

ZLock

ALV2 Wireless Online System



A Fully Integrated Online Hotel Locking System

A state-of-the-art integrated real-time access system especially designed for today's demanding Lodging industry. Unlike no other system, it is designed to provide the highest level of reliability, incorporated with the patented Fault Tolerant architecture and managed by LiNC-NXG™ Lodging software. The first lodging system to incorporate Guest Room Management, Employee Access Management, CCTV, Graphic Alarm Management and Photo ID badging into one integrated package.



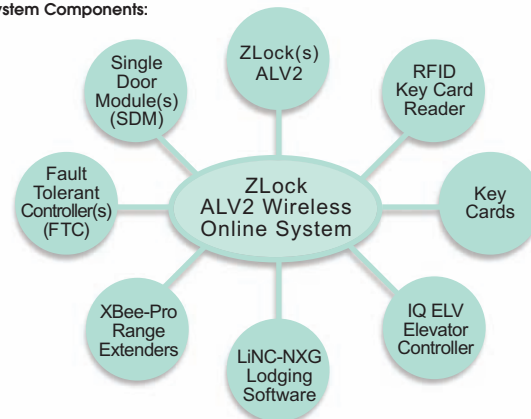
Benefits of an Online System

- Improved security (real-time card cancellation, alerts, reports, tracking and more)
- Improved guest services
- Improved operational effectiveness (battery alert, service events, reports from locks and more)
- Monitoring & custom reports (wide range of available information / reports by cross tabulating data from central database)

System Design

- Wireless technology—using DigiMesh network
- Cost effective communication backbone through hotel's existing Ethernet network
- Fault Tolerant Architecture (redundancy)
- Cost effective installation—minimal wiring
- Retrofit capability—using a separate module

System Components:



Main System Features

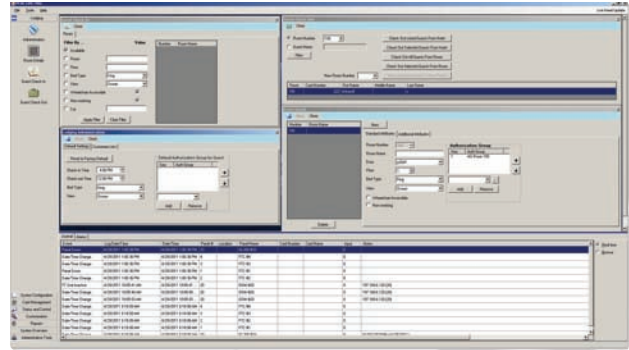
Front Desk	Security	Maintenance
Assign Cards to Guests	Remote cancel of lost card	Retrieve audit trails and error logs from door locks
Remote room change	Remote cancel of master cards	Real-time low battery alerts
Remote extended stay	Real-time check-out	Auto time synchronization
Generate Reports	Staff tracking and access control	Auto Fault Tolerant operations

LiNC-NXG™ Lodging Software

LiNC-NXG lodging is an online system enabling users to manage and monitor guest and employee access from a remote computer console without the need to go to each door.

LiNC-NXG Lodging provides the ability to integrate with your Property Management System (PMS), providing a seamless interface between your reception and guest room programming. Guests will automatically have access to their rooms, floors and common areas without any manual intervention. Workstations are available for generating reports or programming system parameters and setting up access privileges for employees, contractors and vendors.

The system automatically updates changes so guests can make room changes without the need to return to the front desk. It also allows system wide deletion of lost or stolen cards, reducing your liability. Access privileges are determined by a specific lodging authorization logic for guests and employees and unlike your typical offline system, cardholder and system management is performed moments after the changes are made within LiNC-NXG lodging via the established communication network.



- Real-time Lodging
- Integrate with Property Management System (PMS)
- Fault Tolerant Architecture
- Common Area Management
- Graphical Display System
- Parking Management
- Elevator Control
- CCTV Integration
- High Security Applications
- Employee, Contractor and Vendor Access
- Photo Badge Making
- Open SQL Database Architecture
- Automatically Schedule Custom Reports and send via email in PDF or Excel format

RFID Key Card Reader (Front Desk)

Cards are assigned to guest rooms and hotel personnel using a desktop RFID card reader. A card is presented to the reader and read by the LiNC-NXG Lodging software. Each card can be assigned specific authorization rights for access. No card holder specific data is stored on the card itself. The software merely identifies the cards unique identification and then retrieves details. A lost or stolen card can be quickly removed from the system.



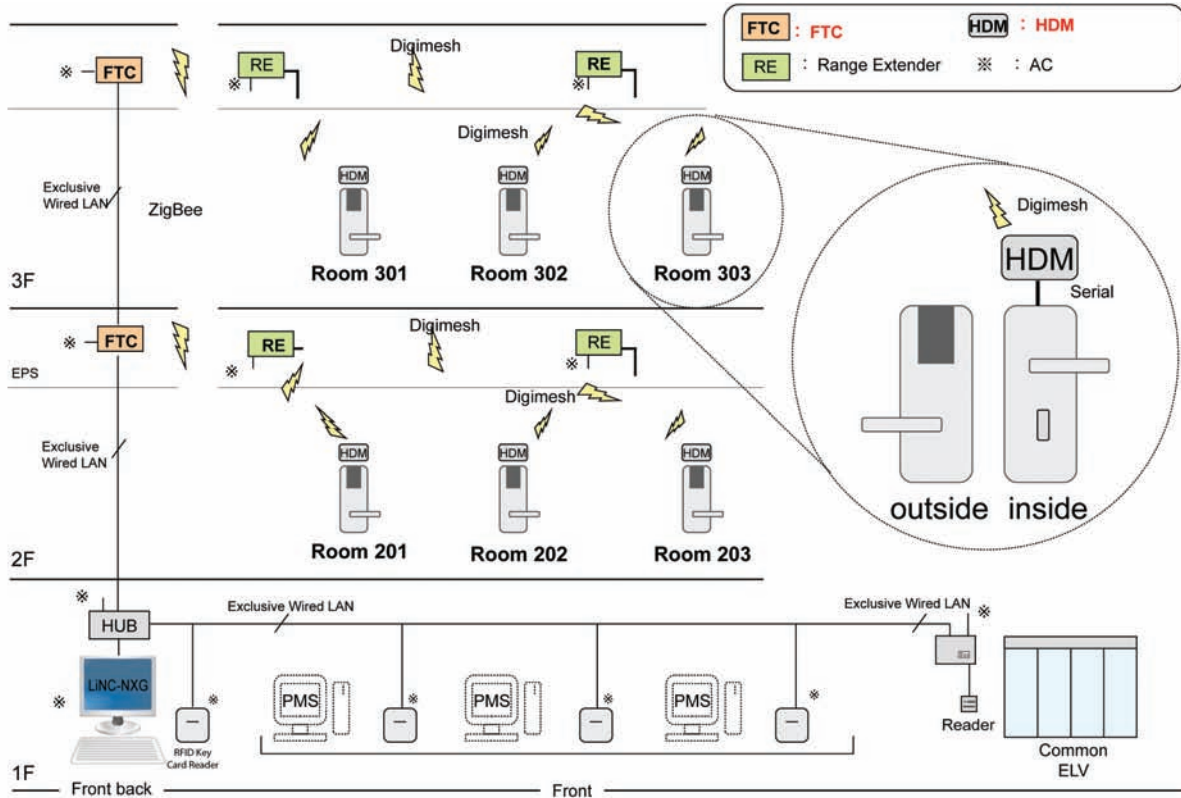
RFID Technology and Key Cards

Incorporating the latest RFID card technologies for guest and employee access. The basic NFC technology platform of ZLock is the same as for the standard offline AVL2 locks. This means the same RFID benefits also apply to the ZLock (NFC peer-to-peer, ISO 14443 type A Mifare, FeliCa). In terms of RFID cards, the exact same Mifare 1K cards / wristbands / tokens as used with regular AVL2 offline locks can be used with ZLock. Using a card printer, cards can be printed with hotel branding for guest use and/or used for employee identification.



ZLock / ALV2 Wireless Online System Architecture

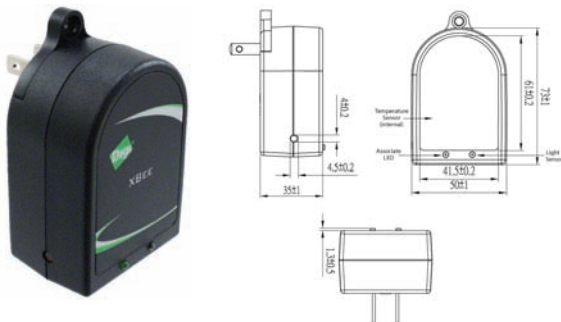
The system is comprised of the following components: ZLocks (an ALV2 lock with HDM—hospitality door module and unique firmware) for guest rooms, Fault Tolerant Controller(s), LINC-NXG Lodging software, DigiMesh Range Extenders, RFID card reader(s), SDMs (single door modules) for common and back office door access and ELV Controllers for elevator use.



XBee-PRO® DigiMesh® 2.4 Range Extender

Installed throughout the property, providing network stability through self-healing, self-discovery, and dense network operation.

- Expands DigiMesh 2.4 GHz wireless networks
- External power (universal AC input 85 to 265 VAC)
- Creates redundant network pathways
- 60 - 90 meter range
- Relays information between the locks and FTC
- One extender maximum per 10 locks
- Easy-to-use commissioning button provides a simple method for adding and joining an existing network



Fault Tolerant Controller Gateways

Physical access control is managed by PCSC's patented Fault Tolerant Controller (FTC). This provides for the highest level of reliability with an automated process of system recovery.

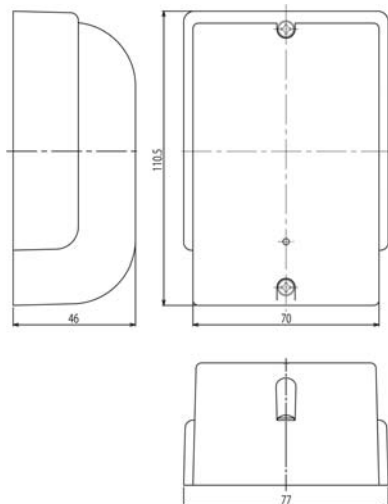
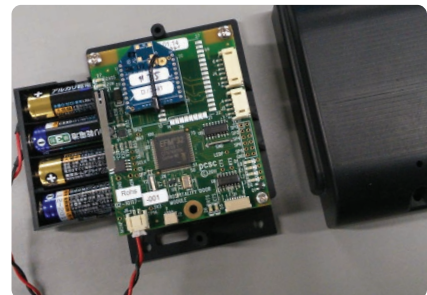
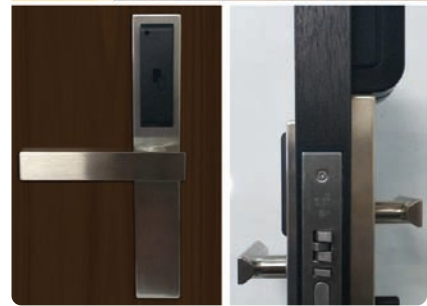
- FTCs are placed in a secured room or back of house closet, and are connected via Ethernet to the network
- Uses external power source (12 VDC) or PoE
- Uses XBee-Pro module with 60 - 90 meter range
- Transmits between Ethernet and DigiMesh network
- A maximum of 100 locks per FTC is recommended
- At least one FTC should be placed on each floor
- Available in rack mount or single enclosure



ZLock Components

Guest rooms are equipped with the wireless ZLock. The ZLock is an ALV2 lock with an HDM (hospitality door module) utilizing different firmware. The HDM enclosure contains the wireless components which include the PCB, wireless module and battery box. The HDM is mounted just above the lock on the inside of the door.

- ZLock requires unique firmware, different than that of the ALV2 offline lock
- ZLock is available both on the ALV2 Slim, P and A Type escutcheon
- ZLock follows the same general installation principles as the regular ALV2 offline lock
- The lockcase door preparation is the same as for the offline versions
- Inside and outside escutcheon are the same as for the regular ALV2 lock.
To mount the HDM enclosure, an extra door cut is required above the inside escutcheon
- Wireless components are located within the HDM enclosure
- ZLock requires an additional 4 AA batteries to support the wireless communications. 8 AA batteries per ZLock total (4 of which are behind the locks plate).
- ZLock's battery lifetime is estimated to last 1.5 years with an average of 10 openings per day, assuming normal temperatures, pressure and humidity
- Batteries for the lockset and the wireless components are separate, so even if the batteries for the wireless components fail, the lock will continue to function in an offline mode
- HDM batteries can be replaced by removing two security screws to remove the cover



ALV2 Slim type

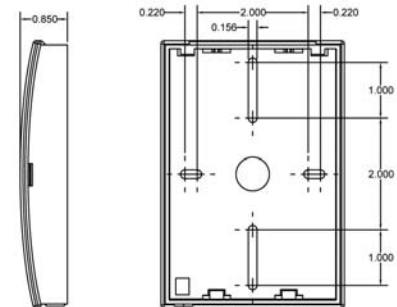
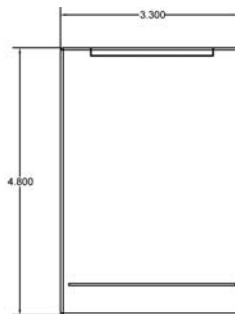


ALV2 P type

Single Door Module (SDM)

The Single Door Module can be used for access control throughout a property in areas such as common doors, conference rooms, exercise rooms, pools, spas, staff entrances, back office, sliding doors, revolving doors and vehicle parking. PCSC's SDM Series is based on HID Global's Edge® technology and has been re-engineered to support PCSC's patented Fault Tolerant Architecture. Utilizing LiNC-NXG® lodging software, the SDM provides additional features and capabilities, providing the highest system reliability. SDM's are based on a "single cable" technology solution, allowing you to design door systems using standard Ethernet cable. The SDMs are available in a controller only configuration or with an integrated reader.

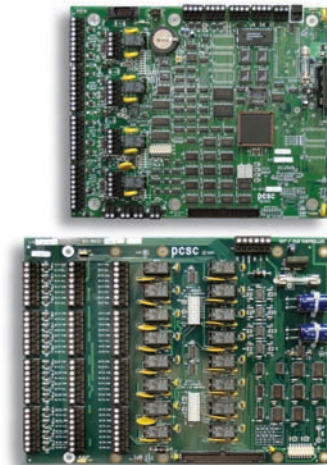
- Utilizes the patented Fault Tolerant Architecture
- 100 Mhz 32 Bit RISC CPU
- Open Systems Operating System
- Onboard Ethernet Communications with PoE
- Power-over-Ethernet (PoE)
- Virtual Point Architecture
- Global Entry Exit
- Global Input/Output
- User Programmable Control Logic
- Peer-to-Peer Hydra Protocol
- Automated Firmware Updates



IQ ELV for Elevator Access Control

The IQ ELV offers the most complete set of elevator control configurations to meet any facility's requirements. The controller provides 100% distributed intelligence with configurations for 2 or 4 elevator cabs and from 16 to 64 floors. The floor authorization logic is based on cardholder, floor authorization groups, time of day and day of week. User accountability reporting is provided by battery backed history transactions, recording cardholder information by time and by floor selection. Additionally, the IQ ELV automatically provides security on holidays and weekends.

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| <ul style="list-style-type: none"> ■ 2 or 4 Elevator Cabs ■ 16 - 64 Floors ■ Up to 50,000 Cardholders ■ 4,000 History Transactions ■ 4 Authorizations Groups/Cardholder ■ 4 Floor Groups/Cardholder ■ 64 Time Periods ■ 366 Holidays ■ 1 Year Battery Backed Clock Calendar and Memory ■ Open Architecture Protocol ■ 100% Distributed Intelligence ■ Individual Floor Control with Override | <ul style="list-style-type: none"> ■ Time Period & Cardholder Floor Control ■ Handicapped Access ■ Two Person Rule ■ Escort Required ■ Automatic Card Expiration ■ Supervised Readers ■ Electronic Firmware Updates (Flash Memory) ■ AC Fail Warning ■ Battery Low Warning ■ Real-time Diagnostics ■ Optional Onboard Ethernet ■ Upgrade Capable |
|--|--|



- Communications Supported: RS485 or RS232, Dial-up Modem, Leased Line, Wireless, Fiber Optics, 10/100 TCP/IP Ethernet (optional)
- Cabling Requirements:
 - Host-to-Controller*: 4 Conductors, Max Total Distance 4,000 ft. (1,219 m)
 - Controller-to-Reader*: 6 Conductors (Flex Cable Rated), Max 500 ft. (152 m) or 2,000 ft. (609 m) with Adapter
 - Controller-to-Input-Point*: 2 Conductors, Max 2,000 ft. (609 m)

ZLock

ALV2 Wireless Online System

System Features

- Real-time Lodging System
- Fault Tolerant Architecture
- PMS Interface Capable
- Integrated Security Solutions for:
 - Employee Access
 - Elevator Control
 - CCTV integration
 - Graphical Alarm
 - Photo Badge Making
 - Parking Management
 - Common Area Access
- WEB based Application*
- Cardholder Tracking
- Guestroom Checkout within seconds
- Ability to delete lost or stolen cards within seconds
- Alarm Annunciation with email or SMS text
- Employee Access Management
 - Time of Day
 - Day of Week
 - Holiday
- Administrative Reports
 - Automatic scheduled Reports
 - Staff Access and Tracking
 - Guest Access and Tracking
- Automatic Activation and Deactivation of Guest or Staff cards
- Handicapped Access
- Automatic Holiday Control
- Automated Daylight Savings Time control
- Battery Low Indications
- High Security Applications
 - Supervisory Control
 - Photo Trace
 - Photo & real-time video authentication entry
 - Two Person Minimum Occupancy (TPMOR)
 - Escort Management
 - Cardholder Actions
 - User Programmable Logic
- Operator Audit
- SQL Database

System Capacities

Hotel Rooms	Unlimited
Employee Cardholders	Unlimited
Employee Entrances	Unlimited
History Transaction	Limited to Disk Space
Authorization Schedules	Unlimited
Holidays	Unlimited
Alarm Inputs	Unlimited
Workstations	Unlimited

Communications

LiNC-NXG to Workstation	Ethernet
LiNC-NXG to FTC	Ethernet
FTC to Zlock	DigiMesh
Common Areas SDM	Ethernet / Wiegand

Card Reader Technologies

Guest Room	Mifare
Common Area	Mifare, Cepas*
Employee Area	Mifare, Cepas*, Biometric, DesFire, Proximity

*Call for availability

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