

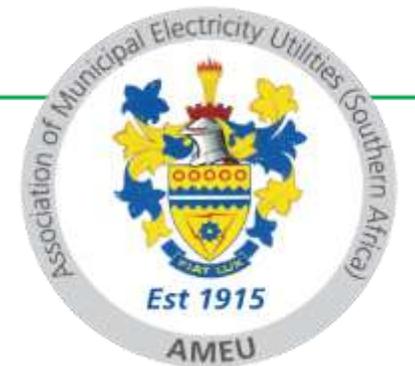
EDGE LINE

ENGINEERING (Pty) Ltd



**PROTECTING YOUR ELECTRICAL NETWORK
FROM ILLEGAL CONNECTIONS AND VANDALISM
BY USING SECURE LOCK, KEY & ELECTRONIC
SMART LOCKING AND MONITORING SYSTEMS**

PRESENTED BY DAVE TURTON



WHO IS EDGE LINE ENGINEERING

Edge Line Engineering was formed in 2010 with the intention of becoming a market leader in the design, manufacture, and sales of electrical / electronic / mechanical products to the commercial, industrial, municipal, and mining market sectors.

Shortly after the formation of the company, we acquired a manufacturing entity which was established in 1964. This acquisition provided a solid foundation and accelerated our growth to our current position.

We are a proudly South African Level 1 BBBEE company based in Robertson, Johannesburg South. At Edge Line we strive to be the industry leader within our field,

deliver extraordinary value to our customers, ensure service excellence, and build long-term and enduring relationships with our clients.



OUR CORE BUSINESS IS THE MANUFACTURING OF HIGH SECURITY ENCLOSURES AND SUB STATION DOORS



OUR MANUFACTURING PROCESS



Laser Cutting



Bending



Fabrication



Powder Coating



Door Seals



Final Assembly

TYPICAL PROBLEMS WE HAVE



SOLUTIONS WE OFFER

BEFORE



AFTER



THE ELECTRO MECHANICAL SMART LOCK

To achieve our advanced high security **SYS** solution.

Edge Line Engineering partnered with Rayonics SA to offer the Electro Mechanical and Electronic Smart Lock System incorporated in the manufacture of our high security enclosures.

A monitoring system to combat illegal actions and to minimise vandalism.

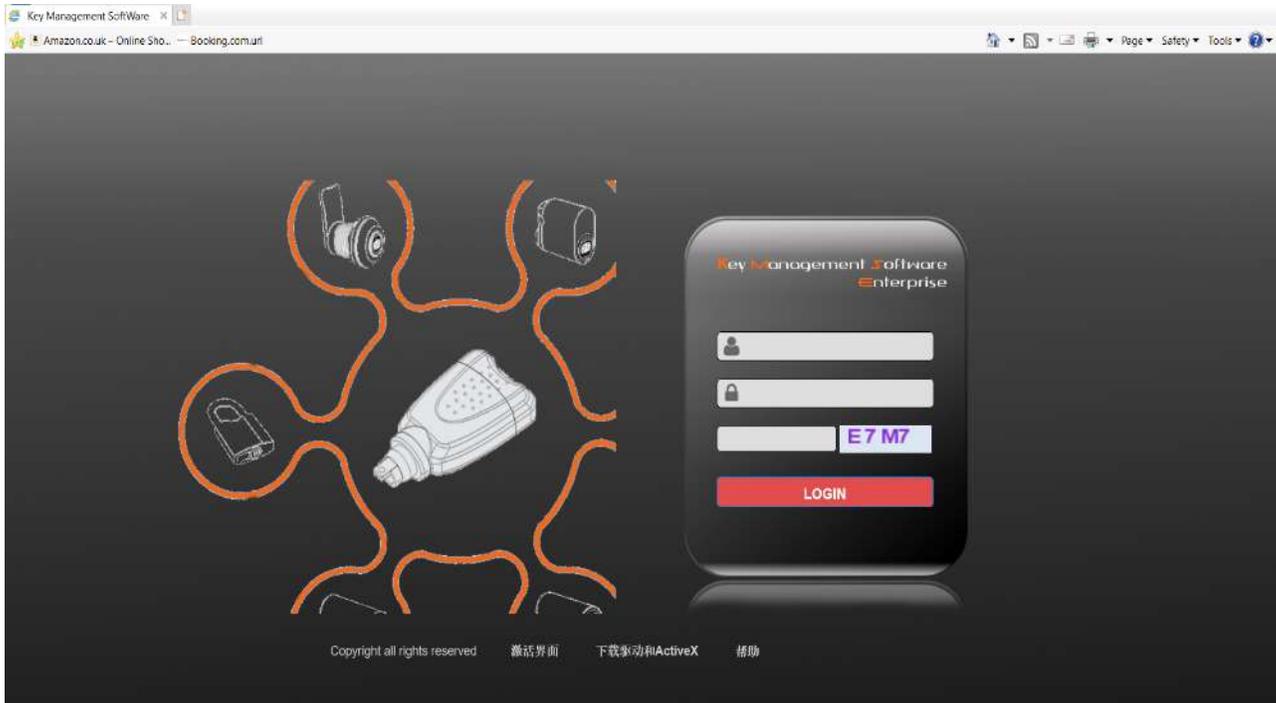


INTRODUCING THE ELECTRO MECHANICAL TECHNOLOGY



THE ELECTRO MECHANICAL SYSTEM REQUIRES THE ENTERPRISE SOFTWARE PROGRAMME AS WELL AS THE KEY

READER



SOFTWARE MAIN SCREEN

The screenshot shows a web browser window with the URL `http://154.0.166.76:8989/Common/Main/Home.aspx`. The browser title is "Key Management SoftWare". The page features a dark sidebar on the left with navigation options: "Main" (highlighted in orange), "Users", "Locks", "Times", "Setting", and "Report". The main content area is titled "User Lock" and includes a search bar, "Export", and "Refresh" buttons. Below this is a table with the following data:

Key No.	User Name	Organization	Activation Time	Expire Time
1	Dave	Edge Line Engineerin	04/11/2017 14:44:00	08/31/2023 14:45:04
2	Verny 2	Edge Line Engineerin	04/11/2017 14:45:34	08/30/2020 14:45:40
5	RJJ Attebury	Edge Line Engineerin	06/05/2017 10:11:00	02/28/2021 10:12:10
15	Ben Mbombela	Edge Line Engineerin	02/18/2019 10:54:00	07/01/2019 10:55:03
17	Sectional Poles	Edge Line Engineerin	08/26/2019 14:59:00	01/31/2020 15:00:10
18	Puk Hasp	Edge Line Engineerin	02/12/2020 14:02:00	08/31/2021 14:02:27
19	Astra Demo	Edge Line Engineerin	02/02/2021 08:59:00	04/30/2021 08:59:59

SOFTWARE USER AND LOCK SCREENS

Users Deleted Users

Edge Line | Search | Add | Edit | Delete | Refresh

No.	Name	Organization	Update Status
1	Dave	Edge Line Engineerin	Update Completed
2	Verny 2	Edge Line Engineerin	Beyond the validity
5	RJJ Attebury	Edge Line Engineerin	Beyond the validity
15	Ben Mbombela	Edge Line Engineerin	Beyond the validity
17	Sectional Poles	Edge Line Engineerin	Beyond the validity
18	Puk Hasp	Edge Line Engineerin	Beyond the validity
19	Astra Demo	Edge Line Engineerin	Beyond the validity

Dave Modify Password

No. Operator

* First Name

* Last Name

Description

Institution

Telephone

Email

Calendar

Start Time

End Time

Validate No Validate

Cancel Save Unbind Make Key

Locks Deleted Locks

Edge Line | Search | Add | Edit | Delete | Refresh

No.	Lock Name	Organization	Update Status
1	CamLock1	Edge Line Engineerin	Update Completed
2	CamLock2	Edge Line Engineerin	Update Completed
3	LHandle	Edge Line Engineerin	Update Completed
4	SwingHandle	Edge Line Engineerin	Update Required
5	EuroProfileDoubleCylinder	Edge Line Engineerin	Update Completed
6	NightLatch	Edge Line Engineerin	Update Completed
7	PukLock	Edge Line Engineerin	Update Completed
8	PadLock40mm	Edge Line Engineerin	Update Completed
9	PadLock55mm	Edge Line Engineerin	Update Completed
10	PadLock45mm	Edge Line Engineerin	Update Completed
11	ABUSPadlockCS	Edge Line Engineerin	Update Completed
12	EskomDemoBox	Edge Line Engineerin	Update Completed
13	CityPower/DemoBox	Edge Line Engineerin	Update Completed
14	SwingLockStand	Edge Line Engineerin	Update Completed
15	IndustrialLockStand	Edge Line Engineerin	Update Completed
16	ZBW	Edge Line Engineerin	Update Completed
17	WallSafe	Edge Line Engineerin	Update Completed
19	ABUS83WPa3	Edge Line Engineerin	Update Completed
20	ABUS83AL45	Edge Line Engineerin	Update Completed

Dave Modify Password

No.

Locks No.

Institution

Description

Lock Type

Cancel Save Make Locks Setting Key

TIMES AND SETTING SCREENS

Time Zone Calendar DST Dave Modify Password

Add Edit Cancel Save

1 all-open 2 Wednesdays

No.	From	To	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holiday	Special	Special2	All
1	00:00	23:59	<input checked="" type="checkbox"/>										
2	00:00	00:00	<input type="checkbox"/>										
3	00:00	00:00	<input type="checkbox"/>										
4	00:00	00:00	<input type="checkbox"/>										
5	00:00	00:00	<input type="checkbox"/>										
6	00:00	00:00	<input type="checkbox"/>										
7	00:00	00:00	<input type="checkbox"/>										
8	00:00	00:00	<input type="checkbox"/>										
9	00:00	00:00	<input type="checkbox"/>										
10	00:00	00:00	<input type="checkbox"/>										
11	00:00	00:00	<input type="checkbox"/>										
12	00:00	00:00	<input type="checkbox"/>										

Authority Remote Authority Dave Modify Password

Edge Lin Key Lock Search

Key Amount Lock Amount

	Dave	Verry 2	RJJ Atterbury	Ben Mtombeni	Sectional Poles	Puk Hagg	Astra Demo
CamLock1	1	1					
CamLock2	1	1					
LHandle	1	1					
SwingHandle	1	1					
EuroProfileD...	1	1					
NightLatch	1	1					
PukLock	1	1					
PadLock40mm	1	1					
PadLock55mm	1	1					
PadLock45mm	1	1					
ABUSPadlockCS	1	1					
EskomDemoBox	1	1					
CityPowerDem...	1	1					
SwingLockSta...	1	1					
IndustrialLo...	1	1					
ZBW	1	1					
WallSafe	1	1					

1 all-open
2 Wednesdays

Apply Timezone
Clear Timezone

Edit Cancel Select
Cancel save

Read Key

Update Make User Key

REPORT AND SETTING SCREENS

Users Locks Key Operator Dave Modify Password

Edge Line Search Export Delete Refresh

User Name	Organization	Event Time	Event Type	Lock Name
Dave	Edge Line Engineerin	09/22/2021 09:07:04	No authority to open	Rissi_lock
Dave	Edge Line Engineerin	09/22/2021 08:30:58	Open Successfully	PukLock
Dave	Edge Line Engineerin	09/22/2021 08:30:58	Open Successfully	PukLock
Dave	Edge Line Engineerin	09/17/2021 12:30:25	Open Successfully	PukLock
Dave	Edge Line Engineerin	09/17/2021 12:30:25	Open Successfully	PukLock
Dave	Edge Line Engineerin	09/17/2021 12:30:22	Open Successfully	CamLock1
Dave	Edge Line Engineerin	09/17/2021 12:30:22	Open Successfully	CamLock1
Astra Demo	Edge Line Engineerin	03/15/2021 16:44:17	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/15/2021 16:41:27	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/15/2021 16:41:07	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/15/2021 16:31:43	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/15/2021 16:31:29	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/15/2021 16:31:08	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:05:24	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:05:24	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:04:31	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:04:31	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:03:23	Open Successfully	Astra_Demo
Astra Demo	Edge Line Engineerin	03/12/2021 11:03:23	Open Successfully	Astra_Demo

http://154.0.166.76:8989/Common/report.aspx | 1 / 105 | 1 - 30 of 3137

Key Tools Phone Tools Export&import Dave Modify Password

Key Tools

Reset Key

Read Key

Manage Keys

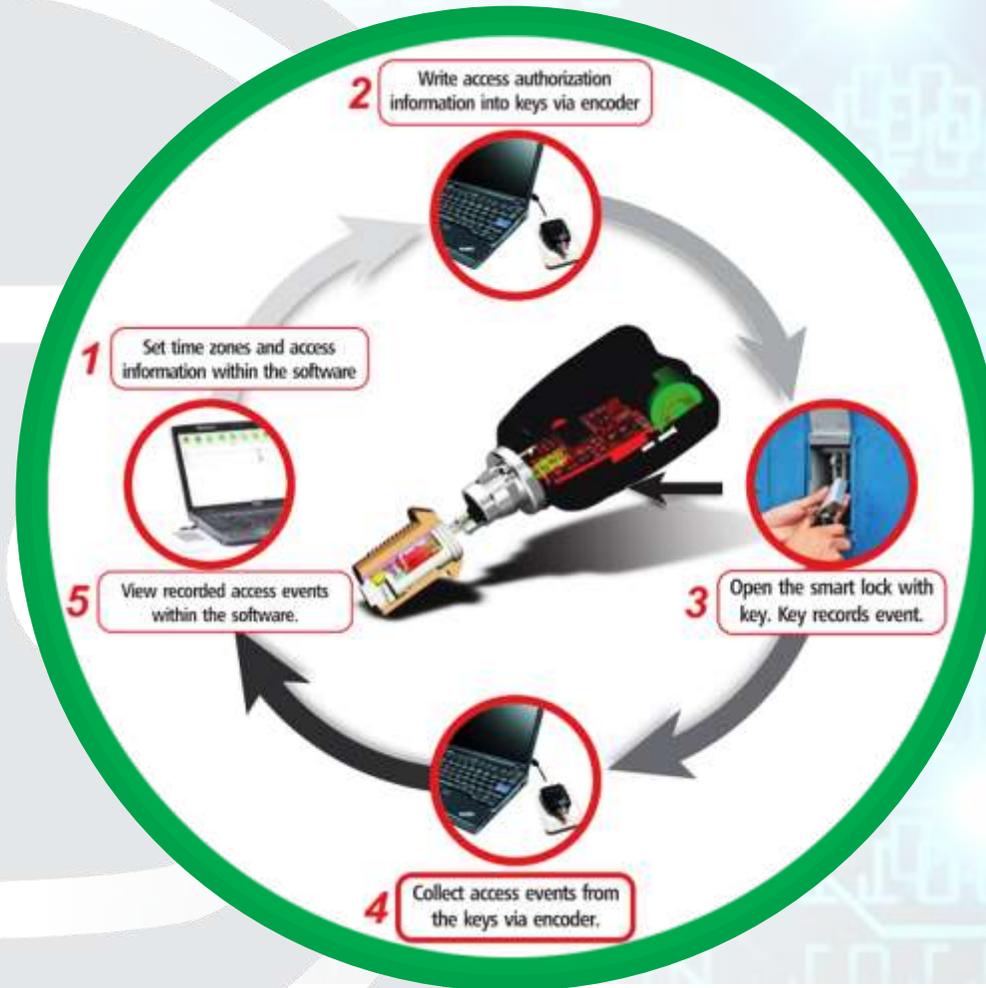
Event Key

Emergency Key

System Code Key

Black List Key

HOW THE SYSTEM OPERATES



HOW THE SMART KEY WORKS

AUTHORIZATION SEQUENCE

- 1) Key is inserted to provide power to the lock
- 2) The lock sends encrypted data to “wake up” the key
- 3) The key answers with an encrypted code to the lock
- 4) The lock returns a confirmation command to the key
- 5) The key sends a (open, get list) command to lock
- 6) The lock opens



THE SMART KEY

ADMINISTRATION

KEY The programming key has a variety of different functions: Setting system code, setting lock ID, transfer blacklist, transfer lost keys, collect reports of cleared lost keys, collect lock events and perform emergency key. The program key (with the exception of performing emergency or construction key) cannot open the lock.

- System Code Key: Sets the lock system code.
- Setting Key: Sets the lock ID number
- Blacklist Key: Sets the lock to blacklist.
- Audit Key: Collects lock events.
- Engineering Key: Opens all locks during installation period, after that, key authorization will be disabled.



PROGRAMING THE SYSTEM CODE USING

ADMINISTRATION KEY



Locks Deleted Locks Dave Modify Password

No.	Lock Name	Organization	Update Status
1	CamLock1	Edge Line Engineerin	Update Completed
2	CamLock2	Edge Line Engineerin	Update Completed
3	LHandle	Edge Line Engineerin	Update Completed
4	SwingHandle	Edge Line Engineerin	Update Required
5	EuroProfileDoubleCylinder	Edge Line Engineerin	Update Completed
6	NightLatch	Edge Line Engineerin	Update Completed
7	PukLock	Edge Line Engineerin	Update Completed
8	PadLock40mm	Edge Line Engineerin	Update Completed
9	PadLock55mm	Edge Line Engineerin	Update Completed
10	PadLock45mm	Edge Line Engineerin	Update Completed
11	ABUSPadlockCS	Edge Line Engineerin	Update Completed
12	EskomDemoBox	Edge Line Engineerin	Update Completed
13	CityPowerDemoBox	Edge Line Engineerin	Update Completed
14	SwingLockStand	Edge Line Engineerin	Update Completed
15	IndustrialLockStand	Edge Line Engineerin	Update Completed
16	ZBW	Edge Line Engineerin	Update Completed
17	WallSafe	Edge Line Engineerin	Update Completed
19	ABUS83WP63	Edge Line Engineerin	Update Completed
20	ABUS83AL45	Edge Line Engineerin	Update Completed

Locks Na...
Institution Edge Line Engr
Description
Lock Type
Cancel Save
Make Locks Setting Key

THE SMART KEY

USER KEY



With its integrated battery, the user key provides power to the lock and is able to lock/unlock the door depending on the level of authorisation. It is configured by software, and collects the events from locking / unlocking the door.

- Stores opening permissions which were authorised via the encoder and software. These include lock authority and time frames
- Calendar and time zone information can be stored within the user key.
- Stores records, such as attempts to open specific locks and the opening times

PROGRAMING THE USER KEY



Users Deleted Users

No.	Name	Organization	Update Status
1	Dave	Edge Line Engineers	Update Completed
2	Verny 2	Edge Line Engineers	Beyond the validity
3	RJJ Abubury	Edge Line Engineers	Beyond the validity
15	Ban Mboneni	Edge Line Engineers	Beyond the validity
17	Sacksonal Poles	Edge Line Engineers	Beyond the validity
18	Pak Hoop	Edge Line Engineers	Beyond the validity
19	Asha Demo	Edge Line Engineers	Beyond the validity

Form fields: No., First Name, Last Name, Description, Institution, Telephone, Email, Calendar, Start Time, End Time, Validate. Buttons: Cancel, Save, Update, Next Exp.

SMART LOCK SYSTEM – ONE KEY OPENS DIFFERENT TYPES OF LOCKS



PUK
LOCK



CAM LOCK



PADLOCK



SWING
HANDLE

THE FUNCTIONALITY OF THE FIELD SERVICE UNIT (FSU) OPENING AND MONITORING SYSTEM

Added to our range is the FSU controller which is integrated into the Rayonics locking and

Monitoring Functions and

- Door position (open/closed)
- Audible alarms for illegal operation/tamper conditions
- Mains Power Failure (all three phases)
- High Temperature
- Low Battery / Battery Voltage
- Vibration Monitor
- GPS tracking available as an option

FSU Reporting

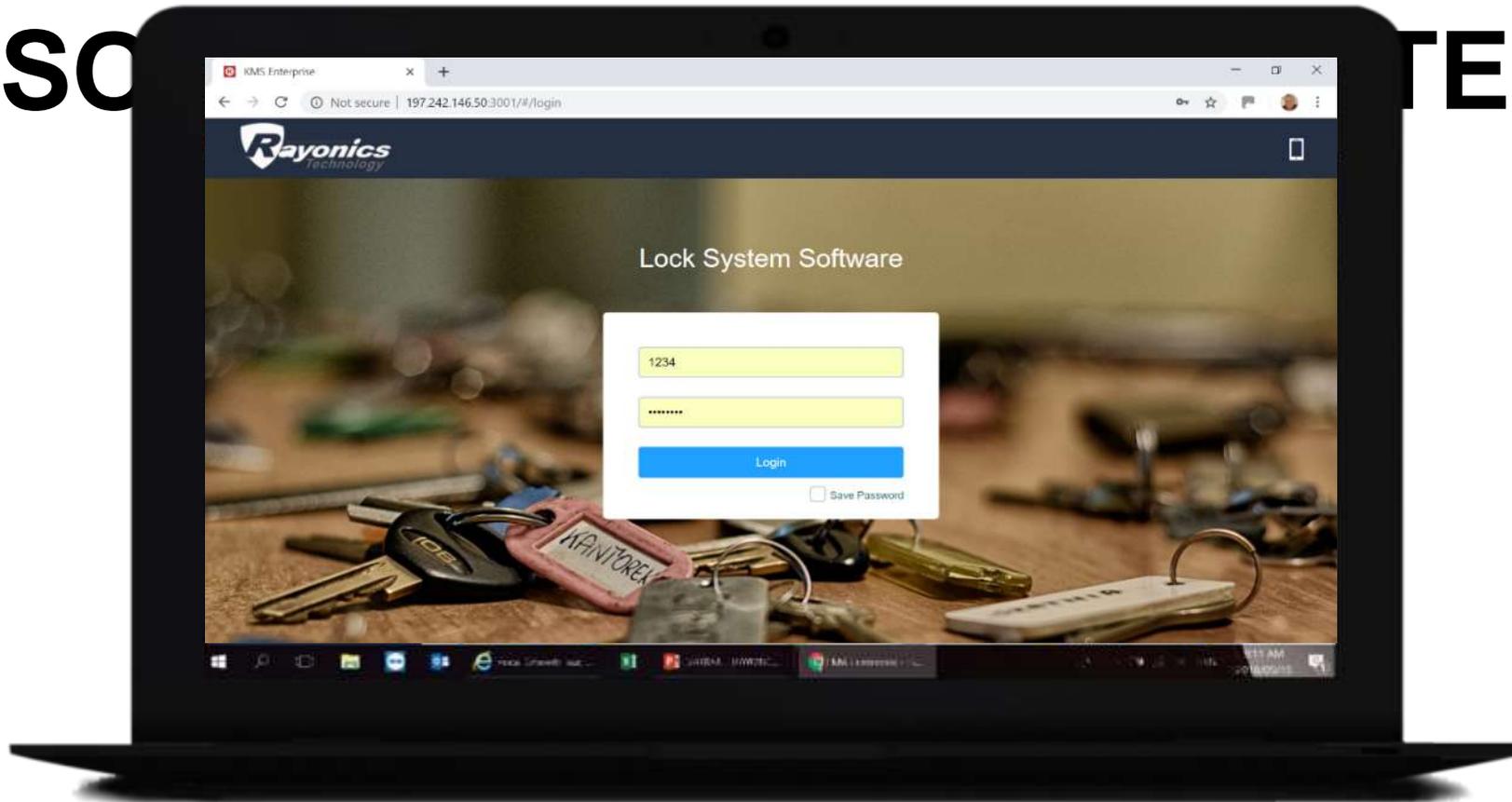
- Daily communication LOG
- Access card configuration reports
- Access reports
- Alarm reports
- Status data
- User login reports

FSU Additional Features

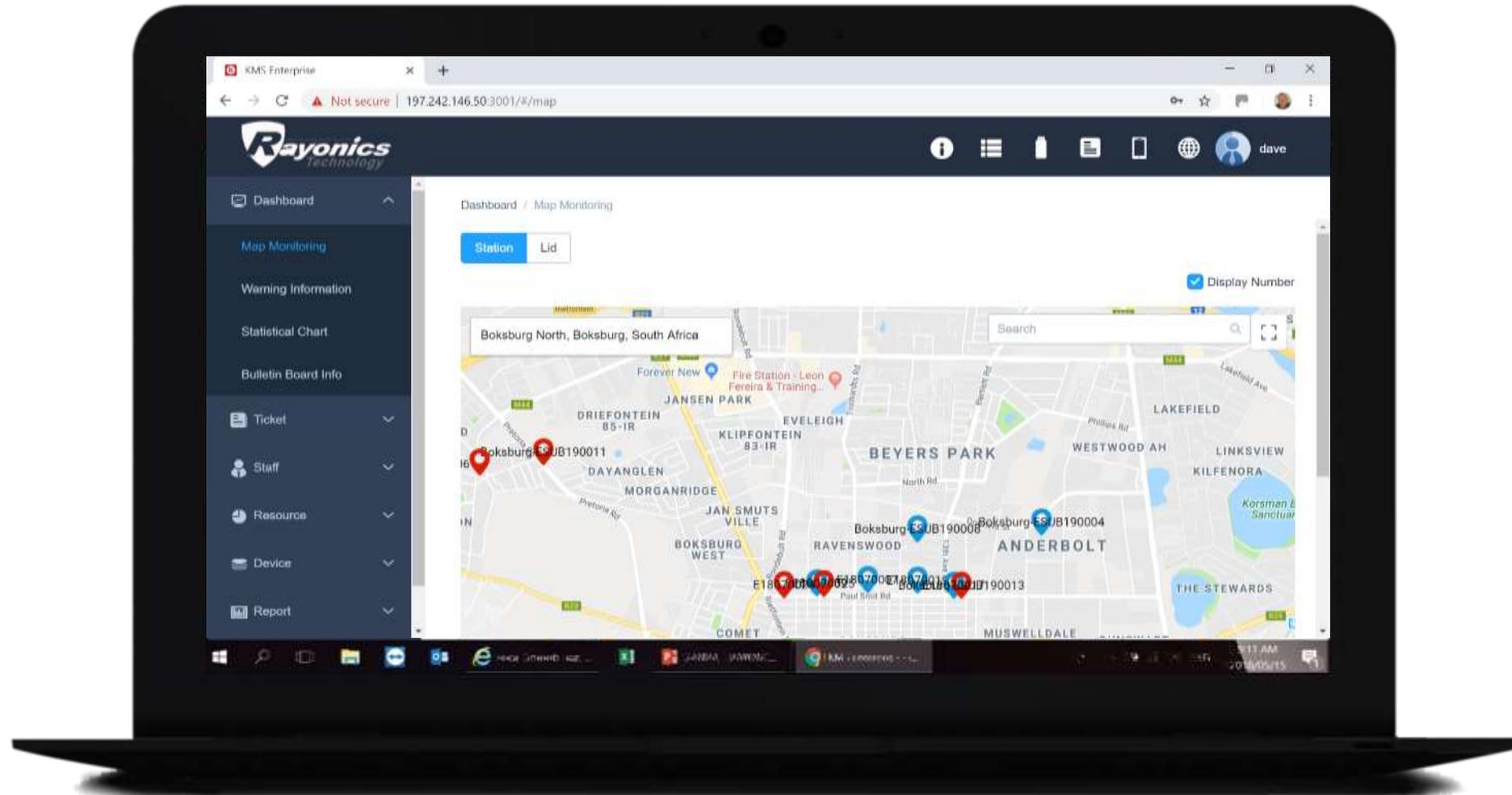
- The operator is able to open the unit via the smart device app software on any smart device, phone or tablet



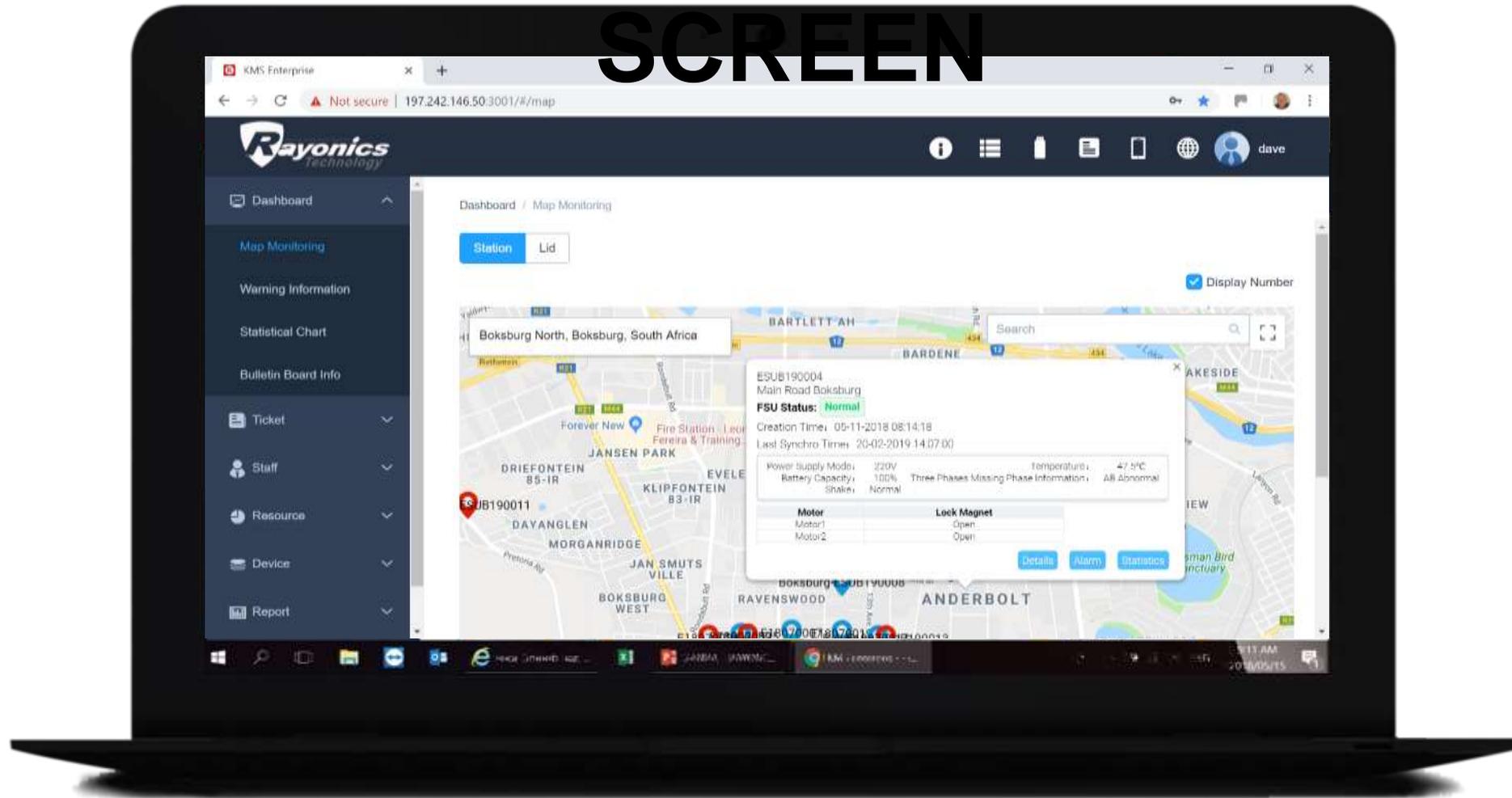
KMS ENTERPRISE VERSION TWO - LOCKING AND ACCESS CONTROL SOFTWARE



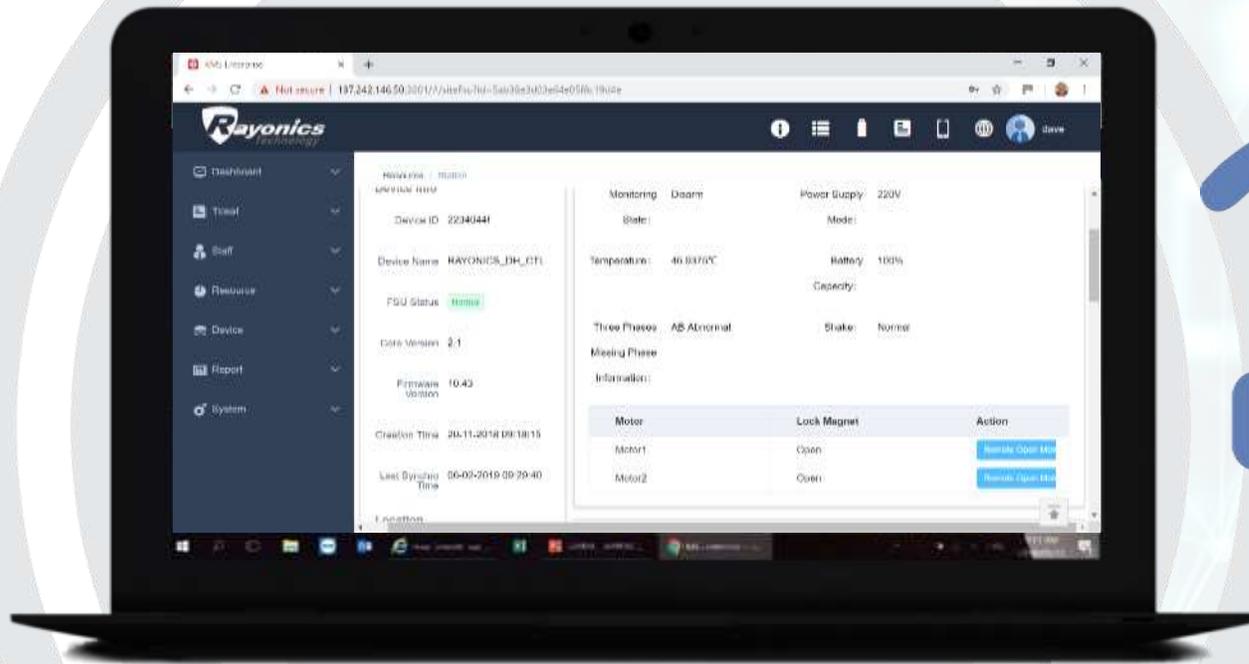
HOME PAGE OF THE KMS SOFTWARE



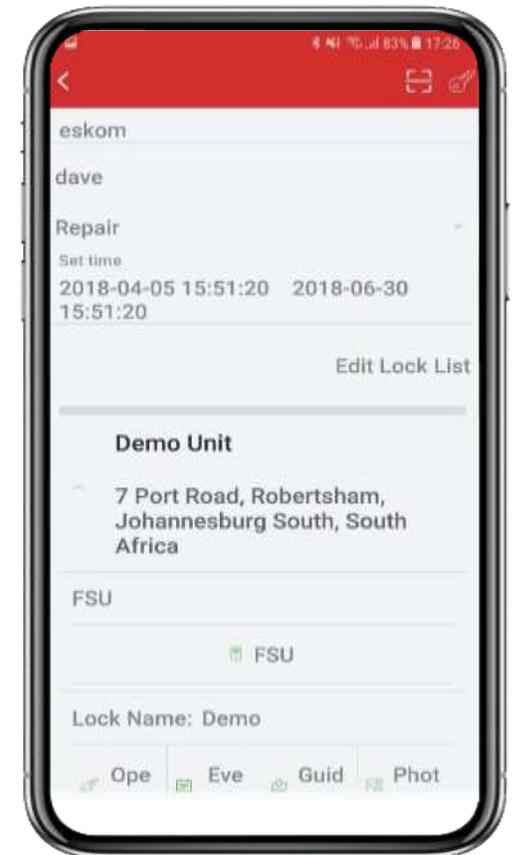
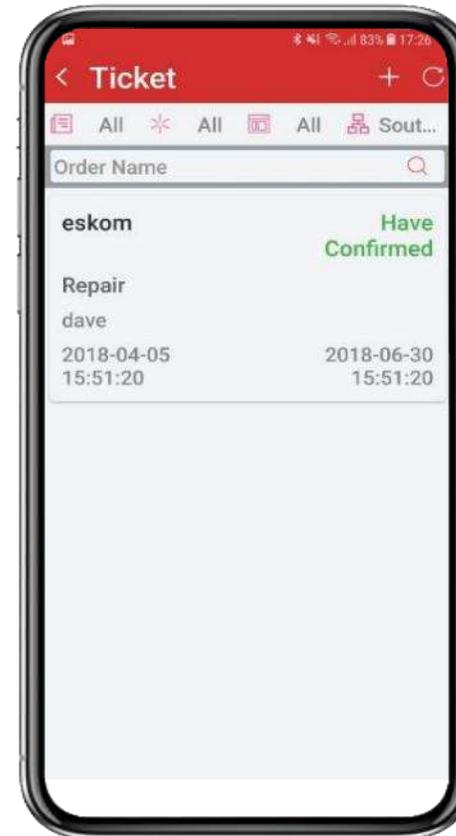
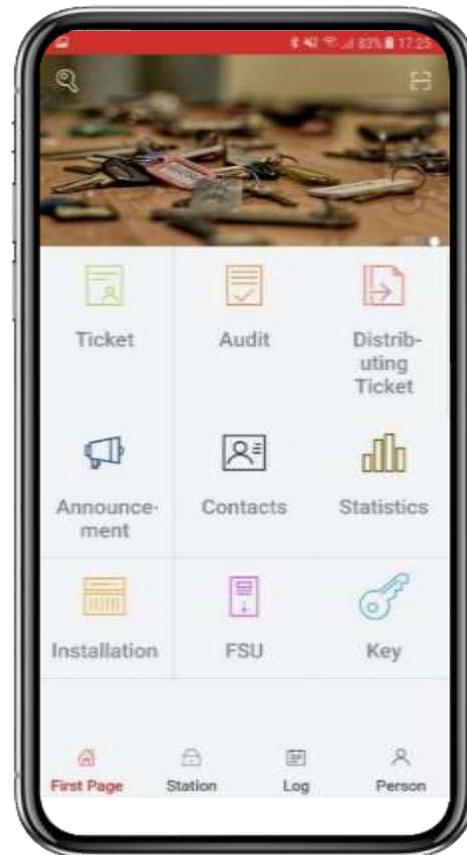
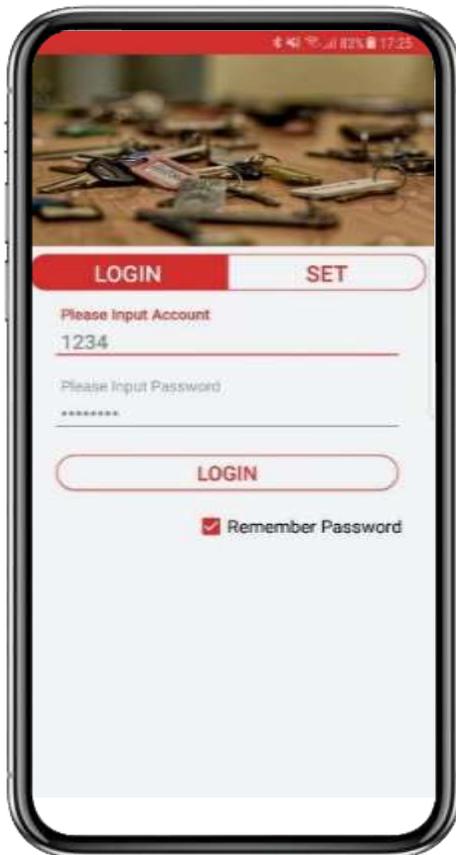
FEEDBACK TO THE COMPUTER REPORT



LAPTOP VIA WI-FI TO THE KIOSK



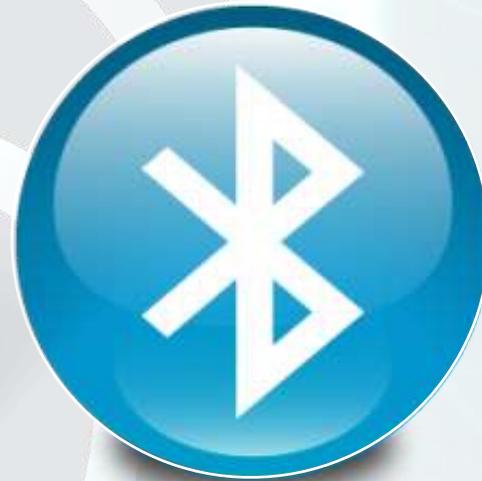
MOBILE PHONE SOFTWARE OPENING ENCLOSURES VIA WI-FI OR BLUETOOTH



OPENING - PHONE Wi-Fi TO CONTROLLER



OPENING - PHONE BLUETOOTH TO CONTROLLER



THE SMART KEY

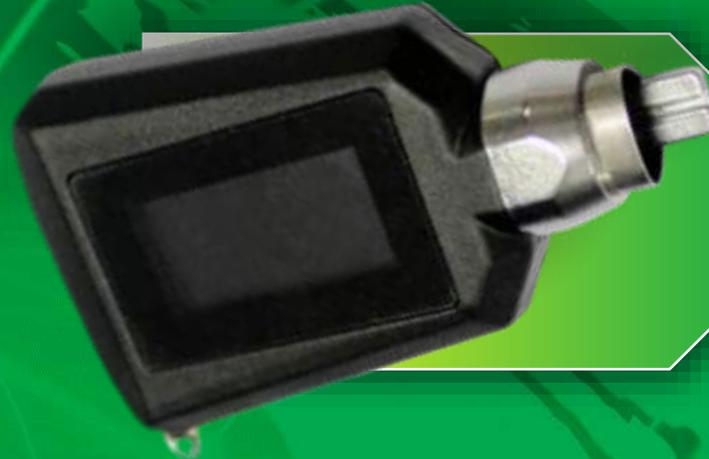
BLUETOOTH KEY



Bluetooth 4.0 integrated. The Bluetooth key can remotely communicate with server and monitors and stores events. This key is suitable for outdoor use.

- Accepts opening permissions from the mobile phone application which were authorised via the software. These include lock authority and time frames
- Calendar and time zone information are transferred to the app for record and audit purposes
- Can you be used for single or multiple entry

SMART LOCK SYSTEM

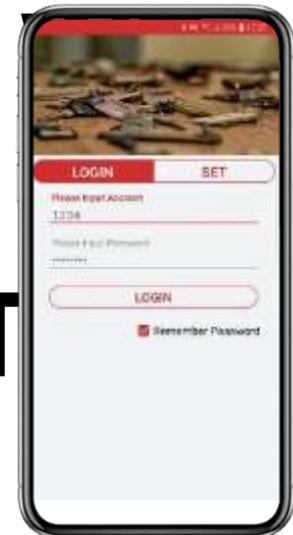


Communication via Bluetooth Management and operation

IF ALL COMMUNICATIONS FAIL YOU CAN OPEN THE KIOSK WITH THE EMERGENCY ELECTRO MECHANICAL KEY



IN CONCLUSION, ITS BEEN AN EXCITING JOURNEY INTRODUCING THE ELECTRO MECHANICAL LOCKING AND ELECTRONIC MONITORING PLATFORM TO THE INDUSTRY. IT'S INCREDIBLE HOW WE HAVE



**WHO KNOWS WHAT THE
FUTURE HOLDS ???**



**THIS CONCLUDES MY PRESENTATION
AND I WOULD LIKE TO THANK YOU FOR
YOUR TIME**

**DO YOU HAVE ANY
✉ QUESTIONS?**

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www.edgeline.co.za