KEMP | LOAD BALANCERS

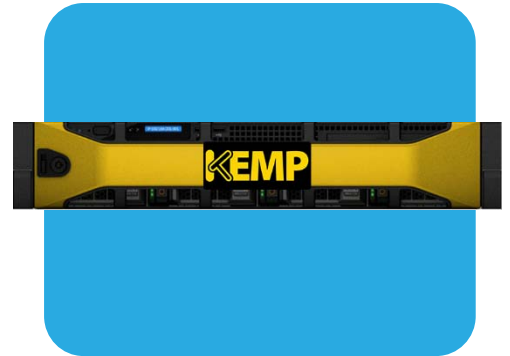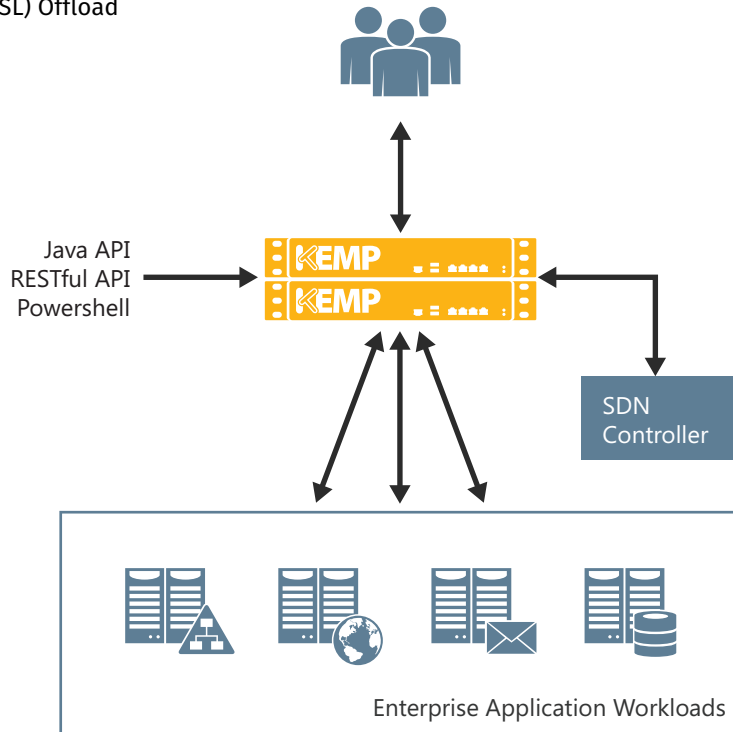# LoadMaster 8020

Data Sheet

- High-Performance application delivery
- Intelligent load balancing with SDN Adaptive
- TLS (SSL) Offload

Java API
RESTful API
Powershell

SDN Controller

Enterprise Application Workloads

Intelligent Application Delivery for Large Scale Workloads

The LoadMaster™ 8020 appliance represents the ultimate in application delivery performance and functionality for high volume environments. It offers the best quality of experience for connected users with throughput of over 30Gbps and advanced application delivery features that maintain performance by intelligently adapting to changing network environments. Appliances may be configured as HA pairs or clusters and use the built in global server load balancing for resilient application delivery across sites and in the data center.

The 8020 enables secure and scalable delivery of enterprise workloads such as SAP® and Oracle® and can support over 75 million concurrent connections. Configuration is simplified via the use of application templates which are included for all the major application workloads including Microsoft® Exchange, Skype® for Business and Sharepoint®.

The security of applications is enhanced with features such as a Web Application Firewall (WAF), intrusion detection and authentication services while application resilience to network bottlenecks is delivered with SDN Adaptive. SDN Adaptive integrates with leading SDN controllers to intelligently deliver applications using not only application level health checks but also SDN performance and status metrics.

FEATURE	BENEFIT
High performance Layer 4 and Layer 7 load balancing	Consistent delivery of high volume enterprise application workloads
Java™, PowerShell and RESTful APIs	Simplified orchestration and management of appliances using existing tools
High-Availability and Scale-out Clustering	Easily achieve application SLAs with automatic stateful failover/recovery and high performance clustering
SSL acceleration and offload	Reduced server overhead and improved end user experience
Web Application Firewall Pack (AFP)	Protect applications against known and emerging vulnerabilities and simplify PCI compliance
SDN Adaptive load balancing	Avoid service degradation due to network issues by including SDN metrics in load balancing decision
Compression and caching of content	Reduces internal network latency and optimizes bandwidth for best possible client experience
Intrusion Prevention Systems (IPS)	Thwarts application threats in both non-encrypted and encrypted traffic streams
Dual power supplies	Increased service resilience

LoadMaster 8020

Data Sheet

Specifications version 7.1

Standard

- Server Load Balancing (SLB) for TCP/UDP based protocols
- TLS (SSL) Offload
- Layer 7 Content Switching
- Advanced application transparent caching for HTTP/HTTPS
- Optimized compression of static and dynamic HTTP/HTTPS content
- SNORT-rule compatible Layer 7 intrusion prevention system (IPS)
- Up to 1000 Virtual and 1000 Real Servers
- IPv6 support for addressing and features
- IPv6 - IPv4 bidirectional conversion
- NAT-based forwarding
- Support for Direct Server Return (DSR) configurations
- Session reconnection for Microsoft remote desktop services (RDS)
- Configurable S-NAT support
- VLAN Trunking (802.1Q)
- Link interface bonding (802.3ad)
- HTTP/2 Layer 7 Proxy

Edge Security Pack

- Microsoft TMG replacement
- Pre-Authentication & SSO
- Multi-Domain authentication
- X.509 client certificate authentication
- Custom login forms
- Two factor authentication

Performance

- Max L4 throughput up to 31.6Gbps
- Max L7 throughput up to 30Gbps
- 450,000 L7 (http) requests per second
- 525,000 L7 concurrent connections
- 75,800,000 L4 concurrent connections
- TLS (SSL) Acceleration
    - 2K Keys up to 30,000 TPS
    - 1K keys up to 46,000 TPS
- TCP/IP Multiplexing

TLS (SSL)

- Configurable TLS (1.0, 1.1, 1.2) and SSL (2.0, 3.0)
- Support for EV (Extended Validation) certificates
- Server Name Identification (SNI) support
- Support for up to 1,000 TLS (SSL) certificates
- Automated TLS (SSL) certificate chaining
- TLS (SSL) Certificate Signing Request (CSR) generation
- STARTTLS offload for mail protocols (POP3, SMTP, IMAP)
- FIPS 140-2 Level 1 mode

Health Checking & High Availability

- Aggregated health checks
- ICMP health checking
- Layer 7 checking against any target server port
- Active/Hot Standby configurations for High Availability
- Stateful Failover
- Scale-out Clustering
- Global Server Load Balancing (GSLB) as standard

Administration

- Change auditing
- Flexible administration Options
    - Web User Interface (WUI)
    - SSH
    - Console
    - RESTful, JAVA and PowerShell APIs
    - VMware vRealize Orchestrator
- Hardware remote access (iDRAC)
- Context based help (WUI)
- Real time display of performance and availability
- Application templates
- Remote syslogd support
- Automated configuration backup
- Selective restore of configuration
- Connection draining
- Comprehensive logging and reporting
- SNMP support
- Diagnostic shell with in-line tcpdump

Scheduling and Balancing Methods

- SDN Adaptive
- Round Robin
- Weighted Round Robin
- Least Connection
- Weighted Least Connection
- Agent-based Adaptive
- Chained Failover (Fixed Weighting)
- Source-IP Hash
- Layer 7 Content Switching
- Global Server Load Balancing (GSLB)

Session Persistence

- Source IP (L4)
- TLS (SSL) SessionID (L4)
- HTTP/HTTPS Browser-session (L7)
- HTTP/HTTPS WebClient-session (L7)
- RDP Login ID (L7)
- Port Following for mixed HTTP/HTTPS sessions

Security

- Web Application Firewall (WAF)
- Optional Application Firewall Pack (AFP) for daily WAF rule updates
- SNORT-Rule Compatible L 7 Intrusion Prevention System (IPS)
- Permit /Deny Access Control Lists
- IP address filtering
- DDoS mitigation, including L7 rate based attacks
- IPSec VPN to Azure, AWS and vCloud Air public clouds
- Authenticated NTP

Hardware Platform

- Intel® Xeon® 2x10 Core Processor
- 8 X 10Gb SFP+ Direct Attach Ports
- 64 GB RAM
- Local admin via serial and VGA/USB
- Dimension (2U): 434mm (W) x 684mm (D) x 87.3mm (H)
- Weight: 11.7kg (25.7 lb)
- 495W Hot-plug, Redundant (1+1) PSU

* Specifications are subject to change without prior notice.