

# SMALL CONNECTED HOME

## PAKEDGE NETWORK SOLUTIONS GUIDE



### **BUILDING THE FOUNDATION**

Pakedge delivers a platform of high-performance, high-quality network solutions to serve as the foundation for today's connected home. Even the smallest of homes requires more than a common, off-the-shelf network solution to support today's smart home technology. From a one-bedroom apartment with a tech-savvy young professional to a small townhouse with a working family with children, the Pakedge small home network platform promises faster speeds, greater coverage, and uncompromised reliability for every small home. Designed for flexibility and scalability, the Pakedge platform offers an array of network products to build the right network solution for your customer—from robust gigabit routers that deliver uncompromised speed and flexible switch options for device expansion and install needs, to powerful wireless access points for best-in-class wireless performance, speed, and coverage to every corner of the home.

## THE CHALLENGE

### FOR TODAY'S AVERAGE HOME

In today's small home, the number of smart devices is growing rapidly. From smartphones and smart TVs to IP cameras and video intercom systems, the number of smart devices is expected to reach 24 billion by 2020. With this growing adoption, the average home has become more advanced with network-dependent, performance-sensitive devices placing a heavier demand on the network. Network products found at local retail stores and provided by Internet service providers are designed to scale to a large number of customers at a lower price point, but at the cost of performance and reliability. Today, many homes are still serviced with these low-cost solutions, delivering a disservice to customers who lose out on experiencing the full benefits of their new smart home technology.

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## THE PAKEDGE EXPERIENCE

- › Comprehensive line of networking products to build the best network platform for your customer
- › High-performance, high-quality network solutions engineered to deliver faster speeds and reliable coverage at an affordable price
- › Cost-effective, value-driven solution with long-term utility for the everyday smart home
- › Better wireless experience, delivering better performance, greater device capacity, and extended coverage to deliver faster speeds to every corner of the home
- › Sleek, AV aesthetics with flexible installation options—including desktop and rack-mount switches as well as on-wall, in-wall, or flush-mount
- › Built for future expansion with smart technology—including automation, smart lighting, security, and new IoT solutions

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## GETTING STARTED

With the increased demands of network-dependent devices in the connected home, even the smallest of homes are better served with a robust, high-performing network as the foundation. From faster speeds and better coverage to uncompromised reliability, Pakedge delivers a portfolio of wired and wireless solutions to build a rock-solid network for the connected home.

## THE LATEST SMART HOME TRENDS

- › The number of network-dependent smart devices in the home has quadrupled
- › An increase in heavy-bandwidth, low-latency applications, such as video calling and movie streaming, is putting more demand on the network
- › IoT solutions with smartphone control are readily accessible to consumers
- › The emergence of new, sophisticated technologies requires an increase in the amount and types of communication across the network

## KNOW YOUR CUSTOMER

In order to choose the network solution that best meets your customer's needs, it's important to first get to know your customer. The decision to move away from a low-cost retail solution to a more expensive network can be daunting. Taking the time to get to know your customer's needs, concerns, and requirements for the home can be the difference between a lost sales opportunity and making a customer extremely happy.

### BELOW ARE SOME CONSIDERATIONS TO GET YOU STARTED

#### TYPES OF HOMES:

- › Studio to multi-bedroom apartment, condo, townhome, duplex

#### SIZE OF THE HOME:

- › 500-3,000 square feet (about 50-300 square meters), 1-2 floors, indoor and outdoor coverage

#### LIFESTYLE OF THE HOME:

- › Work-from-home professional who is dependent on a reliable network
- › Young family of high-tech kids doing homework at night and streaming devices simultaneously
- › Working couple who likes to host guest parties on the weekends with over 20 people

#### HOME DESIGN CONSIDERATIONS:

- › Location of networking equipment (utility closet, office, multiple rooms)
- › Existing wiring available, ability to run new wire, or retrofit with dependence on wireless
- › Aesthetic requirements, for example all hidden product, tabletop, in-ceiling, or flush-mounted WAPs

#### TYPES OF SMART DEVICES AND TECHNOLOGY:

- › Smart TVs and video streaming
- › Wireless sound system
- › Mobile phones and tablets
- › Control and automation
- › IP cameras and security

#### SMART DEVICE USAGE:

- › Types of applications
- › Number of smart devices used simultaneously
- › Peak usages times/number of users

## HOMEOWNER BENEFITS

- › Peace of mind with a network you can depend on
- › Small, sleek form factors for easily hiding in closet or installing in a small rack
- › World-class fit and finish to meet standards of any home decor
- › Flexible deployment options for existing design needs and future expansion
- › Secure guest access to ensure your personal data is safe and separate from guests'
- › Futureproof for future demands, including expansion of IoT devices, automation and control, lighting, or security



## BAKPAK® CLOUD MANAGEMENT SYSTEM

BakPak is a cloud-based remote management platform designed to help you proactively manage, monitor, configure, and troubleshoot all of your customers' networks from a single dashboard.

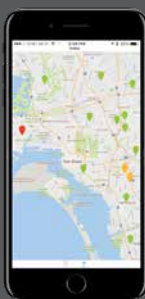
Receive real-time alerts, modify configurations, and remotely reboot troublesome devices while you're on the go. BakPak makes it easier to deliver exceptional service and proactive technical support while helping you eliminate truck rolls and service calls.

BakPak is now available for every size home at no additional cost. For a complete list of BakPak-included products and feature portfolio, check out the What's New > BakPak page on our Dealer Portal.

### PRO TIP

#### When to choose an RK-1 over an RE-2:

- › When you need more throughput to support larger ISP packages
- › Deliver faster speeds to performance-sensitive devices
- › Future proof the network for addition of new smart technology
- › Need remote network management (BakPak)



BakPak Mobile

## THE PAKEDGE PLATFORM FOR THE SMALL HOME ROUTERS

### KEY FEATURES AND BENEFITS

**High-speed router** offering Gigabit Ethernet port speeds.

**Engineered with enterprise-grade** chipsets and hardware.

**300 Mbps to 1 Gbps** of WAN-to-LAN throughput.

**Built-in firewall** and parental controls

**Remote access**, including OpenVPN and built-in Pakedge DDNS.

**BakPak Network Management and monitoring** built in at no additional cost (full BakPak suite available with the RK-1, BakPak Lite suite available with the WR-1).

### RECOMMENDED MODELS



#### WR-1 WIRELESS ROUTER WITH BAKPAK LITE

**Recommended as a robust go-to** and cost-effective networking solution for better performance and coverage for the small home.

**Built-in BakPak Lite** for remote monitoring, configuration, and reboot of the WR-1.

**Combined 500 Mbps of WAN-to-LAN** throughput (router) and wireless dual-band 802.11ac (WAP)

#### Wireless features include:

- › 2x2 Wave 2 MU-MIMO antenna array for faster speeds to multiple devices simultaneously
- › Data rate up to 1,200 Mbps (300 Mbps for 2.4 GHz; 867 Mbps for 5.0 GHz)
- › Secure guest network and WPA2-PSK wireless encryption
- › Push configuration to up to two WAPs for additional coverage



#### RE-2

RE Series gigabit router, our popular high-performance router. Features 1 WAN, 1 configurable LAN/WAN, and 5 LAN ports. Supports up to 300 Mbps of WAN-to-LAN throughput. Recommended for most small home installs with the addition of an unmanaged switch and WAP.



#### RK-1 WITH BAKPAK

RK Series gigabit router designed for high client capacity and heavy-bandwidth, low-latency devices. Features 2 WAN (the second for dual-WAN failover) and 5 LAN ports. Supports up to 1 Gbps of WAN-to-LAN throughput. Recommended for high-performance requirements and future proofing for new smart home technology.

Built-in BakPak offers complete management and monitoring of the entire network, including network-connected and IoT devices.



# THE PAKEDGE PLATFORM FOR THE SMALL HOME SWITCHES

## KEY FEATURES AND BENEFITS

### SE Series unmanaged switches

recommended as go-to switch solutions for the small home

#### Features include:

- › 8-port to 26-port models, gigabit and SFP+ port connections available
- › Multiple PoE solutions (PoE passthrough, PoE powered, and PoE+)

- › Flexible installation options, from rackmountable to desktop models
- › Plug and play with zero configuration required

**SX Series managed switches** also available for traffic management requirements (not listed below). For more information, check out the Dealer Portal.

## RECOMMENDED MODELS



**SE-8**

Eight ports of gigabit speed to connected devices. Your go-to switch for every small connected home. Available as a desktop model or mountable under an office table. Also used as an edge switch for port expansion. Available in a 5-pack.



**SE-8P**

Eight ports of gigabit speed with eight ports of PoE or up to four ports of PoE+. Recommended for networks with PoE-powered devices such as IP cameras, touch screens, and Pakedge WAPs.



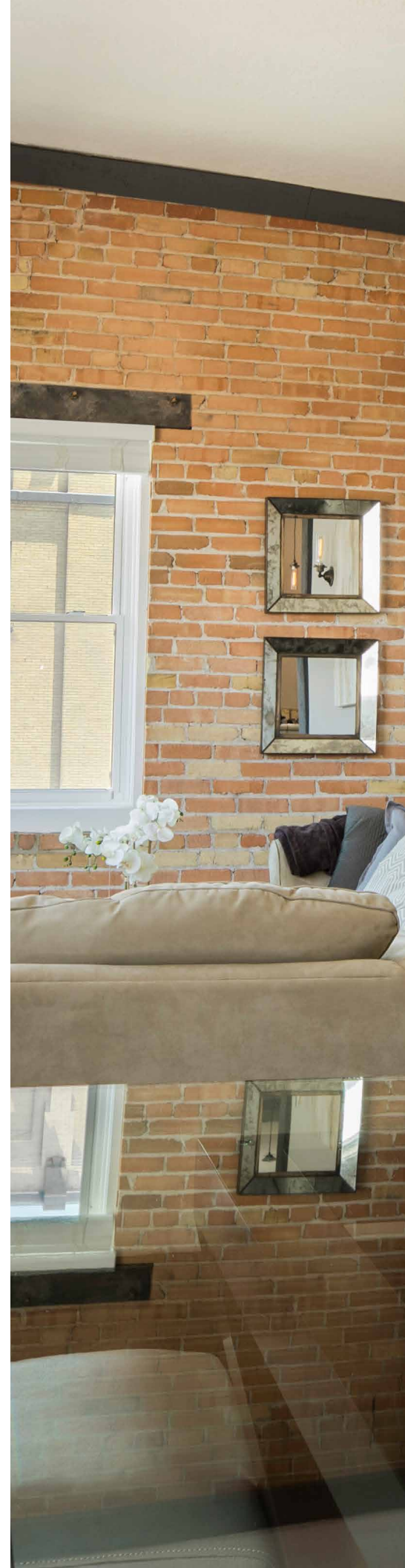
**SE-5P2-EP**

Five ports of gigabit speed with two PoE-powered ports. AC powered or power with a Pakedge PI-05 PoE+ injector for areas where AC power is limited. Recommended for AC-limited networks requiring PoE devices. Also available as an eight-port model.



### PRO TIP

The Pakedge PI-05 PoE-to-PoE+ injector can also be used to power individual PoE+ devices, such as Pakedge WAPs or IP cameras.



## THE PAKEDGE PLATFORM FOR THE SMALL HOME WIRELESS ACCESS POINTS

### KEY FEATURES AND BENEFITS

**High-performance dual-band** 802.11ac WiFi technology

**2×2 and 3×3 MIMO** omnidirectional antennas

**Up to 2,000 square feet** (185 square meters) per WAP of reliable coverage

**Reliable performance** of heavy-bandwidth applications, such as media streaming and VoIP phones

**Advanced roaming features**, including 802.11r fast roaming, for seamless device handoffs

**16 SSIDs + 2 guest SSIDs** for a secure guest network with client isolation

**Device capacity** of up to 50 devices

**WPA2 PSK** wireless security encryption

**Powered by Power Over Ethernet Plus (PoE+)** or standard AC

**IMPORTANT NOTE:** Sources of interference, such as building materials and RF transmissions, must be considered for proper coverage and WAP placement.

### RECOMMENDED MODELS



**WK-1**

Recommended as your go-to access point for the small connected home. Dual-band 802.11ac, 2×2 MIMO antenna array, maximum data rate of up to 1,200 Mbps (300 Mbps for 2.4 GHz; 867 Mbps for 5.0 GHz). Includes mounting kit. Available in white and black (WK-1-B).

**Also available:**



**WK-1-B**



**WK-1-C**  
(IN-WALL/IN-CEILING)



**WK-1-O**  
(OUTDOOR)



**WK-2**

Recommended for better performance and faster simultaneous speeds to sensitive, heavy-bandwidth applications and devices. Dual-band 802.11ac, 3×3 MIMO antenna array, maximum data rate of up to 1,750 Mbps (450 Mbps for 2.4 GHz; 1,300 Mbps for 5.0 GHz). Includes mounting kit. Available in white and black (WK-2-B).

**Also available:**



**WK-2-B**



**WK-2-C**  
(IN-WALL/IN-CEILING)

#### PRO TIP

When to choose a WK-2 over a WK-1: When you need more throughput for 2.4 and 5.0 WiFi bands, respectively; faster speeds to more simultaneous devices; greater performance requirements for streaming devices; future proof for added wireless devices and new smart technology.

## DEALER BENEFITS

- › Proven track record of delivering world-class network components
- › Best-in-class quality build and enterprise-grade chipset
- › Confidence in providing a long-term network solution to the customer
- › Confidence in selling a network solution that coincides with the professional-grade service the dealer offers
- › Network solution that meets or exceeds customers' expectations, which generates more repeat and referral business
- › Profit margins supported by select distribution

## SHOWCASE

A PAKEDGE NETWORK SOLUTION TO YOUR CUSTOMER

### INSTALL IT IN YOUR SHOWROOM

The reliability and performance of a Pakedge network needs to be experienced and understood by customers. Install Pakedge networks in your showroom. For a top-notch selling experience, connect smart device solutions such as automation, video streaming, smart lighting, voice control, or security to the Pakedge network and demonstrate the lightning-fast speed that Pakedge networks offer.

### INCORPORATE INTO YOUR SHOWROOM DEMO

As you are demonstrating any category or solution in your showroom, incorporate the network into every conversation and demonstrate how the solution is dependent on the network for optimal performance.

### INSTALL IT IN YOUR HOME

More confidently share the network story and Pakedge experience with customers by deploying a Pakedge network in your own home. Sharing your personal experience with Pakedge networks helps build more confidence with the customer.



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## NETWORK DESIGN SERVICES

We're here to help with your projects for every size of network. Network Design Services is available to dealers at no charge. Submit a residential floor plan, and we will provide you a network design with a budgetary bill of materials. Available through the Dealer Portal.

## DEALER RESOURCES

[Truck packs \(products available in 5-packs\)](#)

[Networking Solutions Brochure](#)

[Pakedge Networking Playbook Brochure](#)

[Wireless Design Guide](#)