MuleSoft

Whitepaper

The Rising Value of APIs

How APIs Can Transform your Business

Data is, in many ways, one of the most valuable assets a business has. A growing number of consumers and businesses are incorporating web and mobile apps into their daily routines, and companies are using data to provide more personalized, tailored experiences to their customers. In addition, companies are analyzing customer and operational behavior to make better decisions. These are some of the valuable new uses for previously isolated data sources.

APIs (application programming interfaces) have emerged as the most accessible way for consumers within the business to extract value out of that data; developers can use them to create new business opportunities; improve existing products, systems, and operations; and develop innovative business models. Analysts can extract new data sources more quickly and pull the data into their analytics platforms. As the keys to unlocking precious enterprise data, APIs need to be combined with enterprise connectivity to actually free the data from systems. APIs make the data consumable and reusable, thus they become ever more valuable to business.

Recently, MuleSoft's Connectivity Benchmark Report surveyed 650 IT leaders about their use of technology, and the results were very clear: APIs and their integration possibilities are providing real value to the business, whether it's integrating SaaS, increasing agility, or for creating new revenue streams.

In the future, we expect the value of APIs to the enterprise to increase as new ways are discovered to use data. Every industry and every customer touchpoint will find itself interacting with APIs, as developers further implement the orchestration and presentation of valuable data. APIs are transforming modern businesses, and we are starting to see companies capitalize on the opportunities that they provide.

How APIs are transforming business

Internet of Things (IoT)
We expect to see interesting Internet of Things use cases come to life, rather than major steps forward in devices themselves. Every year at CES, hundreds of new IoT devices are released, but it won't be the devices themselves that make waves. It will be the clever use of those devices - and their accompanying APIs - to generate value. For instance, 90-year old pest control firm Rentokil connects its mousetraps through IoT technology, and has increased operational efficiency through the automatic notifications of a caught animal and its size.

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>
> -Ross Mason, Founder, MuleSoft

Overall, the key theme for organizations undergoing digital transformation will be identifying the value niches within industries that can benefit from IoT technology rather than trying to change the entire industry. For healthcare, it will likely be connected patients. For retail, it will be around making stronger connections between traditional and digital shopping through omnichannel. Behind all of these services, APIs provide the link between the devices and digital services.

Cloud
When it comes to the cloud, enterprises are in an awkward tween stage—somewhere between the old world and new. CIOs will continue to adopt cloud applications and seek better ways to connect on-premises systems and the cloud. Hybrid IT is now the reality for many enterprises and many are going through a refresh of their platforms, both business and technology. They are looking for scalable ways to connect and move data to the cloud, on-premises and back again as needed. There is a big emphasis on APIs to unlock data and capabilities in a reusable way, with many companies looking to run their APIs in the cloud and in the data center. On-premises APIs offer a seamless way to unlock legacy systems and connect them with cloud applications, which is crucial for businesses that want to make a cloud- first strategy a reality. More businesses will run their APIs in the cloud, providing elasticity to better cope with spikes in demand and make efficient connections, enabling them to adapt and innovate faster than competition.

In the Connectivity Benchmark Report we found IT leaders' biggest initiatives included modernizing legacy systems and integrating SaaS applications.

Omnichannel strategy

Many industries will turn to an omnichannel strategy to attract and retain customers by creating improved consumer experiences. By connecting the physical world with the online world, companies can bring new value and increase revenue opportunities. In particular, the retail industry will embrace an online-offline approach to increase sales. eCommerce stores will turn to a complementary brick and mortar store strategy, attempting to bring online shoppers in-store with exclusive offerings and deals, or add value by offering a unique experience beyond the ability to purchase in person. One example is eyewear retailer Warby Parker. Itoffers convenience and choice to its customers through a huge online selection, but it also provides custom fittings or repairs in their brick and mortar stores. Another industry that will take advantage of an omnichannel approach is financial services, which will look for ways to bring new products and services to market quicker through digital channels. This will mean improved mobile banking, faster payments and new consumer products. No matter the industry, companies turning to an omnichannel strategy will rely on APIs to create a link between cloud, on- premises systems and mobile—offering a seamless experience for their customers.

Changing role of the CIO

We are seeing CIOs shift from traditional IT delivery models to delivering capabilities to their business, allowing the consumers of these capabilities to build their own applications and processes. This is the decentralization of IT, where IT no longer owns the applications but are governors of the data. This will contribute to the expanding partnership between business and IT. CIOs are beginning to embrace their new role as a business enabler and are gaining confidence in doing things differently. They recognize their role is no longer just about keeping the lights on and the networks running. For this reason, successful CIOs will come to the table with a vision that helps put the company on a course of action toward greater digital transformation. The key step will be decentralizing IT by opening up APIs to developers and analysts, so they can gain access to reusable data. Additionally, IT will standardize on business and technology platforms to reduce their technology footprint.

Rise of the API economy

More enterprises will adopt an API strategy, with the goal of enabling greater agility and efficiency within their organizations and driving more innovation to compete with emerging startups that continue to erode their value proposition. This year, companies like Uber and Slack achieved major success through their open API approach, and we'll see established businesses start to follow a similar strategy. First, traditional enterprises will open up APIs internally to break down information silos and unlock data. The next natural step will be for enterprises to open up those APIs to third-parties, creating new revenue channels. For instance, in our Connectivity Benchmark Report, more than a third (35%) of respondents stated that over a quarter of their organization's revenue came from APIs. We're only going to see this increase in the coming year as organizations embrace the API economy and recognize its business value.

APIs are changing the equation

As more and more APIs come into use, the architecture underpinning them needs to evolve as well – organizations cannot simply attempt to deploy APIs on top of existing monolithic systems and processes and expect overnight transformation. Rather, the transformation begins with initiatives targeted at new innovative directions for the organization, such as the embrace of microservices, mobile apps, and laying the groundwork for a world of connected sensors. Above all, embracing APIs will help ensure that these connections are made intelligently and efficiently.

Our Connectivity Benchmark Report confirms that organizations that have leveraged APIs are experiencing increased productivity, increased innovation, increased employee engagement, and greater agility across teams..

There's a direct connection to business value as well – generating revenue is considered the most important value that APIs provide to the business. On average, IT leaders report that a quarter of their organization's revenue is now generated from

APIs.

What business result(s) has your organization realized from leveraging APIs?

Increased productivity	58%
Increased innovation	48%
Increased employee engagement	43%
Increased speed in meeting LoB demands	35%
Greater agility across teams to self-serve IT	35%
Decreased operational costs	34%
Experienced revenue growth as a direct result	31%
Too early to say	7%
None of these	1%

What percentage of your organization's revenue is generated from APIs and API-related implementations?

0% of revenue	10%
1-10% of revenue	15%
11-25% of revenue	35%
26-50% of revenue	24%
51-75% of revenue	9%
76-100% of revenue	2%
Don't know	5%

While revenue generation is an important part of the story, the impact of APIs goes much further into organizations, enabling transformation and agility at many levels. APIs enable enterprises to deploy apps quickly, in a repeatable way, which leads to a faster pace of delivery, and the ability to create new and innovative experiences quickly. In addition, APIs can greatly reduce the cost of change, enabling IT and application owners to change apps with minimal impact – especially when there are numerous back-end integrations involved. This is critical to agility since the pace of change of the front end applications is much faster than in the back-end applications. APIs also help enterprises achieve operational efficiency, enabling greater visibility and expanded capabilities since every API call from the mobile app to the backend system is tracked and traced through an API key.

How companies add value with APIs

Using APIs, organizations can free themselves from the limitations of their legacy systems and existing technology stack so that they can change the way the deliver digital products and services to customers, partners, and employees. Sid Vyas, CTO in Capital Markets and Investment Banking Technology at Wells Fargo, realizes the value of APIs to his business. “The FX API, which we are offering to our partners, has been a game changer...they can seamlessly integrate their applications or their systems with our platform.”

The value of APIs can also be seen in the healthcare industry. At Mount Sinai, APIs have redefined the way the integrated healthcare system delivers care. With Fast Healthcare Interoperability Resources (FHIR) APIs, the hospital can now share data through APIs with hundreds of community care organizations and healthcare providers across New York City––thereby improving collaboration with community and healthcare partners and, in turn, improving the quality of care.

Beyond Mount Sinai, Europe's leading premium car service, Addison Lee, has also benefited from APIs. With customer behavior and preference shifting, Addison Lee had to react quickly with customer-centered innovations to stay competitive with new entrants. In just six weeks, Addison Lee securely unlocked their data and infrastructure with APIs to support the global expansion of their app and enable partners to embed Addison Lee's services into their own offerings.

Siemens, the largest manufacturing and electronics company in Europe, is also leveraging APIs for a major project. The company is charged with rolling out 60 million smart meters to accommodate a UK climate change regulation. IN short, they need a more efficient way of managing their complex network of devices, vendors, and suppliers. To do this, they are leveraging APIs in order to unlock siloed data and services residing within their legacy IBM mainframes. They are also

leveraging APIs to expose this data to their network of service provides. Such an approach has enabled Siemens to allow mobile and web applications to consume this data, contributing to a superior partner and customer experience. Further, Siemens has been able to repurpose these APIs to expose energy consumption data to regulatory authorities in real-time, eliminating the need to manually prepare and submit reports. "...we're thinking about service-based, API-driven architecture, allowing us to be more dynamic and have better speed to market," says Jeff Heathcote, Head of Technical Delivery at Siemens.

APIs are also at the heart of an innovative solution that Buffalo Wild Wings, one of the top 10 fastest-growing restaurants in the U.S., built. Leveraging technology, Buffalo Wild Wings turned to the IoT to ensure they were offering the right beer vamount and the right variety at the right location to their customers. Their IoT solution is comprised of a flow sensor, which measures the flow of beer; Beerboard, a beer management systems that monitors pour data; and a POS database with sales data.

These systems are connected together through web services APIs that make it possible for restaurant managers to get a real-time view of when a glass of beer was sold, the amount that was bought, the amount that was sold, and the amount that was lost, if any.

Businesses across industries – from Wells Fargo to Buffalo Wild Wings – are using APIs to add additional value, from increased partner collaboration to an improved customer experience. Extraordinary changes are taking place in the enterprise which necessitate the adoption of APIs; and the aforementioned organizations are powering their API innovations using a unified solution: Anypoint Platform.

Unlock the power of APIs for your business

MuleSoft's Anypoint Platform is purpose-built to enable API innovations through an approach known as API-led connectivity. Anypoint Platform is the only solution that allows organizations to truly deliver on their digital transformation goals through designing, running, managing, and analyzing services and APIs using a single, unified platform.

For more information about Anypoint Platform, visit our resources section on MuleSoft.com.