

DATA SOLUTIONS

Services | Plateforme | Expertise

# ATiXE

## Autonomous Tracking in eXplosive Environments



ATiXE signifie

Suivi autonome de la localisation  
dans les environnements explosifs



# ATiXE is a **complete wireless indoor/outdoor localization solution certified for ATEX/IECEX\***. It ensures security, resilience and traceability for people and assets.

## Geolocation Solution

Suited for the tracking of



people



equipment



vehicles



spare parts

## Benefits

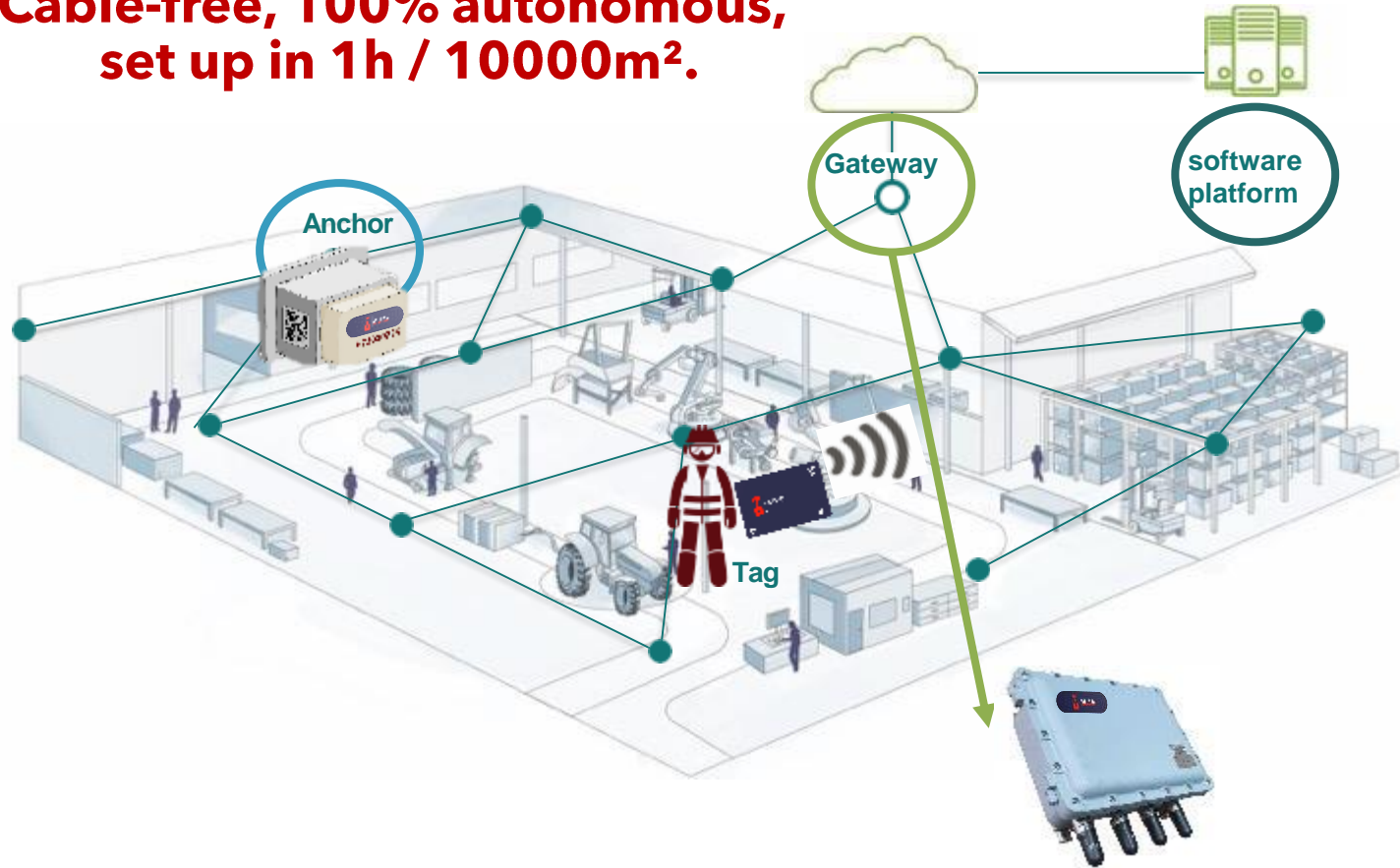
- IA post-processing for reliable localization in very complex environments
- Personnel safety
- Easy tracking of outsourced personnel
- Security asset positioning maintenance
- Faster post maintenance restart



- E-Mustering
- Safety of isolated workers
- Geofencing/ access control
- Area Management / Co-activity
- Optimization of space occupation

# How does indoor localization work

**Cable-free, 100% autonomous,  
set up in 1h / 10000m<sup>2</sup>.**



**IA to make the position more reliable  
in a very complex environment**



TAG ATEX 1



ANCHOR ATEX 1 BLE



Wirepas/LTE ATEX 2 gateway

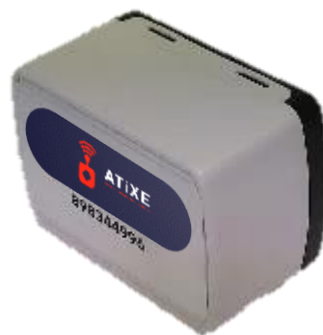


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### Components of the solution



Geolocation Tags



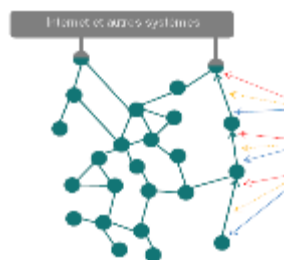
Paste and play: **0 work**  
IoT mesh network + Geoloc



Field applications and SDC



**Tag geoloc + NFC + ATEX 1**  
Rechargeable induction 300x  
Ultra Lightweight  
Autonomy 88h periodicity < 30"



**Wirepas Mesh Network**  
Autonomous anchors (battery > 5 years)  
Multiple gateways increase **resilience**  
(MTBF > 10 years)



**Orisun-IoT Open Platform**  
Digital Twins &  
Web of Things ready  
BIM compatible

\*IECEX certification Q2 2022

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**Innovative aspect**

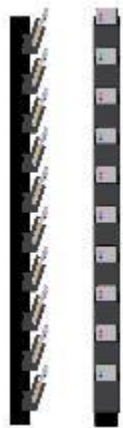
ATEX1 certified IP68 credit card format Tag  
Paste & play autonomous ATEX1 anchors  
Are exclusive to ATiXE



A complete solution that is particularly easy to install and operate

**The most affordable on the market**

**Other innovative aspects**



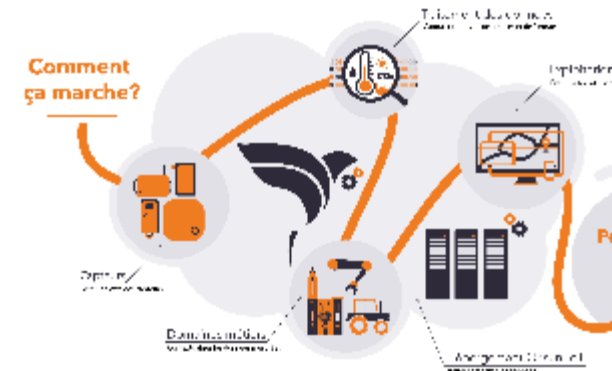
**Induction recharging rack**



**Quick pairing  
NFC, MIFARE, biometrics  
Access control**



**Anchor Holder for  
Optimal Reception**

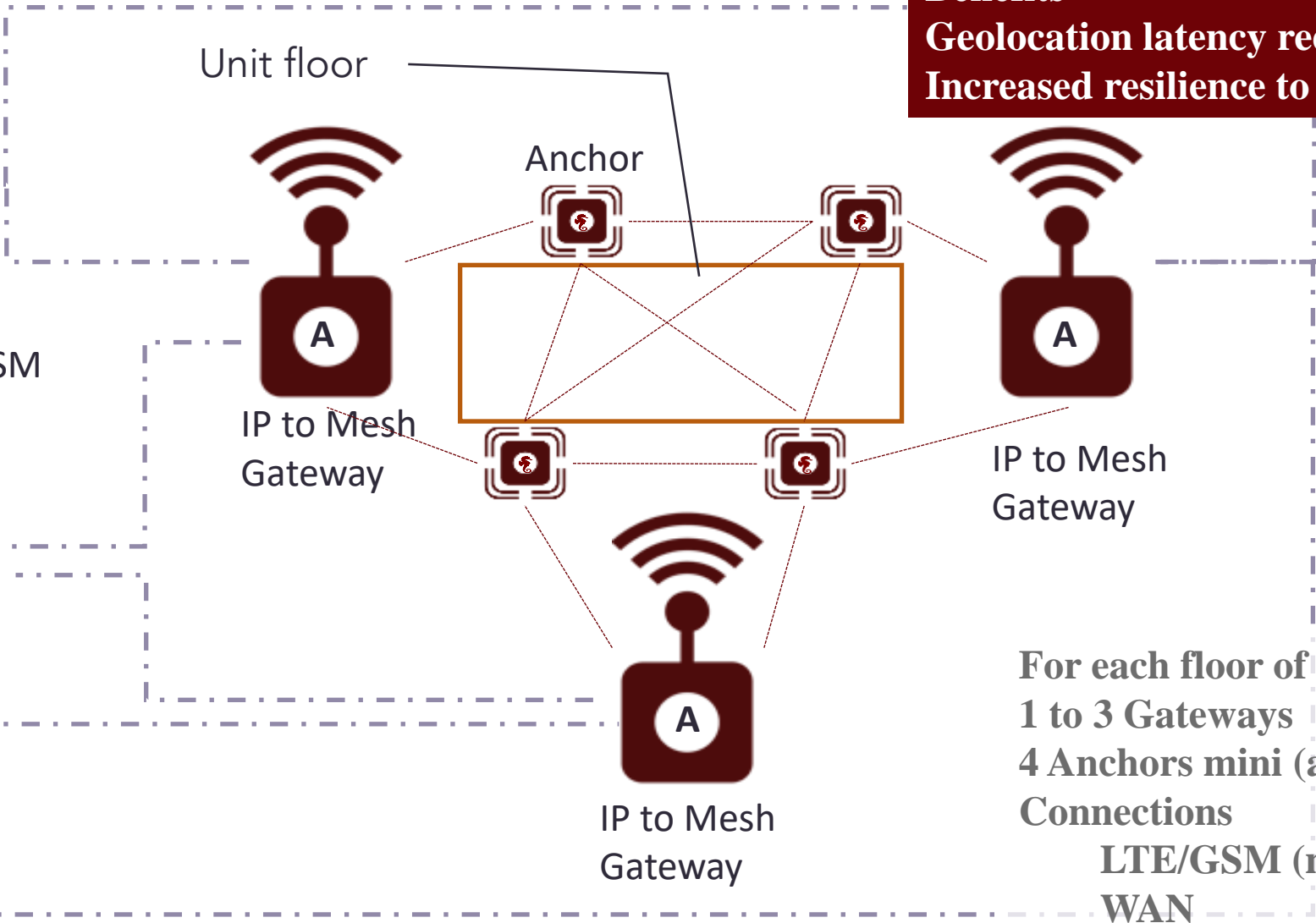


**Digital Twins  
facilitate the extension  
of the system**

\*IECEX certification Q2 2022

# Highly resilient architecture (floor view)

Highly resilient architecture



**Benefits**  
 Geolocation latency reduction  
 Increased resilience to failures

For each floor of each unit  
 1 to 3 Gateways  
 4 Anchors mini (adapt to local function)  
 Connections  
 LTE/GSM (multi-vendor)  
 WAN

Resources required for performance and resilience to be validated during POT

# High performance architecture

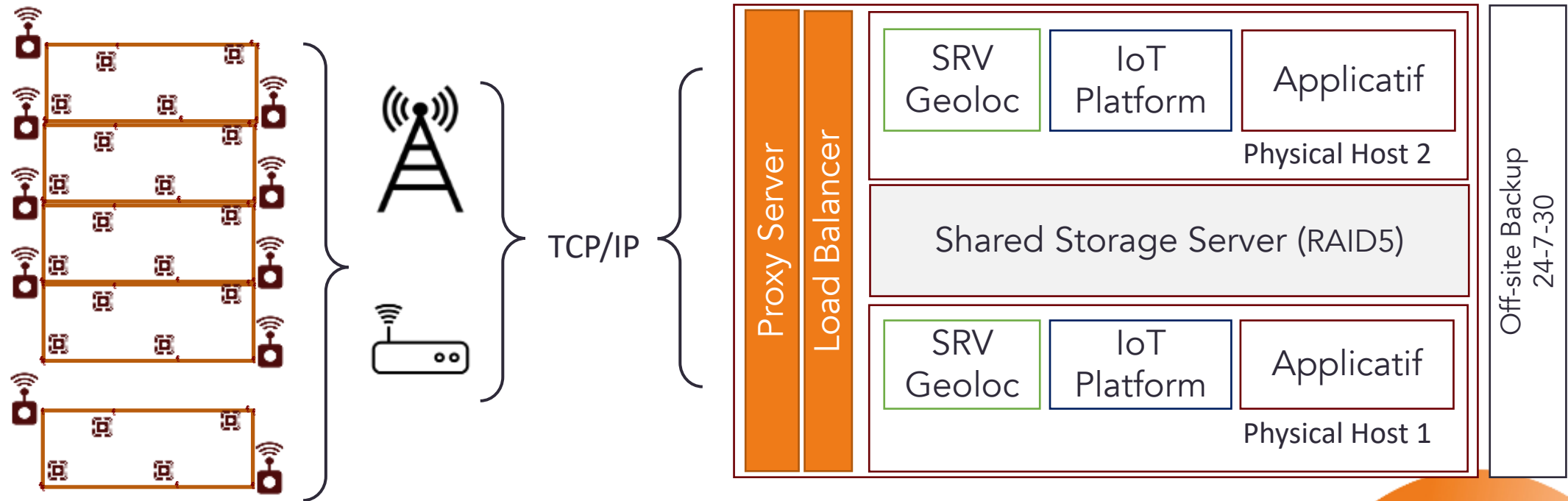
ATIXE implements a resilient high-performance physical infrastructure and a secure logical infrastructure

## Performance:

- ✓ Up to 120 positions per hours

## Service Commitment

- ✓ Mean Time Between Failures (MTBF)  $\geq 1$  year
- ✓ Recovery Time Guarantee (MTTR)  $\leq 24$  business hours



\*Commitments limited to the failure of one unit (3 floors) of the geolocation network (anchors and gateways), computer servers, IP network infrastructure under ATIXE control

# Geolocation in confined explosive environments under ATEX/IECEX standards.



- Equipped with material adapted to ATEX 1 & IECEX
- Control of a wireless geolocation network
- Algorithms for position refinement in disturbed environments
- Open platform

## Who is this solution for



Silos



Mines



Refineries



OffShore



Petrochemicals





- Hardware expertise and indoor localization
- Expertise in improvement of industrial practices, project management, Business Analysis and Planning.
- SPIN OFF of the ALTEO CONSULTING consulting group specialized in the industry



- Editor of the Web of Things enabled platform: Orisun IoT,
- Expertise Design and conception of critical IT systems;
- Expertise Benchmarking and hardware prototyping;
- Data management expertise, machine learning;

## Long term partners

Since 2019, the geolocation solutions designed by Arenzi have been awarded the "Powered by Orisun" label.

The opportunity to work on a large-scale ATEX project accelerated the rapprochement of the structures.

In 2021, the two companies joined forces to market the ATiXE solution, whose originality is based on their respective technologies and IP.

Our key account customers (excluding ATiXE) are



Since October 2020, we have carried out several tests within the framework of a Proof of Technique with one of the companies of the petrochemical platform of Chalampé (Grand Est).

**Complete localization solution  
paste & play installation  
ATEX1 certified**



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