

## K62 Key Benefits

- Preconfigured Enterprise-Class VLAN “out-of-the-box” solution at a fraction of the cost
- Color-Coded Ports for A/V devices, controls and computers for simple, fast installations
- Integrated Pakedge Quality of Service (QoS) to ensure jitter-free audio video streaming
- Stackable with additional Pakedge switches for the largest of systems
- Predefined Basic and Advanced Settings with Pakedge Support. Additional unlimited customizations available with support offered by Fortinet and/or Pakedge Custom
- A/V Rack-Mountable: clean face, fanless and cables in the back
- Dual WAN ports for redundant Internet connections deliver higher availability and will switch over to the other connection when one connection fails.
- Multiple VPN Tunnels
- 5 Gigabit Internal Switch Ports
- Dedicated DMZ Port
- Secure Guest Network
- Express Card Slot for Optional 3G/4G Broadband Card
- 24-Port Managed Gigabit Switch with Configurable VLAN Port Association

## Additional K62U Key Benefits

- Web filtering allows parents to monitor and control their children’s web activity.
- The router identifies hundreds of thousands of viruses through a database that is automatically updated each time a new virus is discovered.
- The router limits access to websites based on designated categories. More than 60 million websites and two billion web pages are rated by category. URL filtering can block your network users from access to URLs that you specify.
- Application control can detect the network traffic of more than 1,000 applications, improving your control over application communication. When you use this feature within a network, you are able to control your various appliances. For example, you can program your Xbox 360 to automatically shut off at a certain time.

## K62

PRECONFIGURED, MULTI-VLAN, GIGABIT ROUTER AND 24-PORT CONFIGURABLE AUDIO/VIDEO BRIDGING SYSTEM

## K62U

PRECONFIGURED, MULTI-VLAN, GIGABIT ROUTER AND 24-PORT CONFIGURABLE AUDIO/VIDEO BRIDGING SYSTEM; PRELOADED WITH UNIFIED THREAT MANAGEMENT (UTM)



The popularity and affordability of IP networking has driven audio/video and controls networks to share the same physical wire with computer networks. Unlike computer data, however, video streaming, audio streaming, and control systems cannot tolerate unpredictable latency. These sophisticated networks require the same robustness as an enterprise network to ensure the packets that carry audio and video arrive in time and IP-based controls do not lose critical command packets.

The Pakedge Audio-Video Bridging (AVB) product line solves these issues with minimal required configuration. The Pakedge AVB products have preconfigured security appliances (routers) and switches, effectively dividing the network into six separate subnets (VLANs) to manage traffic, broadcasting, and priority for all devices, based on color-coded ports.

The Pakedge K62 and K62U KITS offer many new and improved features. Both KITS come with an R6V router and a 24-port gigabit switch. The R6V router is equipped with five Gigabit LAN ports, two WAN ports that are capable of supporting Broadband speeds of 100 Mbps, and one DMZ port. Both KITS also come preconfigured with a Guest Network. The K62U is additionally preloaded with Unified Threat Management (UTM).

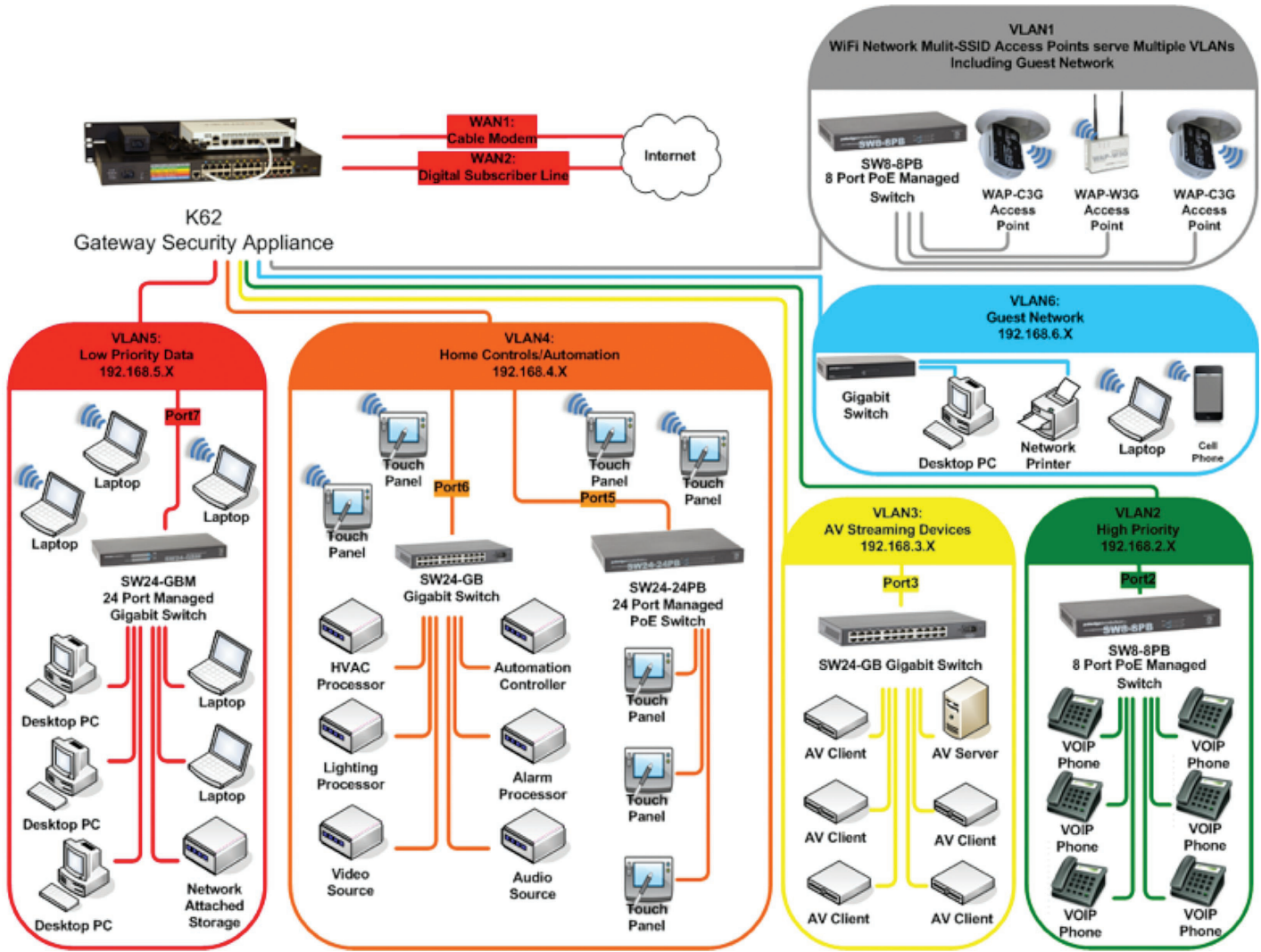
Both the K62 and K62U come with the Pakedge configuration overlay and Pakedge Support, making these Fortinet appliances easy to install. The simplicity of the Pakedge solution enables custom A/V installers to complete quick, quality installations while avoiding the complexity of an enterprise-level configuration.

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# K62 and K62U Suggested Network Configuration



Router Product	Enterprise Class Firewall	Rack Space Required	DMZ Physical Port	Switch Ports on Router	Paged Phone Support	Preconfigured Settings						
						Login Profiles	Dual WAN Failover	VPN (PPTP or SSL)	VLANs and QoS	Gigabit VLAN Switch	Managed Maccell WiFi	Parental Controls/Antivirus Protection
Unconfigured: Use only if you have very strong IT skills/knowledge and are very comfortable with programming enterprise-class products												
RT-50F	✓	N/A	No	3	No	No	No	No	No	No	No	No
R6F	✓	N/A	✓	5	No	No	No	No	No	No	No	No
Single LAN: For small to medium size networks that only require a single subnet												
RB-KIT	✓	1U	No	3	✓	✓	✓	✓	No	No	No	No
K6	✓	1U	✓	5	✓	✓	✓	✓	No	No	Up to 4 APs	No
K6U	✓	1U	✓	5	✓	✓	✓	✓	No	No	Up to 4 APs	✓
VLAN (8 Port): For networks that require segmentation and priority of VOIP, Control, Audio/Video, etc.												
RSB-KIT	✓	2U	No	3	✓	✓	✓	✓	✓	8 Port	No	No
K61	✓	2U	✓	5	✓	✓	✓	✓	✓	8 Port	Up to 4 APs	No
K61U	✓	2U	✓	5	✓	✓	✓	✓	✓	9 Port	Up to 4 APs	✓
VLAN (24 Port): For larger networks that require segmentation and priority of VOIP, Control, Audio/Video, etc.												
RSB-K24C	✓	2U	No	3	✓	✓	✓	✓	✓	24 Port	No	No
K62	✓	2U	✓	5	✓	✓	✓	✓	✓	24 Port	Up to 4 APs	No
K62U	✓	2U	✓	5	✓	✓	✓	✓	✓	24 Port	Up to 4 APs	✓

## R6V SPECIFICATIONS

### INTERFACES

Total Network Interfaces:	8
10/100/1000 Internal Switch Interfaces (Copper, RJ-45):	5
10/100 WAN Interfaces (Copper, RJ-45):	2
10/100 DMZ Interfaces (Copper, RJ-45):	1
USB Interfaces:	2 (1 Type-A, 1 Type-B)
Express Card Slot	1
Internal Storage	8 GB
SDHC Card Slot (4GB to 32GB Class 6 or higher)	1 (4GB card installed)

### SYSTEM PERFORMANCE

Firewall Throughput (1518 byte UDP packets)	1 Gbps
Firewall Throughput (512 byte UDP packets)	1 Gbps
Firewall Throughput (64 byte UDP packets)	1 Gbps
IPSec VPN Throughput	70 Mbps
SSL VPN Throughput	15 Mbps
IPS Throughput (512 byte UDP packets)	60 Mbps
IPS Throughput (HTTP)	50 Mbps
Antivirus Throughput* (Proxy)	20 Mbps
Gateway-to-Gateway IPSec VPN Tunnels (System/VDOM)	500 / 50
Client-to-Gateway IPSec VPN Tunnels	800
Max Concurrent Firewall Sessions	80,000
Firewall Sessions/Sec	3,000
Max Concurrent SSL-VPN Users	550
Firewall Policies (System / VDOM)	5,000 / 500
Virtual Domains (Max / Default)	10 / 10

### DIMENSIONS

Height x Width x Length	1.44 x 8.50 x 5.81 in. (3.66 x 21.59 x 14.76 cm)
Weight	1.9 lb (0.86 kg)
1U Rack-Mountable	Yes

### ENVIRONMENT

Power Required	100-240 VAC, 50-60 Hz, 1.5 Amp Max
Power Consumption (AVG)	15.7 W
Heat Dissipation	53.6 BTU/h
Operating Temperature	32 – 104 deg F (0 – 40 deg C)
Storage Temperature	-13 – 158 deg F (-25 – 70 deg C)
Humidity	5 to 90% non-condensing

## R6V – Audio-Video Bridging Router

- > Preconfigured to separate network into 4 distinct subnets (VLANs) to prevent broadcast issues between sub-systems such as VOIP phones, video streaming, home automation controls, and computer data
- > Support 100Mbps WAN throughput speed
- > Robust, reliable, high-performance, versatile, enterprise-grade security appliance based on Application Specific Integrated Circuit (ASIC) design
- > Dedicated DMZ Port
- > 5 Internal Switch Ports
- > Unrestricted Number of Users
- > Multiple VPN Tunnels

## SW24-GBVC – Audio-Video Bridging Switch

- > 24 Configurable 10/100/1000Mbps Gigabit Ethernet VLAN ports
- > Two SFP Ports for Optional Fiber Connections
- > QoS Also Color-Coded for Priority to Internet
- > Store-and-Forward Forwarding Scheme
- > Error Packet Filtering
- > FCC Class A, CE, VCCI. Meets RoHS

## BR6 – Router Rack Mount Bracket

- > Simple Installation: all mounting hardware included
- > Fits the Router and Power Supply for the R6V
- > Fits Standard 19" 1U AV Rack
- > Clean Front Face with cables that Exit the Back

## Package Contents:

- Package Contents:
- R6V - Audio/Video Bridging Router
- SW24-GBVC - Configurable Audio-Video Bridging Switch
- VLAN Overlay Labels- Overlay labels to reconfigured VLAN Ports
- BR6 - Rack Mount Bracket
- Power supply AC/DC (for R6V)
- 2 x Power Cables (US, EUR, UK, AUS/NZ, IT or IN/SA)
- Console Serial Cable (used for advanced features supported by Fortinet)
- Gray CAT5E Cable (Switch port 1 to Router Ports 1, 2 or 3)
- Red CAT5E Cable (WAN 1 Port to Internet Connection)
- Installation Manual (used for advanced features supported by Fortinet)

## SW24-GBVC SPECIFICATIONS

Function	Description
Network Standards Compatibility	<ul style="list-style-type: none"> <li>• IEEE 802.3i 10BASE-T</li> <li>• IEEE 802.3u 100BASE-TX, 100BASE-FX</li> <li>• IEEE 802.3ab 1000BASE-T</li> <li>• IEEE 802.3z 1000BASE-X</li> <li>• IEEE 802.3x flow control</li> </ul>
Physical Interfaces	<ul style="list-style-type: none"> <li>• RJ45 Connectors for 10BASE-T, 100BASE-TX, and 1000BASE T (Auto Uplink™ on all ports): 24 ports</li> <li>• Small form-factor pluggable (SFP) modules for fiber Gigabit Ethernet interfaces (2 slots)</li> <li>• RS232 console port – RJ45 8-pin plug to 9-hole DB9 plug</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>• Blue LED's for Speed, Link, Activity and Power</li> </ul>
Physical Specifications	<ul style="list-style-type: none"> <li>• Dimensions (w x d x h): 440 x 205 x 43 mm (17.3 x 8.1 x 1.6 in)</li> <li>• Weight: 2.27 kg (5.0 lbs)</li> </ul>
Environmental Specifications	<ul style="list-style-type: none"> <li>• Operating temperature: 0° to 55° C (32° to 131° F)</li> <li>• Storage temperature: 20° to 70° C (4° to 158° F)</li> <li>• Operating humidity: 90% maximum relative humidity, non-condensing</li> <li>• Storage humidity: 95% maximum relative humidity, non-condensing</li> </ul>
Electrical Specifications	<ul style="list-style-type: none"> <li>• Power consumption: 38.5W maximum</li> </ul>
Electromagnetic Emissions	<ul style="list-style-type: none"> <li>• CE mark</li> <li>• EN 55022 Class A (Emissions)</li> <li>• EN 55024 (Immunity)</li> <li>• FCC Part 15 Class A</li> <li>• VCCI Class A</li> <li>• C-Tick</li> </ul>
Layer 2 Services	<ul style="list-style-type: none"> <li>• IEEE 802.1Q static VLAN (1024)</li> <li>• IEEE 802.1p Class of Service (CoS)</li> <li>• IEEE 802.1D Spanning Tree Protocol</li> <li>• IEEE 802.1v Protocol VLAN, Port VLAN, and MAC-based VLAN</li> <li>• IP subnet-based VLAN</li> <li>• IEEE 802.1 Q-in-Q</li> <li>• IEEE 802.3ad Link Aggregation (LACP)</li> <li>• IEEE 802.1x port access authentication</li> <li>• IGMP v1, v2, v3 snooping support</li> <li>• Static multicast filtering</li> <li>• Ingress rate limit in 1 Kbps increments</li> <li>• Weighted round robin (WRR) queue technology</li> <li>• MLD v1, v2 snooping</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Access Control Lists (ACL)</li> <li>• MAC, IP, TCP ACLs: L2/L3/L4</li> <li>• Network storm protection including broadcast multicast and unicast traffic</li> <li>• MAC filtering</li> <li>• Private group CoS</li> <li>• IEEE 802.1x port access authentication</li> <li>• Port security</li> <li>• DoS</li> <li>• Dynamic ARP inspection</li> <li>• RADIUS (RFC 2865)</li> <li>• RADIUS accounting (RFC 2866)</li> <li>• TACACS+</li> </ul>
Switch Management Specifications	<ul style="list-style-type: none"> <li>• SNMP v1, v2c, v3 with multiple IP addresses</li> <li>• RFC 1157, 1902-1907</li> <li>• RFC 768 UDP</li> <li>• UDP relay</li> <li>• RFC 854-859 telnet</li> <li>• RFC 951 BOOTP</li> <li>• RFC 1213 MIB II</li> <li>• RFC 1757 RMON groups 1, 2, 3, and 9</li> <li>• RFC 1215 SNMP Traps</li> <li>• RFC 1493 Bridge MIB</li> <li>• RFC 1643 Ethernet Interface MIB</li> <li>• RFC 1534 DHCP and BOOTP interoperation</li> <li>• RFC 2131, 2132 DHCP, and BOOTP</li> </ul>

## SW24-GBVC SPECIFICATIONS

Function	Description
	<ul style="list-style-type: none"><li>• Private Enterprise MIB</li><li>• Port mirroring support (many-to-one)</li><li>• DHCP/BOOTP relay-primary and backup (RFC 3046, option 82)</li><li>• RFC 2030 Simple Network Time Protocol (SNTP)</li><li>• DHCP server</li><li>• DHCP L2 relay</li><li>• IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</li><li>• ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)</li><li>• DHCP relay (with backup servers)</li><li>• GARP/GVRP/GMRP</li><li>• SYSLOG</li><li>• TFTP, SFTP, HTTP, SCP, or local USB flash firmware upgrade</li><li>• Port description</li><li>• RFC 1519 CIDR</li><li>• Proxy ARP</li><li>• DNS lookup</li></ul>
Performance Specifications	<ul style="list-style-type: none"><li>• Forwarding modes: Store-and-forward</li><li>• System memory: 128 MB</li><li>• Packet buffer memory: 1.5 MB buffer memory</li><li>• Code storage (flash): 32 MB</li><li>• Address database size: 8 K media access control (MAC) addresses</li><li>• Number of VLANs: 1024 (1-4093)</li><li>• Number of trunks: 64</li><li>• Number of queues: 8</li><li>• Number of static route: 32</li><li>• Number of routed VLANs: 32</li><li>• Number of ARP entries: 480</li><li>• Number of ACL rules: 224</li><li>• Jumbo frame support: up to 9 K packet size</li></ul>
User Interfaces	<ul style="list-style-type: none"><li>• Command Line Interface (CLI) via console port</li><li>• Web-based management via embedded HTTP server protected with Secure Sockets Layer</li><li>• Telnet remote login</li></ul>
Maintenance	<ul style="list-style-type: none"><li>• Supports debugging output</li><li>• Supports ping (Packet Internet Groper)</li></ul>
QoS	<ul style="list-style-type: none"><li>• Supports 802.1p/DSCP priority</li><li>• Supports strict priority (SP), weighted round of tour scheduling (WRR)</li><li>• Supports 4 priority queues</li><li>• Supports port-based bandwidth control</li></ul>
Statistics	<ul style="list-style-type: none"><li>• Supports the port send and receive message of statistics</li></ul>
Security Features	<ul style="list-style-type: none"><li>• Supports user password protection</li></ul>

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