Client Reputation

Improving security decisions and adding an extra layer of protection

Client Reputation provides an additional layer of protection on top of Kona Site Defender. It provides a reputation score for each IP address with respect to the potential risk it poses to each individual customer. It can significantly improve your security decisions.

Security is not black and white, but has many different shades of gray. Many attackers, and their associated IP addresses, only target specific industry segments or only remain active for a short period. Those IP addresses are also used by legitimate users. Simply blocking an IP address could affect the legitimate users, which has a negative impact on business.

The changing threat landscape also forces enterprises to constantly improve their ability to act on suspicious client behaviors in a way that further reduces the risk of successful DDoS or application-layer attacks and at the same time minimizes the impact to legitimate users. Client Reputation increases the accuracy of security decisions that separate malicious traffic from legitimate traffic. Kona Site Defender primarily focuses on threat vectors, while Client Reputation provides a complementary view on clients – the potential attack sources.

Many IP reputation solutions that are on the market today create only a single score per client or IP address, which is the same for all customers. Client Reputation, however, uses a state-of-the-art, proprietary risk-analysis engine that computes a risk score for every source IP address, customized for every customer. This custom risk-based scoring model is significantly more accurate than generic scoring, and it has shown that actions taken based on the risk score are less likely to negatively impact legitimate clients and users. The quality of the risk score is driven by the knowledge that can be extracted from big data. Akamai leads the content delivery network market as a central hub in the Internet ecosystem, serving 15%–30% of all web traffic at any given moment, interacting with 1.3 billion client devices every day. The data is analyzed by Cloud Security Intelligence, Akamai's big data security platform. The breadth and scope of this platform enables Akamai to deliver a client reputation service well beyond anything available in the market today.

BENEFITS TO YOUR BUSINESS

- **Improved security decisions**
- **Additional layer of application security**
- **State-of-the-art risk analysis engine**
- **Custom risk-based scoring**
- **Visibility into 15%–30% of all web traffic**
- **Interaction with 1.3 billion devices per day**

THE ANALYTICAL PROCESS INCLUDES

- **Sophisticated attacker behavioral profiling**
- **Detection of malicious payloads and zero-day attacks**
- **Analysis of common malicious traffic patterns**
- **Clustering of malicious activities performed by botnets**

Client Reputation

Comprehensive insight drives the quality of Client Reputation, which provides the following features:

Cross-customer correlation: Correlation of client requests across different customers and identification of malicious intent.

Multiple risk score categories: Ability to associate potentially malicious activity with the following types of attackers:

1. **Web attackers** – Actors performing generic web-oriented attacks such as SQL injection (SQLi) remote file inclusion (RFI), or cross-site scripting (XSS)

2. **DoS attackers** – Web clients or botnets using automated tools to launch volumetric DoS attacks

3. **Scanning Tools** – Tools used to scan web applications for vulnerabilities

4. **Web Scrapers** – Automated tools used to harvest information, like pricing data from websites

Client Reputation

Client risk score: Based on previous behavior such as attacker persistency, number of targeted applications, severity of the attack, magnitude, industry, and previous attacks targeting customer's applications.

In conjunction with the risk score, Akamai customers can further adjust the security measures by applying additional conditions, including:

- The source IP's autonomous system number (ASN)
- IP or geo network lists
- IP address/CIDR
- Specific HTTP header names and/or values
- Specific HTTP cookie names and/or values
- Target hostname
- Target HTTP request path

Reputation controls: An interface to filter malicious clients based on their behavior and risk score by either sending an alert or denying access.

Header injection: Additional request header with information on behavior and risk score so that back-end systems can act on it.

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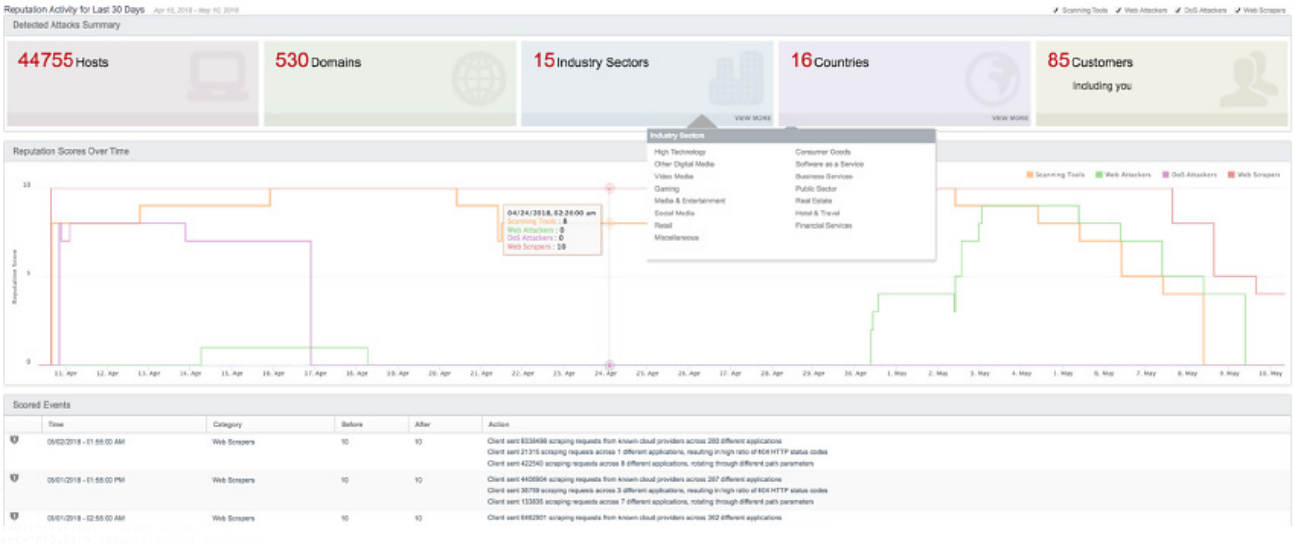
Client investigation: Access aggregated data from the past 30 days to investigate the cause of a risk score. Aggregated information is collected for each score-changing event. Analytics tools are also available to investigate sources of malicious activity on shared IPs. This information can then be used to adjust risk scores and reputation profiles accordingly.

Client Reputation scores are constantly updated to automatically reflect the latest risks of clients. This automation significantly reduces the maintenance efforts for customers and immediately allows them to use Client Reputation in deny mode. A powerful dashboard provides detailed historical client information on category, risk score, reputation activity, detected attacks per hosts, domains, industry sectors, countries, customers, and much more.

Client Reputation provides deep visibility into client activities and adds an additional, very sophisticated, intelligence-based protection layer to our customers' web application delivery.

Client Reputation Details



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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 on Twitter. You can find our global contact information at www.akamai.com/locations. Published 04/20.