## Satellites: A Whole New Dimension for IoT

HHOH



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Count down has started





## Internet of Things is limited by terrestrial networks



Kinéis provides a truly global satellite connectivity to cover every single place on earth

**No** blind spots, **no** roaming, **no** expensive & vunerable private network investments !



## What is Kinéis?

### Our business

• Satellite operator and global connectivity provider

Our legacy

- CLS and CNES (French Space Agency) have invented Space IoT in the 80's with the Argos system
- 40-year experience in positioning and data collection

### Our project

- Kinéis has been created in 2018 and closed an historic fundraising of 100M€ in 2020
- Constellation of 25 nano-satellites dedicated to IoT, launch in 2023



## Kinéis key figures

OLLECTE LOCALISATION SATELLIT Created in 2018 cnes bpifrance 32% 26% 7 M€ turnover in 2020 1,5% 20% hemeria 60 employees 3% CELAD 4% Industrials 7 already operational lfremer 4% payloads on satellites THALES 20.000 2,5% 🔨 kinéis active devices BNP PARIBAS DÉVELOPPEMENT Others (France) 2023 Launch 25 nanosats



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## **Connectivity provider**

### 20 000 active devices

- 2-way communication
- **30-byte** messages
- Low-transmission power (100mW)
- Low-consumption, long-lasting batteries
- Native location via Doppler Effect
- Miniaturized devices







## **Satellite operator**

**Operation-ready service** 

- Payloads on **7 satellites in orbit**
- Complementing ground telecom networks
- No roaming
- Current revisit time 1.5hr today, **<15 min in 2023**
- Licensed frequencies UHF (~400 MHz)
- 2-way communication
- AIS







## How does it work?





## What can you do with our Space IoT connectivity?



IoT everywhere - truly global, no blind areas, no roaming



Track and locate - native location service



Collect data - 30-byte typical messages, all sensors compatibles (GNSS...)



Alert - messages upon specific event



devices control - two-way communication



Hybridization - with terrestrial networks for a seamless service

Get your data within 15min, from a miniaturized device (few grams & cm), with minimum power for a maximum autonomy



## **For what application?**





## Business cases Asset tracking + monitoring

### What can you get from the solution?

- + Access to the latest data updates
- + **Receive alerts** to detect any issue
- + Get analytics on the **uptime** and **downtime** of your assets
- + Get analytics on the **health** & **integrity** of your assets

### What are the business outcomes?

- + Draw a liability perimeter up for each partner
- + Identify the sticking points (downtime, underusage, etc.).
- + Decrease operating costs & improve asset integrity
- Make accurate decisions based on reliable data coming from the field & analyse patterns





## Business cases Monitoring + Alerting

### What can you get from the solution?

- + Access to the latest data
- + **Receive alerts** to detect any issue
- + Get analytics on the **health** & **integrity** of your assets

### What are the business outcomes?

- + Remote monitoring, passive inventory & visibility over assets' integrity
- + Decrease **operating costs** & improve asset **integrity**
- + Make **accurate decisions** based on **reliable** data coming from the field & analyze **patterns**





## **Product line : connectivity enablers**

Chipsets



Modules



Evaluation boards



Space Priority Program



Shuttle Program



Best miniaturizatio n Simplest integration

Fast prototyping

Prototype development with Kinéis connectivity



17

# **Space Priority Program**

Test with privileged access



Unlimited connectivity for 6 months



Development kit



Plateforme for data visualisation



Technical support



Complete analysis and recommandations







## **Start your development**

With evaluation board and your favorite hardware platform









## Kinéis' portfolio: offers, services & products





## **Kinéis an International Company**



# FC

### Kinéis HQ – Toulouse France



## **Kinéis integrators**



### **Transport & Logistics**



Tracking and industrial monitoring device. « Kineitc-K1 » also uses LORAWAN & Sigfox.

### Data:

- Monitoring machines, parks, premises containers
- Fleet management
- Predictive maintenance



### **Network & Infrastructure**



Tank monitoring



Self-powered controlled remote monitoring & data solution for location and level

#### Data:

- Monitoring of licks -
- Water level monitoring -



### Smart agriculture





Ear tag solution for livestock monitoring & tracking

### Data:

- Geographical position
- Temperature \_
- Accelerometer \_
- Heart monitoring \_



Asset tracking

### **Transport & Logistics**



Multi-connectivities tracking device (Kinéis/LoRa/LTE-m)

### Data:

- Fleet management
- Predictive maintenance



Livestock monitoring

## **Kinéis integrators**



### **Maritime**

Tracking and monitoring devices for leisure boats

### Data:

- Localization
- Alerting
- Monitoring, temperature, maintenance





**Crop monitoring** 

Asset tracking + monitoring

### **Smart agriculture**



Weather station for crop monitoring and connected irrigation

#### Data:

- Soil moisture
- Weather information
- Leak monitoring



Livestock monitoring

Asset tracking

Smart agriculture



Connected collars & ear tags

Connected syringe for livestock vaccination

### Data:

- Location
- Health monitoring
- Temperature

**Transport & Logistics** 



GPS and multi connectivitie industrial tracking devices

(Kinéis/BLE)

### Data:

- Monitoring machines, parks, premises containers
- Fleet management
- Predictive maintenance







## Thank you!

Any questions? Contact us at <u>sales@kineis.com</u>

