



# E-Plex<sup>®</sup> Enterprise Access Control System

(Version 3) with Wireless Option





## Engineered for Flexibility

### **Modular Solution**

The E-Plex Enterprise Access Control System is a modular solution for managing access points. Employing a variety of hardware options, system management tools, and credential choices, the Enterprise System provides innovative technology that fits your needs today, and adapts with you for tomorrow.

### **Flexible Design**

We developed the Enterprise System to work with a range of E-Plex Locks and Controllers and provide users a flexible access control platform. You can start with Kaba's LearnLok™ feature to enroll cards right at a door. As needs evolve, a central management system can help streamline operations. With Enterprise Software, you can update data at a stand-alone door lock with a netbook or from a computer workstation with the Wireless Option.

### **Scalable System**

At Kaba we recognize that our products need to adapt to your individual requirements, so that's why we offer solutions to accommodate any size enterprise. With the Enterprise System, you can start out with a single access point, and easily add more doors and system management capabilities over time.



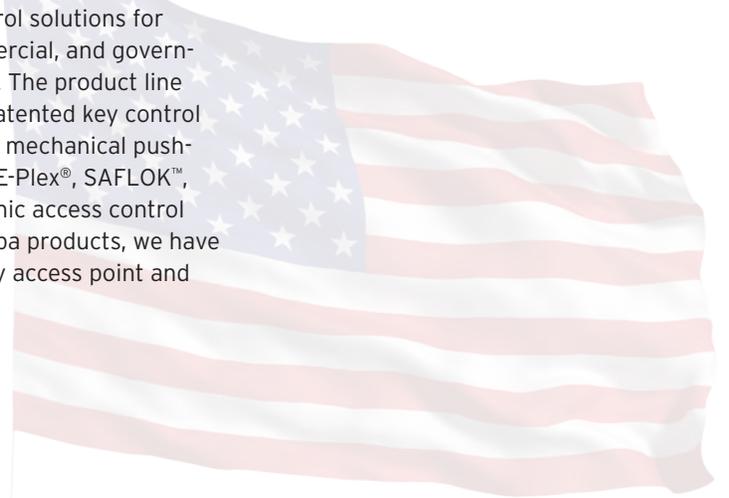
## Since 1862

Kaba has provided effective security solutions to a range of institutions, including hotels, commercial office buildings, banks, airports, sports arenas, utilities, universities, military bases, healthcare facilities, and more.

One of our recent milestones was the installation of over 6,000 wireless locks at CityCenter in Las Vegas, NV. As one of the largest RFID projects in North America, the CityCenter project further extends our position as a leading provider in the security industry.

## Kaba Access Control

Kaba Access Control, located in Winston-Salem, North Carolina, manufactures a full range of stand-alone access control solutions for residential, commercial, and government applications. The product line includes Peaks® patented key control systems; Simplex® mechanical push-button locks; and E-Plex®, SAFLOK™, and ILCO™ electronic access control products. With Kaba products, we have solutions for every access point and every budget.



Made in the USA  
Meets Buy American Act

## Getting Started with LearnLok

We provide a selection of management options to help you meet your access control requirements. LearnLok allows you to enroll up to 300 PROX or Smart Cards right at a door without using any software. This feature can be helpful during an initial transition period for doors with just a few users, or where software management is not desired. The lock can be easily updated to a software-managed or wireless-enabled lock, if desired at a later date.



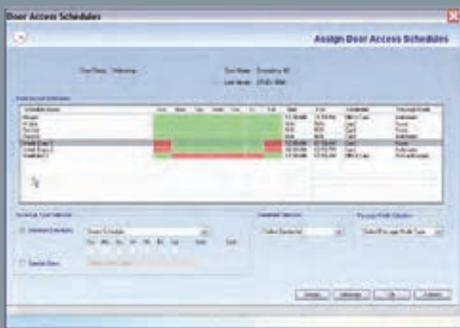
# Adding Enterprise Software for Extra Capabilities

## Extend Capabilities

With the addition of Enterprise Software, you can extend your access control capabilities. Features such as access schedules, visitor management, and extensive audit trails help you further manage your access points.



**Manage User Profile:** Enterprise Software allows you to add and maintain users, import their photos, and view card data.



**Door Access Schedules:** From this window, you can manage access schedules and credential assignments by door.

## Choose a Single PC or Network Environment

Enterprise Software runs on either a single PC or in a networked Server/Client environment. To update a lock, data is transferred from the Enterprise Application to a stand-alone lock or controller using a handheld maintenance unit such as a netbook.

## Program an E-Plex Lock



1. Use a Netbook



2. Use the Wireless Option

## Go Wireless

For real-time functionality, the Wireless Option and Lock Upgrade Kit eliminates the need to visit doors when adding/deleting users or changing lock/controller attributes. See pages 6-7 for more information.



## Features and Functions

- Manages up to 3,000 users per door
- Maintains up to 30,000 audit events in each door, including emergency mechanical key override usage for tracking purposes
- Provides 16 access schedules per door; unlimited schedules in the database
- Provides 32 holiday/vacations per door; unlimited holidays in the database
- Manages guest/visitor(s) with programmable expiry from one day to a year
- Controls service users who have PIN-only access. Service users can have either one-time access only, or 1 through 96 hour expiry access, or access with no expiry
- Assigns a new user to multiple access points, or assigns multiple users to one access point using the Access Groups feature
- Imports thousands of user profile records (names, card IDs or PINs) from/to an external database source—ideal for managing a large number of user profiles—and exports to a variety of file formats
- Maintains each site's database, locks, controllers, and handheld programming/auditing unit with a unique and encrypted internal communications key
- Generates reports such as Lock Audits, Operator Activity at PC, Access Groups, Access Schedules, Users by Door, Doors by Users, Users' Card IDs
- Supports Mifare® and DESFire® and iClass™ 13.56 MHz Cards (ISO 14443 A and B). Any HID® compatible 125 kHz PROX RFID Cards with wiegand bit format ranging between the standard 26 bits and up to 84 bits
- Supports Microsoft® Windows® XP, Vista 32/64, and Windows 7 32/64. For the most current information, please refer to [www.kabaaccess.com/software](http://www.kabaaccess.com/software)

# Enterprise Software Configurations



## Express Installation

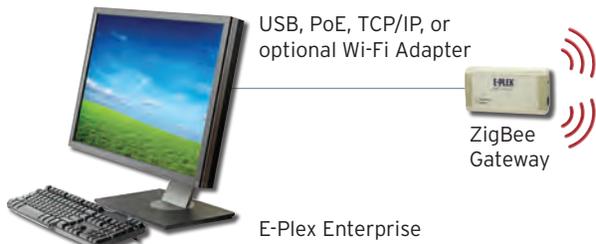
The Enterprise Application can be installed in two different configurations: **Express Installation** or **Custom Installation**. With Express Installation, you manage your doors and user data as well as obtain audit trails and reports from one stand-alone PC.



## Custom Installation

A Custom Installation connects the server-related modules and the SQL database on a separate server and installs client-related modules on one or more individual client workstations in a networked configuration.

# Upgrading to the Wireless Option



To upgrade to the Wireless Option, a ZigBee Gateway needs to be integrated with either the Express or Custom Installation. Every site requires at least one Gateway to define the ZigBee Network, and the need for additional Gateways and optional Routers at your building is determined during a site survey.

To provide higher availability, critical access points can accept multiple communication paths by connecting optional ZigBee Routers to the Gateway. Routers extend the wireless signal to reach access points, providing self-healing mesh capabilities. The connection from the server to the ZigBee Gateway is made through either a TCP/IP connection (network) or USB, and the ZigBee Network is powered by PoE, USB, or optional external adapter.

# E-Plex Wireless Option: for Real-Time Functiona

## Upgrading to Wireless

The ZigBee specification for wireless protocols is the hub of the E-Plex Wireless Option. Based on IEEE Standard 802.15.4, ZigBee technology uses low-power digital radio frequencies to provide an effective wireless communication system. Our ZigBee Wireless Option offers fast data transfer, long battery life, and mesh redundancy, making it an efficient and low cost access control solution.

This system delivers virtually all the benefits of a wired, online system with the value and flexibility of stand-alone locks. The Wireless Option does not require wiring, conduit runs, access panels, additional power supplies, or exterior trenching and drilling.



**ZigBee**  
Member

## Delivering Flexibility

This system offers a new level of flexibility that does not exist with a wired system, allowing you to easily make future modifications, such as moving walls or removing and relocating locks. You can add a lock and still preserve any vintage or architecturally significant structures.

With wireless, you eliminate visiting doors and gain real-time functionality. The system manages online and stand-alone locks from one central location, streamlining the enrollment process. Once configured for wireless, the main computer screen displays a Dashboard, which provides a visual of the system's performance and events. In a single screen, you gain access to key data, audit trails, and reports.

## Configuring a System

The design of your wireless access control system begins with performing a simple site survey. The site survey reviews access points, measures Radio Frequency (RF) signal strength, and determines Gateway and Router locations.

To commission the Wireless Option on either an existing or new lock, a Lock Upgrade Kit easily mounts directly to the lock. The wireless system can be employed in either an interior or exterior application.

# E-PLEX<sup>®</sup>

## Wireless<sup>™</sup>

- Real-time functionality of events and alarms
- Centralized access control management
- Ability to manage both wireless and stand-alone locks
- Emergency global lockdown or passage of locks
- Low cost of ownership
- Manage up to 100 wireless locks without a network interface
- Various networkable options
- Compatible with existing Wi-Fi network using optional adapter
- Proven wireless technology
- Mesh network for redundancy
- Scalable and flexible solutions
- Broad credential support
- Easy to install
- Portability allows locks to be easily moved
- Field upgrades to existing non-wireless locks

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# Creating a Wireless Infrastructure

Employing either a ZigBee Gateway or Router (ZigBee Access Point), the E-Plex Wireless Option provides two-way communication from an E-Plex Lock or Controller to the system's central server. A ZigBee Gateway communicates to the E-Plex Server by either a direct connection to a USB (non-network) or Ethernet cable (network). When using the USB configuration, you can manage up to 100 locks without the need for a network interface. The ZigBee Router acts as a repeater, extending the RF communication between the Gateway and E-Plex Locks in your facility.

Each ZigBee Gateway or Router can communicate an extensive distance, depending on the obstacles between the transmitter and receiver. In an open range environment, a centrally located ZigBee Gateway or Router can communicate in all directions up to 700'. And, radio channels can be adjusted in the software to eliminate any potential interference.

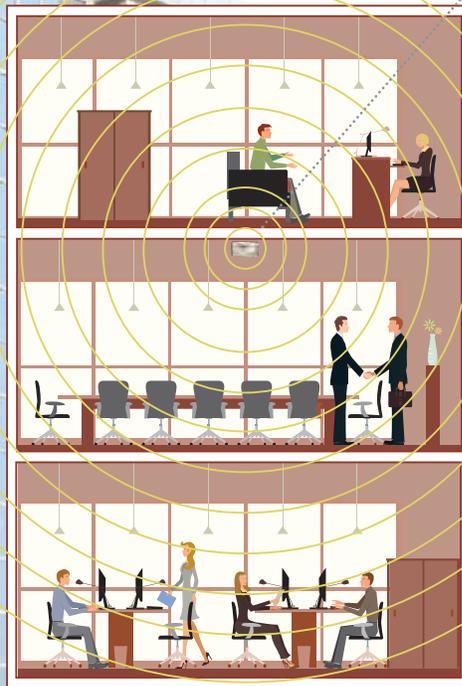
Even though a detailed floor plan can estimate RF signal range, a physical site survey will determine range, location, and quantity of Gateways and optional Routers. Kaba's handheld Site Survey Unit (SSU) can test for RF signal strength in a building, ensuring that each wireless lock will operate successfully.

## E-Plex ZigBee Gateways & Routers

- Gateways and Routers are the same unit
- Shipped as Routers; field configurable as Gateways with Enterprise Software
- Powered by USB, Power over Ethernet, or 120vAC adapter (included)
- Wi-Fi adapter enables use of existing Wi-Fi network
- Wall mount, desktop, and outdoor versions
- Suitable for location in ceilings, on walls, or desktops



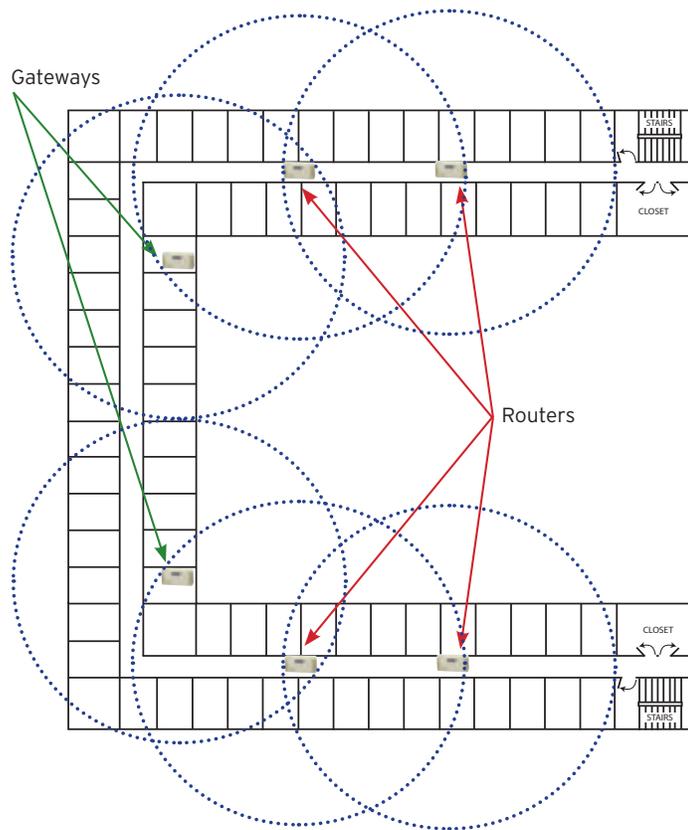
ZigBee Gateway/Router



# ZigBee Mesh Network

Every ZigBee Gateway and all connected E-Plex Locks or optional ZigBee Routers create an independent ZigBee Mesh Network. A site's E-Plex Wireless System can include several independent mesh networks, and each ZigBee Mesh Network can be configured to support redundant communication paths to the ZigBee Gateway. To create redundancy, each ZigBee Router and E-Plex Lock or Controller should be within communication range of at least two ZigBee Routers and/or the ZigBee Gateway.

In this office building with C-shaped floor, two ZigBee Gateways in each corner employ router "Hops" to reach locks in the extended hall.



## Wireless Option Features & Specifications

### Antenna Location Options:

There are two location choices for the antenna. An Inside Mount (1) houses the antenna along with the batteries and an Outside Mount (2) contains the antenna in a housing located on top of the E-Plex Lock.



1. Inside Mount Option

2. Outside Mount Option

### Battery Power:

With over 20 years of experience manufacturing battery-operated locks, Kaba is recognized as a leader in power management. We designed our E-Plex Locks to get the maximum life out of four AA batteries or four C batteries (high capacity battery pack).

### Power Sources:

For optimized operations, a ZigBee Gateway is powered from the USB when only one Gateway is required, and Power Over Ethernet (PoE) supplies power when a configuration includes multiple Gateways and a network. A plug-in transformer can also power a ZigBee Gateway or Router (no PoE is available).

### Overall System:

Network Size: 10,000 access points (maximum)  
Security: 128 bit Advanced Encryption Standard (AES) plus application layer security

### ZigBee Technology:

Frequency: 2.4 GHz with 16 available channels  
Range: 700' line of sight, 200' typical  
Hardware: 1 ZigBee Gateway on USB  
100 ZigBee Gateways on TCP/IP  
8 ZigBee Routers per ZigBee Mesh Network  
25 E-Plex Locks per ZigBee Gateway (within range) or up to 100 E-Plex Locks per ZigBee Gateway with Router(s)

# Building your Access Control System is Easy as 1-2-3

Kaba Access Control offers a diversified product line of access control products to a broad range of users in a variety of markets.



## Credentials

Your first step in choosing the right access control system is determining what credentials you want to use, whether it is knowledge-based such as a PIN or a credential you possess such as a card. E-Plex Locks or Controllers can meet your security requirements, including:

- PIN only
- Card only
- PIN plus card

E-Plex Locks and Controllers work with the following cards:

- PROX
- iClass
- Mifare
- DESFire

## Access Points

Identifying access points and locking devices is the next step in creating an accurate system. We have solutions to accommodate a variety of access points, including standard and narrow stile doors or specialized openings such as turnstiles, gates, and server cabinets as well as various locking devices.

## Kaba Products

Based on your credentials and access point requirements, Kaba has a product to meet your needs.

# 1

## SELECT CREDENTIALS



PIN



Cards

# 2

## IDENTIFY ACCESS POINTS



Cylindrical



Mortise



Exit Trim



Back-to-Back



Narrow Stile Trim



Electric Strike



Magnetic Lock



Garage Door



Parking Gate



Turnstile



Office Building

# 3

## CHOOSE PRODUCT



	E-Plex 3200	E-Plex 3600	E-Plex 3700	E-Plex 5200/5270	E-Plex 5600/5670	E-Plex 5700/5770	E-Plex 5290	E-Plex 5690	E-Plex 5790
PIN Access	•	•	•	•	•	•	•	•	•
PROX Cards			•			•			•
Smart Cards		•			•			•	
IT Server Cabinet							•	•	•
Software Required	•			•			•		
Software Optional		•	•		•	•		•	•

For specific ordering information, reference Kaba's Access Control Electronic Products Catalog, Wireless Accessories Brochure, or visit [www.kabaaccess.com](http://www.kabaaccess.com).

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