ISO 20022
The Challenges and Opportunities for APAC’s Financial Institutions
The introduction of ISO 20022, an international messaging standard for financial institutions, represents a seismic shift in international payments.

Financial systems, financial institutions and other players across the globe are working to become compliant with ISO 20022, which aims to replace existing proprietary formats, and which contains much richer data.

While in most cases, compliance is a regulatory/scheme-driven big-bang requirement, the global SWIFT migration provides a four-year window for migration by 2025.

However, failure to comply earlier in the window could ultimately see non-compliant financial institutions shut out of international payments due to the risks they impose on those that are compliant.

There are two ways to become compliant: use a central translation service or develop a native ISO 20022 payment-processing ability.

Using a central solution can be useful - particularly for smaller financial institutions. However, in most cases this will prove only a stop-gap arrangement, and it does have downsides. We recommend that the majority develop a native ISO 20022 processing capability.

The latter approach brings a range of benefits: it allows financial institutions to maintain data as a strategic asset and use it for a wide range of value-added solutions, including providing customers with targeted products and services; and it gives financial institutions a better chance of complying with future regulatory requirements in areas such as anti-money laundering.

Data is the new oil, and developing a native ISO 20022 capability will allow the financial institution to retain rich data about each payment at a time when such data is becoming more important than the payment itself.

Developing an appropriate compliance strategy requires board-level engagement, because ISO 20022 cuts across a range of operational and infrastructural areas.
Work on implementing ISO 20022 is well underway in the APAC region (see Figures 1 and 2). Japan’s central bank, for example, has redesigned its real-time inter-banking system to ensure it is ISO 20022 compliant. Both its counterpart in Australia and the Australian Payments Network (the industry’s self-regulatory body) aim to adopt ISO 20022 by 2024. Singapore’s central bank has begun planning, with migration scheduled for 2021.

Systems in India and China are already compliant, while work is underway in Hong Kong (its CHATS system will migrate from the current MT format to ISO 20022 by the end of 2022) as well as in Malaysia, which will implement ISO 20022 for real-time gross settlements (RTGS) by 2020.

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Figure 1: ISO 20022 is already here

ISO 20022 IS NOT COMING. IT’S ALREADY HERE.

- ACH/BULK PAYMENTS
  - SEPA (Eurozone)
  - Singapore FAST bulk
  - + many others

- REAL-TIME INSTANT PAYMENTS
  - Singapore FAST
  - Australia NPP
  - Malaysia RPP
  - Hong Kong FP
  - US FED RTP
  - UK Faster Payments
  - SEPA SCT
  - India IMPS
  - + many others

- HIGH-VALUE PAYMENTS - RTGS
  - Japan BOJNET
  - India NG-RTGS
  - Brunei BN-RTGS
  - China CIPS/CNAPS

- CROSS-BORDER PAYMENTS
  - SWIFT MT to MX
  - T2S (Eurozone)
  - FX
  - Trade Finance

- SECURITIES, TRADE FINANCE, FX
  - T2S (Eurozone)
  - FX
  - Trade Finance

Source: Accenture and FIS
Along with the in-country clearing systems and the array of RTGS systems, many low-value real-time schemes in APAC are also either ISO 20022 compliant or working to become so. Thailand’s PromptPay is one such system.

There is much more to come. Within the 10-member ASEAN group, for example, adopting global standards like ISO 20022 is an explicit and key measure under the body’s ASEAN 2025 Vision.\(^3\)

Finally, SWIFT – the network that supports the majority of cross-border transactions\(^4\) – will migrate all of its payments and cash reporting MT formats to ISO 20022 supported MX formats over the four-year period to November 2025.

We expect that the progression of ISO 20022 compliance in APAC will follow the Three Waves model outlined in Figure 3, with 2025 being the deadline by which financial institutions will need to have made their transition.
Financial institutions in APAC that aren’t ready and that haven’t planned to migrate in time could find themselves at a serious disadvantage. In the worst-case scenario they might be excluded from payments networks. Financial institutions that try to minimise their ISO 20022 compliance are likely to face higher costs due to lower straight-through-processing (STP) rates, as well as the loss of corporate customers because they cannot offer a seamless host-to-host experience.

They could also potentially incur penalties because they cannot track sanctions requirements or assess anti-money laundering (AML) and counter-financing of terrorism (CFT) counterparty risks with as much accuracy as those financial institutions that have fully committed to the ISO 20022 standard. Moreover, bad actors will see these financial institutions as weak links and, as such, they might attract unwanted attention.

Complying with ISO 20022 for payments is a mandatory requirement for financial institutions operating in countries whose domestic schemes require compliance. But even for those in countries that don’t, complying brings a range of commercial benefits if done early and properly. By ‘properly’, we mean that most should adopt full native compliance, as we shall see shortly.

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**Figure 3: How ISO 20022 compliance is evolving in APAC**

**THE THREE WAVES OF ISO 20022**

1. Real-time payments using ISO 20022 introduced to provide an alternative consumer payment rail (plus bulk)

2. High-value payments move to ISO 20022 to provide a superior, data-rich RTGS system

3. SWIFT cross-border to simplify and streamline cross border payments by moving to ISO 20022

Source: Accenture and FIS
It is worth delving a little deeper into ISO 20022 – what it is and what it provides. First, it is an international standard that lays out a platform to ensure consistent messaging globally for data flows between financial institutions. Second it provides a common language for five financial business domains: payments, securities, trade services, cards and foreign exchange.

ISO 20022’s introduction represents a seismic shift in international payments, with more than 200 initiatives in over 70 countries either live, being rolled out, planned or under discussion. Provided implementation deadlines are met, ISO 20022 “will dominate high-value payments” by 2023, SWIFT has said, and will account for 79 percent by volume and 87 percent by value of those transactions globally.

One key reason that a new messaging standard is necessary is because SWIFT’s 40-year-old MT standard is no longer suitable. Its limited data-carrying capabilities are the product of a time when bandwidth and storage were expensive, while regulatory requirements mean much more data is now needed to comply fully with AML and CFT laws.

The good news is that complying with ISO 20022 will bring numerous benefits (see Figure 4). Firstly, the messaging architecture has thousands of fields, and structured placeholders, which makes it far more data-rich. In a world where data is the new oil, this will allow financial institutions to apply analytics to leverage that richness and create more compelling offerings for their customers.

Complying, as some financial institutions have done, brings other advantages:

- Improved automation and lower STP costs.
- The ability to meet consumers’ demands for new services, as well as their expectations of real-time, all-the-time payments.
- An increased ability to meet compliance requirements in areas such as know your customer (KYC), AML and CFT.
- Improving the efficiency of payment processing and inter-operability among High Value Payment Systems (HVPS).
- Superior tracking to provide a better service.

Given that ISO 20022 is already in motion, financial institutions that have yet to start preparing should do so now. Failing to act carries significant, and possibly existential, risks.

Figure 4: The benefits of ISO 20022

**MOTIVATIONS FOR INTRODUCING ISO 20022**

- Consumer expectations of Real-Time, All-the-Time and demand for new services
- Automation and STP to reduce cost
- End-to-end payment tracking for better service
- Regulatory demand for better tracing and transparency
- Data, data, data

Source: Accenture and FIS
The upshot, then, is that financial institutions in APAC must migrate. When doing so, they should bear in mind that migration goes far beyond payments processing. On the operational side it will affect KYC systems, liquidity management and electronic banking, among others, and will require areas such as treasury, securities and trade finance to process and apply the information involved.⁹

On the infrastructure side, complying with ISO 20022 means handling significantly more data than before. That means systems, databases and other aspects must be able to process far larger volumes of data – and to do so fast - to ensure not only that real-time payments can be dealt with, but also that the financial institution stays on top of requirements such as fraud prevention, compliance checks and intraday liquidity management.

This broad scope in both operational and infrastructure requirements means ISO 20022 requires board-level commitment.

Financial institutions that have yet to start will find there are two options open to them in enabling ISO 20022:

- Using a central translation on the cloud, such as that offered by SWIFT.
- Implementing a native ISO 20022 payment-processing solution locally.

Central translation

There are several types of central translation options in which the incoming ISO 20022 compliant message in MX format is translated to the MT format, either through an in-flight translation or via a cloud-exposed API. That makes rapid compliance possible. However, it has a number of downsides that in effect make this a stop-gap solution for most financial institutions. Those downsides include:

- An increased risk of data-loss due to the truncation of rich data messaging into abbreviated versions. Truncation creates work if financial institutions need to compare truncated MT messages with the MX original.
- Audit-related issues such as hampered traceability of payments.
- Reduced ability to carry out compliance screening correctly – heightening compliance risks.
- A reduction in STP rates.
- The lack of rich data means financial institutions using this approach will not be able to exploit fully that information to design and target products and services for customers, which means they will miss out on future revenue streams.

Using a central translation service, then, can prove a useful head-start for smaller financial institutions that are fully aware of those downsides. However, it is not recommended over the longer term or for larger financial institutions looking to take a more strategic view. Instead, they would be better off examining the second option: developing a native ISO 20022 payment-processing capability.
Native ISO 20022 payment processing

This is a permanent solution that addresses the problem holistically and includes consideration of peripheral systems such as screening systems, local reporting, regulatory reporting, archiving and so forth.

So, how can financial institutions go about developing a native ISO 20022 processing capability? And what options are available?

The first step is to do a thorough impact analysis, which can be carried out using a simple framework of questions:

1. How many applications are affected, including peripheral ones?
2. How many messages within each application are affected?
3. What is the migration deadline?
4. Can the application support the ISO 20022 data model?
5. Does the application require message transformation before processing?
6. Does the application support multi-byte characters in the event that specific local language support is required?
7. Are there any performance considerations or impacts?
8. What level of ISO 20022 integration do my corporate customers expect, including direct integration with ERP and accounting systems?

Once the impact is understood, financial institutions can undertake a varied approach, either enabling all applications natively for ISO 20022 compatibility or using middleware.

An application-by-application replacement will take a considerable amount of time and effort and, in the end, one might end up replacing legacy siloed applications with new siloed applications. A middleware option does not fully bring out the benefits of native ISO processing and, if not carefully planned, might still end up with data truncation.

Our recommendation is that financial institutions future-proof their architecture by adopting a platform approach. Under such an approach, there is no truncation of messages. Instead, messages sent in ISO 20022 are received, read and stored in that mode, which enables the financial institution to reap all of the benefits listed earlier. This makes native ISO 20022 processing a permanent solution that addresses the problem holistically.
CASE STUDY
Preparing for ISO 20022

FIS and Accenture worked with a large European bank to help it undertake a major and successful payments system transformation as part of an enterprise-wide technology overhaul. The aim was to run on one global payment engine, in preparation for ISO 20022 migration. That meant solving an array of challenges, the first of which was to ensure the integrity of 700 integration points with 250 systems, and to do so with 49 payment systems across several countries.

A second was to ensure that the bank was compliant with the requirements of SEPA Credit Transfer (SCT) – the rules that underpin funds transfers between EU financial institutions – while a third was to incorporate a wide range of local product variants and processes.

The core component in the payments transformation journey was FIS's Open Payments Framework (OPF), which solved for SCT compliance. Additionally, the bank benefited from a Payment Simplification and Transformation Program, resulting in it having fewer systems to manage (down from 49 to 10). And it now boasts a consistent product offering across the countries in which it operates.

On the ISO 20022 side, these changes mean the bank now enjoys:

• Full ISO 20022 processing capability, with no data truncation.
• Support for multiple ISO 20022 payment types on the same OPF platform, including SCT Inst and SCT Batch. Support for TARGET2, the Eurozone's RTGS system, and the Nordic's P27 payments platform is also planned.
• Migration to ISO 20022 for SWIFT MX is now simply a matter of configuration.

Additional benefits included infrastructure harmonisation that reduced the necessary knowledge-base to operate and run; payments-system stability improvements; a reduction of production incidents; easier payment-processing monitoring capabilities; and a consistently high STP rate.

It is worth reiterating that full ISO 20022 transformation is for financial institutions that are forward-thinking and of a certain size. For smaller players with lower volumes and less capacity to implement a platform solution, it would still be useful to consider the cloud translation solutions - assuming they can accommodate manual processing, and manage and mitigate operational and compliance risks carefully.

Source: Accenture and FIS

1. Payment System Simplification
2. Infrastructure Harmonization
3. Payment Processing Monitoring Capabilities
4. Payment System Stability Improvement
5. Migration to ISO 20022 for SWIFT is just a format change
6. Maintain High STP

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THE TIME TO ACT IS NOW

With the clock ticking on ISO 20022 implementation across APAC, financial institutions should start planning their approach now before it’s too late.

That raises one final question: How long does it take to become ISO 20022 compliant? Financial institutions looking to undertake a comprehensive enterprise transformation programme should expect that this will take several years, with the timescale dependent upon a few crucial factors: the number of countries the financial institution has a presence in; the payment schemes that are operating in each of those countries (usually three or four); and the effect migration will have on peripheral factors such as risk, treasury, reporting and data storage, many of which will need to be upgraded.

Whatever the timescale, financial institutions must act now to ensure they are ISO 20022 compliant. And they must do so in the knowledge that using a central translation solution does not manage or mitigate the risks; it simply moves them to operations at the cost of STP and manual intervention.

A native ISO 20022 processing solution, on the other hand, both manages and mitigates the risk by eliminating the underlying problem, and turns the developed native-processing capability into a competitive advantage. For larger financial institutions and for those with an eye to the longer-term, it is the better strategic choice.
References


5. Introduction to ISO 20022, Accenture.


7. Ibid.


9. Ibid.

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