

# WebMux™ Network Traffic Manager

Manage, Control, and Secure Local Network Traffic  
for High Availability of Applications and Services

It is all about the user experience on your network  
and keeping everyone connected<sup>SM</sup>



Enterprise-class Application Delivery Network Load Balancing Solution for Layers 4-7 TCP/UDP IP Traffic  
Reliable High Performance • Quick to Deploy • Easy to Manage • Fantastic Value • Affordable

## Internet Connectivity and Availability Expectations

The Internet allows us to research vast amounts of information, provides quick and convenient shopping, and lets people collaborate and stay connected in many different ways.

What would be the consequences if your internal organization or customers cannot connect to your network back end servers where the applications are servicing their needs? Whether it is connecting to your web site, having conversations through VoIP, social media interactions, streaming videos, playing games, managing IoT devices, or accessing internal accounting records, the frustration levels will escalate.

This is where AVANU's WebMux Network Traffic Manager plays a key role in your network to prevent situations like these. Businesses and people's lives have become highly dependent on the Internet and WebMux keeps everything flowing smoothly.

## WebMux Network Traffic Manager Introduction

An essential function of your local area network (LAN) is the reliable delivery of local network traffic (Layers 4-7) to your back-end server farms that are servicing the TCP/UDP IP applications and services for your internal organization and external customers.

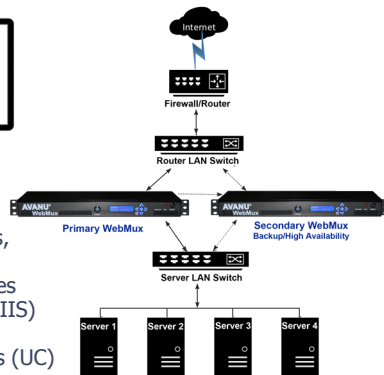
AVANU's WebMux Network Traffic Manager is an affordable enterprise-class application delivery network load balancing solution.

WebMux is quick to deploy and easy to manage while providing reliable high availability and high performance supporting a wide range of network load balancing methods. AVANU offers businesses of all sizes scalable WebMux options available in plug-and-run hardware appliances and Virtual appliances for Cloud computing with a fantastic return on investment with its affordability.

A local network load balancing and application delivery solution at its best with full range load balancing and scheduling method features with fast and easy setup options.



Popular TCP/UDP IP applications and services support include but not limited to are Skype® for Business, Lync® Server, Exchange® Server, SharePoint® Server, Xbox® Live Games Server, Internet Information Services (IIS) for Windows® Server, WebLogic®, WebSphere®, Unified Communications (UC) services (unified messaging, IM presence, team collaboration, audio/web/video conferencing, mobility, and VoIP), databases, FTP, POP, terminal servers, and web servers to name a few.



## Flexibility and Reliability



Virtual WebMux Appliances  
Cloud computing network environments

WebMux Appliance Reliability



High capacity with up to 18-core CPU processing (Speed and power)  
Built to last solid-state design high grade server components  
Redundant hot-swap power supplies (supported on all models)  
Digital monitoring and built-in physical intrusion protection  
Pulse-width modulation (PWM) smart cooling fans (high efficiency)

## High Return on Investment



Delivers more performance value at less cost for a high return on investment  
Leverages existing network investments  
Full extensive load balancing features on all models

Self-contained (no royalty or extra hidden costs)  
Save on costly manpower hours to write scripts, configure, manage, and maintain  
No additional maintenance contract required with purchase (Appliance models come with 2-years product warranty-parts and labor with 1-year product support; Virtual WebMux Software Editions come with a full year product support)

## How Does WebMux Compare?

	AVANU	Vendor A	Vendor B
Processor platform (64-bit)	Yes	Yes	Yes
Appliance CPU processors (up to)	18	12	Dual
Factory pre-configuration	Yes	No	No
Intuitive GUI interface	Yes	No	No
Certifications required	No	Yes	Yes
Appliance product warranty (HW)	2 years	1 year	1 year
Appliance firmware updates (HW)	1 year	90 days	90 days
Product Technical Support	1 year	90 days	90 days



"Thank you to everyone for being persistent and hammering out solid products. We must have the most robust solution with the best throughput. I appreciate all of the effort." System Engineering Division Chief, United States Federal Government

"Since partnering with AVANU, we have experienced seeing how AVANU has a dedicated focus to meeting their customers' real-life requirements. Our customers are very enthusiastic about AVANU's new WebMux platform." Vice-President Systems Integrator

Commonly used terms for application delivery network load balancing include Network Traffic Manager (NTM), Application Delivery Controller (ADC), Load Balancer (LB), Hardware Load Balancer (HLB), Network Load Balancer (NLB), Server Load Balancer (SLB), and Local Traffic Manager (LTM).

### WebMux™ Security

NAT/SNAT  
Flood Control®  
Intrusion Monitoring  
Smart DDoS Protection  
TACACS+/LDAP Authentication  
Multiple Address & Port Mapping

IPv6 to IPv4  
FIPS 140-2 Compliant  
PCI DSS Compliant  
TCP SYN Protection  
HTTPS/SSH Management  
8192-bit TLS/SSL Encryption  
Web Application Firewall (WAF)

## Contact Us Today!

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**Contact AVANU for features not listed or to request a demonstration**

<b>WebMux - Virtual Appliance</b>	<b>AVE-100</b>	<b>AVE-300</b>	<b>AVE-500</b>	<b>AVE-1000</b>
Network Layers	4-7	4-7	4-7	4-7
O/S Processor Architecture (bit)	64	64	64	64
Load Balancing Network Traffic Throughput (Internet Link-max Gbits/s less any overhead)	1.0	3.0	5.0	10.0
Servers/Farm Support (Max-Real/Virtual)	4,999	4,999	4,999	4,999
Technical Support	1 Year	1 Year	1 Year	1 Year
FIPS-2 Level 1 Compliant	Yes	Yes	Yes	Yes
TAA Compliant (Developed in USA)	Yes	Yes	Yes	Yes
Factory Pre-configuration (optional)	Yes	Yes	Yes	Yes

<b>WebMux - Network Hardware Appliance</b>	<b>A425</b>	<b>A525</b>	<b>A620</b>	<b>A625</b>	<b>A725</b>	<b>A825</b>
Network Layers	4-7	4-7	4-7	4-7	4-7	4-7
O/S Processor Architecture (bit)	64	64	64	64	64	64
CPU Processor (Cores/Threads)	Quad/4	8/16	10/16	10/16	14/28	18/36
Load Balancing Network Traffic Throughput (Internet Link-max Gbits/s less any overhead)	4.0	4.0	20.0	40.0	50.0	80.0
Network Type	Copper	Copper	Copper	Copper	Copper	Cooper
Network Port Connector Type	RJ45	RJ45	RJ45/SPF+	RJ45/SPF+	SFP28	QSFP+
Load Balancing Network Traffic Ports	4x 1GbE	4x 1GbE	2x 10GbE	4x 10GbE	2x 25GbE	2x 40GbE
IPMI Port	Yes	Yes	Yes	Yes	Yes	Yes
Management Port	Yes	Yes	Yes	Yes	Yes	Yes
ECC Memory (GB)	8	16	32	32	64	128
Solid State Drive (SSD)	Yes	Yes	Yes	Yes	Yes	Yes
Smart Temperature Control Fans	Yes	Yes	Yes	Yes	Yes	Yes
Power Supply (Hot-Swap, 400w)	Single/Dual	Single/Dual	Dual	Dual	Dual	Dual
Servers/Farm Support (Max-Real/Virtual)	4,999	4,999	4,999	4,999	4,999	4,999
Front LCD Panel (Quick Configuration)	Yes	Yes	Yes	Yes	Yes	Yes
Digital Intrusion Monitoring/Physical Detection	Yes	Yes	Yes	Yes	Yes	Yes
Chassis	1U	1U	1U	1U	1U	1U
Hardware Warranty	2 Years	2 Years	2 Years	2 Years	2 Years	2 Years
Technical Support	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
FIPS-2 Level 1, 2 Compliant	Yes	Yes	Yes	Yes	Yes	Yes
TAA Compliant (Developed & Manufactured in USA)	Yes	Yes	Yes	Yes	Yes	Yes
Factory Pre-configuration (optional)	Yes	Yes	Yes	Yes	Yes	Yes

**WebMux Feature Highlights (Network Hardware and Virtual Appliance Models)**

**General Operations**

Application and Services Setup/Configuration Wizards
Intuitive Web-based Graphical User Interface (GUI)
Compression-Software
HTTP Caching
Health Checks (Applications and Services)

**Network**

One-armed Single Network
One-armed Direct Server Return (DSR)
Two-armed Network Address Translation (NAT)
Two-armed Transparent
Active/Active WAN
Active/Passive High Availability
Adaptive Load Balancing
Bonding/Teaming Ports (802.3ad/LACP)
Content Encoding (HTTP Compression)
Reverse Proxy
Multiple Address and Port (MAP™)
Multiple Gateway Network Failover
Multiple VLAN Trunking (IEEE 802.1Q)

**Load Balancing - Scheduling Algorithms**

HTTP to HTTPS Redirect
Least Connection, Least Connection-Persistent
Round Robin, Round Robin Persistent
Weighted Fastest Response, Weighted Fastest Response—Persistent
Weighted Least Connection, Weighted Least Connections—Persistent
Weighted Round Robin, Weighted Round Robin—Persistent
Dynamic Ratio
Fixed Priority Pre-emptive Scheduling
IP Persistence
Layer 7 Persistence

**Internet Protocol (IP) Support**

ASP
Basic Layer 2 Protocols (ie. STP, MSTP, RSTP....)
DNS
FTP
HTTP
HTTPS (SSL/TLS; SNI-Server Name Indication)
IMAP
IPv4/IPv6
LDAP
NNTP
POP3
Radius
RDP (Terminal Services)
SMTP
SNMP
SSH
Streaming Media
TCP/UDP Applications and Services
TFTP
<b>Security and SSL</b>
Access Control List System
Authentication - LDAP, TACACS+
Automatic Attack Detection (AAD)
Digital Monitoring/Built-in Physical Intrusion Protection (HW appliance)
DoS/DDos Protection (Flood Control™ UDP/TCP level)
IP Address Filtering
SSL (FIPS 140-2 compliant)
SSL Acceleration
SSL Certificates (Third Party Support)
SSL Certificate Signing Request (CSR)
SSL Termination/Offloading
SSL Encryption Strength (bits) 1024, 2048, 4096, 8192
TCP Protocols Support
Web Application Firewall (WAF)

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## The Application Delivery Network Load Balancer Market Supercharge Your Network to Supercharge Your Bottom Line

Your company's network is indispensable, whether it serves internal operations or external customers and prospects. Everyone's livelihood depends on a reliable and secured network, so could it make good business sense to change your network?



To decide, it is vital to ask yourself if your network always performs at its full potential even during peak traffic times, providing maximum service and availability for both your organization and your customers. If not, the hidden costs are enormous. Employees may take longer to do their work. Existing and potential customers may lose patience and move to your competitors. These hidden cost dangers are easy to overlook, but could be dramatically reduced by a wise network change.

One high payoff network change is to invest in an application delivery network load balancing solution. Common terms used for this include network traffic manager (NTM), application delivery controller (ADC), load balancer (LB), hardware load balancer (HLB), network load balancer (NLB), server load balancer (SLB), and local traffic manager (LTM). A load balancing solution will control such costs by securely delivering and reliably directing local data traffic for TCP or UDP applications and services to and from your internal network of servers.

There are many choices in load balancer solutions. How do you pick one wisely, so its cost doesn't eat up the savings? For any load balancing solution you may consider, ask yourself questions such as these:

- What is its out-the-door price?
- Do I need certification and training to install it myself?
- Must I hire certified personnel to do the configuration and installation? How much does this cost in time and money?
- Is it easy to maintain without having certified or trained personnel?
- Does the initial price include product configuration?
- Will the product continue to meet my future requirements as my network evolves without paying extra for "add-on" features?
- How much does the manufacturer charge for new product features?
- How much does annual support and product registration cost?
- Are there annual royalty fees?

Some considerations are harder to quantify in monetary terms:

- How good is its quality of service, both before and after purchase?
- How reliable is it?
- How long has it been on the market?

What about products with multiple functions that integrate load balancing with other services?

- Are there hidden unnecessary costs for the load balancing configuration?
- How fast can the load balancing function be up and running in the network?
- Do all product functions provide optimal performance for the network?
- If one function of such a product fails, does it become a single point of failure for all its functions?
- Will you pay more for the annual service and support because of a product's multiple functions?

After you assess the possibilities for load balancing your network, it will become very clear that the affordable enterprise-class WebMux Network Traffic Manager, an application delivery network load balancing solution is the right answer to saving money with its quick and easy deployment of an optimal, high performing, and highly secured local network. WebMux scalable platforms include network hardware appliances (Plug-and-Run) and Virtual appliances for Cloud computing network environments.

It is all about the user experience on your network and keeping everyone connected<sup>sm</sup>



Quick to Deploy • Easy to Manage • Reliable High Performance • Fantastic Value • Affordable  
Excellence in Customer Support Services

AVANU WebMux = Bottom Line Money Savings (Product cost, time, labor, maintenance)  
offering more performance value for a high return on investment



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