Avira’s Web Reputation API enables security vendors and service providers to quickly and easily identify websites, URLs and domains that may pose a threat to internet users.

Using a RESTful JSON API, client devices or online services can query the Avira URL Cloud (part of the Avira Protection Cloud) and receive a URL’s threat classification and the corresponding domain’s content categorization.

Avira’s Web Reputation API enables a real-time, site-specific query approach to identifying malicious URLs and inappropriate internet sites. Delivered as part of Avira’s portfolio of Threat intelligence solutions, the API provides an on-demand, usage-based alternative to a threat feed of web reputation data. It is an ideal solution for Security as a Service, applications, firewalls, routers, email scanning, web traffic scanning and Internet content filtering.

The reputation data provided by the API includes:

**Threat classification**
The client submits one or more URLs to the service. It receives back a single response containing a security classification for each URL that it is either blacklisted (it contains malware, phishing or spam), contains potentially unwanted applications, or potentially malicious search engines, or that the URL is clean and safe. The information can be used to protect users from accessing URLs, domains, subdomains or IPs that may present a threat to them.

**Content categorization**
The same response to the client can optionally deliver real-time content categories of the corresponding domain compliant with IAB-1, tiers 1 and 2. Applied at a domain or sub-domain level, the 400+ categories are particularly useful for solutions requiring parental control, productivity or domain categorization. Category examples include: IAB25-3 Adult Content, IAB12-WSI Social Networking, or IAB17 Sports.

**Key Features:**
- Distributed, highly available and fault tolerant
- Cache friendly with white lists and exception lists for high performance
- Statistics and quota services for usage control
- Near match algorithm and smart path inheritance deliver extended coverage
- Multiple language support

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**WEB REPUTATION**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Develop Information</th>
<th>Present Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Core</td>
<td></td>
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<td>Technology Partners</td>
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<td>Consumer Edge</td>
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<tr>
<td>Crowdsourced Data</td>
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</tbody>
</table>

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**WEB REPUTATION API**

- Classification: Malware, Phishing, Spam, PUA, Clean
- Threat Feeds
- On Premise
- Categorization over 400 categories at domain or subdomain level:
  - IAB-1, tier 1, tier 2
- SDKs
- API
IMPLEMENTATION

To communicate with the Avira URL Cloud, the client first submits its Avira API key to the service for authentication. It then sends the requested URL with a request in one of the supported languages: American English, German, Spanish, French Italian, Dutch or Portuguese (Brazilian). To maximize efficiency the Avira URL Cloud can deliver white-lists and exception-lists to cache within the client device or privately hosted cloud security service. Caching URLs, domains, and sub-domains that are known to be either clean or malicious for the recommended TTL avoids queries being forwarded to the Avira URL Cloud unnecessarily, delivering highly cost-effective performance.

APPLICATION

The Web Reputation API is a non-intrusive approach to delivering a secure and safe browsing experience for web users. It avoids the need to implement complex technologies such as deep packet inspection or man-in-the-middle techniques to classify or categorize websites and content.

It is an ideal solution for vendors and service providers looking to protect consumers or business users from malicious or inappropriate internet sites, and is of particular use to managed security service providers (MSSP), firewall and unified threat management (UTM) providers, security operation centres (SOCs), as well as value added and mobile security providers.

AVIRA URL SAFETY CLOUD

Avira's URL Safety Cloud offers similar functionality to Avira's Web Reputation API and is available in the AWS Marketplace. The URL Safety Cloud provides developers with a simple way to implement the threat classification element of Avira's Web Reputation API, purchased online as a SaaS solution.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Threat Classification:</th>
<th>Content categories:</th>
</tr>
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<tbody>
<tr>
<td>Safe</td>
<td>Based on IAB-1, tiers 1 and 2</td>
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<tr>
<td>Malware</td>
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<tr>
<td>Spam</td>
<td>Caching:</td>
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<td>PUA</td>
<td>- Whitelist</td>
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<tr>
<td>Potentially malicious search engine</td>
<td>- Exception list</td>
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<td>Phishing</td>
<td>- Time to Live (TTL)</td>
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<td>SPECIFICATIONS</td>
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<td>Performance:</td>
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<td>Typical server response time 10mS</td>
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<td>Supported os:</td>
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<td>Any (through API)</td>
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<td>Connection:</td>
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<td>HTTPS</td>
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<td>Maximum request size: 96kB</td>
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</table>

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