

Detection of Spoofed User-Agent, Detection Strategy DET0898

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AN2029

Process execution without GUI context (e.g., powershell.exe, wscript.exe) generates HTTP traffic with a spoofed User-Agent mimicking a legitimate browser. No corresponding UI application (e.g., msedge.exe) is active or in parent lineage. The User-Agent deviates from known enterprise baselines or contains spoofed platform indicators. User-Agent strings can be gathered with API calls such as `ShellExecuteW` to open the default browser on a socket to receive an HTTP reply, or by hard coding the User-Agent string for a specific browser.

Log Sources

Mutable Elements

Field	Description
HeaderSignatureMatch	Specific HTTP header anomalies or patterns (e.g., spoofed User-Agent).
UserAgentFingerprint	Flag browser-based sessions
NonBrowserProcessList	List of non-browser binaries expected not to initiate web requests (e.g., powershell.exe, cscript.exe)

AN2031

Detection of HTTP outbound requests with inconsistent or spoofed User-Agent headers from command-line tools (e.g., curl, wget, python requests) following interactive user shells or scheduled jobs outside of normal user session behavior.

Log Sources

Mutable Elements

Field	Description
HeaderSignatureMatch	Specific HTTP header anomalies or patterns (e.g., spoofed User-Agent).
UserAgentFingerprint	Flag browser-based sessions

AN2032

Observation of scripted network requests (e.g., using `osascript`, `curl`, or `python`) that include mismatched or spoofed browser User-Agent strings compared to the typical macOS Safari or Chrome baseline, especially when triggered by non-interactive launch agents, login hooks, or background daemons.

Log Sources

Mutable Elements

Field	Description
UserAgentFingerprint	Flag browser-based sessions
HeaderSignatureMatch	Specific HTTP header anomalies or patterns (e.g., spoofed User-Agent).

Source: <https://attack.mitre.org/detectionstrategies/DET0898#AN2029>