



SMART LOCKS • ENTERPRISE ACCESS CONTROL ECO-SYSTEM • IOT LPWAN GATEWAY

**SMART
CONNECTIVITY
ENHANCED
SECURITY**

ENTERPRISE ACCESS CONTROL ECO-SYSTEM

The Willowmore's Smart locks have been designed to address the challenges of managing access control and security systems.

The solution enables enterprises to do away with labour intensive process of issuing and managing physical keys. Our customers will not have to worry about illegal duplications, theft and losses. All transactions are logged to ensure traceability. The solution is secure, scalable and easy to retrofit to existing lock management systems.

Our locks are developed for both Android as well as iOS platforms – they allow our customers to manage secure digital tokens to track lock and unlock operations directly between authenticated mobile phones and the locks.

KEY FEATURES



KEYLESS



SMART ACCESS
MANAGEMENT SYSTEM



SECURE & CONVENIENT



TRACKING WITH
FULL AUDIT TRAIL

Willowmore Enterprise-Grade Smart Padlock

Willowmore Enterprise-Grade Smart Padlock is designed to easily retrofit existing assets.

- No physical keys required. Operation is done via bluetooth without the need for any network connectivity*.
- Full audit trail allows visibility on access records as well as the duration spent.
- Low power consumption and rechargeable battery.

* Network connectivity is required for job synchronization, adding/deleting users, transmitting of data and location tracking. Offline Bluetooth operation is available for a limited time to ensure uncompromised security.



Model Name	Enterprise BLE Padlock	Unlocking Mode	Keyless Operation
SKU	WEL-SL01A (Silver)	Working Voltage	3.63V ~ 4.2V DC
Description	Bluetooth Smart Padlock for site/asset access using smartphone with remote authorization	Level of Protection	IP65
Model No	WEL-01	Material	SUS304
Standards	Bluetooth v4.0	Weight	350 ± 20g
Dimensions (mm)	111 x 48 x 32	Warranty	1 year limited warranty against manufacturer defects
Shackle Diameter	Φ 8.0		

Willowmore Enterprise-Grade Smart Cabinet Lock (Battery Operated)

Willowmore Enterprise-Grade Smart Cabinetlock is designed to easily retrofit existing cabinets, data centers and more.

- No physical keys required. Operation is done via bluetooth without the need for any network connectivity*.
- Full audit trail allows visibility on access records as well as the duration spent.
- Shock-proof (tested from height of 60cm).
- Made of SUS304 stainless steel and encased in zinc diecast, which has high-strength, superb heat & rust resistance. Powered by in-built batteries.

* Network connectivity is required for job synchronization, adding/deleting users, transmitting of data and location tracking. Offline Bluetooth operation is available for a limited time to ensure uncompromised security.



Model Name	Willowmore Smart Door/Cabinet Lock	Operating Voltage	DC4.75V – 5.5V	
SKU	WEL-03B	Power Consumption	≤3.6W	1. At 25°C, 65% RH 2. Rated Voltage
Description	Bluetooth Smart Lock for site/asset access using smartphone with remote authorization	Rated Current	≤0.2A	
Standards	Bluetooth v4.0	IP Rating	IP65	
Dimensions (mm)	42 x 207 x 59.8	Weight	1.12kg	
Rated Voltage	DC5V	Warranty	1 year limited warranty against manufacturer defects	

Available Q3 2019



SigWAV is the first and the easiest portable Sigfox-Bluetooth Gateway in the world. As a crucial component in Willowmore Smart Eco-system, it is designed extremely light-weighted for installation at any position without any wiring.

The purpose of the Willowmore Smart Eco-System is to support Enterprises gain visibility, transparency and alertness for each and every asset. From the current perspective, most businesses have no visibility or data on what is happening at their sites. These are mostly due to sites being too remotely located and maintenance work are not being carried out as often as it should be. By combining the SigWAV with WM keyless smartlocks as well as WMSensors via Bluetooth and Sigfox Network, Willowmore Smart Eco-System provides real-time data, valuable insights, and instant alerts to help businesses monitor remote assets.

With the myriad of existing Bluetooth Sensors on top of Sigfox network's aggressive expansion, SigWAV acts as a liaison that allows Bluetooth devices communicate to end-users via Sigfox, a low power consumption and low cost network.

SigWAV Development is sponsored by Spring Singapore as the result of a verification process as the only product of its type in the world at the time.

POTENTIAL USE CASES



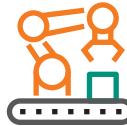
TELECOMMUNICATIONS

Combined with our Smartlocks, the gateway provides an extra layer of security to the Access Control Management System.



LOGISTICS

Check the temperature of the container by obtaining historical data from our sensors.



MANUFACTURING

By placing light sensors on manufacturing machines, servicing data can be checked by the consolidation of data through the gateway.



FACILITIES

Retrofitting sensors to existing doors to track the status of your facilities through our gateway together with proximity sensors.

WILLOWMORE
SigWAV – Sigfox-Bluetooth Gateway

Each gateway connects up to 6 devices. SigWAV works as a listening device to collect data from various sensors and collectively transmit data to the monitoring center. **Sensors that are currently ready to be used with SigWAV:**



Water Sensor



Smoke Sensor



Temperature & Humidity Sensor

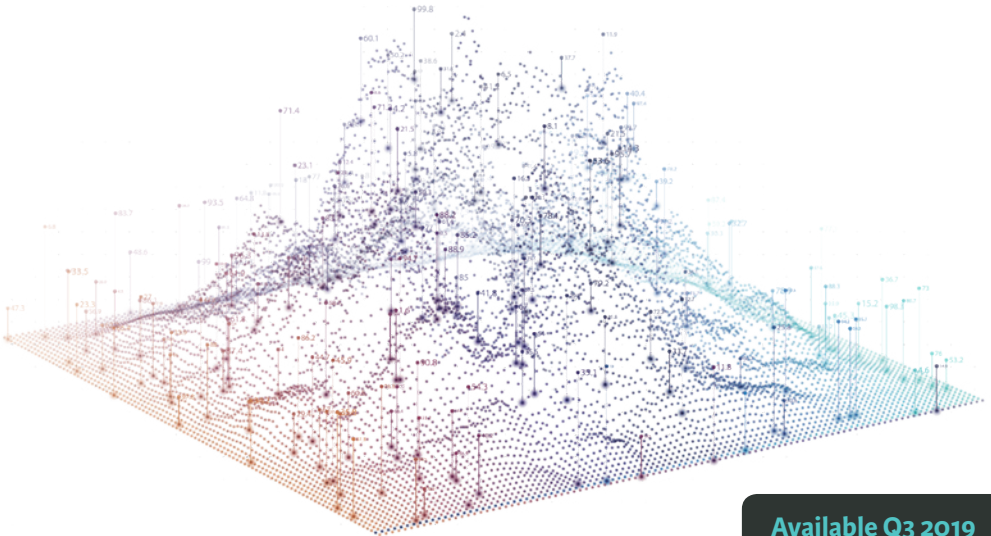


Door Sensor



Proximity Sensor

COLLECTION OF DATA



Available Q3 2019

Sample data you can collect:

SITE 1015				
Front Gate 01	Smart Padlock	WMPo1	Door Sensor:	Close
	Status	LOCKED	Outside Temp:	34°C
	Battery	90%	Indoor Temp:	27°C
Site Cabinet 01	Smart Cabinetlock	WMCo1	Humidity Sensor:	60%
	Status	OPEN	Proximity Sensor:	Clear
	Power	DC SUPPLY	Water Sensor:	Clear
Frequency of access			30	Per Month <input type="checkbox"/>
Most active user			Lee Teck Soon	Maintenance (TASK) <input type="checkbox"/>
Active access request			3	Today <input type="checkbox"/>