



Mobile360
Digital Societies

APAC IoT INNOVATION SUMMIT

Kuala Lumpur 24-26 Sept 2019



#MOBILE360

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Digital Societies

Kuala Lumpur 24-26 Sept 2019

Session 3: IoT Capability Beyond Connectivity

Session 3: Smart and Connected Lock



Chong Choon Jeng
Business Development &
Partnerships Director, IoT
Singtel



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South-East Asia
igloohome

Singtel IoT

September 2019

Chong Choon Jeng

Director, Global Alliance and Partnerships

Singtel Group

Group Consumer

- › 700M+ mobile customers
- › 3 Continents
- › 22 Countries



Group Enterprise



Integrated ICT services & solutions

- › Mobile, Voice and Data Infrastructure
- › Managed Services, Cloud, Cyber Security & IoT

Group Digital Life

Next generation growth engines and digital solutions



[a·mo·bee]

DataSpark



HOOQ™

Singtel
innov8

Singtel Group Enterprise

#1

Market Leadership¹

International Data Services in APAC
DC & Hosting, Enterprise Cloud, Mobility
Digital Services
One of the largest global Cyber Security Services providers

Group Enterprise
FY18 Revenue

SGD

~6.5B

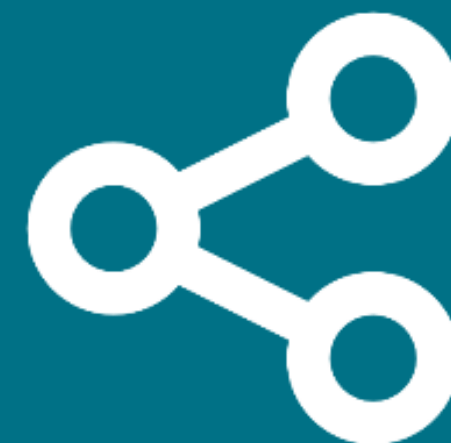


~15,000
Employees



12

Data centres



>200

PoPs



>70 Offices in
>25 Countries

Singtel IoT - Bringing the physical into the digital realm



Assets

Monitor and manage physical assets utilisation.



Space

Monitor and manage physical environment.



People

Understand behaviour and interaction between people, assets and spaces.

How?



Sensing



Connect



Big Data



Intelligence



Application

Singtel IoT - Portfolio



Global Partnerships



Briefing: China Mobile partners with Singtel to share IoT networks

FEB 28, 2019 | IN HEAVY HITTERS, ON THE CUSP | BY MILES GOSCHA



1 min read

[Singtel, China Mobile in network-sharing IoT deal](#) – The Straits Times

What happened: Singapore-based telecom company Singtel is partnering with China Mobile to improve the Internet of Things network infrastructure across the Asia Pacific region. The agreement will make the operation of IoT devices seamless across the two companies' networks. Singtel's head of IoT Diomedes Kastanis said the partnership will "generate economies of scale, allowing enterprises to accelerate the expansion of their IoT footprints in the two countries." China Mobile will also make available its NB-IoT products to Singtel customers, expanding its



Singtel unveils AI-powered IoT network through Microsoft Azure

Platform will tap into Azure's expanding set of cloud services including IoT Hub, IoT Edge and other machine learning and cognitive services



Mark Johnston (Channel Asia)
27 February, 2019 10:15



0 Comments



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IoT Thought Leadership



Endless Possibilities



+



www.singtel.com/iot



igloohome

A World Without Keys

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About us.

igloohome is a smart access solutions company based in Singapore. We help people manage homes & properties through innovative technologies.

Launched in 2016, our products have been sold in over 90 countries across USA, Asia and parts of Europe.

Investors



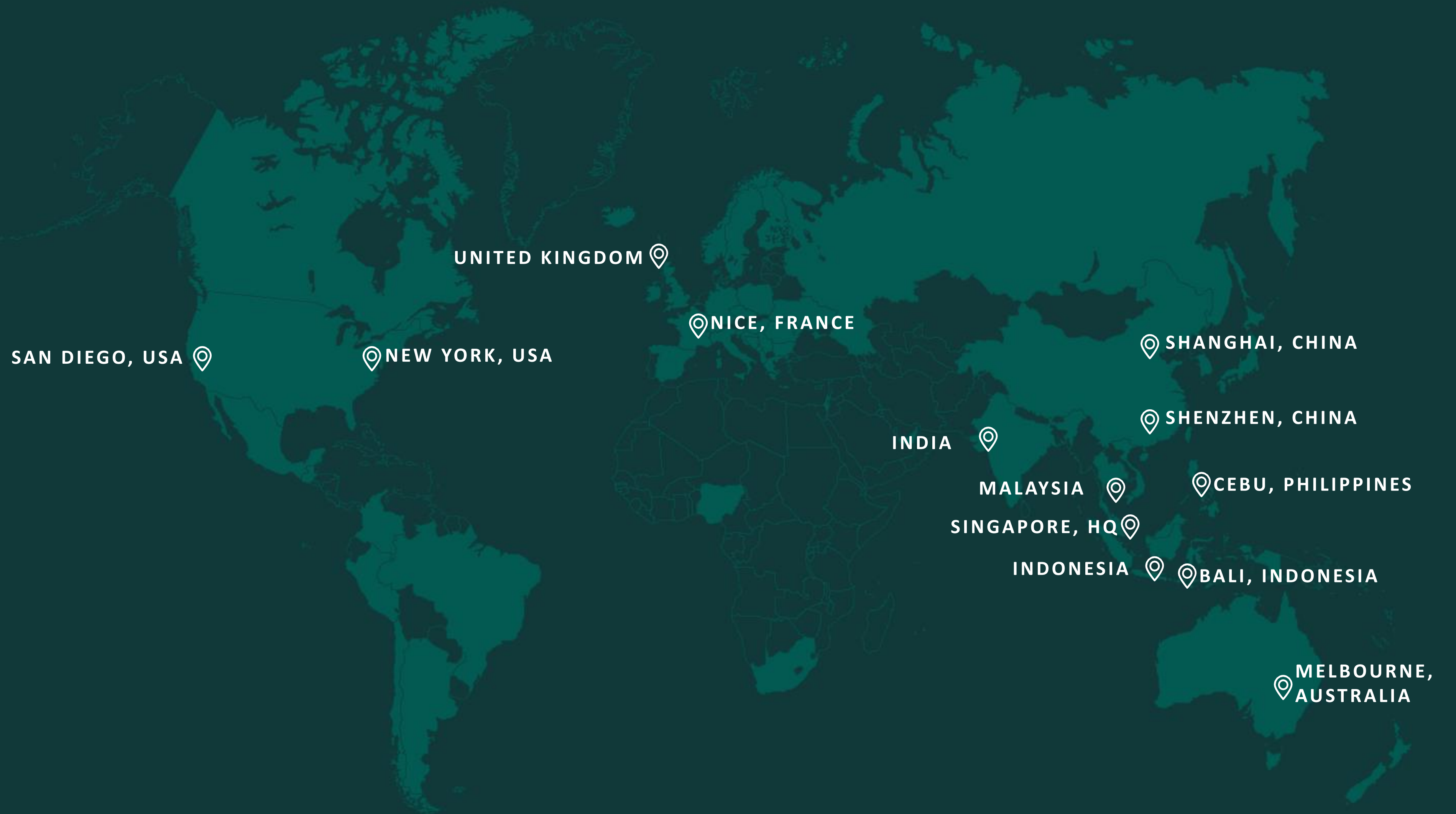
Preferred partner of



We work with
over 100
distributors
globally.



**IglooHome has
13 offices
globally.**



Igloohome is the leader in making access simple, safe and smart



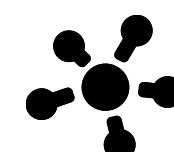
Unlimited Bluetooth Key and PIN code



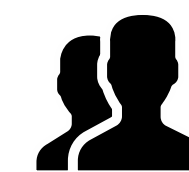
Wireless Connectivity



Minimal Setup Cost



Open Source API and SDK



Users and Access Management



Remote Access & Control

igloohome



FOR SMARTER HOMES

iglooworks

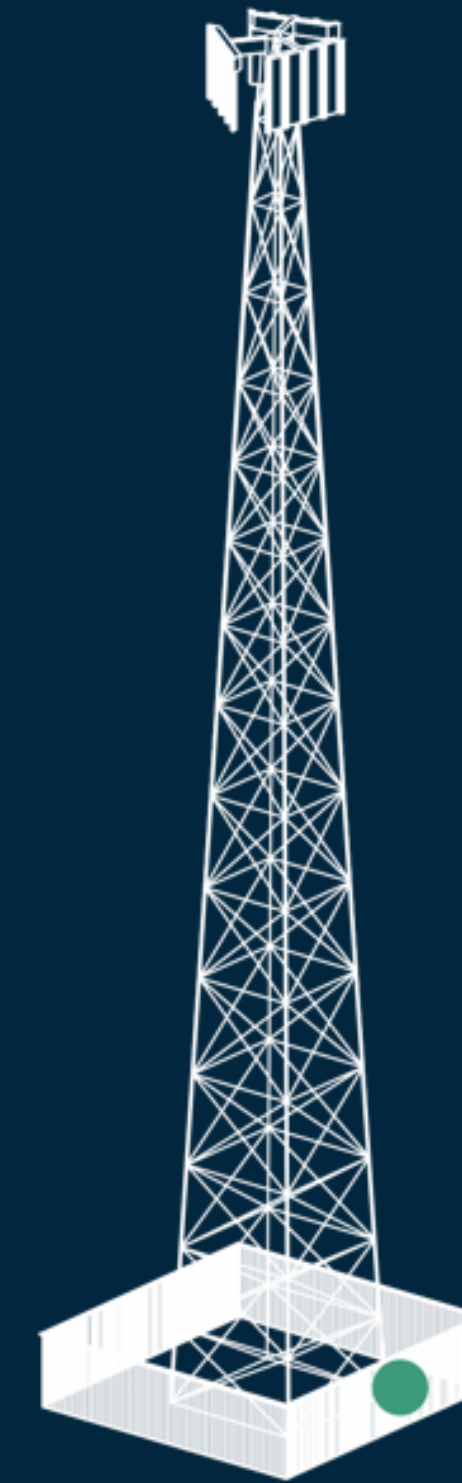
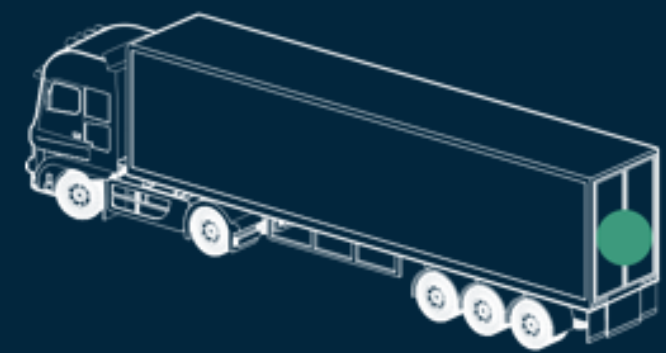
BY IGLOOHOME



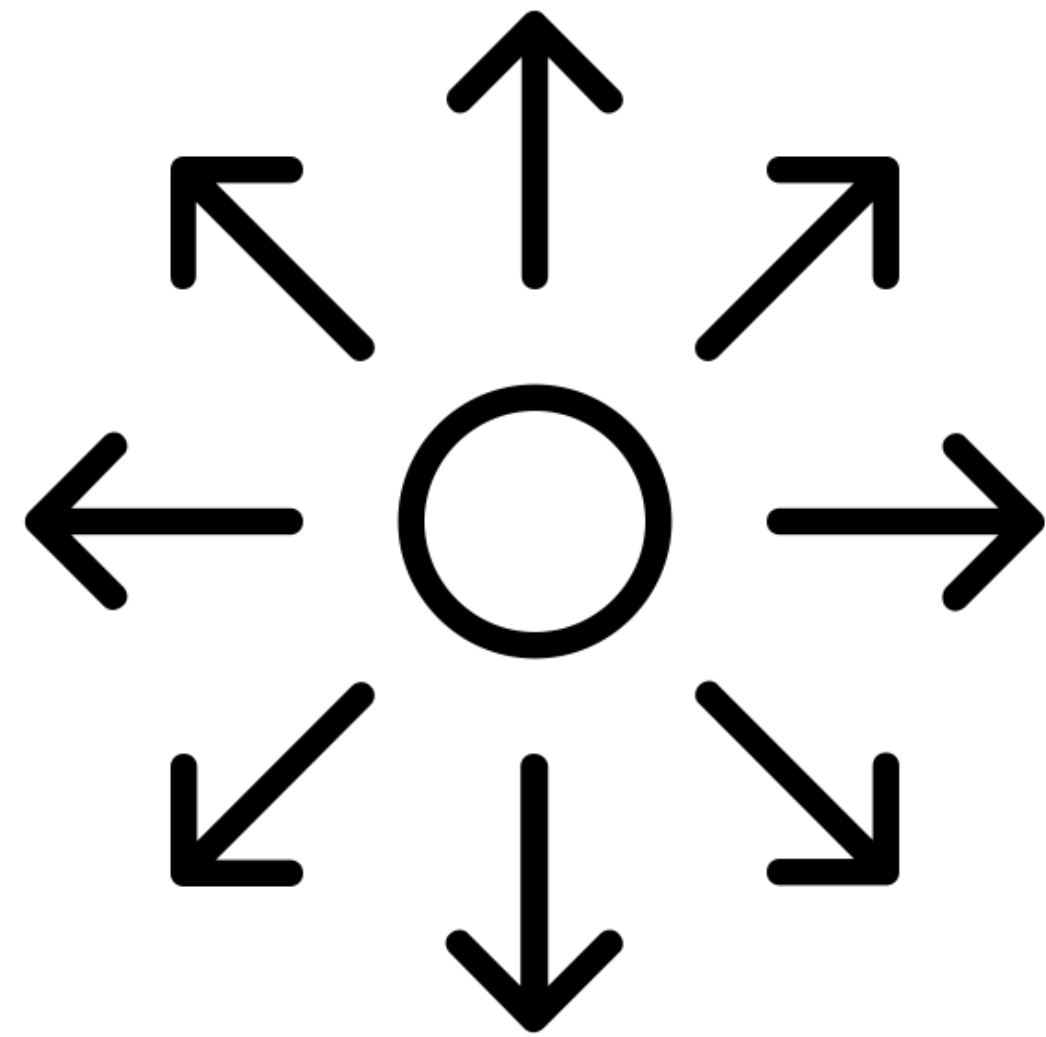
FOR SMARTER CITIES



iglooworks solutions are for creating access ecosystems for smart cities



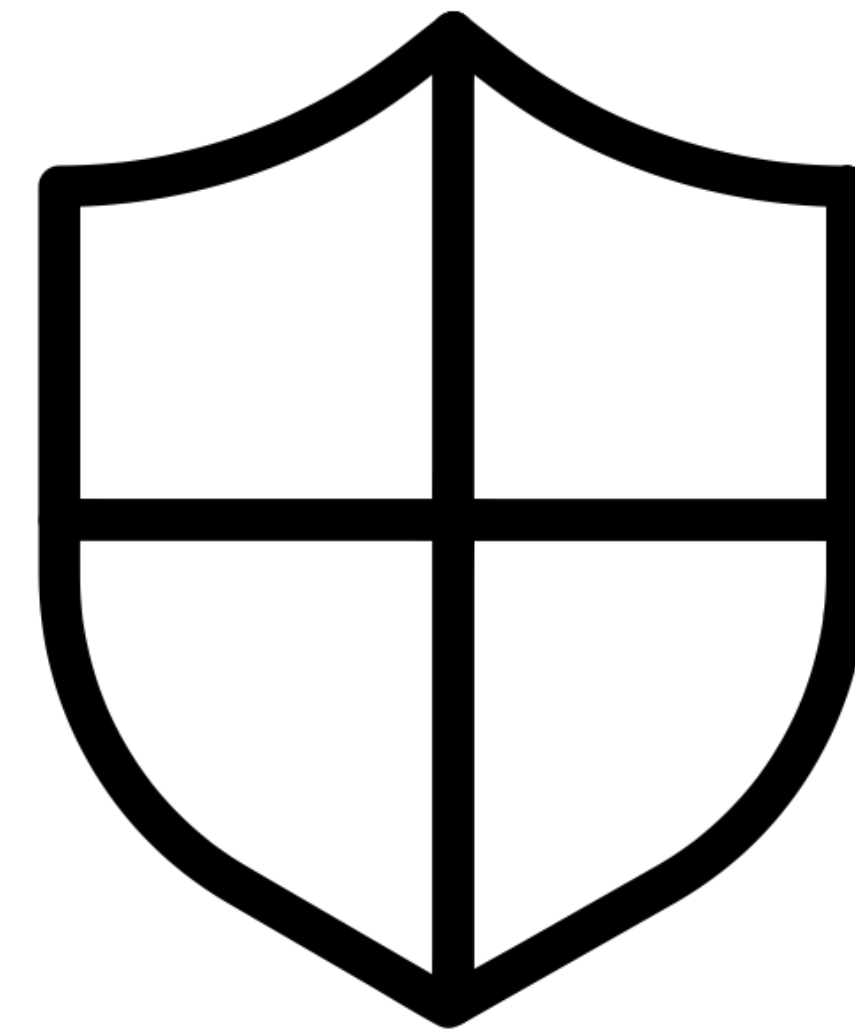
Unique features of smart cities access use cases



Large scale



Remote sites



Increased security

Our solution offering

consists of smart locks, access management platform
and the option of IoT connectivity



Smart Hardware



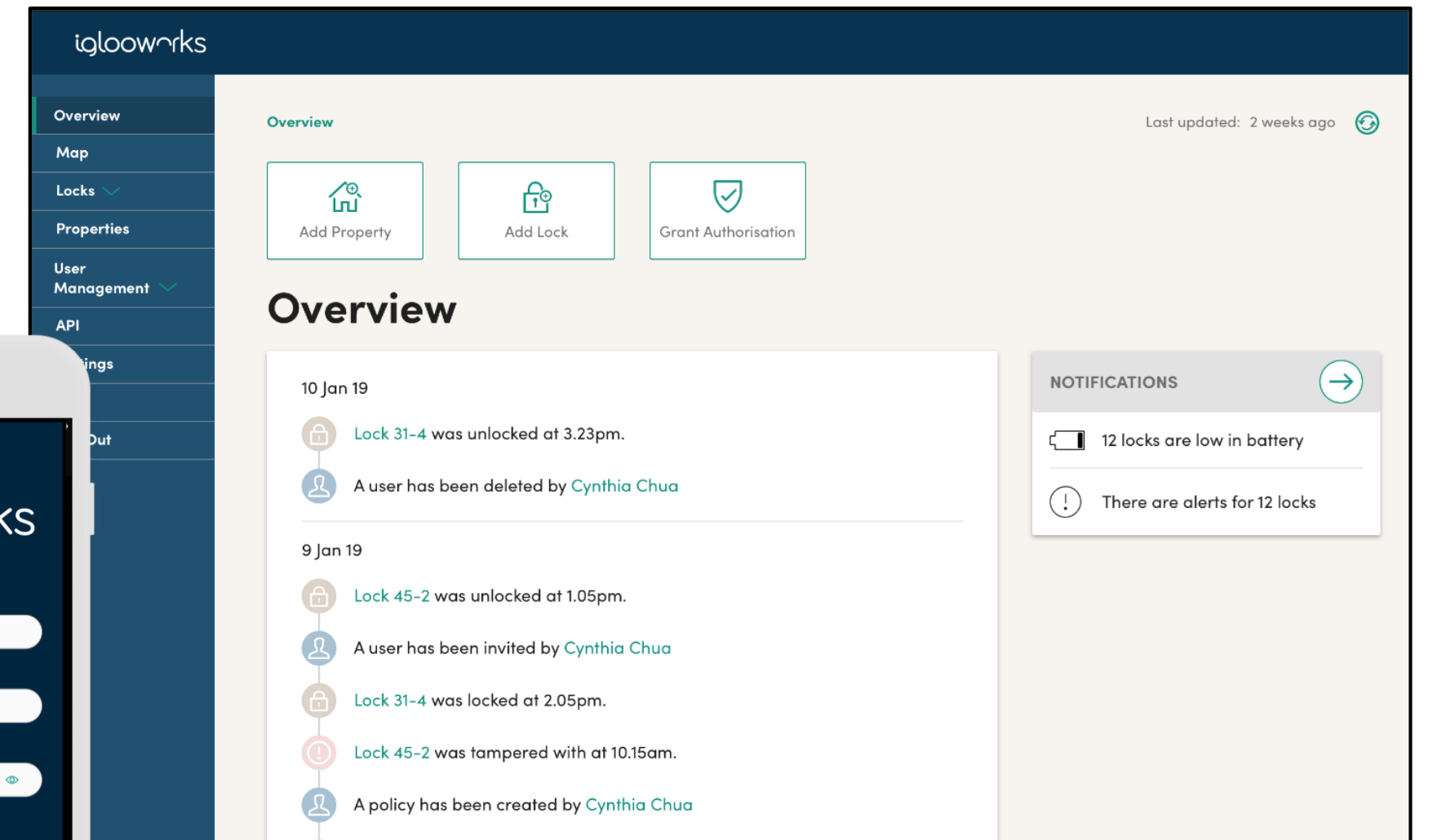
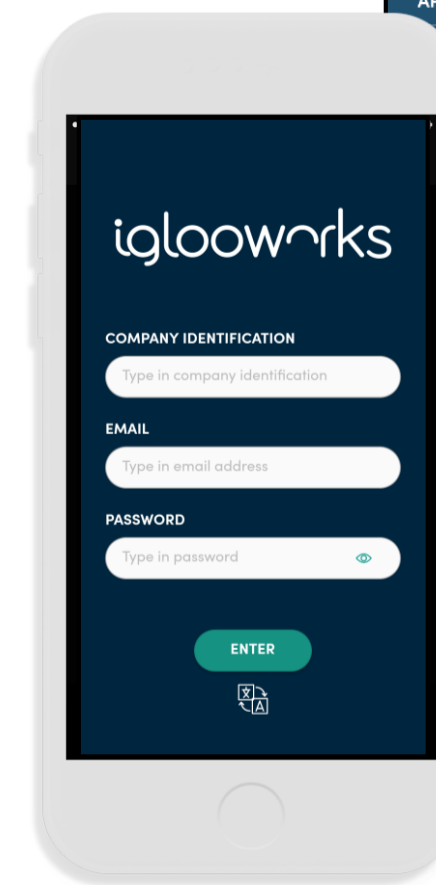
NB-IoT
LTE-M
Z-wave



Bluetooth Low
Energy




Cryptography
Algorithm Fallback

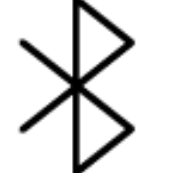



**Smart Access
Management Platform
(App + Dashboard)**

Smart Hardware

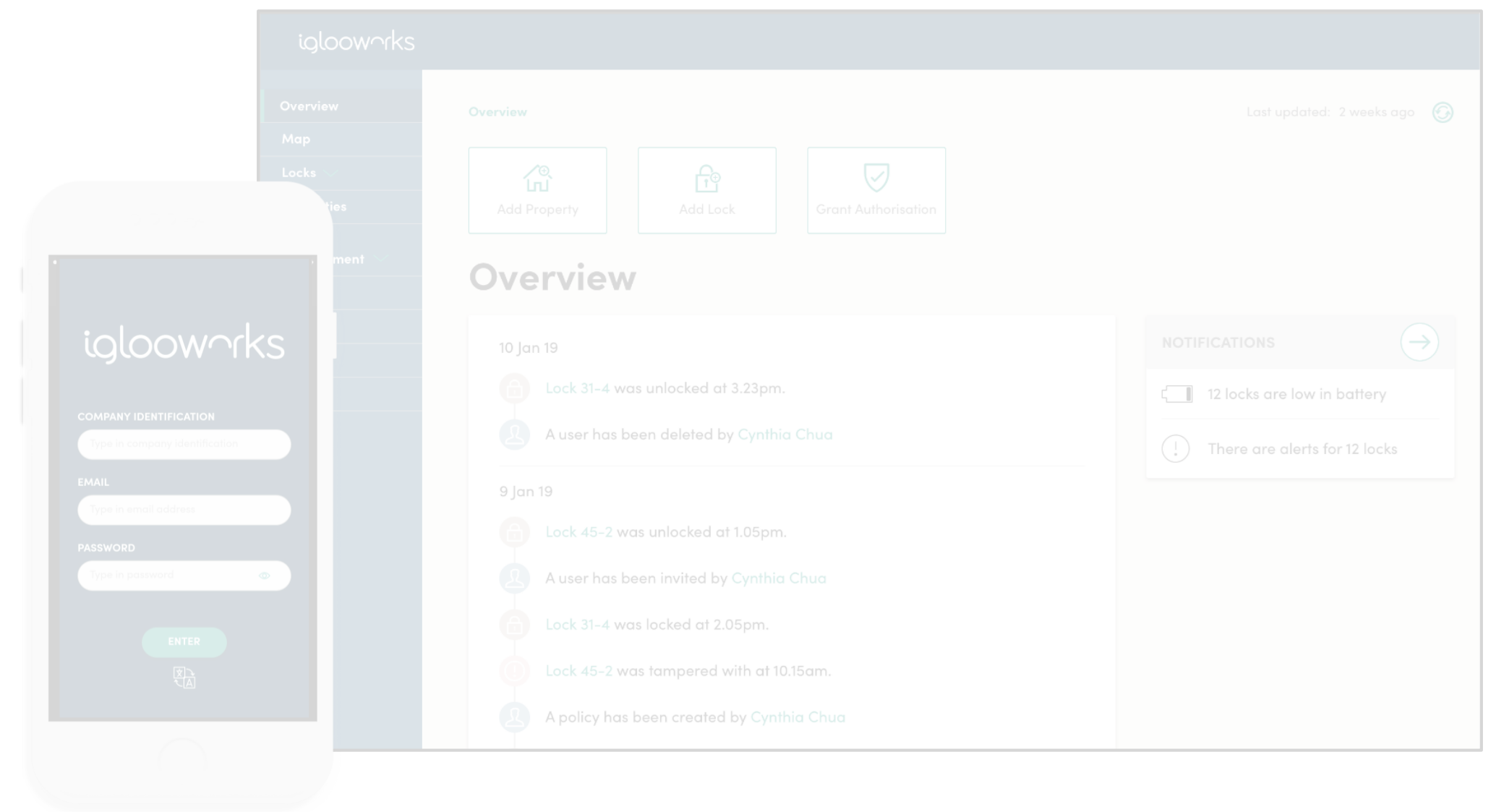


 **NB-IoT**
LTE-M
Z-wave

 **Bluetooth**
Low Energy

 **Cryptography**
Algorithm
Fallback

Smart Access Management Platform



Our solutions offer both 'online' and 'offline' capability



- Where real-time activity logs not critical
- No network available
- No need for remote configuration
- Policy for no data transmission



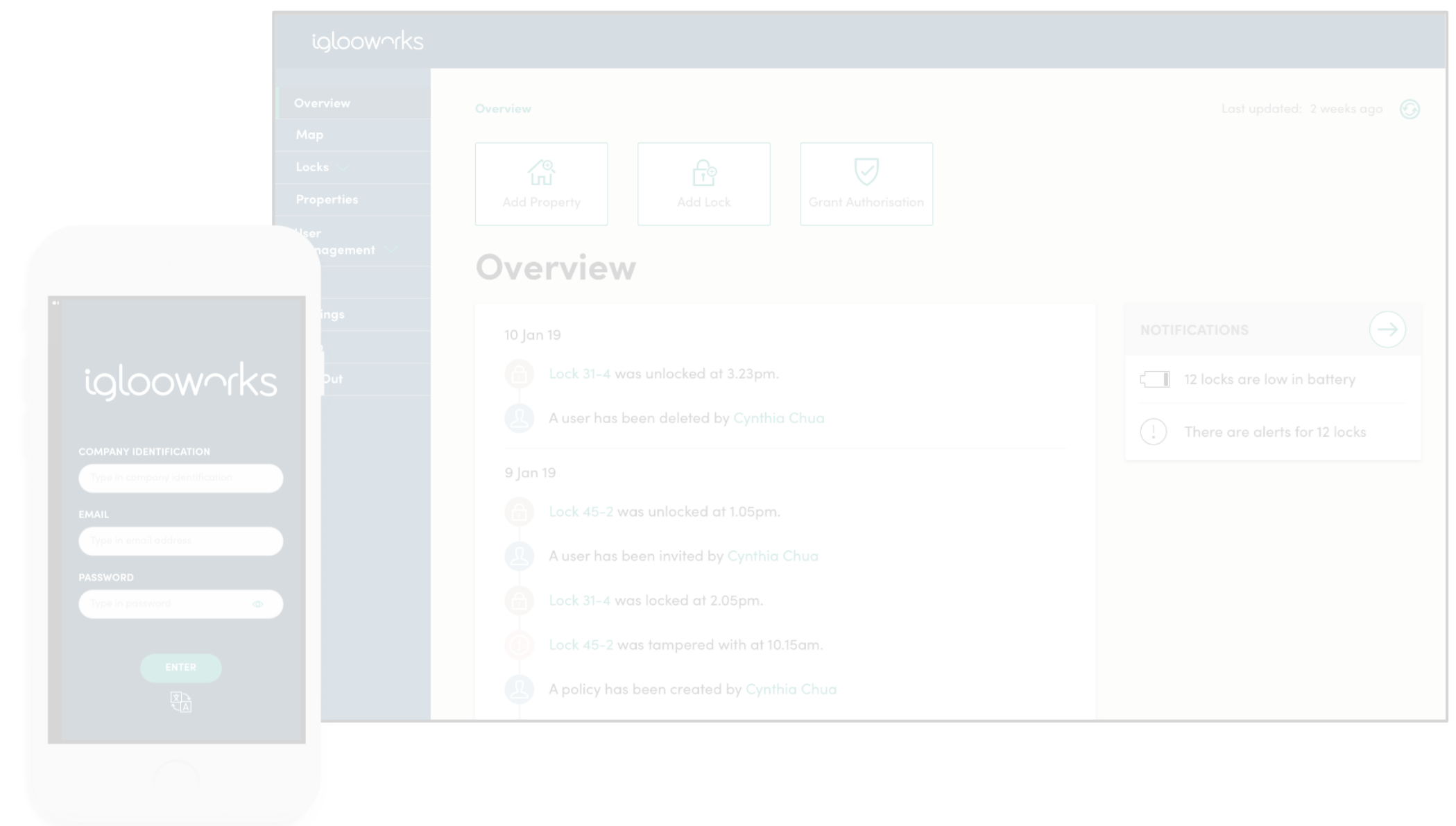
- Real-time activity logs and alerts required
- Multi-factor authentication
- Remote configuration/provisioning
- Range of connectivity options available

Smart Hardware



-  NB-IoT
LTE-M
Z-wave
-  Bluetooth
Low Energy
-  Cryptography
Algorithm
Fallback

Smart Access Management Platform (App + Dashboard)



NB-IoT Smart Padlock



World's first NB-IoT Padlock



**Offline fallback support
(AlgoPIN™ + Activity Logs)**



Multi-factor authentication



Ideal for remote sites



Real-time activities and alerts

Smart Modular Deadbolt



World's first NB-IoT Deadbolt



AlgoPIN™ access



Remote configuration



**Ideal for property/facilities
management**



Real-time activities and alerts



Smart Modular Deadbolt



2 x Battery Capacity



Connectivity module



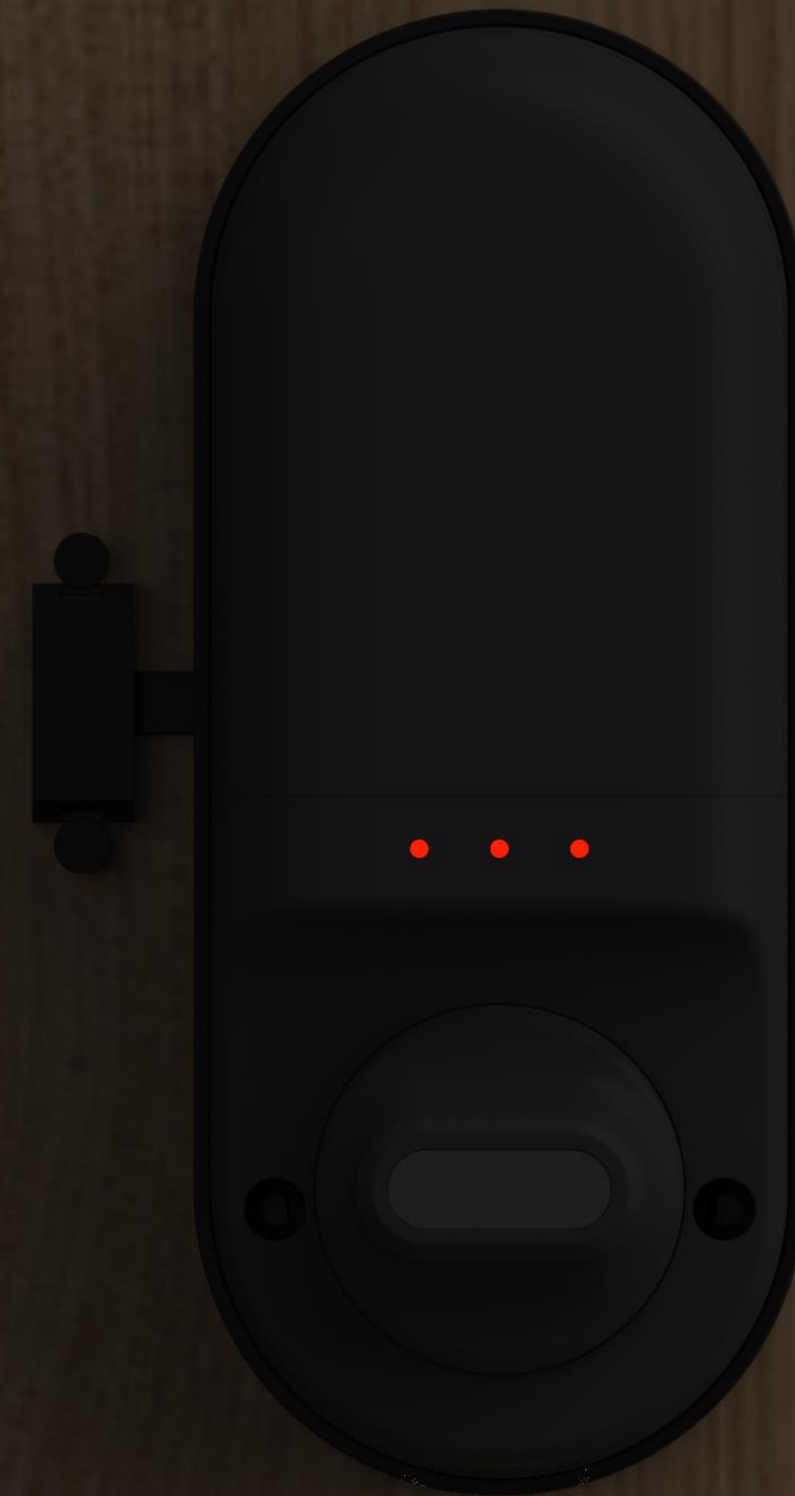
New ergonomic thumbturn



**Combined Lock/Unlock and
Low Battery LED status**



Low Visibility Path Light



Smart Hardware



-  NB-IoT
LTE-M
Z-wave
-  Bluetooth Low
Energy
-  Cryptography
Algorithm Fallback

Smart Access Management Platform (App + Dashboard)

The image displays the Smart Access Management Platform interface, consisting of a mobile app and a web dashboard.

Mobile App: The app screen shows a login form with the following fields and options:

- COMPANY IDENTIFICATION: Type in company identification
- EMAIL: Type in email address
- PASSWORD: Type in password
- ENTER button

Web Dashboard: The dashboard features a sidebar menu with the following items: Overview, Map, Locks, Properties, User Management, API, Settings, Help, and Log Out. The main content area is titled "Overview" and includes:

- Three action buttons: Add Property, Add Lock, and Grant Authorisation.
- A "Last updated: 2 weeks ago" indicator.
- A list of events for 10 Jan 19:
 - Lock 31-4 was unlocked at 3.23pm.
 - A user has been deleted by Cynthia Chua
- A list of events for 9 Jan 19:
 - Lock 45-2 was unlocked at 1.05pm.
 - A user has been invited by Cynthia Chua
 - Lock 31-4 was locked at 2.05pm.
 - Lock 45-2 was tampered with at 10.15am.
 - A policy has been created by Cynthia Chua
- A NOTIFICATIONS sidebar with:
 - 12 locks are low in battery
 - There are alerts for 12 locks

The iglooworks Enterprise Dashboard

allows for ease of large scale access management



Monitoring and alert

Dashboard allows visibility of lock status, alerts as well as access records for audit trail.



User Management

Easily set user permissions on the dashboard to enable different parties different access rights to the locks.



Customizable Scheduling

Easily customize the scheduling, and set up multi-factor authentication to the users for secure access.



Hosting

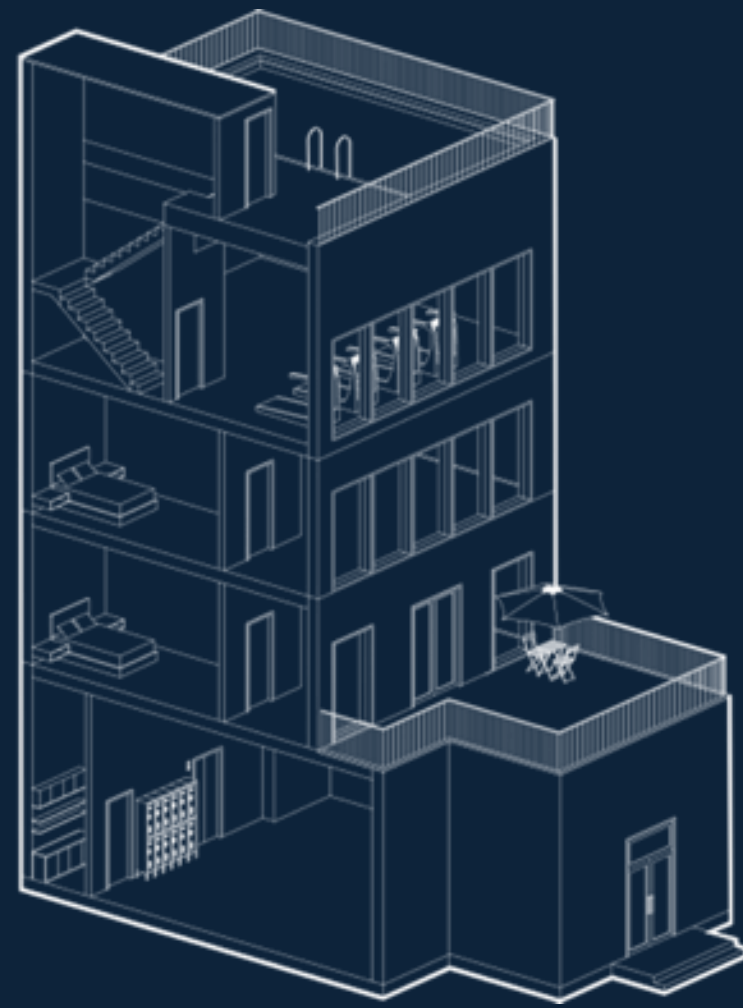
Dashboard can be hosted on customer's preferred cloud service or on-premise.



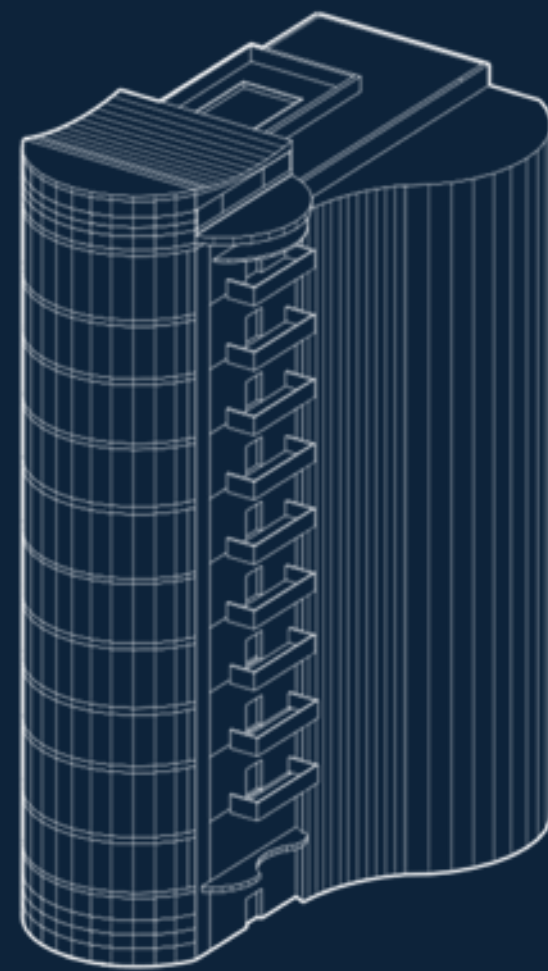
API/SDK Integration

API and SDK available for integration with 3rd party platforms for access management

API & SDK Documentation Available For Integration



Vacation rental managers
Service apartments



Boutique hotels
Real estate agency



Commercial Spaces



Co-working spaces
Venue rentals

Other smart products on our roadmap to grow the iglooworks ecosystem



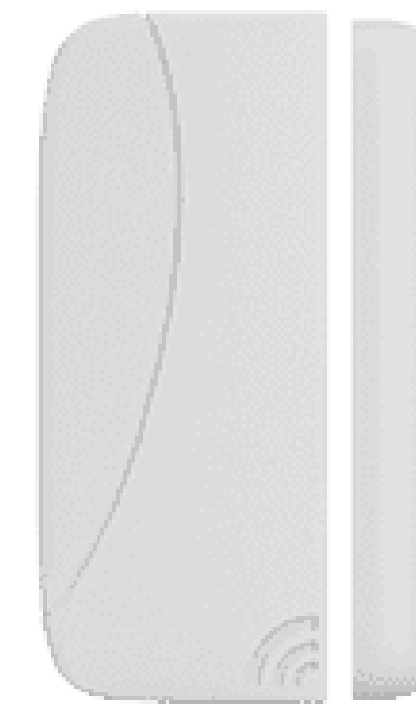
Camlock



Safe lock



Swing Handle Lock



Sensors



**and other
custom
solutions...**

Smart access management with iglooworks solutions
Real world use cases



Building & Facilities Management.

Smart access for buildings to ensure efficient leasing, rental and facility management through an integrated access system



Infrastructure. Utilities & Telco

Smart access for infrastructure to improve efficiency of maintenance work, improve audit trails for security and minimize lost keys



Logistics. Transport & Delivery

Smart access for logistics to minimize theft of cargo, reduce cargo insurance and improve traceability of cargo



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**iglooworks solutions are purpose built for
large scale access management of facilities,
infrastructure and assets**

An aerial view of a city street with digital overlays. The overlays include a blue path, various icons like a house with a lock, a Bluetooth symbol, and a document, and the word 'LOCKED' in several places. The background shows a road with lane markings, trees, and buildings.

igloohome

Thank you

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