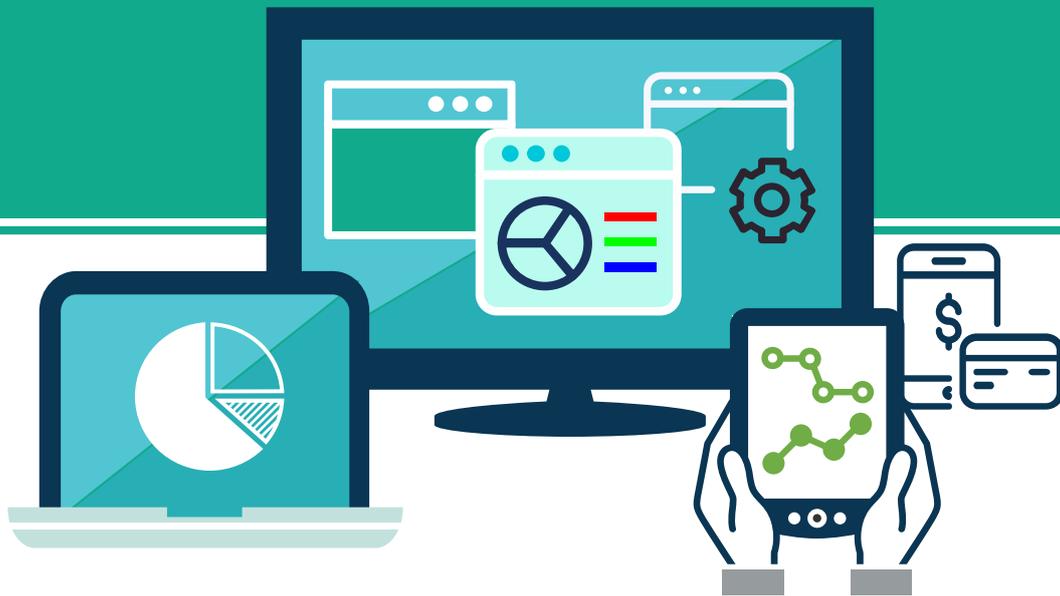


# API Standardization - Shaping the Financial Services Industry



# Document Introduction

The purpose of this document is to provide insight into the approach of the API Standardization Industry Group (ASIG)\* towards defining API standards in financial services, the development activities and future work efforts of the Group and the industry efforts underway to promote interoperability with other global initiatives. The document also details resources available to the financial services ecosystem including the new developer portal.

The document is divided into the following sections:



**Introduction**



**APIs in Financial Services**



**API Initiatives Around the Globe**



**Benefits of Standardization**



**Momentum Behind API Standardization in the US - Key Milestones**



**Defining the Standardized APIs**



**Advancing the Initiative**



**Closing - Get Involved**





## Introduction

The payments landscape continues to undergo significant changes domestically and globally. For stakeholders across the industry, managing the impact of emerging technologies, faster payments initiatives and increased global regulation while trying to remain customer centric have become a balancing act of shifting parts. Organizations across the industry are trying to figure out how to prioritize their payments strategies, maintain compliance and keep up with the pace of change.

Implementing standardized Application Programming Interfaces (APIs) is increasingly important for U.S. financial services firms as they strive to provide differentiated digital experiences and tailored customer offerings faster and more efficiently. These digital experiences extend beyond the traditional boundaries of the bank franchise and it is through APIs that leading institutions are reaching new customers, delivering new services and doing so with lower incremental expense.

Digital capabilities are opening pathways to new ways of working internally and externally with customers on their terms, coupled with the increasing expectation to connect seamlessly for faster decision making. Standardized APIs enable this to happen more easily, while supporting scale to allow for the exchange of information more efficiently and effectively than traditional mechanisms.

While APIs are not a new idea, their familiarity, ease of use and the ecosystem of tools that support them have enabled APIs to be available to the “masses.” The transcendence of APIs, beyond traditional IT departments into the business areas of organizations is driving market relevance. From a business perspective, APIs are products that offer new ways to connect with customers. APIs can provide access to financial services where and when customers need them in an interactive manner outside of the traditional bank product environment such as portals and other bank user interfaces.

Enabling standardized APIs provides consistency that will unlock value across the financial services ecosystem by improving time to market, shortening development lifecycles and reducing implementation costs.

The API Standardization Industry Group (ASIG) was founded by NACHA in response to calls from the financial services industry for improved standardization and governance for API usage in the U.S. and globally. The membership includes more than 100 organizations representing diversified stakeholders. The mission of the Group is to create a standardized API ecosystem that can enhance support of the payments and other business needs of industry participants. The Group’s focus is the development of standardized APIs addressing key requirements such as risk reduction, interoperability, efficiency, and improved access. Through its standardization efforts, the Group seeks to meet the evolving needs of the financial services industry by improving the safety and transparency of transactions, increasing efficiencies and speed of communications, and enhancing support of payments innovations.



## APIs in Financial Services

Application Programming Interfaces (APIs) are not new, but the way they are now being deployed, transcending traditional back-office uses, is reinventing the way companies interact and

how information is shared. APIs have evolved from infrastructure and operational domains into a core component in enhancing existing solutions and enabling new, value-creating product innovation. Within this new paradigm, APIs are becoming simpler and more user friendly, expanding the user community and solution tangibility by bridging legacy enterprise silos as well as business stakeholders. In a changing financial services market, APIs are playing a primary role as connectors within banking and payments systems.

While the role of APIs in the context of European Union regulatory reforms such as the Payment Service Directive 2 (PSD2) / Open Banking initiative is well publicized; it is an accelerating trend around the world that allows bank customers to interact with their bank outside of the traditional banking product and service environment through initiatives such as bank-branded portals and online tools. It requires financial institutions to grant third-party providers access to customer data via APIs providing greater access to customer data and payment infrastructures.

The U.S. domestic landscape is no exception and through the combined efforts of stakeholders - corporations, financial institutions, fintechs, service providers, standards bodies and advisory firms - the industry value of standardized APIs is becoming increasingly clear. Standardized APIs offer new ways for banks to extend their digital capabilities to enable innovation and meet varied client needs across market segments without breaking the budget. Opportunities to enhance the customer experience and create new revenue streams will emerge through the work efforts of the API Standardization Industry Group (ASIG).

## API Standardization



Many payments providers, financial institutions and leading financial services firms have been using APIs to broaden and enhance services, increase automation and strengthen security. But without standardization, businesses - and their consumers - cannot reap the full potential of APIs.

Currently, banks use disparate and customized formats to share information, employing different nomenclatures for common terms and processes. Without standardization, every time a developer tries to create or update an app, changes to that app will be required to interact with each bank. With standardization, a developer could design and implement one app that would interact with countless banks without needing modifications.

The role of standardization is to help streamline and simplify implementation across organizations and technologies to lower the total cost of ownership (TCO) and create efficiencies across the ecosystem. This results in easier development, deployment and integration into existing and new solutions. Having 1,000+ banks enable a common service using 1,000+ different versions of an API is not efficient. Standardization is a critical component to ensure consistency, compatibility, effectiveness, sustainability and interoperability.

Governance is a foundational component of standardization. Governance helps to ensure an effective framework and process is in place to safeguard and support initiation, development, testing and implementation from the outset, inclusive of definition, maintenance and certification of the standard.



## API Initiatives Around the Globe

As previously mentioned, APIs in the financial services industry have not only been in the forefront in Europe with the Payment Services Directive 2 (PSD2), but are also prevalent around the globe with the goal of driving increased transparency, competition and innovation. Here is a snapshot of API initiatives across financial services taking shape in the UK, Singapore, Australia, Hong Kong, Japan and Mexico.

### UK

In the UK, the Competition and Markets Authority (CMA) mandated nine banks in the region to enable their consumer and small businesses customers to share their data securely with other banks and with third parties. The initiative, led by CMA, is labelled Open Banking. In 2017, the scope was expanded to include credit cards, e-wallets and prepaid cards. With registration through the open banking directory, third parties, such as fintechs and digital service providers, can work with leading financial institutions on new solutions that improve and redefine client experiences.

### Singapore

In November 2016, the Monetary Authority of Singapore (MAS) and the Association of Banks published the "Finance-as-a-Service: API Playbook." It identified 411 APIs covering banks, insurers, asset management companies and government agencies. These APIs were categorized into functions including marketing, product, payments, regulatory, sales, and servicing. While the adoption is voluntary, the market interest is strong. Today, over 250 APIs have been made available.

### Australia

The first phase of the Open Banking reform will be introduced by July 2019. Customers of the big four banks will be able to use this mandate to share transaction, deposit, and debit and credit card data to other accredited financial services providers. The Australian Data Standard Setting Body will design the standards. The UK technical specification will be utilized as a starting point for the standards development.

### Hong Kong

In January 2018, the Hong Kong Monetary Authority (HKMA) issued a consultation on Open API framework, which sets out the HKMA's intended approach to for the banking industry in Hong Kong.

### Japan

As of March 2018, the Japanese Banking Act requires banks to announce support on Open API banking. The implementation timeline is middle of 2020. A comprehensive framework will be published covering security, user protection and specifications about the delivery of the Open API initiative.

### Mexico

In early March 2018, a bill authorizing regulators to begin drafting guidance that would allow for Open Banking passed. This will permit the sharing of user information by financial institutions and technology providers through APIs.

These are examples of initiatives around the world focusing on providing greater flexibility; efficient, open access to share account information; and ways to make payments more transparent and mitigate risk. Many of these countries are moving to Open Banking by directive or regulatory mandate.

A common theme emerging from these efforts around the world are partnerships between financial institution, fintech and market infrastructure stakeholders across the landscape, which are collectively moving the work of these standardization initiatives forward.

In the U.S., API standardization interest is being driven by industry demand from financial institutions, corporations, technology providers and other private sector participants. These combined efforts are calling for further engagement across the industry to mobilize behind these efforts to launch and adopt API standards in financial services.





## Benefits of Standardization

The following are strategic benefits that can be realized by the adoption of API Standards and example use cases.

### Leverage Technology More Effectively



A standardized approach will simplify and improve client experiences while maintaining security and reliability.

**Use Case:** In an omni-channel world, a corporate user can access account information across bank services using a single-sign-on API, versus having multiple logins for each bank application and access channel.

### Provide the Building Blocks for Innovation



API standards will help provide a baseline for creating improved and new services more quickly such as advanced information reporting and analytics. The focus will be off the foundational design of the API and onto the business need and approach for the customer-centric solution.

**Use Case:** A small business user wants the ability to initiate a payment from a wristwatch and/or smartphone for their utility bills with the standardized API for IoT. Today these abilities are through wearables and mobile devices. Tomorrow it may be through a car to get gas for the company delivery van.

### Offer Faster Capabilities



A standardized API design and approach allows developers to easily implement new capabilities and deliver them more quickly. APIs also will provide a framework for information to flow more quickly and seamlessly supporting faster payment option such as Same Day ACH.

**Use Case:** Transaction status in real time can support the needs of a business that is waiting to receive a shipment of goods to stock their retail location and relies on just-in-time inventory suppliers - improving transparency, strengthening supplier relationships and reducing customer service inquiries.

### Simplify Development, Implementation and Integration



Imagine the ability across a diverse set of stakeholders and technologies, a standardized suite of APIs to develop, and implement capabilities such as a trace requests, transaction history lookup and acquiring payment status. For banks, this would shorten the overall project development lifecycle and improve time to market across client segments.

**Use Case:** A large corporate can integrate account status information and transaction history across all their banks into their TMS and ERP applications using a consistent approach.

### Reduction in Fraud and Risk



Verifying account information before transaction processing can reduce fraud. Banks being able to communicate quickly and with less friction will mitigate risk and limit losses.

**Use Case:** To address such inquiries as fraud or non receipt from beneficiaries, banks currently communicate with one another and their clients via phone, secure email, and online channels. With an API, the access can be streamlined to allow for direct application enablement with improved speed and security.

### Meet Evolving Customer Needs



Customer expectations across the financial services landscape continue to be influenced by payments being part of a broader experience like consumers experience when paying for coffee, a car service or buying music.

APIs can help shape the client experience to enable value-added services and increase innovation across the sector.

**Use Case:** Clients want to access account information directly from their applications versus logging into disparate bank systems within the same bank and across banks. Whether it is a retail customer using an application to balance his/her checking account or a global corporate with multiple TMS applications, the access to information can be greatly improved by standardized APIs providing information such as transaction history and account balance information.

### Interoperability



When payments are interoperable, they allow two or more infrastructures, platforms, and/or different products to interact seamlessly, enabling faster, more efficient and transparent transactions across disparate systems.

Interoperability is significant because it permits customers to make payments in a convenient, affordable, seamless and secure manner. Having interoperable payment services allows customers to use the infrastructure of multiple regions and service providers to access their accounts, expanding the reach of transaction accounts and payment instruments, making them more useful for end users.

The benefits of interoperability do not exist solely for the customer. Interoperability helps platforms and other ecosystem stakeholders to create better products in a more cost-effective manner, mitigating the impact of potential external constraints such as inaccessible payment infrastructures; enabling more efficient market conditions that market participants and overarching stakeholder communities desire; and facilitating easier access to payment instruments and transaction accounts.

A key component of the API Standardization Industry Group's strategy is to ensure interoperability and harmonization with these initiatives around the world to support domestic and global needs of industry stakeholders. This is achieved by working in collaboration with other industry standards bodies domestically and globally to promote interoperability. The API standardization efforts include mapping of the work efforts to ISO 20022 and leveraging the ISO 20022's data dictionary where possible.

*Further benefits will be realized as standardized APIs are introduced and adopted across the financial services ecosystem.*



# Momentum behind API Standardization in the US - Key Milestones

Since the creation of the API Standardization Industry Group, there has been significant industry commitment and investment to support API standardization, as well as progress in furthering the goal. From API identification, to strategic acquisitions, to planning and development, to the launch of the Developer Portal, the Group has made significant advancements in bringing API standardization to the U.S.



## API Identification

Initially, 16 API use cases were identified based on the immediate impact on the payments ecosystem across the financial services industry. These fall into three categories:



### Fraud & Risk Reduction

- 1. API: Account Validation**  
This API ensures target accounts are valid and payments are posted as desired.
- 2. API: Federal & State Tax Payment Receiver Account Validation for Credit Payments**  
This API uses a standardized process to provide improved safety for government disbursements.
- 3. API: Get Bank Contact Information**  
This API allows originating financial institutions to quickly alert receiving financial institutions of potential fraud to help ensure funds are not distributed.
- 4. API: Industry Notification of Account Closure**  
This API allows financial institutions to provide information on closed accounts in a more timely manner to prevent fraud.
- 5. API: Payer & Payee Identity Verification**  
This API provides for a centralized model allowing participants in payments systems to verify the identity of payers or payees, reducing fraud.
- 6. API: Request Account Token**  
This API standardizes the process utilized by financial institutions for tokenization to protect consumer's sensitive information.



### Data Sharing

- 1. API: Credit Decisions**  
This API provides the ability to gather information needed to make credit decisions from providers and receive the information in a standard method/format.
- 2. API: Get Account Balance**  
This API provides for the ability to request account balance and receive that data in a standardized method/format, standardizing security, data access, and messaging for permissions-based transactions.
- 3. API: Get Account History**  
This API provides for the ability to request account history and receive that data in a standardized method/format, standardizing security, data access, and messaging for permissions-based transactions.
- 4. API: Marketing Purpose**  
This API improves the ability to efficiently gather customer data from and deliver it in a standard method/format.
- 5. API: Single Sign On**  
This API provides an easy-to-support method for financial institutions' customers to connect to multiple applications requiring a log in through a single sign on capability.



### Payment Access

- 1. API: Financial Institution Approval/Enrollment of ACH Originators**  
This API speeds up the process of enrolling for ACH origination - as risk management and regulatory compliance can make the process cumbersome for financial institutions - and lowers the costs for financial institutions.
- 2. API: Human-to-Machine (IoT)**  
This API supports inclusion of payments into more devices including wearables, single-purpose payment devices, ATMs and vending machines.
- 3. API: Interoperability**  
This API supports interoperability by creating a set of standards for payment initiation and routing determination between payers and payees using different networks.
- 4. API: Real-Time Messaging & ACH Network Interoperability for "Credit Push" Payments**  
This API enables real-time messaging between the sender and receiver or processor so that payment instruction may be accepted in real time and processed with ACH batch settlement, providing enhanced visibility into payments and better cash management for businesses.
- 5. API: Transaction Status**  
This API provides the Originator of a payment with the status of the transaction via real-time message.

These use cases were among nearly 50 raised by industry stakeholders. These will be prioritized by the API Standardization Industry Group as part of the governance framework and standards development life cycle.

## Strategic Alignments

At the end of the first quarter of 2018, NACHA and the Interactive Financial eXchange (IFX) Forum completed its merger. IFX Forum is an international, not-for-profit industry association; whose mission is to develop the IFX business message specification and promote its adoption as an open, interoperable standard for financial data exchange. The IFX Open Banking APIs Working Group has been developing a standardized way to address the growing impetus for banks to provide more open access to their data in place of proprietary APIs being developed by financial institutions and vendors. Given the complementary efforts of the groups, the organizations saw a merger as an opportunity to streamline efforts. With this combination, IFX Forum will retain its global and nonprofit status, and operate as an independent group within and supported by NACHA.

IFX Forum is aligning the goals and priorities of its Open Banking APIs Working Group with NACHA's API Standardization Industry Group to accelerate and strengthen API standardization to support diverse global financial services. This strategic alignment will bring the financial services industry highly relevant and robust standards that benefit its providers and customers, and offers further opportunities for global interoperability.



## Planning and Development

API Standardization Industry Group work efforts are underpinned by strong resources bringing domain expertise from business, technology and strategy across the membership base of fintechs, financial institutions, standards bodies, advisory firms and processors. The group employs a disciplined planning and development approach throughout the project lifecycle.

Agile methodology has been utilized throughout the project in the development efforts of the API standards as well as other critical project components undertaken by the Group.

Industry leading applications support the development lifecycle from planning through implementation. Confluence from Atlassian is being used for content collaboration and development by the Agile teams to create the user stories, identify any issues, plan sprints, and distribute tasks throughout the project. In addition, Jira is being leveraged to track progress and provide transparency in prioritization.

For development, the Open API Specification (often called "Swagger") is being utilized because it is the most common way to create definitions of RESTful APIs, which aides in development across the entire API lifecycle, inclusive of design, documentation, test and deployment.



## Defining the Standardized APIs

The specification being used is RESTful APIs, which is being developed in JSON (JavaScript Object Notation), a lightweight data-interchange format that is widely used in the developer community. The definitions include common ISO 20022 data elements and principles where relevant. The APIs have been mapped to ISO 20022 to ease implementation and support interoperability.

### Overarching Tenets of API Development

#### Simple

Enable new products and services to improve time to market

#### Efficient

The concept of "build once, deploy many" to reduce development lifecycles

#### Interoperable

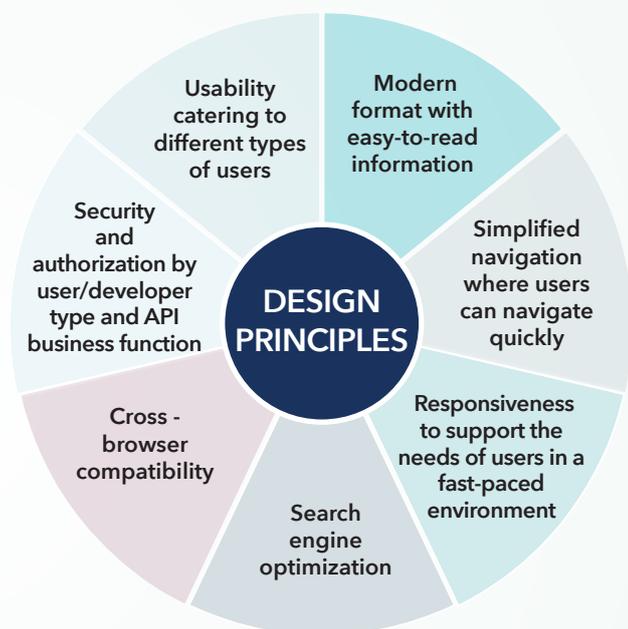
The APIs support U.S. domestic needs and global initiatives

## Developer Portal

The Developer Portal provides the financial services industry a digital destination with a variety of API-related resources for users to engage, discover and consume the standardized APIs. The portal is a self-service platform where developers, product managers and strategists can browse information, access the API catalog and documentation, and register for a testing sandbox to explore the APIs further. The goal is to help the financial industry and developer community with tools to learn about and develop solutions by enabling collaboration where users can ask questions, get support and share ideas.

The API Standardization Industry Group partnered with industry leaders Accenture and Google to develop a best-in-class developer portal.

The Developer Portal blueprint and configuration is based on the following principles:



**Key components of the developer portal framework include:**

### Technical Platform

The Developer Portal is self-service platform that leverages an industry leading API Management application called Apigee Edge from Google.

### Sandbox

A key component of the framework includes a testing sandbox to try out and validate the APIs. The testing sandbox is a self-service environment that developers can use to mimic the characteristics of a production environment that simulate responses from all the APIs available to:

- Reduce the cost and risk before testing in house
- Make test calls without impacting your environment
- Simulate error scenarios
- Fast-track development cycles and reduce time to market

## User Access

The access model for the Portal is designed to ensure access to content and development resources across defined user profiles - anonymous user, financial institution developer, provider developer, fintech developer, government agency developer and independent developer. The Developer Portal is open to all organizations to browse and learn about the organization, view current membership, understand how to get started, and contact the organization. Basic registration (name, email, company name, URL, developer type, address) is required for access to the testing sandbox, to participate in active forums and get support.

### Operational Analytics.

The Developer Portal offers business intelligence reporting that will measure usage of the application and APIs to understand which developers are engaged and which APIs are being browsed and tested. These metrics will provide key operational insights to update and support the community effectively as usage of the platform and adoption of the APIs take off in the industry.

### API Catalog and Documentation

The Portal will provide basic information and descriptions of the APIs available and planned for development that users can browse and use for testing in their applications.

### News and Forums

A News and Forums component will be available to help facilitate discussions, and share information including recent articles and information, which will support collaboration between the users of the Developer Portal on topics such as API standards, use cases and security.

### API Life Cycle Governance

The Developer Portal will adhere to policies and procedures that govern when APIs get developed, when to create a new API vs. refactoring an existing one, and how backend integration takes place.

### API Change Management and Support

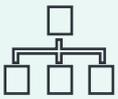
An approach to publishing, promoting and overseeing APIs and the environment in which it's completed, and providing support to app developers using APIs will be followed.





## Advancing the Initiative – Moving Forward

The API Standardization Industry Group continues to evolve as an organization. The primary organizational focus is to develop, maintain, interpret, publish and promote the proper use of API standards in financial services. With the recent acquisition of IFX Forum, key strategies are continuing to take shape including the support of ISO 20022 messages for JSON. A diverse governance structure will ensure effective development and lifecycle discipline as well as balanced representation from industry stakeholders. The initial APIs developed focus on risk management and efficiency, which have resulted in the intent for several proof of concept adoption projects. The roadmap for future APIs is being determined by industry demand and will continue to move forward the mission of the organization. Other key areas of activity include:



### Formal Governance Structure

A governance framework is being established to oversee member and industry engagement. The structure will leverage the independent governance structure already in place for IFX Forum and ensure that it supports the industry moving forward.

It will define how stakeholders can advise on the strategy, market practice and tools to support adherence to the API standards. Policies and procedures are being developed for the voting members to contribute ideas, prioritize requirements, effect change, monitor adoption, and ensure compliance.



### Continued Development and Prioritization of APIs

Development has been completed for two of the initial 16 APIs identified by the Group. Work efforts are underway for development of additional APIs based on demand from the industry.

Since the announcement of the API Standardization Industry Group, launch of the initial APIs and on boarding of additional members to the Group, there have been new requests for API development to support supplemental business use cases. These will be evaluated as part of the standards request and prioritization process.



### Additional Portal Features

To support the developer community, the Portal will be enhanced with value-added functionality such as code samples. As the initiative evolves, updates will be made to enrich the user experience. Users will be able to sign up for notifications to learn about what's new with the API Standardization Industry Group, find out about the latest APIs being launched and any updates to the Portal.



### Platform Governance

A governance process is being defined to cover functional updates and change management, which will be shaped over time based on usage of the platform.



### Tracking of API Enablement and Adoption

A registration program to share bank and provider readiness and usage of APIs will be defined in the coming months to provide fact-based information in a transparent manner to the industry. This will provide insight on which vendor providers are supporting the APIs and which banks are offering them as part of their product portfolios (inclusive of business areas, markets, and product suites).



### Standards Maintenance and Versions

To ensure maintenance and version updates, a process has been developed to address maintenance to the standards and versions including access to this information through the Developer Portal to ensure consistent usage in the industry. The process will be based on a voting process that has a comment and approval cycle, shared with Group members and when completed, published on the Developer Portal.



## Closing - Get Involved

The time is now to get involved in the API standardization movement that will influence and enable change in financial services. APIs, which are rapidly becoming a critical building block and gateway for innovation, have become a strategic priority across the industry.

Participation in this initiative is open to all industry stakeholders interested in transforming the financial services industry through API standardization. For more information about joining the API Standardization Industry Group, please contact [info@asig.org](mailto:info@asig.org), or visit [www.asig.org](http://www.asig.org) to sign up and learn more.



## About the API Standardization Industry Group

The API Standardization Industry Group (ASIG) was founded by NACHA - The Electronic Payments Association and is supported by NACHA's Payments Innovation Alliance. NACHA serves as convener and provides leadership for the self-directed Group. API Standardization Industry Group members lead and participate in various work groups in the development of standardized APIs. The membership and strategy continue to transform as the Group matures and further governance is defined for the target state operating model to support the industry in API standardization.

The governance of the Group aims to have balanced representation from across the industry to provide oversight, influence the strategic focus and define the way forward.

Today, the API Standardization Industry Group is a diverse group with approximately 150 individuals from over 100 leading corporations, financial institutions, fintechs, service providers, standards bodies and advisory firms. The members bring expertise in strategy, products, technology, marketing, communications and operations. The membership continues to evolve

and grow through existing members' efforts and by attracting new organizations to join.

Participation is open to all industry stakeholders interested in transforming the financial services industry through API standardization. The efforts continue to gain momentum through the industry's interest in standardization and innovation in payments with APIs, which are seen as an enabler for change and strategic development.



# API Standardization Industry Group Members

ABC Financial Services	Dollar Bank	PNC Bank
Accenture	DXC Technology	Q2 Software
Accuity	Early Warning Services Enterprise	Qcheque
ACI Worldwide	Engineering, Inc. (EEI) EPCOR	Quovo
Actum Processing, LLC	First Data	Regions Financial Corporation
ADP	FIS	REPAY
Affirmative Technologies	Fiserv	RSA, a Dell Technologies Business
Alkami	FI.Span	Santander Bank, N.A.
Technology, Inc. American	Forte Payments	SHAZAM
Express	FRB Atlanta	Silicon Valley Bank
Association for Financial	FRB Chicago	Softgiving
Professionals	FRB Minneapolis	SunTrust Bank
Axway	Gulf Management	SWBC, Financial
Bank of America	IBM	Institution Group
BB&T	Icon Solutions	TD Bank
BillGo	Intuit	Team One Credit Union
BillingTree	Jack Henry & Associates JPMorgan	Thales e-Security
BNY Mellon	Kyriba	The Clearing House
Bottomline Technologies	linked2pay	Transact24
Capital One	MasterCard	Transactis
Cash Flow Solutions	MetaBank	TransferWise
CEDAR Document Technology	mSHIFT	Treasury Software
CenturyLink	MUFG Union Bank	UMACHA
CGI	MicroBilt	UMB Bank
Change the World Fund	NACHA	US Bank
Citibank,	Navy Federal Credit Union NEACH	US Payments
N.A.	NTT Data	Visa
Citizens Financial Group	Payments Canada	Volante Technologies
City National Bank	Payment Spring, a Nelnet Company	WACHA
Commerce Bank	Payrailz	Wallace Consulting
CommunityAmerica Credit Union	Pelican	Wells Fargo
Computer Services, Inc.	PLAID	XMLdation
CUNA & Affiliates		X9
DATAMATX		Yaypay
D3 Technology		
Deutsche Bank		
Discover Financial Services, Inc.		