EDGELINE
ENGINEERING (Pty) Ltd

PROCTECTING YOUR ELECTRICAL NETWORK FROM ILLEGAL CONNECTIONS AND VANDALISM

BY USING SECURE LOCK, KEY & ELECTRONIC SMART LOCKING AND MONITORING SYSTEMS

PRESENTED BY DAVE TURTON

Association of Municipal Electricity Utilities (Southern Africa)
Est 1915
AMEU

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Solutions that Count

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 Rober Johannesburg South. At Edge Line we strive to be the industry leader within ou field,
deliver extraordinary value to our customers, ensure service excellence, and build long-term and enduring relationships with our clients.

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EDGELINE ENGINEERING (Pty) Ltd

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

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EDGELINE ENGINEERING (Pty) Ltd

OUR MANUFACTURING PROCESS

Laser Cutting

Bending

Fabrication

Powder Coating

Door Seals

Final Assembly

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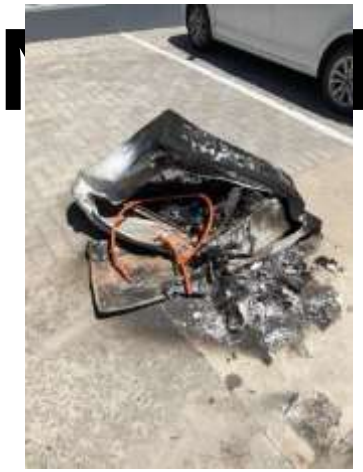
TYPICAL PROBLEMS WE HAVE



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EDGELINE ENGINEERING (Pty) Ltd

SOLUTIONS WE OFFER

BEFORE

AFTER

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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 ons and to minimise vandalism.

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INTRODUCING THE ELECTRO MECHANICAL TECHNOLOGY

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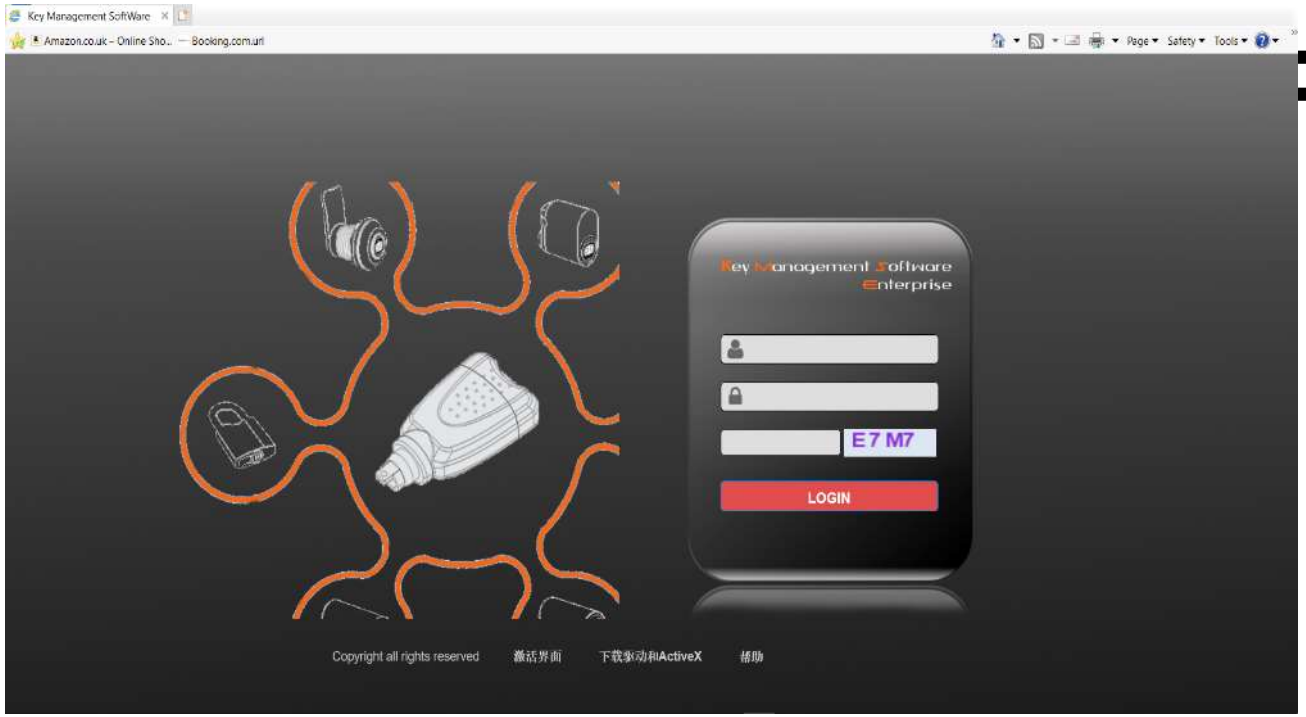
THE ELECTRO MECHANICAL SYSTEM REQUIRES THE ENTERPRISE SOFTWARE PROGRAMME AS WELL AS THE KEY READER



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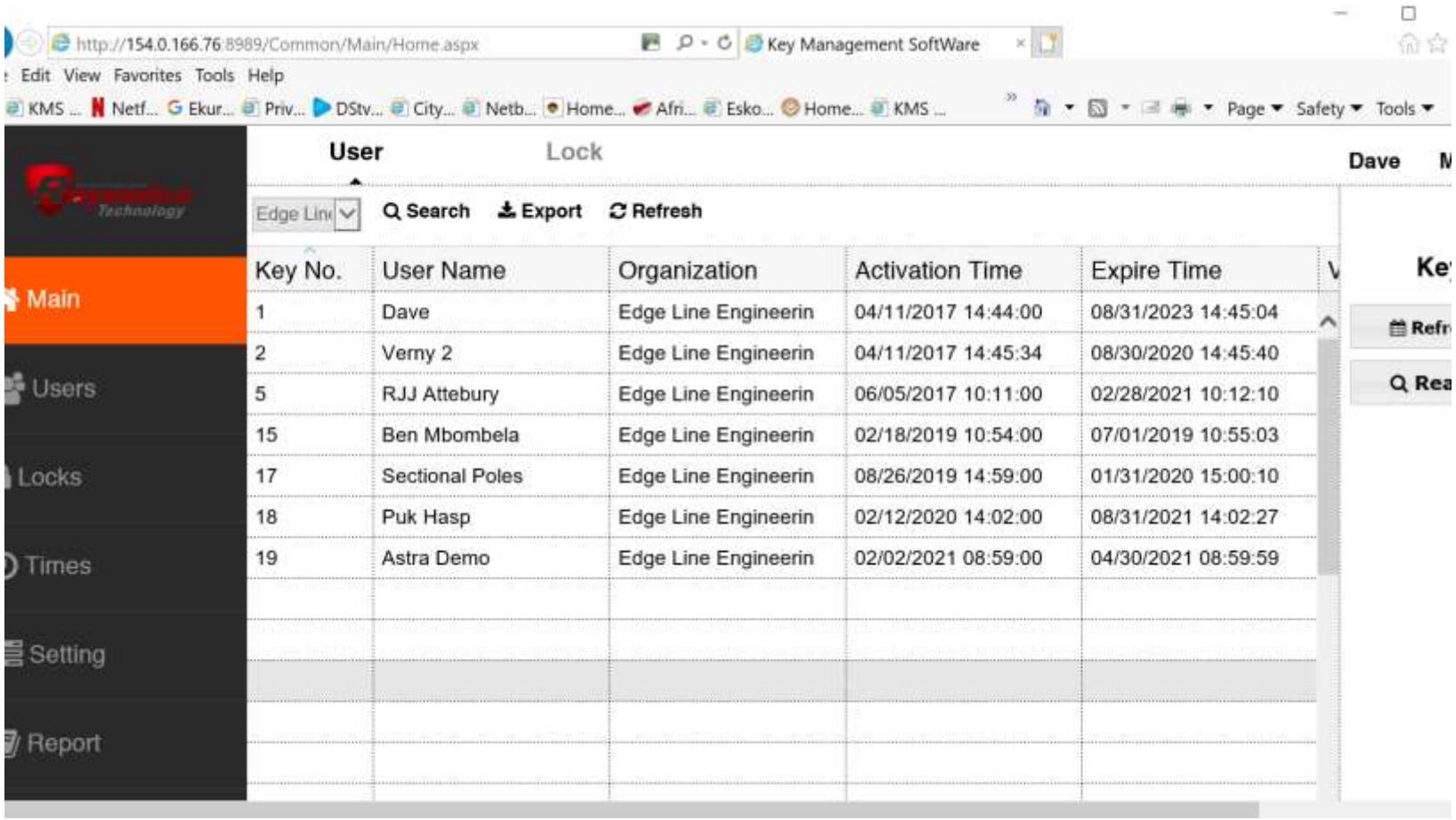
SOFTWARE MAIN SCREEN



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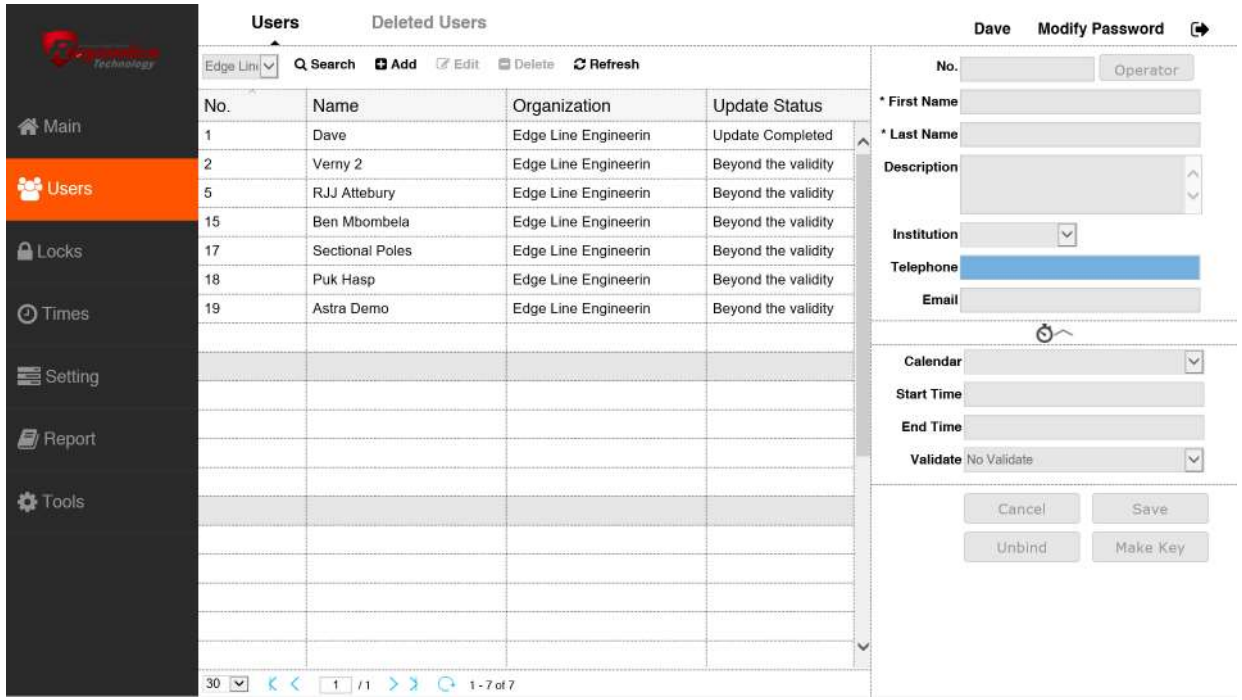
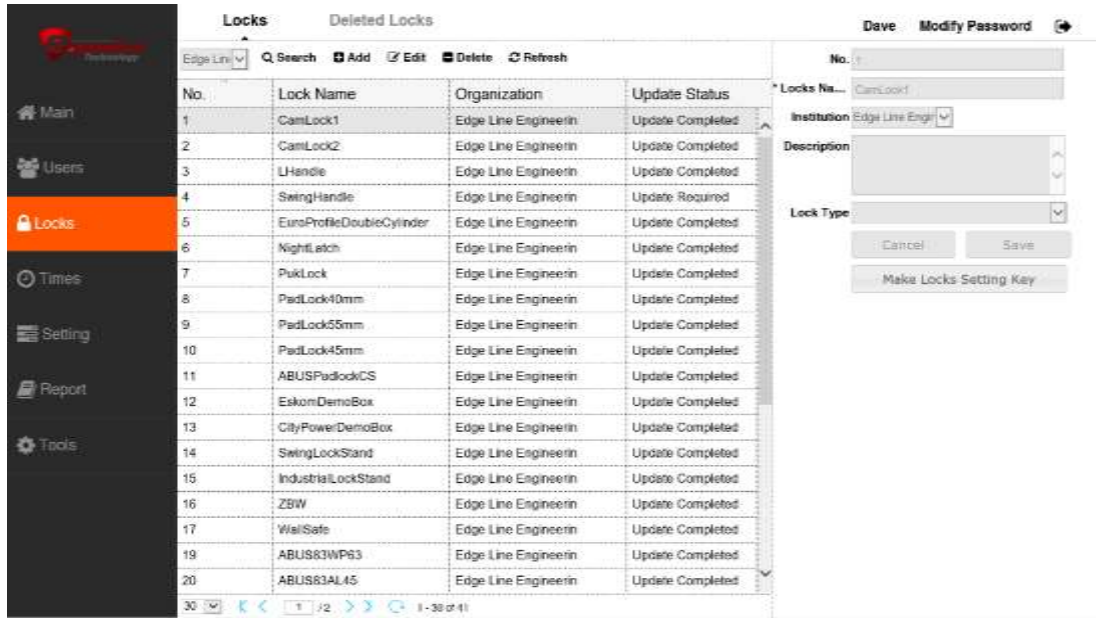
SOFTWARE USER AND LOCK SCREENS





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TIMES AND SETTING SCREENS

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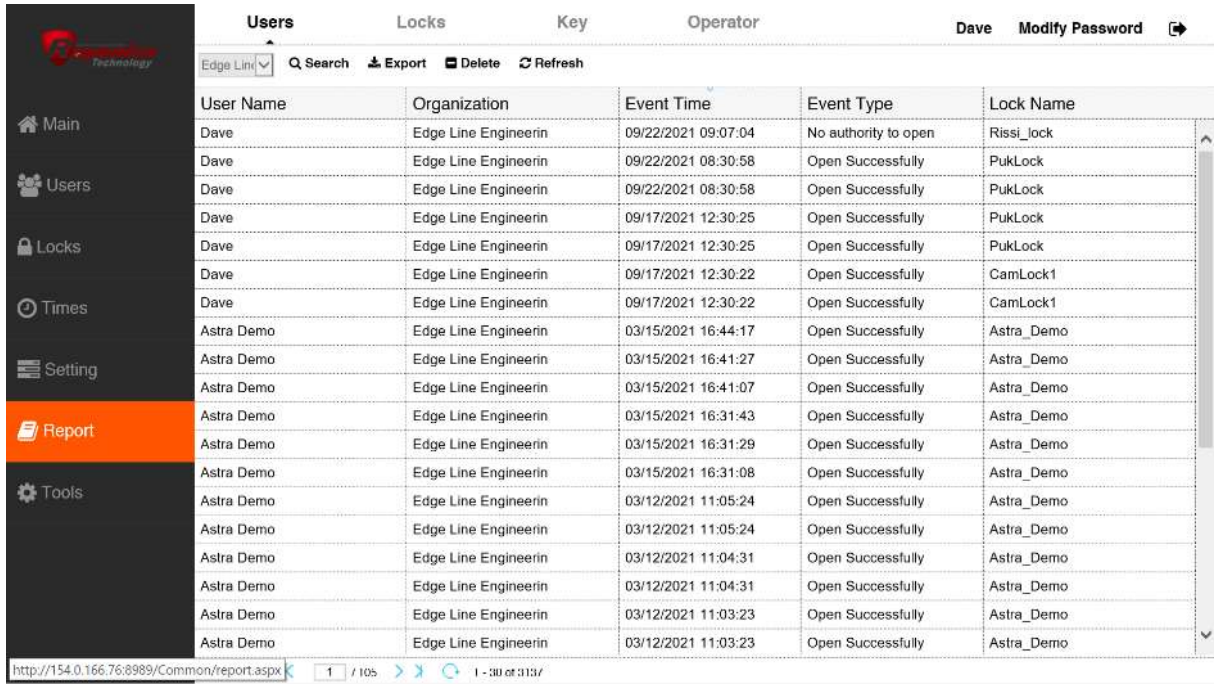
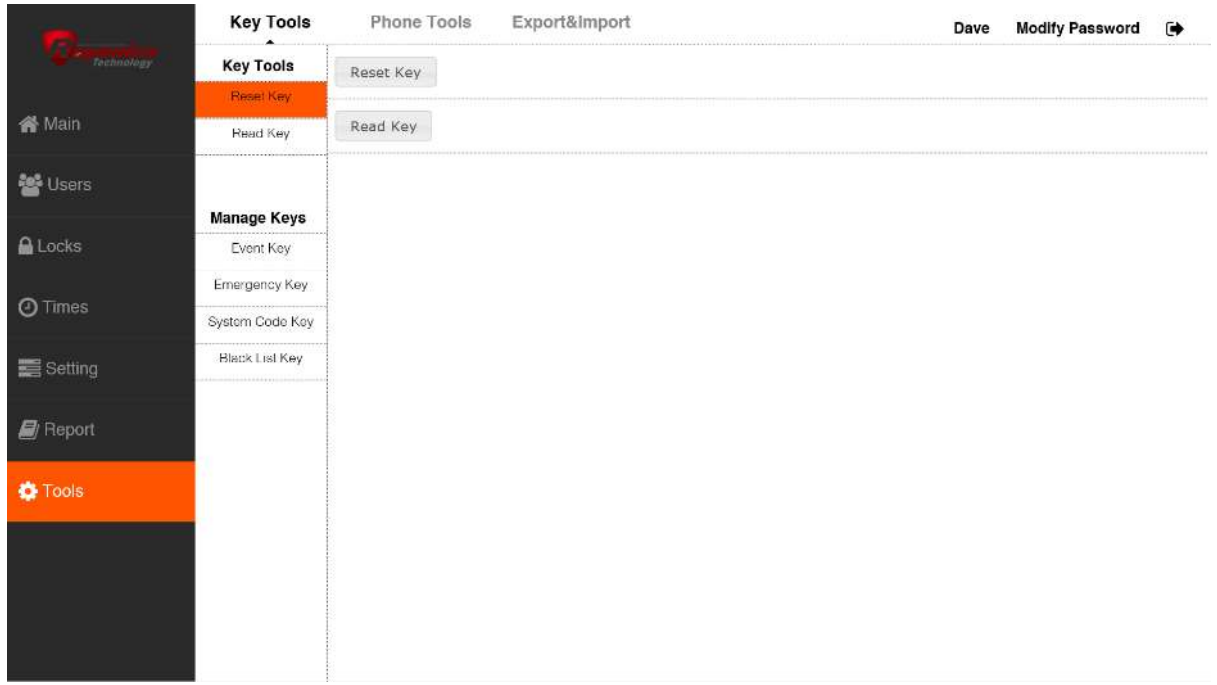
REPORT AND SETTING SCREENS





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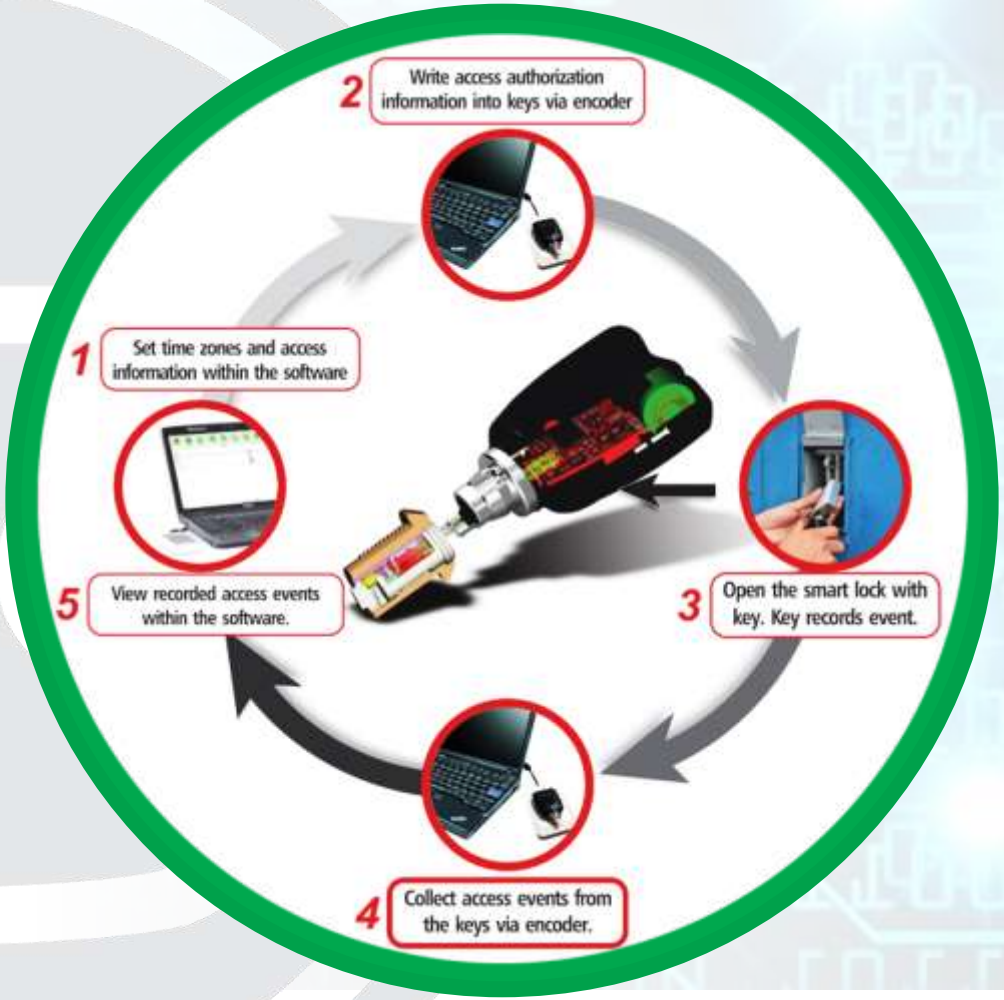
HOW THE SYSTEM OPERATES



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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

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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.

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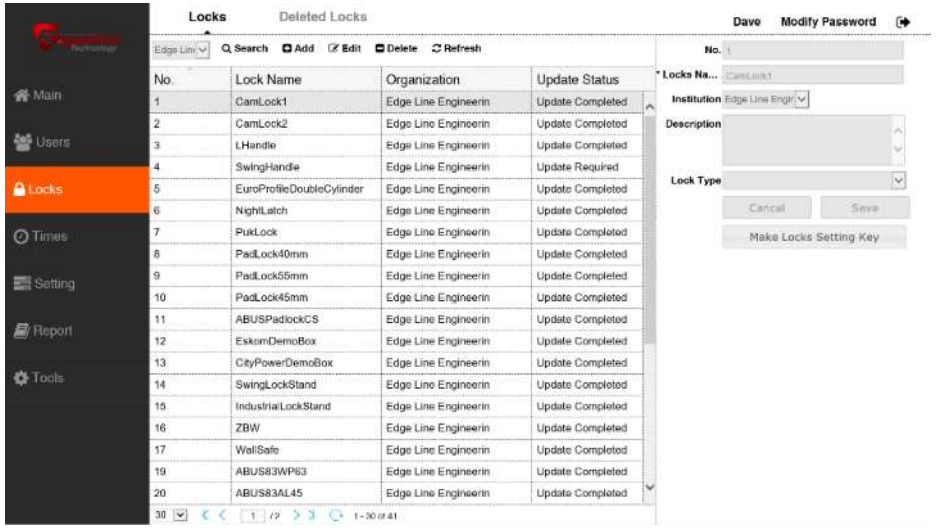
PROGRAMING THE SYSTEM CODE USING THE ADMINISTRATION KEY



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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

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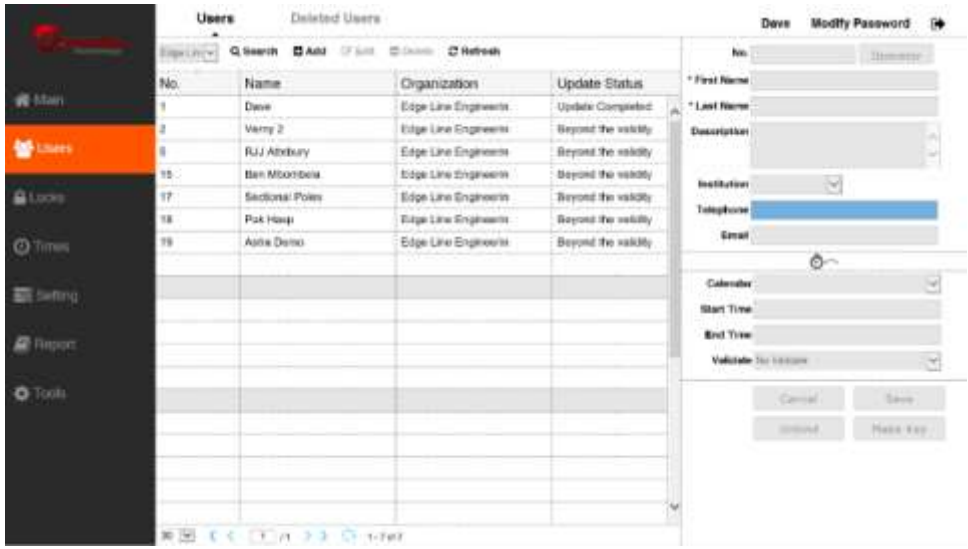
PROGRAMING THE

USER KEY



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Rayonics Technology S.A.

SMART LOCK SYSTEM – ONE KEY OPENS DIFFERENT TYPES OF LOCKS

PUK LOCK

CAM LOCK

PADLOCK

SWING HANDLE

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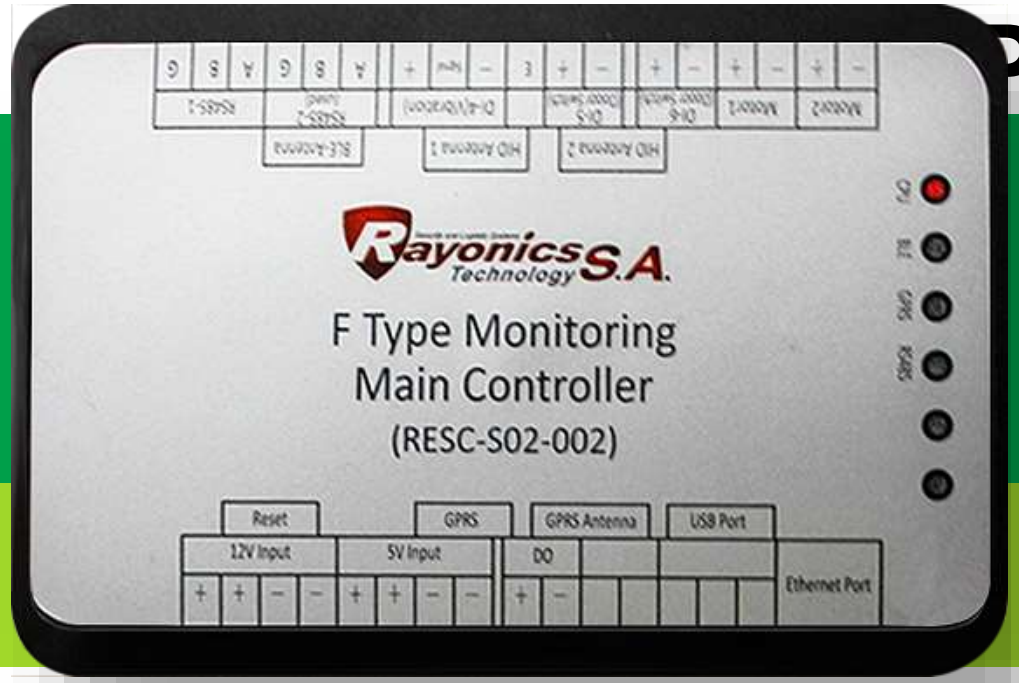
INTRODUCING THE FIELD SERVICE UNIT(FSU) FOR OPENING AND MONITORING CONTROLLER DRIVEN BY THE RAYONICS PRISE SOFTWARE



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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 Events

- 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

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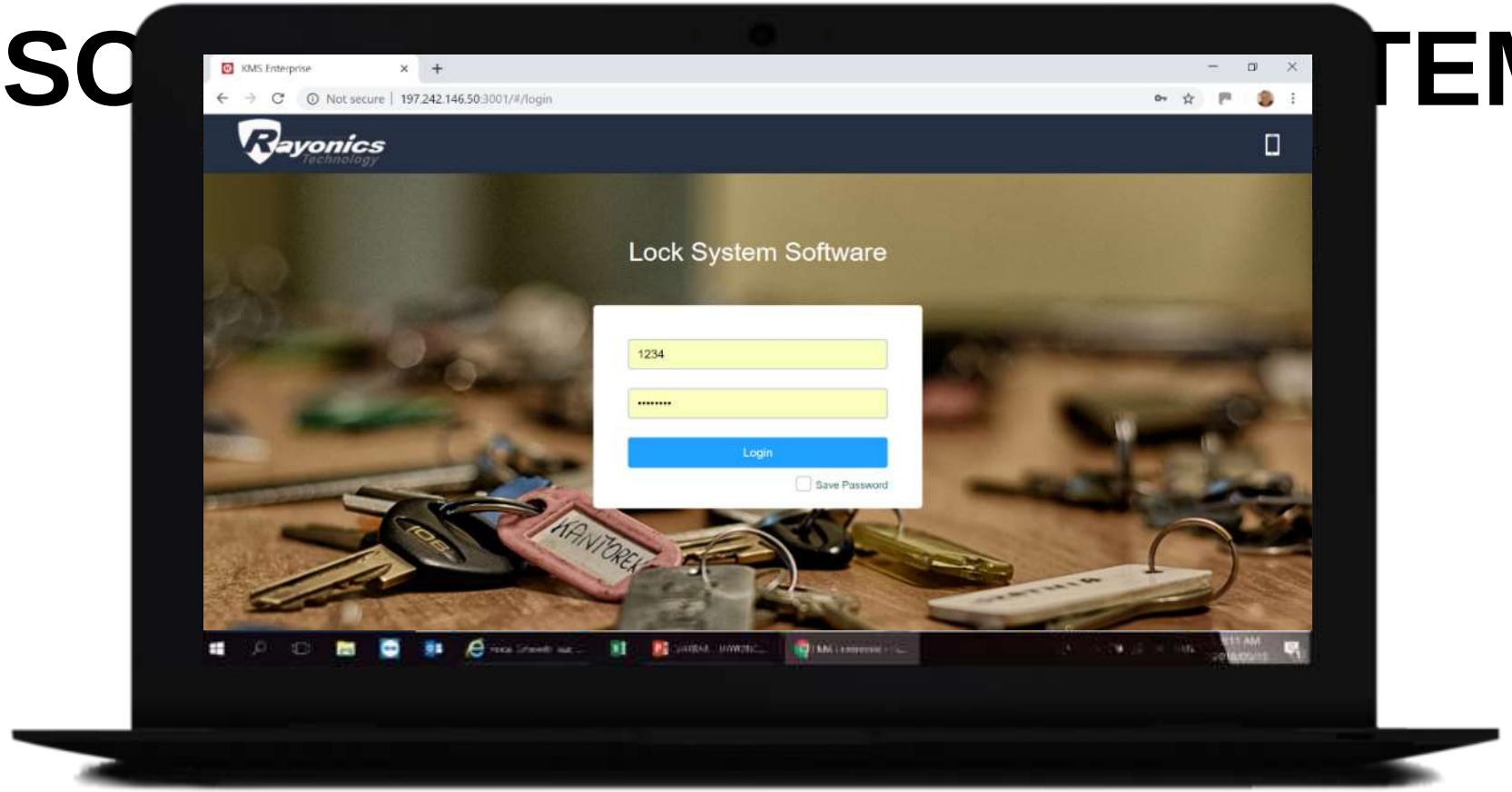
KMS ENTERPRISE VERSION TWO - LOCKING AND ACCESS CONTROL SO TEM



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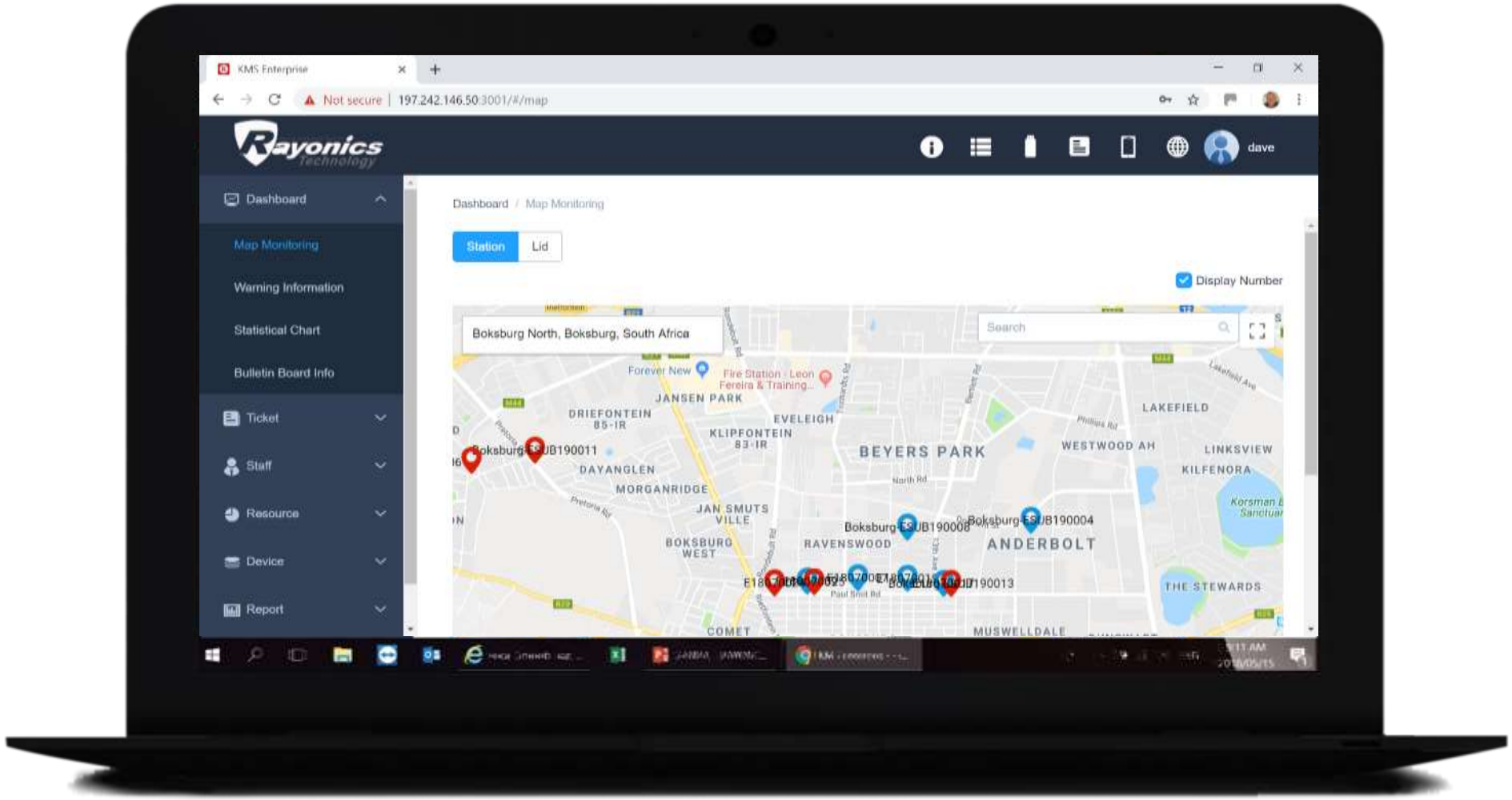
HOME PAGE OF THE KMS SOFTWARE



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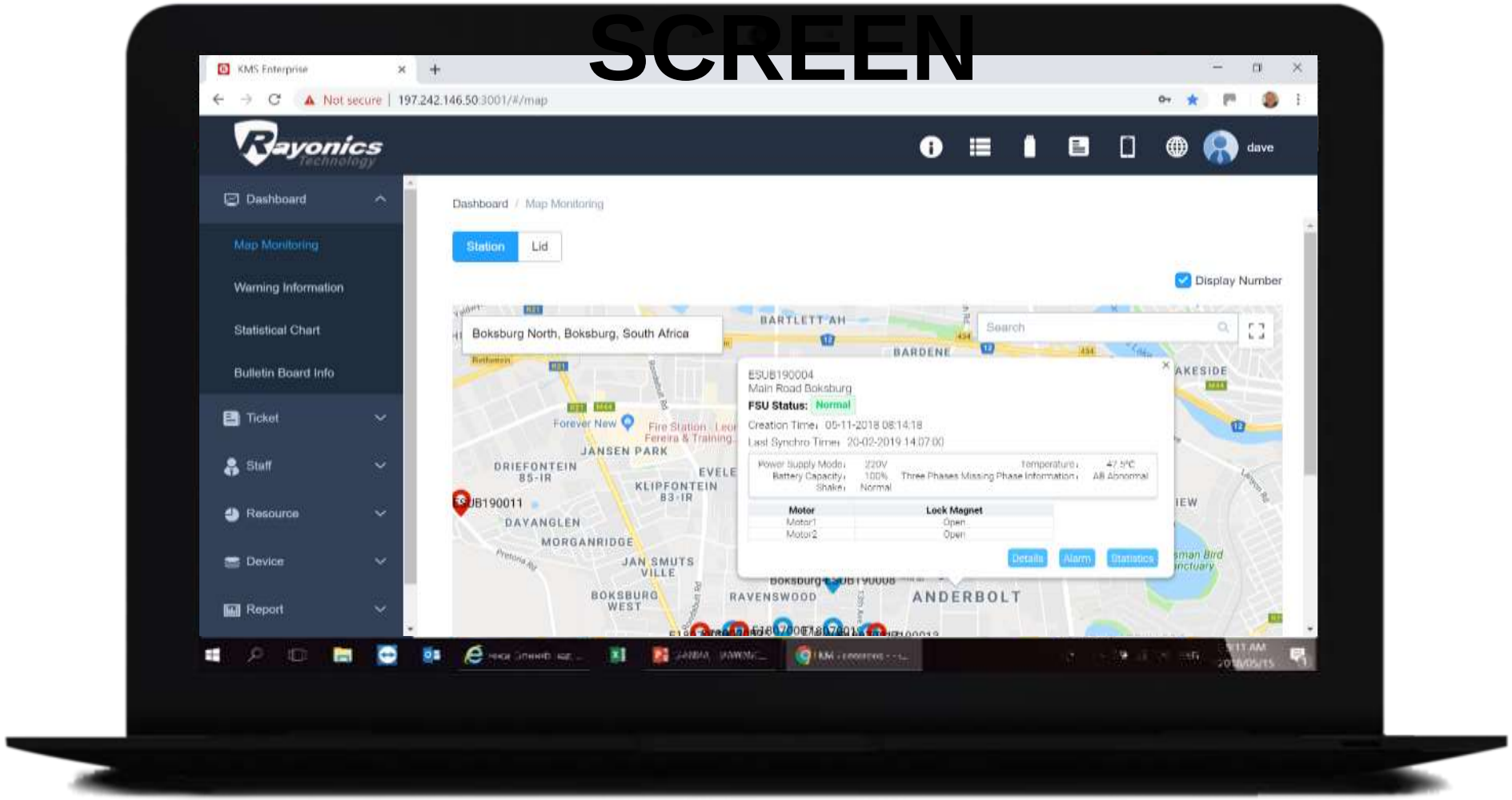
FEEDBACK TO THE COMPUTER REPORT SCREEN



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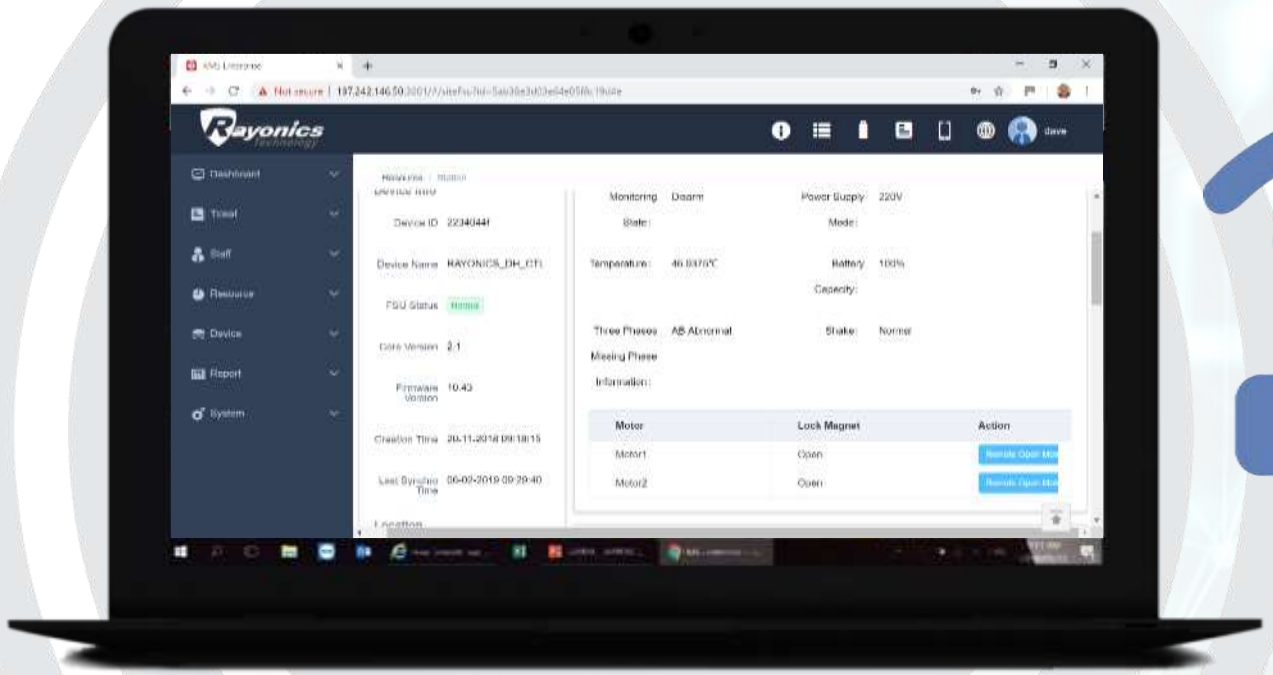
LAPTOP VIA Wi-Fi TO THE KIOSK



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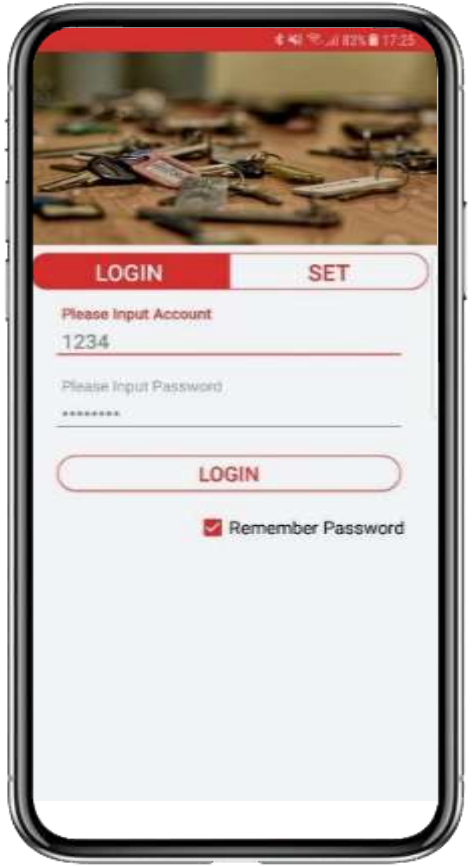
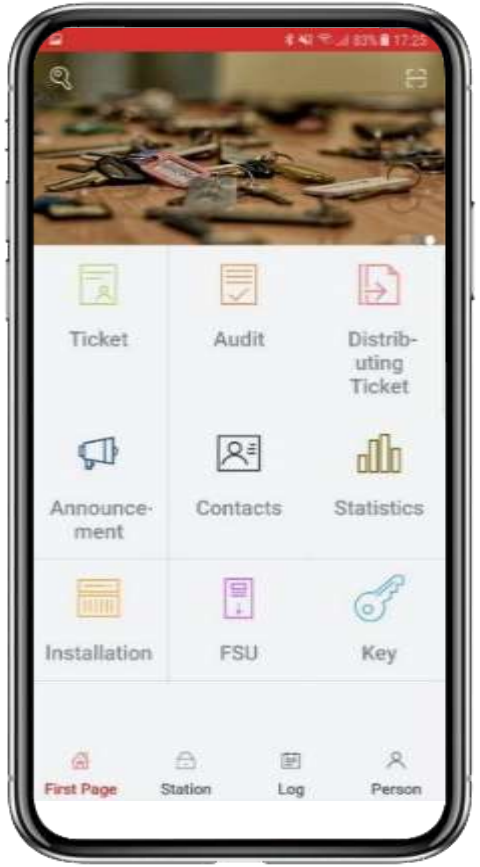
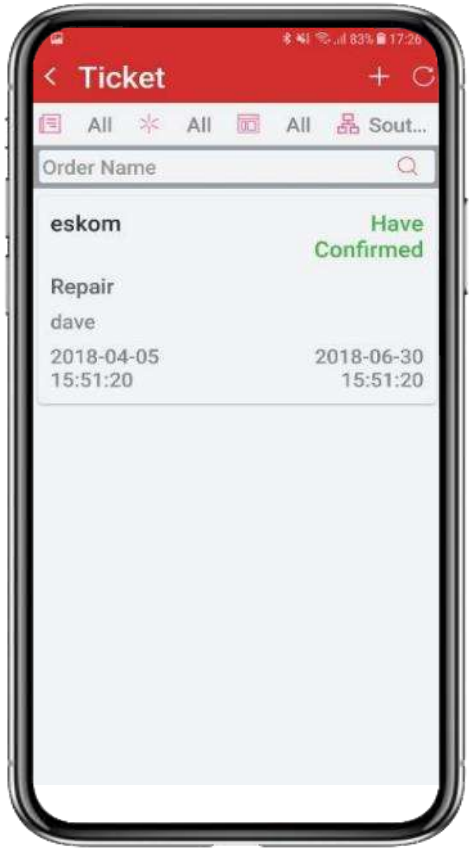
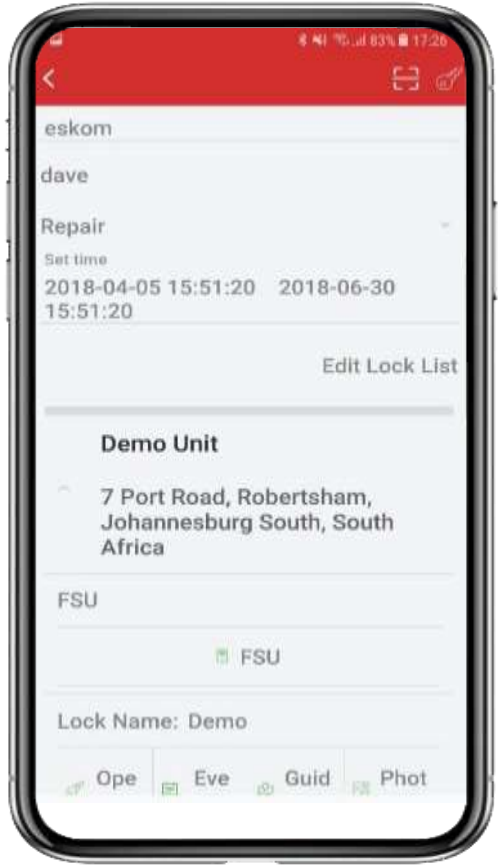
MOBILE PHONE SOFTWARE OPENING ENCLOSURES VIA WI-FI OR BLUETOOTH









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OPENING - PHONE Wi-Fi TO CONTROLLER

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OPENING - PHONE BLUETOOTH TO CONTOLLER

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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

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Rayonics Technology S.A.

SMART LOCK SYSTEM

Communication via Bluetooth
Management and operation

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

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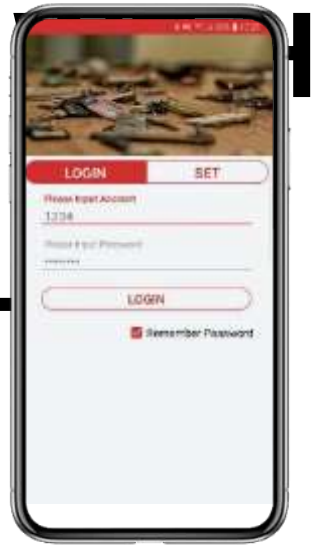
IN CONCLUSION, ITS BEEN AN EXCITING JOURNEY INTRODUCING THE ELECTRO MECHANICAL LOCKING AND ELECTRONIC MONITORING PLATFORM TO THE INDUSTRY. IT'S INCREDIBLE HOW HAVE COME FROM THIS TO



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WHO KNOWS WHAT THE FUTURE HOLDS ???

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EDGELINE ENGINEERING (Pty) Ltd

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

DO YOU HAVE ANY QUESTIONS?

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