

LinkProof VA, Radware's next-generation multi-homing and enterprise gateway solution guarantees service level availability and continuous connectivity of enterprise and cloud-based applications.

WAN Connectivity Trends

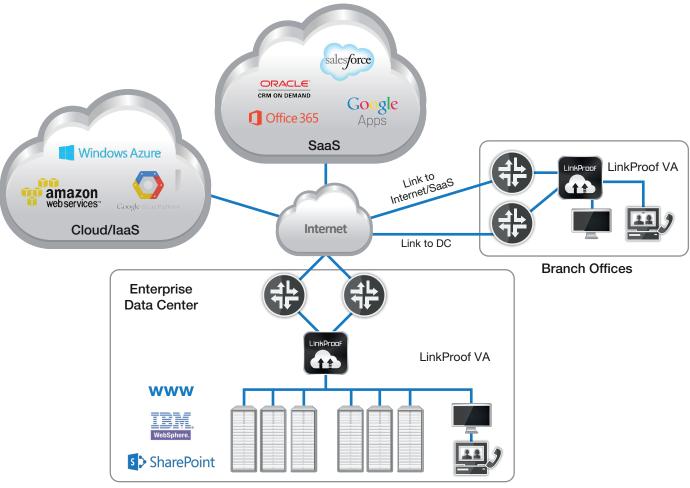
As web application infrastructure and architecture evolve, new ways to deploy and access web applications emerge. Enterprise applications are deployed in multiple locations - in the data center, public or hybrid clouds, or as Software as a Service (SaaS) and the criticality of these applications vary. Mission-critical (CRM, ERP, email) and non-mission-critical (web browsing, file downloads) use the same WAN links leading to WAN starvation that impacts application service level. Latency-sensitive applications (VoIP, video streaming) need to be assigned with sufficient link bandwidth, otherwise they will not operate appropriately.

Shadow IT is creating hard-to-track traffic "undercurrents" in the data center as enterprise employees use various cloud applications or cloud Infrastructure as a Service (laaS) platforms from within the organization. This can potentially expose sensitive corporate information outside of the organization and lead to a compliance breach.

LinkProof VA: Unified Multi-Homing and Enterprise Gateway Solution

LinkProof VA delivers a complete, application-aware and cost-effective solution to guarantee enterprise web application service levels and optimize enterprise access to cloud and SaaS applications. It is scalable from 100Mbps up to 160 Gbps, it can be deployed in entry-level, high-end data centers and enterprise branch offices. By simultaneously load balancing and optimizing inbound and outbound traffic of multiple WAN links, LinkProof proves to be the perfect solution for enterprises employing a single WAN link environment. The solution allows organizations to:

- Fully ensure the service levels of corporate applications by holistically combining link load balancing, web
 performance optimization, end-to-end real-user service level monitoring, security and
 cost-effective scalability.
- Serve as an advanced enterprise gateway that optimizes access to cloud applications by shortening cloud application response time, selecting the best ISP link per service and allowing simplified management of Shadow IT.
- Increase employee productivity and reduce costs at the branch office by supporting hybrid WAN
 architecture, aligning the allocated capacity of WAN links with application priority and accelerate access
 to SaaS applications.



LinkProof VA Solution Architecture

F Ensure Service Level for Corporate Applications

Keep Corporate Web Applications Connected

LinkProof fully eliminates application outages by detecting application health monitoring, allowing organizations to pinpoint issues in various networking nodes and enable instant recovery along the entire WAN path. These capabilities are complemented with a proximity detection mechanism that allows optimal, dynamic WAN link selection based on end-to-end response and load time of each connection.

Ensure Application Service Levels

LinkProof employs service level based routing with continuous, end-to-end measuring of network latency and bandwidth constraints to select the best-performing WAN link and ensure optimal application service levels. It uses application bandwidth prioritization features to ensure mission-critical and latency-sensitive applications (such as VoIP, telepresence, video conferencing) are served via the high-SLA WAN links while non-critical traffic is "throttling down".

Accelerate Corporate Web Applications

With LinkProof, organizations can benefit from faster response time of enterprise web applications due to TCP congestion control, caching and FastView web performance optimization (WPO) technology which accelerates application response time at the application level. This results in increased employee productivity and optimized business operations across all enterprise WAN links.

Visibility via Real-User Transaction Monitoring

By leveraging Radware's Application Performance Monitoring (APM) module, LinkProof VA provides real-time monitoring of application service levels, per ISP link and across all links, with automatic alerting on service level

breaches and enabling quick root cause analysis for proactive SLA assurance. Historical reporting capabilities provide insight into WAN links issues and utilization and can help guarantee application service level including: traffic capacity per each link, which applications/services are consuming each link, monitor Shadow IT traffic via extended logging, average user SLA per each WAN link, utilization percentage of each link, and best performing ISP links.

Integrate Leading Security Capabilities

As part of Radware's Attack Mitigation Network (AMN), LinkProof VA provides secure operation of network and Web applications. Leveraging Radware's Defense Messaging mechanism, LinkProof VA can signal attack information to DefensePro data center attack mitigation solution or DefensePipe cloud scrubbing service – resulting in more efficient attack mitigation. In addition, it eliminates ISP links from becoming saturated by servings as an authoritative DNS entity and automatically divert traffic to cloud scrubbing centers without requiring manual traffic diversion. It protects applications from cyber attacks at the application-level by employing an integrated, advanced Web Application Firewall (WAF) module.

More Efficient Data Center Utilization

LinkProof VA offloads SSL decryption tasks from the firewall and servers, freeing processing of SSL traffic and reducing the number of devices. This results in more optimized data center utilization and greater cost reduction.

Optimize Cloud-Based Application Delivery

LinkProof VA serves as an advanced enterprise gateway that optimizes access to cloud applications. It accelerates response time to cloud applications, selects the best ISP link per service, enables fault tolerance, ensures cloud application service levels and allows simplified management of Shadow IT for greater compliance and control over corporate sensitive information.

Faster Access to Cloud Applications

LinkProof VA increases employee productivity and application quality of experience by reducing the response time of applications deployed in the cloud through optimal link selection and advanced TCP congestion control. It accelerates response time to cloud applications by aligning WAN links capacity with application priority to ensure latency-sensitive applications receive the required bandwidth.

Enhanced Shadow IT Traffic Management

By monitoring and logging all outbound connections, LinkProof VA uniquely provides visibility of Shadow IT traffic including the originator of specific transactions and destination of such traffic. In addition, a list of external cloud SaaS can be updated manually or automatically via feeds, allowing accurate, continuous monitoring of cloud IT link consumption.

✓ Reduce Costs & Improve Branch Employee Productivity

LinkProof VA increases employee productivity and reduces costs at the branch office by supporting hybrid WAN architecture, aligning allocated WAN links with application criticality and priority, and accelerates access to SaaS applications.

Support Hybrid WAN Architectures

LinkProof VA supports hybrid WAN architectures by routing traffic targeted at the enterprise data center to a specified link and routing traffic going to the Internet to a separate link. This allows organizations to select the most appropriate link (type, capacity, SLA) according to its planned usage, reduce costs and optimize link utilization.

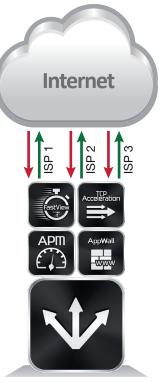
Improve the Delivery of Applications Consumed by Branch Offices

Integrated application bandwidth prioritization capabilities ensure that mission-critical and latency-sensitive applications are served via the high-SLA WAN links while non-critical traffic is "throttling down". Moreover, LinkProof VA accelerates the response time to SaaS applications by applying advanced TCP congestion control over both wireline and wireless networks.

Best-of-Breed, Highly Scalable Solution

LinkProof VA delivers enhanced performance and scalability, supports new WAN links, extends the throughput capacity of the solution and adds more advanced services. It features high-density, large-scale network address translation capabilities and IPv4 to IPv6 gateway – allowing the processing of both IPv4 and IPv6 traffic with high-speed logging.

LinkProof VA adds important advantages over standard link load balancers (including outbound link redundancy, service level assurance for cloud services, unique traffic acceleration services and more) and is superior to Border Gateway Protocol (BGP). While BGP failover can take several minutes – LinkProof VA delivers instant link failover, eliminating costly application downtime. In addition, unlike BGP which requires ISP cooperation to scale it and is cumbersome as one needs to get its own Autonomous System (AS) number, LinkProof VA eliminates such hassle and simplifies operations.



LinkProof VA

About Radware

Radware (NASDAQ: RDWR), is a global leader of application delivery and application security solutions for virtual and cloud data centers. Its award-winning solutions portfolio delivers full resilience for business-critical applications, maximum IT efficiency, and complete business agility. Radware's solutions empower more than 10,000 enterprise and carrier customers worldwide to adapt to market challenges quickly, maintain business continuity and achieve maximum productivity while keeping costs down. For more information, please visit www.radware.com.

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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. Radware also has dedicated engineering staff that can assist customers on a professional services basis for advanced project deployments.

Learn More

To learn more about how Radware's integrated application delivery & security solutions can enable you to get the most of your business and IT investments, email us at info@radware.com or go to www.radware.com.