



# 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>

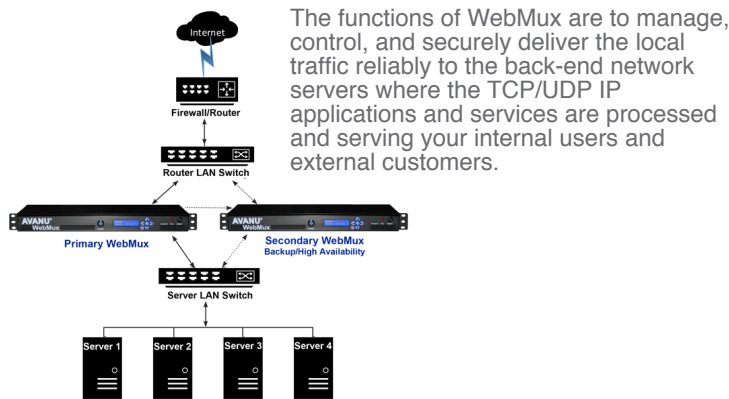


## Enterprise-class Application Delivery Network Load Balancing Solution

Manage, Control, and Secure Local (Layers 4-7) Network Traffic for High Availability of Applications and Services  
Reliable High Performance • Quick to Deploy • Easy to Manage • Fantastic Value • Affordable  
Excellence in Customer Support

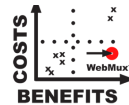
AVANU based in the United States develops and designs high quality products for IT infrastructures and data centers. The WebMux Network Traffic Manager is a full-featured and reliable high performing enterprise-class application delivery network load balancing solution that is affordable for all business sizes. It is designed to be quick to deploy and easy to manage.

WebMux acts like an applications doctor to keep your local network traffic in top condition to assure high availability with the applications and services your business offers.



The functions of WebMux are to manage, control, and securely deliver the local traffic reliably to the back-end network servers where the TCP/UDP IP applications and services are processed and serving your internal users and external customers.

### WebMux Highlights



Affordable  
High Return on Investment

- Full extensive load balancing features on all models
- Self-contained (no royalty or extra hidden costs)
- Cost savings on manpower hours time
- No certified training required for WebMux installation
- No costly script writing required to setup or maintain
- No additional maintenance contract required with purchase
- Purchases come with a full year of product technical support
- Network hardware appliances include two (2) years product warranty (parts and labor) and one (1) year of firmware updates

“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

### TCP/UDP IP Applications and Services (Examples)

Unified Communications (unified messaging, instant messaging, presence information, voice/VoIP, mobility, audio/web/video conferencing, fixed-mobile convergence, desktop sharing, data sharing plus more)

E-Commerce • FTP Servers • Internet gaming • POP servers  
IoT device services • Call centers • Social media  
Terminal servers • Video streaming • Web servers  
Internal operations (accounting, database record management, etc.)

Some company offerings that are supported by WebMux include Microsoft Skype® for Business, Lync® Server, Exchange® Server, SharePoint®, Xbox® Live Games, Internet Information Services (IIS) for Windows® Server, Oracle WebLogic® Application Server, IBM WebSphere®, Pexip® Unity, Unify® Unified Communications to name a few.

### Scalable Platforms



Virtual WebMux software appliances for Cloud computing network environments.



WebMux network hardware appliances for reliable robust high-performance, plug-and-run deployment ease, and built to last quality with server-grade components.

### Contact Us Today!

1.888.248.4900 U.S. Toll Free  
1.408.248.8960 International  
info@avanu.com

General Information • WebMux Demonstration  
Technical Pre- and Post Sales Support  
Free Virtual WebMux Software Appliance for Evaluation

Commonly used market terms for local network load balancing solutions Application Delivery Network (ADN) Load Balancer, 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).



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Contact AVANU for features not listed or to request a demonstration

WebMux - Virtual Appliance	AVE-100	AVE-300	AVE-500	AVE-1000
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

WebMux - Network Hardware Appliance	A425	A525	A620	A625	A725	A825
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
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 How to Supercharge Your Network to Supercharge Your Bottom Line

What is an application delivery network (ADN) load balancer and why is it essential to the network infrastructure?

In the computer world, a local area network (LAN) is an entity's network infrastructure that connects local computers, computer servers or server farms, switches, routers, and firewalls that are commonly connected to the public Internet.

An ADN load balancer is similar to a router with the exception of having a specific role to manage, deliver securely, and reliably local network traffic (Layers 4-7) to and from the back-end servers/server farms.

Throughout the years there have been many terms used in the market to reference the basic functions of load balancing local network traffic. Here are a few common ones: application delivery network (ADN) load balancer, 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).

For the purpose of this article, we are using the term ADN load balancer to address the question how it can supercharge your network to supercharge your bottom line.

Let's first take a closer look at how your company's network is crucial to the business operations where it could serve both internal and external users. What would be the consequences if your internal organization or external customers and prospects cannot connect to your network back-end servers where the applications are servicing their needs? One could only imagine the high frustration levels, 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, emails, database records, etc.

It makes good business sense to take a close look at the fundamentals of your network as today's livelihood highly depends on it.

The first question to ask, is your network always performing at its full potential even during peak traffic times, providing maximum service and availability for all your users? Second, have you considered the enormous hidden costs from a less than optimal performing network that may be eroding the company's bottom line? Negative impacts could include employees taking longer to do their work and existing or potential customers will lose patience and move to your competitors. These hidden cost dangers are easy to overlook, but could be dramatically reduced by making a wise change to your network infrastructure.



For a high positive payoff, it may be wise to consider a network upgrade by investing in an application delivery network load balancing solution. It will prevent the negative hidden cost effects by efficiently managing and delivering reliably and securely your users' data traffic to and from your internal back-end network of servers servicing their needs.

Here are a few examples and benefits of an ADN load balancer:

**Performance:** The traffic to servers is distributed among the server farm so that a site can handle more than a single server alone. Other features, such as SSL Offloading and HTTP cache, help reduce impact on server resources.

**Scalability:** After a server farm has been created, more servers can be still be added should more capacity be needed.

**Redundancy/Fault Tolerance:** A farm contains several servers that serve the same site. If a server should fail, a health check will detect the failed server and send requests to the remaining servers. Therefore, keeping all applications and services working.

**Reduce Maintenance Downtime:** Servers in a farm can be taken offline for maintenance without interrupting applications and services for the user.

There are many choices of application delivery network load balancer solutions. Ideally one will meet your local network load balancing requirements where its total net cost will not eat up the positive cost savings. To review your load balancing needs, here are some example questions to answer:

- What is the 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?
- How easy is the product to maintain without having certified or trained personnel?
- Does the initial price include product configuration?
- Will the product meet my future requirements as my network evolves without paying extra for add-on features?
- Will the manufacturer charge for new product features added?
- What is the annual support and product registration cost?
- Are there annual royalty fees?

Some considerations are harder to quantify in monetary terms:

- What is the manufacturer's quality of service, both before and after purchase?
- What is the product's reliability reputation?
- How long has the product 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?
- What if one function of such a product fails, does it become a single point of failure for all its functions?
- Overall will you be paying more for the multi-functions' annual royalty and/or support services?

After you assess the possibilities for load balancing your local (Layers 4-7) network, it should become clear what meets your requirements and budget.

One reputable and excellent choice to consider is the WebMux™ Network Traffic Manager from AVANU®. WebMux has been proven and tested over time to be a powerful and reliable enterprise-class application delivery network load balancing solution. The product is self-contained and designed to be easy and fast to set up, configure, and manage without any special training or certifications.



In summary, AVANU's WebMux offers bottom line savings (product cost, time, labor, and maintenance) offering more performance value for a high return on investment.

AVANU offers scalable Virtual WebMux software appliances for cloud environments, as well as network hardware appliances for reliable high performing plug-and-run deployments to meet your load balancing and performance requirements.

For information on AVANU WebMux Network Traffic Manager, visit their web site at 'www[dot]avanu[dot]com'; email 'info[at]avanu[dot]com'; or call 1.888.248.4900 U.S. Toll Free Number; 1.408.248.8960 International.

**About AVANU, Inc.**

AVANU designs and develops products for the IT infrastructure and data center environments that are full-featured, high in performance, and affordable. AVANU adds value by placing customers first with a focus on easy product user interface and excellence in customer support services. AVANU's flagship product, the WebMux Network Traffic Manager, is an enterprise-class application delivery network load balancing solution for managing, controlling, and securing local network (Layers 4-7) traffic.

AVANU founded in 1997 and based in San Jose, California USA started as a computer network supplier and is now a privately held network infrastructure product developer with R&D, manufacturing, and production in the United States. Graduated from the U.S. SBA 8(a)/SDB program in 2015.

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