



When worlds collide: ISO 20022 meets JSON

Financial message standards enter the brave new world of API-based interfacing

Introduction

Trace Financial is a leading provider of solutions to the financial messaging community. In recent years we have seen the rapid progress of two independent developments in the payments space, namely the transition to the ISO 20022 standard and the rise of API-based interfacing. Now we see these two streams beginning to merge.

The transition to ISO 20022 has largely been driven by the modernisation projects of major payment infrastructures (such as Australia's New Payments Platform, or Payment Canada's Lynx initiative), as they respond to a mix of commercial and regulatory demands. The ISO 20022 standard allows significantly more information, such as remittance data, to travel with electronic payments. The standard enables solutions and technologies for business automation, including end-to-end straight-through processing, easier payment tracking and system reconciliation.

Meanwhile the shift towards API-based interfacing has been driven mainly by a host of new non-bank entrants into the payments space. These players have emerged from the mobile internet and e-commerce world, and are increasingly seeking to move into territory that was until recently the banks' preserve. They have been assisted by 'Open Banking' initiatives, such as PSD2 in the EU, which force banks to open their customer accounts to third-party API-based access, for purposes that typically include accessing account data and initiating payments.

Now these two trends are beginning to collide. Although ISO 20022 is commonly thought of as an XML-based standard, it is in fact syntax-neutral. The ISO 20022 Technical Support Group recently issued a best practices whitepaper which aims to assist implementers to define RESTful Web Service APIs 'with resources represented in XML and/or JSON syntax'. While not in itself definitive, the whitepaper 'will inform the basis of a Technical Specification in ISO'. At the coalface, project teams increasingly ask us how they can handle ISO 20022 messages in a JSON/API context.

Trace Financial's Transformer is designed to enable projects to quickly build mappings and validations involving complex standards such as ISO 20022 without using coding or scripting. When we added support for JSON to Transformer we therefore took full account of the rapid and continuing evolution of the use of JSON and API-based interfacing generally. Transformer now offers a correspondingly wide variety of ways of managing JSON messages. These include importing JSON schemas, importing example messages, authoring structures through Transformer's own design tool, automatically supporting JSON representations of other messaging standards, layering XSD-style validation constructs over JSON message definitions, and allowing a mapping designer to manipulate and interrogate JSON structures that are only loosely defined.

Transformer users can now create outputs in XML or JSON format from any message standard. For example, Transformer's ISO 20022 library allows the user to create ISO 20022 compliant messages in either XML or JSON.

Overall, our aim has been to equip clients with the most flexible and open-ended range of tools to meet the challenge of working with advanced message standards in an API-based context.
