



OPTIMIZE API MANAGEMENT FOR TRADITIONAL AND MODERN APPS

Application programming interfaces (APIs) have become central to the digital economy. They play a pivotal role in the consumption of apps behind the scenes—and their importance to your business will only grow in the coming years. One thing is clear: as you modernize your apps, you need a modern API management solution.



Forbes dubbed 2017 the **year of the API economy**. According to Programmable Web—home to the web’s largest API directory—APIs have experienced **explosive growth** over the last five years. Since January 2014, more than 2,000 public APIs have been added per year, and today there are more than 22,000.

These APIs help drive innovation, accelerate time to market, and provide new opportunities to generate revenue and build partnerships with third party developers—as well as your entire business ecosystem of suppliers, distributors, resellers, and even customers. For example, many third party websites and applications embed a Google map to help end users pinpoint a retail location or get directions. It doesn’t cost the user anything to access the map, but after a certain number of clicks Google charges the site for each API call. And Google’s not the only company in the business of selling access to its API. Even back in 2014, Salesforce.com generated more than 50% of its annual revenue **through its API**, while for Expedia, that number was close to 90%.

APIs also help break down silos by unlocking access to data across various internal systems. Providing a well defined interface reduces complexity and costs by eliminating the need to develop custom interfaces for different client applications, enabling developers and other functional teams to collaborate faster and easier.

Last but not least, APIs are foundational to application modernization initiatives that use microservices, as they are the primary interface for communication among the **microservices**. And with **86%** of enterprises expecting microservices to be the default architecture within five years, APIs are only going to increase in importance.

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STREAMLINE, SCALE, AND SECURE YOUR APIS WITH AN API GATEWAY

The more APIs you use, the more critical an API gateway becomes. Whether you want to access data from traditional monolithic applications or build a new application using microservices, [API gateways](#) are crucial to delivering reliable and high performing APIs. NGINX Plus—the industry’s most ubiquitous API gateway—provides robust functionality such as request routing, rate limiting, and API authentication, while also helping you accelerate the performance of your applications by caching common API responses and reducing load on API endpoints.

Take the case of [Capital One’s](#) developer portal, [DevExchange](#). NGINX technology has enabled the company to scale its applications to 12 billion operations per day, with peaks of 2 million operations per second at latencies of just 10–30 milliseconds. Third party developers and partners can provide a first class digital experience for their customers—as well as create new revenue streams—by using Capital One’s APIs to open bank accounts, generate personalized credit card offers, and track customer rewards.

API management challenges are on the rise

However, as the number of APIs—and API gateways—increase, both NetOps and DevOps teams have to grapple with many challenges. All these APIs need to be efficiently managed across their entire lifecycle, including defining, publishing, securing, monitoring, and analyzing usage to assess their value.

At the same time, managing an API gateway must not degrade the performance of the gateway itself, which is responsible for routing traffic. It’s also essential to have a lightweight solution to manage API traffic for microservices, which themselves have a small footprint. Finally, you need a developer portal that exposes all APIs and facilitates easy consumption of APIs via robust documentation.

That’s where the API Management Module for NGINX Controller comes in.

Minimize complexity, increase performance

The API Management Module for NGINX Controller combines the power, speed, and efficiency of NGINX Plus with control plane functionality—empowering NetOps and DevOps teams to define, publish, secure, monitor, and analyze your APIs.

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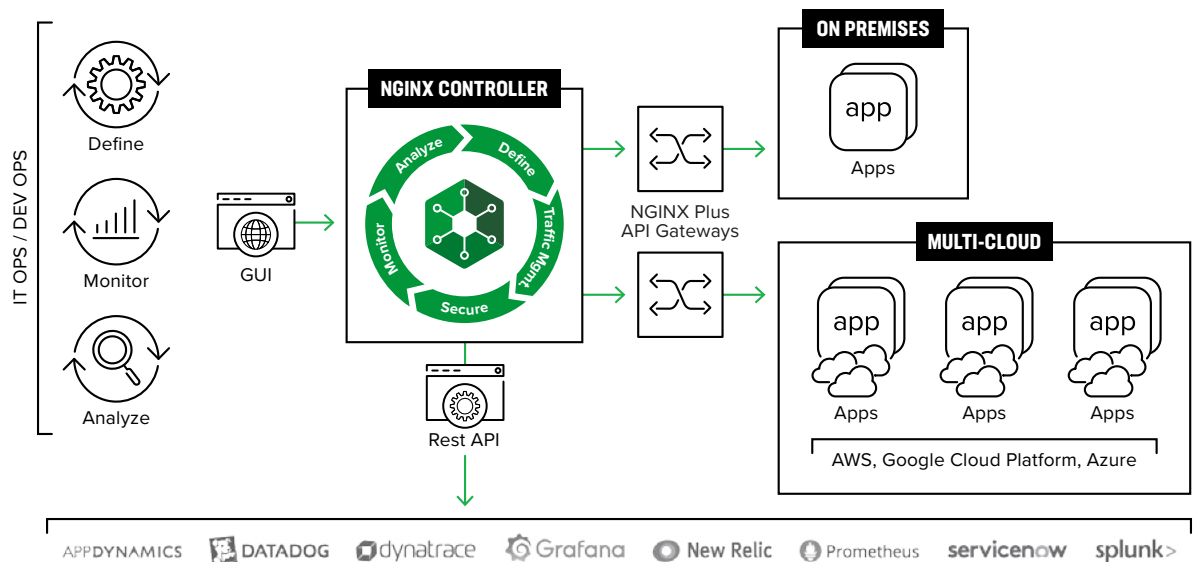
MORE THAN 40% OF NGINX USERS HAVE DEPLOYED THEIR API GATEWAY.

Built on an innovative architecture that decouples the control plane from the data plane, the solution is:

Proven—NGINX software powers more than 350 million websites and, according to a 2018 user survey, more than 40 percent of NGINX users have already deployed NGINX as an API gateway. NGINX is also a popular component in many traditional API management solutions, providing the underlying gateway for Axway, IBM DataPower, Kong, MuleSoft, Red Hat 3Scale, and others.

High-Performance—NGINX eliminates the need for local databases and other additional components that introduce needless complexity, latency, and points of failure. Unlike traditional API management solutions, NGINX isolates API runtime traffic from API management traffic. As a result, the NGINX Plus API gateway (data plane) does not require constant connectivity to NGINX Controller (control plane). This reduces complexity and maximizes performance by reducing the average response time to serve an API call.

Portable—Due to their small footprint, both NGINX Controller and NGINX Plus can be deployed in any environment including bare metal, VMs, containers, and public, private, and hybrid clouds. This versatility means you can use the NGINX API Management Module for both internal and external APIs. Easily deploy NGINX Plus in traditional environments to manage traffic for monolithic applications—and deploy it in containers to manage traffic among microservices for distributed applications.



AS YOU MODERNIZE YOUR
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CONCLUSION

APIs play a pivotal role in the consumption of apps behind the scenes—and their importance to your business will only grow in the coming years. One thing is clear: as you modernize your apps, you need a modern API management solution.

The API Management Module for NGINX Controller makes it easy to define and publish your APIs to production, test, or staging environments, while getting the visibility you need for troubleshooting performance issues, boosting customer satisfaction, and maximizing business value. In addition, it helps ensure that your APIs remain secure by providing authentication, authorization, role-based access control, and rate limiting.

In this API economy, comprehensive management is essential to the rapid adoption and continuing success of your APIs. NGINX delivers a single solution to manage the entire lifecycle of your APIs—without compromising performance.

