



NORTHERN
TRUST

PLUG AND PLAY APIs AND THE DIGITALISATION OF ASSET MANAGEMENT

Application Programming Interfaces (APIs) have helped revolutionise industries ranging from travel to hospitality. As digitalisation transforms investment management, they will play a similarly key role – encouraging collaboration between service providers and asset managers, while supporting increased efficiency, flexibility and creativity.

PLUG AND PLAY

APIs and the Digitalisation of Asset Management

In an age where the use of data and digital technology is increasingly central to success, it is well-documented that many asset managers are moving to digitalise traditional processes and practices.

Through digitalisation, asset managers seek to drive enhanced operational efficiencies and create new digital experiences for themselves and their investors.

Those pursuing genuinely transformative change are not simply looking to move processes online, but to leverage digital technology to significantly improve business practices. When successful the result is 'digital transformation' – a reimagining of business for the digital age that drives profound change in how value is created and delivered.

DIGITAL TRANSFORMATION AND THE API ECONOMY

Few areas of asset management will remain untouched by this digital transformation, which will see new technology fundamentally disrupt both the manufacturing and distribution of funds.

At the heart of this transformation will be the migration to an "API economy". This is the combination of business models and processes designed around the use of APIs in today's digital environment – based on the secure access of functionality and exchange of data.¹

Digitalisation in our industry has also been given further impetus by the impact of the coronavirus pandemic. As the pandemic confined citizens to their homes, we saw rapid, widespread adoption of digital tools for everyday tasks, from online medical consultations to shopping.

This confidence to use technology – born in many cases from necessity – will surely transform how both retail and institutional investors demand to be serviced. And in turn, the pandemic has boosted the digital agenda of managers, with an overwhelming majority of large managers polled in a recent survey seeing digital initiatives as a key priority as a result.²

In this environment there is a need for intuitive digitalised investor experiences, including real-time high-quality data and tools to help users make sense of it. APIs will play a pivotal role in meeting this demand.



TOBY GLAYSHER
Head of Global Fund Services,
International, Northern Trust

The digital transformation of asset management will see technology disrupt both the manufacturing and distribution of funds. At the heart of this will be the migration to an API economy.

POINT TO POINT: INTRODUCING APIS

As they work to digitalise their operations, APIs offer asset managers and service providers exciting possibilities in how they use data.

An API is a standardised interface, or “adapter”, that allows two applications to “talk” to each other automatically. They allow different software components to communicate and share data according to a set of clearly defined methods of communication.³ They allow for data to be delivered in real-time – a machine simply contacts another using secure technology to instantly facilitate the delivery of requested data.

While APIs are growing in use and sophistication, they are not new. If you have a smartphone, you likely use APIs every day without even realising it. For example, the ride-hailing company Uber uses APIs to access data from Google Maps instead of building and maintaining its own map tool. The result: Uber saves time and money by leveraging a pre-existing off-the-shelf solution, and users get a map in their smartphone that they are comfortable with.

ASSET MANAGEMENT IS THE NEXT API ECONOMY

Asset managers of course routinely exchange data with third parties and require it for day-to-day business functions ranging from fund valuations to distribution reporting. As their fund administrator and global custodian, Northern Trust works with clients every day to produce and exchange the information they require for business activities such as reporting, oversight and risk management.

But established industry processes for transferring data via delivery methods such as file transfer are generally inflexible and time-consuming. Neither is data available in real-time to asset managers or their investors, meaning that decisions are made using information that, by the standards of a digital world, is increasingly outdated.

Against this backdrop, the use of APIs for organisations to instantaneously exchange information offers obvious advantages. With more than 20,000 APIs on the internet – and more launching daily – the numbers of APIs available and in circulation continue to increase.⁴

This near-universal, secure means of sharing data among applications has fundamentally shifted how providers compete and what businesses expect today across industries such as transport (via ride-hailing applications) and hospitality (where APIs are used by hotel apps to enable tasks such as checking-in, ordering room service and leaving feedback).⁵

Similar changes are about to occur in significant scale across asset management – it is about to become part of the API economy.

Established industry processes for transferring data, via delivery methods such as file transfer, are inflexible and time-consuming. Use of APIs to instantly exchange information offers obvious potential advantages.

BENEFITS OF APIS INCLUDE:



**FASTER DATA
INTEGRATION**



**EASE OF
ACCESS**



**ABILITY TO
“SELF-SERVE” DATA**

SCALING-UP USE OF APIs IN ASSET MANAGEMENT: WHY NOW?

Today there is no shortage of data available to investment managers. In fact, the task of managing changes to existing data sources or providers was ranked as the biggest challenge for asset managers when evaluating their data management in a recent Northern Trust survey of heads of operations at 300 global asset managers.⁶ This is because new technology has driven an explosion of available data for our industry – creating a demand for more sophisticated and creative ways to analyse it and put it to good use. But hiring developers and designing proprietary, self-contained solutions can be expensive and time-consuming. Businesses are therefore evolving their focus to include the *secure access and exchange* of data rather than just the aggregation of it.

As the asset management industry works to digitalise outdated processes and participants seek to gain a competitive advantage, the speed of emerging technology means providers must quickly adopt and integrate them into their solutions. APIs can be deployed, maintained, and consumed quickly, and industry standards have been published to make rapid adoption possible, such as the European Union’s Payment Services Directive 2.⁷

In addition, the fintech boom has brought about more niche providers offering new and efficient technology. For businesses to have a competitive advantage, integrating with these and other providers will be critical to remain nimble and fast to market. At the same time, users of digital services are becoming steadily more accustomed to accessing greater levels of interoperability and flexibility in the personal technology they use, and they expect the same at work – driving the need for businesses to focus on streamlined, personalised user experiences.

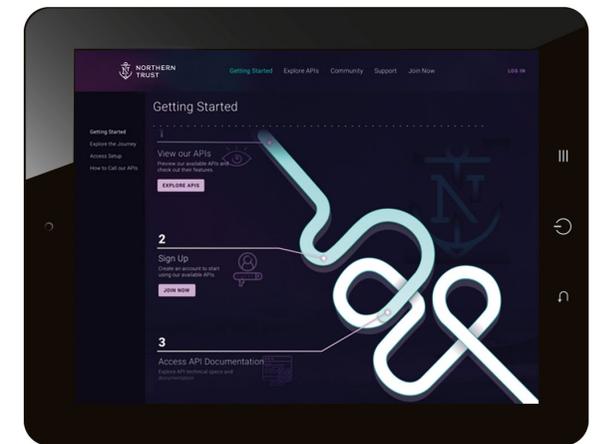
APIs SUPPORT COLLABORATION AND CUSTOMISATION

Increasingly, forward-looking asset managers are coming to expect this kind of inter-operability and flexibility. To keep up, we think asset servicers need to meet these expectations by rethinking their approach to strategy, development and value proposition. They should create ways to easily obtain, share and apply technology, rather than try to build proprietary, stand-alone solutions. They will need to pair different combinations of data and systems to support speed of technology adoption – enabling APIs to be developed, secured and deployed quickly.

We also believe that, in the API economy, key participants in the distribution value chain will also want to choose elements of our technology. For example, platforms can utilise the functionality to open a new account via API. This will streamline administration and create a better onboarding experience for their clients than is generally possible through current industry practices.

Asset managers will also want to develop custom capabilities that solve problems or give them a competitive edge. APIs will allow them to do this in a fraction of the time required for traditional industry methods of exchanging data, such as batch feeds or file transfers – in minutes and hours, rather than days and weeks.

Service providers should create ways to easily obtain, share and apply technology, rather than trying to build proprietary, stand-alone solutions.



Our API Developer Portal – or “API store” – will allow clients to plug into Matrix’s architecture to create data solutions.

HOW NORTHERN TRUST IS DEPLOYING APIs

Northern Trust has, for the past 18 months, been developing and testing how APIs can be used to provide new capabilities and connections, including via Northern Trust Matrix™. This is our enhanced platform through which we are digitalising our asset servicing business. It combines several technology and operating model innovations to support new ways of managing and delivering data, to enable the digital transformation of our asset servicing business. It will also allow us to support our clients' digital transformation initiatives in our role as their asset servicer.

As we roll-out Matrix's capabilities across our business, starting with our services for European transfer agency clients, we are driving opportunities for them to expand their API capabilities to gain direct, reliable and secure digital access to data.

We have built an API Developer Portal so our clients' developers will be able to "plug into" its architecture and capabilities. This portal will provide our clients with their own API ecosystem – providing their developers with a platform to discover, understand and subscribe to available data. You can think of it as an API 'Store' that bridges the gap between providers and consumers, allowing clients and third parties to 'self-serve' and help themselves to critical data directly and securely.

The API Store will provide real-time delivery of data, along with intuitive client-side mapping and systems integration. This will be accompanied by enhanced security protection and access controls. Resources available for clients will include investor, trade, fund and reporting APIs. Furthermore, our APIs will incorporate the capability for clients to build out new products and services of their own, such as front-end portals and applications, as well as analytical and oversight tools.

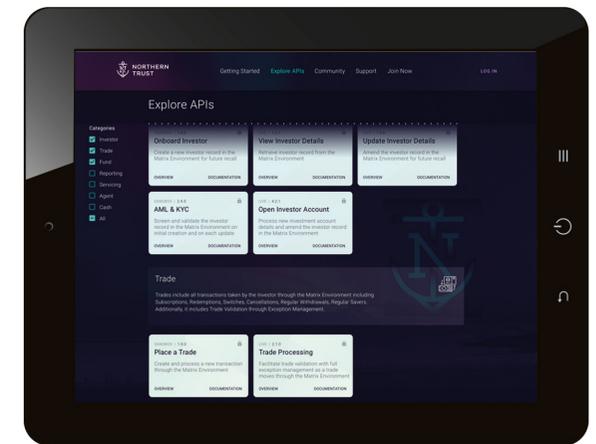
ARE YOU READY TO PARTICIPATE IN THE API ECONOMY?

Using APIs, asset managers will have access to better technology *and* better data. Picking and choosing the right capabilities and integrating with those capabilities could uncover meaningful new innovations and lead to enhanced products and services for asset managers.

We think APIs will play a pivotal role in the digitalisation of asset management – helping to make businesses more efficient, flexible and competitive. While organisations refine the quality of the data used by participants across investment management, APIs will transform how asset managers exchange data and enhance the ease with which they can use it across their businesses.

In this environment, we think asset managers should expect their providers to work with them and other vendors to provide secure, seamless experiences for them and their investors. The 'plug and play' functionality of APIs will have a transformative role to play in supporting this collaboration.

APIs will transform how asset managers exchange data and the ease with which they can use it across their businesses.



The API Store will include investor, trading, fund and reporting resources for clients.

NORTHERN TRUST MATRIX™

Enabling Digital Transformation



FASTER DATA DELIVERY

Event-driven processing enables us to offer more high-quality data to clients more quickly.



IMPROVED DATA GOVERNANCE

Automating data quality and moving it up to the point of capture – improving data lineage, simplifying data governance and speeding up delivery back to clients



FASTER DEVELOPMENT

A simplified relationship between applications, data and new technologies allows faster enhancements – with upgrades every two months.



ENHANCED EXPERIENCES

Matrix enables powerful new user experiences – better data visualisation and new delivery methods, including via APIs.

END NOTES AND SOURCES

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5. Vonage. *How the Hospitality Industry Leverages Hotel API Integration*, accessed October 2020
6. NorthernTrust. *Driving Growth in Asset Management*, June 2020
7. Recurly. *What Every Subscription Business Needs to Know About PSD2*, accessed October 2020

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