



The road to a better payments experience
ISO 20022

Client
Amazon Web Services

In focus with Amazon Web Services: The road to a better payments experience

Industry collaboration, AI and machine learning can help better predict payment outcomes and realise the benefits of ISO 20022

The road to a better payments experience: Instant, predictable, frictionless

Financial institutions are seeing a surge in demand for payments that are instantly cleared and settled, have global reach, 24/7 availability, and accessibility across wholesale, retail and mobile channels. In response, financial institutions are transforming their entire payments processing chain, making them more agile, scalable, secure and performant.

This digital shift, propelled by changing customer expectations, has led to several domestic and cross-border industry initiatives. A key initiative that will lay the foundation for better payment experiences with better payments data is the global adoption of the [ISO 20022 financial messaging standard](#). The standard provides a rich and structured data dictionary that makes disparate payment

schemes interoperable and more efficient, supporting financial crime compliance, and enabling new payment experiences for clients.

By 2025, 85% of global high value payment clearing and the majority of cross-border payments will converge on this new standard. Using ISO 20022 as the unifying language, built with APIs and event-driven architectures, next generation payments platforms are leveraging cloud technology, integrating bank channels and core payments infrastructure, and using advanced analytics, artificial intelligence and machine learning (AI/ML) to enable better payments services.

With cross-border payments set to begin their ISO 20022 migration as of November 2022, financial institutions are looking forward to the possibilities this will enable. The industry anticipates better payments

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data will not only unlock new service opportunities and revenue streams, but also create new ecosystem interactions between traditional financial institutions, FinTech, and technology firms. This transformation should not be underestimated as a technical-only upgrade but the opportunity to create new business models that exceed customer expectations.

The key technology enablers of payments transformation

As the industry makes this transition, there is a growing need for hybrid solutions that integrate the best of cloud services with legacy payments infrastructure to lay the foundation for a rich and seamless customer experience. Early adopters of new business model innovations, made possible by ISO 20022, have embraced cloud as the key enabler to reduce costs and enable agility. We find three main areas of focus for innovation:

- **Embracing APIs and platform models** to create integrated ecosystems between traditional payment service providers, FinTechs, and industry utilities such as SWIFT.
- Defining an **instant, always on, and global payments processing model**, working backwards from targeted client experiences and taking advantage of rich data.
- Improving payments processing efficiency with **predictive solutions** for payment data enrichment and improved fulfilment of compliance requirements.

AI/ML based solutions are key to achieving the predictive, intelligent experiences

demanded by customers. They are being built to address three key industry needs:

More accurate and efficient compliance processes

Financial institutions are upgrading their payment-processing life cycle to take advantage of the expanded ISO 20022 data set and improve compliance performance. While compliance checks are an essential line of defence against money laundering, fraud and terrorism financing, they can cause delays. Today, 85% of all delayed payments are due to false positives associated with compliance checks. AI and ML models that can be used to reduce alert volumes and false positives will have a considerable impact in reducing friction and operational costs.

Intelligent and predictable payments

The implementation of ISO 20022 will support seven times more data elements than existing proprietary payment message formats. Each jurisdiction and payment scheme typically establishes their own market practice of mandatory and optional fields, character sets and field length limitations. With more than 200 market practices in 70 countries, all in various stages of planning and implementation, financial institutions must manage significant complexity as they implement the standard. Advanced predictive modelling will become necessary to successfully rollout ISO 20022 across the enterprise. Initiatives to prototype such AI/ML models are underway

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with several financial institutions and industry groups, with the goal of scoring payments data to predict payments success, intervene and correct poor quality data, and identify optimal routing.

The need for mutualised synthetic data

Financial services are driven by data. And the structure, completeness and granularity of that data has a significant impact on the quality of services that can be offered to customers. Similarly, AI/ML models are only as effective as the data that is used to train them, and [open source tools](#) that can generate synthetic ISO 20022 messages are a valuable resource in developing AI/ML models. However, for any AI/ML model to be useful for payment prediction, the associated training data sets need to be sourced out of real payments data from multiple institutions, covering the full diversity of counterparties, beneficiaries, geographical destinations, and payment types. While respecting data privacy and sanitizing for Personal Identifiable Information (PII), there is an opportunity for financial institutions to pool real-world payments data for better AI/ML models.

Looking ahead

In a future where financial institutions have adopted ISO 20022, customers can expect a more intelligent payments experience than ever before. AI/ML models will also offer customers more, such as the ability to choose the fastest or most cost effective payment route based on their individual needs. Payments are a team sport, and to achieve this vision, financial institutions should continue to work closely together – not only to implement independent solutions, but also to collaboratively implement safe data sharing mechanisms that will improve security and enrich the experience for customers around the world.

SWIFT is a member-owned cooperative, providing secure financial messaging services to more than 11,000 organisations, across the financial ecosystem, in almost every country in the world. For nearly five decades we have delivered certainty, continuity and excellence by constantly evolving in an everchanging landscape. In today's fast moving, increasingly connected and challenging world, this approach has never been more relevant.

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