

Inside Reference Data

Looking For An API Standard

Application programming interfaces, long popular for accessing data, are attracting attention for standardization. What can be done, however, is still questionable



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Application programming interfaces have long been in use for reference data management purposes, but their proprietary nature puts them at loggerheads with standardization initiatives. Michael Shashoua reports on how that might be changing

Standardizing the use of application programming interfaces (APIs) for data management operations can yield value by integrating data sources and stores, or supporting new data governance plans and models. However, despite interest in this possibility, actually getting APIs to adhere to a standard may require leaps over some significant hurdles.

APIs being offered by vendors for the most static reference data, which is usually "sliced and diced" to provide insights, are more difficult to standardize, explains Dilip Krishna, director at Deloitte. "From what we've seen in the marketplace, different providers have their own standards," he says. "Even within a firm, it's harder to standardize delivery."

Eagle Investment Systems' APIs, which Paul McInnis, head of enterprise data management at the BNY Mellon-owned financial services technology provider calls "restful APIs,"-saying they are easier, faster and lighter in how they integrate data-make a composite of data taken in from multiple sources to provide a single version to users.

This represents standardization within an offering, which McInnis says simplifies the integration of data. "Cleansing and enriching the data then serving it back out to the rest of your organization on a service-based platform lets organizations centralize and distribute that data a lot more quickly, getting away from file-based FTP [methods] and into service-based architecture," he says. As a result, Eagle's APIs are an "implementation-independent interface for partners" with whom it exchanges data, he says.

Eagle's investment data warehouse service includes data management and governance controls. Its APIs' ability to integrate data regardless of the standard used by the source, adds McInnis, "helps not only with the integration piece but also the data governance and data management aspects. The standardization and governance control of that absolutely play into an overall data management strategy."

RDU as Standardization Example

APIs are, by nature, proprietary, which make it difficult to standardize them. "There are so many legacy API out there and applications in use that to acquire the efficiency that standardization would give you needs a significant amount of work to retire your former APIs and migrate to new ones," says Terry Roche, principal

in the financial technology practice at Tabb Group. "Perhaps even then, it's of nominal value."

The Reference Data Utility (RDU) launched in the third quarter of 2015 by reference data technology provider SmartStream has made strides toward normalizing reference data, notes Roche, but has little effect on how information is being sent.

"All the clients' downstream application use for how they're sending information, by and large, will remain intact," he says. "It will take a period of time to retire those platforms because it's not just the API, there's the entire monitoring environment associated with it. In larger institutions, [there may not be] very good recordkeeping of what applications are connected with others because sometimes when you turn something off, you don't realize what you're affecting and also turning off."

SmartStream's RDU has three API capabilities, explains Richard Bemindt, chief technology officer at the company. The first allows users to enter an identifier-such as a market symbol, ISIN, CUSIP, Reuters Identifier Code or Bloomberg identifier-and receive cross-references of all other such symbols or identifiers of that security. The second allows users to supply a symbology and receive the full definition for the security. "You can give a symbology at any level-product, market or segment-and we return all the symbology that matches that [from all levels]," says Bemindt.

The utility's third API works with on-demand services, allowing RDU users to make requests to services such as DataScope Select and Bloomberg Per Security. "We see if we have the definition of those securities in our repository," says Bemindt. "If so, it's fresh enough to deliver it right from our repository-or we can send it on to the vendors and have the vendor data come back in. We cleanse that in our engines and send back a cleansed version."

Though these APIs and their functions come close to standardizing how data is accessed and managed, Bemindt stops short of calling it a "standardization" of APIs. "It's not standardization until everyone's using it but it is a way of isolating the exposure to clients," he says. "If a client joins the SPReD utility and they want to use the on-demand services or select from the repository, we have one consistent API regardless of the data sources you subscribe to."

Internal Vs. External

Broader transactional data, such as positions and balances, however, is easier to standardize within APIs, according to Deloitte's Krishna. Regulatory compliance pressures are driving that standardization but are not the only impetus, he explains.

"Banks want to standardize APIs and are figuring out how to do so, for internal risk management purposes at least," he says. "The leading-edge institutions are thinking well beyond risk management purposes."

Even when working with more broadly defined reference data, a firm's first question about APIs could be whether it even makes sense to have a compatible, standardized API for use internally or outside the firm with business counterparties, according to Krishna. Within a firm, "you're much less constrained from sharing data," he says. "It becomes much easier to make a case for standardization. The downside is the need for much better access controls on data."

Justifying the creation or use of an API that works among multiple firms is much more difficult, he acknowledges. "There are fewer data sets that you can imagine being shared across institutions," he says. "With pricing, you have [data] sets that are standardized and APIs that are standardized. Vendors of this kind of data focus on standardizing not only underlying data, but also APIs for extracting analytics out of it. There are some classes of information where you see more standardization in APIs in external usage, but obviously there's a lot of information you don't want to share outside the institution. It wouldn't make sense to standardize those."

Although, as Bemindt explains, "everybody represents data differently and has a different perspective," the SmartStream RDU manages to mesh information from product, market or segment level. But this would be tall order to achieve on an industry-wide basis, he says. "Some firms would have to change their perspective to achieve standardization across the industry. We would have to come up with a common taxonomy across all the different data elements."

SmartStream works on understanding taxonomies from every vendor and normalizing them in its offering, according to Bemindt, but "it represents a large cost to the various vendors who aren't willing to take it on," he says. "Sometimes there's a fear that if everything was standardized then vendors become less entrenched in an organization," he adds.



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