

DataStream

Low-latency access log data at scale, with visibility into content delivered on the Akamai Intelligent Edge Platform



As user expectations around digital experiences continue to rise, online businesses are increasingly looking to enhance service reliability to meet those expectations and reduce user churn. Akamai is committed to providing customers with greater visibility into our platform performance with accurate and consistent log data at scale.


Visibility into CDN performance as a critical success factor for an optimal user experience

As businesses across the globe continue their digital adoption journey, meeting the user's expectation around the digital experience becomes a critical success factor. Increased choices and the low cost of switching providers are leading users to churn if the online experience is poor.

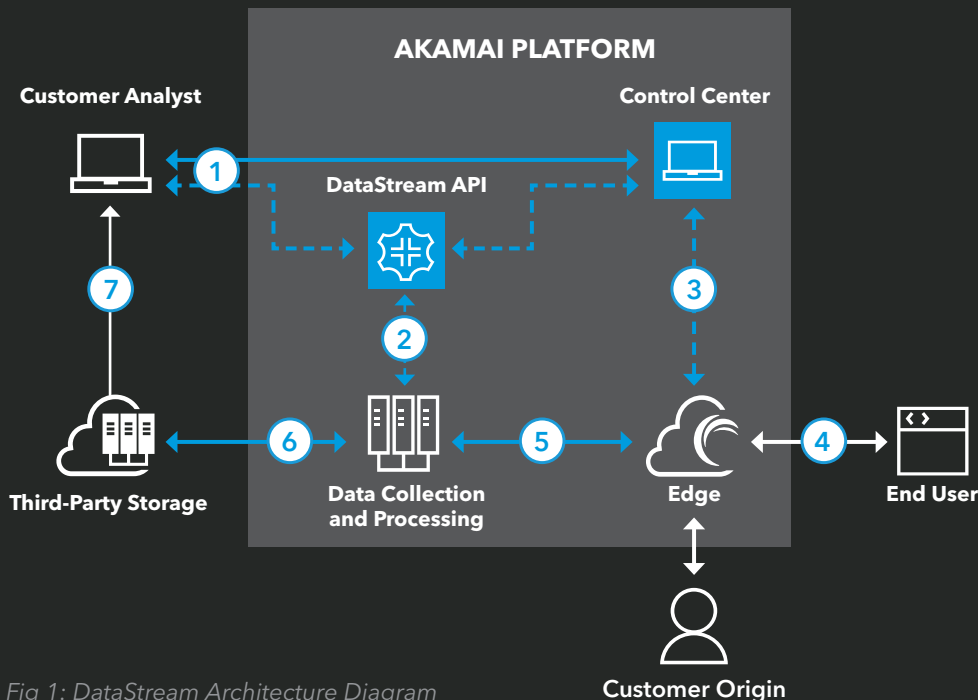
There is a definite association between the user's digital experience and the performance of the digital property – website, mobile app, or video stream, which is directly impacted by the performance of the CDN. Digital businesses are looking for cleaner and faster ways to understand the performance of critical services, including the experience delivered by their CDN partners.

Visibility into what's happening at the "edge" of their networks in near-real time can go a long way in monitoring and troubleshooting issues and ensuring an optimal end-user experience.

BENEFITS FOR YOUR BUSINESS

-  **Consistent Log Data at Scale.**
Get actionable CDN platform insights through access log data at scale to investigate CDN issues and facilitate changes when necessary.
-  **Agile CDN Performance Monitoring.**
Proactively monitor CDN health, latency, offload, errors, and performance in an agile manner, in near-real time, for effective issue mitigation.
-  **Facilitated Analysis with Flexible Endpoints.**
Popular third-party endpoint support provides flexible log analysis based on specific requirements to report insights for CDN performance needs.

DataStream Reference Architecture



1. Customers configure a DataStream through the Control Center or via the DataStream API.
2. DataStream configurations are activated on our log processing infrastructure.
3. A DataStream is associated with a digital property.
4. Client requests and responses are logged at the edge.
5. Logs are continuously sent from the edge to our distributed data collection systems.
6. DataStream enabled logs are uploaded to the customer's endpoint within minutes.
7. Data is available for retrieval or analysis.

Fig 1: DataStream Architecture Diagram

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DataStream Features

Continuous Log Data

Continuously pushes space-delimited access log data to public cloud storage and analytics providers.

Low Latency, High Completeness

Delivers 99% of low-latency access log data within minutes of activity on the Akamai edge network.

Multiple Third-Party Integrations, Self-Serviceable

Offers third-party integrations that support log delivery to popular analytics tools, including public cloud options like AWS S3, Microsoft Azure Blob, Splunk, and Datadog.

DataStream Use Cases

Near-Real-Time CDN Performance Monitoring

Get the log data needed to manage applications and infrastructure, implement crucial optimizations, and monitor CDN health to help identify and troubleshoot potential delivery issues.

Large Event Monitoring

Ensure a seamless experience for viewers of live events through 24/7 proactive monitoring and troubleshooting.

Business Intelligence and Trends

Aggregate CDN access log data easily with seamless integration with third-party analytics tools to drive insights and trends for informed decision-making.

Note: DataStream is optimized for high-throughput raw data delivery. In the event of connectivity issues at third-party endpoints, data will be lost after three retries. This limitation should be taken into account before using this data for audit, compliance, and billing purposes.

The screenshot shows a configuration interface for DataStream Log Fields. It consists of several expandable sections, each with a 'Select all' link:

- Log Information:** Includes checkboxes for CP code, Request ID, and Request time.
- Message Exchange Data:** Includes checkboxes for Bytes, Client IP, HTTP status codes, Object size, Overhead bytes, Protocol type, Query string, Request host, Request method, Request path, Request port, Response content-length, Response content-type, SSL overhead time, SSL version, Total bytes, Uncompressed size, and User-agent.
- Request Header Data:** Includes checkboxes for Accept-language, Cookie, Range, Referrer, and X-forwarded-for.
- Network Performance Data:** Includes checkboxes for DNS lookup time, Edge IP, Error code R14, Request end time, Transfer time, and Turn around time.
- Cache data:** Includes a checkbox for Cache status.
- Other:** Includes a checkbox for Custom field.

Each section also contains a small note or warning icon with text explaining that users need to update their Property Manager settings to enable the selected fields.

Fig 2: DataStream Log Fields



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 www.akamai.com, blogs.akamai.com, or [@Akamai](https://twitter.com/Akamai) on Twitter. You can find our global contact information at www.akamai.com/locations. Published 03/21.