

## Client-Side Security Technologies

Find out the limitations in older existing client-side technologies and how the latest client-side solutions can protect from attack and data exfiltration through automation and advanced synthetic user technologies.



### Limitations

## Web Application Firewall (WAF)

#### Can't protect businesses from:

- Sophisticated skimming malware.
- Drive-by skimming.
- Supply chain attacks.
- Sideloading attacks.
- Chainloading attacks.



## Content Security Policy (CSP)

If used as a sole security control, may expose businesses to e-skimming breaches due to:

- Misconfigurations and excessive "allow list" rules.
- Bypass techniques.
- Incorrect implementation or tradeoffs.
- Difficulty developing and deploying a comprehensive policy.

#### Penetration Testing and Vulnerability and Security Assessments

Even if conducted on a regular basis, pentesting and vulnerability and security assessments:

- Are time and resource intensive.
- Are expensive.
- Reflect conditions based on a single point in time.
- Are limited in scope to certain applications, technologies, and networks.
- Require skilled and experienced personnel to conduct the tests or assessments.
- Rely on specialized tools and technologies.

#### **Vulnerability Scanners**

Because vulnerability scanners are not designed to support the client side, they:

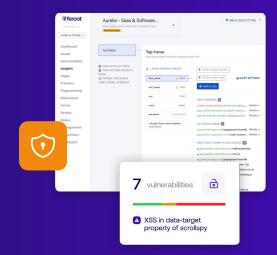
- Scan only server-side (back-end) assets, not web applications and websites.
- Aren't able to detect and enumerate JavaScript code and vulnerabilities.
- Can only view a single domain, not all of the links that are part of it.

## Code Scramblers and Obfuscators

Code scramblers and obfuscators come with some significant issues, such as:

- Scrambled code cannot be easily unscrambled.
- It is much more difficult to find vulnerabilities and problems in obfuscated code.
- If the obfuscated script includes third-party code, it becomes difficult to identify malicious or corrupted third-party content.

## Advanced Client-Side Security Technologies



## Client-Side Attack Surface Monitoring

- Newer, advanced threat detection technology.
- Identifies and classifies data and threat intelligence to detect and report on client-side security vulnerabilities and attacks.
- Automatically discovers all web assets and reports on their data access.
- Uses headless browsers to navigate through all JavaScript contained on the website and web application pages.

- Gathers real-time information about how the scanned website works from the end-user perspective.
- Deploys synthetic users during threat detection scans to act and interact as a real human would.
- Logs and monitors each web application interaction.
- Uses behavioral analyses and injects logic into each page to gather information that is difficult to collect manually.

# Malware Files Detected Time: 10:30am EST Location: North America IP: 40.76:18.24

## JavaScript Security Permissions

- Automatically applies security configurations and permissions for continuous protection from malicious client-side activities and third-party scripts.
- Blocks all unauthorized and unwanted behavior in real-time across an organization's web assets.
- Prevents data exfiltration.
- Integrates directly into the runtime environment of every user browser session to enable proactive monitoring and defense.

- Deploys the Zero Trust model on JavaScript applications.
- Runs continuously in the background to automatically detect unauthorized scripts and anomalous code behavior.
- Monitors and responds to browser-level security events in real-time by auto-instrumenting on every website and applying security configurations to every user browser session.





#### **About Feroot**

Feroot Security believes that customers should be able to do business securely online with any company, without risk or compromise. Feroot secures client-side web applications so businesses can deliver flawless digital user experiences to their customers. Leading brands trust Feroot to protect their client-side attack surface. Visit www.feroot.com.