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How to thrive in the digital economy

Insights from API program experts



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How six companies innovate with API management

Many companies born in the digital age instinctively hunt for new innovation and business opportunities everywhere—not just among their own development teams. Likewise, many of the most forward-looking legacy companies realize that to expand the reach of their digital assets, it is important to tap into a wider world of innovation, beyond their corporate walls.

How do businesses—both digital natives and immigrants—reach into or create new digital channels to unearth innovation and accelerate growth? Application programming interfaces, or APIs. APIs **enable businesses to create new value** by securely sharing their data, functionality, and other digital assets with partners and developers both inside and outside an organization.

But just offering services through APIs might not be enough. Businesses that succeed in transforming and extending their core businesses into new digital channels:

- **Drive ecosystem participation** by making their APIs engaging and user-friendly for the developers (inside and outside of their companies) who leverage those APIs to build new apps and create new digital experiences;
- Engage developers by ensuring APIs are secure, scalable, managed, and easy for developers to find and access:
- Accelerate internal development by eliminating silos and applying the efficiencies of API management to not only external APIs but also those used internally by internal developers.

API management unlocks powerful opportunities for many businesses, including unexpected innovation from beyond their corporate walls, new models for legacy lines of business, new sources of revenue, and accelerated development speed.



Check out what several companies who are innovating with APIs have to say about how their API programs and API management have transformed their businesses. Some were founded with APIs in mind, some adopted them as part of their digital transformations—but they've all gained newfound innovation, speed, and value with API management.

The six featured companies are divided in three groups:

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Participating in digital ecosystems

Tradier

Pitney Bowes

02

Engaging and enabling developers

AccuWeather rMark Bio



Accelerating internal development

Shutterfly West Corp.

Participating in digital ecosystems

Most of us participate in digital ecosystems every day. If you use mobile apps on your smartphone, you're probably participating in the Android or iOS ecosystem. Using Google Maps to plan your driving route—or hiring a ridesharing service that uses the Google Maps API—means you're connecting with the Google Maps ecosystem.

Digital ecosystems are the product of numerous participants: the providers of the technology platforms around which the ecosystem revolves, the companies that release APIs that power experiences throughout the ecosystem, the developers who leverage APIs to build those experiences, the end users who consume the experiences, and so on.

Successful ecosystem relationships and interactions are symbiotic: platform providers don't have to populate their platforms with applications—because platform participants do; application developers don't have to invent everything from scratch because they can leverage the technology platform and various APIs; API providers don't have to shoulder all the work of innovating, developing applications, and attracting customers because they can rely partly on external developers and the technology platform provider; etc. A business's reach isn't just a function of its own efforts but also those of the other participants with which it interacts throughout the ecosystem.

All of this means that when enterprises express their services as APIs, they can open up their businesses to powerful digital ecosystem opportunities, with developers and partners able to easily integrate these services into their own products. This enables businesses to transcend the limitations of their core competencies and extend their brand presence into ecosystems that they don't have to build themselves, supported by the creativity of developers beyond their organization.



Tradier: Delivering value to the ecosystem

Stock trading API provider Tradier is one business that has placed ecosystem participation at the center of its strategy, turning to the innovation of partners and third-party developers to help it disrupt the traditional brokerage industry. The company's API platform makes its capabilities available to a universe of third-party developers who leverage them for their applications. Since the company was launched in 2014, Tradier APIs have helped over 150 firms to build innovative options trading platforms, trader education tools, and stock research offerings.



Here's what Tradier co-founder, chairman, and CEO Dan Raju had to say:



Dan Raju CEO, Tradier

Explore the Tradier story

"There is a fundamental difference between just managing an API and managing an ecosystem. In the first case, you're delivering a set of technical capabilities; in the second case, you are actually participating along with an entire set of players, of which you are just another player."

You, along with everyone else, are delivering value for the entire ecosystem and you are just enabling, empowering, and letting it happen. In a way, we have taken our capability and multiplied it by hundreds of times because now hundreds of partners are able to create value for the ecosystem.

An essential part of how you engage in and enhance an ecosystem is the 'outside-in' approach: the idea that you have to listen on a daily basis to the participants of the ecosystem and help and enable and empower them to create value is a different mentality than thinking about 'how do I build that capability'."

When Tradier opened its doors for business in 2012, Raju and his co-founders knew that APIs were key to its success; it's sometimes referred to as an "API-first" business. Other companies have transformed long-established businesses by adopting this attitude and extending their successful legacy services into whole new realms of possibility.



Pitney Bowes: Opening a new market for powerful services

Pitney Bowes has been powering the transactions that drive commerce since 1920, when Arthur Pitney and Walter Bowes introduced the first postage meter. But in recent years, the company realized the need to make its services (such as its geolocation, payments, and shipping and logistics capabilities) more easily available to partners who wanted to integrate them into their own offerings.



On the foundation of an API management platform, it built the Pitney Bowes Commerce Cloud, a comprehensive set of the company's differentiating capabilities, delivered as a variety of services, analytics, and APIs. Now, through a self-service developer portal, a variety of Pitney Bowes legacy services and data are available to developers to incorporate into new applications. If a developer needs to build an app that can confirm a user's mailing address both exists and can receive packages, the Pitney Bowes address identification API, for example, can help them jumpstart the process.

Here's what Pitney Bowes EVP and Chief Innovation Officer Roger Pilc had to say about packaging and monetizing digital assets via API management:



Roger Pilc EVP & CIO, Pitney Bowes "There are many benefits of an API initiative for Pitney Bowes clients. We're allowing our clients to integrate our products and technologies much more seamlessly into their own applications and their own workflows."

James Fairweather, Pitney Bowes SVP and CTO of Commerce Services, added:

"We've built a robust go-to-market strategy for the APIs. It's a whole new kind of business for Pitney, based on exposing APIs directly to customers for their consumption."



James Fairweather SVP & CTO, Commerce Services, Pitney Bowes

Explore the Pitney Bowes story

API management helps companies like Tradier and Pitney Bowes:

- Unlock new and unexpected value by making important data, apps, and functionality available to external ecosystems of developers via APIs
- Drive a go-to-market strategy, including securing APIs, controlling access to them, making them available and testable, and packaging them for external use and monetization
- Help partners to more easily access APIs via self-service tools

Engaging and enabling developers

Looking for innovation outside of a business's corporate walls requires a concerted effort to drive awareness, adoption, and usage of the business's APIs. A "build it and they will come" attitude simply doesn't work when it comes to attracting the key players in an ecosystem strategy: third-party developers who will develop the apps that use the business's APIs.

AccuWeather: Extending the reach of weather data

AccuWeather, a leading provider of weather data, has for years provided its services to established, widely recognized global partners. Its weather forecast and warning data is integrated in connected cars, smart homes, wearables, smart TVs, mobile devices, and more.

But when AccuWeather wanted to broaden its reach to small businesses and individual developers, it realized that the manual and time-consuming process for signing up for its APIs was too cumbersome for these new audiences.



It needed to provide fast, simple, and cost-effective access to its data, find a way to engage these audiences and tailor its offerings to those audiences' varying needs, and monetize those different offering levels accordingly.

Here's what AccuWeather Chief Technology Officer Chris Patti had to say:



Chris Patti CTO, AccuWeather



Mark lannelli Senior Technical Account Manager, AccuWeather

Explore the AccuVVeather story

"It was really tough for us to be able to onboard new customers. We had to turn away some developers that weren't a certain scale. Things that would take a large amount of development effort before is now really automated through the portal."

AccuWeather senior technical account manager Mark lannelli added:

"We want to reach a new audience, and help them grow their ideas with AccuWeather. A single developer always has the potential to be working on the next big thing and become our next big enterprise partner.

We needed a way to reach them, and the AccuWeather API Developer Portal ... accomplishes that. The AccuWeather API Developer Portal enables us to leverage our data and reach expanded audiences in the developer community."

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rMark Bio: Reducing distractions with APIs

rMark Bio offers a deep-learning recommendation and analytics engine to pharmaceutical companies. The simplicity of interfacing with customers via an API management platform streamlines the process of sharing rMark Bio's services—both for the API provider and the outside developers consuming rMark Bio's APIs.



Here's what rMark Bio cofounder and CEO Jason Smith had to say:



Jason Smith CEO, rMark Bio

"To address the challenges facing our customers, we needed to create a platform and enable access via our APIs. We quickly discovered that [with API management], we didn't have to do the work of managing our APIs while we were figuring out the intricacies of our engine.

We've been working with a few select partners to build initial applications atop our platform, and from day one, their ability to understand the APIs, understand how to interface with them, what they should be doing, what they shouldn't be doing—it's key."

Explore the rMark Bio story

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API management helps companies like AccuWeather and rMark Bio engage and enable developers by:

• Opening the door to a broader developer audience by creating a developer portal and positioning it as a "one stop shop" for their needs

- Providing self-service processes that simplify the onboarding process for new developers
- Offering the ability to package, tailor, and monetize APIs to the needs of different developers

Accelerating internal development

Making APIs easy to build upon is important for all enterprises, not just companies seeking to attract new kinds of developers. Increasingly, companies are moving from point integration solutions in which APIs are bespoke projects to API-first techniques in which APIs are designed for developer consumption and viewed as extensible, reusable "building blocks" for future projects.

This means that internal consumability has become a critical part of enabling a company's developer and engineering teams; even if a company isn't currently looking to expand its external partners, it should save its own developers the time of sifting through confusing, often duplicative services. Moreover, by giving internal developers a first-class, API-first experience, enterprises can prepare themselves for bringing APIs to external markets, as the basic management principles for designing APIs and making them securely accessible are the same.

Shutterfly: Connecting engineers with APIs

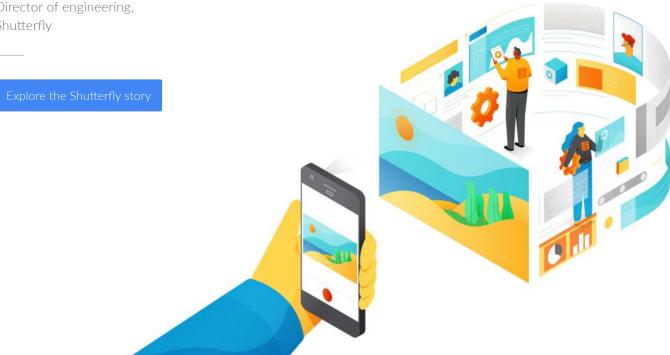
Shutterfly is an interesting example. The image publishing services provider has set out to simplify a complicated internal governance system, exacerbated by engineering teams that are located around the globe—from Redwood City, Calif., to Haifa, Israel.

Here's what Shutterfly director of engineering Jeff Nokes had to say:



Jeff Nokes Director of engineering, Shutterfly

"Shutterfly is creating an internal developer portal for our internal customers: our engineers. Because we are a company made of acquisitions over the years, we have engineering teams all over the globe. One of the ways we are achieving success with our technology transformation is our ability to decentralize our governance, and our best practices and standards, through an internal developer portal. It's a one-stop shop for us."



With simplification comes speed. Many companies are prioritizing the modernization of their IT organizations, and hiding architectural complexities behind APIs. This removes the need for one development team within an organization to know all the quirks and intricacies of another team's work (such as naming conventions, database structures, or technology choices).



West: Accelerating internal development

At West, a provider of telecommunications and network services, APIs are not only used for internal operations, but also to speed up the work that its product teams do. Yet that's not enough. The need for internal developers to quickly find, learn about, and access West's APIs led the company to implement an internal developer portal.

Here's what West chief technology officer Thomas Squeo had to say:



Thomas Squeo CTO, West

Explore the West story

"When we look at the developer experience what I want to be able to do is make sure that product development teams can go from concept to operations without necessarily having to go through a software ticketing system that puts a lot of linear process into that.

The developer portal at West is really the primary interaction point where someone can go from awareness, activation, and acquisition of an API be able to bring it up go to a 'hello world' within the first 30 minutes and then be able to actually incorporate that product very quickly. So from an organizational view the developer portal is really kind of the one-stop shop for how technology is ultimately going to be developed at West."



API management helps companies like Shutterfly and West to empower internal development teams by:

- Decentralizing governance of APIs and internal services
- Simplifying the internal development process and making APIs more easily discoverable and accessible
- Improving the ability of internal developers to find, access, and build on APIs

Innovation is a group effort

How businesses innovate and how they attract and serve customers has changed profoundly over the last few years. Enterprises can no longer assume that customers will come to their stores or first-party websites, so those enterprises need to participate in digital ecosystems that spread their offerings to new partners whose innovations attract customers, new platforms where potential customers already congregate, new user experiences and interfaces, and so on.

Innovating at the speed and scale that today's customers demand is no easy feat—but luckily, most enterprises have the raw materials. They have data and functionality that outsiders find valuable and would like to use for their own products, and the trick is making these valuable digital assets available for shared, mutually beneficial innovation. Making these assets accessible to developers and partners starts with APIs, API management, and a developer portal but the process of innovation and disruption never ends. By broadening the scope of their development efforts and the reach of their brand via APIs, companies can help position themselves to evolve as the market changes—and to remain successful as less nimble competitors stumble.

Want to learn more?

Creating world-class developer experiences

Developers are essential to a business' value chain when it comes to digital growth. Learn how to successfully engage these developer audiences and how these engagements can drive your business' growth.

Get the eBook

Maximizing the business value of digital assets through API monetization

Monetizing your APIs can be a major driver of growth and revenue for your organization. Learn how to maximize the value of your digital assets through API monetization.

Get the eBook

Apigee Edge free trial

Explore Apigee Edge, a full lifecycle API management platform that helps you manage the entire API lifecycle from design through iteration and helps you control the complexity of microservices.

Try it free



