BARRACUDA
N E T W O R K S

PRODUCT CATALOG

CONTENTS

Barracuda Networks Inc.

About the Company
Barracuda Networks Inc. combines premises-based gateways and software, virtual appliances, cloud services, and sophisticated remote support to deliver comprehensive content security, data protection and application delivery solutions. The company's expansive product portfolio includes offerings for protection against email, Web and IM threats as well as products that improve application delivery and network access, message archiving, backup and data protection.

Coca-Cola, FedEx, Harvard University, IBM, L'Oreal, and Europcar are among the more than 130,000 organizations protecting their IT infrastructures with Barracuda Networks' range of affordable, easy-to-deploy and manage solutions. Barracuda Networks is privately held with its International Headquarters in Campbell, California.

The Barracuda Networks Difference
Since its inception, Barracuda Networks continues to gain wide acclaim from customers, media and analysts by offering exceptional customer service and top-notch products. Companies and organizations of all sizes rely on Barracuda Networks solutions for five key reasons:

- **Up-and-running in 15 minutes.** With no software to install or network modifications required, all Barracuda Networks products are easy to deploy and use.
- **No IT expertise required.** All Barracuda Networks products feature an intuitive Web interface that ensures smooth product management and does not require an IT staff to be experts in a particular solution.
- **No support phone trees.** Specially trained Barracuda Networks support technicians are available 24x7 to answer customer calls and provide live support.
- **Automatic product updates.** Every Barracuda Networks solution comes backed by Barracuda Energize Updates, which ensure continuous protection against the latest threats automatically.
- **Low total cost of ownership.** Barracuda Networks solutions can be easily scaled for performance and increased capacity as organizations grow while maintaining low total cost of ownership.

Barracuda Central and Barracuda Networks Technical Support
Every Barracuda Networks product is backed by world-class services and technical support. To keep systems maintenance-free, Barracuda Energize Updates ensure that Barracuda Networks products are kept up-to-date to mitigate the latest security threats and enforce content filtering policies required by an organization. Barracuda Energize Updates are backed by Barracuda Central, a 24x7 operations center where engineers monitor the Internet and the industry for the latest threats, applications, Web sites and trends.

Barracuda Networks Technical Support is staffed with IT experts ready to solve technical issues. With technical support centers across the globe, Barracuda Networks is staffed 24x7 to provide immediate help without phone trees. Barracuda Networks Technical Support is available in three levels, with the highest Premium Support level providing a dedicated account manager and technical support personnel familiar with an organization's IT environment.

All Barracuda Networks appliances are built on hardened, industrial-strength equipment. Beyond the standard warranty, Barracuda Networks Technical Support offers the Instant Replacement program, where Barracuda Networks will ship replacement units within one business day to keep organizations up and running.

Awards

Barracuda Networks has been recognized for its contributions and leadership in email and Web security. Combining its own award-winning technology with powerful open source software, Barracuda Networks delivers easy-to-use, comprehensive security, networking and data protection solutions. As the winner of numerous industry honors, leading organizations around the world continue to trust Barracuda Networks.

SC MAGAZINE AWARDS 2010 WINNER Honored in the U.S.

SC MAGAZINE AWARDS 2009 WINNER Honored in the U.S.

CRN TEST CENTER RECOMMENDED

VAR Business 5 STAR PARTNER PROGRAM WINNER

Gartner Cool Vendor in Security SaaS

ChannelWeb Top Emerging Vendor - Storage

SC MAGAZINE RECOMMENDED

NETWORKWORLD Top 10 IT Security Companies to Watch

Information Security '09 READERS' CHOICE AWARDS GOLD

eWEEK Top 10 Security Stories

RSACONFERENCE2009 Top 10 "Most Innovative"

Customers

Barracuda Networks has thousands of customers ranging from small and medium businesses to Fortune 1000 companies that span all industry verticals. Barracuda Networks' success is due in part to the diversity of data contributions from the more than 130,000 customers worldwide that count on Barracuda Networks products. Below is a sample of Barracuda Networks' expansive customer portfolio.

ACT Government	BT	Compass Communications
Acumen Group	Buma/Stermra	Con Edison
adaptec	Burmax Company, Inc.	Country Road Limited
Admiral IT & Systemdesign	Burson Auto Parts	Creative Labs
AGIP	cadence	California State University Bakersfield
Aldium Insurance	Caldwell Consultants	Cyberlink
Allrecipes	Callaway Gardens	Delta Dental Plans Association
Alliance Laundry Systems	Caltrans	DEK Systems
Alpha Romeo	CanWest MediaWorks	Desai/Nasr Consulting Engineers, Inc.
Alpine Electronics of America, Inc.	Caulfield Grammar School	Dierenbescherming
Applied Telecomm Corporation	Canon Inc.	Digital Networks
Arby's	Carl's Jr	Display Products, Inc.
A.T. Kearney	Carolina Panthers	D-Link
Atmel	CBS Corporation	Drexel Heritage Furniture Industries, Inc.
Australian Psychological Society	Cencosud S.A.	Dudley College
Banco Itaú	Cellular South	E! Entertainment Television
Banco Rio	Century 21Real Estate LLC	Edith Cowan University Australia
BARNES&NOBLE	City of Coquitlam	El Torito Restaurants, Inc.
Benchmark Group	City of Miami	Equinox Information Systems
Bereskin & Parr, LLP.	City of New Westminster	ERNST & YOUNG
Berkeley College	City of Oklahoma City	Erwin Müller Versandhaus GmbH
Big Bear Grizzly	City of Vernon	Europcar
BOEING	Coca-Cola Company	Everex Communications, Inc.
Boston Celtics	Coinstar	Fashion Island
Brandon Sun		Federal Bureau of Investigation
Brocade	Comcast	FedEx

Awards & Customers

Customers (cont.)

Fone Zone

Food4Less

Forbes.com

Fortinet

Fox Racing Inc.

Fox Sports Net, Inc.

FUJITSU

Gaz de France

Girl Scouts of the USA

Geneseo Telephone Company

Georgia Institute of Technology

GMAC Financial Services

Goodwill Industries International, Inc.

GUESS BY MARCIANO

Hardee's Food Systems, Inc.

Harvard University

Heald College

Herbalife Ltd.

Hickory Farms

Hilton Hotels & Resorts

HITACHI

Holiday Inn Express

Honda

Hope Island Resort

HØRSHOLM KOMMUNE

HostMySite.com

Hewlett-Packard Company

Huffy Corporation

IBM

Ideagen Software Limited

Ikano Communications, Inc.

Indian Institute of Technology, Kanpur

Indiana Rail Road Company

In-N-Out Burger

IntelliNet Technologies, Inc.

Intermountain Healthcare (IHC)

International Olympic Committee

IKEA

JAGUAR

Jamba Juice

Jet Propulsion Laboratory

Kawasaki Motors

KeyTrust

Klenk Holz AG

KNIGHT RIDDER

Knott's Berry Farm

Kyocera Mita Corporation

La Caja de Ahorro y Seguro

La Salsa Fresh Mexican Grill

Landratsamt Günzburg

Long Island Children's Museum

Lockheed Martin Corporation

Loews Hotels

L'ORÉAL

Louis Vuitton

Majlis Amanah Rakyat (MARA)

Marvel Enterprises, Inc.

Mazda Technologies

Microsoft

MIT

Mirvac Group

Mitsubishi Motors

MythBusters

NASA

NASCAR

Nashville Predators

National Hire Group Limited

National Hockey League

National Rifle Association

Nintendo

Nordstrom, Inc.

North Central Kansas Technical College

Northrop Grumman Corporation

Oregon State University

Pennsylvania State University

Perth College

Pioneer

Pioneer Title Company

Pizza Hut, Inc.

PR Newswire

Publix Super Markets, Inc.

purplepassport

Radisson Hotels & Resorts

Rolling Stone

Ronald McDonald House Charities

Royal College of Physicians

Salvation Army

SanDisk Corporation

San Jose Sharks

SHISEIDO

Siemens Corporation

Sky Channel

Sonic Healthcare

South Carolina Heart Center

Spokane Public Schools

STARBUCKS COFFEE

Suzuki

Terra Resource Group

Texas A&M University

Time Warner Inc.

Tommy Hilfiger Group

Toyota Motor Sales, U.S.A., Inc.

Tumi, Inc.

Union Bank of California

United Colors of Benetton

United Nations

United States Air Force

United States Army

United States Coast Guard

United States Marine Corp

United States Navy

United Way

University of California, Los Angeles

University of Georgia

University of Notre Dame

University of Southern California

U.S. Department of Commerce

U.S. Department of Defense

U.S. Department of Homeland Security

U.S. Department of Justice

U.S. Department of the Treasury

US Fuel Cell Council

U.S.News

Varian Medical Systems

Verizon Business

ViaWest

Volkswagon

Volvo

WebPex.com, Inc.

YAMAHA

YMCA

Zinc Solutions

Barracuda **Spam & Virus Firewall**

Blocks email-borne spam and virus intrusions while preventing data loss

Now includes
full outbound filtering and
Data Loss Prevention

AVAILABLE AS
Virtual Appliances V̅x̅
see page 27

KEY BENEFITS
• Best-of-breed spam and virus
   protection leveraging the most diverse
   collection of email on the Internet
• Prevents spam and stops virus proliferation
• Deploys in minutes and works with
   the existing email infrastructure
• Offloads spam and virus scanning
   from the email server
• Keeps email on-premises for control and
   security of confidential information
• No per user fees – offers savings
   over incumbent solutions

KEY FEATURES
Comprehensive Protection
• Spam and virus filtering
• Prevents spoofing, phishing and malware
• Invalid bounce suppression
• Global or per user quarantine
• Outbound email filtering
• SMTP/TLS site-to-site encryption
• Policy enforcement for compliance
   and corporate policies

12 Defense Layers
• Denial of Service protection
• Rate control
• IP Reputation (includes
   Barracuda Reputation)
• Sender authentication
• Recipient verification
• Triple-layer virus protection
• Custom policy
• Spam fingerprint analysis
• Intent analysis
• Image analysis
• Bayesian analysis
• Spam rules scoring

Supports Email Security Standards
• SPF, DomainKeys
• Emailreg.org
• External DNSBL support

Virus Filter
• Triple-layer virus blocking
• Barracuda Real-Time Protection
• Decompression of archives
• File type and extension blocking

The Barracuda Spam & Virus Firewall provides industry-leading, comprehensive protection against the latest spam, viruses, spoofing, phishing, spyware, and other email threats. With integrated outbound filtering, the Barracuda Spam & Virus Firewall enforces policies and protects an organization's online reputation by preventing spam and viruses from leaving the network. Designed for today's enterprises and mission-critical environments, the Barracuda Spam & Virus Firewall provides a powerful, easy-to-use and affordable solution for businesses of all sizes.

Comprehensive, Enterprise-Class Solution
The Barracuda Spam & Virus Firewall is available in eight models to handle a wide range of needs for small and medium businesses, educational institutions, government agencies, enterprises and service providers.

For inbound email filtering, the Barracuda Spam & Virus Firewall's layered approach minimizes the processing of each email which yields the performance required to process millions of messages per day. Unlike software solutions, the Barracuda Spam & Virus Firewall reduces the load placed on the email server by offloading both spam and virus filtering. Its architecture leverages 12 comprehensive defense layers to provide industry-leading defense capabilities.

> **❝ Of that volume (1.2 and 1.4 million messages per day), approximately 98 percent is rejected as spam. With the Barracuda Spam & Virus Firewall 600 we have successfully turned what was a resource strain for our IT staff and our customers, into a distant memory. We can now turn our attention to other matters, and our customers can as well. ❞**
>
> **Vice President of Hosting and Group Operations, ViaWest**

Inside the Technology

Barracuda Networks' multi-layered approach to email security provides the most comprehensive protection available and optimizes the processing of each email to maximize performance.

Predictive Sender Profiling goes beyond traditional email reputation analysis, probing deeper into sent email to identify bad sender behavior and block identity obfuscation techniques, despite a sender's lack of spamming history. As the next generation of anti-spam technology, Predictive Sender Profiling reinforces the industry-leading spam protection capabilities of the Barracuda Spam & Virus Firewall.

Barracuda Real-Time Protection is a set of advanced technologies that enables the Barracuda Spam & Virus Firewall to immediately block the latest virus, spyware, and other malware attacks as they emerge. These capabilities provide the fastest response times to email-borne threats by adding a third layer of anti-virus protection to the Barracuda Spam & Virus Firewall.

Behind the industry-leading initiatives of Predictive Sender Profiling and Barracuda Real-Time Protection are 12 explicit defense layers.

Barracuda Spam & Virus Firewall • Blocks email-borne spam and virus intrusions while preventing data loss

All models also incorporate essential outbound filtering techniques including attachment scanning, virus filtering, advanced rate controls for zombie attacks, and various blocking techniques to prevent crippling virus outbreaks from leaving the network. In addition, any confidential data in outgoing emails can be reviewed to conform to any internal policies or regulatory guidelines.

Simplified and Centralized Administration

The Barracuda Spam & Virus Firewall features an easy-to-use Web interface. The management and administration of the appliance is simple and cost effective with no software to install. The Web interface allows administrators to define, manage, and control corporate email policies from one central place.

The Barracuda Spam & Virus Firewall provides flexible, comprehensive protection through automatic downloads from Barracuda Central with the latest anti-spam and anti-virus updates. The appliance works with all SMTP email servers by scanning both inbound and outbound email to ensure that it is legitimate and virus-free.

The Barracuda Spam & Virus Firewall filters all email messages and displays the number of emails received with statistics on how they were processed.

MODEL COMPARISON	100	200	300	400	600	800	900	1000
CAPACITY								
Active Email Users	1-50*	51-500	300-1,000	1,000-5,000	3,000-10,000	8,000-22,000	15,000-30,000	25,000-100,000
Domains	10	50	250	500	5,000	5,000	5,000	5,000
Message Log Storage	8 GB	10 GB	12 GB	24 GB	72 GB	120 GB	240 GB	512 GB
Quarantine Storage			20 GB	60 GB	180 GB	360 GB	1 TB	2 TB
FEATURES								
Compatible with all Email Servers	✓	✓	✓	✓	✓	✓	✓	✓
Hardened and Secure OS	✓	✓	✓	✓	✓	✓	✓	✓
Outbound Email Filtering	✓	✓	✓	✓	✓	✓	✓	✓
Email Encryption	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Protection Layer	✓	✓	✓	✓	✓	✓	✓	✓
MS Exchange/LDAP Accelerator		✓	✓	✓	✓	✓	✓	✓
Per User Settings and Quarantine			✓	✓	✓	✓	✓	✓
Delegated Help Desk Role			✓	✓	✓	✓	✓	✓
Syslog Support			✓	✓	✓	✓	✓	✓
Clustering and Remote Clustering				✓	✓	✓	✓	✓
Per Domain Settings				✓	✓	✓	✓	✓
Single Sign-On				✓	✓	✓	✓	✓
SNMP/API				✓	✓	✓	✓	✓
Customizable Branding					✓	✓	✓	✓
Per User Score Settings					✓	✓	✓	✓
Delegated Domain Administration					✓	✓	✓	✓

*The Barracuda Spam & Virus Firewall 100 is limited to providing anti-spam and anti-virus protection for up to 50 email addresses.

Sizing Considerations

Capacity is dependent on the number of email users, system options and email mix. Selection should be based on the lower model of the user ranges when relaying both inbound and outbound mail through the Barracuda Spam & Virus Firewall. Internet Service Providers and customers with high email volumes should consult with a Barracuda Networks systems engineer to select the optimal configuration.

Barracuda **Spam & Virus Firewall**

Barracuda **Web Filter**

Protects Web users from malicious and inappropriate content

KEY BENEFITS
• Keeps network safe from spyware, viruses and other malware
• Enforces Internet usage policies to prevent workplace liability issues
• Increases productivity by managing Internet usage
• Improves network performance by managing ads, streaming media, and other bandwidth-intensive applications

KEY FEATURES
Gateway Level Network Threat Protection
• Inbound spyware/virus blocking
• Outbound spyware phone-home detection and blocking
• Integrated spyware removal

Web Content and Application Filtering
• HTTP/HTTPS support
• Proxy blocking
• Application blocking

Flexible Policy Management
• LDAP/AD, NTLM, Kerberos integration for Single Sign-On authentication
• Time-of-day/day-of-week policies
• Time and bandwidth quotas
• Custom categories
• Remote filtering agent

Comprehensive Reporting
• Integrated reports
• Scheduled reports

Organizations worldwide have recognized the need to create policies around its Internet usage in the workplace. Studies show that 70 percent of browsing to pornography sites happens during normal business hours and about 30 to 40 percent of overall Internet usage in the workplace is not related to business. While many Web sites targeted at business usage provide secure content, an increasing number of Web sites and Internet applications targeting personal usage are hosts to spyware, viruses and other Internet threats. Workplace personal Web browsing poses a threat to productivity and to the security of the network as a whole.

> **We are in love with the Barracuda Web Filter 610. Our students are completely confused as to why sites like BTunnel and PageWash (https sites) are no longer working. We couldn't be happier. Bandwidth usage is down almost 35 percent just from blocked popup ads, and spyware blocking.**
>
> *Technology Coordinator / Email Administrator, Lower Cape May Regional School District Cape May, NJ*

The Barracuda Web Filter is an integrated anti-malware, content filtering, and application blocking solution designed to block spyware and viruses, and to enforce acceptable Internet usage policies by blocking access to Web sites and Internet applications that are not related to business.

Powerful Malware Protection
With powerful, award-winning malware protection, the Barracuda Web Filter easily eliminates spyware, viruses, and other forms of malware from attempting to penetrate an organization's network. The Barracuda Web Filter also facilitates automatic removal of spyware from infected Windows computers with the included Barracuda Spyware Removal Tool that detects spyware protocol activity (i.e., "phoning home"). By adaptively targeting machines that are infected, the Barracuda Web Filter provides widespread protection and removal without requiring pre-loaded client software on every machine on the network.

Inside the Technology

The Barracuda Web Filter provides precise and deterministic control over Web traffic through a proxy-based architecture. Application protocols, including public IM services, peer-to-peer (P2P), and other Internet applications are filtered using a combination of Layer 7 deep-packet inspection and Layer 3 (destination port, IP address) rules.

Policy Engine. A sophisticated policy engine enables granular control by providing integration with popular authentication schemes including LDAP, Active Directory, Novell eDirectory, Kerberos and NTLM.

Reporting. An embedded database provides powerful built-in reporting capabilities without the need for external database software or client applications. For customers who want to use external reporting software, logs are exportable through syslog.

Barracuda Web Filter • Protects Web users from malicious and inappropriate content

Flexible, Comprehensive Filtering

The Barracuda Web Filter combines preventative, reactive, and proactive measures to form a complete Web filtering solution. Designed for the enterprise, the Barracuda Web Filter enables organizations to set up custom policies for particular users and groups across multiple time zones. The Barracuda Web Filter integrates with popular LDAP directory servers such as Microsoft Active Directory, for both authentication and group membership information. It also has remote filtering agents for Windows PCs and Macs to protect remote users' computers.

Remote Filtering

In addition to protecting the network, the Barracuda Web Filter also provides the Barracuda Web Security Agent (WSA), a downloadable client that can be installed on remote, off-network computers. With the WSA installed, Web traffic from remote client computers will be transparently filtered through a central Barracuda Web Filter appliance. This will ensure that the same Web browsing policies are applied to network users and remote users without the need to invest in or manage additional solutions.

The Barracuda Web Filter monitors attempted policy violations, blocked spyware, virus downloads and infected clients.

MODEL COMPARISON	210	310	410	610	810	910
CAPACITY						
Throughput (Mbps)	5	10	20	50	200	300
Web Cache Size		10 GB	50 GB	100 GB	200 GB	300 GB
Concurrent Users	25-100	50-200	150-500	450-1,500	1,000-3,000	2,500-4,500
Active TCP Connections	50-400	400-800	800-2,000	2000-6,000	6,000-10,000	10,000-15,000
FEATURES						
Hardened and Secure OS	✓	✓	✓	✓	✓	✓
Content Filtering	✓	✓	✓	✓	✓	✓
Application Control	✓	✓	✓	✓	✓	✓
Advanced Policy Creation	✓	✓	✓	✓	✓	✓
Network Threat Protection	✓	✓	✓	✓	✓	✓
Spyware Removal	✓	✓	✓	✓	✓	✓
Syslog		✓	✓	✓	✓	✓
Ethernet Bypass Hardware		✓	✓	✓	✓	✓
Remote Filtering Agent			✓	✓	✓	✓
SNMP/API			✓	✓	✓	✓
Linked Management			✓	✓	✓	✓
WCCP			✓	✓	✓	✓

Sizing Considerations

Capacity is typically dependent on the volume of Internet traffic which in turn depends on the number of concurrent users, available throughput and the type of traffic. For example, customers expecting heavy Web browsing or streaming media content should consider an appliance at the higher end of the supported ranges. For help sizing the appropriate Barracuda Web Filter, customers should contact a Barracuda Networks system engineer.

Barracuda **Web Application Firewall**
Defends Web sites and Web applications from attacks

KEY BENEFITS
• Protects Web application vulnerabilities from being exploited and facilitates compliance with industry regulations, such as PCI DSS
• Prevents data theft and fraud associated with online credit card transactions
• Prevents service disruptions that can result in loss of customers and impact an organization's bottom line

KEY FEATURES
Security
• HTTP/HTTPS/FTP protocol validation
• Protection against common attacks
   - SQL Injection
   - Cross Site Scripting (XSS)
   - OS command injection
   - Cookie tampering and hijacking
• Form validation
• Adaptive security
• Brute force protection
• Session tracking
• Rate control
• Anti -virus for file uploads
• Outbound data theft protection
   - Credit card numbers
   - Social Security numbers
• Complete response control
• XML Firewall
• Trusted hosts

Authentication and Authorization
• LDAP/RADIUS/local user database
• Client certificates
• Single Sign-On
• RSA SecurID
• CA SiteMinder

Traffic Management
• Load balancing
• Content routing
• Caching
• Compression
• SSL offloading
• High availability

Visibility
• Attack, access and audit logs
• Extensive reporting
• Integration with SIEM solutions

Online Web-based applications are increasingly at risk from professional hackers who target such applications in order to commit data theft or fraud. Being compromised can damage an enterprise's reputation, result in loss of customers, and impact an organization's bottom line. The Barracuda Web Application Firewall offers every capability needed to deliver, secure, and manage enterprise Web applications from a single appliance through an intuitive, real-time Web interface. By leveraging protocol or application vulnerabilities to instigate data theft, denial of service, or defacement of a company's Web site, the Barracuda Web Application Firewall provides award-winning protection against hackers.

Comprehensive Web Site Protection
Unlike traditional network firewalls or intrusion detection systems that simply pass HTTP, HTTPS or FTP traffic for Web applications, the Barracuda Web Application Firewall proxies this traffic and inspects it for attacks to insulate Web servers from direct access by hackers. Many applications are vulnerable to such attacks when application developers do not consistently employ secure coding practices.

The Barracuda Web Application Firewall is designed to combat all attack types that have been categorized as significant threats. As a full proxy, the Barracuda Web Application Firewall blocks

> **66** **The Barracuda Web Application Firewall enables us to have nearly 100 percent uptime while providing the quick response times that users expect. With its superior security features, it protects our network from malicious application layer attacks and allows us to deploy widely available cost-effective services within our budget. Since deployment we have seen an increased usage of our Web applications and services.** **99**
>
> **Security-Messaging Engineer,**
> **Information Security**
> **Healthcare Industry**

Inside the Technology

The Barracuda Web Application Firewall provides comprehensive bi-directional security for Web and application servers. On the ingress the Barracuda Web Application Firewall checks all components of Web traffic including URLs, parameters, headers and cookies for attacks. It also provides protection against application-layer denial of service, brute force and cross-site request forgery attacks. An integrated anti-virus engine prevents infected files from being uploaded to the servers. On the egress, it scans the outbound data to secure sensitive information and cloaks server information including errors and server headers.

The Barracuda Web Application Firewall is XML-aware and secures against multiple XML security issues including XML denial-of-service techniques, while enforcing compliance to WSDL and XML schemas.

The Barracuda Web Application Firewall integrates with LDAP and RADIUS servers to provide access control for Web resources while accelerating content delivery with traffic management capabilities like caching, compression, load balancing and content routing. In addition, the Barracuda Web Application Firewalls can be deployed inline as a bridge or a reverse proxy, or out of line as a one-armed proxy.

Barracuda Web Application Firewall • Defends Web sites and Web applications from attacks

attacks while preventing leakage of sensitive outbound data such as credit card or Social Security numbers. The Barracuda Web Application Firewall's adaptive security module provides comprehensive security to Web applications by learning the Web application structure or providing an easy way of configuring exceptions to configured security policies.

Advanced Traffic Management and Acceleration

To minimize ongoing administration associated with protecting Web sites against application vulnerabilities, the Barracuda Web Application Firewall automatically receives Energize Updates containing the latest policy, security and attack definitions. In addition to the comprehensive security benefits, there are also application delivery capabilities such as SSL offloading, SSL acceleration and load balancing. These capabilities are designed to improve the performance, scalability, and manageability of today's most demanding data center infrastructures.

The Barracuda Web Application Firewall monitors and tracks common application attacks, performance statistics and bandwidth usage.

MODEL COMPARISON	360	460	660	860	960
CAPACITY					
Backend Servers Supported	1-5	5-10	10-25	25-150	150-300
Throughput	25 Mbps	50 Mbps	100 Mbps	600 Mbps	1 Gbps
FEATURES					
HTTP/HTTPS/FTP Protocol Validation	✓	✓	✓	✓	✓
Protection Against Common Attacks	✓	✓	✓	✓	✓
Form Field Metadata Validation	✓	✓	✓	✓	✓
Web Site Cloaking	✓	✓	✓	✓	✓
Response Control	✓	✓	✓	✓	✓
Outbound Data Theft Protection	✓	✓	✓	✓	✓
Granular Policies to HTML Elements	✓	✓	✓	✓	✓
File Upload Control	✓	✓	✓	✓	✓
Logging, Monitoring and Reporting	✓	✓	✓	✓	✓
High Availability	✓	✓	✓	✓	✓
SSL Offloading	✓	✓	✓	✓	✓
Authentication and Authorization	✓	✓	✓	✓	✓
Vulnerability Scanner Integration	✓	✓	✓	✓	✓
Centralized management	✓	✓	✓	✓	✓
Caching and Compression		✓	✓	✓	✓
LDAP/RADIUS Integration		✓	✓	✓	✓
Load Balancing		✓	✓	✓	✓
Content Routing		✓	✓	✓	✓
Adaptive Profiling			✓	✓	✓
AV for File Uploads			✓	✓	✓
XML Firewall			✓	✓	✓

Sizing Considerations

Capacity is dependent on the total network throughput and number of backend servers behind the Barracuda Web Application Firewall, as well as actual traffic patterns, backend applications and features enabled. It is recommended to deploy the Barracuda Web Application Firewalls in high availability (HA) pairs. For help sizing the appropriate Barracuda Web Application Firewall, customers should contact a Barracuda Networks system engineer.

ICSA labs CERTIFIED
www.ICSALabs.com
Web Application Firewall

Barracuda **NG Firewall**

Provides application and identity-aware protection for distributed networks

KEY BENEFITS
- Protects network infrastructure in the presence of social media and other Web 2.0 applications
- Reduces cost of managing large dispersed networks
- Enables consistent central management of thousands of remote security devices

KEY FEATURES
Firewall/VPN Features
- Layer 7 Application Control for Web 2.0
- Stateful packet forwarding
- Intrusion Prevention (IPS)
- Transparent proxying (TCP)
- NAT (src, dst, nets), NAPT, PAT
- Dynamic rules / timer triggers
- Virtual rule test environment
- Application-aware traffic intelligence in VPN tunnels

Traffic Optimization
- Link monitoring and aggregation
- Policy routing
- Traffic shaping
- WAN compression
- On-the-fly traffic flow reprioritization

High Availability
- Active-active or active-passive (with external load balancer only)
- Network notification of failover
- Transparent failover without session loss
- Encrypted HA communication

Central Management Options
Barracuda NG Control Center
- Standard Edition
  - Single tenant
  - 1 configuration grouping
  - Unlimited firewalls
- Enterprise Edition
  - Single tenant
  - Unlimited configuration groupings
  - Unlimited firewalls
- Global Edition
  - Support for 5 tenants included
  - Unlimited configuration groupings
  - Unlimited firewalls
  - Additional tenant licenses available

The Barracuda NG Firewall is a family of hardware and virtual appliances designed to protect network infrastructure, improve site-to-site connectivity and simplify administration of network operations. Beyond its powerful network firewall and VPN technologies, the Barracuda NG Firewall integrates a comprehensive set of next generation firewall technologies, including Layer 7 application control, intrusion prevention, Web filtering, anti-virus, anti-spam and network access control.

The Barracuda NG Firewall features intelligent site-to-site traffic management capabilities that optimize both availability and performance of the Wide Area Network. Administrators can control application-level routing and prioritization of traffic across multiple links, tunnels and traffic conditions. Supported link types include dedicated lines, xDSL, 3G wireless mobile networks, and any other link types presented as a copper or optical Ethernet link.

On top of these leading next generation firewall capabilities, highly resilient VPN technology combined with intelligent traffic management capabilities allow customers to save line costs and increase overall network availability. Scalable

> ❝ **Within the first two months of deployment we had already realized dramatic cost savings per location as well as increased network traffic bandwidth. In addition we have secured a solution that allows for traffic prioritization and routing in case of a connectivity loss. Barracuda Networks is a highly reputable company throughout the world, known for its security expertise. We are convinced that with Barracuda Networks as the new company behind our firewall infrastructure, we will be well-served and supported for many years to come.** ❞
>
> CIO, RHI

Inside the Technology

The Barracuda NG Firewall is available as a small, fanless mini-desktop model or large, 2U rackmount form factor appliance that delivers up to 20 Gbps throughput and up to 24x Gbps copper ports, as well as SFP and SFP+ fiber options.

Layer 7 Application Control. Next to traditional firewalls and deep packet inspection, every Barracuda NG Firewall appliance detects and controls more than 800 evasive applications such as Skype, Kazaa, Web conferencing, flash and others to effectively allow users to take back control of the network.

Clients. Every Barracuda NG Firewall appliance includes unlimited VPN client usage. Optional SSL VPN and Barracuda NG Network Access Clients enforce client security posture before allowing access to the network or facilitating guest networking enforcement.

Management. Scalable, audit-proof management is centralized to reduce administrative overhead and ensure policy compliance for local and remote locations.

Barracuda NG Firewall • Provides application and identity-aware protection for distributed networks

centralized management of all aspects of the solution reduces administrative overhead and ensures policy compliance for local and remote locations.

Central Management Across the Enterprise

To centralize management across many different firewalls and remote access users, the Barracuda NG Control Center enables administrators to configure security and network access policies, control firmware update revisions, and manage user settings. Template-based configuration and globally available security objects enable efficient configuration across thousands of locations. Highly customizable administrative roles can be defined to delegate administrative capabilities for specific departments or locations.
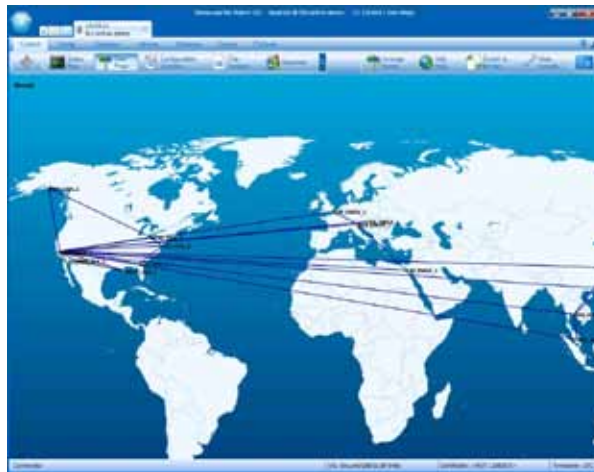
The Barracuda NG Firewall Control Center provides centralized, real-time monitoring of all the firewalls across the enterprise.

The Barracuda NG Firewall is designed for deployment across the entire enterprise. Through the Barracuda NG Control Center, administrators can manage security, content and traffic management policies from a single interface. Centralized management of security and content policy provides a number of benefits, including:

- Consistent security posture and policy enforcement across the enterprise.
- Real-time accounting and reporting across multiple gateways
- Comprehensive history and rollback of configuration and policy changes across the network
- Centralized version control of anti-spam, anti-virus, content filtering and Network Access Control updates

Stops Threats and Reduces Administrative Overhead

The Barracuda NG Firewall is an application-aware firewall designed to mitigate threats, enforce policies and optimize traffic flow, resulting in ultra-reliable WAN links. Centralized management provides visibility of the entire network, reducing administrative overhead.

MODEL COMPARISON	F10	F100	F200	F300	F400	F600	F800	F900
CAPACITY								
Firewall Throughput	150 Mbps$_2$	150 Mbps$_2$	350 Mbps$_2$	350 Mbps$_2$	1.8 Gbps$_2$	4.7 Gbps$_2$	9.2 Gbps$_3$	21.0 Gbps$_3$
VPN Throughput [4]	85 Mbps	85 Mbps	160 Mbps	160 Mbps	430 Mbps	950 Mbps	1.45 Gbps	3.78 Gbps
IPS Throughput	-	33 Mbps$_2$	84 Mbps$_2$	84 Mbps$_2$	486 Mbps$_2$	1316 Mbps$_2$	2852 Mbps$_2$	4650 Mbps$_2$
Concurrent Sessions	8,000	8,000	70,000	70,000	300,000	300,000	500,000	1,000,000
New Sessions/s	1,300	1,500	2,500	2,500	7,000	16,000	35,000	100,000
FEATURES								
Firewall	✓	✓	✓	✓	✓	✓	✓	✓
IPS		✓	✓	✓	✓	✓	✓	✓
IPsec VPN	✓	✓	✓	✓	✓	✓	✓	✓
Intelligent Traffic Flow Control	✓	✓	✓	✓	✓	✓	✓	✓
Layer 7 Application Control	✓	✓	✓	✓	✓	✓	✓	✓
Barracuda Web Filter		✓	✓	✓	✓	✓	✓	✓
Spam Filter			✓	✓	✓	✓	✓	✓
WAN Compression			✓	✓	✓	✓	✓	✓
Barracuda NG Web Security		Optional	Optional	Optional	Optional	Optional	Optional	Optional
Barracuda NG Web Filter		Optional	Optional	Optional	Optional	Optional	Optional	Optional
Barracuda NG Malware Protection		Optional	Optional	Optional	Optional	Optional	Optional	Optional
Barracuda NG SSL VPN and NAC			Optional	Optional	Optional	Optional	Optional	Optional
Barracuda NG Secure Web Proxy						Optional	Optional	Optional

[2] Measured with large packets (MTU1500)   [3] Measured with large packets (MTU9000)   [4] VPN throughput using AES128 NOHASH

Sizing Considerations

Choosing the correct model depends on the actual traffic patterns, Web usage behavior and available uplink bandwidth. For help sizing the appropriate Barracuda NG Firewall appliance, customers should contact a Barracuda Networks system engineer.

Barracuda **NG Firewall**

Barracuda **SSL VPN**

Enables secure, clientless remote access

KEY BENEFITS
• Secure remote access for end users
• Avoids networking issues of IPsec
• End-user portal displaying available resources
• Granular security policies and auditing
• Supports Multi-Factor Authentication

KEY FEATURES
Security Features
• Supports Active Directory, LDAP
  and built-in user databases
• Policy-based rights management
• Multi-Factor Authentication
    - PKI – client certification or USB key
    - RADIUS – authentication
      or hardware token
    - PIN authentication
    - One-time password via email or SMS
• Single Sign-On
• Restrict logins by OS or browser versions
• Virtual keyboard and cache cleaning
  for public workstation access
• Anti-virus scanning of file uploads
• Supports mobile devices through
  L2TP/IPsec and PPTP

VPN Features
• Intranet Web site forwarding
• Network file system browsing
• Remote Desktop Single Sign-On
• Single Sign-On
• Barracuda SSL VPN Agent: Java
  agent for clientless deployment
• Barracuda Network Connector: Installable
  VPN client for IP connectivity
• Citrix XenApp (ICA), VNC, NX, Telenet,
  SSH and RDP applications
• Local Windows Explorer drive mapping
• Configurable SSL tunnels
• Multiple user logon realms

Auditing and Reporting Capabilities
• Track file, Web and network access
• Reports in PDF, CSV and text formats
• Granular controls for access and policy
• Health monitoring
• Network utilization and appliance load statistics

The Barracuda SSL VPN enables secure, clientless remote access to internal network resources from any Web browser. Designed for remote employees and road warriors, the Barracuda SSL VPN provides comprehensive control over file systems and Web-based applications requiring external access. The Barracuda SSL VPN integrates with third-party authentication mechanisms to control user access levels and to provide Single Sign-On capabilities.

Comprehensive and Customizable Security
By its very nature, remote access can be rather risky since it exposes internal network resources across the Internet. However, the Barracuda SSL VPN mitigates these risks by tightly controlling user access through a full suite of authentication mechanisms, client access controls, and support for third-party authentication such as Active Directory or LDAP. Administrators have the option of layering security by enforcing the use of PIN numbers, hardware tokens, client certificates, and other forms of secure authentication on top of Active Directory or LDAP to securely manage external access to network resources.

> 66 **Before the Barracuda SSL VPN we had no way of providing affordable remote access for the many schools we look after in the county. Other solutions on the market were just too expensive and we needed to find an alternative solution. I'm happy to say we found the Barracuda SSL VPN to be the most affordable and feature rich product on the market.** 99
>
> **Systems Support Manager,**
> **Cambridgeshire County Council**
> **Waterbeach, UK**

Inside the Technology

Three fundamental technologies make the Barracuda SSL VPN easier to deploy than traditional VPN systems.

End User Portal. Unlike traditional VPNs that simply give users an IP address on the network, the Barracuda SSL VPN enables administrators to lay out "favorites" for end users as well as defines granular access control policies to grant or restrict access to internal Web sites, file shares and applications.

Reverse Proxy. Because SSL support is built into all modern Web browsers, no additional software is required to access Web sites through the Barracuda SSL VPN. A file browser Web application built into the Barracuda SSL VPN enables user access to network file shares using the reverse proxy.

SSL Tunneling. Traditional VPN tunnels work at a network level. SSL tunnels work at a session level and do not require remote clients to have their own IP address on the network. By setting up SSL tunnels through a lightweight Java client downloaded on demand, the Barracuda SSL VPN can provide remote access using software such as Remote Desktop Services, Citrix XenApp, or VNC without worrying about traditional VPN networking issues such as IP address conflicts, VPN pass through or GRE ports.

Barracuda SSL VPN • Enables secure, clientless remote access

With robust security and auditing facilities, administrators can define custom policies to govern resource access to particular users or groups while tracking user activity. For added security, files uploaded during a VPN session to network file shares or internal Web sites are scanned for viruses and other malware to prevent infections of critical network resources.

For complete network layer access, the Barracuda SSL VPN includes the Barracuda Network Connector, an installable VPN client for TCP or UDP connectivity. With the Barracuda Network Connector, users gain SSL access to legacy client/server applications during a VPN session. To minimize ongoing administration associated with security, the Barracuda SSL VPN automatically receives hourly Energize Updates containing the latest virus, security and application definitions.

Connectivity

The Barracuda SSL uses PPTP and L2TP to allow connections from mobile devices. PPTP and L2TP clients are standard on most smartphones and tablets including: Apple iPhones and iPads, smartphones running Android 1.6 or higher and tablets running Android 3.0 or higher. For secure mobile connections, L2TP is deployed over IPSec.
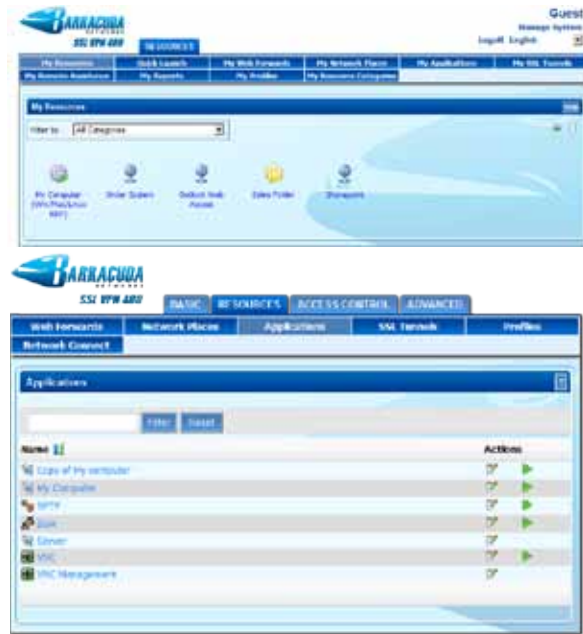
The Barracuda SSL VPN provides policy-based access to network resources.

MODEL COMPARISON	180	280	380	480	680	880
CAPACITY						
Maximum Concurrent Users	15	25	50	100	500	1000
FEATURES						
SSL Tunneling	✓	✓	✓	✓	✓	✓
Barracuda Network Connector	✓	✓	✓	✓	✓	✓
Intranet Web Forwarding	✓	✓	✓	✓	✓	✓
Network File Access	✓	✓	✓	✓	✓	✓
Windows Explorer Mapped Drives	✓	✓	✓	✓	✓	✓
Citrix XenApp/VNC/NX/Telnet/SSH/RDP	✓	✓	✓	✓	✓	✓
Remote Desktop Single Sign-On	✓	✓	✓	✓	✓	✓
L2TP/IPsec, PPTP Mobile Device Support	✓	✓	✓	✓	✓	✓
Anti-Virus	✓	✓	✓	✓	✓	✓
Client Access Controls	✓	✓	✓	✓	✓	✓
Active Directory/LDAP Integration	✓	✓	✓	✓	✓	✓
Layered Authentication Schemes	✓	✓	✓	✓	✓	✓
Remote Assistance			✓	✓	✓	✓
Multiple User Realms			✓	✓	✓	✓
Barracuda SSL VPN Server Agent			✓	✓	✓	✓
Hardware Token Support			✓	✓	✓	✓
RADIUS Authentication			✓	✓	✓	✓
Syslog Logging			✓	✓	✓	✓
SNMP/API				✓	✓	✓
Clustering/High Availability				✓	✓	✓

Sizing Considerations

Capacity is dependent on the number of concurrent users. Organizations with larger numbers of remote users may see higher ratios of concurrent users to employees in network environments. For help sizing the appropriate Barracuda SSL VPN, customers should contact a Barracuda Networks system engineer.

Barracuda Web Security *Flex*
Hybrid cloud and appliance-based Web filtering and malware protection

KEY BENEFITS
- Best-of-breed malware protection for multiple locations, devices and users
- Cost-effective security for advances in social networking and new Web 2.0 threats
- Flexible deployment options to ensure complete coverage

KEY FEATURES
Virus and Malware Protection
- Signature-based anti-virus detection
- Heuristic malware analysis
- Real-time script interpreting and AJAX analysis
- Monitors HTTP traffic for bot signatures
- Threat intelligence detection of botnets, exploit kits and rogue anti-virus

Application Control
- Control and reporting of over 50 Web-based applications
- Communications and instant messaging clients
- Peer-to-peer/file-sharing software
- Streaming media

Enterprise Integration
- Integrated authentication and group lookup
- Transparent user identification
- Role-based administration
- Directory service integration with Active Directory and LDAP
- Automated or manual directory upload
- Multiple proxy configurations – direct/explicit or transparent

Barracuda Web Security Agent
- Enforces policy and security protection through the service
- Tamper-resistant to prevent user bypass or reconfiguration
- Silent install for enterprise deployment
- Supports user- and group-based policies

Reporting
- Comprehensive Web-based reporting across entire organization
- Customizable summary and detailed reports

Web security is today's must-address issue. However, It's difficult to safeguard all Web users from phishing, malicious Javascript, worms, and other attacks since users access the Web not only through desktop computers, but also through equally vulnerable notebook computers — from inside and beyond the corporate perimeter. No single product has been able to protect all classes of Web users until now. Barracuda Web Security *Flex* delivers leading Web security to all users with the flexible architecture, unified management and commercial terms that let administrators focus on providing comprehensive Web security rather than dwelling on technology or costs.

Customize Security Coverage to Any Environment
Barracuda Web Security *Flex* delivers state-of-the-art Web security through three deployment options that you administer through one management portal. For corporate and branch office deployments, gateway Web security appliances (hardware or virtual) integrate with enterprise directory services, like Active Directory, behind the firewall to enable user and group-based policy control. A pure SaaS Web security service provides Web security for remote office and home-based users. Software agents extend security to mobile users' Windows and Mac laptops. Administrators can select any deployment option or any combination of deployment options to satisfy their exact Web security needs.

> ❝ **For our business, it is critical that IT managers deploy technologies that are well-supported, affordable and accessible. The Barracuda Web Security *Flex* provides a scalable, affordable and powerful solution - far above the competition - that is also very easy-to-use. I could practically set-and-forget it, effectively enforcing policies AHA has established regarding Web tools and usage.** ❞
>
> **IT Manager,**
> **American Health Associates**

Inside the Technology

Barracuda Web Security *Flex* leverages hybrid technology

Hybrid Technology. This offering integrates cloud, agent and appliance technologies into a hybrid system that acts as standalone Web security, or can be integrated with networks for local control, or acts jointly as a standalone and an integrated system. This system enforces Web policies and provides malware protection in heterogeneous environments with management and reporting done via a single Web UI.

Malware Protection. Barracuda Web Security *Flex* uses reactive and predictive defenses against malware: anti-virus, heuristics, AJAX-aware analysis, HTTP behavior analysis, ID/IP and advanced anti-spam intelligence. Energize Updates keep defenses current.

Web Policy Management. This system can block access to Web sites and Web applications such as IM, VoIP, P2P file sharing and streaming media. Administrators can provide access to a Web site, but block access to a Web application on that site to all or some users. Administrators can also create policies that block file types, content categories and restrict bandwidth.

Barracuda Web Security *Flex* • Hybrid cloud and appliance-based Web filtering and malware protection

Unified Management and Reporting

The cloud-based management portal lets multiple administrators configure Web usage rules, monitor Internet access and generate detailed reports across all three deployment options. The dashboard gives administrators a quick snapshot of aggregated traffic. Administrators can also drill down through levels of increasingly granular data.

Driving Out Deployment Risk

With Barracuda Web Security *Flex*, the economics center around the size of the user population protected, rather than the specifics of the deployment. Even when additional gateway hardware is required for deployment, costs involve a simple one-time setup fee. There are no additional recurring charges associated with the maintenance of that hardware. There are no additional software license fees for agents. When needs change, you can easily add or remove deployed components. Barracuda Web Security *Flex* pricing effectively ends acquisition risks.

The cloud-based management portal provides a snapshot of Web activity across all the users in the organization independent of location.

Specifically, the Barracuda Web Security *Flex*:
- Provides protection from Web malware and enforces Web policy for all users.
- Offers user-centric pricing to change deployment options with little or no cost impact.
- Lowers total cost of ownership for Web security and policy enforcement.
- Enables easy central management, administration and reporting across cloud, agent and appliance deployment options.

Barracuda Web Security *Flex* Architecture
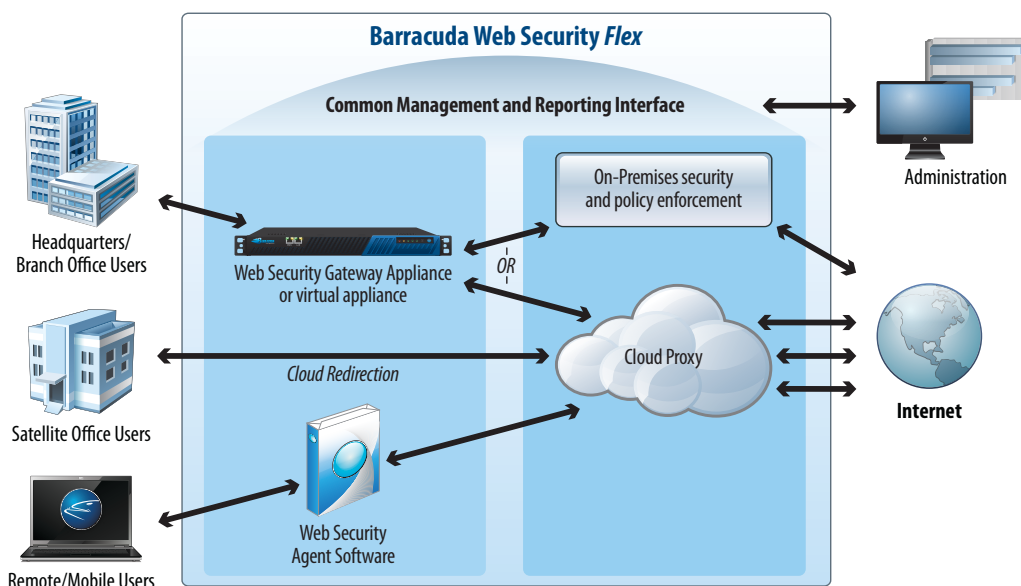
The Barracuda Web Security Flex is designed to fit any deployment scenario for any organization of any size. The deployment options range from simply pointing browsers to the cloud-based service, or to the onsite appliances that are deeply integrated into the directory services and software agents to filter laptops.

Barracuda **Web Security Flex**

Barracuda **Email Security Service**
Cloud-based email security and Data Loss Prevention

The Barracuda Email Security Service is a comprehensive and affordable cloud-based email security service, protecting against the latest spam, viruses, worms, phishing and denial of service attacks. All inbound emails are filtered in the cloud for spam and viruses before delivery to the customers' network.

Comprehensive Protection

The Barracuda Email Security Service leverages advanced security technologies from the industry-leading Barracuda Spam & Virus Firewall and features rich multiple cloud-based protection:

- Rate control and Denial of Service (DoS) protection
- Reputation-based blocking from known spam and malware sources
- Anti-virus, featuring the Barracuda Anti-Virus Supercomputing Grid
- Protection against spam, phishing, fraud and emails with other malicious intent
- Custom sender/recipient policy

Spam and viruses are blocked in the cloud prior to delivery to the customer, saving network bandwidth and providing additional Denial of Service protection. In addition to network bandwidth savings, cloud-based filtering also offloads any processing required for spam and virus filtering from the email server.

Integration with Barracuda Spam & Virus Firewall

The Barracuda Email Security Service can be combined with the Barracuda Spam & Virus Firewall to deliver a powerful, hybrid solution combining the advantages of cloud-based filtering with the security and control of a premises-based solution. The advantages of integrating the Barracuda Email Security Service with the Barracuda Spam & Virus Firewall include:

The Barracuda Email Security Service filters all email messages and displays statistics on how they were processed.

- Integration with directory server (LDAP) to protect against dictionary attacks
- Filtering of outbound emails for internal policy enforcement and regulatory compliance
- Email encryption provided through the Barracuda Email Encryption Service
- User-based control and integration with the Barracuda Spam & Virus Firewall Outlook Add-In
- Fine-grained policies including content filtering

Ease of Deployment and Use

Since emails are processed in the cloud, there is no need to install any hardware or maintain additional infrastructure. Deployment is quick – typically in a matter of minutes. The message log is fully indexed providing a fast and accurate search of emails. The Barracuda Email Security Service also provides a per-user message log and quarantine, allowing users to manage their own emails.

Barracuda **Control Center**
## Cloud-based centralized management of Barracuda Networks Solutions

The Barracuda Control Center is a hosted Web service offered by Barracuda Networks that enables administrators to centrally manage one or more Barracuda Networks appliances, even those in different geographic regions. With the Barracuda Control Center administrators can:

- Monitor the status and operation of all supported solutions from a single interface
- Maintain common configurations and policies across multiple appliances and set exceptions where necessary
- Consolidate reporting across disparate appliances
- Assign roles to multiple users, enabling different levels of administration privileges
- Audit all logins and configuration changes through detailed logs

The Barracuda Control Center is ideal for use by both end customers and Managed Service Providers. This solution does not require additional installation and is available 24x7 as an online service.

The Barracuda Control Center enables administrators to manage all Barracuda Networks products through a single, centralized interface.
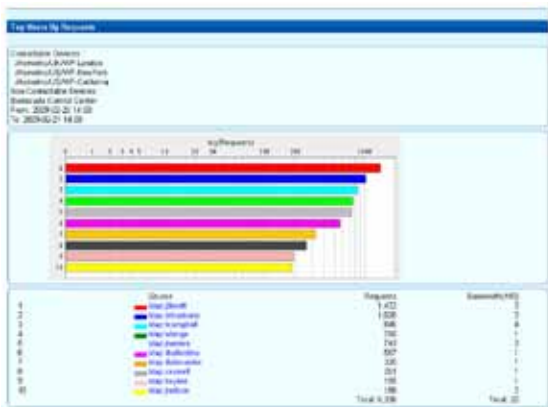
The Barracuda Control Center automatically aggregates reports across all managed appliances for a consolidated view of the network.

With separate roles for Administrator, Help Desk Manager, and read-only Users, as well as the ability to define privileges by appliance or appliance groups, the Barracuda Control Center provides the flexibility to map to the security models of distributed IT organizations and Managed Service Providers.

Barracuda **Control Center**

Barracuda **Backup Service**
Cloud-based backup for fail-safe disaster recovery

KEY BENEFITS
- Disaster recovery from offsite data storage
- Fast restores at LAN speeds from on-premises appliance
- Affordable storage to meet increasing data requirements
- Security requirements to cover a wide range of industry-specific regulatory compliance issues

KEY FEATURES
Data Backup Features
- Full local backup and restore
- Data deduplication
- Secure, cloud-based offsite storage
- All major operating systems
- Agent for MS Exchange, MS-SQL, Windows System State
- Open file backup support
- 256-bit AES encryption to offsite locations
- Data transfer rate limiting
- Choose data to back up offsite

Reporting and Statistics
- Server health monitoring
- Network traffic and storage utilization
- Storage usage statistics
- Detailed backup and activity reports

Administration and Policy Management
- Role-based administration
- Centralized multi-location management
- Flexible data retention

Data Restoration Methods
- Barracuda Restore Client for Windows
- Secure FTP from Barracuda Backup Server
- Secure SFTP from Barracuda Central
- Barracuda Backup Web Interface
- 24x7 Barracuda Networks Technical Support restoration
- Shipment of restored data from Barracuda Networks

Combining local and offsite storage provides the best of both worlds – restore times are fast from the onsite appliance, while critical data is copied offsite to secure storage locations where it is accessible in case of a disaster. The Barracuda Backup Service safely maintains backup data offsite using efficient replication techniques designed to conserve bandwidth and minimize the cost of disaster recovery. The Barracuda Backup Service provides the option to send as much data offsite as necessary for disaster protection.

Powerful, Complete Solution
Deployed in varied and complex IT environments, the Barracuda Backup Service protects mission-critical business information. The Barracuda Backup Service includes technical support and emergency assistance with data restoration in the event of a system failure or disaster.

> **" Previously, backups have been the most costly, resource intensive process that if done poorly, could lose you your job. With the Barracuda Backup Service, we have been able to spread our cost across multiple years, provide the frequency of backups required for extremely important material, and eliminate the cost of backup tapes and equipment that need to be periodically replaced. It has been a godsend for us. "**
>
> Director of Technology,
> Upper Dauphin Area School District
> Lykens, PA

The Barracuda Backup Service uses included backup software and industry standard protocols to access data directly from network file shares without the need of software agents. The same agentless technology can directly connect to Microsoft Exchange and Novell GroupWise servers to provide more granular backup and restoration of individual email messages. The Barracuda Backup Service is also deployed with agent software that can back up MS Exchange, MS SQL databases and Windows System State.

Inside the Technology

The Barracuda Backup Service optimizes storage efficiency in the cloud through deduplication and compression. Barracuda Networks' deduplication technology breaks files into parts and then uniquely fingerprints the data to eliminate redundancy. Aggressive compression ensures that data transfers consume as little bandwidth as possible and offsite storage is efficient and low cost.

In addition, the Barracuda Backup Service utilizes an aggressive security combination of symmetrical and asymmetrical encryption to protect data transferred and stored offsite. The United States government recently approved 192-bit AES encryption as the preferred method for protecting secret information. The Barracuda Backup Service implements 256-bit AES encryption for both data transfer and offsite storage.

Barracuda Backup Service • Cloud-based backup for fail-safe disaster recovery

Designed for organizations of any size, the Barracuda Backup Server creates a local copy of data and deduplicates it to minimize unnecessary storage of identical files. The data selected is then compressed, encrypted, and transferred offsite without placing a burden on production resources.

Easy-to-Use and Maintain

The Barracuda Backup Service Web Interface makes it easy to manage and back up data to multiple units at one or more locations. The Web interface provides access to reports and statistics, backup restore functions, and account settings for managing diverse Barracuda Backup Servers and Barracuda Backup Subscription plans. In addition, customers will receive automated alert notifications when conditions affecting backup service are detected.

The Barracuda Backup Service Web Interface displays overview status information for backups across multiple locations.
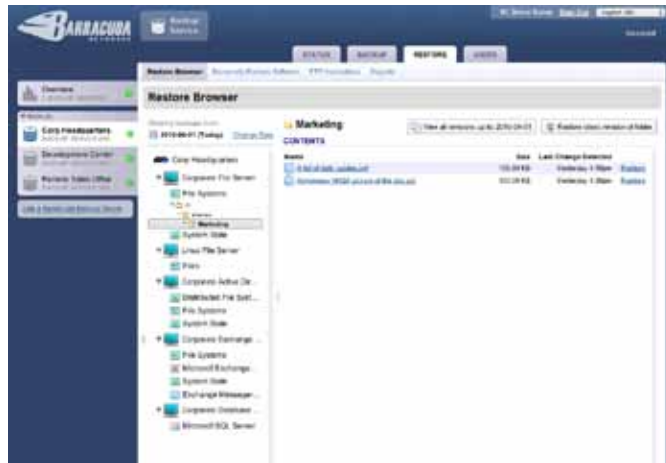
Backups can be easily restored locally or downloaded from offsite using the Restore Browser in the Web interface.

MODEL COMPARISON	190	390	490	690	890	990
CAPACITY						
Suggested Backup Volume	100 GB	500 GB	1 TB	2 TB	4 TB	12 TB
Internal Capacity	250 GB	1 TB	2 TB	4 TB	8 TB	24 TB
FEATURES						
Hardened and Secure OS	✓	✓	✓	✓	✓	✓
Local Backup Cache	✓	✓	✓	✓	✓	✓
Backup Schedules	✓	✓	✓	✓	✓	✓
Bandwidth Rate Control	✓	✓	✓	✓	✓	✓
Secure Offsite Transfer	✓	✓	✓	✓	✓	✓
Local Restore	✓	✓	✓	✓	✓	✓
Partial Offsite Selection	✓	✓	✓	✓	✓	✓

Sizing Considerations

Capacity is measured by both the amount of data that will be stored locally on the Barracuda Backup Server and by the amount of data that will be sent offsite and stored in the cloud. A backup server that is twice the size of a full backup of all current data typically will also be able to store all historical data. Once compression is applied and data is sent offsite, expect to use roughly 1.5 times that same full backup to store all current and historical data. For help sizing the appropriate Barracuda Backup Service, customers should contact a Barracuda Networks system engineer.

Barracuda **Message Archiver**
Archives email and IM communication for compliance readiness

KEY BENEFITS
- Improves operational efficiency of email server by offloading email
- Enforces message content and retention policies for regulatory compliance
- Supports litigation and e-discovery

KEY FEATURES
Comprehensive Protection
- Exchange Stubbing
- PST file import and export
- Exchange Import
- Retrieval via IMAP and POP3
- Novell GroupWise integration
- Single instance storage
- Message compression
- Integration with journaling

Search and Retrieval
- Search on metadata
- Search on message contents and attachments
- Compound searches
- Saved searches
- Export of search results

Reporting and Statistics
- Email volume
- Storage utilization
- Policy violations

Policy Management
- Pre-built and custom policies
- Alerts and periodic digests of violations
- Time-based retention policies

Storage Management
- Expandable with external storage
- Mirroring to external storage
- Supports CIFS standards
- iSCSI Integration (Model 850 & 950 only)

Role-Based Interface
- Integration with LDAP directory servers
- Outlook integration
- Predefined administrator and auditor roles
- Granular controls for access and policy

The Barracuda Message Archiver is designed to archive email communications sent and received by users throughout the organization. The Barracuda Message Archiver automatically stores and indexes all email messages in real-time, while ensuring immediate availability for rapid retrieval by authorized users.

Improve Email Server Performance
Offloading emails and email attachments to the Barracuda Message Archiver significantly improves email server performance, reduces storage costs and achieves greater operational efficiencies. Archived emails are easily accessible with the Barracuda Message Archiver client add-in, enabling seamless access for end users.

> **❝I can tell you in the last two months we have been asked several times to track certain emails. The Barracuda Message Archiver offers a much easier, faster, and reliable way to do this, as opposed to built in tools on Exchange or other tracking methods. It saves us time and even allows us to pass some of this tracking responsibility off to other managers.❞**
>
> Systems Administrator,
> Sentient Flight Group

To immediately capture new messages, the Barracuda Message Archiver can take advantage of the journaling feature of Microsoft Exchange and other standards-compliant email servers. The Barracuda Message Archiver can also import historical emails and PST files for a complete archive.

Inside the Technology

The Barracuda Message Archiver supports a number of mechanisms to capture all email and Barracuda IM Client communication. The Barracuda Message Archiver can "pull" messages on an ongoing basis using industry standard protocols including POP and IMAP, periodically import messages from Microsoft Exchange using MAPI, or even have email servers "push" messages using SMTP. In addition, the Barracuda Message Archiver can import PST files that are either uploaded using the Web interface or dropped into a CIFS (Windows) file share on the Barracuda Message Archiver.

Full Text Search and Retrieval. Once imported, all messages are indexed using a full text search engine. Sophisticated query tools allow both ad hoc searches and the creation of saved searches which can be used to define retention or content policies.

Exchange Stubbing. The attachments on the email server are replaced with small-sized pointers or *stubs*. The original contents are moved to the Barracuda Message Archiver, while the stubs allow users to access archived emails seamlessly.

External Storage Management. The Barracuda Message Archiver Storage Manager can be used to add external CIFS volumes to either mirror the storage in the appliance or expand total storage capacity. Higher end models support iSCSI for external storage.

Barracuda Message Archiver • Archives email and IM communication for compliance readiness

Immediate Legal and Regulatory Compliance

By searching archives and creating alerts, any e-discovery and litigation hold requests can be quickly fulfilled. This is achieved without the integration of software-only solutions or security and network implications when using hosted services. With the sophisticated role-based Web interface and tamper resistant storage, an administrator can enforce internal access control to help comply with corporate policies and plan for regulatory compliance.

Energize Updates deliver automatic updates to the Barracuda Message Archiver's extensive library of virus and policy definitions. Further, Energize Updates enable monitoring of compliance and corporate guidelines, updates for decoding content within email attachments, and protection against potential security vulnerabilities.

The Barracuda Message Archiver enforces standard policies by monitoring and reporting behaviors such as use of foul language and transmission of personally identifiable information (PII). Administrators can set up the built-in policies or leverage new policy definitions delivered by Energize Updates to begin monitoring policy violations and to create an audit trail of relevant email messages.
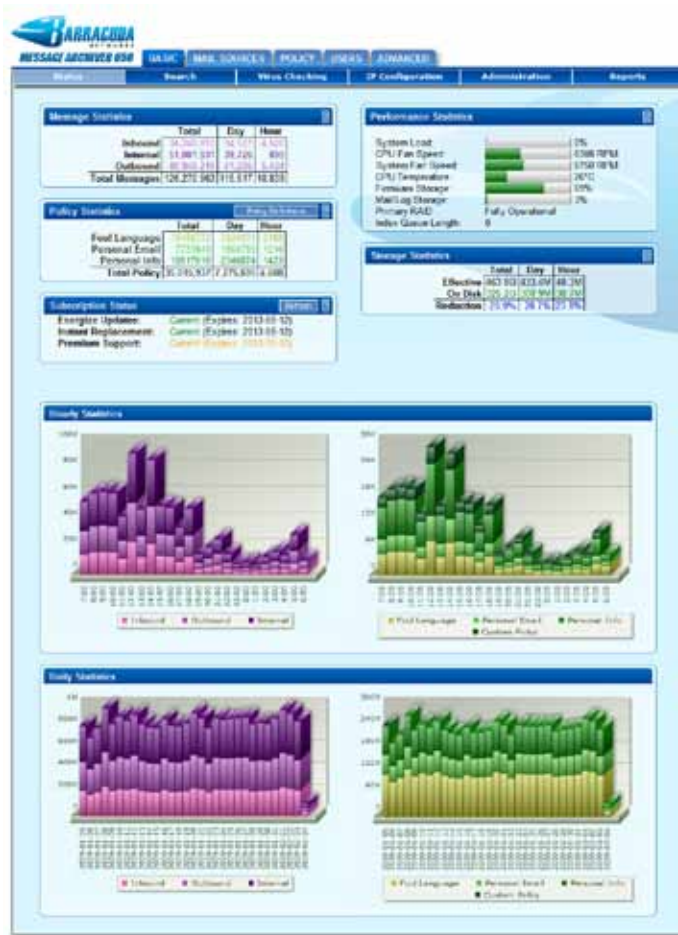
The Barracuda Message Archiver displays statistics on messages, policies, storage usage and status of the Energize Updates subscription.

MODEL COMPARISON	150	350	450	650	850	950	1050
CAPACITY							
Maximum Users	150	500	1,000	2,000	4,000	6,000	18,000
Storage Capacity	500 GB	1 TB	2 TB	4 TB	8 TB	12 TB	24 TB
FEATURES							
Hardened and Secure OS	✓	✓	✓	✓	✓	✓	✓
Comprehensive Archiving	✓	✓	✓	✓	✓	✓	✓
Search and Retrieval	✓	✓	✓	✓	✓	✓	✓
Exchange Stubbing	✓	✓	✓	✓	✓	✓	✓
Reporting and Statistics	✓	✓	✓	✓	✓	✓	✓
Policy Management	✓	✓	✓	✓	✓	✓	✓
Intelligent Storage Manager	✓	✓	✓	✓	✓	✓	✓
Role-Based Interface	✓	✓	✓	✓	✓	✓	✓
High Availability			✓	✓	✓	✓	✓
Customizable Branding				✓	✓	✓	✓
Hardware iSCSI Adapter					✓	✓	✓

Sizing Considerations

Capacity is dependent on the number of users, storage, and sufficient processing power to index email flows. Customers rolling out Barracuda Message Archiver access to end users should select a higher model for faster Web interface and search response while email is being indexed. For help sizing the appropriate Barracuda Message Archiver, customers should contact a Barracuda Networks system engineer.

Barracuda Message Archiver

Barracuda **Load Balancer**
Distributes network traffic across multiple servers

KEY BENEFITS
• Delivers application scalability by distributing traffic across multiple servers
• Provides high availability through server redundancy
• Increases server performance through SSL offloading and adaptive scheduling

KEY FEATURES
Load Balancing
• Layer 4 and Layer 7 load balancing
• Client IP/cookie persistence
• Route-path and bridge-path support
• Direct Server Return mode
• Least connection and round-robin support
• Adaptive scheduling
• Custom health checking
• Global Server Load Balancing
• HTTP compression
• Content caching

Performance and Management
• High availability
• Server and health monitoring
• Server failure detection
• Add/remove services on the fly
• Server maintenance mode
• SNMP support
• Traffic statistics
• Automated configuration backups
• Auto-discovery mode
• Application Programming Interface (API)

Supported Protocols

• HTTP	• NNTP
• HTTP (SSE)	• ASP
• SSH	• Streaming media
• SMTP	• DNS
• IMAP	• LDAP
• RDP	• RADIUS
• POP3	• TFTP
• Other TCP/UDP Services	

Security
• Built-in IPS and exploit protection
• Automated ISP definition updates
• Service level ACL
• DDoS protection

The Barracuda Load Balancer is designed to achieve high availability and security objectives by distributing traffic across multiple servers, protecting against network intrusions, and providing comprehensive failover capabilities in case of server failure. With no per server or per port license fees, the Barracuda Load Balancer is the most affordable solution for scaling and protecting mission-critical data centers.

High Availability and Scalability
According to industry analysts, fewer than 20 percent of mission-critical Internet applications achieve internal objectives for continuous availability. Challenges include maintaining uptime when servers fail, scaling data center capabilities to handle increased load, and protecting infrastructure from network vulnerabilities. The Barracuda Load Balancer's internal Service Monitor ensures that servers and their associated applications are always operational. In the event of server or application outage, the Barracuda Load Balancer facilitates automatic failover among servers to ensure continuous availability. Risks associated with load balancing failures can be mitigated by deploying two Barracuda Load Balancers in an active/passive configuration.

For high traffic environments, the Barracuda Load Balancer can distribute traffic based on several scheduling algorithms, including weighted round robin and least connections. In addition, the Barracuda Load Balancer provides multiple adaptive scheduling algorithms based on

> 66 **In our case, we decided Direct Server Return was the best method for us due to the high amount of data and services we manage. I tested several other brand names, some of them with prices over $150K, but none of them compared to Barracuda Networks.** 99
>
> *Manager,*
> *Technology Solutions Division*
> *The University of Georgia*

Inside the **Technology**

Both the internal Service Monitor and Scheduler inside the Barracuda Load Balancer have specific features designed for IP, Web and Remote Desktop Services applications.

For any IP applications, the Barracuda Load Balancer supports Layer 4 and Layer 7 load balancing technologies and can persist sessions by IP address or cookies. The internal Service Monitor can check back-end application availability by TCP port checks, ping tests for UDP services or through SNMP queries. The internal Scheduler supports weighted round robin, weighted least connections and adaptive scheduling based on SNMP query.

For Web applications, the Barracuda Load Balancer uses a reverse proxy, enabling it to add Layer 7 cookie persistence and SSL termination. The internal Service Monitor can check for back-end Web application availability by validating responses to HTTP and HTTPS requests in addition to standard methods. The internal scheduler supports adaptive scheduling by querying a load URL to support load balancing decisions in addition to standard methods.

For Remote Desktop Services, the Barracuda Load Balancer delegates scheduling functions to the Windows Terminal Session Directory or Windows Terminal Services Session Broker, enabling users to reconnect to existing Windows Terminal Services sessions.

Barracuda Load Balancer • Distributes network traffic across multiple servers

information from the server like CPU load or response times. For applications requiring persistence, the Barracuda Load Balancer can maintain state using client IP addresses and client cookies.

Easy-to-Use and Maintain

The Barracuda Load Balancer is easy to deploy, featuring automatic discovery and configuration tools through an intuitive Web interface. To minimize ongoing administration associated with security, the Barracuda Load Balancer automatically receives current intrusion prevention and security updates.

The Barracuda Load Balancer's administrative tools feature state-of-the-art statistical reporting tools that show the performance

The Barracuda Load Balancer distributes traffic for multiple services, including Web, email and other network applications.

of an organization's network. The Web screens are comprehensive, allowing configuration of virtually every part of the system. Administrators can choose to use a "quick add" function that assumes default settings for servers or they can edit individual real servers/services and manually specify settings for optimal configurations.

MODEL COMPARISON	240	340	440	640
CAPACITY				
Maximum Throughput	95 Mbps	950 Mbps	950 Mbps	950 Mbps
Real Server Support	10	35	50	250
SSL Offloading/Acceleration		150 TPS	200 TPS	2,000 TPS
FEATURES		✓	✓	✓
Layer 4 Load Balancing	✓	✓	✓	✓
Direct Server Return	✓	✓	✓	✓
Intrusion Prevention	✓	✓	✓	✓
High Availability		✓	✓	✓
VLAN		✓	✓	✓
Layer 7 Load Balancing		✓	✓	✓
Cookie Persistence		✓	✓	✓
SSL Offloading		✓	✓	✓
Content Routing		✓	✓	✓
SNMP		✓	✓	✓
Programming Interface/API			✓	✓
Global Server Load Balancing			✓	✓
HTTP Compression			✓	✓
Content Caching			✓	✓

Sizing Considerations

Capacity is dependent on the total network throughput and number of backend servers behind the Barracuda Load Balancer, as well as actual traffic patterns, backend applications, and features enabled. It is recommended to deploy the Barracuda Load Balancers in high availability (HA) pairs. For help sizing the appropriate Barracuda Load Balancer, customers should contact a Barracuda Networks system engineer.

Barracuda **Link Balancer**
Aggregates multiple Internet connections

KEY BENEFITS
- Delivers Internet bandwidth scalability by distributing traffic across multiple links
- Provides business continuity through link redundancy
- Leverages cost savings attainable through use of low-cost ADSL and cable links

KEY FEATURES
Link Balancing
- WAN and Internet connection link balancing
- Traffic aggregation
- Automated link detection and failover
- Link health monitoring
- Link speed assignment and weighing

Traditional Firewall
- Network Address Translation (NAT)
- 1:1 NAT
- Port forwarding
- Firewall IP Access Control Lists (ACLs) and rules
- DDoS protection
- Firewall transparency

Local Network Services
- DHCP server
- DNS caching server
- DNS request forwarding
- Site-to-site VPN
- Outbound Source NAT
- VLAN support

Bandwidth Management and Quality of Service (QoS)
- Application-based priority assignments
- Custom port-based application definition
- Simple three-tier priority settings
- Preconfigured protocols:
    - Web
    - Email
    - FTP
    - DNS
    - Network Authentication
    - Terminal Services
    - SIP

The Barracuda Link Balancer is a superior solution for routing and managing traffic across multiple Internet connections. Designed to scale for high bandwidth requirements and provide business continuity for an organization of any size, the Barracuda Link Balancer optimizes the use of multiple Internet links such as T1s, T3s, DSL and cable connections from one or multiple Internet Service Providers. Capable of automatic failover in the event of link failure, the Barracuda Link Balancer helps ensure that an organization's network is always connected to the Internet.

Simple Bandwidth Management or High Availability

For today's organizations, Internet bandwidth and availability is essential for day-to-day operations. The Barracuda Link Balancer aggregates client and server Internet bandwidth to provide optimal access to multiple high speed connections. With bandwidth management and Quality of Service (QoS) features, the Barracuda Link Balancer prioritizes bandwidth to mission-critical requests for Internet connectivity.

The Barracuda Link Balancer provides administrators with tools to automatically prioritize critical Internet applications. For example, Web browsing and email can be guaranteed bandwidth, while peer-to-peer applications and media streaming can be assigned a lower priority. The flexibility to manage the priority of Internet usage ensures that low-priority, bandwidth-intensive applications

> **" The Barracuda Link Balancer helped us to configure a three site VPN within minutes. After deployment, communication between all three sites and the VPN was perfect. The phone network is running smoothly with exceptional voice quality and the failover links are working great to provide a reliable connection to each site without the worry of losing a site to a poor DSL link."**
>
> Network Engineer,
> New Frontiers Solutions

Inside the Technology

The Barracuda Link Balancer incorporates a powerful policy engine to distribute Internet traffic. The Barracuda Link Balancer can automatically distribute both inbound and outgoing traffic based on link speed and availability, failing over when links go down or bandwidth is saturated.

Administrators can customize traffic management policies by source, destination IP address, or port, to direct affected traffic to specific WAN links. Administrators can also define bandwidth management policies to regulate predefined or custom application protocols. Predefined protocols include Web, email, FTP, DNS, Network Authentication, Terminal Services and SIP. The built-in firewall allows administrators to configure NAT or Port Forwarding rules to securely host Web servers behind the Barracuda Link Balancer.

Barracuda Link Balancer • Aggregates multiple Internet connections

never interfere with business-critical operations. The Barracuda Link Balancer also includes a network firewall that is capable of enforcing Access Control Lists (ACLs), port forwarding, NAT and DNS forwarding.

Easy-to-Use and Maintain

Installed at the network perimeter, administrators can deploy the Barracuda Link Balancer without a separate network firewall to consolidate the management of network security and traffic aggregation into one appliance. Alternatively, it can also be deployed in conjunction with existing firewalls with minimal changes to the network. With an easy-to-use Web interface, the Barracuda Link Balancer allows administrators to easily define, manage, and control bandwidth settings across the network.
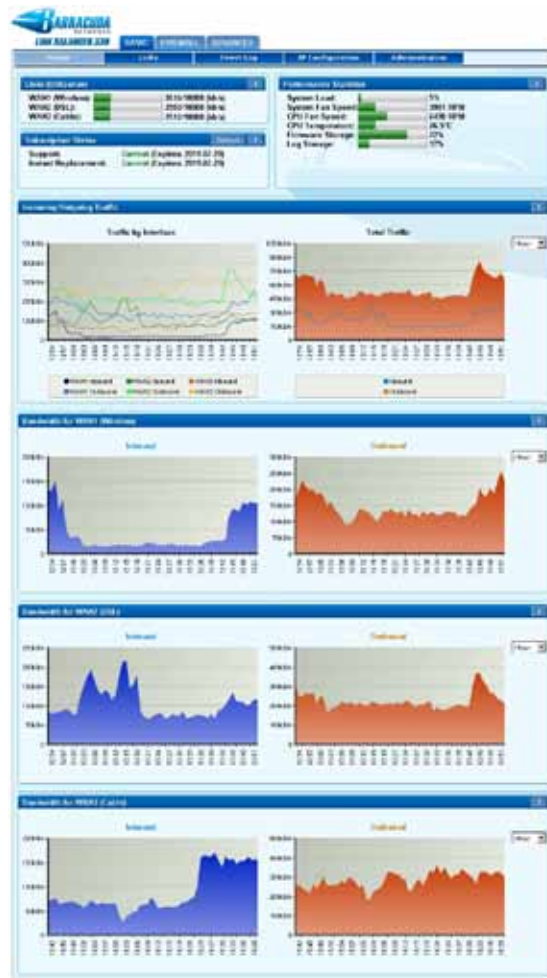
The Barracuda Link Balancer displays the current status of the appliance, including statistics on incoming and outgoing traffic.

MODEL COMPARISON	230	330	430
CAPACITY			
Internet Link Connections	2	3	7
Maximum Throughput	35 Mbps	65 Mbps	250 Mbps
FEATURES			
Link Balancing	✓	✓	✓
Link Health Monitoring	✓	✓	✓
Link Failover	✓	✓	✓
Traffic Aggregation	✓	✓	✓
Network Traffic Firewall	✓	✓	✓
Local DHCP and DNS	✓	✓	✓
Traffic Monitoring	✓	✓	✓
SNMP	✓	✓	✓
Automated WAN Provisioning	✓	✓	✓
Site-to-Site VPN	✓	✓	✓
Bandwidth Management and QoS	✓	✓	✓
Ethernet Bypass Hardware		✓	✓
Clustering/High Availability		✓	✓
Customizable Branding			✓
API			✓

Sizing Considerations

Capacity is dependent on the total number of Internet connections and maximum throughput. Both criteria should be met when selecting a model to ensure that the appropriate number of physical ports and the processing power of the model are sufficient. For help sizing the appropriate Barracuda Link Balancer, customers should contact a Barracuda Networks system engineer.

Barracuda **Link Balancer**

Barracuda Networks **Technology**
Designed to accelerate, protect and secure enterprise networks and data

Through both an aggressive R&D agenda and corporate acquisition strategy, Barracuda Networks continually expands its portfolio of intellectual property spanning the areas of content security, network security, application delivery and data protection. Technology development spans a range of platforms, including:
- Appliance and embedded platforms
- Storage, compute and centralized management clouds
- Software endpoints, including notebooks, desktops and servers

Barracuda Networks offerings integrate these technology components seamlessly to deliver complete solutions that provide unprecedented ease-of-use, ease–of-management and ease-of-deployment for customers.

Core Technologies

With a strong heritage in content security, Barracuda Networks has innovated in the areas of both predictive threat profiling and real-time response through Barracuda Labs and Barracuda Central. Beyond the threat analysis capabilities are a set of robust technologies designed to enforce policy, including a high performance Message Transport Agent (MTA), packet inspection technologies, and proxies optimized for a number of Layer 7 protocols including HTTP, HTTPS and FTP. For next generation network security, Barracuda Networks leverages the "phion core" – an Intel-architecture, high performance networking kernel that has been in production for more than 10 years and was designed to scale with advances in the latest CPU technology. Barracuda Networks has developed a set of powerful inline deduplication technologies to optimize both data protection and network optimization applications.

Common Platforms

From its roots as a provider of appliances, Barracuda Networks has developed a common core platform leveraging the Barracuda OS, a security-hardened version of the Linux operating system, which has successfully survived the scrutiny of the open "white hat" security research community. On top of the Barracuda OS are common technologies, including a consistent management framework and Application Programming Interfaces (APIs) for integration with other systems and applications. This technology common core not only ensures that standard operations such as configuration, backup, troubleshooting and updates are the same on all Barracuda Networks products, but it also enables products to share technology and features to offer richer functionality for end customers.

These same principles have been applied to cloud services, providing both a consistent user experience through a common portal and enabling synergies with other cloud services that leverage a common storage cloud, compute cloud and management framework.

Supporting these integrated appliance and cloud platforms are a robust set of endpoint technologies that include file system and application backup agents, Outlook and Exchange integration, host firewall and traffic redirection agents, VPN client technologies and even an XMPP-compatible IM client.

Philosophy

While many technology vendors develop product lines through a "bolt on" approach, Barracuda Networks remains committed to developing its product line by leveraging core technologies and common platforms. Through this approach, Barracuda Networks offers best-of-breed technologies that are tightly integrated and present the simplest, most consistent experience for both administrators and users.

Barracuda Networks **Virtual Appliances**
Virtual versions of Barracuda Networks' appliance-based solutions

Virtualization

As organizations have adopted virtualization for their server infrastructures, there has been a corresponding trend to extend the benefits of virtualization to the security layer. Barracuda Networks award-winning security solutions are now available as virtual appliances to help organizations:
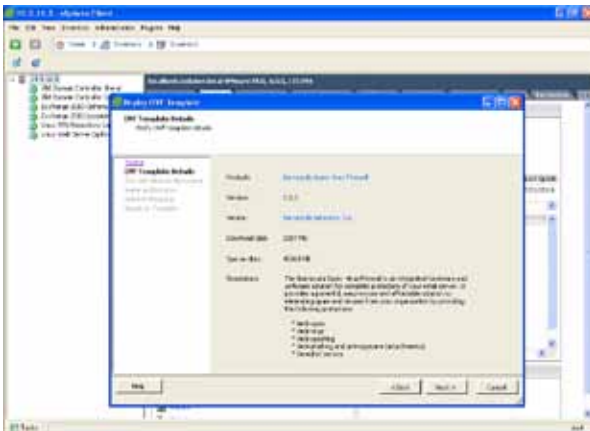
• Consolidate physical server infrastructure in the data center

• Reduce costs and energy usage to support "green IT"

• Realize the management benefits of virtualization, including backup, disaster recovery and dynamic resource allocation for scalability

Barracuda Networks virtual appliances are complete solutions, eliminating the need for installing, configuring and integrating disparate operating system, database, system management and application software. In addition, Barracuda Networks virtual appliances come "locked down" from a security perspective, built from the ground up on the Barracuda OS, a hardened Linux operating kernel and optimized to run seamlessly within virtualization environments. Barracuda Networks virtual appliances are packaged and distributed as Open Virtualization Format (OVF) templates, providing quick provisioning in any supported virtualization environment, such as VMWare.

Administrators can manage Barracuda Networks virtual appliances through a native Web interface or through the Barracuda Control Center, a hosted cloud-based management console designed to operate with all Barracuda Networks appliances whether physical or virtual. For redundancy, Barracuda Networks virtual appliances can be clustered within the virtualization environment or with other Barracuda Networks hardware appliances.

> **❝ We just moved from a Barracuda Spam & Virus Firewall hardware appliance to a virtual appliance, and we love it! Because everything is virtual, we get better redundancy and it's easy to replicate. ❞**
>
> **Senior Technical Consultant**
> **The Computer Project**

Barracuda Networks virtual appliances are packaged and distributed as Open Virtualization Format (OVF) templates for easy deployment into virtualization environments such as VMWare.
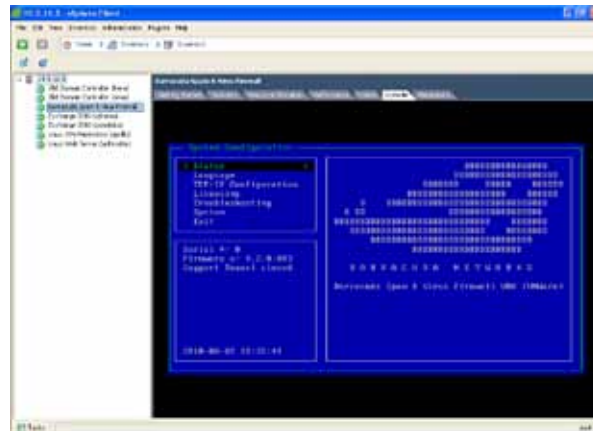
Once installed, Barracuda Networks virtual appliances appear in virtualization environments just like any other virtual server. Administrators can configure network settings through the virtualization environment's console interface and then complete setup and configuration through a familiar Web interface.

BARRACUDA**CENTRAL**
Technical insight for security pros

Barracuda Labs

Behind Barracuda Networks solutions are back-end, cloud-based services operated by Barracuda Central, an advanced operations center where engineers work 24x7 to manage systems, monitor Internet trends, and deliver ongoing Energize Updates and Backup Services to Barracuda Networks appliances in the field.

Internet Threat Detection and Mitigation

To provide customers with maximum protection against spam, spyware, viruses and other threats, Barracuda Central engineers analyze Internet traffic from both captive spam and malware traps (also called "honeypots") as well as from data collected anonymously from Barracuda Networks appliances worldwide. With more than 130,000 customer systems in over 80 countries contributing aggregated statistics, Barracuda Central has a unique vantage point over real-time Internet threat activity and can easily identify and mitigate new attack types in their early stages. These mitigation techniques are automatically downloaded by Barracuda Networks appliances in the form of Barracuda Energize Updates to provide ongoing and up-to-date protection.

Barracuda Central engineers currently maintain multiple types of Energize Updates:

IP reputation. Barracuda Central employs both statistical and human inspection techniques to profile the behavior of email senders and Web servers on the Internet. IP reputation definitions are used by the Barracuda Spam & Virus Firewall and are used as a basis for the public Barracuda Reputation Block List (BRBL).

Barracuda Central · Inside **Barracuda Networks Anti-Virus / Anti-Spyware Technology**

Barracuda Networks' anti-virus and anti-spyware capabilities are built on multiple technology layers.

Open source anti-virus engine and signatures. Barracuda Networks appliances embed the popular ClamAV anti-virus scanning to provide baseline signature-based virus scanning functions.

Proprietary signatures. Barracuda Central develops proprietary signatures based on virus samples collected in the field from both its own honeypots, as well as submissions from customer systems.

Barracuda Real-Time Protection. The Barracuda Spam & Virus Firewall maintains a local database of virus definitions that are updated automatically through Energize Updates and can also query Barracuda Central in real-time to block newly emerging threats between updates. The actual queries about suspected viruses also inform Barracuda Central engineers about emerging threat activity and can aid in real-time mitigation techniques.

Reputation and Predictive Sender Profiling. Barracuda Central maintains databases of both IP and domain reputation for sites known to host malware and can block visits to certain Web sites or emails promoting them. Sophisticated malware authors know to obfuscate their identities, thus behavioral profiling techniques (known as Predictive Sender Profiling) are used to block emails enticing malware downloads from botnets, new Web sites yet to be classified, or otherwise legitimate sites that have been hacked.

Outbound malware detection. The outbound malware detection used in the Barracuda Web Filter engine detects "phone home" activity by bots or other spyware. While binary signatures may morph rapidly, protocols tend to stay relatively constant. As such, statistics gathered from Barracuda Web Filters inform Barracuda Central about new malware variants and virus strains.

Spyware Removal. The Barracuda Web Filter includes the Barracuda Spyware Removal tool, an ActiveX control that can be served up on demand or automatically after outbound spyware protocol activity is detected to remove malware from Windows computers, most commonly laptop computers that have been outside the protected corporate network.

With roots in the industry's best selling email and Web security appliances, Barracuda Networks has extended its industry leading anti-virus protection into its other gateway products – the Barracuda IM Firewall, the Barracuda Web Application Firewall and the Barracuda SSL VPN – to offer the most complete protection across all common network attack vectors.

Domain reputation. Analysis includes domains referenced in bulk emails as well as Web sites discovered through Web crawling technologies. Combining automated analysis with human inspection, domain reputation is currently used in Web content filter categorizations and inspection of emails for suspicious URLs common in phishing, spam and malware propagation campaigns.

Anti-virus, anti-spyware, and spam fingerprint definitions. As new spam and malware types are discovered, Barracuda Central engineers create signatures to identify and block them instantly. In addition to leveraging data collected internally, Barracuda Central also takes advantage of open source virus definitions developed by the "white hat" security research community. Virus, spyware, and spam fingerprint definitions are automatically packaged for download every five minutes and can also be queried in real-time by Barracuda Networks appliances.

Attack and IPS definitions. Barracuda Central continues to develop mitigation techniques for new Web site hacks as they evolve, including injection attacks, cross-site scripting attacks and other attack types. Attack patterns at the protocol level are incorporated into attack definitions used by the Barracuda Web Application Firewall. Attack patterns at the packet inspection level are used by the built-in Intrusion Prevention System in the Barracuda Load Balancer.

For a view into some of the aggregated statistics surrounding Internet usage and threat activity, please visit the Barracuda Central Web site at www.barracudacentral.org.

Enforcement of Internet Usage Policy

Beyond threat management, Barracuda Central engineers also stay on top of Internet trends to deliver Energize Updates that enable Barracuda Networks appliances to enforce Internet usage policies, such as:

Content filter categorization. Barracuda Central engineers classify Web site domains and URLs into 58 content categories for use by the Barracuda Web Filter. Special algorithms exist to fingerprint rapidly changing sites such as anonymous proxies and anonymizers used to evade traditional content filtering technologies.

Policy and document definitions. Barracuda Central engineers maintain policy definitions for email archiving and outbound email filtering, to easily identify email containing personal information such as credit card or Social Security numbers, sexually explicit content, severe foul language, and information subject to healthcare regulations like HIPAA. In addition, ongoing document format definitions ensure that email content policies can be enforced when the content is embedded in periodically evolving popular file formats such as Adobe PDF or Microsoft Office document formats.

Internet application and IM protocol definitions. Barracuda Central engineers profile popular applications both for Layer 3 (destination IP and port) behavior as well as Layer 7 protocol markers. Special attention is given to public IM services to enable logging of public IM traffic for compliance and litigation support.

Operations

24x7 Secure Systems Management and Operation

To support the Barracuda Energize Updates service, Barracuda Central has created operational capabilities internally to service ongoing data delivery and real-time query responses to more than 130,000 appliances throughout the world.

For Barracuda Networks customers and Managed Service Providers, Barracuda Central also manages the Barracuda Control Center, a hosted service that provides centralized monitoring and management of Barracuda Networks appliances across networks and geographies.

In addition, Barracuda Central has developed an innovative back-end cloud storage infrastructure for the Barracuda Backup Service that is designed for scalability, fault tolerance, and security of customer data. With an architecture designed to maintain data replicated offsite, Barracuda Central provides disaster recovery services to help customers restore data quickly and reliably.

Service and Support

24x7 Email and Web Support

5 STAR SERVICE

Barracuda Networks provides multiple ways to receive immediate technical support to ensure complete customer satisfaction.

24x7 Email and Web Support

Barracuda Networks is committed to meeting the demands of mission-critical environments by providing a dedicated and highly trained technical support team that is available around-the-clock via email and Web.

Barracuda Energize Updates

The Energize Updates subscription provides Barracuda Networks products with the latest firmware updates and protection against the latest Internet threats. Definitions are automatically delivered for spam, virus, content categories, spyware filtering, intrusion prevention, IM protocols, policies, security updates, attacks or document formats. Included with Energize Updates are firmware maintenance, Basic Support via email 24x7, and phone support without phone trees from 9 a.m. to 5 p.m. local business time, Monday through Friday.

Barracuda Instant Replacement

The Instant Replacement subscription provides an extended warranty, ensuring that a replacement is shipped the next business day upon notification of a failed unit. Subscribers also get assistance with data migration to the new unit, and are provided a RAID hard disk replacement as applicable. Instant Replacement includes Enhanced Support with extended phone service 24x7. An active Energize Updates subscription is required to purchase Instant Replacement, to ensure the best customer experience.

Barracuda Premium Support

The Premium Support subscription is designed for enterprise customers with a Barracuda Networks model 6xx and above. Premium Support offers the highest level of 24x7 technical support for mission-critical environments.

	BASIC SUPPORT (Included with Energize Updates)	ENHANCED SUPPORT (Included with Instant Replacement)	PREMIUM SUPPORT (Subscription Service)
Technical Support Center	M-F 9 a.m. - 5 p.m. 24-hour email support	24x7 phone and email support	Dedicated 24x7 phone and email support
Threat and policy definitions	✓	✓	✓
Firmware maintenance	✓	✓	✓
Access to beta programs	✓	✓	✓
Priority escalation to resolve critical issues		✓	✓
Data migration for replacement unit(s)		✓	✓
Hard disk (RAID) replacement		✓	✓
Service Level Agreements (SLAs)			✓
Dedicated Account Manager			✓
Dedicated Premium Support technical engineers			✓
Proactive Monitoring			✓
Dedicated email address for low priority support requests			✓
Complete diagnosis and root cause of issue			✓
Priority access to beta programs			✓
Weekly issues update			✓
Configuration review			✓
Fast-track enhancements via Software Customization			✓
On-site installation and implementation		Charges apply	Charges apply
Barracuda Networks models supported	All models	All models	6xx and above
Barracuda Energize Updates	Required	Required	Required
Barracuda Instant Replacement	Recommended	Required	Required
Term	1, 3 or 5 years	1, 3 or 5 years	1, 3 or 5 years

Service and Support

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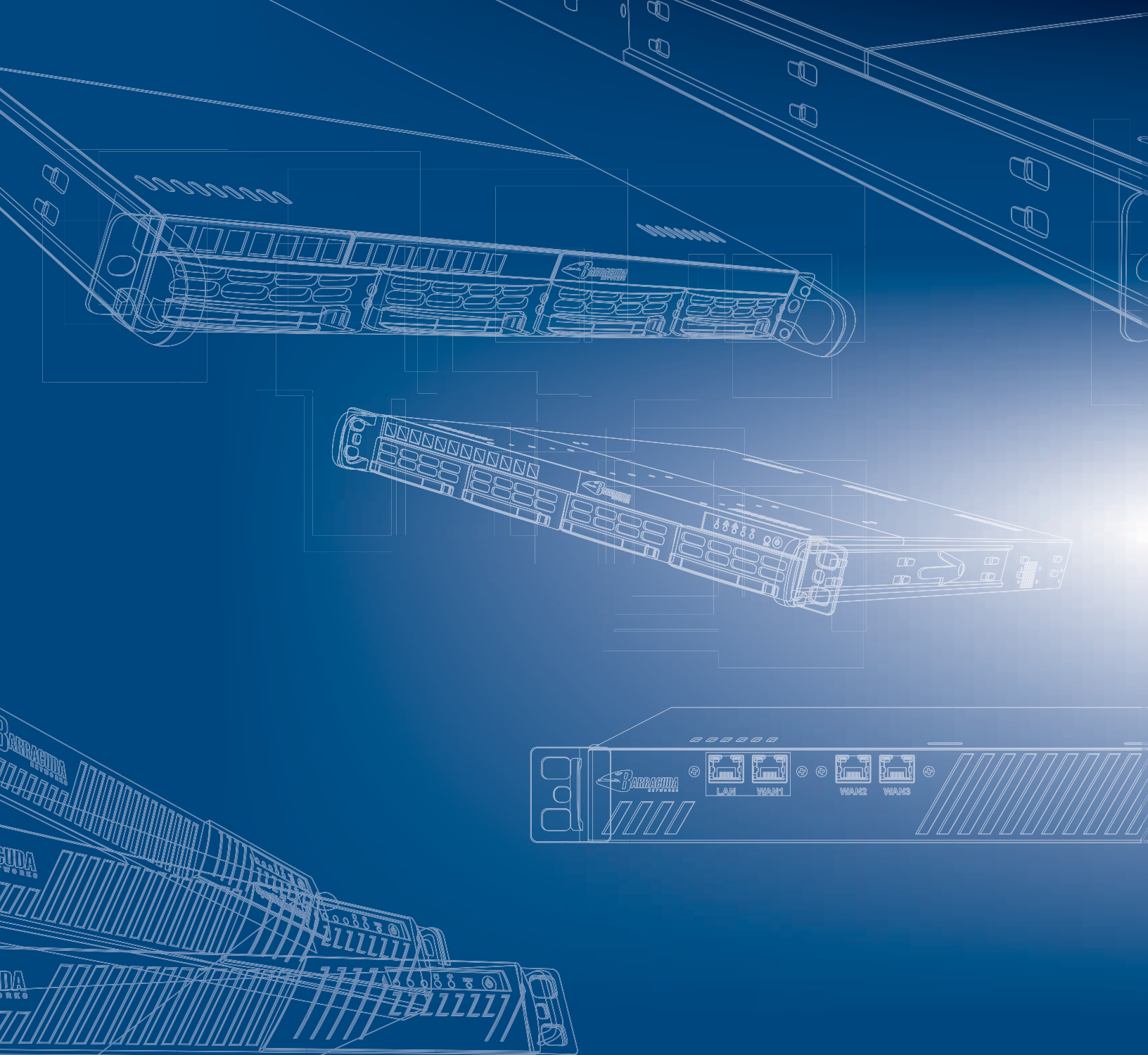
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