

Redefining Construction: Transformed by Digitalization

SmarTone
SOLUTIONS

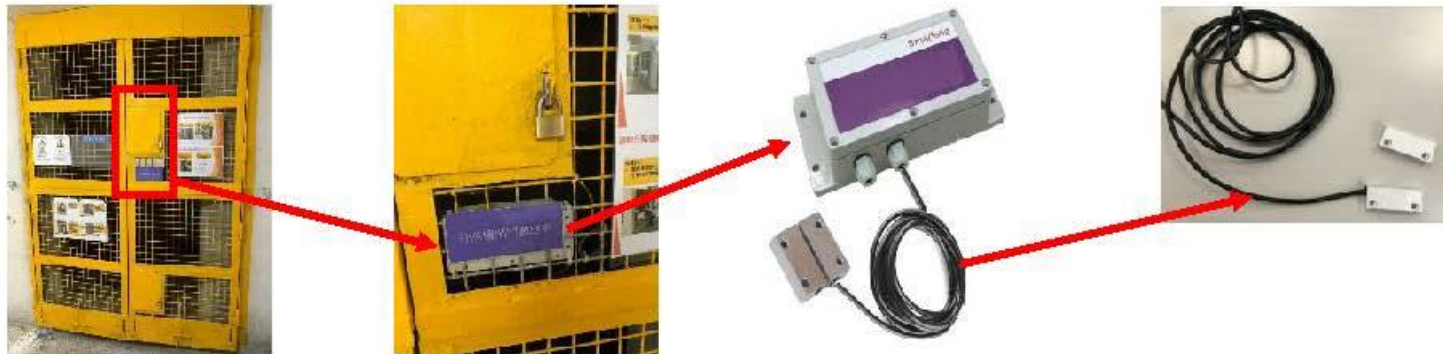
Agenda

1. Safety Alert System for Temporary Lift Shaft Gate
2. Smart Access Control for Lift Shaft (NEW)
3. Smart Padlock (NEW)
4. SmartWork Solution Overview

Safety Alert System for Temporary Lift Shaft Gate

Solution Introduction

- SmarTone Solutions developed the safety Alert System for Temporary Lift Shaft Gate to enhance construction site safety.
- This is an end-to-end work flow solution implemented by mobile-IoT technology together with sensors, web portal and the SmarTeam mobile Apps, it provides additional safety control to mitigate the risk of workers falling from lift shaft.
- Monitor the status of Lift Shaft Opening in a reliable and effective way



Solution Benefits & Highlights

Solution Benefits

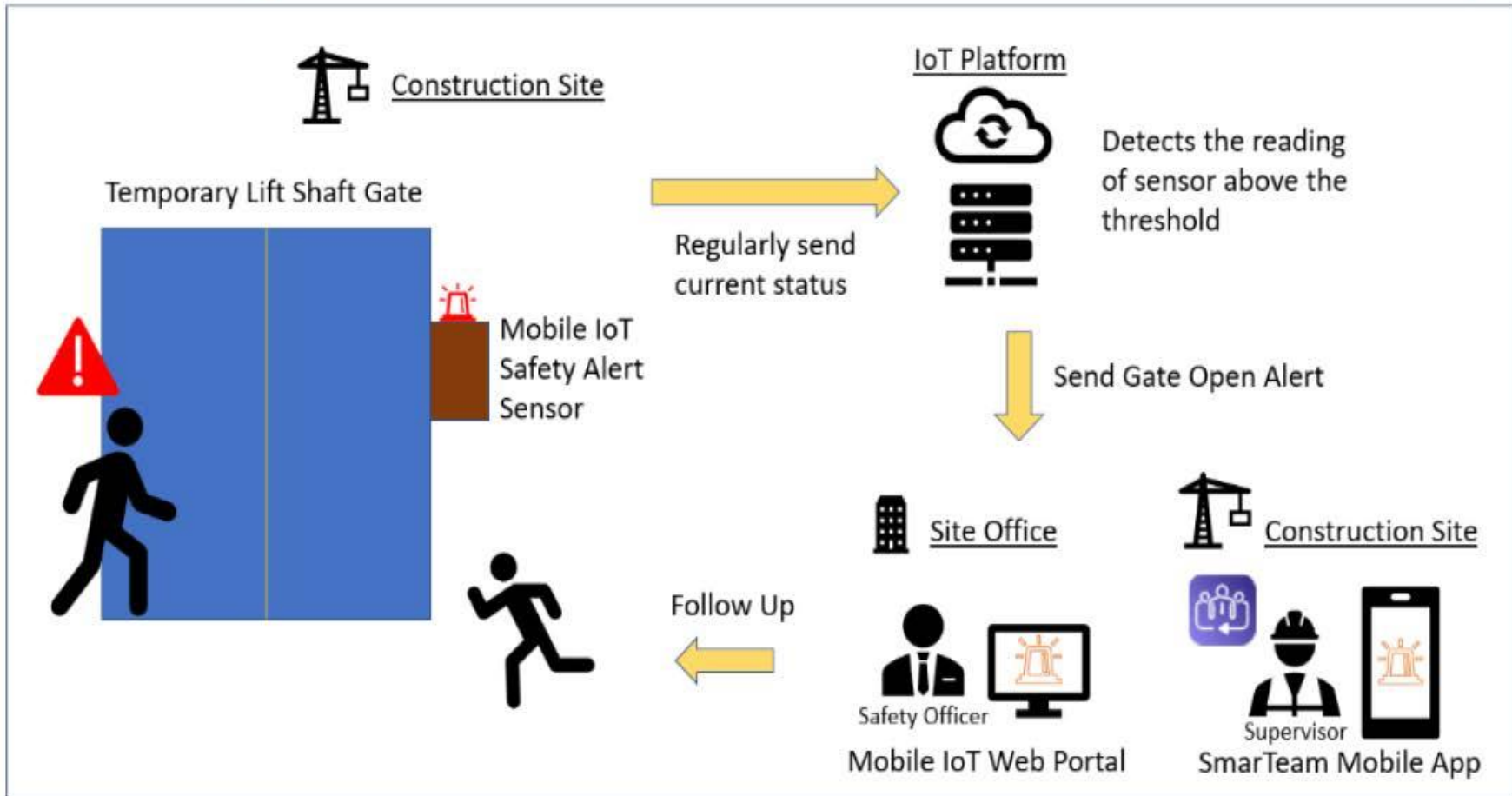
- Less infrastructure dependency/requirement (no power source/cabling is required)
- Easy and fast deployment with low installation cost
- Easy to use and no training required for workers & site owner
- Cost efficiency by leveraging existing mobile infrastructure and easier to extend the solution everywhere
- Intuitive web-based portal enables site owner / control center for monitor sensors status/ receiving alert
- Speed up the resolution time with proactive alerts

Proven Solution with HKCA CSF Successful Applicants

- CITF Pre-approved Solution



How Alert System Works



Services Portal View for back office / control center

The screenshot displays the SmarTone IoT Dashboard. At the top, it shows the SmarTone SOLUTIONS logo, the title 'IoT Dashboard', the date and time '07 Feb, 2020 01:41:16 PM', and a 'Logout' button. Below the header, there is a search bar for 'Serial No, IMEI or Location' and a dropdown menu for 'All Sensors'. A summary bar contains several metrics: 147 Sensors (green), 19 Offline (blue), 8 Low Battery (blue), 1 Weak Signal (blue), 0 Maintenance (blue), 5 Failed Alerts (yellow), and 6 New Alerts (red). Below this is a table with columns for Location, Device Status, Last Update Time, Status, Battery, and Signal Strength. A red box highlights a specific row in the table.

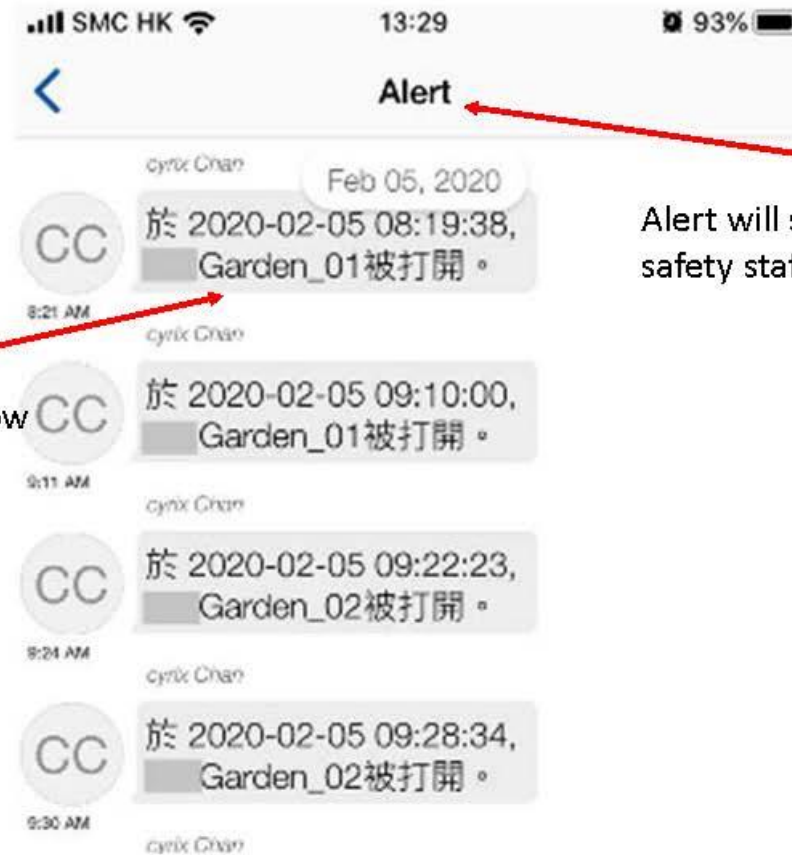
Location	Device Status	Last Update Time	Status	Battery	Signal Strength
	OFFLINE	15 Nov, 2019 11:49:30	Door opened	Low	Medium
	ONLINE	06 Feb, 2020 16:08:35	Door closed	Normal	High
	ONLINE	06 Feb, 2020 15:58:05	Door opened	Normal	High
	ONLINE	06 Feb, 2020 15:58:23	Door opened	Normal	High
	ONLINE	06 Feb, 2020 16:00:26	Door closed	Normal	High
	ONLINE	06 Feb, 2020 16:00:23	Door closed	Normal	High
	ONLINE	06 Feb, 2020 16:06:34	Door closed	Normal	High
	ONLINE	06 Feb, 2020 14:49:24	Door opened	Normal	High
	ONLINE	06 Feb, 2020 14:59:56	Door closed	Normal	High
	ONLINE	06 Feb, 2020 15:56:03	Door closed	Normal	High
	ONLINE	06 Feb, 2020 15:56:07	Door closed	Normal	High
	ONLINE	07 Feb, 2020 10:27:41	Door closed	Normal	High
	ONLINE	06 Feb, 2020 14:55:17	Door opened	Normal	High
	ONLINE	06 Feb, 2020 15:05:10	Door opened	Normal	High

No specific hardware /software for portal access, only Internet connection, browser, portal username and password for access

Search / filter option for easier located specific sensor

Sensor latest status such as Online/offline, last update time, Door open/closed, battery level & Mobile signal strength are easier found

Mobile Apps View for site owner / supervisor



Alert will send to site owner/supervisor/safety staffs proactively

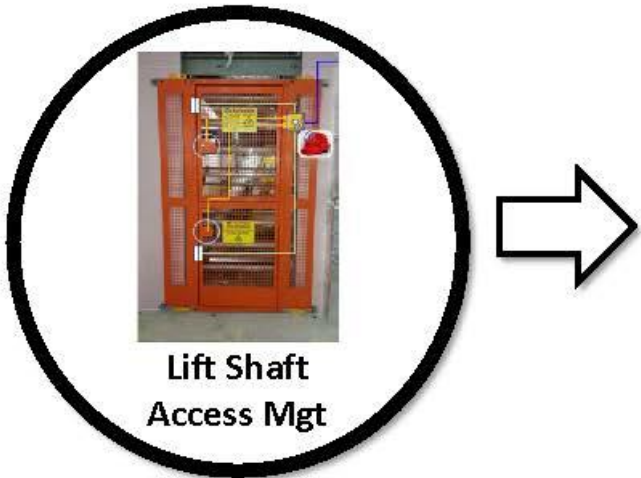
With clear information for easier follow
Such as date, time & sensor name

Use Cases



Smart Access Control for Lift Shaft

Smart Access Control for Lift Shaft



Access controlled by eLock



Unlock with **Registered Smart Helmet** only



Remote lift shaft gate status monitoring



Remote lift shaft occupancy monitoring

Smart Access Control for Lift Shaft

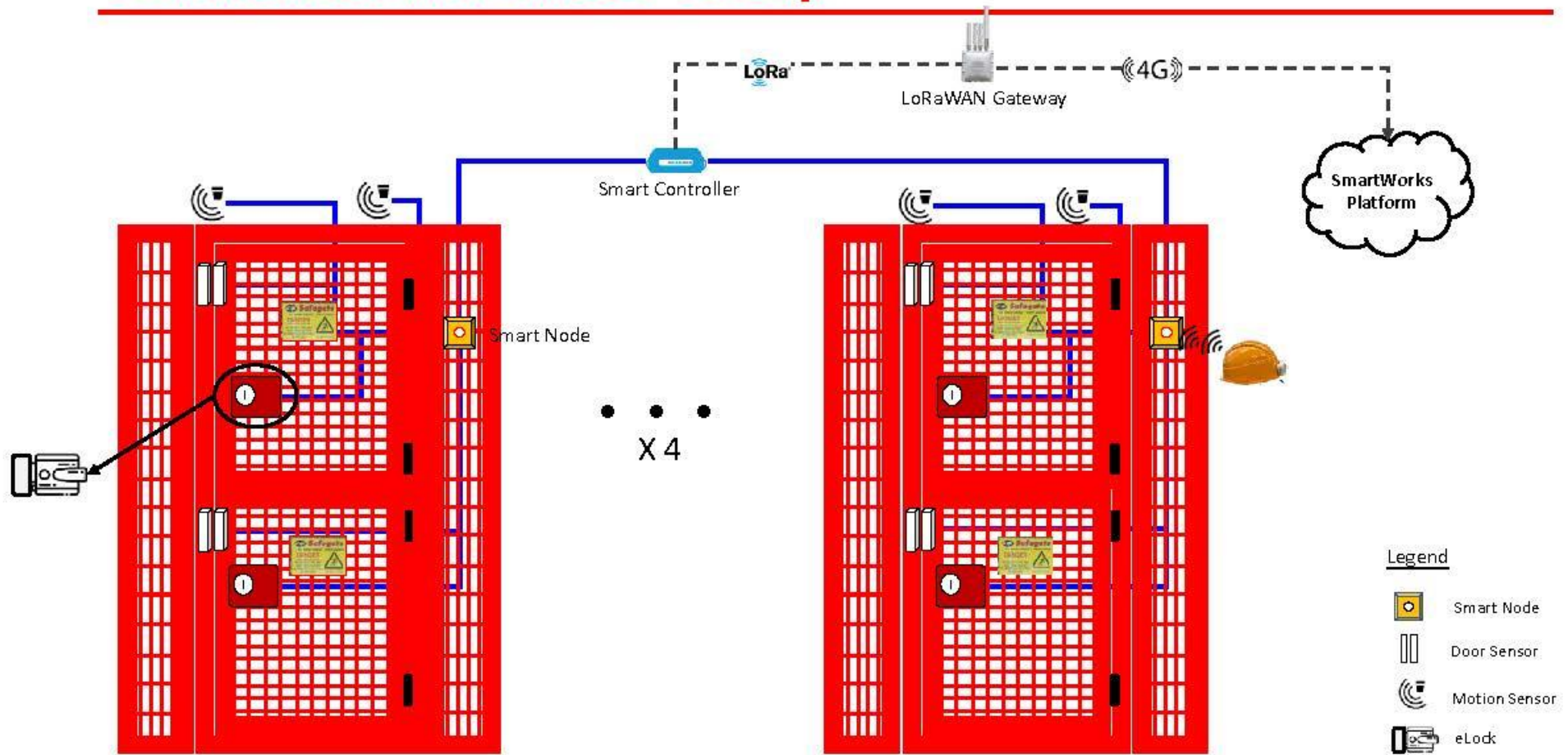
➤ Features:

- Electric lock and OTA digital key (Smart Helmet)
- Digital registration process
- Lift Shaft Gate status monitoring
 - Alert if gate kept opened
- Lift shaft occupancy monitoring
 - Alert if motion detected at unregistered lift shaft floor
- Time control access
- Alert on non-registered presence in lift shaft

➤ Benefits:

- Increase safety precaution in lift shaft work
- Operation efficiency on lift shaft access mgt
- Provide real-time visibility in lift shaft

Smart Lift Shaft Floor Setup



Questions

1. what is the benefits of Safety Alert System for Temporary Lift Shaft Gate?

- Easy and fast deployment
- Cost efficiency and easier to extend the solution everywhere
- Provides additional safety control to mitigate the risk of workers falling from lift shaft
- All of above

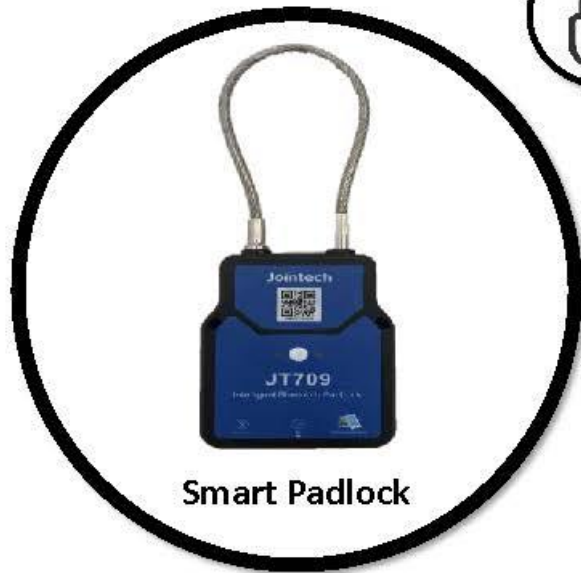
2.How's the sensors status sending back to backend system?

- By network cable direct connection
- Through Wi-Fi connection
- Through BLE connection
- Through Mobile infrastructure

Smart Padlock

Manageable and Controllable Access

Smart Padlock



Unlocked by authorized person with Smart Padlock App



Real-time monitoring of lock status with alerts: Locked/Unlocked/Damaged/Low Battery

- Add-on solution to any door of closure
- Estimated Operating Time : 120 days

Smart Padlock

➤ Applications:

- Site electrical box access
- Site inventory room access
- Temporary fence locking

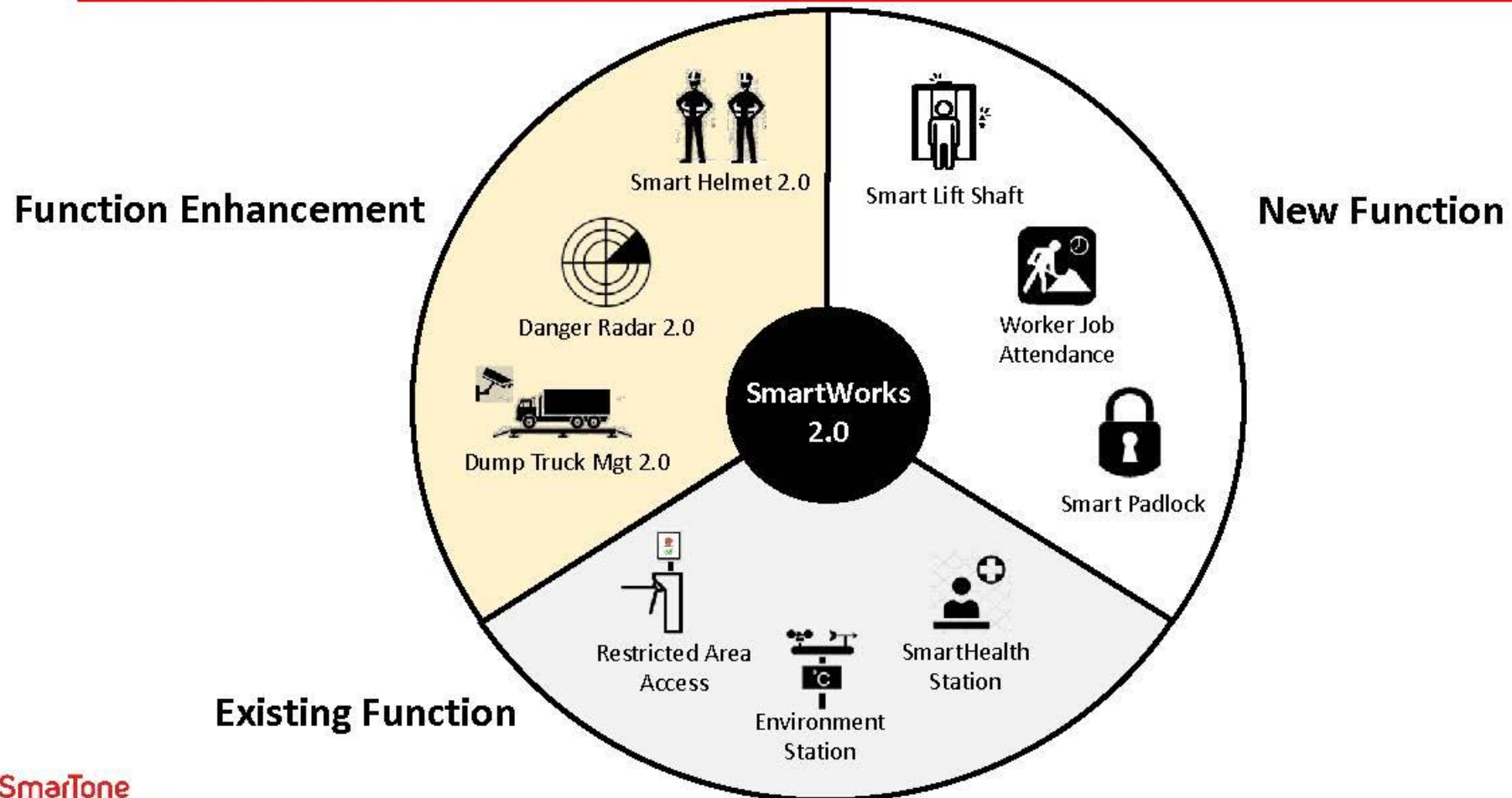
➤ Benefits:

- Cost effective
- Check lock/door status anytime anywhere
- Manageable access to locked property



SmartWorks Solution Overview

SmartWorks Solution Overview



SmarTone

Leads the way for

5G

Thank You!