



Web Security Engine

Cyren's Web Security Engine provides

the most highly relevant web coverage, uncompromising accuracy, and real-time security—all delivered from a low-latency, high-accuracy cloud architecture that delights users. We increasingly use the Internet to conduct our business and personal lives, but web-borne threats are more prevalent than ever. Software and hardware vendors offering a safe, secure connected experience enjoy strong differentiation from competitors and can generate new recurring revenue streams. Ultimately, success depends on the ability to deliver a great user experience. Slow response times and inaccurate classification—wrongly blocking or not blocking sites—are the enemies of a great user experience.

Unique Approach

The size of the Internet, coupled with the unique browsing habits of each user, has driven the need for a dynamic classification system with the reach, storage, and processing capacity only a purpose-built global security cloud like Cyren's can attain. This overcomes local storage limitations, and gives Cyren's partners flexibility with:

- Global, diversified data sources derived from billions of transactions daily
- A massive, centralized database holding all the URL classifications you need
- Lightweight, economical local clients that store only the data you need, when you need it, eliminating resource-intensive updates

Continuous Tracking, Unparalleled Accuracy

Cyren's Web Security Engine intelligently determines when and how to deeply scan each site, using multiple methods:

- Customer-oriented classification, triggered by each new site visited
- Analysis of site dynamics and user behavior to determine scan depth
- Continuous tracking to ensure exact URL classification at every moment

The Best “Zero-hour” Security

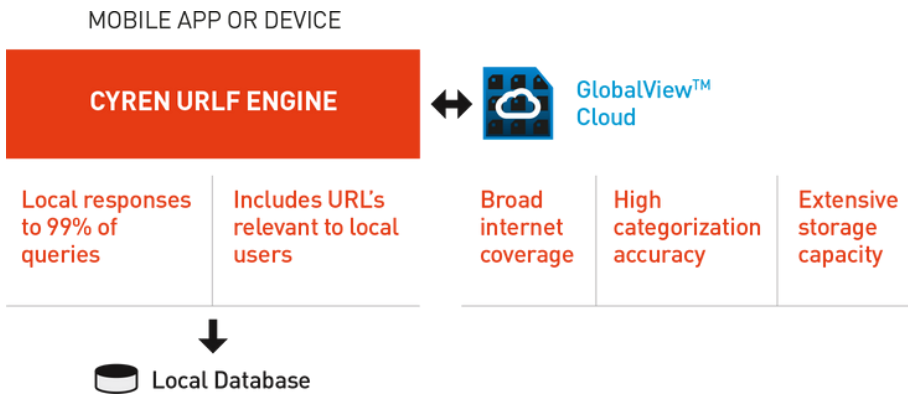
- Predictive detection recognizes harmful sites before users are exposed
- Zero-hour capabilities leveraged from all of Cyren's security products
- Cyren Security Alliance partners augment security data for maximum accuracy

Why Use Cyren's Web Security Engine?

- **Ultra-low latency**—More than 99% of all queries are satisfied on the local device.
- **Highest accuracy**—self-learning caches adapt to local conditions, removing the need for the traditional ‘one size fits nobody’ approach.
- **Broadest coverage**—Cyren augments its own GlobalView Security Cloud data—the industry's largest—with 200+ complementary data sources to provide the broadest, most relevant global coverage
- **Fresh, relevant data**—Cyren holds ‘up to the minute’ data on over 140 million of the most relevant URLs. Large URL databases are useless if the data they hold is stale.
- **Fits the smallest platforms**—Cyren's unique ‘Direct to Center’ deployment model means that URL filtering can be deployed on almost any platform—even when no local storage is available.



Web Security Engine



Cyren's Web Security Engine categorizes user URL requests as follows:

1. The Web Security Engine is installed on the partner device, e.g., a Web Security Gateway
2. The partner device receives an HTTP request
3. The device uses the engine to check the URL classification. The Web Security Engine first checks the local cache for values; typically more than 99% of queries are resolved locally by the cache, minimizing latency
4. If necessary, the Web Security Engine queries Cyren's GlobalView for relevant updates
5. The partner device blocks, allows, or removes content according to the classification it receives from the GlobalView URL filtering engine

SDK Details

- 64 categories, 8 of which are security related — returns up to 5 per URL
- Language and content-agnostic; vast coverage of global sites
- Database contains ~140 million of the most relevant URLs
- Configurable cache footprint with auto-tuning of cache contents
- High-performance: >50,000 queries/ second, with low resource utilization
- Supports http, https, ftp and other protocols

Applications

Using Cyren's embedded URL Filtering, partners can create applications, such as:

- **Security**—real-time protection from emerging web threats including malware, phishing, and Zombies or bots
- **HR and regulatory compliance**—block access to questionable content e.g., pornography or hate sites
- **Productivity**—block or monitor browser use to optimize employee productivity
- **Bandwidth regulation**—identify sites consuming excessive bandwidth, like for movies or music
- **Parental control**—restrict access to inappropriate web sites