Loyalty programs can help online retail companies improve customer retention, increase cross-sell and upsell opportunities, and grow margins and revenues. But poor online experiences can impair customer satisfaction and hinder loyalty programs. Akamai can help improve customer experiences by accelerating web performance, maximizing availability, and streamlining customer onboarding and identity management functions.

Akamai's comprehensive portfolio of intelligent edge security, web and mobile performance, and cloud identity management solutions are designed to enable fast, reliable, and secure online experiences from any location, using any device. Akamai's loyalty program reference architecture details the various portfolio components for improving the online experience. These enhancements have been shown to increase customer engagement, boost online sales, and drive repeat business — while reducing IT infrastructure cost and complexity.

Akamai Loyalty Program Reference Architecture Components

Edge WAF and DDoS Protection

Kona Site Defender protects websites and APIs against sophisticated distributed denial-of-service (DDoS), web application, and direct-to-origin attacks that threaten to disrupt your online business. The solution reduces the risk of downtime by blocking attacks at the edge of the Akamai network, far away from your web server and applications. A comprehensive web application firewall (WAF) inspects every HTTP and HTTPS request before serving it — identifying and stopping web security threats before they reach your servers. Akamai continuously refines firewall rules, helping you block known attacks and proactively respond to new threats as they emerge.

Bot Management

Akamai Bot Manager helps you improve visibility and control over the automated bot traffic that can overwhelm today's online retail sites. With Bot Manager, you can identify, categorize, and manage bots at the edge of the Akamai network for ultimate scalability and protection. You can reduce risk by defending your website against credential stuffing, gift card balance checking, and other forms of web fraud; fend off competitors by preventing price or content scraping; and improve customer experiences by throttling legitimate bot traffic during peak periods. Bot Manager uses multiple methods to identify bot activity, including signature-based, behavioral, and statistical anomaly detections. And unlike competitive bot management solutions that only protect login pages, Bot Manager protects your entire site.

Web Performance

Akamai performance optimization solutions can help you improve user experiences which, in turn, has been shown to reduce website abandonment and increase sales. Akamai Ion accelerates web and mobile app performance, ensuring consistent user experiences across different types of devices (e.g., iOS, Android) and network connections (e.g., Wi-Fi, cellular), dynamically adapting to changes in content, user behavior, or connectivity. Akamai Dynamic Site Accelerator helps you scale website performance in real time to meet sudden traffic demands. Ideal for peak shopping events like Cyber Monday or Singles Day, Dynamic Site Accelerator improves scalability and availability by offloading content and traffic from your infrastructure to Akamai's global cloud platform.
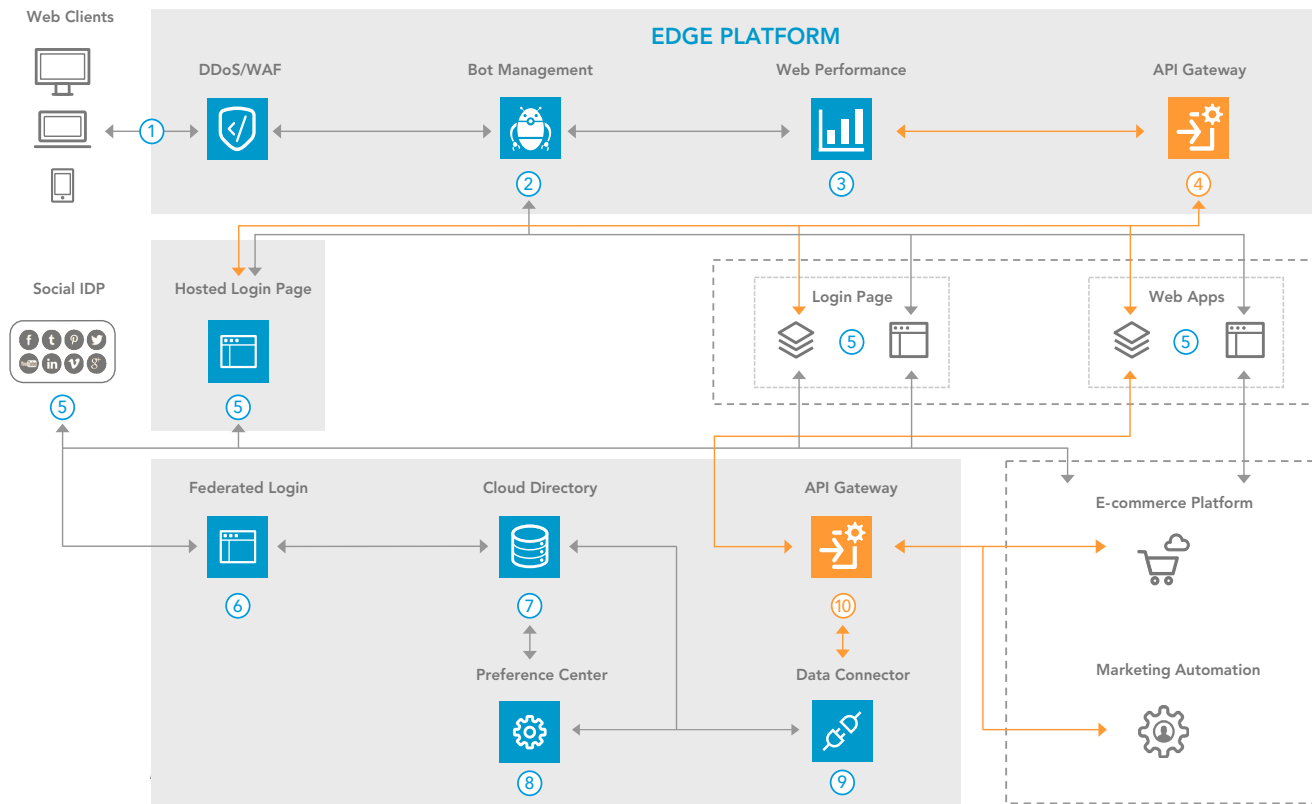
API Gateway

Akamai API Gateway shifts API governance to the edge of the Akamai network, helping you maximize the performance, availability, and reliability of API authentication, authorization, and quota management functions. The solution lets you validate JSON Web Tokens (JWT), OAuth 2.0 credentials, and API keys at the edge to reduce latency and achieve global scalability. API Gateway also lets you set and enforce the number of API requests allowed per hour, per API consumer, on a global basis, to prevent overload and ensure an equitable consumption of resources. The solution includes flexible developer tools that make it easy for application owners to onboard APIs.

Akamai Identity Cloud is a highly available, end-to-end identity as a service solution that delivers fast, scalable, and reliable customer registration, authentication, and single sign-on (SSO) capabilities. By leveraging a trusted provider for customer identity management, you can protect data privacy and enhance regulatory compliance, while freeing up valuable technical staff to focus on core business initiatives. Identity Cloud supports a wide array of authentication methods, including federated social media logins, directory services, and OpenID Connect. The solution includes a central cloud directory for securely storing user credentials and other customer information, as well as a preference center for tracking and managing customer account settings, and dashboards for gaining insights into customer metadata. Data connectors provide out-of-the-box integration with a variety of popular online retail and marketing automation platforms.

Akamai can help improve customer experiences by accelerating web performance, maximizing availability, and streamlining customer onboarding and identity management functions.

Loyalty Program Reference Architecture

Web Clients

EDGE PLATFORM

DDoS/WAF — Bot Management — Web Performance — API Gateway

① ② ③ ④

Social IDP — **Hosted Login Page** — Login Page ⑤ — Web Apps ⑤

⑤ ⑤

Federated Login — Cloud Directory — API Gateway — E-commerce Platform

⑥ ⑦ ⑩

Preference Center — Data Connector — Marketing Automation

⑧ ⑨

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① Edge servers protect public-facing web applications, login pages, and registration pages from DDoS and web applications attacks.

② Bot management detects and mitigates automated threats including web scraping and credential stuffing.

③ Web performances caches content and accelerates traffic to provide a fast and responsive end-user experience.

④ API Gateway authenticates, authorizes, and controls requests to API-based login and account registration endpoints.

⑤ Users can login through a custom or hosted login page, via a native mobile app, or using their social media identity.

⑥ Federated login provides a single authentication point for all clients regardless of login endpoint.

⑦ Cloud directory securely stores changing user credentials, preferences, and other profile information.

⑧ Preference center enables tracking and management of changing user preferences.

⑨ Data connectors provide out-of-the-box integrations with e-commerce and marketing automation platforms.

⑩ API Gateway authenticates, authorizes, and controls requests to e-commerce and marketing automation platform APIs.

Akamai secures and delivers digital experiences for the world's largest companies. Akamai's intelligent edge platform surrounds everything, from the enterprise to the cloud, so customers and their businesses can be fast, smart, and secure. Top brands globally rely on Akamai to help them realize competitive advantage through agile solutions that extend the power of their multi-cloud architectures. Akamai keeps decisions, apps, and experiences closer to users than anyone — and attacks and threats far away. Akamai's portfolio of edge security, web and mobile performance, enterprise access, and video delivery solutions is supported by unmatched customer service, analytics, and 24/7/365 monitoring. To learn why the world's top brands trust Akamai, visit akamai.com, blogs.akamai.com, or @Akamai on Twitter. You can find our global contact information at akamai.com/locations. Published 04/20.