

## PRIVACY AT THE EXPENSE OF SECURITY?

### HOW HTTPS INADVERTENTLY SHIELDS MALICIOUS DOMAINS AND WHAT YOU CAN DO ABOUT IT.

HTTPS is a well-meaning privacy protocol designed to authenticate sites and encrypt communications between them. But that increased privacy could come at the cost of security, since encrypted malicious URLs hiding out on benign domains often evade detection.

HTTPS can inadvertently:

- » Lead to security breaches when malicious URLs are accessed through benign domains
- » Subvert parental controls, by granting access to adult content on non-adult domains
- » Undermine compliance by allowing illegal activities to be conducted on otherwise approved domains

### Introducing Domain Safety Scores

At least in part due to HTTPS, cybercriminals know it's difficult to block bad content on otherwise good domains. While IP and domain-level filtering can provide some protection, visibility can remain obscured at the path level.

Given the breadth and depth of Webroot's threat intelligence data—over 37 billion URLs analyzed—we're able to assign a risk level, known as the "Domain Safety Score," to all domains based on meta data about the domain, how it's managed, its traffic history, and more. Available to our threat intelligence partners as an enhanced feature of our Web Classification and Reputation services, the Domain Safety Score helps to bridge the gap between privacy and security.

Once assigned a score, users can make informed decisions about proceeding to a webpage, or IT admins can block pages based on their pre-determined level of acceptable risk.

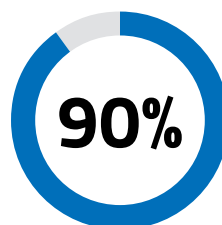


#### INTEGRATED PARTNER DEVICE

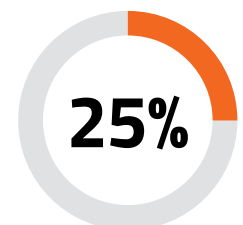
- Block threat categories
- Block domains with high safety risk



BrightCloud SDK > a.website.com  
Category: **LEGAL**  
Domain Safety Score: **18 (HIGH RISK)**



Desktop users spend close to 90% of their time on HTTPS pages.<sup>1</sup>



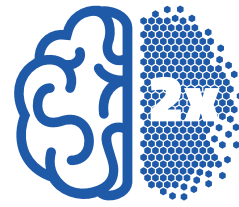
1 in 4 malicious URLs is hosted on an otherwise non-malicious site.<sup>2</sup>

<sup>1</sup> Google. "HTTPS encryption on the web." (Feb 2020)

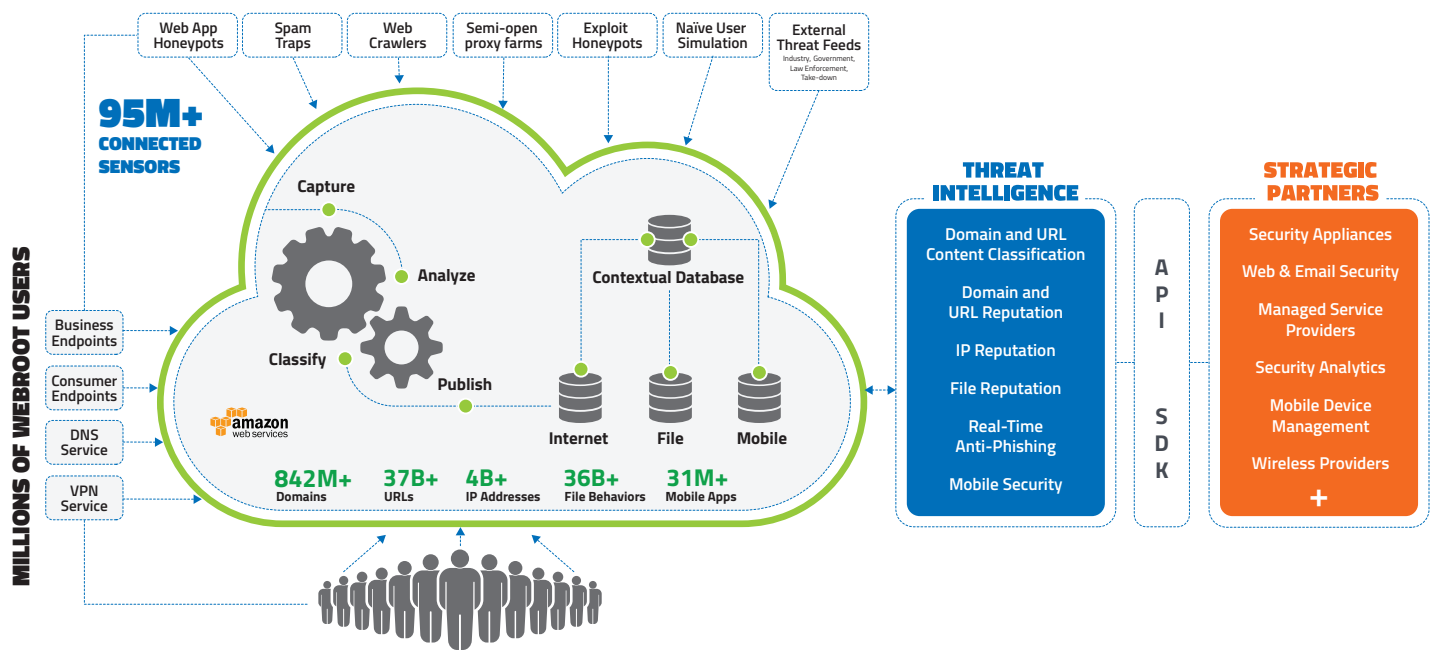
<sup>2</sup> Webroot Inc. "2020 Webroot Threat Report." (Feb 2020)

## Making It Happen with Machine Learning

Webroot's ten-year machine learning history and troves of historical data from real-world endpoints allow us to provide in-depth threat intelligence no other service can match. The Domain Safety Score uses a deep learning framework to calculate a probabilistic measure of encountering unsafe activity on the domain. This includes anything that could compromise the cybersecurity of users and systems, such as phishing forms or malicious Javascript and downloads.



**The Webroot Platform contains over 6 terabytes of data, or roughly 2.4x the binary capacity of the human brain.<sup>3</sup>**



Using the Domain Safety Score, organizations are able to implement and enforce effective web policies that protect users against web threats, whether encrypted through HTTPS or not.

At Webroot, your privacy is paramount. But it shouldn't come at the expense of your online security. With our new Domain Safety Score risk assessments, it doesn't have to.

### About Webroot

Webroot, an OpenText company, harnesses the cloud and artificial intelligence to protect businesses and individuals against cyber threats. We provide endpoint protection, network protection, and security awareness training solutions purpose built for managed service providers and small businesses. Webroot BrightCloud® Threat Intelligence Services are used by market leading companies like Cisco, F5 Networks, Citrix, Aruba, A10 Networks, and more. Leveraging the power of machine learning to protect millions of businesses and individuals, Webroot secures the connected world. Webroot operates globally across North America, Europe, Australia and Asia. Discover Smarter Cybersecurity® solutions at [webroot.com](http://webroot.com).

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