

Device/Data Management ROOBUCK

IoT Device/Data Management with Solution Customisation for Underground Coal & Petrochemical

Increase Safety, Improve Efficiencies Through Technology

Roobuck's IoT device management solution is essential for maximising the value provided by your personnel's equipment and Intrinsically Safe cap lamps on site. Intrinsically Safe IoT devices enable critical solution deployments such as Tracking and Digital Kiosks. Over-the-Air updates and mass device configurations ensure your site can rapidly deploy new solutions/network improvements/expansions without the risk of making your IoT devices redundant.

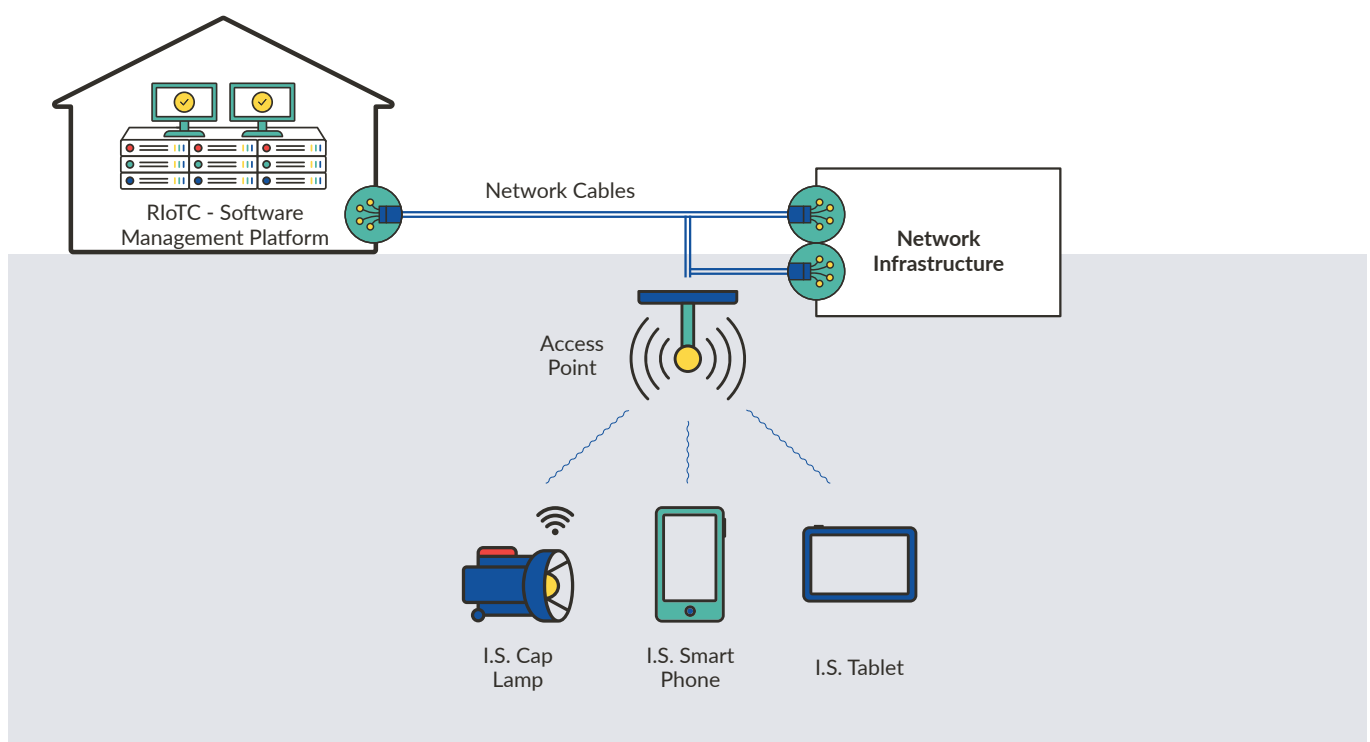
This solution includes our device management platform which includes:

- Over-the-Air updates
- Bulk configuration
- Customisation opportunities
- Integration services

Enabling:

- Big data collection
- Knowledge generation
- The ability to facilitate AI

Roobuck's team of specialist engineers can create custom solution integrations for your site specific projects.



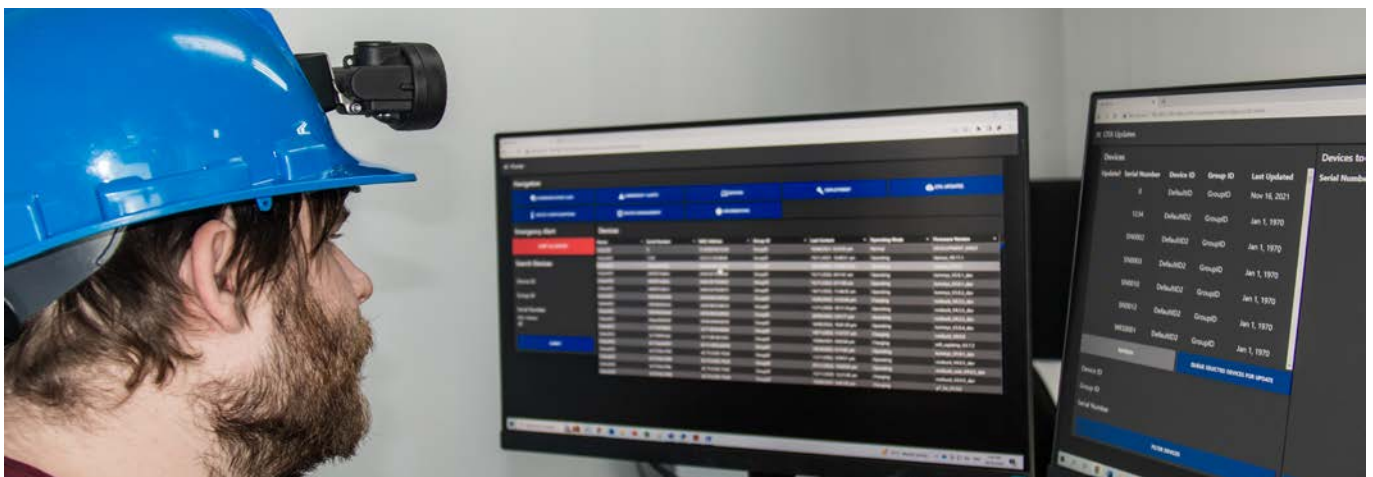
Device/Data Management

RloTC – Device Management Software Platform

The Roobuck Internet of Things Configurator, RloTC, is a platform for managing Roobuck IoT Devices such as Roobuck's WiFi/BLE cap lamps or belt tags. This software runs in an onsite server and can be configured to connect to devices that are registered on your network.

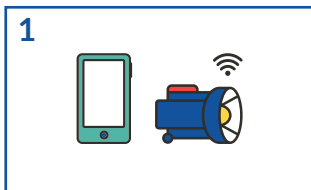
This platform performs the following functions:

- Over-the-Air firmware updates
- Historical data of communication logs from IoT devices
- User device allocation and management. This is for sites with devices permanently assigned to personnel
- Configurations: network, lighting, flashing patterns and operations
- Two-way signalling, including individual paging with historical data of communication logs
- Systems integration via MQTT to Roobuck solutions or external platforms

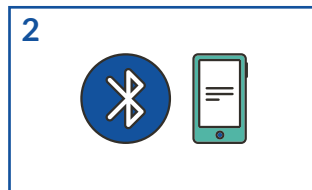


Mobile RloTC

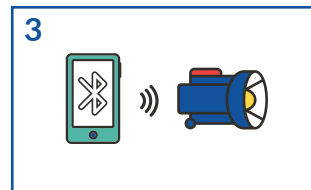
Roobuck's Mobile Configuration App for Android devices allows for immediate diagnosis and configuration of Roobuck IoT devices via Bluetooth pairing.



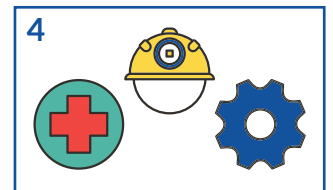
1
A device's internal NFC tag is scanned using an Android device.



2
The BLE MAC address and serial number is read from the tag and displayed on the device.



3
By using BLE, new WiFi and MQTT credentials and settings can be set on the device.



4
Device health checks and user registration details can be retrieved from central database via MQTT. Current device configurations can be read via BLE.

Intrinsically Safe Cordless Cap Lamps



KC4E-WB-Ex

I.S. WiFi/BLE Cordless Cap Lamp



KH4E-WB-Ex

I.S. WiFi/BLE Cordless Cap Lamp

Technology



WiFi 802.11 b/g/n



Bluetooth V4.2, BLE



UHF 860 - 960 MHz RFID can be integrated into tracking, registration & access control systems



13.56 MHz for use with your Kiosk, Digital Tagboard and Inventory solutions



IMU for your movement data collection and personnel safety applications



Compatible with Roobuck solutions or your choice of enterprise tracking software

Roobuck is developing Cap Lamps, Belt Tags and Portable Tags utilising various wireless technologies including LTE, DSRC, UWB and LoRa.

Emergency Management

Using the Roobuck Emergency Management System you can dramatically reduce the time it takes to inform personnel underground to evacuate. Roobuck's I.S. WiFi/BLE cordless cap lamps, that are signed-in using the Digital Kiosk, will respond to emergencies sent from the emergency management system by flashing.

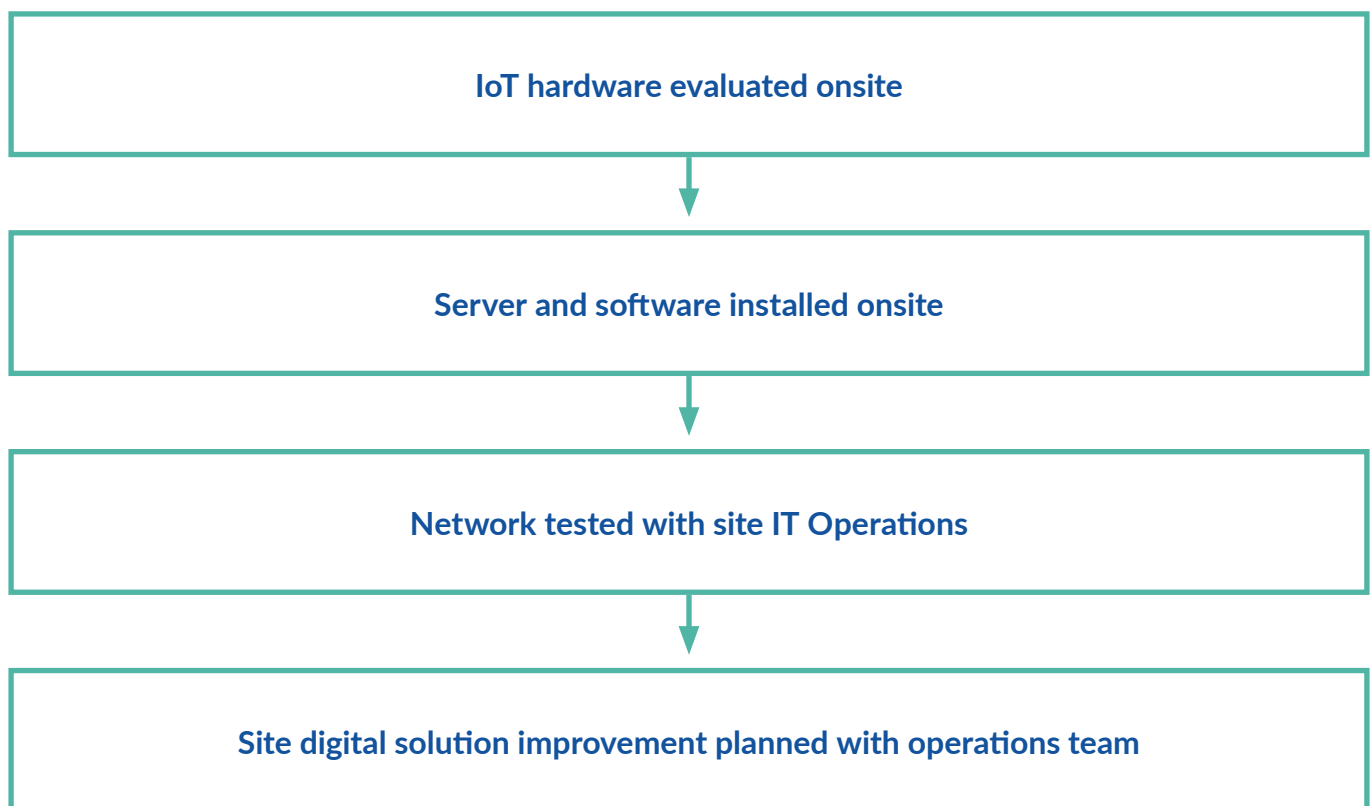
When personnel press the button on their flashing device, they acknowledge receipt of the emergency message. They can also make a Duress Call by holding down the button of their device, prompting the control room to respond and make contact.

Device/Data Management

Solution Deployment Roadmap

Below is a visual depiction of the solution deployment process. Additionally, Roobuck would welcome hearing about your site specific requirements/problems to be solved and how we can apply customisation to this solution to meet your safety and optimisation requirements.

Once this is in operation you can add to this solution to enhance your operation efficiencies which will improve productivity and at the same time ensure the safety of your staff.



Accelerate your mine digitalisation process with our low cost/commitment solutions today. Integrations into enterprise solutions are available, future proofing your investment and maximising your scope of safety and process optimisations.

ROOBUCK

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