

PAKEDGE NK-1

Wireless Controller with BakPak



DESCRIPTION

The NK-1 Wireless Controller is engineered for designing, managing, and configuring medium to large residential wireless networks. In the latest v1.3 firmware upgrade, the NK-1 delivers a suite of feature enhancements to ensure uncompromised performance, seamless roaming, scalability for networks requiring up to 30 access points (APs), and an entirely new out-of-box setup experience to streamline your deployments.

The NK-1 offers a new out-of-box experience to have your wireless network up and running in minutes. The newly designed GUI offers an intuitive, centralized dashboard for globally configuring, managing, and monitoring up to 30 APs.

The NK-1 now offers performance-enhancing features, including auto-channel selection, enhanced roaming technologies, and default out-of-the-box transmit power settings, all designed to deliver seamless device handoffs and exceptional wireless performance for even the most

The NK-1 Wireless Controller offers two SKUs, the NK1-CP1 (supports up to 15 APs) and NK1-CP2 (supports up to 30 APs), and is compatible with all Pakedge WK Series and WX Series access points.

KEY FEATURES

Quick Setup

The Quick Setup is designed to get your customer's network up and running quickly. The four-step wizard walks you through discovering and provisioning the APs, ensuring AP firmware is up to date, creates SSIDs with secure encryption, and adjusts the transmit power levels of each AP to ensure seamless handoffs of client devices.

Centralized management dashboard

The NK-1 delivers a centralized dashboard for managing and configuring all of your APs. Features include cloud-enabled firmware management, WLAN grouping for customized configurations, AP/client device health status, and client device monitoring. The NK-1 offers automatic AP discovery and centralized management of up to 30 APs.

Customized WiFi management

The NK-1 offers advanced wireless management—including MAC filtering—to block suspicious devices, wireless scheduling to control when access points are broadcasting, and client limits to maintain wireless integrity. These features can also double as parental controls.

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Multi-channel architecture

The NK-1 is designed with a robust, wireless multi-channel architecture (MCA) that allows the APs to operate across multiple channels. Commonly used among enterprise-grade network solutions, multi-channel architecture relies on non-overlapping wireless channels to minimize co-channel interference, reduce channel congestion, and ensure every connected device receives maximum throughput.

Auto-channel selection

With auto-channel selection, the NK-1 scans WiFi and non-WiFi channels in the local environment to select the best channel with the least amount of interference and congestion, leading to better performance.

Once setup is complete and performance is validated, it is good practice to run auto-channel during setup and set the channel to "Fixed," ensuring that the AP will remain connected to the optimal channel long after installation.

Enhanced roaming

Industry-standard roaming technology

Pakedge supports the latest roaming industry standards, IEEE 802.11k and 802.11r (often referred to as Fast Roaming), designed to assist client devices in making a faster roaming decision when transitioning between access points. Many of the latest WiFi-capable devices available in the market, including popular mobile devices and laptops, support these industry standards. By including support of these standards, Pakedge access points deliver greater assurance that client devices using these standards will experience a faster roaming experience.

Pakedge roaming technology

Some client devices, often referred to as "sticky clients," remain connected to an AP even as the client-AP connection quality degrades below a useful level instead of connecting to an AP with a stronger signal. This results in a weak connection and poor performance as the wireless signal strength to the client device declines. Pakedge roaming technology assists client devices in disconnecting the client devices from the access point automatically so that the client can connect to the stronger AP, ensuring a continuous, reliable connection and strong performance.

Transmit power level improvements

The latest NK-1 v1.3 firmware delivers 1 dBm transmit power level granularity for greater precision in effectively overlapping the wireless 2.4 GHz and 5 GHz wireless bands for seamless client device handoffs between APs. In addition, in Quick Setup, transmit power levels of the APs managed by the NK-1 are adjusted to optimal values to provide greater coverage and uncompromised performance.

RF map

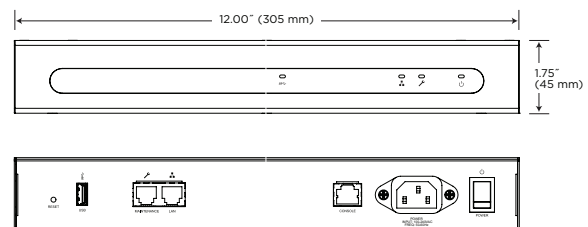
The NK-1 offers a newly designed RF map to assist you with designing and deploying a wireless network for optimal performance. After uploading your floor plan and setting the scale, the tool will automatically detect existing APs connected to the NK-1. With the existing APs and available virtual APs, the RF map delivers a guideline for determining the best placement for each access point for the best WiFi band overlap and full coverage. This tool supports all Pakedge WK/WX Series access points.

Site survey

The NK-1 delivers an improved site survey tool that scans WiFi and non-WiFi channels in the local environment. While auto-channel helps determine the best channel, the site survey scans the RF environment from the vantage point of each access point in order to determine proper AP placement and needed modifications to channel and power settings.

BakPak Network Management Agent

The NK-1 is also a BakPak Network Management Agent. BakPak is a powerful remote management and monitoring system designed to help you proactively manage, monitor, configure, and troubleshoot your customer's entire network. You can eliminate service calls and save your company time and money by integrating BakPak into every project.



12.00" × 7.5" × 1.75" (305 × 191 × 45 mm)

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FEATURES AND SPECIFICATIONS

FEATURES

Management	<ul style="list-style-type: none">• Quick Setup Wizard• Intuitive web interface• Global AP management• Centralized dashboard• Cloud firmware management• Cloud configuration management• WLAN grouping• VLAN support• Remote reboot• Remote reset• WiFi scheduling• Real-time and historical client/AP analytics• Built-in BakPak Network Management Agent
Radio settings	<ul style="list-style-type: none">• Operating frequencies: Dual band (2.4 GHz and 5 GHz)• Auto-channel selection• DFS channels• Fast Roaming• RSSI threshold and client reject• Multicast enhancements• Band steering
Wireless settings	<ul style="list-style-type: none">• 8 SSIDs per radio• Secure guest network (1 per radio)• WPA2-PSK security encryption• Hide SSID• Client isolation• MAC address filtering
Administrative features	<ul style="list-style-type: none">• LED enable/disable (global/individual AP)

INTERFACE

Total network interfaces	2
Auto MDIX auto-sensing 10/100/1000 (copper, RJ-45)	1
Console port (copper, RJ-45)	1
USB interfaces	1 (USB 3.0)

DESCRIPTION

DIMENSIONS

Height × Width × Depth	12.0 × 7.5 × 1.75 in. (305 × 190 × 45 mm)
Weight	6 lbs. (2.72 kg)
1U Rack Mountable	Yes

ENVIRONMENT

Power input	110-240VAC
Power consumption	55W
Operating temperature	32 to 104°F (0 to 40°C)
Operating humidity	95% non-condensing
Storage temperature	-4 to 176°F (-20 to 80°C)
Storage humidity	95% non-condensing

