MAKE DIGITAL TRANSFORMATION A REALITY WITH API-LED INTEGRATION
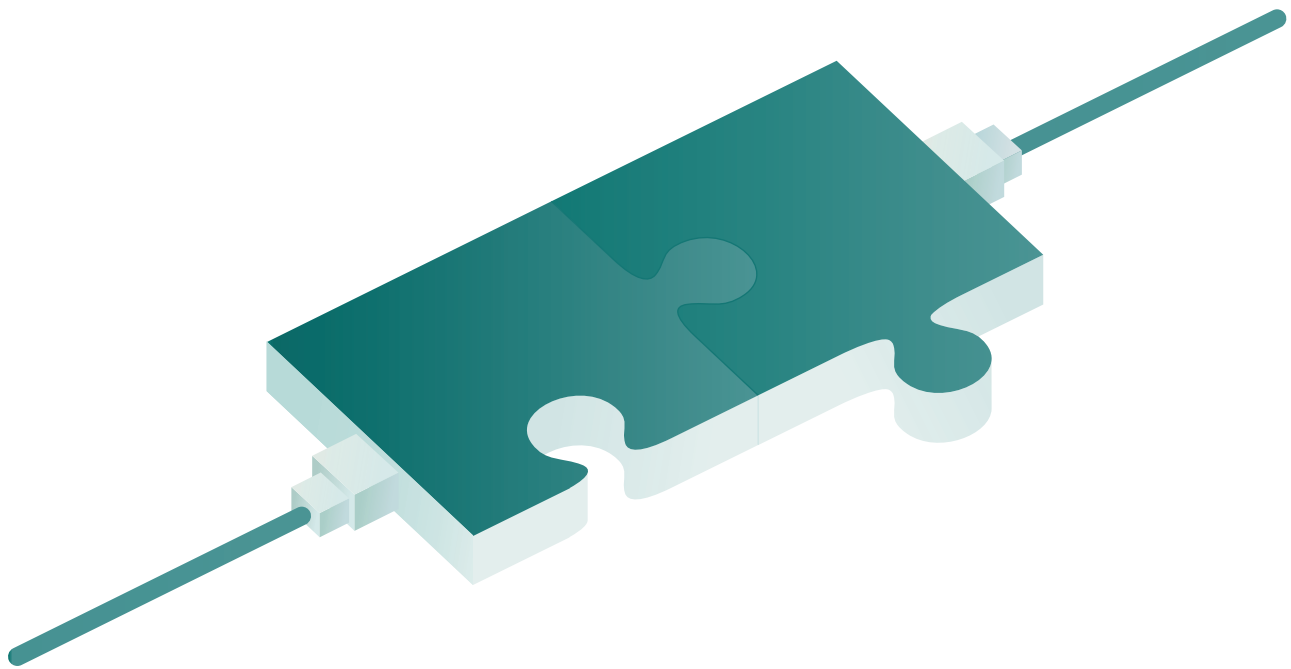
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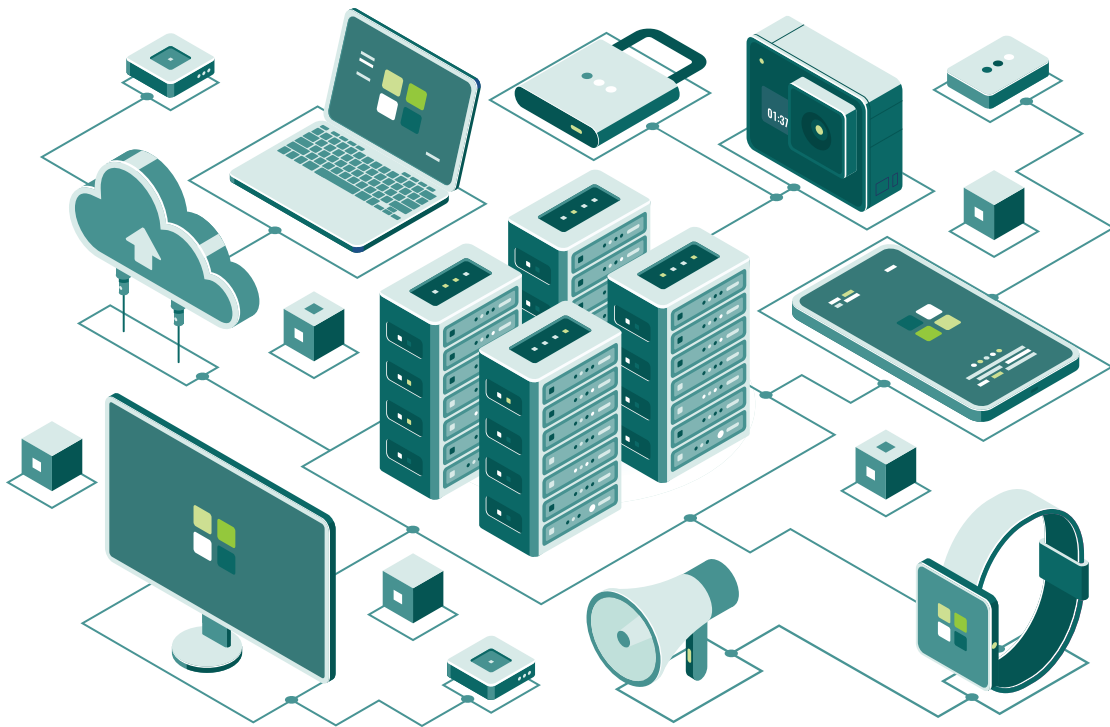# ADAPTING TO CHANGE, QUICKLY AND FLEXIBLY

The digital business embraces software and data as vital elements of its business model. Instead of siloing data and software by business unit, it creates a seamless IT landscape, where information assets are not constrained and difficult to access. Integration is thus core to a transformation from a traditional company into a digital business.

A digital business extracts maximum value from its information assets—from everywhere across the business ecosystem, at any time it is needed. Within a digital business, data and related services flow unimpeded, yet securely, across the IT landscape.

MASTERING COMPLEXITY
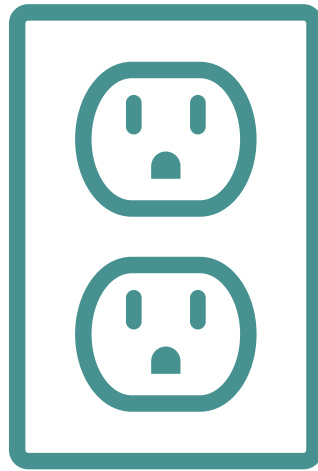# WITH LIMITED TECHNICAL SUPPORT

Today's IT landscape is both diverse and complex. Your business runs on a large number of legacy systems, newer cloud and SaaS applications, and intelligent devices while processing huge volumes of data.

Your business has to adapt to rapidly changing technologies within your IT infrastructure, as well as changes within the markets in which you operate. And the pace of change has never been faster.

If your business relies exclusively on your IT department to integrate your information systems and assets, you know that legacy integration techniques are time-consuming and don't scale effectively. And you probably don't have sufficient IT staff to keep up with the huge backlog of integration requests that come from all areas of your business. This bottleneck prevents you from operating with the speed and agility required of a digital businesses.

There is a solution to these problems, and it resembles the electrical power grid.

Consider the electrical outlet for a moment. Anybody can get the power they need for whatever electrical device they choose, from wherever they are located in a region of the world. They don't have to make a unique connection to each and every local power grid. A hairdryer, a refrigerator, and a lamp all use a standard interface that allows for quick and easy plug-and-power. This standard interface to electrical power makes it very easy for anyone to use.

But consider this: Today's energy industry is changing significantly. Electricity that traditionally has been generated from coal is increasingly being generated by natural gas and renewables. Yet these changes to how electricity is generated don't impact how electricity is consumed. For consumers, powering their devices is still the same plug-and-power process because the interface remains the same—the electrical outlet. This allows utility companies to modify how they generate power without impacting their customers.
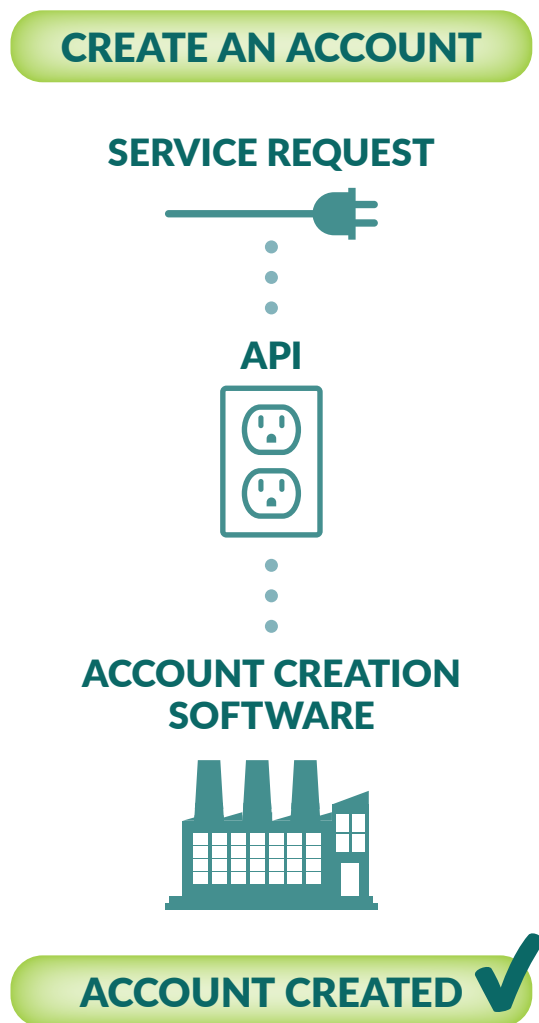
And consider further: When an interface to a service is standardized, like the electrical outlet, the usage of the service increases dramatically because it is simplified. Innovative thinkers will combine services to create entirely new value chains. For example, consumers can easily combine a wide-screen television, sound system, and streaming media device to create an entertaining home theater system—all because access to the electricity that these devices use is standardized.

Like the electrical outlet, there is a simple solution that allows anyone to integrate complex and ever-changing technologies in a standard way.

REVEALING THE SECRET OF APPLICATION INTEGRATION: APIs

An application programming interface (API) connects applications and data together.

How does it work? APIs fulfill services provided by your business as well as your information technology assets. Like an electrical outlet, they are a standard interface to services (such as electricity delivery) that allows applications and systems to communicate and share data.
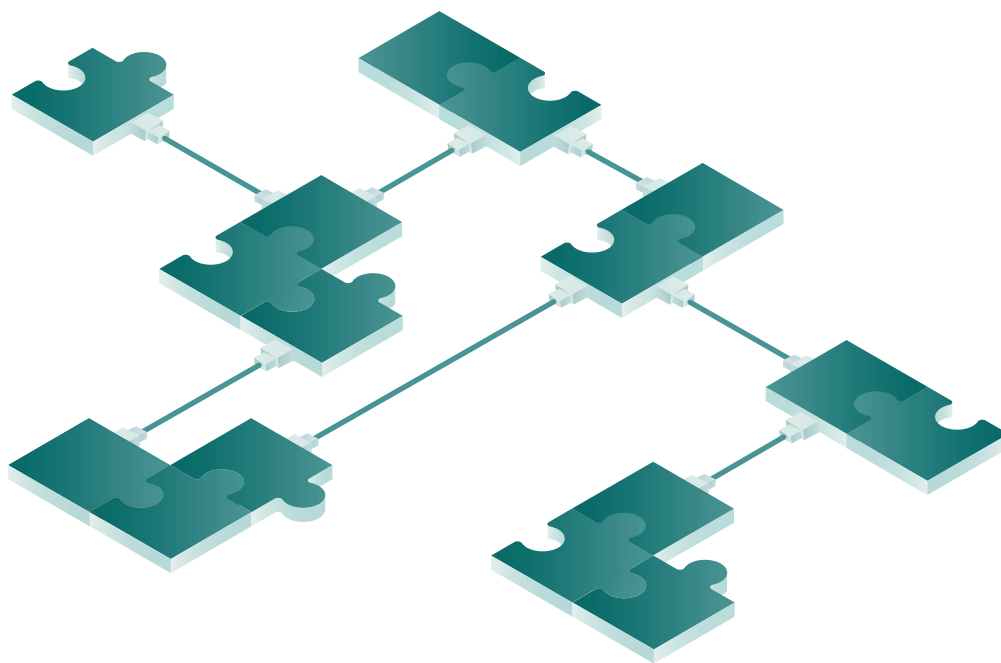
A well-designed API definition rarely has to change, because it doesn't define how a service is delivered—rather, it defines a contract that specifies actions to be performed and the output that will be delivered to the API caller. This makes it easy for many different types of users to utilize APIs because like an electrical outlet, they can plug their applications into APIs in a standard way. Certain tools used to integrate applications using APIs can be tailored to specific user roles, such as business analysts, application owners, application developers, and integration specialists.

API requests can be orchestrated to perform more extensive business processes. And they can be secured so that only authorized users can access specific functions and at a certain rate of service or level of access. Finally, API performance can be managed to discover any process bottlenecks.

Well-defined APIs define what service is to be performed, not how it is to be implemented. This allows the technologies and applications that implement an API to change as necessary, as long as they continue to fulfill the contract that the API defines.

For example, new technologies such as microservices allow you to create highly scalable, cloud-native applications. APIs that are implemented with complex legacy applications take a lot of time to develop and adapt to changing requirements. They also don't scale very well to support higher numbers of API users. Microservices are a software development technique that breaks down API implementations into small, loosely coupled services that can be deployed to the cloud. This allows you to evolve API implementations very quickly, and meet increasing demand when they are deployed to serverless environments, for example. Since the definitions of APIs should rarely change, you can evolve API implementations from legacy implementations to microservices over time without impacting the users of your APIs.

The process of integrating information assets together to achieve improved business outcomes is called **API-led integration**.

Benefits of Using API-Led Integration

APIs and integration lie at the heart of digital transformation. An API-led integration strategy can help your business:

Execute with lightning speed and agility.

Because deep technical skills aren't required to integrate with APIs, all types of users can integrate applications and data easily. This minimizes slow, manual human activities within your processes so that they execute faster. And it allows your users to rapidly connect and reconnect APIs to respond with agility to changing business conditions.

Deliver game-changing customer experiences.

With a seamless information landscape created through APIs, you can put any service or data your business offers right into the hands of your customers—engaging them with game-changing experiences that allow them to work more productively with your business.

Identify and act on opportunities immediately.

Integration with APIs quickly connects real-time data from instrumented devices, user interfaces, databases, and more. This data contains the digital events that surround your business. By applying machine learning models, you can uncover those events that represent important business moments of opportunity, and apply an appropriate response that quickly captures value from those moments.

Create entirely new value chains.

Consider companies such as Uber and Lyft that have built their business models on the value they create by integrating their business logic with that of SaaS providers such as Salesforce and Twilio. They have created entirely new value chains through their usage of APIs. Your business can achieve this same innovation by adopting an API-led integration strategy, and deliver new value to your customers beyond that provided by your physical products and services offerings.

REVEALING THE SECRET OF APPLICATION INTEGRATION: APIs

TRAVEL AND LOGISTICS

Opportunity

Airline wants to create a seamless digital engagement for its customers throughout their travel experience

Challenge

Linking passenger data with operational events or personalizing offers with siloed customer data

Using an API-Led Integration Solution

✓

Use integrated customer, operational, and digital systems to better sell, adapt to irregular operations, and personalize experiences using a single version of the truth

FINANCIAL SERVICES

Opportunity

Traditional financial services company wants to deliver a more modern customer experience that can compete with newer, more nimble fintech offerings

Challenge

Connecting secured banking data internally and externally—especially while meeting increasingly stringent regulatory requirements

Using an API-Led Integration Solution

✓

Become an anywhere, everywhere bank built around positive customer experiences

Take advantage of the latest fintech innovations to offer secure, real-time, and relevant information

TELECOMMUNICATIONS

Opportunity

Telecommunications firm aspires to deliver omni-channel, real-time offers and instantly develop awareness of subscriber needs

Challenge

Gaining transparency into customer needs, thanks to disparate order management systems

Meeting promised 99.999% availability while using slow IT systems

Using an API-Led Integration Solution

✓

Create and deliver next-generation network services ahead of the competition

Maximize value from every customer interaction, benefitting both consumers and the corporation

TIBCO helps businesses of any size, and users of any technical level, to seamlessly interconnect resources to accelerate digital transformation. With TIBCO, you can define and deploy your APIs and integration workflows anywhere—in the cloud, on-premises, on edge devices, with portability across channels. You can also leverage cloud-native technology such as serverless and function-as-a-service (FaaS) architectures for extreme cost efficiency.

Learn how TIBCO empowers everyone to integrate anything at
www.tibco.com/integration-api-management

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TIBCO®

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