Powering and Protecting Adaptive Applications

F5 enables organizations to bring extraordinary digital experiences to life.
F5's approach

A long-standing belief that applications are the most valuable assets of any organization in the digital age has been the foundation of F5’s strategy to become a leader in multi-cloud application security and delivery technology. When the expertise of F5 and NGINX in powering more than half of the world’s applications across all types of environments is combined with Shape’s AI-centric insight in mitigating one billion application attacks per day, the result is a company that knows how to deliver and secure more applications—and more value—than any organization in the industry.

In light of the global pandemic, F5’s human-first approach to application security and delivery technology is more critical than ever. Digital experiences are now the primary way that people interact and transact with almost every organization. Applications are at the core of these digital experiences. Whenever a customer interacts with a company online—whether ordering a meal, refinancing a mortgage, or uploading a family video—the applications that organizations design, build, and operate are the face of that company.

F5 empowers its customers—the world’s largest enterprises, service providers, financial and educational institutions, government entities, and consumer brands—to create, secure, and operate applications that deliver extraordinary digital experiences. Powered by automation and AI-driven insights, these applications will naturally adapt based on their changing environment—so companies can focus on their core business, boost speed to market, improve operations, and build trust with their customers. By enabling these adaptive applications, F5 (with NGINX and Shape technology) offers an essential solution for every digital organization in the world.
Customer challenges

Customers and users expect a lot from the organizations with which they interact: personalized experiences; secure transactions; and apps that are speedy, reliable, and always on. But meeting those demands can be challenging in today’s rapidly evolving application landscape.

When F5 speaks to its customers about their digital transformation projects, they describe their challenges with remarkable similarity.

COMPLEX APP PORTFOLIOS

While aspiring to digitally transform, many organizations are stuck somewhere between the old world and the new world—classic monolithic and three-tier architectures alongside microservices and cloud-native architectures. Unsurprisingly, managing this mix of old and new is a significant challenge. Manually stitching together best-of-breed solutions isn’t fast or scalable—so it places a burden on customers while increasing their overall costs. In addition, this piecemeal approach offers none of the comprehensive visibility needed to realize the benefits of automation and insight.

EVOLVING SECURITY THREATS

Applications have become the focal point for cybercriminals, costing businesses more than $100 billion a year and disrupting the customer experience. Problematically, the effort of executing sophisticated attacks keeps dropping, but the cost of defense is always rising. In particular, the huge number of data breaches in the last decade have made it possible for nearly any cybercriminal in the world to take over application accounts by checking to see where users have reused passwords across websites. The amount that companies lose from fraud and the number of attacks on apps both increase every year, and during the global pandemic there have been unprecedented spikes. Given that 86% of cyberthreats target the application or the identity associated with that application—and that the threat surface area is rapidly expanding as applications are disaggregated into composite services and distributed to different environments—protecting applications is critical to business success.

INADEQUATE VISIBILITY

Part of delivering a compelling digital experience is being able to optimize the performance of each app. Gaining insight into how application traffic is flowing—and where and how to tune it—requires granular, end-to-end visibility. However, the infrastructure and services supporting applications are complex and siloed, so it’s challenging to develop this capability for even the most critical customer-facing apps.
Moreover, without aggregated telemetry and the efficiencies produced by AI, machine learning, and automation, visibility alone can't help businesses optimize application performance or their end users' digital experience.

The result of all these challenges is that organizations struggle to deliver, scale, and secure their applications, potentially leading to damaged customer relationships and diminished business success.

Delivering the digital experiences that customers expect is non-negotiable. However, the complexity, vulnerability, and—in frankly—fragility of the status quo is untenable.

The new world of adaptive applications

F5 envisions a world where an organization's application portfolio adapts to any changing environment.

- It automates redundant processes for greater efficiencies.
- It expands and contracts based on performance needs.
- It protects itself, securing points of vulnerability.
- And by mining and analyzing data, it gets smarter, becomes self-healing, and evolves even more quickly.

F5 solutions can help businesses realize the promise of adaptive applications.

MULTI-CLOUD APPLICATION SECURITY AND DELIVERY TECHNOLOGY

Bringing together the application expertise of F5 and NGINX across multi-cloud environments—along with Shape's anti-fraud and AI capabilities for web, mobile, and APIs—reinforces F5's application-first strategy. Only F5 offers a true multi-cloud solution that encompasses architectures, environments, and methods of deployment. The consistency offered by a uniform set of application security and delivery capabilities enables organizations to spend less time supporting and optimizing their applications, and more time building their business.

LEADING APPLICATION PROTECTION

The work F5 has done to protect the world's largest enterprises, service providers, governments, and consumer brands from application-layer attacks is unparalleled. F5 is trusted by customers the world over to deliver the most high-performing and secure digital experiences. And, unlike other companies, F5 protects applications across any environment—not tied to a single cloud, not tied to a single vendor's stack, and not tied to hardware.
With the acquisition of Shape Security, F5 has the most sophisticated AI and cloud-based analytics intellectual property in the business to detect, flag, and mitigate unwanted and malicious online traffic, learn from previous attacks, and prevent the next ones. Taken together, F5’s security solutions have the potential to save customers billions of dollars lost to fraud, mitigate costly disruptions incurred during digital transformation, and prevent reputational damage.

INTELLIGENCE AND INSIGHT

To truly optimize digital experiences, organizations need to feed data from their applications to an engine capable of analyzing that data and producing actionable and automatable insights. F5 is further developing its cloud-based analytics tools to help businesses monitor, operate, and protect digital workflows. Using F5’s own offerings built upon Shape’s industry-leading AI-powered analytics engine plus integrating with third-party analytics products will give customers access to the data—and the insights—they need to protect, scale, and enhance the entire user experience.

TURNKEY ECOSYSTEM INTEGRATION AND TECHNOLOGY ALLIANCES

F5 collaborates with many of the world’s leading technology companies to improve manageability, strengthen security, and ensure faster and more successful application deployments. Organizations can benefit from the integration and interoperability that result from these partnerships. F5 application security and delivery technology integrates into major public cloud providers like AWS, Microsoft Azure, and Google Cloud Platform, as well as private cloud and open source platforms such as VMware, Red Hat, OpenStack, and OpenShift. F5 also integrates with Ansible, Chef, Puppet, and SaltStack to streamline advanced automated deployments that are highly performing and secure. For enabling microservices in container environments, F5 offers turnkey integrations with Kubernetes and Mesos.

FLEXIBLE CONSUMPTION

To keep pace with innovation, many customers need greater budget flexibility. F5 offers its application security and delivery technology solutions as hardware or software, and also provides flexible licensing subscriptions or pay-as-you-go models. F5 also offers managed services and as-a-Service options for businesses that need an on-demand, self-service model.