

# Ion

Intelligent automation and controls to maximize user experience

Organizations looking to provide safe, reliable, and fast online experiences often lack the tools and capabilities to manage all aspects of end-to-end delivery over the internet. The challenges of meeting user expectations are diverse, but fall into three broad areas of focus:

- **Performance:** Faster performance helps companies maximize audience engagement and improve business results.
- **Cost:** IT departments have the mandate to mitigate the high cost of managing infrastructure challenges across the internet.
- **Speed:** In the face of increasing development costs and expectations for short time to market, organizations seek to improve agility.

The pressure to deliver great online experiences is higher than ever. Across sites and apps, 53% of visits are abandoned if it takes more than three seconds to load; 49% of users expect an app to respond within two seconds. To realize digital success, every business must provide a consistently great experience on every form factor and device.

The challenges to deliver compelling web and mobile experiences are formidable:

- Cellular networks often provide unreliable connections and variable speeds.
- Device and browser diversity make for an overwhelming number of endpoints, each of which can require its own unique optimization.
- The use of third-party scripts on websites continue to grow.
- API usage has grown 2.8x in year-over-year traffic, and APIs are increasingly used as the building blocks for every kind of app from mobile to so-called “single page”—yet they are still subject to network latency and availability issues.

With all this complexity, it's become increasingly difficult to bring differentiated solutions to market in a timely fashion. This threatens revenues and customer loyalty.

Akamai Ion, our flagship performance solution, is a suite of intelligent performance optimizations and controls that helps deliver a superior user experience. Built on the SLA-backed scalability of the global Akamai Connected Cloud, Ion continuously monitors real user behavior and applies best-practice performance optimizations. Ion automatically adapts to content, user behavior, and connectivity changes in real time. This allows businesses to automate the delivery of fast, secure, contextually aware experiences.

## BENEFITS TO YOUR BUSINESS



### Grow customer base

Reduce development effort necessary to deliver superior user experiences with automated performance optimizations.

Provide seamless cross-device performance across the globe.

Get to market faster by automating Akamai into your DevOps workflows, and deploying new properties with simplified onboarding, configuration, and monitoring.

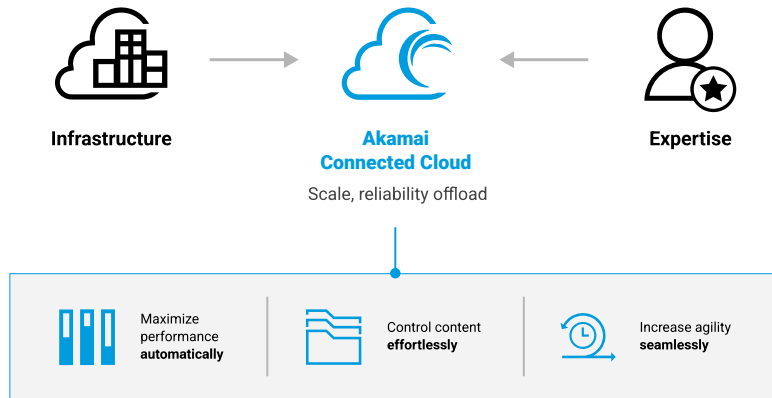


### Maximize conversions

Deliver consistently fast experiences with fewer interruptions and instill trust in users to maximize session duration.

Delight users with rich, personalized content that is optimized for their device, operating system, and browser.





## BENEFITS TO YOUR BUSINESS



### Improve customer loyalty

Focus your development teams on delivering new and differentiated capabilities while relying on automating performance optimizations.

Add third-party content to deliver contextually relevant content without compromising performance.

Maximize user engagement by accelerating user interaction with faster browser and application rendering.

## Maximize performance automatically

Akamai Ion helps maximize performance for every user across different device types and network conditions, however they choose to connect.

- **Adaptive acceleration:** Deliver faster, more engaging browser experiences by leveraging machine learning technology to automatically determine performance optimizations based on real user behavior, reducing page weight and accelerating rendering. Ion also leverages Brotli on-the-fly to compress a variety of content types, accelerating and mitigating the performance impact from first and third parties, using advanced script management capabilities. It speeds up your site by fast routing around congestion points and other bottlenecks while leveraging the latest network protocols to accelerate dynamic content.

## Built on the Akamai Connected Cloud

Akamai Ion combines the scalability of the global Akamai Connected Cloud with the fastest dynamic content acceleration.

- **HTTP/2:** Helps users have a consistent and high-quality experience by utilizing fast and efficient modern web protocols. Akamai builds on the benefits inherent in HTTP/2 and delivers intelligence that automatically pushes content to the user's device quickly and efficiently to eliminate the gaps and errors that can lead to dissatisfied users and missed conversion targets.
- **HTTP/3:** Includes the HTTP/1.1 and HTTP/2 concepts, but moves away from the TCP transport layer and uses the IETF QUIC protocol that handles streams by itself. This helps to decrease latency, make connection setup faster, and enhance privacy and security.
- **Offload and load balance traffic globally, while accelerating with SureRoute:** Ensures secure delivery of consistent experiences to your users, maximizing uptime and availability with a fault-tolerant solution that makes intelligent routing decisions based on global internet conditions.

## Insight and agility for faster time to market

Akamai Ion provides the tools your teams need to rapidly onboard, monitor, and tune digital properties. Once on the platform, Akamai enables you to craft the differentiated solution your users demand with a powerful set of integrated capabilities to find and fix performance issues. This will drive continuous improvement of end-user experiences.

- **DevOps enabled:** Keep your content fresh and engaging with web-based tools and APIs that simplify operations. Make agile and efficient interactions with the Akamai Connected Cloud part of your existing developer workflows. The programmable, automated, and repeatable interface allows for early testing and validation, monitoring, real-time visibility, and developer-friendly logic at the edge.
- **API Acceleration\*:** Designed to minimize the impact of network congestion for consistent digital experiences, API Acceleration leverages the power of the Akamai Connected Cloud. It provides flexibility to design API architectures for reliability and a cost-efficient approach to scale while maintaining great performance through greater control.
- **mPulse\*:** Based on more than a year of data, mPulse combines your real user performance and business metrics and makes them actionable by automatically extracting and illustrating insights that lead to better user experiences and give you an edge over the competition. By capturing 100% of real user data in real time, you can monitor user performance changes during critical business events and code releases.
- **Image & Video Manager\*:** Reduce cost and complexity to deliver richer, more engaging experiences. Image & Video Manager intelligently and automatically optimizes and delivers high-quality images and videos. It is designed to provide the quality, format, and size ideally suited for each user's device, browser, and network connection on websites or mobile apps.

\* available as an add-on to Ion

## The Akamai ecosystem

Akamai makes life better for billions of people, billions of times a day, as we power and protect life online. Our solutions help customers gain insight into web application bottlenecks, turning insights into actions that allow customers to improve their online revenue-generation engine. Solutions can be built on the globally distributed Akamai Connected Cloud; ready to consume on the Akamai Marketplace; managed through the unified, customizable Akamai Control Center; and supported by professional services experts who get you up and running easily—and inspire innovation as your strategies evolve.

## Services and support

As industry experts and trusted advisors, we can enhance your experience with the Ion solution by providing expert assistance, ongoing maintenance, and preventive support through solutions management with Akamai Plus, Advanced, or Premium 3.0 [services](#).

To learn more, visit [akamai.com](https://akamai.com) or contact your Akamai sales team.