

# The Barracuda Web Application Firewall Advantage

Barracuda Web Application Firewall technology secures and accelerates the Web infrastructure of many Fortune 500 companies. Barracuda Networks offers the largest range of Web application security products that suit the needs of global enterprises as well as small and medium sized business. With Web security expertise gained over more than eight years, Barracuda Networks offers the most comprehensive layer seven security solution against emerging threats including SQL injection, cross site scripting, and form tampering for legacy as well as Web 2.0 applications.

## Value Proposition

### Comprehensive protection

- Extensive input validation
- Data theft protection
- Integrated XML Firewall
- Built in authentication and authorization module

### Easy management

- Multiple deployment options
- Active / passive security modes
- Integrated reporting
- Regular updates from Barracuda Central

### Enhanced application delivery

- Load balancing
- Caching
- Compression
- Rate control and connection pooling

### Affordability

- Single appliance with fully integrated functionality
- No per server costs

## Feature insights

### Comprehensive protection

To provide comprehensive security for the Web infrastructure, Barracuda Web Application Firewalls provide an extensive set of capabilities.

#### Basic Web Application Firewall capabilities

- **Injection attacks:** The Barracuda Web Application Firewall inspects each URL and forms parameters to ensure that the submitted data does not contain SQL injection, cross site scripting, or OS command injection attacks.
- **Custom response:** Administrators can configure the Barracuda Web Application Firewall response in the case of a security violation. In addition to sending out a response page, the Barracuda Web Application Firewall can also be configured to either terminate the connection or to redirect the client to another Web page. As a follow up, the erring client can also be blocked from accessing the Web application for a preset time interval.

#### Reverse Proxy based capabilities

- **Server cloaking:** During the initial phase of an attack, hackers gather information about the type of server or database that a Web site is using. This helps them customize the attack. The cloaking capability of the Barracuda Web Application Firewall blocks information such as server banners and server errors, thereby denying the hacker this extremely useful information.
- **Tampering protection:** Encrypting or digitally signing application cookies protects them from client side modification. Form parameters marked as 'read-only' or 'hidden' can also be protected from being modified by the client, thus protecting against form tampering attacks.

#### Advanced capabilities

- **Replay protection:** Connecting the cookie to the client submitting the cookie is one of the ways to prevent replay attacks. This attack is utilized by hackers to gain access to resources bypassing authentication mechanisms.
- **Data theft protection:** For applications that have sensitive data like credit card information or Social Security numbers, the Barracuda Web Application Firewall can be configured to inspect outgoing data and mask sensitive information or block the entire response.
- **Brute force protection:** Guessing passwords to gain access is a very old hacking technique, yet many applications do not provide security against this type of attack. The Barracuda Web Application Firewall counts accesses to restricted resources and block out clients if the server does not accept the supplied credentials.
- **Anti-virus for file uploads:** Many Web applications allow their clients to upload files for submitting their financial statements or job applications. The Barracuda Web Application Firewall scans these files for embedded virus or malware thus ensuring that clients' computers do not get infected.
- **Authentication and authorization:** Access to Web applications can be controlled via the AAA module of the Barracuda Web Application Firewall. This module provides integration with LDAP and RADIUS databases and also provides support for client side certificates for two factor authentication.
- **XML Security:** Emerging Web 2.0 applications rely heavily on XML format for data transfer. XML is also used to transfer data between businesses via Web services. The Barracuda Web Application Firewall provides an integrated XML firewall to secure Web services and XML traffic to client applications by enforcing XML schema and WSDL. Additionally it provides basic XML protection such as recursive entity reference and large XML data.
- **Security for FTP servers:** The Barracuda Web Application Firewall also provides protection for FTP servers. It proxies the FTP traffic and can be configured to allow or deny access to various FTP operations such as restricting access to allow only downloads from an FTP server.

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## Enhanced Application Delivery

The Barracuda Web Application Firewall not only offers security for the Web infrastructure, but it provides a complete application delivery platform. The following capabilities of the Barracuda Web Application Firewall ensure availability and scalability of the Web applications.

- **Load balancer:** The Barracuda Web Application Firewall has a built-in load balancer that can distribute incoming traffic to multiple servers, providing high availability, scalability, and performance for Web Applications.
- **SSL offloading:** Web servers hosting HTTPS Web sites utilize a significant amount of processing power in handling SSL encryption / decryption, and not for actually serving Web pages or processing Web forms. The Barracuda Web Application Firewall provides SSL offloading capabilities, which frees up the processing power of the servers, making them more efficient.
- **Rate control:** Rate of access to Web applications from different networks can be prioritized via the rate control capability of the Barracuda Web Application Firewall.
- **Application acceleration:** With integrated file caching, traffic compression, and connection pooling, the Barracuda Web Application Firewall provides a complete set of capabilities required to deliver the Web applications faster.
- **High availability:** Business-critical Web applications need to be online 24x7. As such, organizations cannot rely on deploying these applications on just one server. The Barracuda Web Application Firewall with integrated load balancer capabilities provides for high availability on the Web servers. In addition, the Barracuda Web Application Firewall can be configured in an active / passive cluster.

## Ease of management

One Web application differs from another. To reduce the effort required to secure individual applications the Barracuda Web Application Firewall starts from a base security policy which can be easily tuned to suit the security requirements of an individual application.

- **Active / passive security:** Security rules can be configured in either active or passive mode. An active rule blocks the violating traffic and logs the incident in the Web firewall logs. In the case of a passive rule, the violating request is simply logged. During initial deployment, all rules are first configured as passive rules and after fine tuning the administrator makes them active.
- **Exception profiling:** The Barracuda Web Application Firewall allows heuristics-based tuning of the existing firewall rules. Based on violations, the Barracuda Web Application Firewall provides the administrator with a proposed recommendation on tuning the configuration.
- **Adaptive profiling:** The Barracuda Web Application Firewall can analyze the incoming traffic and build a profile of a particular Web application. The profile consists of all accessed URLs and allowed form parameters. This profile can then be used to enforce strict security rules for the Web application.
- **Conversion of HTTP application to HTTPS application:** A HTTP based Web application can be converted into an HTTPS application without having to rewrite any code on the back end application with the Instant SSL capability of the Barracuda Web Application Firewall.
- **Delegated administration:** Administrative tasks and responsibilities for securing the different Web applications can be delegated amongst multiple administrators.
- **Reporting:** The Barracuda Web Application Firewall provides reports on attacks, Web traffic, administrative audits, and configuration.
- **Alerts:** Notifications of system alerts are sent out via SNMP traps or email. This allows administrators to be well informed about the security status of their applications.
- **Barracuda Central updates:** The Barracuda Networks' security analysis team keeps abreast with all emerging threats and updates are made available to the Barracuda Web Application Firewalls.

## Affordability

- **Models:** The Barracuda Web Application Firewalls are available in five models handling traffic from 10 Mbps to 1 Gbps and are suited for small to large deployments.
- **No per server fees:** Each model can secure multiple applications and is available at a competitive price point. Based on the throughput requirements, organizations can choose the model and secure varying number of servers.

For questions about the Barracuda Web Application Firewall, please visit <http://www.barracuda.com/waf> or call Barracuda Networks for a free 30-day evaluation at 1-888-ANTI-SPAM or +1 408-342-5400. For more information on our other security and productivity solutions, please visit <http://www.barracuda.com/products>.

## About Barracuda Networks Inc.

Barracuda Networks Inc. built its reputation as the worldwide leader in content security appliances by offering easy to use and affordable products that protect organizations from email, Web and IM threats. Barracuda Networks has leveraged its success in the security market to offer networking products that improve application delivery and network access as well as world-class solutions for message archiving, backup and data protection. Coca-Cola, FedEx, Harvard University, IBM, L'Oreal, and Europcar, are amongst the 70,000 organizations protecting their networks with Barracuda Networks' solutions. Barracuda Networks' success is due to its ability to deliver easy to use, comprehensive solutions that solve the most serious issues facing customer networks without unnecessary add-ons, maintenance, lengthy installations or per user license fees. Barracuda Networks is privately held with its headquarters in Campbell, Calif. Barracuda Networks has offices in 10 international locations and distributors in more than 80 countries worldwide. For more information, please visit <http://www.barracudanetworks.com>.



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