MBA USA

LOCKS - TOOLS - TRAINING

CASH VAULT CONTROLLED ACCESS

- Phil Sutherland – Session Intro
- Jeremy Brookes – Securam
- Philip Aldridge - Tecnosicurezza
- Break
- Axel Deblok – DormaKaba
- Elizabeth Cox – S&G
- Phil Sutherland – Session Wrap
- Q&A
- Lock America
- CodeLocks
- Sera4

Controlled Access Is Comprised By

1. What you **Have**
2. What you **Know**
3. Who you **Are**

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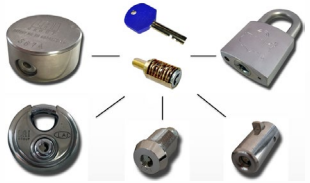
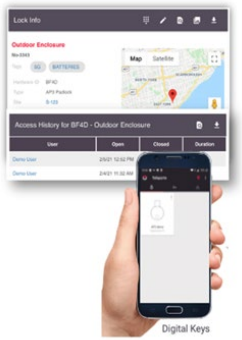
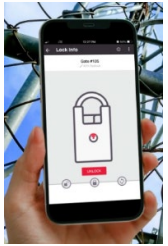
What you Have

- Key Operated Locks
- Electronic Tokens
  - Dallas Keys
  - Smart Cards
- Smart Device







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- **What you Know**
  - **Combination**
  - **Code**
  - **Personal Id Number (PIN)**

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- **Who you Are**
  - **Biometric Recognition**
    - **Finger Print**
    - **Full Hand**
    - **Iris**

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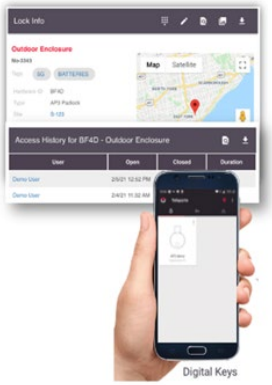
- **Electronic Locks Introduced**
  - **Programmable Operating Options**
  - **Installation Flexibility**
  - **Facilitating Layered Controlled Access**



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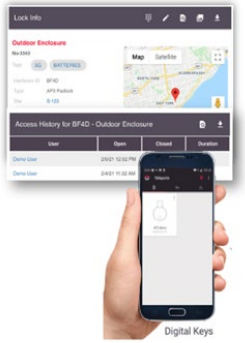
- **Electronic Safe Locks: 3-Categories**

1. **Static Code**
   - **Stand-Alone**
   - **Network**

2. **One-Time-Code (Dynamic Code)**



3. **Cloud Based, App Operated (Dynamic Code)**

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- **Static Code: Stand-Alone Locks**
  - **24-7-365 Un-Controlled Access**
    - **Lock Administration at the keypad**
    - **Optional Features**
      - **Multiple User Codes**
      - **Single or Dual Custody**
      - **Audit Trail**
      - **Time Delay – Delayed Access**

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- **Static Code: Stand-Alone Locks**
  - **Time Lock Time Controlled Access**
    - **Lock Administration at the keypad**
    - **Optional Features**
      - **Multiple User Codes**
      - **Single or Dual Custody**
      - **Audit Trail**
      - **Time Delay – Delayed Access**
      - **Time Lock Schedules**

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- **Static Code: Network Locks**
  - **Real Time Offsite Management**
    - **Real Time Lock Administration**
      - **Modify Lock Operating Features**
      - **Lock Monitoring**
      - **Exception Reporting**
      - **Immediate Lockdown**
    - **Optional Features**
      - **Multiple User Codes**
      - **Single or Dual Custody**
      - **Audit Trail**
      - **Time Delay – Delayed Access**
      - **Time Lock Schedules**

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- **One-Time-Code (Dynamic Code)**
  - **On-Demand Controlled Access**
    - **Software Code Generation**
      - **Route Sheet**
      - **Call Center**
      - **Automated Code Retrieval**

DyamaApp

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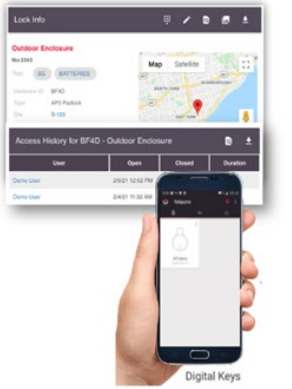
- **Cloud Based – App Operated**
  - **Automated On-Demand Controlled Access**
    - **Real-Time**
      - **Access Permission … or … Denial**
      - **Audit Trail**
      - **Automated Code Retrieval**
    - **Geofencing**
    - **Eliminates**
      - **Keypad**
      - **Tokens**



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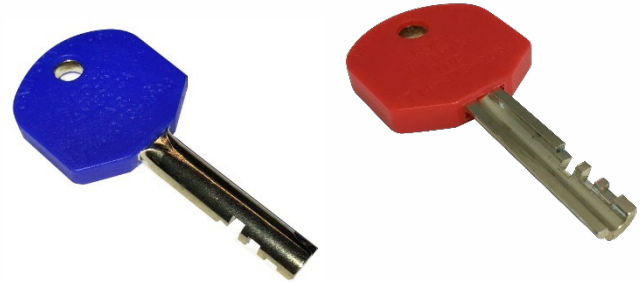
LOCKAMERICA INC.
The Definitive Word in Locks

LOCK AMERICA INC.
The Definitive Word in Locks

Since 1981, Lock America has been manufacturing

- High security Pick-proof, Drill-proof & Bump-proof
- Cam locks, Pad locks, T-handle and Plug locks



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LOCKAMERICA INC.
The Definitive Word in Locks

High Security Lock Design & Key Management

Hardware Design

- Pick resistance lock tumbler
- Drill resistance design
- Restricted key profile.
- Durable materials and finishing.


Special Key Profile

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The Definitive Word in Locks

High Security Lock Design & Key Management

Key Management

- Millions of usable key codes.
- Exclusive & registered key codes.
- Order restrictions.
- All kiosks can be keyed alike or each keyed differently.
- Master system available.
- Custom assembled to orders to avoid code sharing.

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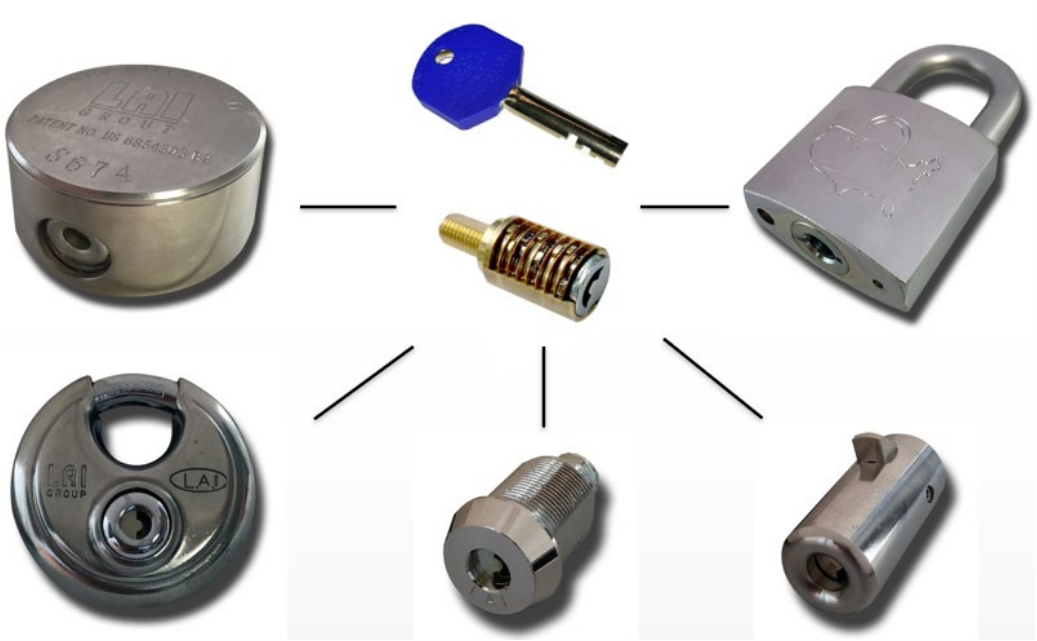
Streamlined Lock Solution



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The Definitive Word in Locks

Simple & Cost-Effective

- High security lock design
- Exclusive and registered keys
- Retrofit kits available.
- Lock matching service.
- Streamline lock solution.

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CODELOCKS

control + convenience

CODELOCKS
control + convenience

- **3-Lock Categories**
  - Locker / Cabinet Locks
  - Pedestrian Door Locks
  - Gate Locks

- **Operation Modes**
  - Private – Static Code
  - Public – Dynamic Code
  - NetCode – Date Based Code

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- **CodeLocks – Locker / Cabinet Locks**
  - **Mechanical Locks**
  - **Electronic**
    - **Code Locks**
    - **RFID**

KL-10
Cam Lock

KL-15
Cam Lock

KL-20
Cam Lock

KL-1050
RFID Cam Lock

KL-1200
Electronic Cam Lock

KL-1100
RFID Motor Latch Lock

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- **CodeLocks – Pedestrian Door Locks**
  - **Interior Applications**
  - **Exterior Applications**

CL410 & CL415
Marine Latch Bolt

CL255
Marine Tubular Latch

CL-160
Mortise Latch

CL-200
Surface Mounted
Dead Bolt

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- **CodeLocks - Gate Locks**
  - **Standard Grade**
  - **Robust Marine Grade**

CL255
Key Override

CL410 & CL415

CL210
Key Override

CL510 & CL515

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CASH VAULT CONTROLLED ACCESS

sera4

SECURITY | RELIABILITY | SCALABILITY

The Company

SECURE | RELIABLE | SCALABLE

CASH VAULT CONTROLLED ACCESS | MBA USA

- **Sera4 is a Canadian technology company who holds patents for many disruptive technologies in the keyless locking industry.**
  - **Roots trace to** BlackBerry

- **With its state of art cloud technology, Sera4 is committed to bring increased security and efficiency to access management of Critical Infrastructures.**
  - **Founded in 2014**
  - **Head office in Waterloo, Ontario, Canada**
  - **60,000+ active locations worldwide**
  - **5,000,000+ access events managed worldwide**
  - **50,000,000+ digital keys created worldwide**

nqa
ISO 27001
INFORMATION SECURITY MANAGEMENT

Access Control Evolution & Challenges

sera4
SECURE | RELIABLE | SCALABLE

Physical Keys
Key cutting, key lock boxes, door locking hardware

Key Pads
PIN, authorized users

Card Readers
Magnetic, proximity, magnetic

Networked Readers
Connected access manager system over a server

IP Door Readers
Readers are connected to servers via the corporate LAN

Cloud Door Controller
Connected through the corporate LAN but no server. Anytime, anywhere monitoring

Off Network, Keyless, Digital Access Control
Redundant, secure and off network micro services cloud

Keys | PINs | CARDs & FOBs | CONNECTED | KEYLESS

Go Keyless… The future is NOW!

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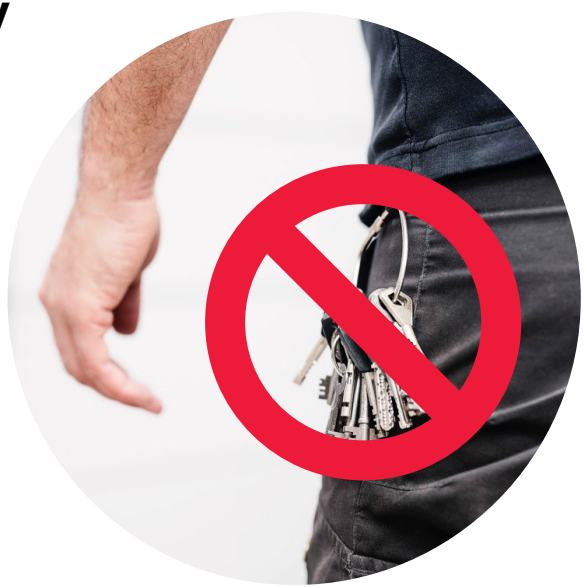
Simplified Key Management

SECURE | RELIABLE | SCALABLE

CASH VAULT CONTROLLED ACCESS | MBA USA

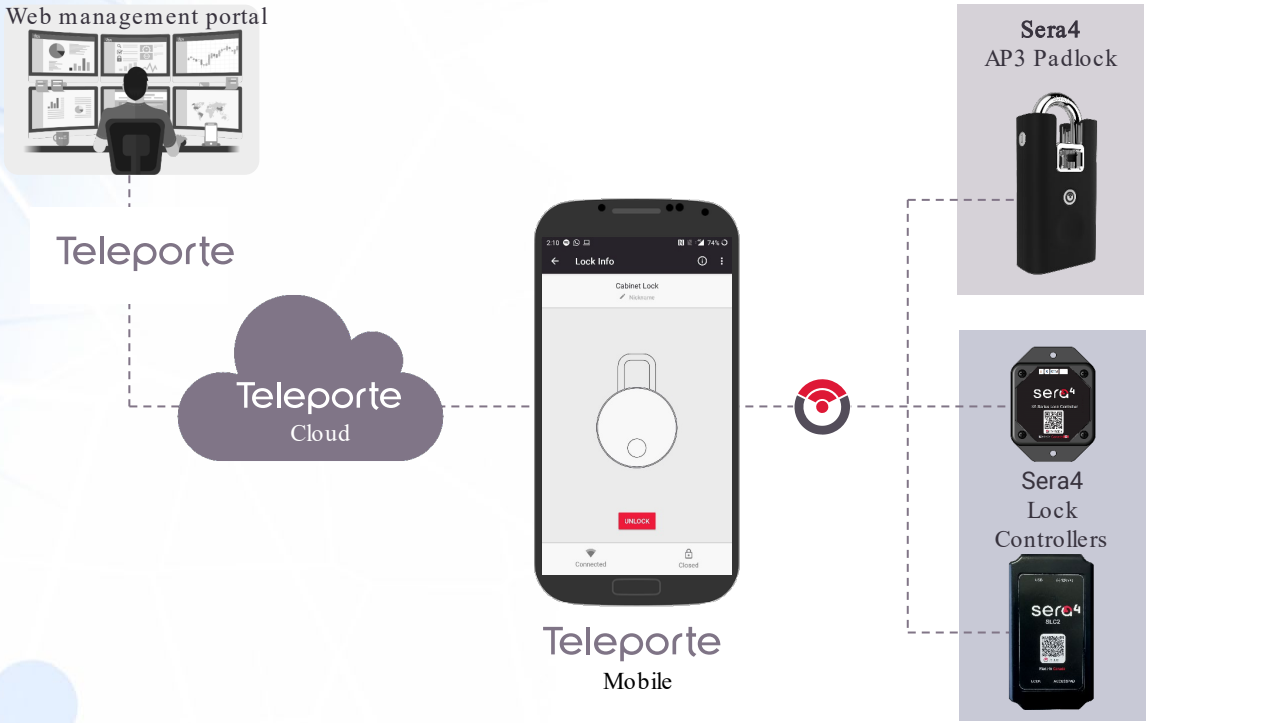
- **No physical artifact (key, fob, card) to lose**
  - **No rekeying $$$**
  - **No forgotten keys leading to denied entry**
  - **No security risk with lost keys**
- **No identity blind spots**
- **No burden of proof**
  - **Reliable and undeniable audit trail**



You don't need a physical artifact anymore

Keyless Access Control System Solution

SECURE | RELIABLE | SCALABLE



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Keyless Access Control System Solution

SECURE | RELIABLE | SCALABLE

Teleporte

Teleporte
Cloud

Teleporte
Mobile

Sera4
AP3 Padlock

Sera4
Lock
Controllers

3rd Party Electric
Locks

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Keyless Access Control System Solution

SECURE | RELIABLE | SCALABLE

- Patented digital security architecture
- 3rd Party Agnostic Locks
- Offline field hardware
- Redundant Design
- Cloud and mobile solution
- REST API Integration
- Scalable with unlimited users and keys
- Over the air (OTA) updates to field hardware

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Case Study; Mobile Operator Goes Keyless

SECURE | RELIABLE | SCALABLE

Business Impact

- ✓ Real-time digital key management
- ✓ Eliminated key depots and "truck roll"
- ✓ Notifications of abnormal behavior
- ✓ Increased network reliability
- ✓ Audit compliance (ISO, Health & Safety)
- ✓ Mitigated theft, fraud, and vandalism
- ✓ Maintenance free in harsh environments
- ✓ No compromised keys or locks
- ✓ Support for billings reconciliation
- ✓ Lowered insurance rates

By The Numbers

- 100% Audit Compliance
- 75% ↓ Theft, Fraud, Vandalism
- 40% ↓ Operational Cost
- 35% ↑ Field Service Capacity
- 10% ↑ Billing Reconciliation Savings

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Special Thank You

- Jeremy Brookes – Securam
- Philip Aldridge – Tecnosicurezza
- Alex Deblok – DormaKaba
- Elizabeth Cox – S&G

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ATM Smart Locking Solutions

SECURAM

Overview

- What is unique about ATM safe Locks
- Current technology
- Requested improvements
- Bringing SMART to ATM Safe Locks
- How do they work
- How integrating SMART technology improves security

One Time Code Locks for ATM Use

- ATMs are remote cash vaults and as such they are prime targets for theft.
- Theft from both external and internal threats.
- The ATM safe is designed to guard against external attacks
- The ATM lock is designed to guard against both external and internal attacks
- And must provide access for any number of users, securely

One Time Code Locks for ATM Use

- How?

- Using High Security Authentication protocols
  - Algorithmic Codes
  - PIN
  - Electronic Key – Dallas Key
  - Close Seals

- Plus the use of "Dynamic Codes" or "One Time Codes" for **Controlled and Singular** access

One Time Code Locks for ATM Use

- **Controlled and Singular** access is the key

- Right methodology
- Outdated implementation.

- The technology used is 30 years old, and not keeping pace with currently available technology.

- Isolated devices with no means for remote control, status or feedback

One Time Code Locks for ATM Use

- This lack of lock feedback leads to a myriad of issues, such as:
  - Synchronization errors,
  - Need for human intervention to report Close Seal
  - Never really knowing the true status of the lock
  - Need for site visits to extract Audit trail
  - Need for coordinated site visits to change ownership
  - Replacement of lost or damaged Dallas keys etc.

One Time Code Locks for ATM Use

- Question: Can we build an ATM Safe lock that learns from the older approaches and adds newer technology to help improve control and management.
- Make it even SMARTER…
- So we set out to build a smarter ATM Safe Lock

Building a SMARTER ATM Lock

In polling the financial institutions, cash carriers and ATM Deployers, we found that there was a real need and desire for advanced ATM security solutions:

- Improved management efficiency
- Improved remote management
- Improved security
- Real-time data and lock status
- Reduced life cycle cost
- Make it better, easier

… and cheaper

Building a SMARTER ATM Lock

The CHALLENGE:

Develop a ATM Safe Lock Management system:

- Reliable
- Fast and Efficient Access
- Real-time Control
- Real-time management and reporting
- One Time Code (OTC),
- Without residing on Financial Institution's network.
- Provide flexible and cost effective system management

Building a SMARTER ATM Lock

The CHALLENGE continued:

- Eliminate the need for keys – cost and operational concerns
- Improve the Shared Liability process
  - Eliminate "Vendor Meets"- significant cost implication;
- Improve the Close Seal process
- Provide real-time central Audit – eliminate need/cost to retrieve audit at lock
- Provide a Duress feature to improve safety of employees
- Manage not only the cash safe but also the PC Compartment

Building a SMARTER ATM Lock

The SOLUTION:

ProLogic OTC

- Flexible, centrally managed electronic safe lock system, designed specifically for ATM management.

- Provides real-time communication for maximum security, remote control and ease of operation.

Building a SMARTER ATM Lock

EntryPad

Lock Body

Operational Overview – How does it work?

Cash Carrier Mode

Using Technology to be SMARTER and More SECURE

1. Dispatch Center creates a schedule or route

2. App receives routes

3. CIT logs into app, press UP button on keypad

4. App sends OTC code to lock

5. Lock Opens

The SMARTER ATM Lock

No more incorrect code entries

No more fumbling with dallas keys

No more burned dallas keys

No more trying to understand beeps and braps, lights

OTCs are delivered in real-time as needed

No more LIVE codes in the field

Just fast, simple, secure access

Transaction has been completed. Audit and Lock status is updated. Safe is Locked and verified.

4. Close Seal is automatically sent to Dispatch software

1. CIT completes task and closes ATM safe door

2. Close Seal is displayed

3. Close Seal is transferred to SmartPhone App automatically

The SMARTER ATM Lock

No more recording and reporting the Close Seal

No more Human error

No more guessing Close Seals to close the transaction

No more Human Interaction needed at software

Transaction closed in real-time

Audit updated in real-time

It just works…

The SMARTER ATM Lock

How are we providing real-time communication without residing on the Financial Institutions network?

We bring the "Modem" to the lock in the form of the smartphone app

The app is the communication link

- Sending real-time OTC
- Receiving real-time Close Seals
- Updating the audit trail
- …automatically

Available on the App Store

ANDROID APP ON Google play

The SMARTER ATM Lock

BUT…

What happens if I don't have network connection at the ATM?

No Problem:

We have built in redundancy

If no network is available, a pre-issued code is used (app background)

Close Seal is received by app

Then when network is reached, the information automatically updates the software

The SMARTER ATM Lock

What happens if I have established a schedule but I have to add another OTC on-the-fly?

- No Problem
- Simply establish an additional task and send. The Smartphone will receive the task and be ready to execute when the Tech arrives at the ATM.

What about Shared Access?

Shared Access can be granted to an unlimited number of Shared Access Partners

The System Owner can activate **and deactivate** its Shared Access partners instantly in the software system, by lock(s) or in totality.

A Shared Access Partner can manage an unlimited number of ATM portfolios

Shared Access partners use a highly secure web portal to schedule lock access (128 bit encryption)

The administrative rights can be determined for each user in the system

The SMARTER ATM Lock

What if I want to cancel Shared Access, do I have to “shelve” the lock?

You don’t have to shelve the lock or go to the site to revoke access.

The System Owner can simply revoke access to one or a set of ATM locks to any Shared Access partner at anytime, simply by changing their access rights within the software .

The SMARTER ATM Lock

What if cellular service is down when the Close Seal is displayed?

No problem:

The Close seal is recorded by the app and sent to dispatch as soon as cell service becomes available, automatically.

The SMARTER ATM Lock

What happens if someone loses their Smartphone?

No problem.

Login required

All active schedules can be cancelled in the software at anytime.

No codes on a piece of paper

The SMARTER ATM Lock

Are these locks currently deployed?

There are over 100,000 SecuRam OTC locks deployed currently

Contracts have been awarded for another 25,000 locks this year

ProLogic OTCs are already being used on major brand ATMs

Building a SMARTER ATM Lock

As we began working with ATM companies, Banks, Cash Carriers and IADs, we were informed of another vulnerability on the ATM

The PC Compartment or Top Hat

Malicious hardware and software attacks by accessing the PC compartment.

Smart Cam Lock

Secures PC Compartment on ATM

Uses One Time Code Security
Works with SECURAM OTC App
Allows central management
Easy Installation

SECURAM

The SMARTER ATM Lock

- Real-time centralized ATM Management system
- Real-time "Connected" system, not residing on FI network
- Network redundancy: Real-time OTC or Pre-Issued
- Automatic Close Seal Verification – reduces call center manpower
- Alerts for unsecured safes
- Owner-Controlled Shared Access
- No "Shelving" of Locks
- Real-time Audit
- LCD display for ease of use
- Alarm Integration- Duress
- 9Volt or AC powered
- Easily Retrofits on existing ATMs
- Integrated PC Compartment OTC Lock

Building a SMARTER ATM Lock

Technology

…It's SMARTER

…It just works

TECNOSICUREZZA
Locks & Security Systems

DyamaWeb

DyamaWeb: One Time Code lock system

ATMIA

TECNOSICUREZZA
Locks & Security Systems

DyamaWeb

Overview of presentation

1	DyamaWeb: software/ hardware requirements
2	Framework of software
3	System diagram
4	Software/ Hardware features
5	Keypad & Lock features
6	Thank you & contact information.

TECNOSICUREZZA
Locks & Security Systems

One Time Codes/Dynamic codes

DyamaWeb

TECNOSICUREZZA
Locks & Security Systems

Webased software

Capable of being installed on any server:

Windows, Linux or Mac Os

Data Base: SQL Server also SQL Express

- DB average growth:
  - 200 byte for single event;
  - 300 byte for each new keypad created;
  - 300 byte for each new lock created;
  - 1KB for each user created;
  - 250 byte for each dynamic code created.

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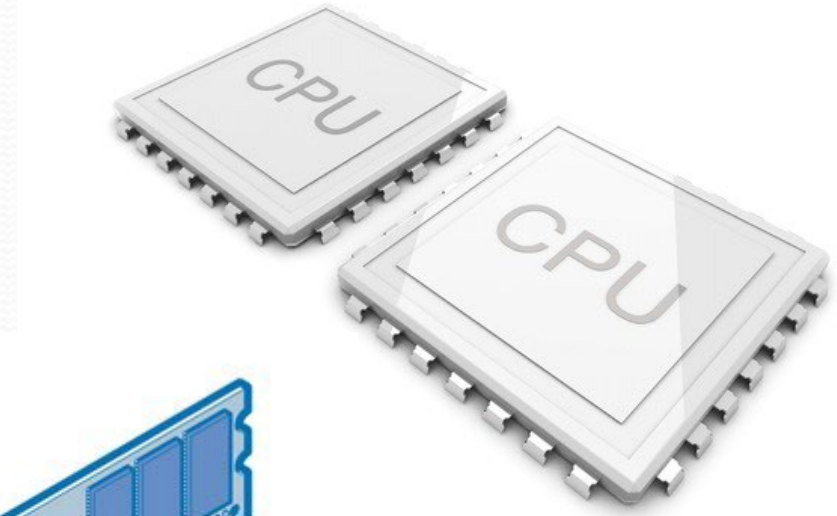
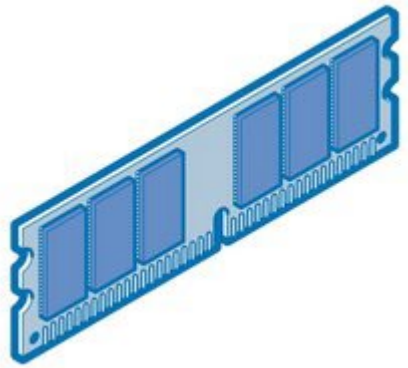
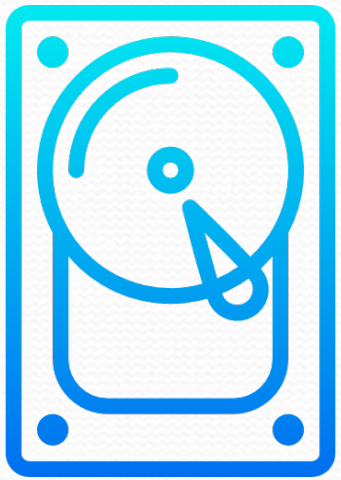
Locks & Security Systems

Minimum hardware requirements



- CPU: Dual-core server processor
- RAM: 8 GB
- 128 GB Hard Disk





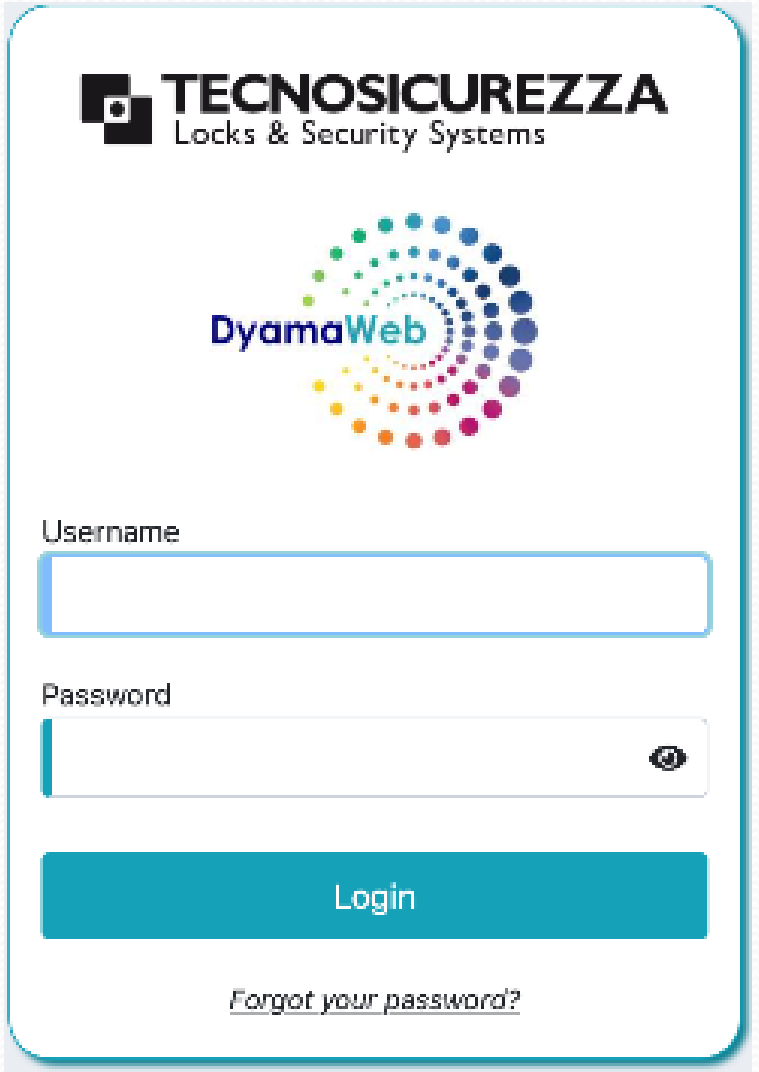
Framework of software

- Data Base Microsoft SQL Server Express (WIN, MAC, LIN)
- Web API (.NET Core)
- Angular UI
- Encrypted communication server - USB with AES256
- Encrypted communication browser - server with TLS (SSL)

TECNOSICUREZZA
Locks & Security Systems

6 elements of the algorithm

1. Keypad ID
2. Time & date
3. User (pin number created by software)
4. Keypad/Lock ID
5. Time span of OTC (15min, 1hr, 4hr, 12hr)
6. Starting time of validity of OTC



TECNOSICUREZZA
Locks & Security Systems

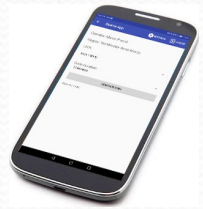
System Diagram

Web browser

Operator 1

Web browser

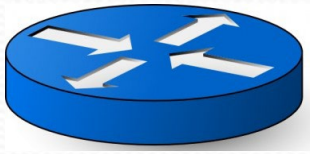
Operator 2



Operator N

SWITCH

LAN LAN LAN



ROUTER

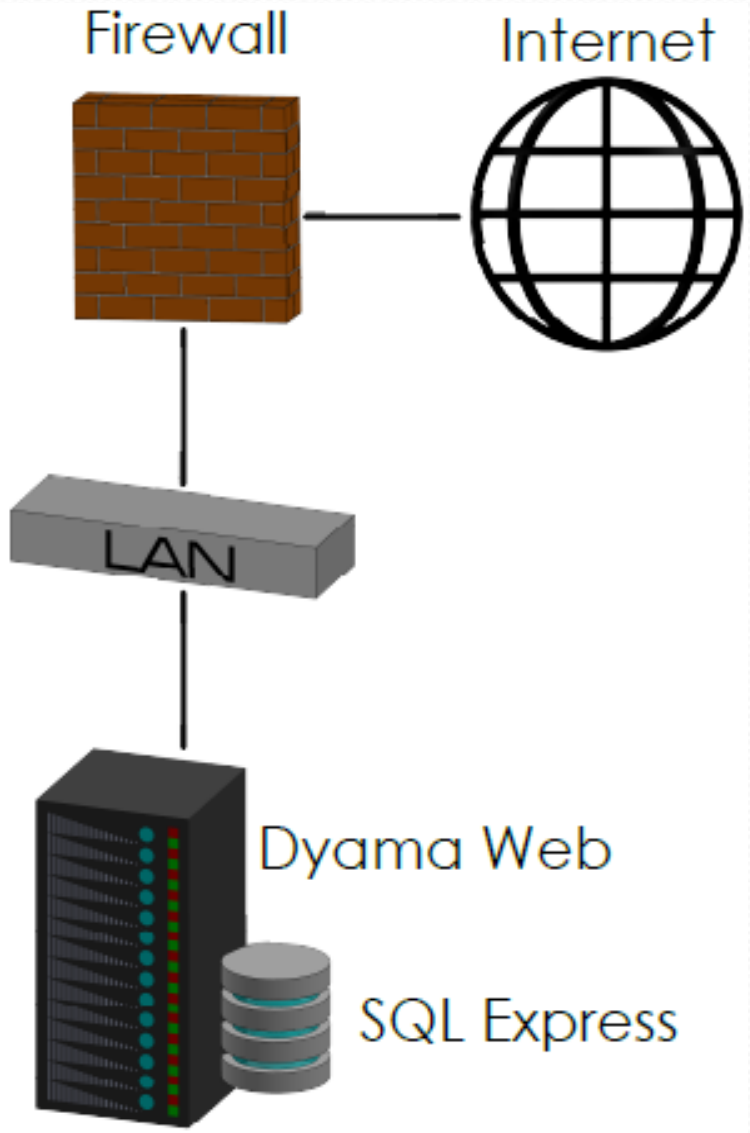
INTERNET

DATABASE

Microsoft SQL Server Express

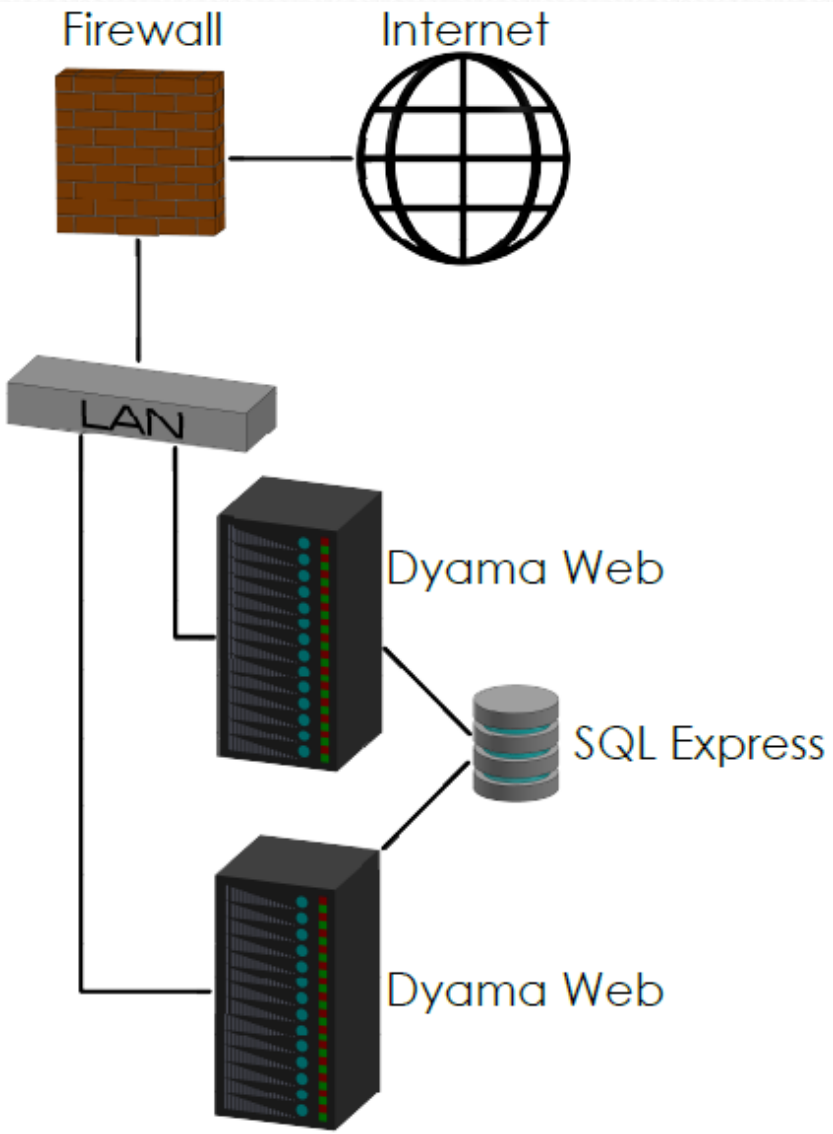
Linux

Standard configuration



TECNOSICUREZZA
Locks & Security Systems

Dual server installation for redundancy



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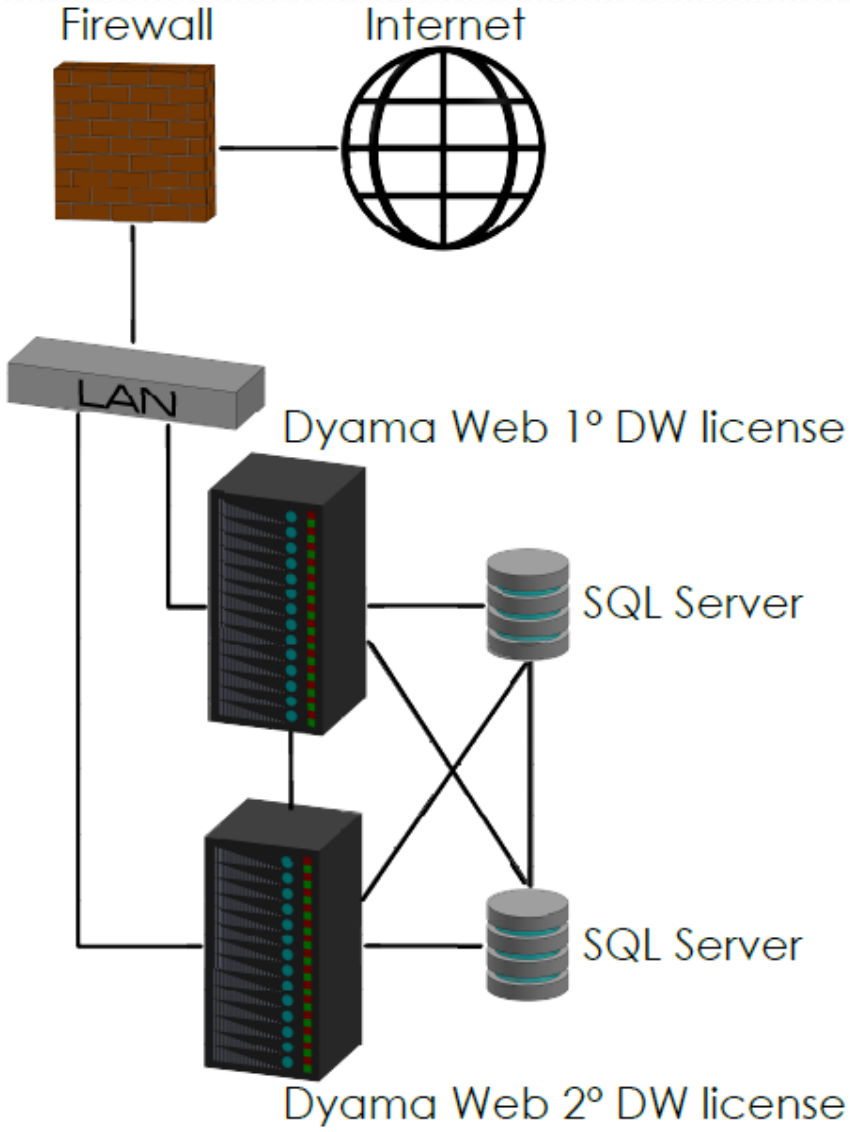
Locks & Security Systems

Dual server, dual databases and dual license for complete redundancy



TECNOSICUREZZA
Locks & Security Systems

Software features:

DyamaApp

- Dallas Keys (optional)
- Roles (administrator, operator, technician)
- Automatization of OTC through DyamaApp
- Remote alerts (wrong operation) email or pop/ups
- Remote audit (keypad)
- Closing codes (optional)
- Geo Fence (GPS)
- No limit on Users with DyamaWeb
- Barcode/QR code
- Disable/delete users in real time
- Routes
- Groups (admin, Techs, locks)
- Program time lock
- Create user groups and keypad groups
- Automatic backup

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The software is provided with a special USB dongle for server connection or with a special IP security interface for network connection.

USB dongle

IP dongle interface (Red Box)

*Power supply required 12Vdc-24Vdc

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Locks & Security Systems

USB Dongle	vs	Red box

- USB dongle installs on the server USB port
- No IP address required
- Requires only drivers to be installed

- No physical link to server so it can be located anywhere as long it is on the network
- USB ports maybe restricted by IT
- Configure firewall settings
- No accidental removal from server
- Possible to use multiple RedBox’s as back up/redundancy

Integration with third-party management software:

- No need to learn a new software or to repeat operations like routes and preparation of the trucks.
- DyamaWeb can be implemented in your management software giving you the possibility of customization of the OTC procedures.

DyamaWeb

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Locks & Security Systems

Keypads and locks features

Techmaster

Up to 5 locks per keypad

Minitech

Up to 2 locks per keypad

DyamaWeb

TECNOSICUREZZA
Locks & Security Systems

Lock feature highlights

Techmaster

- **Remote management** in conjunction with CorenWeb and IP interface
- 89 static users
- 15,000 event audit trail
- Dual mode for groups/user openings
- 3 weekly timelock schedules
- Automatic DST
- Keypad test

Minitech

- 48 static users
- 11,00 event audit trail
- Dual mode
- 1 Weekly time lock
- Automatic DST
- Keypad test

TECNOSICUREZZA
Locks & Security Systems

6 lock bodies:

1. Swingbolt

2. Squarebolt (direct drive)

3. Latchbolt (slambolt direct drive)

4. Motorized squarebolt

5. Motorized latchbolt

6. Motorized squarebolt: Push/Pull (30N)

TECNOSICUREZZA
Locks & Security Systems

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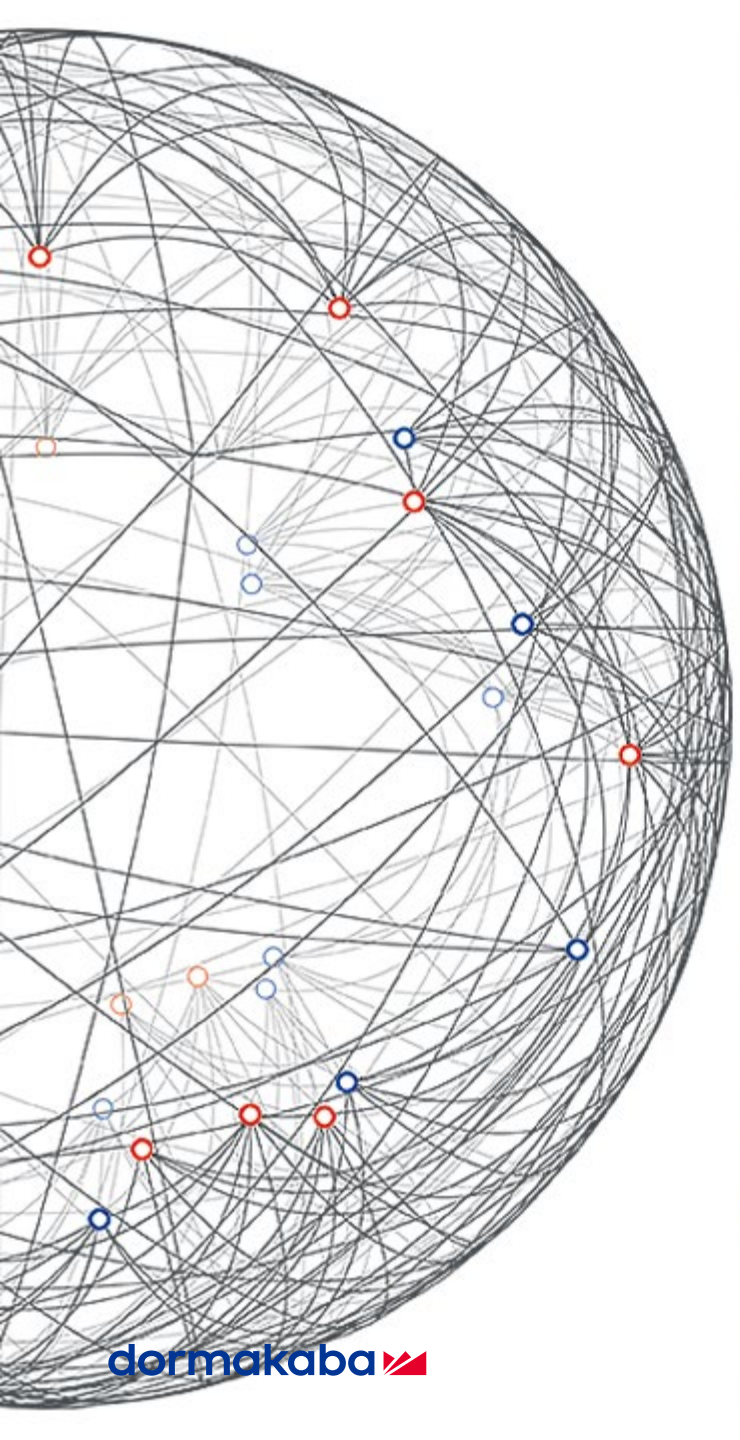
dormakaba safe locks

Prepared for ATMIA 2024
Workshop 4: Cash Vault -Electronic Locks: On-Demand and Controlled Access

Presented by Axel de Blok
VP Global Strategic Sales Development & Product Management
February 14, 2024



Your trusted partner

Wherever you are, throughout the world

dormakaba is one of the top three companies in the global market for access and security solutions, and the global leader for safe locks. A single source for everything related to doors and secure access to rooms, equipment and buildings.

Wherever you are in the world, you can profit from future-orientated solutions that give you the feeling of long-term security.

dormakaba – a smart step for safe locks. Bringing us one step closer to our goal of offering customers and partners a comprehensive range of high-quality solutions for security and building access from a single source across the globe.

dormakaba safe locks: a secure heritage

dormakaba can look back on a 145-year history of security solutions and is proud to be built on safe lock brands such as Mas Hamilton, Kaba Mas, and LA GARD. The quality and reliability of dormakaba products will keep your property secure in all ways..always.

1992

Launch of the first-generation X-0 lock 7“

1995

Launch of the first Cencon lock

1999

Launch of the Auditcon family

2005

X-08 introduced

2006/07

Acquisition of LA GARD

LA GARD
The World Leader in Digital Safe & ATM Locks

2008

X-09 introduced

2013

X-10 introduced – backlite

2015

Merger of Dorma and Kaba, going forward together as dormakaba

dormakaba

2020

LA GARD 700 Series introduced

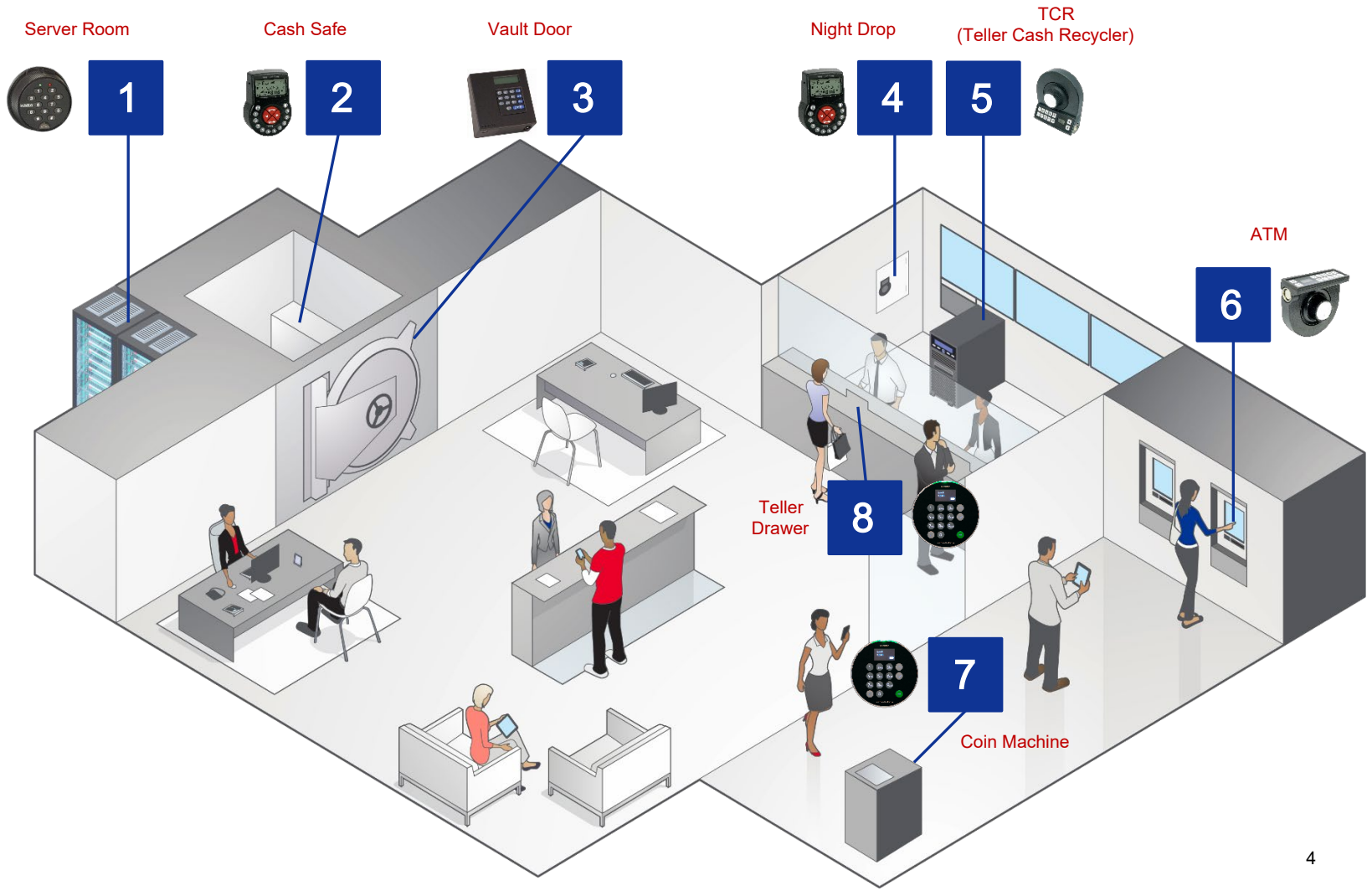
2024

Axessor Apexx IP introduced

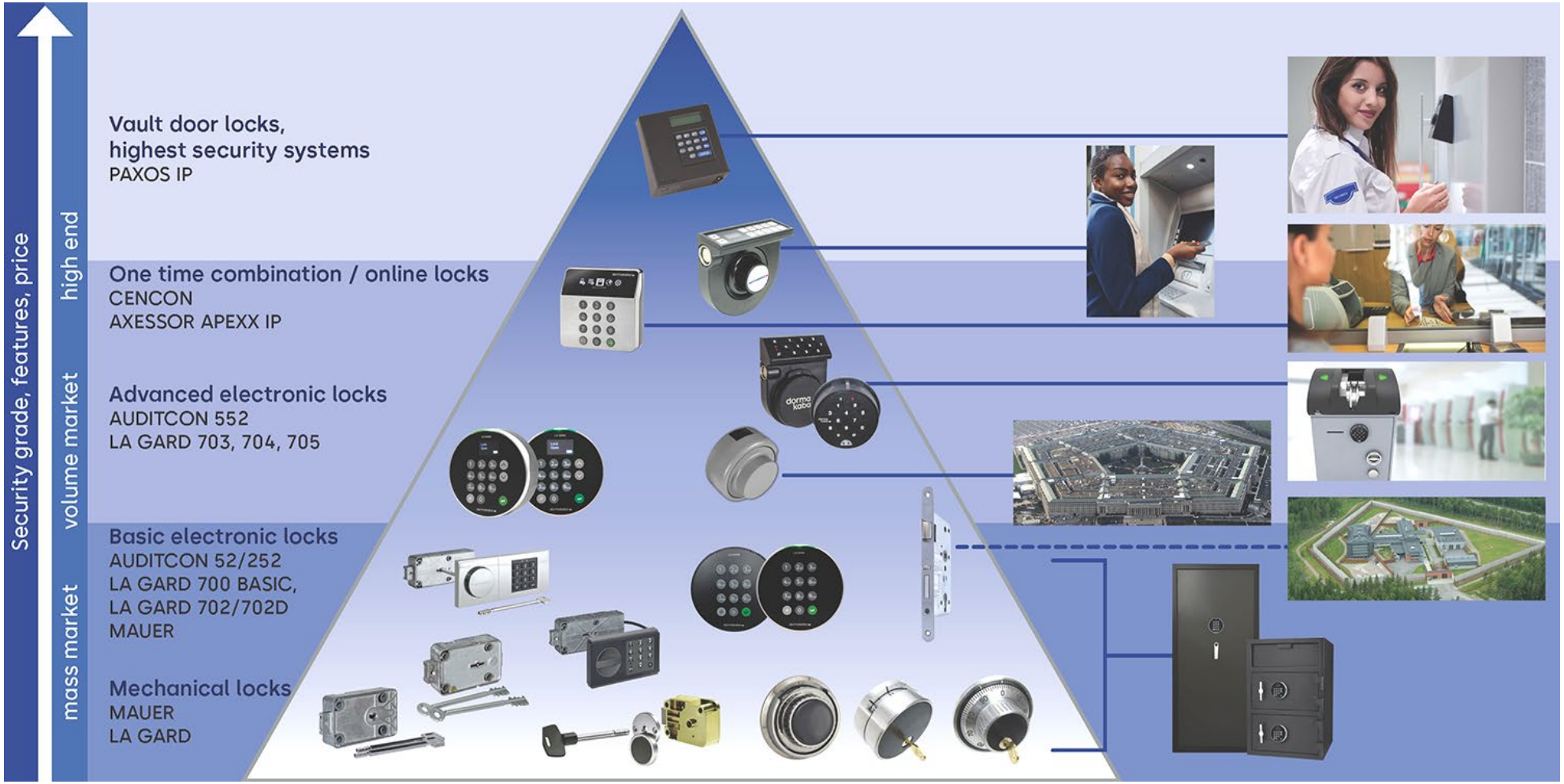
Safe locks in financial institutions

Safe locks are designed to protect money, valuables, important documents, and sensitive goods from unauthorized access.

Financial institutions have several areas that require different levels of security and access.



Harmonizing solutions



Cencon

ATM cash vault security system

Cencon – designed to combat insider theft from ATMs through the combined use of lock hardware, systems software and smart keys.

Cencon offers total access control and accountability with its “One Time Combination” (OTC) feature. Software allows you to control and monitor thousands of locks located anywhere in the world - from one central location. Cencon is a revolutionary solution to today's most serious security challenges.

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Hardware

Keypad Up Model
Dial and Keypad

- Self-powered deadbolt lock
- Spin dial counter-clockwise to generate power

Cencon Swingbolt Model

- Self-powered swingbolt lock
- Spin dial counter-clockwise to generate power

Keypad Down Model
Dial and Keypad

- Self-powered deadbolt lock
- Spin dial counter-clockwise to generate power

Shared access keys
Each company "owns" their mode in the lock

- F = FLM Mode (blue)
- R = Route Mode (yellow)
- Bank Mode Key (green)

Software

What is Cencon?

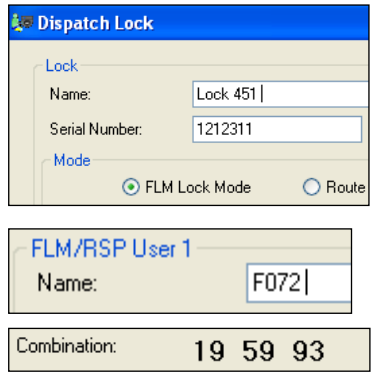
- Cencon is Centralized Control
- Cencon is more than a lock: It is a system
- 1000's of Locks can be controlled with one PC/Network
- 1000's of Users can be controlled with one PC/Network

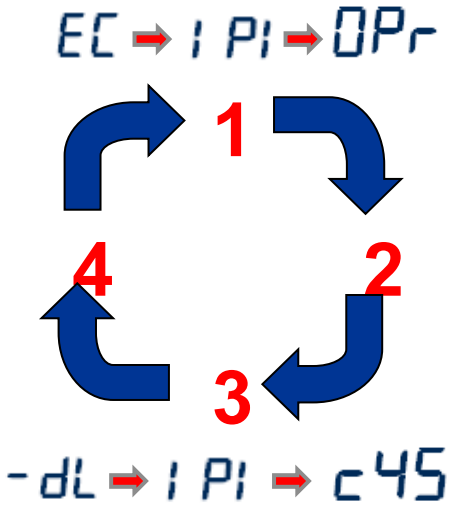
Three components to a Cencon ATM Locking System:

1. The Electronic Locks
2. The Electronic Smart Keys
3. The Software
4. The Keybox

Opening & Closing a Lock

1. Dispatcher Assigns a User To a Lock:
   Software in PC utilizes its internal Algorithm to create a Unique 6 Digit OTC, by taking ingredients from the system.
2. Lock Users use Code and key at the lock
3. Lock Solves the same Algorithm – If True, Access is Granted.
4. Lock Increases its Audit count by One
5. Lock Issues a Close Seal # (2 or 4 Digits)
6. Lock User reports Close Seal back to S/W Operator
7. Software Operator enters Close Seal and completes the Call
8. Software Lock Audit Count increases by One

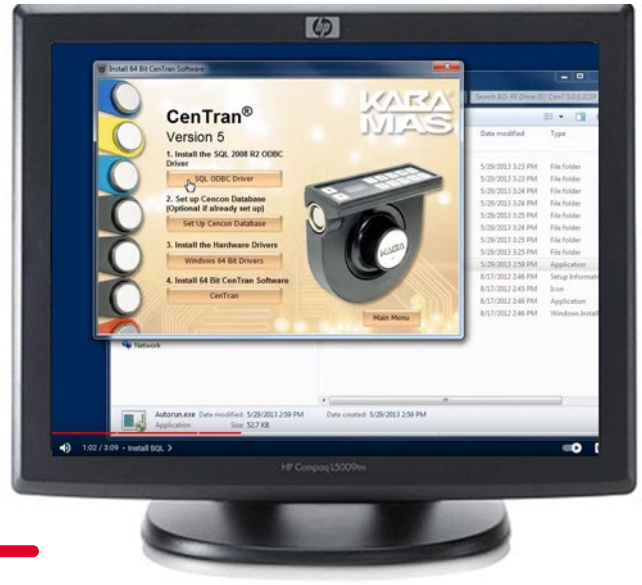




Third Party Solution (App)

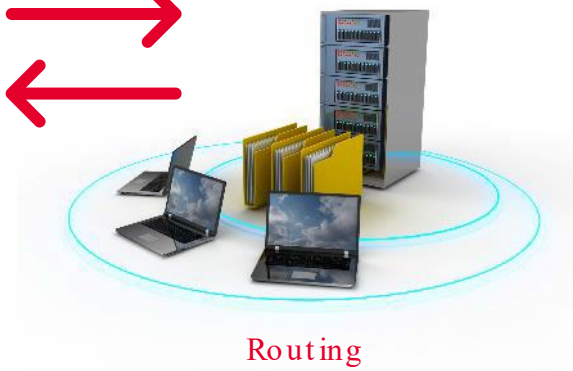
Cencon Software

Centran Software



Phone App

Lock



Routing Software

New Solution

Axessor Apexx IP

The new standard in safe locks

Apexx is a multi -lock and IP connected safe lock designed to securely manage locks with unprecedented ease.

Axessor Apexx, the first of this series, will deliver a multi-lock, IP-connected safe lock solution. When used in conjunction with the robust Apexx Series Software, you can remotely manage an entire fleet of lock systems.

Apexx is the foundation for the next generation Safe Lock systems.

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Hardware

Keypad Units

- Choice of black or satin chrome finishes
- Apexx Keypad w/ lock cable
- Motorized lock (latchbolt or deadbolt)
- (4) AA batteries
- (1) Bus Termination Cable

Ebox

- Ebox with I/O expansion for IP connectivity (TCP/IP)
- AES256 encryption
- TLS 1.3 – AES256
- 12V-24V power
- 4 input signals / 4 output signals
- Single PCBA
- PoE

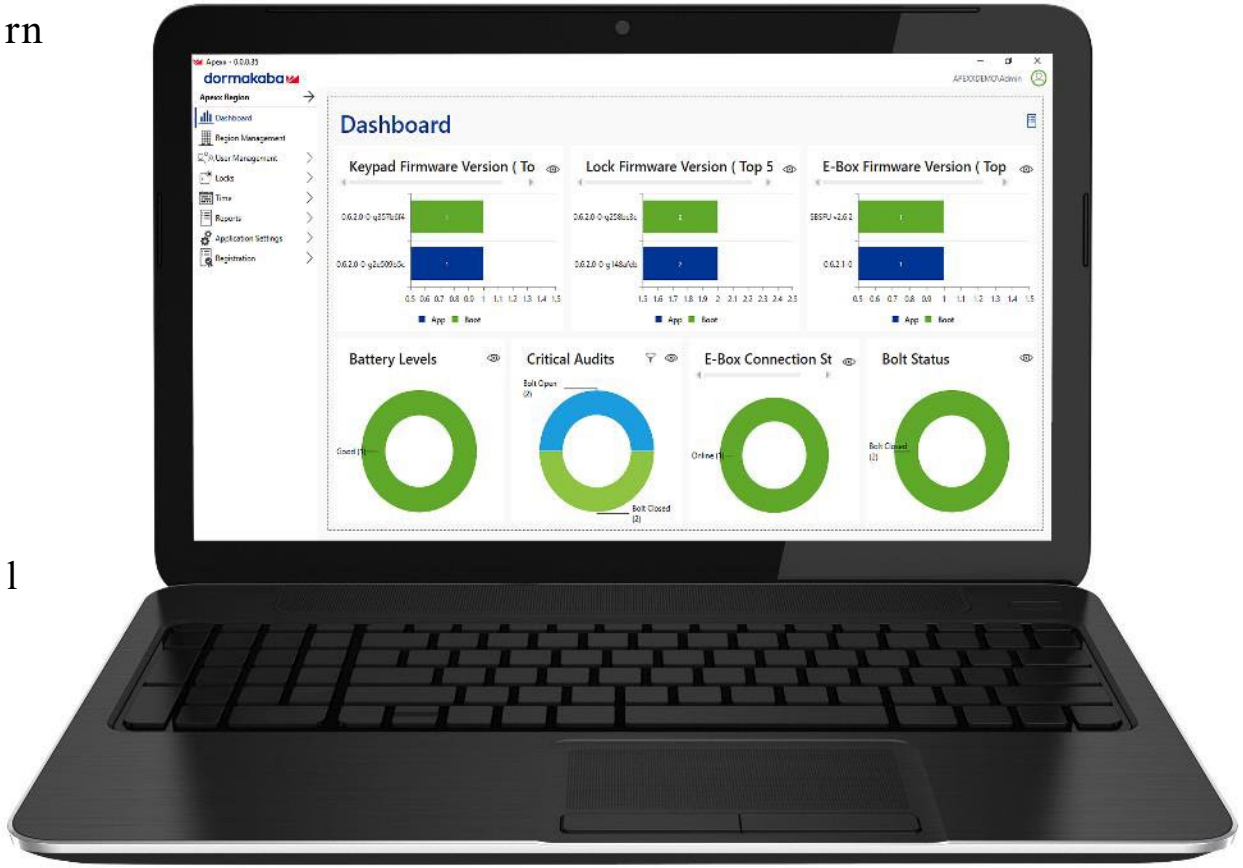
Apexx 2-lock configuration

- Black Keypad
- Motorized Latchbolt lock
- Motorized Deadbolt lock
- Ebox with I/O expansion
- Cable

Apexx Software & Security

Apexx Series Software provides a powerful suite of modern features and tools that allow you to efficiently install, configure and manage your entire fleet of Apexx lock systems remotely. Features include:

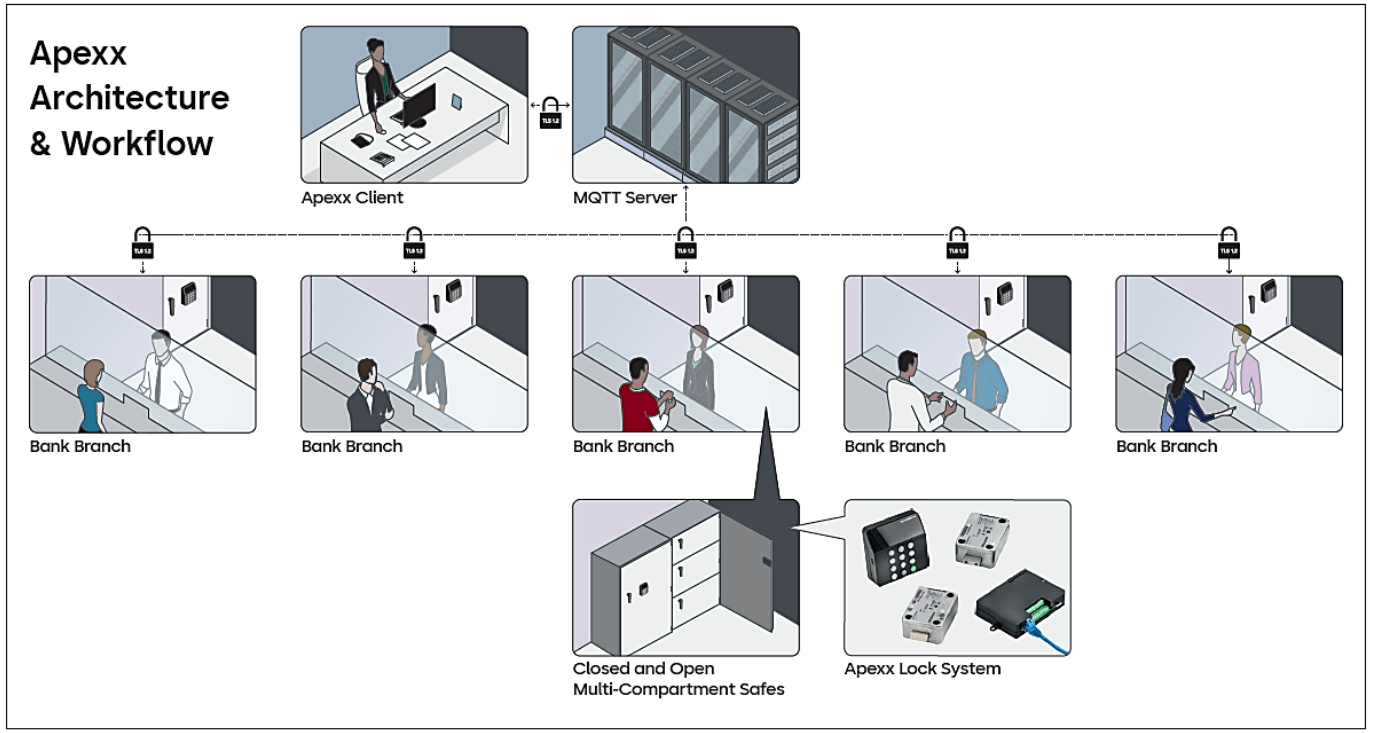
- Can be installed on any Windows 10/11 PC, Cloud-hosted environment or Virtual Machine
- Pull, Manage, and Filter Audits: On-demand or actively pushed (eBox required)
- Active User Directory – Store up to 100,000 Users
- Active Alerts – Automatically send notifications for critical events
- Remote Firmware and Software Updates
- Built on RESTful API to support software integration
- Locks can be used locally via USB-C (standalone) or configured for Network IP Connection (eBox required)



System Architecture

The Apexx solution consist of one or two Entries, one or more locks, up to one E-box and one instance of Apexx SW solution (Local Software).

There are two possible connections between the lock system and the local SW. One is direct connection over USB to the entry. This connection must be enabled by an authorized user in the menu selection of the lock. The second connection is from the E-box over ethernet to the local SW.

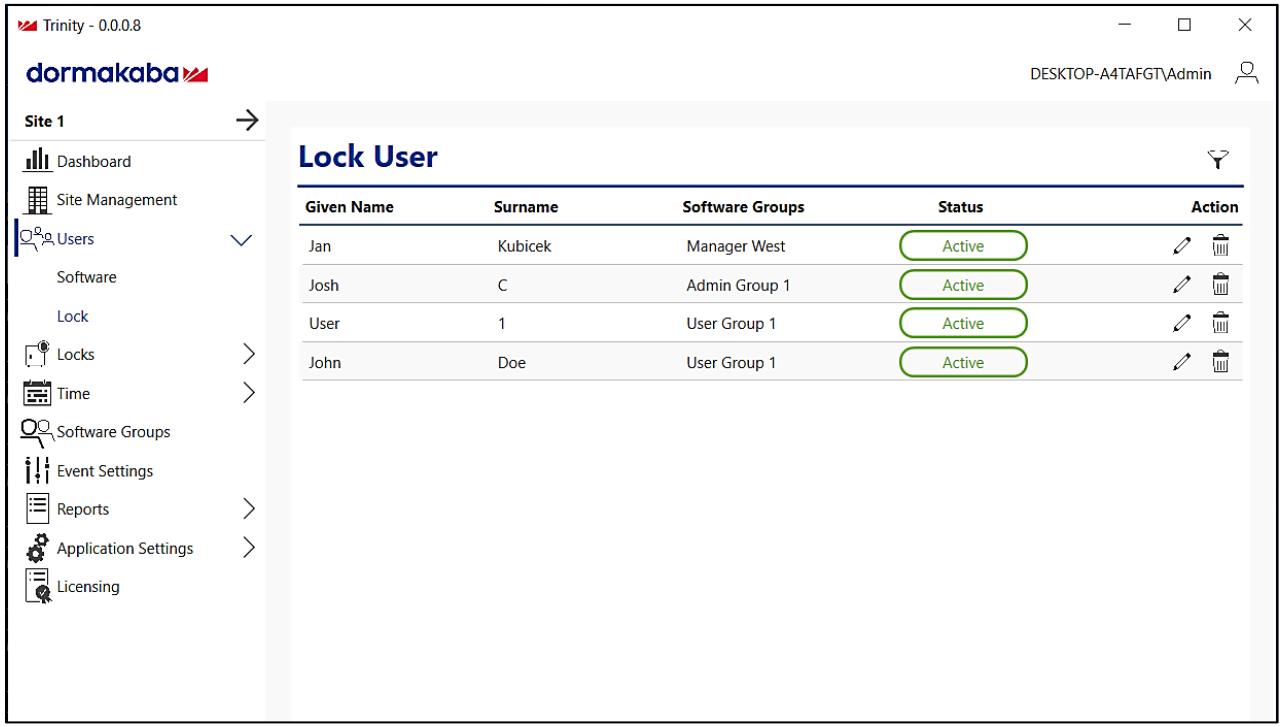


User Directory

Apexx Series Software allows you to store up to 100,000 users in the software and assign them to one or multiple locking systems.

Set special security parameters and eliminate the need for manual security logs.

- The Axessor Apexx IP allows for near real time changes within your infrastructure modernizing how the market interacts with a safe lock, delivering a more cost effective and secure solution



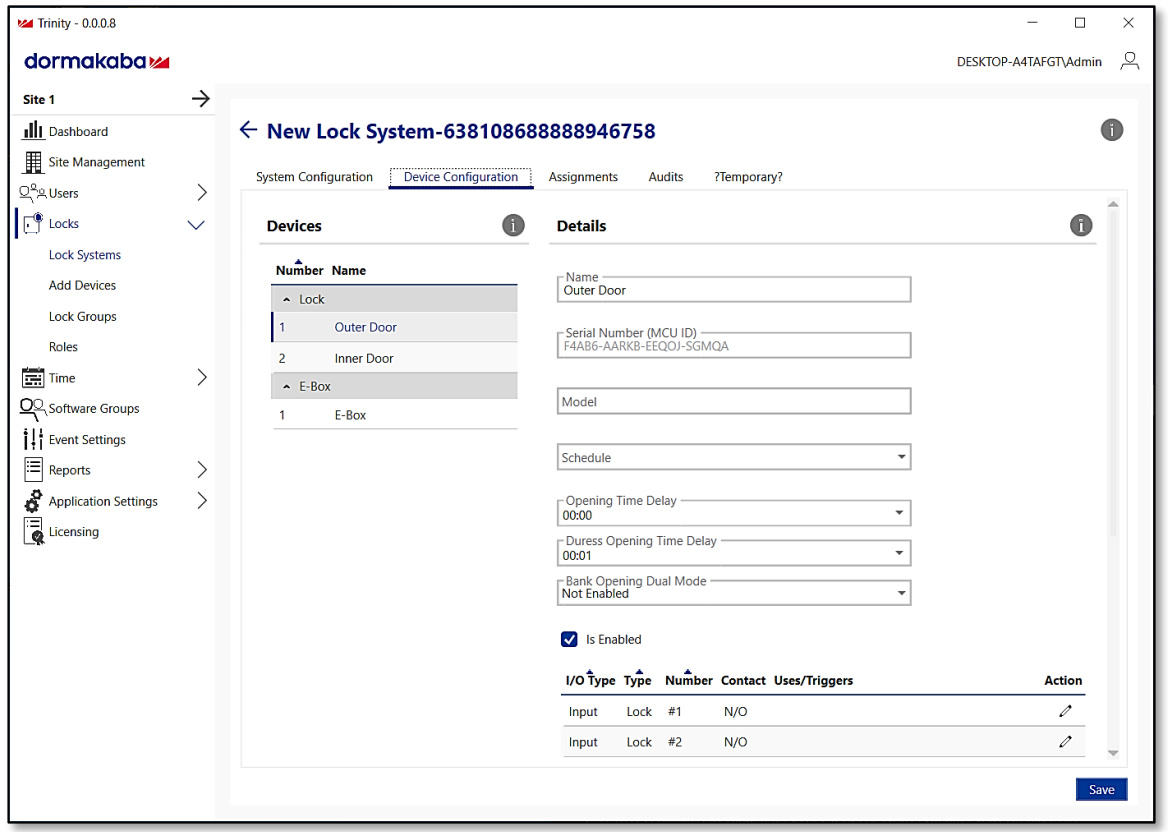
IP Environment:	Current Standalone Environment:
Time Lock	IP Connectivity, Up to 16 Locks Per Keypad
Time Delay	Remote Audit
Time Lockout Schedule	1,000 Users Per Lock
Remote Enable/Disable	Business Intelligence Hub: Active Alerts & Exception/ Scheduled Reporting
Code Sharing A/B Codes	
Recording Codes Manually	
Security Personnel or Locksmiths Deployed to Change Codes	
Inability to Swiftly Alter Codes or Security Settings for Employee Turnover or Changing Security Parameters	

Multiple Lock Systems

The Axessor Apexx is a true multi-lock IP platform that allows you to remotely and securely manage an entire fleet of locks.

Remote capabilities of the Axessor Apexx enables organizations to manage locks over multiple locations, for multiple employees and staff.

- Highest capacity multi-lock solution with up to 16 locks and 2 keypads per lock installation
- Add, delete and modify user access to any lock
- Easily accommodate floating personnel
- Receive audit data from locks in near real time
- 1,000 Users per multi-lock system and thousands of Users via the software



Meeting the needs of global customers

- A locking system that is easy, convenient, secure, and drives operational efficiencies
- Offers multiple modes of operation to fit specific customer requirements
- Updatable firmware allows you to future proof your security needs
- Mobile App access to software
- Multi-tenant control of software for multiple companies
- Certifications depending on local market needs

Concept OTC Lock

Convenient and secure

New lock will provide a solution to markets who want to save time and costs without sacrificing security or peace of mind.

Features:

- Code transactions over BLE
- Active Directory style management for Static-PIN users
- Mobile App for OTC Delivery (Visible and Invisible)
- Optional Time Out and Geofencing
- Automated Alerts for Critical Events
- Remote Activation of Secondary Dispatcher

Driving innovation

Software as a solution

Harmonization and Integration of all future Safe Lock systems:

- Routing software
- LDAP integration for active directory
- Code dispatching on mobile/handheld devices
- Customer driven features within software solutions

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Questions?

Thank you

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A TRUSTED NAME IN SECURITY FOR MORE THAN 160 YEARS

sargent & greenleaf™

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Control your locks, your codes, and your cash with flexible, affordable lock solutions. Built to Mitigate Risk

Allow authorized access on-demand via a secure mobile app

New model features one-time code security with no key needed

Cloud Hosting Options available for scalable accessibility

No vendor meets necessary – grant or restrict access via Software

On-Demand Controlled Access

What is a one-time code lock?

- OTC locks are the industry standard for multi-party arrangements and work to limit liability on vault cash.

How do they work?

- Encrypted software generates a code based on multiple elements (user, lock, time, date, and access window) to allow one-time access.
- The assigned user can then gain access using their key (or PIN for no-key option) and the one-time code.
- This code will expire if not used by midnight of the date assigned.

Why do I need them?

- The audit capabilities satisfy a multi-party business agreement, or if you are simply looking for heightened security over a static combo.

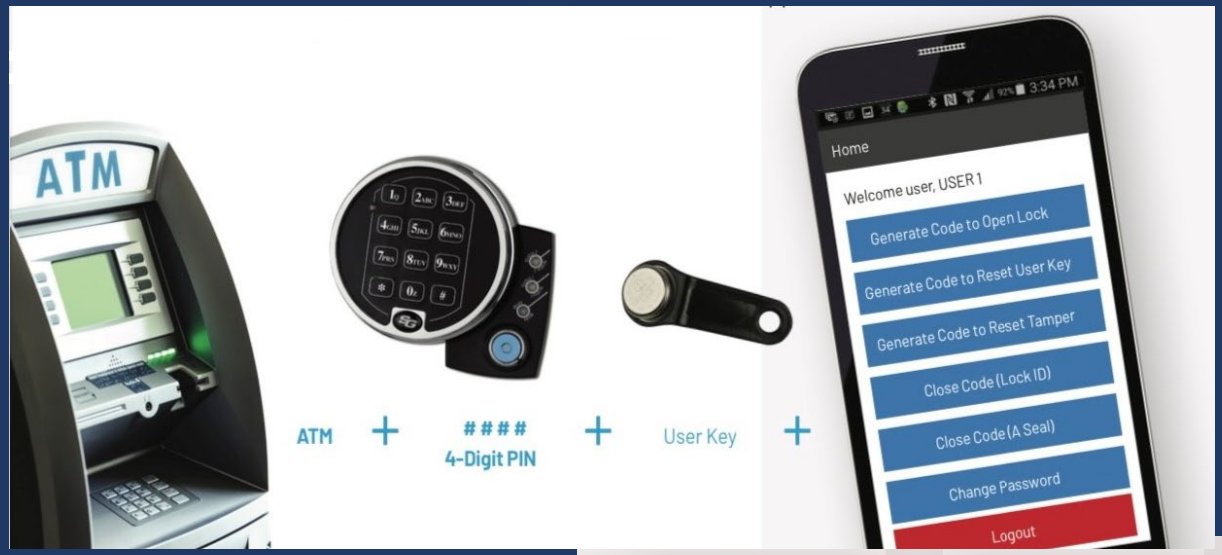
Code Generation Options

Route codes can be generated in advance – handing off a route sheet to the servicing technician

Service technician can call into your centralized lock support personnel for code generation

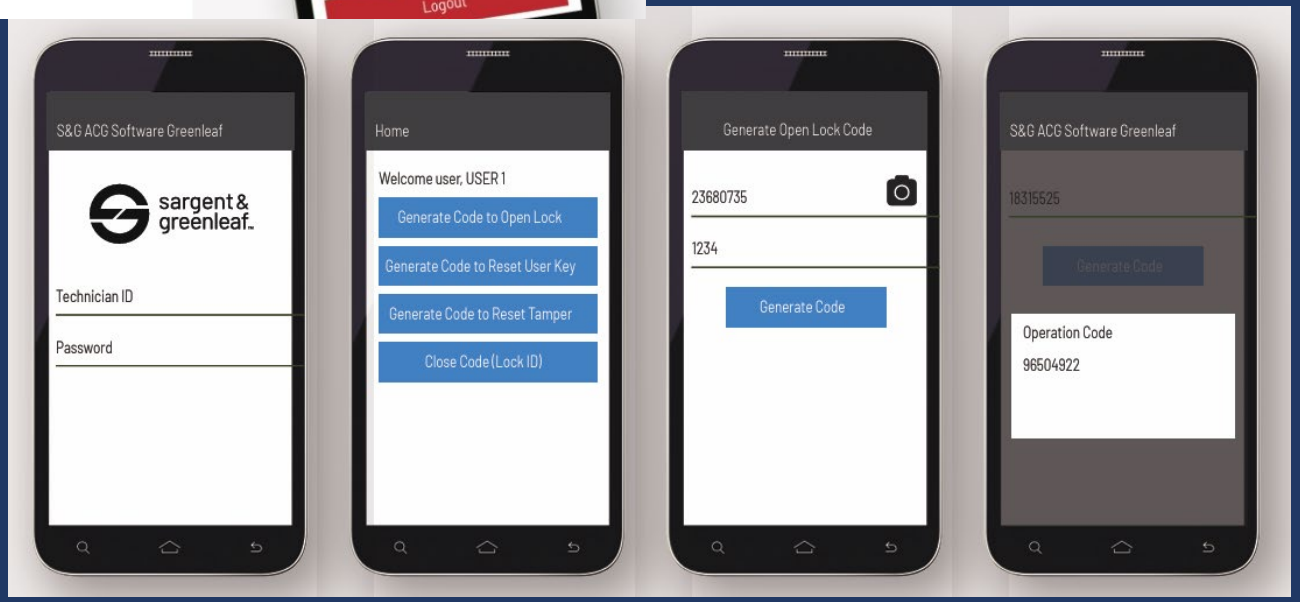
Service technician can use the mobile app to generate codes on demand (within their assigned service window)

A-Series Mobile App



- One-time codes automatically generated without assistance from call center
- Admins control when users access the network via the mobile app using time windows

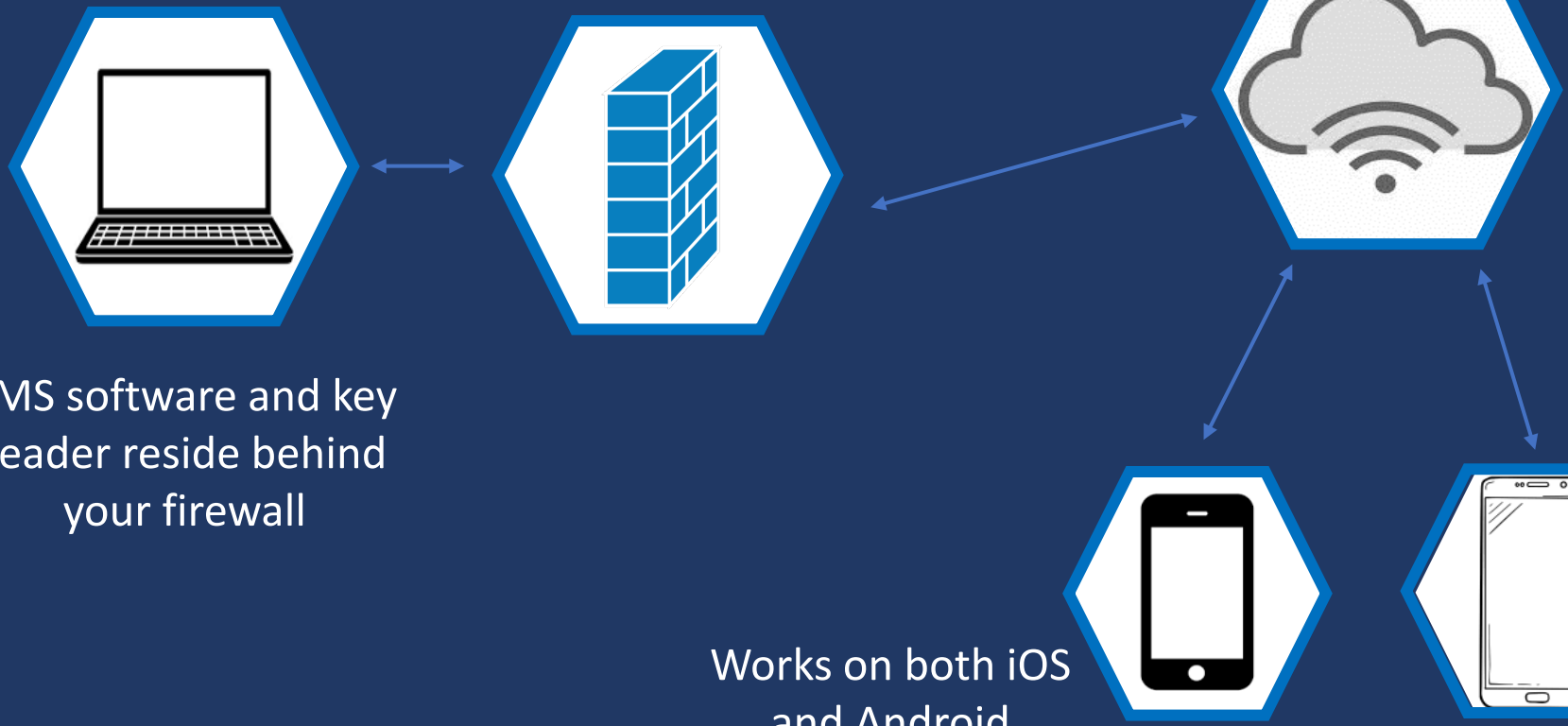
- All combinations generated using mobile application are recorded in LMS
- Combinations expire if not used



Cloud Hosted Code Generation

Database and mobile code generation software securely reside in the cloud

Company Firewall



LMS software and key reader reside behind your firewall

Works on both iOS and Android

A-Series No-Key

Coming Soon!

A one-time code (OTC) lock which requires two forms of authentication and eliminates the need to manage Dallas keys. Using the authorized user's PIN, during a specified time window, paired with a system generated one-time code, access can be allowed without compromising security.

No more tracking, managing, programming, lost or stolen keys…

A-Series Lineup

			
Lock	**A-Series**	**A-Series with Display**	**A-Series no Key**
Code Length	PIN – 4 Code - 8	PIN – 4 Code – 8	PIN – 4 Code – 8
Initialization Process	Secure File Transfer	Secure File Transfer	Secure File Transfer
Code Control	4-hour, 8-hour, 12-hour, or 24-hour access windows	15 minute, 4-hour, 8-hour, 12-hour, or 24-hour access windows	4-hour, 8-hour, 12-hour, or 24-hour access windows
Key Type	Dallas Key	Dallas Key	No Key
Power Source	Battery	Battery	Battery
Audit Capable	Yes	Yes	Yes
Audit Trail Events	400	1,000	400
Warranty	2 Years	2 Years	2 Years

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Making the World More Secure
Today and into the Future