A Walk on the Client Side

JavaScript is essential for delivering powerful user experiences, but it leaves your website vulnerable to client-side threats and end-user data theft.

Web skimming, Magecart, and formjacking attacks can result in harmful consequences for brands — from fines to trust erosion and revenue loss.

Where the infection starts

Exploiting first-party vulnerabilities
Security misconfiguration, framework vulnerabilities, etc.

Third-party supply chain attacks
Injection of malicious code via authorized third-party provider

How web skimming attacks steal end-user data

End user browsing online

Web application

End user enters **sensitive info** into checkout page

Data skimmed by **malicious script** injection

Compromised JavaScript

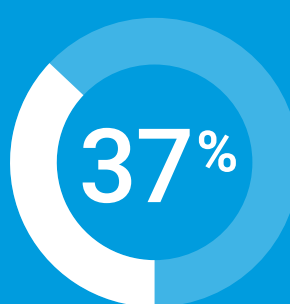**Data harvested** and **exfiltrated** by attacker-controlled domain

Third-party JavaScript leaves brands vulnerable

Percentage of JavaScript on websites that comes from third-party sources

50%
Retail and commerce[1]

37%
Financial services[2]

A threat to enterprises of all sizes

81% of large online retailers report that their organization had been targeted by suspicious script behavior in 2022[3]

81%

The devastating impact

$4.45M — Total average cost of a data breach globally in 2023[4]

$9.48M — Total average cost of a U.S data breach in 2023[4]

PCI compliance now requires client-side security

PCI Security Standards Council ®

Any organization that processes payment card data must comply with new **PCI DSS v4.0 JavaScript security requirements by 2025** to avoid penalties[5]

Requirement 6.4.3

Requirement 11.6.1

Akamai Client-Side Protection & Compliance

Akamai Client-Side Protection & Compliance protects against JavaScript threats, streamlines PCI DSS v4.0 workflows, and keeps end-user data safe. It provides visibility into JavaScript vulnerabilities and analyzes script behavior to detect harmful and malicious script activity. It also delivers actionable alerts that allow security teams to rapidly mitigate and safeguard against client-side attacks.

To learn more, visit our product page or contact the Akamai sales team.

1. Entering Through the Gift Shop: Attacks on Commerce | Akamai SOTI 2023
2. The High Stakes of Innovation: Attack Trends in Financial Services | Akamai SOTI 2023
3. From Bad Bots to Malicious Scripts: The Effectiveness of Specialized Defense | 2023
4. IBM Cost of a Data Breach Report | 2023
5. PCI DSS v4.0 | 2022