on industry groups that discuss global alignment, market practice setting. In that capacity, I, for example, chair the Committee on Payments and Market Infrastructures, the CPMI ISO 20022 harmonization panel that defined the harmonized data requirements under the G20 roadmap efforts for enhancing cross-border payments when it comes to their speed, cost, transparency, and access. So hope you agree the FRFS is committed to ISO 20022 success on a series of fronts.

Carlin McCrory (08:44):

That's super helpful background, Frank. And I know there's been a lot of focus on ISO 20022 over the last few years. How are the industry concerns about maintenance costs and other challenges of adoption being addressed to support organizations through these changes?

Frank Van Driessche (09:03):

So I guess it's time for a more challenging question, Carlin. Once again, there's a lot to unwrap here. I think when it comes to the cost of ISO 2022, I think we need to make a distinction between the cost of an initial implementation, like for example last year's adoption of ISO 2022 by the Fedwire Funds Service, versus the cost of maintaining an initial implementation afterwards. And within that cost of maintenance after the initial implementation, we probably want to make a distinction between the first maintenance and then the years following there. So when I look at last year's implementation for, let's take the Fedwire Funds Service as an example, this was one of the most significant milestones in the Federal Reserve's history when we migrated our wholesale RTGS payment system onto the global ISO 2022 standard. Now our service is one of the biggest systems globally with more than 3,000 participants. We settle between four and five trillion US dollar every single day. So this made the project a huge lift.

Obviously that asked for intensive collaboration with our whole ecosystem with, as I mentioned, more than 3,000 participants. Now the legacy format that we had in place had been in place for over 40 years. And I tend to say that when you have something that long in your systems, it probably found its way all the way into the deepest dungeons of our own systems and of our financial institution participants. So with the format deployed for such a long time, systems likely had been patched with many band-aids to enable industry innovation, industry change, to meet regulatory requirements over the 40 years' timespan. And with the arrival of ISO 2022, all these things had to be ripped off, and often with significant impact across the entire ecosystem, touching all systems and solutions, upstream systems, downstream systems, accounting systems, reporting systems. So that turned it into a lift, and a lift of that size of course inflates the project complexity, the impact, and obviously the cost to most of its players.

Believe me, even at the Fed, when a couple of years ago we opened the hood to start replacing our proprietary format with ISO 2022, we too were challenged and surprised by many of the secondary impacts that an implementation of that kind had to the project. Now when I move to the cost of maintaining after initial implementation, I think that's another story. I mean, this will bring the cost down dramatically. Maybe not immediately, and one might ask why. That's probably a little bit related to how the standard was rolled out. So to protect global interoperability and keep payments flowing as we all moved with diverging timelines, some of the initial implementations were not perfect, meaning we had to take into account where other markets were on their timeline of rolling out a standard. So that caused for an implementation that came with some compromise as we wanted to make sure that everyone could keep on talking to each other and exchanging payments across the globe. Once we will be over that initial hump of the first maintenance, I think then things will get easier and the burden of maintaining will definitely drop, and it will also start focusing more on actually enabling some of the new features that ISO brings to the discussion compared to fixing temporary interoperability issues as we were all moving at different speed to adopt this new ISO 2022 standard.

Carlin McCrory (12:47):

I want to jump ahead a little bit here and talk about some of the benefits because we just talked about the maintenance costs and the challenges. But what are the benefits though of having the ISO 20022 standards and the opportunities for richer data for payments innovation?

Frank Van Driessche (13:05):

I love talking benefits. I might be a little bit biased here and there's many. So I will focus on what I think are the most important ones. What I do want to point out is that there are benefits of rolling out ISO 20022 for all players. Very often this is seen as something for the big guys, the global transaction banks. But I firmly believe that when it comes to ISO and the features of ISO, that there are benefits for all the players involved in a migration or adoption of the standard. I'll start with one, which is an obvious one, is that it is an international standard and that standard has been adopted globally. Now, if we look at the US, we now have four out of the six payment systems, FedNow and The Clearing House's RTP, Fedwire and CHIPS from wholesale. Four of our six systems are fully underpinned and live with ISO 20022. This we also see at the global level where we see many of our peer operators, if not most, have rolled out ISO 20022. And there's a benefit in rolling out an international standard because anyone with a global presence will benefit when the different systems and solutions where they participate are using the same standard. But even if you're not necessarily a global player, but you have the ambition of becoming a more regional or global player, you will also benefit from rolling out an international standard as it will be at least one barrier to broadening your horizons will have been removed. You will be working with the same standard.

That makes me think of the second benefit I would like to cover is that ISO 20022 facilitates interoperability exactly because many of the systems, more than 200 systems now globally, payment systems, have rolled out a standard. So I'm sure you will agree that moving to a common standard will address many of the current interoperability issues where data needs to be translated, it needs to be transformed or worse, bluntly truncated because of data incompatibility issues. So better and aligned data structures will make seamless end-to-end communications a reality. Now, I'll skip to the most important one and you referenced it a little. The biggest one for me is the fact that ISO 20022 is a data-rich standard. And when I refer to the richness, I'm not necessarily talking about the size of data. It is true that ISO 20022 messages can include a lot more data, but that is an important aspect, but I believe the data richness is more about the fact that the data is structured more than big in size. And the quality of data that is being sent in payments now that most of the systems have moved to ISO 20022 will not only improve the processing of those payments in general, it will facilitate the screening, compliance processes, it will provide many opportunities for the development of innovative products and services based on more granular, structured underlying data to tap from. I think at the end, this will all enable enhanced processing and reconciliation end-to-end. And that's kind of the common denominator of all the other benefits, if you want. A standard with a granular data structure that is adopted by more and more

players both domestically and internationally in the financial industry, it will positively impact the end-to-end seamless processing and reconciliation for all involved in payments, whether it's financial institutions, market infrastructures like ourselves, payment system operators, and of course, I mean the end customers.

Carlin McCrory (16:23):

I want to go back to something you briefly mentioned, which was screening. Compliance, of course, is a major focus for financial institutions, and we're seeing probably a lot to come on the FinCEN front as it relates to BSA and requirements. But how does the ISO 20022 support areas like AML and sanctions screening?

Frank Van Driessche (16:47):

The structure and the consistent formatting that has been agreed or is being agreed globally of ISO 20022 messages will help financial institutions definitely in supporting their existing compliance processes and requirements. When a payment message contains standardized information about the parties involved, about the underlying nature of a payment, why a payment is made, the payment purpose, the structured information on invoices being paid, the reason of why the payment is made, then that better data quality will improve the sanctions screening and anti-money laundering processes.

Now, of course, I mentioned that ISO 20022 can contain a lot more information. It tends to be verbose and will contain more information subject to screening. Now, one could think that on paper might increase the AML or sanction screening workload, but I strongly believe that this will be more than offset. The more data in messages will be offset by the fact that the data is better structured. I think there's a net benefit there to be gained because the screening and processes will just be more efficient thanks to the structured data content. And it's not only the AML and screening processes; the risk management processes, the fraud detection, fraud prevention processes will all benefit from having clear, structured data. And one more thing close to our heart, as we were the first market infrastructure to roll them out, that I want to mention is that more recent additions to the ISO 20022 message portfolio are some specific payment investigation messages that focus on triggering and responding to investigations when payments do not flow seamlessly, for example, when they hit or cause a hit on an initial sanction or AML screening list. So not only will the process of screening be facilitated, but also the process to deal with exceptions and clear some of these payments, that will also benefit from the move to ISO 20022 structured investigations and response messages.

Carlin McCrory (18:44):

And then the last question I want to ask you, Frank, is looking ahead, what's on your radar in terms of what's next for ISO 20022 and the industry?

Frank Van Driessche (18:53):

There's a couple of things, and maybe not necessarily in order of importance and not

obviously all to be realized in the short term. But first of all, what we're doing today is extremely important. We need to continue the educational efforts on ISO 20022. We sometimes forget that there are still many communities that are not on ISO 20022 and that are looking at some of the major markets to be educated and are looking for experience sharing to learn lessons from those that went already. Education also means addressing some of the misunderstandings in the market. For example, there's a lot of misunderstandings when it comes to ISO 20022 flavors or variations of implementations. But massive work has been done there and we continue to undertake that work to agree on a global level on how to align our implementations with the buy-in of some of the major players in the global ecosystem. We need, and we also have to be honest here, we need to work on the data quality when it comes to ISO 20022 messages.

Many are still migrating internal systems and solutions even if the switch was turned on a couple of years ago. From an FRFS focus, it's our ambition to continue building what we refer to as a harmonized US payments data model across the different payment systems that we operate, but also that our peer operators operate, because we believe that from a US point of view, with four out of six major systems on ISO 20022, that everyone will benefit if we can define a harmonized US payments data model for all payments. And maybe last, we will continue obviously to work with our international peers and colleagues to introduce the meaningful enhancements driven by the industry and opportunities to continue ironing out some of the initial less than optimal implementations to get more efficiency gains in the future as we maintain the standard. At the end, I mean, our goal from an FRFS is to continue evolving the ISO 20022 standard, its maintenance processes, and the rollout on our FRFS services in a way that's deliberate, transparent, and in line with the requests and feedback from the industry and our participants.

Carlin McCrory (21:22):

Well, Frank, this has been very insightful. Thank you so much for joining us today, and thanks to our audience for tuning in to this episode. Don't forget to visit our blog and subscribe to stay up to date on the latest developments. Please also make sure to subscribe to this podcast on whatever platform you choose. We look forward to having you join us next time.

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