



PARTICIPANTS

Yves Bontemps, head of standards R&D, SWIFT



Kevin Houston, chairman, Rapid Addition; co-chair FIX Protocol Ltd Global Technical Committee



Stephen Lindsay, head of standards, SWIFT



Steve Miller, product director, C24



HOST

David Bannister, editor, *Banking Technology* (moderator)



THE FUTURE OF STANDARDS

Standards in financial services have hitherto focussed on messaging. As the industry moves towards greater collaboration and more central utilities, new standards and new ways of thinking about standards will be needed. In collaboration with SWIFT, *Banking Technology* brought together a panel of standards experts to discuss the issues this raises.



Predicting the future is never easy, but trying to anticipate likely developments in a particular area is essential in order to take timely action.

With that caveat, Stephen Lindsay, head of standards at SWIFT, sets a boundary on a discussion on the Future of Standards

"What we are trying to do is extrapolate a little bit from where we are now to where we might be in a few years' time," he says.

With the ISO 20022 standard, the idea is to capture and describe the static and dynamic parts of business models separately from the messaging parts.

"What we see is that content might be useful as a way of describing the business world, but not necessarily in the messaging context – so what we *might* see is that in the future we are standardising other types of things – APIs for instance," says Lindsay. "We still need to be clear about what kind of data we are exchanging and what it all means. This is something that we are already working on and will continue to be interested in in the future."

For the present, however, the messaging part of the equation is not yet sufficiently

defined across the industry to be ignored, and any thinking about the future has to take into account the short- to medium-term issues that need to be addressed, says Kevin Houston, chairman, Rapid Addition and co-chair of FIX Protocol Ltd's Global Technical Committee.

"Notwithstanding the importance of the business model, what is at the moment important is the messaging, because that is effectively the gateway, the way of getting data in and out of systems," he says. "You don't have to dictate in absolute terms the content of those systems, but we have suitability issues with all of the different syntaxes we have in different parts of the business model. FIX, which is associated with front office trading, is having to come up with a new model, the Simple Binary Encoding model which can allow for better performance while maintaining compatibility between our existing business model and the ISO 20022 business model."

Steve Miller, product director at C24, a software house specialising in standards-based messaging and integration solutions,

agrees: "I'm wearing two hats as a software provider and as a consultant, but what I see day-to-day in my customer bases is that at the coalface, while the output of these high minded discussions about the business model is important, it's the messages that people have to deal with at the end of the day"

For Yves Bontemps, head of standards R&D, SWIFT, the balance between the messaging element and the business model is central, and the two must be considered together. "What we are primarily interested in is in seeing how we can lower the cost of implementation of standards, and one of the costs, if you just look at the messaging and interface part, is the upfront analysis of what impact adapting your own interfaces to a standard interface will have on your business model and business processes," he says. "With ISO 20022 in particular not only do we deliver the interfaces, we deliver all the mental processes that led to the creation of those interfaces."

Houston suggests that the current situation has led to a number of blind alleys, so it may be necessary to take a few steps backwards in order to continue moving forward. In particular, he says, existing formats have been rolled into ISO 20022, from where they can only be rendered in the XML syntax – which is not suitable in all situations.

"We are being asked, by exchanges and the like, to add a new iteration of FIX to make it work better with customers who want to submit lots of quotes at the same time, for instance. That means that the business model will change," he says. "If we do it in ISO 20022, the only way we can render it is in XML, and the fact that XML is useless for trading means that we will always do that effort secondarily. That is the sort of mess that we have got into at the moment."

Lindsay recognises this. "Certainly one of the next frontiers for ISO 20022 is to make good on the promise that it is genuinely multi-syntax," he says. "It has some interesting ramifications. The promise has always been that ISO 20022 would bring all these disparate standards that require different syntaxes together in a way that will make them interoperable and reusable within an organisation. We haven't really realised that because we haven't really got over some of this mechanics ..."

The Standards Roadmap introduced in



Lindsay: "How do we provide the necessary flexibility for people to on one hand interoperate and on the other hand, build value on top?"

2008 has evolved in slightly unpredictable ways as the different organisations involved have developed along their own lines: what was intended to show demarcations between SWIFT/ISO, FIX, XBRL, FPML and others is now starting to show where they are overlapping or duplicating.

Inevitably, this started to happen because people within organisations tend to follow what they are already doing, says Miller: "we are a FIX shop" they say.

Different drivers

There are other factors at work, and many reasons for the standardisation process to fail, or to reach a certain point and not move on. Houston cites academic work on this such as that carried out at Manchester Business School in the UK. "Much of the research is in the real economy and clearly identifies factors about standards adoption – they are either too early to the market and there is not enough knowledge to make an effective use case, or they have become dominant and the network effect means you will never move on," he says. "Often I think the tag-equals-value aspects of FIX

Photo: Kosh Naran

Miller: "I haven't previously thought of standards getting in the way of innovation. I see standards as enablers."



have reached this point, which is where we are with the introduction of Simple Binary Encoding. We have an enormous number of people who use tag-equals-value: if they all moved at the same time to SBE, it would be a no-brainer. The trick is managing a co-ordinated move that complements the existing network benefits"

Lindsay agrees: "That's the bind that we are always in – with a many-to-many standard everyone can see the benefit, and if everyone adopts it, great. But if only one or two people adopt it ..."

For Bontemps, the network effect is a concern, to which one response is to have more carrot and less stick.

"One key factor for standards is making sure people can adopt them. We can have great ideas about standards where all we have to do is change the world to make them happen," he says. "As a standards body, what we need to do is make sure that it can be picked up by those who need to implement it and make sure that the cost of implementation is as low as it can be so that the critical mass is reached sooner."

And sometimes things are not hard to do from a technical perspective but they are hard to justify from a business perspective – organisations are by their nature different, so standardised business logic is something of an oxymoron.

Even so, bridging the gap is essential, and to do that "you have to make the business case," says Miller.

"My customers fall roughly into two camps: those who understand why



standards are good for all sorts of reasons – they concentrate on *how* because they already understand *why*,” he says. “The other half look at it and say, ‘That’s interesting. We didn’t invent it. This has nothing to do with us. No matter how much you work on those guys, there are still some questions that are not easily answered about why you should do things in a certain way. I tend to end up talking about wiring your home: are you going to use the standard method or are you going to sit down and invent electrical wiring from scratch?’”

Houstoun says that this is because standards may yield societal benefits but a market mechanism for their adoption is not always appropriate: “There are a lot of instances where standardisation will have large benefits to society but not necessarily give massive benefits to individual practitioners – so left to itself, the market will not do anything about standardisation.”

That may be the case, but other factors may compensate. “It’s a sort of Darwinism in the sense that, if you just let them run, the most effective strategies are going to bubble to the top,” suggests Miller. Inevitably, the winning argument will be the one that has demonstrable value, and that is not necessarily monetary.

“People don’t do this if they don’t see the value: that’s the battle that’s being fought, says Miller. “Some people have an intrinsic view that there is a value to the way they do things now and you have to show that what you are proposing is better value for the organisation. Usually it is a question of saving time and saving money – you do it one way because you’re not reinventing the wheel and time to market is quicker.”

But if standards mean you are not reinventing the wheel, do they also stop you from inventing anything else?

“I haven’t previously thought of standards getting in the way of innovation,” says Miller. “Having a standard makes it easier. Quite often we have specialised things we need to do: how much easier is it to do that if you are building the 5 to 15% that differentiates you on top of the 85 to 95% that doesn’t? I see standards as an enabler.”

For a standards developer, however, getting the balance right is crucial. “It is

important to understand how you make it possible for people to behave dynamically and ensure they are not restricted by standards,” says Lindsay. “You want a standard that gives you all the benefits of low switching costs and reuse and so on, but is not so restrictive that you can’t do anything with it. The great example, of course, is TCP/IP and what has been built on top of that – the internet would not have existed.”

Houstoun agrees, adding that a factor in the success of TCP/IP is that it is “a strict standard – only a few features are optional”. It highlights a problem some people have with standards, which is that they are not necessarily the best solution – there is always a compromise. He cites the example of metric screw threads: “Metric threads – which are now ISO standards – are very prescriptive: you can’t have a metric thread without having a 60° angle between the faces of the thread. It is necessary, but it may not always be technically the best way. Other threads with different angles between the faces of the threads may be better in some situations.”

It is an argument that SWIFT constantly faces, says Lindsay. “What we are trying to do is formalise the standards first, accept that they’re not going to be used by everybody and bring some compatibility,” he says.

“That is a battle we have which is to steer a path between creating something that is genuinely standardised, and therefore gives you benefits, and simultaneously gives enough latitude to people to do what they need to do, says Bontemps. “The standard is a skeleton on which you can build whatever you want.”

So is the future of standards tied up with a definition of where the boundaries of standardisation lies? It is “at least part of it”, says Lindsay. “How do we provide the necessary flexibility for people to on one hand interoperate and on the other hand, build value on top.”

In other ways, however, standards bodies can have a more active role in their industries or in relation to society as a



Houstoun: *“The future of standards is tied to the future of financial markets and we can see a bigger role for more formality in financial markets.”*

whole, and as the financial services industry becomes increasingly regulated, and some processes become more commoditised, a future with a range of collaborative industry utilities is starting to emerge.

Outside the box

This will put a new focus on standards and their wider role in the industry. Standards in financial services are only catching up with standards in other industries, says Miller. “I keep coming back to engineering: Nuclear power and aviation are both engineering-based industries that we could learn from,” he says. “In aerospace everyone accepts that in order to operate they need very clever people and there are ways in which their output is made consumable by people who haven’t been to university. I don’t think the same thing exists to the same degree in our industry – there are clever people working in financial services but they tend to be regarded as irritating geeks who don’t have much connection with the actual markets. It is a disconnect.”

Houstoun says that this is a question of development: “To be fair electronic trading is only 15-20 years old and aerospace is more than 100 years old: this a very young industry and a lot of these things will come as it matures.”

But Bontemps points out that some

young industries don’t have the same problem. “If you look at the Open Source software industry, like the Eclipse Foundation or the Apache Software Foundation – which you think of as the geeks – they have a very strong governance process and the people working in these communities have to go through a kind of promotion and be accepted by their peers.”

Within the financial services industry, Miller says this discipline is only present in patches. Lindsay agrees: “I’m sure we could all become more disciplined. The telcos are standards-based and interoperability is key to their business models: taking into account other actors and the whole notion of multiple platforms is something that we haven’t had to do and we need to start to consider it – it is happening and we need to keep an eye on it.”

Houstoun says that the way standards develop in other industries shows a bigger issue in terms of the structures that have evolved for managing them.

“If you look at other industries, such as the ICT industry in Europe, they have an entire standards framework that they implement

Bontemps: *“As a standards body, what we need to do is make sure that it can be picked up by those who need to implement it and make sure that the cost of implementation is as low as it can be so that the critical mass is reached sooner.”*



at the policy and strategy level and at the tactical all of the actual work involved in creating standards is done – and then there’s the actual implementation work,” he says. “The policy and strategy level provide the co-ordination that means that despite all carrying different smartphones, we can all charge them from the same micro-USB port. We are all working in the tactical and implementation level and are not at the policy and strategy level. Currently these levels are either limited or missing.”

The classic example here is the shipping container, which is widely acknowledged to have had far-reaching effects, way beyond its original purpose. “There are benefits for society as a whole,” says Houstoun, citing research that shows standardisation in the form of containerisation “has added more to GDP growth than all the bilateral trade agreements on the planet”.

Politicians and regulators operating at the policy and strategy level are pushing hard for more transparency and imposing more regulation on the industry, which in turn is responding by developing a more collaborative model.

“If you look at the industry more generally, we have banks coming to a realisation that things are never, ever going to be the same again and they are trying to operate on margins that are much smaller than before,” says Houstoun. “There are areas like KYC, which everyone has to do but does anybody really care how it’s done? If we could standardise those processes and pull them into a central place at a price that is low, it could help us reduce the huge costs that are inherent in the current model.”

This will require identifying “those non-differentiating parts of the process where standards can be stronger anchor”, says Lindsay.

“We are going to start seeing more utilities as opposed to point-to-point solutions – trade reporting we are already seeing – and our point of view is to say we are still going to

need to standardise the information that goes into that and it is perhaps a slightly different kind of standardisation than the messaging standardisation.”

The industry has grown up around messaging standards and perhaps some part of the future of standards should be considering what information is needed in these areas: what will investigators regulators require in the future, for instance, says Houstoun. “It should come out of the governance process, but if regulators want to see what is going on in our market then it means we need to standardise timestamps: if we don’t do that sufficiently accurately they will continue to be blind.”

Lindsay says this has implications for the standards developers. Should part of the role of standards makers be advising regulators politicians on what they need to be looking at for what information they should be gathering?

Almost certainly that will mean looking at a much bigger picture than the tactical and implementation levels that has hitherto been the focus of the financial standards world.

“How do we exchange the information we need – what have I got and what do you need? What we don’t talk about is that increasingly in the future there will be third parties, like regulators, who want to make sense out of all of this; we have to think about how we bring that into our methodology,” says Lindsay.

Ultimately, says Houstoun, “the future of standards is tied to the future of financial markets and we can see a bigger role for more formality in financial markets”.

But those financial markets may be very different from today’s as the structure of the world economy shifts in response to macroeconomic, geopolitical and technological changes.

“If you look at what the trends in the industry are going to be over the next 20 to 30 years, the number one is peer-to-peer finance – nothing to do with the incumbent players,” says Houstoun. “Secondly, approximately, two thirds of the economy is in SMEs, not in listed companies, and those sorts of company have chronic lack of access to finance. Peer-to-peer aims to address that and that is going to mean a lot of change.” **BT**