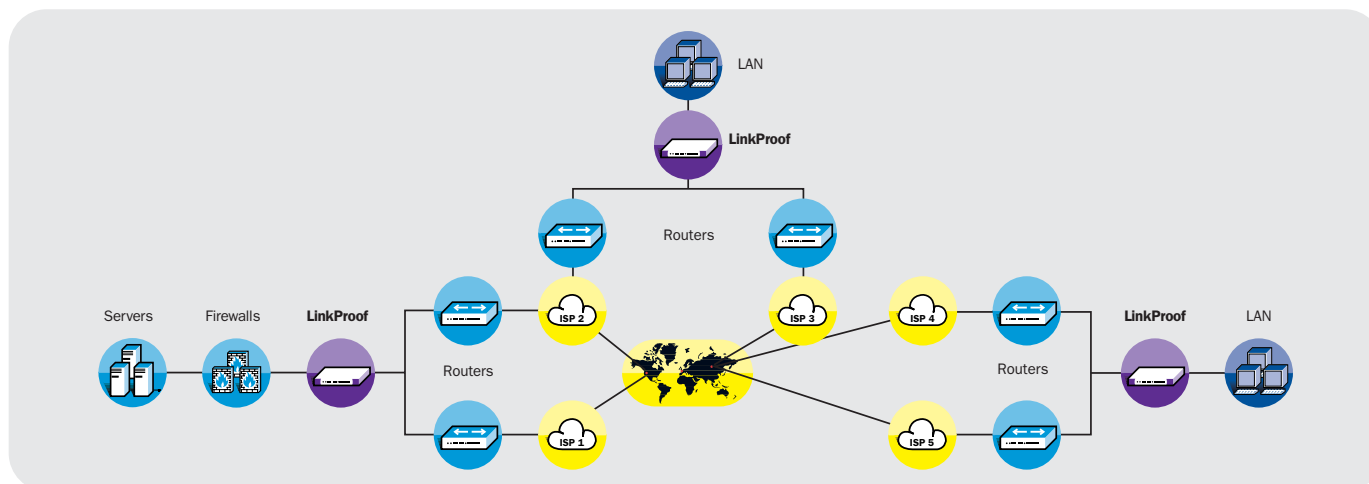




## LinkProof – Multi-WAN Switch

### Cost-Effective and Agile WAN. 24x7 Datacenter Access.

From maximizing productivity to ensuring continuity when disaster strikes, enterprises require uninterrupted access to web-sites, datacenters, remote locations and the Internet. LinkProof is a multi-WAN switch that lets you effortlessly add, manage and load-balance multiple ISP connections. Mix-and-match VPNs, private and public links, for back-up or in response to your growing bandwidth needs. It's the only solution that maximizes the effectiveness of your WAN by bypassing bottlenecks and service-provider outages, managing bandwidth consumption, and letting you decide which links are used for which applications and when. The result? Flexibility to build a best-of-breed WAN solution that keeps costs down and keeps customers and users always connected to business-critical applications and websites.



#### APsolute Application Delivery:

Apache  
 Avaya (VoIP/SIP)  
 Basic  
 BEA WebLogic  
 Check Point VPN-1/FireWall-1  
 Citrix Metaframe Presentation Server  
 HP OpenView  
 Financial Interchange (FIX)  
 Lotus/Domino Notes servers  
 IBM WebSphere

#### Instant Messaging:

– MSN  
 – Yahoo  
 – AOL  
 – ICQ

#### Oracle:

– 9i Application Server  
 – 10g Application Server  
 – E-Business Suite 11i  
 – Collaboration Suite.

#### Macromedia ColdFusion

Mercury Business Availability Center

#### Microsoft:

– Application Center  
 – Commerce Server  
 – Communication Server (MMS/VoIP/SIP)  
 – Exchange Server  
 – Outlook Web Access  
 – Windows Terminal Services  
 – SharePoint Portal Server  
 – Internet Information Services (IIS)  
 – Live Communications Server

– SQL Server  
 – Microsoft Operations Manager  
 – Mobile Information Server  
 – Internet Security and Acceleration Server  
 – Visual Studio .NET

#### Siebel eBusiness Applications

#### Netegrity SiteMinder

Peer-to-Peer:  
 – BitTorrent  
 – eDonkey/eMule  
 – FastTrack  
 – Gnutella  
 – Kazaa  
 – Exeem  
 – Poco  
 – WinMX  
 – WinNY

PeopleSoft Enterprise  
 RealNetworks RealSystem Servers  
 RSA SecureID  
 SAP mySAP Business Suite  
 Tivoli Access Manager  
 Trend Micro InterScan  
 Sun iPlanet Servers  
 webMethods Enterprise Services Platform

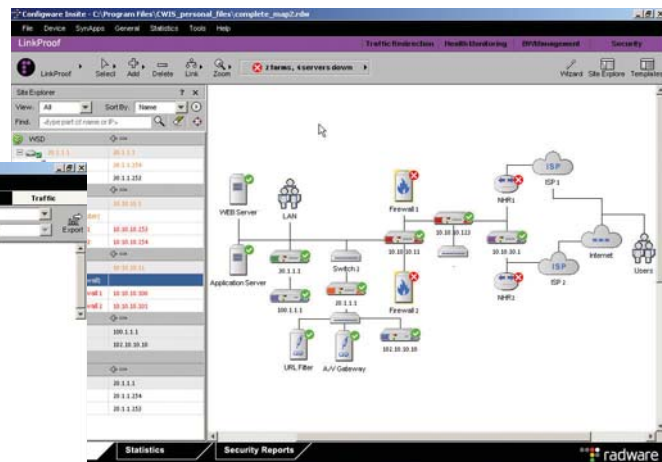
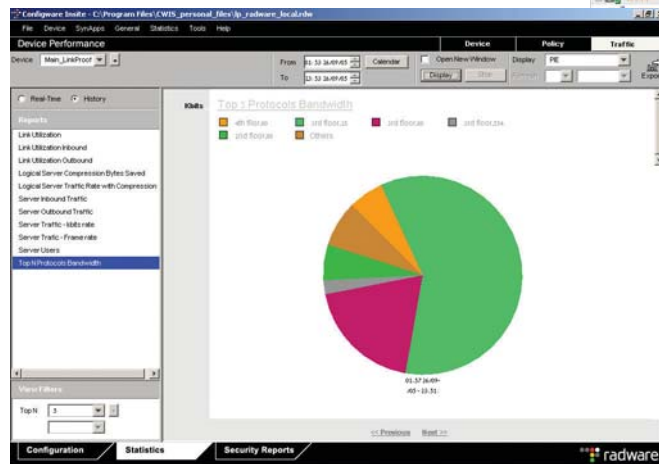
...and many more



## Easily Scale And Manage Multiple WAN Links

Expand your WAN or migrate from legacy lines to VPNs without risk. Create redundancy in your WAN or website without wasting resources. Increase bandwidth to datacenters or remote sites using cost-effective links without compromising up-time. LinkProof lets you seamlessly change and add any combination of IP-based WAN links, regardless of size, underlying transport method, service provider, or IP-address space, so you can focus on designing the WAN that's right for you today, with the flexibility you need to quickly and easily scale and adapt to tomorrow's challenges.

LinkProof feature	IT benefits	The APSolute advantage	Business benefits
Application-smart routing	<ul style="list-style-type: none"> <li>Decide which traffic is routed over which WAN links based on any L4-7 parameter or application-type.</li> <li>Create flexible, scalable distributed architectures and deploy applications over existing distributed architectures.</li> <li>Gradually migrate from legacy to new WAN links or quickly fall back if needed.</li> <li>Removes need for complex BGP routing configurations.</li> </ul>	<ul style="list-style-type: none"> <li>Classification Engine – processes all traffic (Packets/Sessions) using any combination of: Physical Port, MAC Address, VLAN Tags, Source/Destination IP address or network, Application information matching, Protocols – IP, TCP, UDP, etc, Content-based i.e. URL, cookie, client device, language, Regular expressions, Pattern matching.</li> <li>Flow Manager – enables sequential flows between network segments to be defined per class of traffic.</li> <li>Virtual Tunneling – hides IP-address changes while automatically selecting WAN routes between any 2 LinkProofs.</li> </ul>	<ul style="list-style-type: none"> <li>Increase business agility and reduce time-to-market for applications, WAN design and expansion.</li> <li>Save on connectivity costs.</li> <li>Prevent service-provider lock-in.</li> <li>Reduce operational costs.</li> </ul>
Supports multiple IP address-spaces and multiple link-types from different ISPs	<ul style="list-style-type: none"> <li>New ISP links can be easily integrated without the need to coordinate IP addresses.</li> <li>Mix-and-Match any type of IP-terminated connectivity.</li> <li>Migrate from legacy to new links with ease.</li> </ul>	<ul style="list-style-type: none"> <li>SmartNAT – Automatically manages out-bound IP addressing for seamless use of multiple WAN links.</li> <li>Static NAT of internal resources to multiple addresses for external accessibility using IP address.</li> <li>Integrated DNS - Enables external users to access internal resources via ALL available WAN links using URL.</li> <li>Any IP-terminated link can be managed, e.g.: xDSL, Cable-modem, Frame Relay, IP-ATM, MPLS.</li> </ul>	
Comprehensive device, link, and application-path management	<ul style="list-style-type: none"> <li>Simple device configuration.</li> <li>Application-aware policy set-up.</li> <li>Health, performance and utilization monitoring and reporting.</li> <li>Network-wide application-level visibility.</li> <li>Integration into existing NMS.</li> <li>Prevent lengthy and manual maintenance and troubleshooting.</li> </ul>	<ul style="list-style-type: none"> <li>APSOlute Insite – network-wide GUI-based configuration, monitoring and management console.</li> <li>SNMP v1, v2, v3 (1213 MIB-II, 1643 Ethernet, 1493 Bridge)</li> <li>Also supports: <ul style="list-style-type: none"> <li>In-band Web-based management (HTTP or HTTPS) and Command Line Interface (Telnet or SSH).</li> <li>Out-of-band RS-232 Command Line Interface.</li> </ul> </li> <li>Supports reporting via SNMP traps, syslog and email messages.</li> <li>HP OpenView plug-in.</li> <li>Multi-device policy propagation.</li> <li>Access Permissions management.</li> <li>Graceful shutdown and recovery – Resources can be introduced or retired, and NHR and Firewall maintenance can be scheduled automatically with minimal operational effort and no user downtime.</li> </ul>	

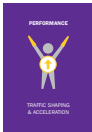




## Ensure High Availability For Websites And Remote Access

Has datacenter consolidation put all your application eggs in one basket? Perhaps you can't afford even a minute down-time of your revenue generating website or corporate extranet. Maybe your disaster recovery plans require employees' unfettered access to the VPN gateway from their home computer. Smart business sense dictates that you manage the availability of your WAN and not rely solely on your service provider's SLAs. LinkProof lets you introduce back-up links to support your business continuity strategy. Real-time health-checks of all available WAN paths ensure immediate failover to a functional link in the case of service outages, so that your data, applications and website are available 24x7.

LinkProof feature	IT benefits	The APSolute advantage	Business benefits
Real-time application smart health monitoring, failure detection and traffic redirection	<ul style="list-style-type: none"> <li>Use cost-effective links for redundancy without suffering reliability penalty.</li> <li>Quickly Identify failures at any point along the application or transaction path and react proactively.</li> <li>Automatically redirect in-bound and out-bound traffic to available WAN-paths to your datacenter or between redundant sites.</li> </ul>	<ul style="list-style-type: none"> <li>Link availability based on user-defined full application/transaction path.</li> <li>5 Levels of Application Health Monitoring: <ul style="list-style-type: none"> <li>Physical Port</li> <li>ARP, ICMP, Ping</li> <li>Application Level Monitoring: Citrix App Browsing, Citrix ICA, DNS, FTP, FIX, HTTP, IMAP4, LDAP, LDAPS, NNTP, POP3, RADIUS, RADIUS accounting, RTSP, SIP (TCP &amp; UDP), SNMP, SSL</li> <li>Content Level Monitoring: Web page check, Username &amp; password, HTTP codes verification, LDAP Search, File verification on FTP servers, Citrix Server check, SSL check and more.</li> <li>User defined specific health checks.</li> </ul> </li> <li>Bind multiple checks with and/or conditions for complete flexibility of dependencies checks.</li> </ul>	<ul style="list-style-type: none"> <li>Never lose business due to IT failures.</li> <li>Prevent high operational costs due to lengthy and manual troubleshooting.</li> <li>Maintain faith and reputation in IT services with employees and customers.</li> </ul>
Active-active or active-passive link redundancy	<ul style="list-style-type: none"> <li>Take full advantage of back-up link's bandwidth.</li> <li>Keep "dark" links available for immediate fail-over.</li> </ul>	<ul style="list-style-type: none"> <li>Passive back-up link health is monitored so that failover to "stale" link is prevented.</li> </ul>	<ul style="list-style-type: none"> <li>Effectively Support business continuity and disaster recovery plans.</li> <li>Protect your investment.</li> <li>Lower solution TCO.</li> </ul>
Active/passive device redundancy	<ul style="list-style-type: none"> <li>Prevent the introduction of a single point of failure in a high-availability architecture.</li> </ul>	<ul style="list-style-type: none"> <li>Proprietary ARP</li> <li>VRRP</li> <li>Client Table Mirroring.</li> <li>Active-Active device configuration.</li> </ul>	
Highly reliable platform		<ul style="list-style-type: none"> <li>Purpose built appliance- not PC based.</li> <li>High MTBF.</li> <li>Redundant power supply.</li> </ul>	



## Reduce Response Times, Optimize Bandwidth Utilization And Reduce Costs

Do more with the available resources and reduce your connectivity costs. LinkProof goes beyond managing scalability and redundancy, by optimizing the utilization of all your available WAN bandwidth through load-balancing, cost-based and proximity routing and traffic-shaping.

LinkProof feature	IT benefits	The APSolute advantage	Business benefits
Inbound and outbound proximity-based routing	<ul style="list-style-type: none"> <li>Minimize access-time to websites and extranet applications hosted at the data-center.</li> <li>Minimize internal-users' access time to external critical Internet resources.</li> <li>Reduce WAN traffic volume.</li> </ul>	<ul style="list-style-type: none"> <li>Patented Proximity Measurement combines latency detection and hop count between the client's mouse "click" all the way to the server content.</li> <li>Proximity check-methods capable of passing through any router and firewall.</li> <li>Traffic is routed based on minimal dynamic proximity measurements.</li> </ul>	<ul style="list-style-type: none"> <li>Maximize infrastructure investment and operational resources ("more with the same or the same with less").</li> <li>Increase work-force productivity.</li> <li>Save on monthly connectivity costs.</li> <li>Delay WAN expansion decisions.</li> <li>Guarantee Quality of Service.</li> </ul>
Inbound and outbound link load-balancing	<ul style="list-style-type: none"> <li>Dynamically make the most of existing, available bandwidth based on changing business and technical priorities.</li> <li>Bypass temporary WAN bottlenecks for both inbound and outbound traffic.</li> </ul>	<ul style="list-style-type: none"> <li>User-defined, priorities for load-balancing decisions based on real-time measurements of: <ul style="list-style-type: none"> <li>Inbound/outbound bandwidth utilization</li> <li>Number of packets/sec</li> <li>Number of concurrent sessions</li> <li>User-defined SNMP (MIB) data</li> </ul> </li> <li>Advanced persistency options.</li> <li>Cyclic (round-robin) and Hashing dispatch supported.</li> <li>Load-balances Firewalls behind it.</li> </ul>	
Bandwidth management and traffic shaping	<ul style="list-style-type: none"> <li>Ensure top-priority and business-critical applications always receive the bandwidth they need.</li> <li>Prevent non-critical Internet usage</li> <li>Protect latency-sensitive applications from bottle-necks.</li> <li>Control QoS levels.</li> </ul>	<ul style="list-style-type: none"> <li>Class based traffic shaping using CB-WFQ.</li> <li>Predefined Classes include over 40 common applications, and ToS or Diffserv bits.</li> <li>User-defined classification per any Layer 4-7 parameter or content.</li> <li>Limit/guarantee bandwidth per class, user.</li> </ul>	
Cost-based routing	<ul style="list-style-type: none"> <li>Take advantage of varying ISP rate structures to minimize monthly connectivity costs.</li> </ul>	<ul style="list-style-type: none"> <li>Automatically accommodates for any mix of rate models: <ul style="list-style-type: none"> <li>Flat</li> <li>Per kbps</li> <li>Bursting/Ladder</li> </ul> </li> </ul>	



## Integrated Application-Level Security

Rampant virus or Denial of Service (DoS) attacks can impact the availability and performance of your business in the exact same way that a down link can, damaging your reputation and your bottom line. LinkProof provides a secure, single point of entry to your network, offering a first-line of defense against high-volume attacks aimed at crippling your network. DoS attacks, hacking attempts, worms and viruses are automatically detected, reported and mitigated before they can bring down your firewalls, servers and applications. Advanced intrusion prevention techniques protect against internal and external attacks including Trojans, Spyware, scanning attempts and protocol anomalies.

LinkProof feature	IT benefits	The APSolute advantage	Business benefits
DoS protection	<ul style="list-style-type: none"> <li>Prevent attacks from bringing down firewalls, servers, databases and applications.</li> </ul>	<ul style="list-style-type: none"> <li>1000 attack signatures out-of-box</li> <li>Security Update Service – provides automated emergency and weekly attack-filter updates, protecting against new application vulnerabilities as they emerge.</li> <li>Impressive record of First-to-Market signatures.</li> <li>Content, anomaly and behavioral based techniques.</li> <li>Bandwidth Management clears network of malicious traffic to ensure availability for critical applications.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure business continuity even during an attack.</li> <li>Protect reputation with business partners and customers.</li> </ul>
Integrated intrusion prevention	<ul style="list-style-type: none"> <li>Isolate attacks and prevent propagation throughout the network.</li> </ul>		
Advanced security reporting	<ul style="list-style-type: none"> <li>Real-time visibility into network-wide security threats.</li> <li>Logging and reporting of security events for forensics and compliance.</li> </ul>		

## Technical Specifications



Feature	LinkProof 100/200/202	LinkProof 1000	LinkProof 3000
Nominal Throughput	Up to 200Mbps wire-speed	Up to 1Gbps wire-speed	Up to 3Gbps wire-speed
Non-Blocking Backplane	9.6 Gbps	19.2 Gbps	44 Gbps
Layer 2 Switching	Wire-speed	Wire-speed	Wire-Speed
Simultaneous Sessions	Unlimited	Unlimited	Unlimited
Routing Protocols	OSPF, RIP, RIP II	OSPF, RIP, RIP II	OSPF, RIP, RIP II
RISC Processor	Motorola PPC 750 266 MHz	Motorola PPC 7410 500 MHz	Motorola PPC 7457 1 Ghz
RAM	up to 256MB	Up to 512MB	Up to 1GB
Gigabit/GbIC ports	0/0/2	5	1x10Gb + 7xGbICs
10/100 Ethernet Ports	8	16	16
1000Base-S/L/ZX Ports	Full-duplex Gigabit Ethernet fiber	Full-duplex Gigabit Ethernet fiber	Full-duplex Gigabit Ethernet fiber
1000Base-SX (850 nm) Operating Distance	<ul style="list-style-type: none"> <li>62.5 micron MM fiber .2 to 275 m.</li> <li>50 micron MM fiber .2 to 550 m.</li> </ul>	<ul style="list-style-type: none"> <li>62.5 micron MM fiber .2 to 275 m.</li> <li>50 micron MM fiber .2 to 550 m.</li> </ul>	<ul style="list-style-type: none"> <li>62.5 micron MM fiber .2 to 275 m.</li> <li>50 micron MM fiber .2 to 550 m.</li> </ul>
1000Base-LX/ZX Operating Distance	N/A	<ul style="list-style-type: none"> <li>LX: up to 10Km</li> <li>ZX: up to 80Km</li> </ul>	<ul style="list-style-type: none"> <li>LX: up to 10Km</li> <li>ZX: up to 80Km</li> </ul>
RS-232C Console	<ul style="list-style-type: none"> <li>DB-9 serial connection</li> <li>female DCE interface for out-of-band management</li> </ul>	<ul style="list-style-type: none"> <li>DB-9 serial connection</li> <li>female DCE interface for out-of-band management</li> </ul>	<ul style="list-style-type: none"> <li>DB-9 serial connection</li> <li>female DCE interface for out-of-band management</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>432mm x 475mm (17x18.7") 19" EIA rack or standalone</li> <li>Height: 44mm (1U)</li> <li>Weight: 3.85 kg (8.5 lbs)</li> </ul>	<ul style="list-style-type: none"> <li>432mm x 475mm (17x18.7") 19" EIA rack or standalone</li> <li>Height: 44mm (1U)</li> <li>Weight: 5.3 kg (11.7 lbs)</li> </ul>	<ul style="list-style-type: none"> <li>432mm x 475mm (17x18.7") 19" EIA rack or standalone</li> <li>Height: 44mm (1U)</li> <li>Weight: 7.0 kg (15.4 lbs)</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>Operating Temperature: 0-40° C</li> <li>Humidity (non-condensing): 5-95%</li> </ul>	<ul style="list-style-type: none"> <li>Operating Temperature: 0-40° C</li> <li>Humidity (non-condensing): 5-95%</li> </ul>	<ul style="list-style-type: none"> <li>Operating Temperature: 0-40°C</li> <li>Humidity (non-condensing): 5-95%</li> </ul>
Power	<ul style="list-style-type: none"> <li>Auto-range supply: 100-250V or 38-72v DC 50-60Hz</li> <li>Power Consumption: 35 Watt</li> <li>Heat Dissipation: 119.5 BTU/h</li> </ul>	<ul style="list-style-type: none"> <li>Auto-range supply: 100-250V or 38-72v DC 50-60Hz</li> <li>Power Consumption: 44 Watt</li> <li>Heat Dissipation: 150.3 BTU/h</li> </ul>	<ul style="list-style-type: none"> <li>Auto-range supply: single or dual 100-250V or 38-72v DC 50-60Hz</li> <li>Power Consumption: 108 Watt</li> <li>Heat Dissipation: 368.7 BTU/h</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>Safety: EN 60950; UL 1950, CSA 22.2 No 950</li> <li>EMI: EN 55022 Class A, EN 50024 FCC, Part 15B Class A</li> <li>CE, CUL, VCCI</li> </ul>	<ul style="list-style-type: none"> <li>Safety: EN 60950; UL 1950, CSA 22.2 No 950</li> <li>EMI: EN 55022 Class B, EN 50024 FCC, Part 15B Class B</li> <li>CE, CUL, VCCI</li> </ul>	<ul style="list-style-type: none"> <li>Safety: EN 60950; UL 1950, CSA 22.2 No 950</li> <li>EMI: EN 55022 Class A, EN 50024 FCC, Part 15B Class A</li> <li>CE, CUL, VCCI</li> </ul>

## Radware's APSolute Product Family

Over 3,000 enterprises and carriers worldwide use Radware application-smart switches to drive business productivity and improve profitability by adding critical application intelligence to their IP infrastructure, making networks more responsive to specific business processes. Radware's APSolute product family provides the most complete set of application front-end, remote access and security capabilities for application-smart networking to ensure faster, more reliable and secure business transactions.

## Certainty Support

Radware offers technical support for all of its products through the Certainty Support Program. Each level of the Certainty Support Program consists of four elements - phone support, software updates, hardware maintenance, and on-site support.

To learn more about how Radware application delivery solutions can enable you to get the most of your investments in IT infrastructure and people email us at [info@radware.com](mailto:info@radware.com), or go to [www.radware.com](http://www.radware.com)

Product specifications subject to change without notice.

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