Actility Enterprise Channels Webinar

December 2022

Actility
Connecting with intelligence

Agenda & Introduction

Lode Van Halewyck

Webinar Meeting Agenda

- Webinar Introduction – **Lode Van Halewyck**
- What is new on ThingPark Enterprise Product? **Ramez Soss**
- What is new on Actility Central? - **Sitha Oum**
- Real-life use case with TP Enterprise: LED Street lighting in Attica – **Christos Delis, Ithaca SA**
- Summary and Q&A

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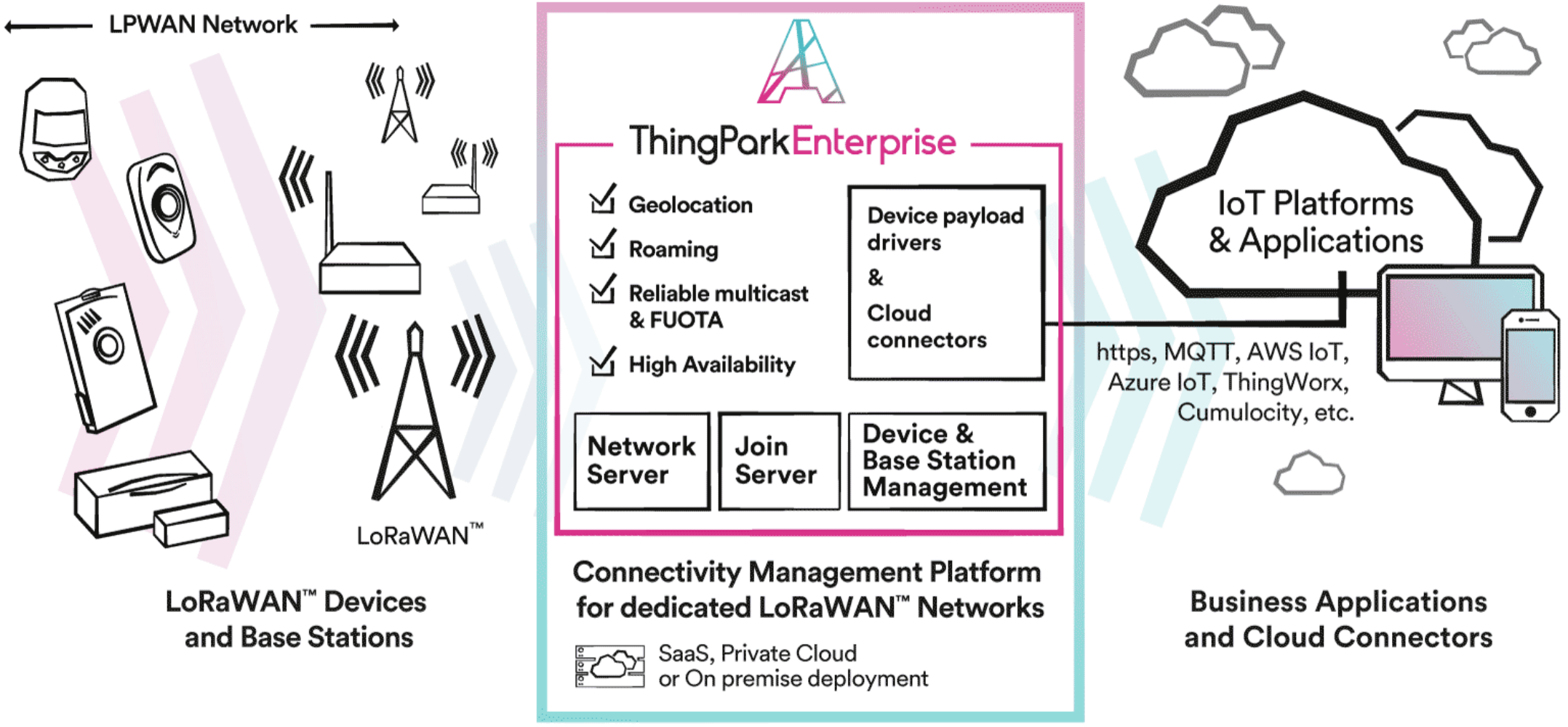
ThingPark Enterprise – Solution Overview



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ThingPark Enterprise - Key Differentiators

- ThingPark Enterprise is a **managed solution**, with guaranteed product evolution and without ‘hidden’ costs.
- ThingPark Enterprise is the only **carrier-grade solution**, providing the required level of security, reliability, management & troubleshooting.
- ThingPark Enterprise is a **complete, future-proof solution**. There is no need for additional integrations when requiring geolocation, roaming or FUOTA.
- ThingPark is a **Hardware agnostic** solution, providing a uniform gateway management solution for different manufacturers.
- ThingPark Enterprise is a **scalable** platform, with state-of-the-art ADR algorithm and advanced management & troubleshooting tools.

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What’s New? ThingPark Enterprise Product

Ramez Soss

ThingPark Enterprise 7.2 – New Features

- Enhanced multi-tenancy within the same subscription, via **administrative Domains**
- **Seamless migration** of TPE-All-in-One devices towards full-edition TPE SaaS/OCP
- Buy your own **LoRaWAN NetID (type-7)** without being LoRa-Alliance member
- TPE-OCP specific features:
  - White-labeling (personalizing the default Actility logo)
  - Increase the limit of authorized TPX Connections, according to the platform sizing
  - Support Basics Station packet forwarder, besides ThingPark Long Range Relay (LRR)
  - Platform footprint optimization (~50% RAM reduction, ~20% CPU optimization)
  - Personalization of the traffic retention period (up to 90 days)
  - Significant enrichment of the Device Profile + Device Driver catalogs: **over 110 device manufacturers**

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What’s New? Actility Central

Sitha Oum

Dashboards

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Dashboards

- Dashboard offers an overview of the central state of the art, from the number of active subscriptions to their expiration dates and displaying platforms statistics

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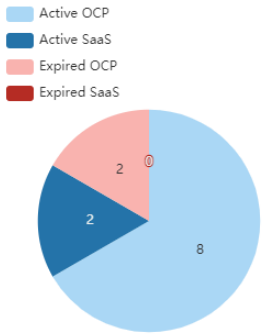
Dashboards

Customers

8

with active subscriptions

Subscriptions



Subscriptions history

Automatically renewed in 30 days

2

Inspect

Expiring in 30 days

0

Inspect

Automatically renewed in 90 days

2

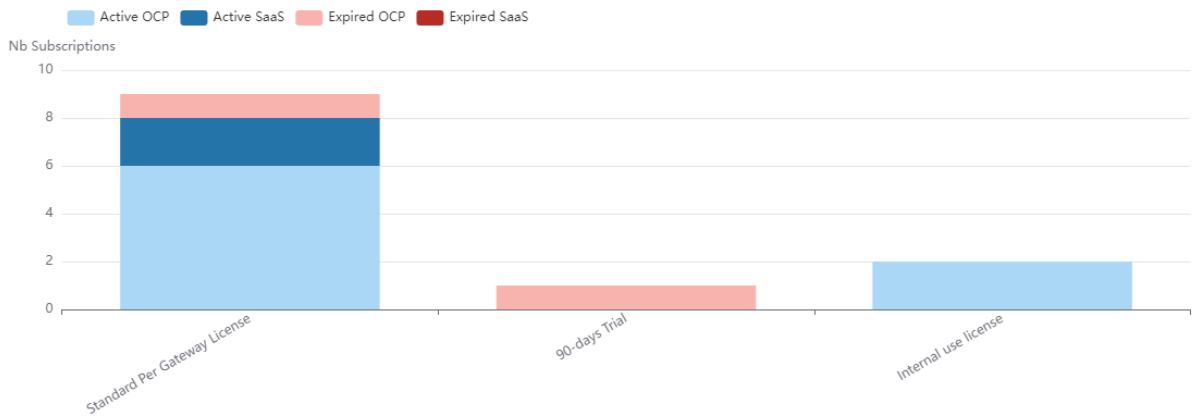
Inspect

Expiring in 90 days

1

Inspect

Offers



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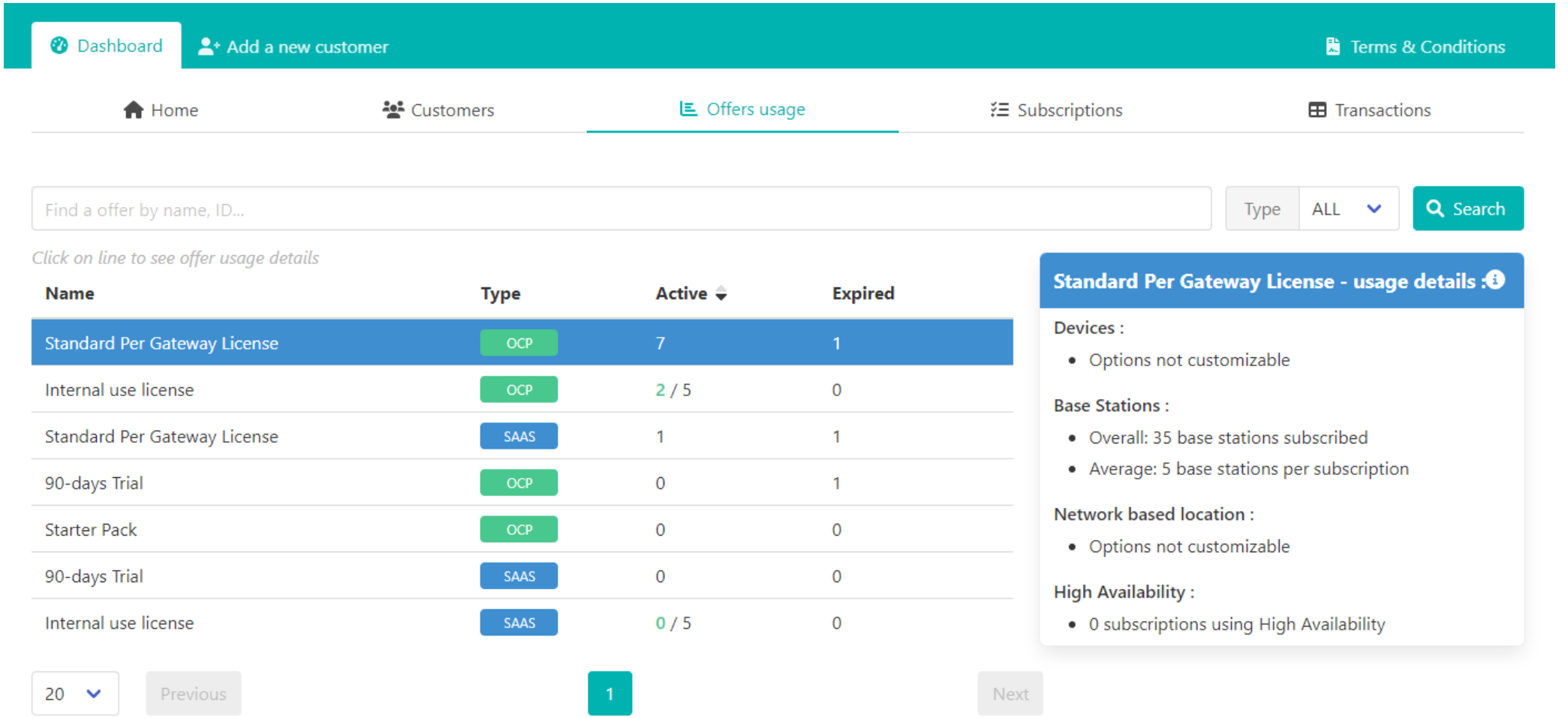
Dashboards for Channel Partners

- Offers usage



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Email notifications enhancements

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Weekly Email to Channel Partners

- Active subs Saas/OCP #
- New subs since last week
- About to expire subs #
- Expired subs #
- Automatically renewed subs #

Actility Central Weekly report

TN noreply@thingpark.com
To ⊞ **Network Operations**; Sitha Oum
Cc ⊞ **Central Admin**

Dear Actility Demo TPE CP team,

Please find below the weekly report providing a synthesis of your ThingPark Enterprise subscriptions:

Active subscriptions

- Total number of active subscriptions: 42 (+1 subscription(s) compared to last week)
  - SaaS: 10 (+1)
  - On-premise: 32

Subscription renewal

- 2 subscription(s) will expire within the coming 30 days and will be automatically renewed.
- The following subscriptions require your attention:
  - 84 subscription(s) have already expired. Click here to view the list.
  - 3 subscription(s) will expire within the next 90 days and are not automatically renewed. Click here to view the list.

Do you need our help to renew those subscriptions ? your sales account manager, is very glad to assist you. Please contact him at central.admin@actility.com.

Best regards from the ThingPark team.

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About to expire Emails

- Configuration per CP: 3 reminders, Actility Sales, notify end customer

[DEV] Your ThingPark subscription will expire in 7 days

TN

noreply@thingpark.com
To Julien Bourges
Cc Florian Le Cron

Reply | Reply All | Forward | ...

Wed 9/28/2022 3:00 AM

Dear ThingPark customer,

You are running an active subscription to the ThingPark Enterprise, the related Subscription-ID is test-jb-saas-2.

This active subscription will expire in 7 days.

To prevent any service disruption caused by license expiration, please proceed with the renewal of your subscription before 2022-10-05 by contacting your ThingPark reseller.
You may also opt for the automatic renewal mode to simplify future renewals.

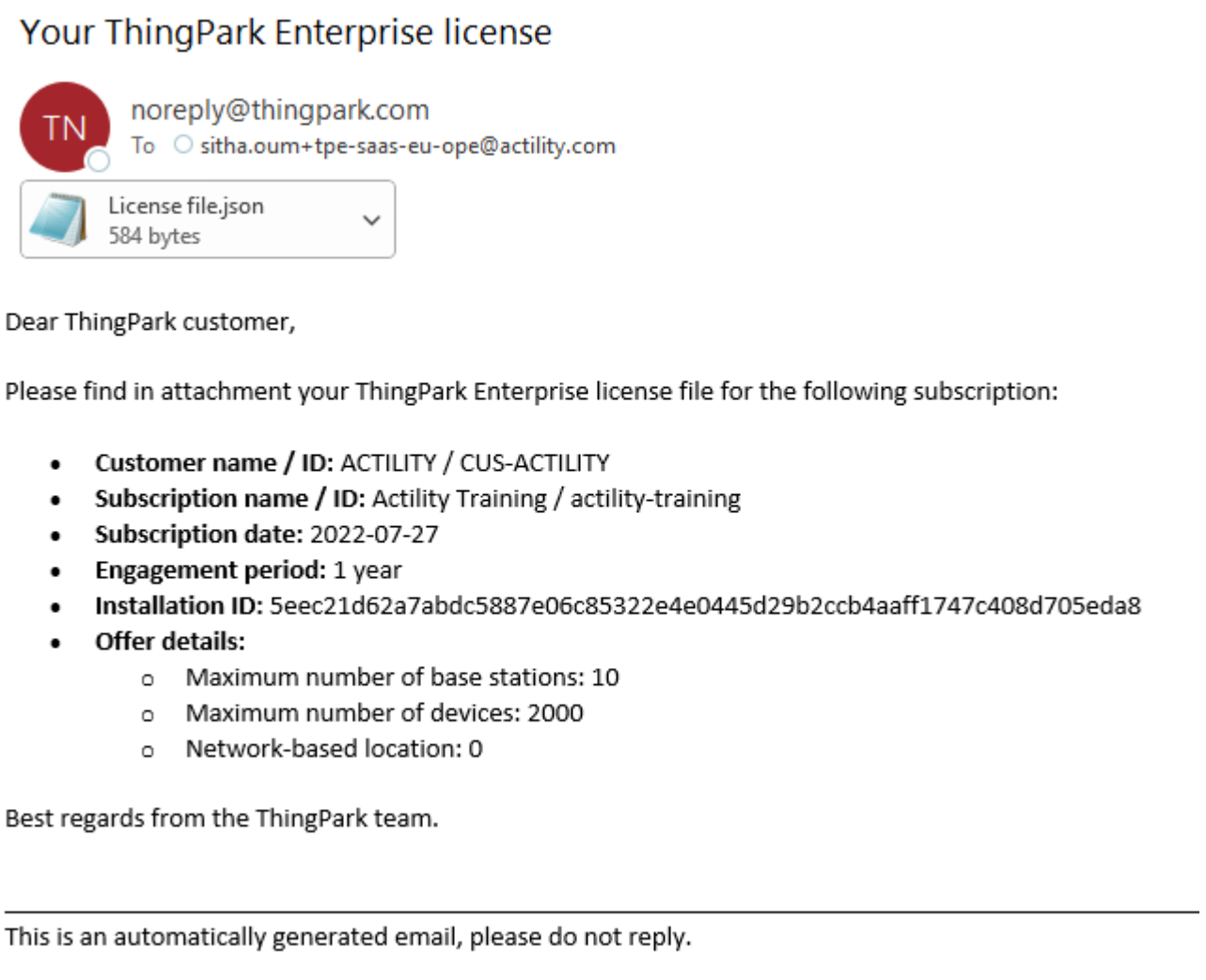
Upon expiration of your subscription, you will no longer be able to add new devices, base stations and connections nor edit existing resources. Delivery of your data packets to external Application Servers will be disabled after a short grace period.

Best regards from the ThingPark team.

This is an automatically generated email, please do not reply.

Enriched OCP License Email

- Installation ID has been added in the OCP license Email sending



Your ThingPark Enterprise license

TN noreply@thingpark.com
To sitha.oum+tpe-saas-eu-ope@actility.com

License file.json
584 bytes

Dear ThingPark customer,

Please find in attachment your ThingPark Enterprise license file for the following subscription:

- **Customer name / ID:** ACTILITY / CUS-ACTILITY
- **Subscription name / ID:** Actility Training / actility-training
- **Subscription date:** 2022-07-27
- **Engagement period:** 1 year
- **Installation ID:** 5eec21d62a7abdc5887e06c85322e4e0445d29b2ccb4aaff1747c408d705eda8
- **Offer details:**
  - Maximum number of base stations: 10
  - Maximum number of devices: 2000
  - Network-based location: 0

Best regards from the ThingPark team.

This is an automatically generated email, please do not reply.

License control enhancements for SAAS

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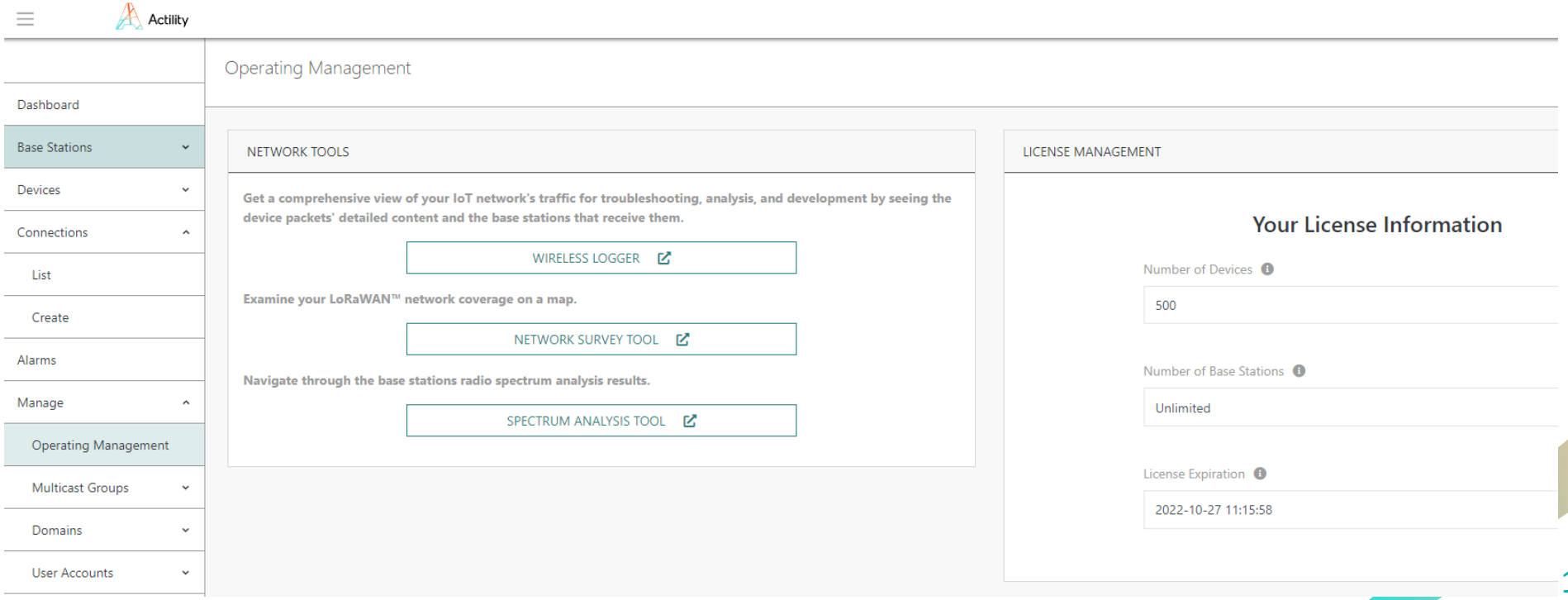
Automatic Saas subscriber creation

- If the TPE SAAS platform is using a TPE 7.1 version and above, the creation of a Saas license on Central will:
  - Create automatically a new subscriber
  - With corresponding number of devices and gateways (can be unlimited)
  - With expiration date
  - Send a welcome Email to the initial subscriber registered on Central



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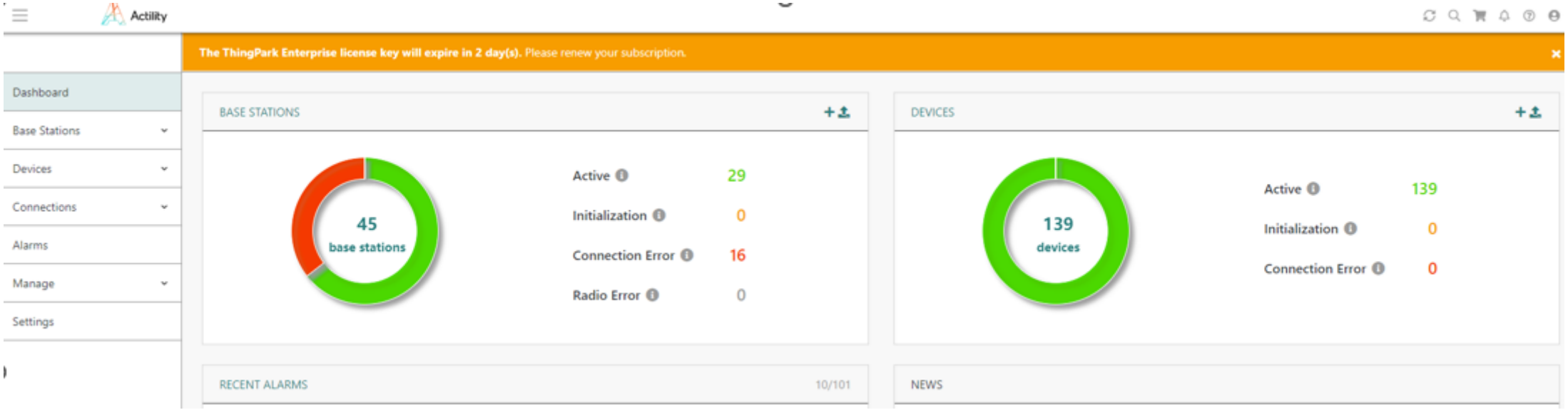
About to expire license banner



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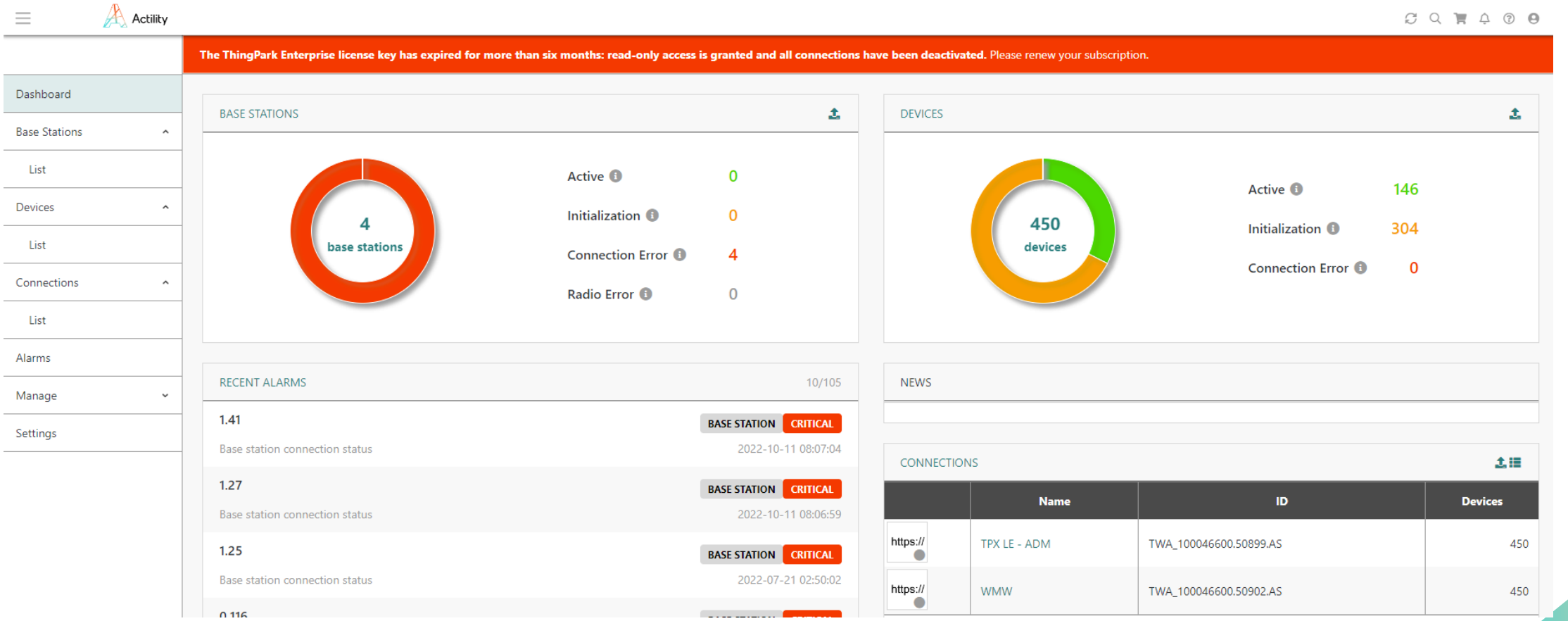
Expired license banner

- System is still functional but in “read only”
- No new BS, device or connection can be created



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Enhancements for Sales Admin

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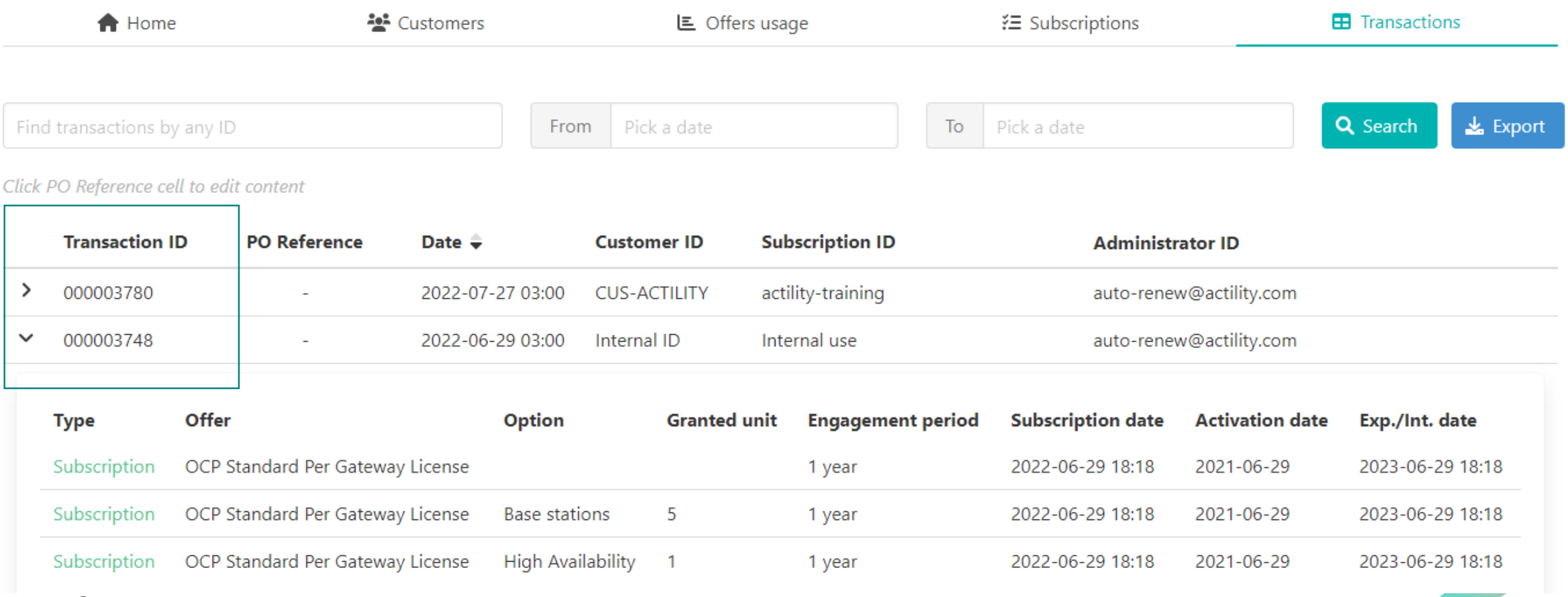
Transaction ID

- A transaction ID has been added to each transaction to help monitor the sales requirements and enhance processing with Actility sales tools. This ID is system generated



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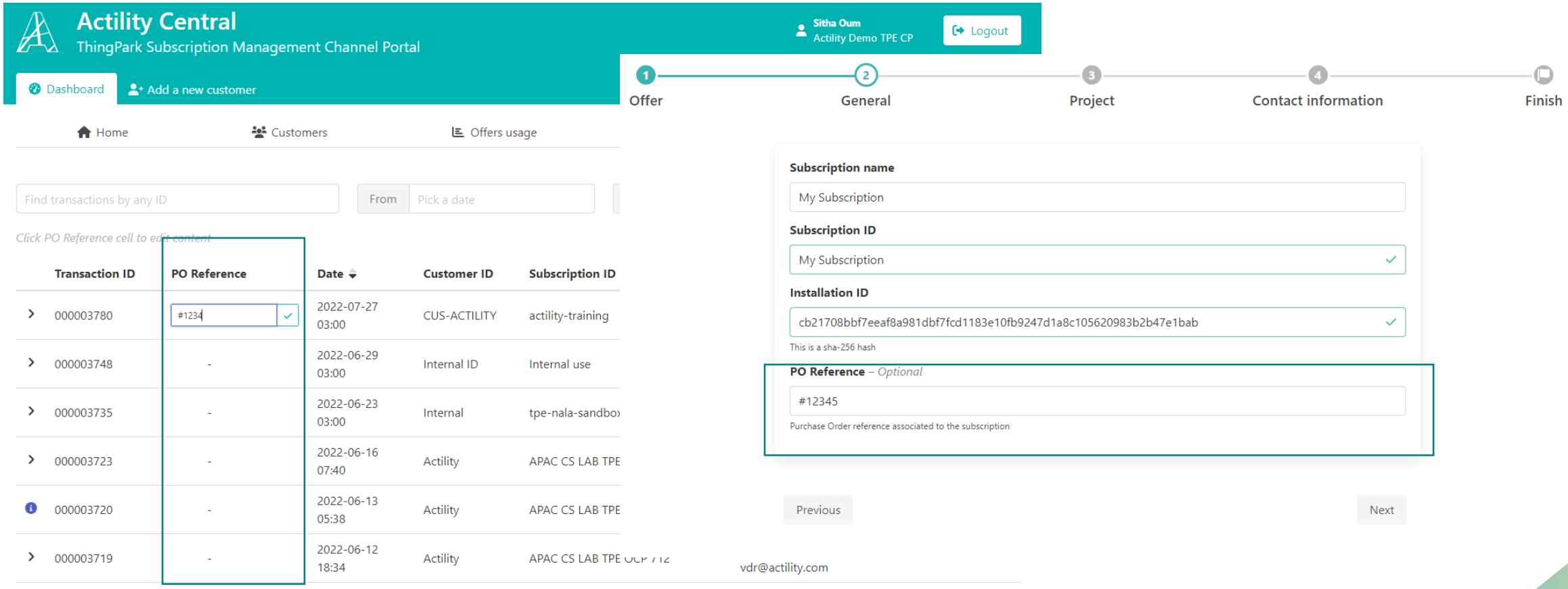
PO reference

- A PO reference field is added and can be filled either at creation of the license, either after, depending on the channel partner PO process



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A Partner Success Story

Christos Delis, Ithaca SA

ITHACA S.A.
DestinationSmart

Project Overview

Installation of **LED lights** on the most central road arteries of Attica region.

Budget: 37 million euros

Main Benefits

- Upgrading of road safety

Improved visibility during night driving hours

- Environmentally friendly technology

low energy footprint and recyclable materials

Led Light Benefits

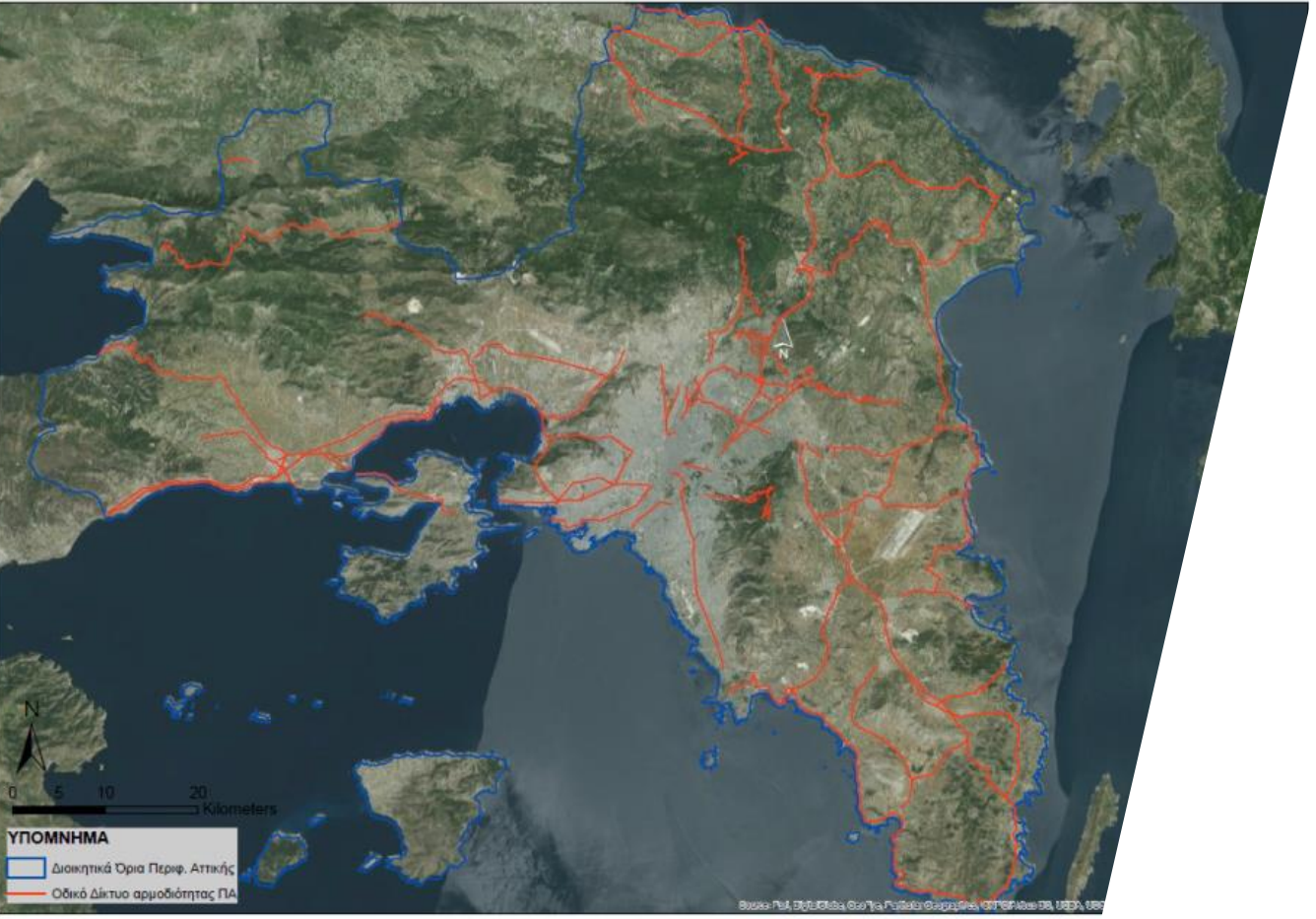
- **Energy Consumption**

42 Watts rated power, comparing to 400 Watts of the old Sodium lamps

- **Hours of Operation**

100.000 operating hours or **more than 20 years**, comparing to old lamps that should be replaced every year

Estimated annual savings of more than 1.5 million euros



Attica region

Total Area: 3.808,10 km^2

Road Network: 1.700 km

Network description

Street light controllers: **23.790**

Gateways: **179**

Actility TPE SaaS Network Server

LMS application server

NEMA Street Light Controller LoRaWAN® SLC-21.01 OEM by UWTech Hellas

LoRaWAN 1.0.3 revA Class C LoRaWAN device with ADR and OTA.

Key Functionalities

- DALI or Analog interface
- IP67
- Surge protection
- Power metering
- Automatic commissioning
- Reporting of CCID, Hardware & Firmware version, operating hours, operating mode, energy & power consumption and electrical parameters
- Real time alarms with certain thresholds
- Automatic operation according to a default operation profile or remotely configurable operation profiles
- Internal clock that is synchronized with the network server
- Automatic operation according to an integrated astronomical clock
- Multicast setup

Gateways

ThingPark gateway models

- UfiSpace Macro v2.1
- Gemtek Micro v1.5

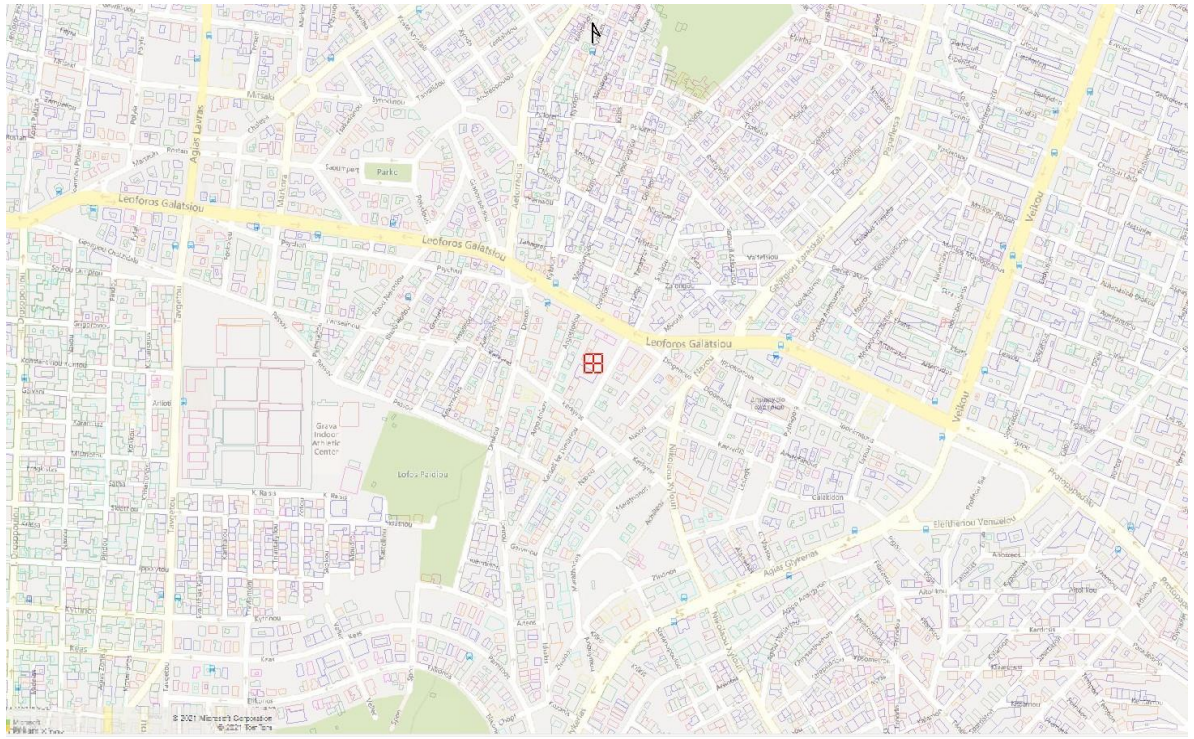
- Outdoor LoRa Gateways with Semtech version 1.5 and 2.0 technology
- 16 channels EU868
- GPS enabled
- 3dBi antenna
- 4G backhauling

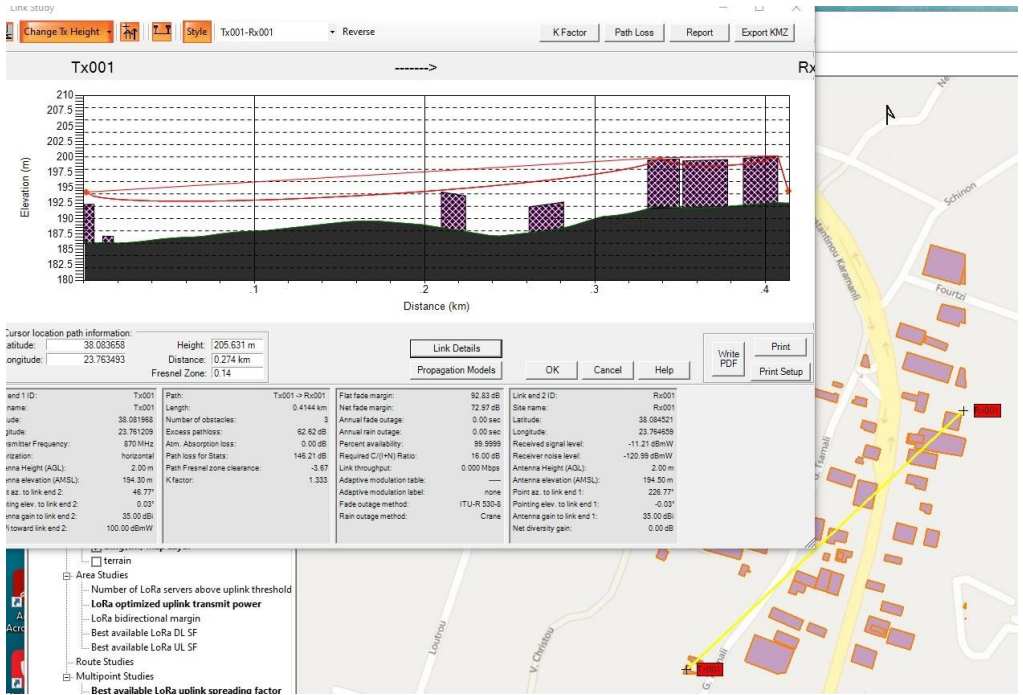
LoRaWAN Gateway Coverage

- 2-5 Km – Urban environment
- 5-10 Km – Rural environment
- 15 Km – Free space (LOS)

Ithaca Test Bench and Lab

RF planning tool





EDX Wireless, SignalPro with LoRa® module

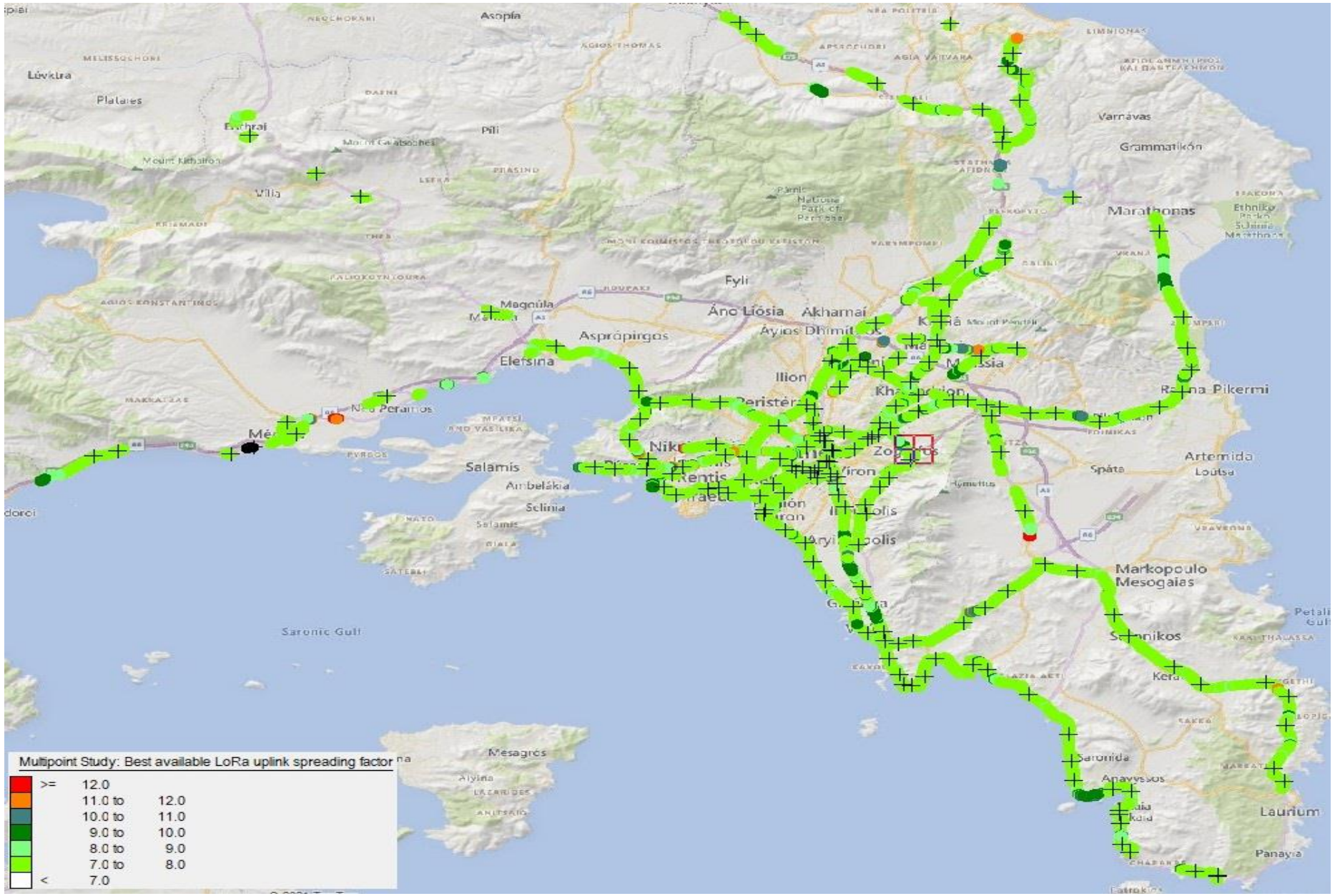
<u>Terrain databases</u>

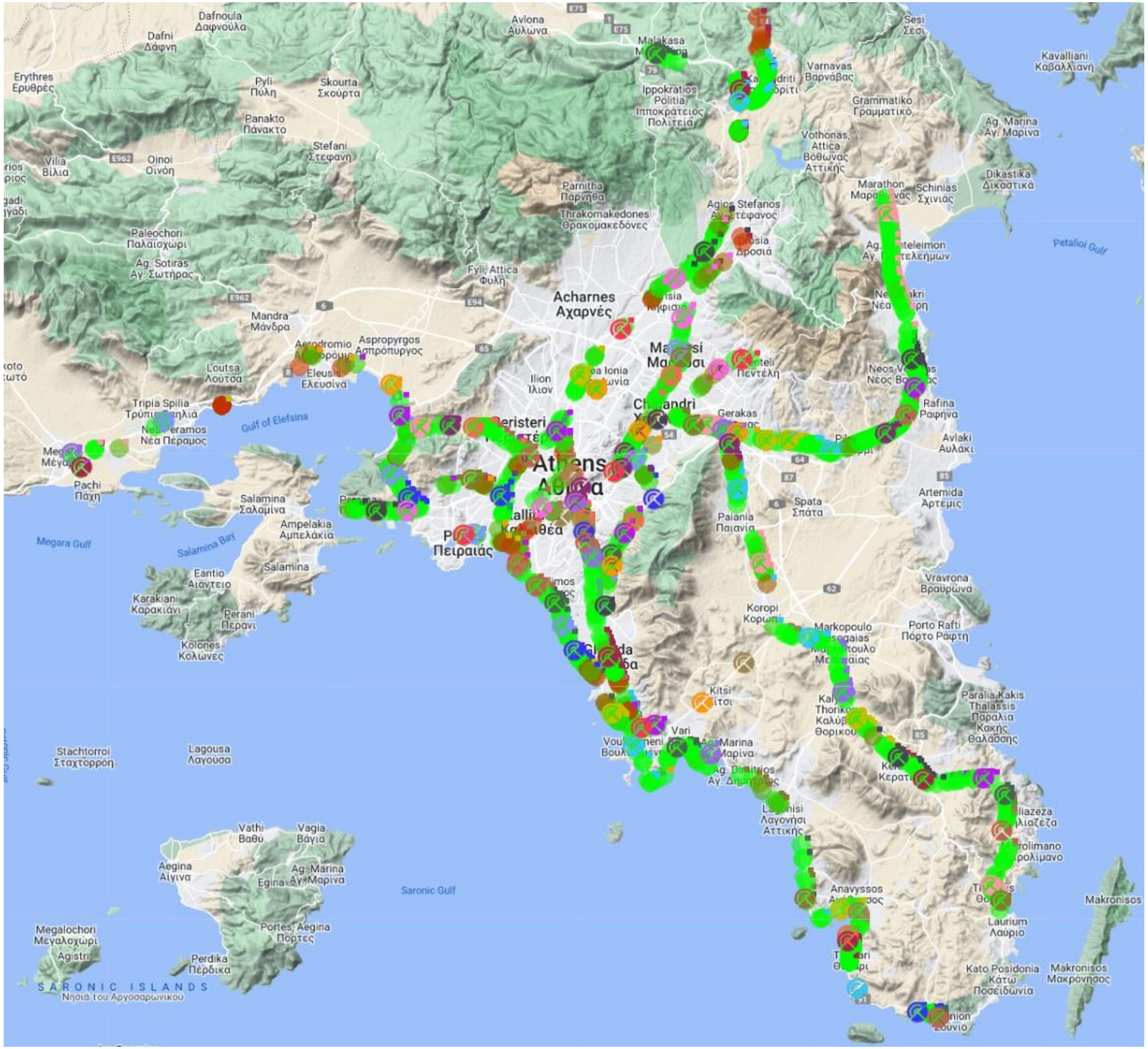
- Use of approx. 30m cell size Digital Terrain Model (DTM – digital map) from NASA Shuttle Radar Topography Mission (SRTM), 2016, for entire Greece.
- Use of approx. 5m cell size DTM from internal production, 2010, for the area of Attica, included buildings, composite with the terrain elevations.

<u>Propagation model</u>

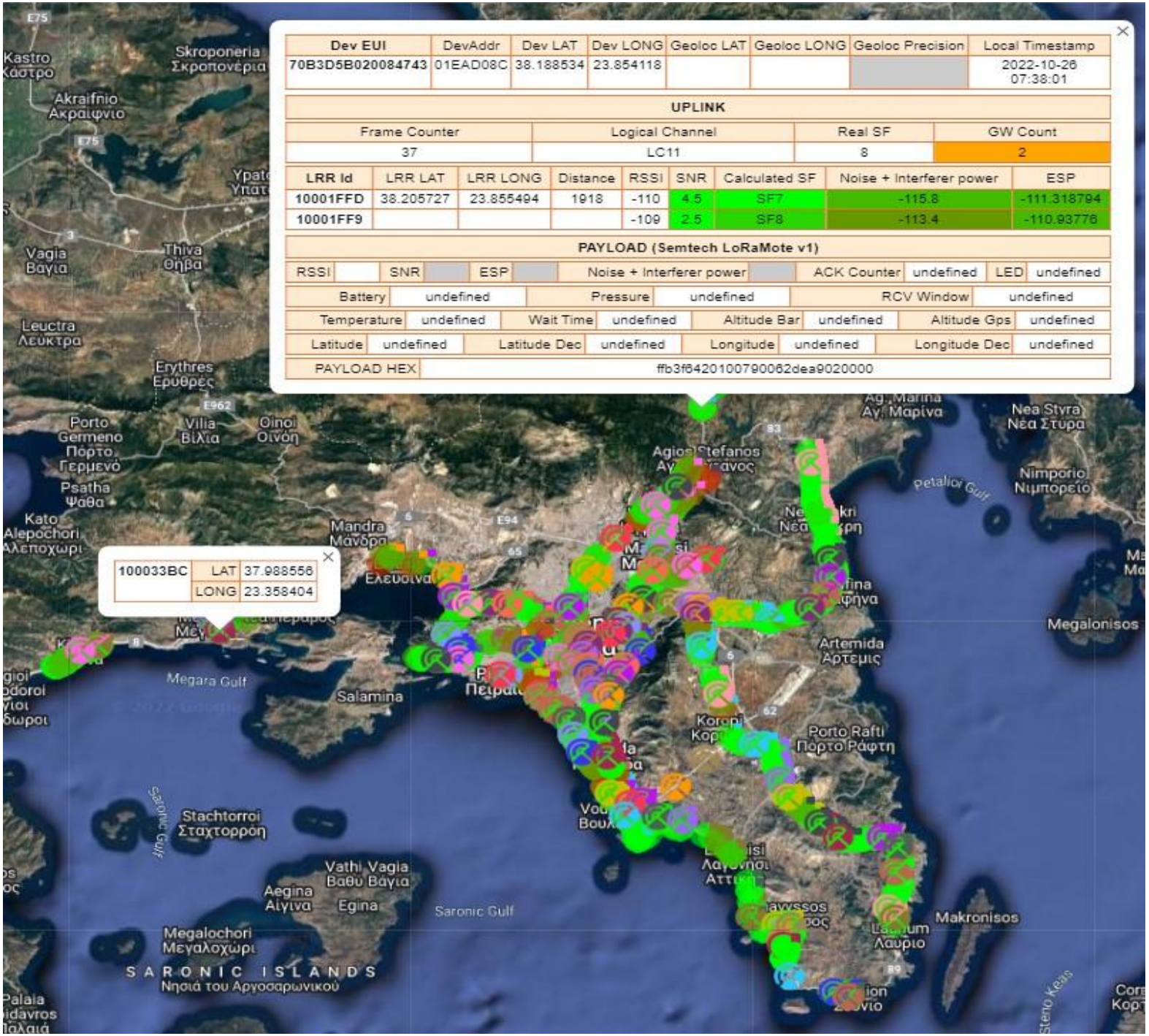
Use of a deterministic model, Anderson2D plus Fresnel zone loss & ground reflection.
50% of location, 50% of Time, 6dB Confidence Margin (for a more conservative prediction).

Multipoint study – Best available LoRa Uplink SF





Actility Network Survey Tool



Actility Network Survey Tool 2

Actility Wireless Logger Tool

Last packets

		UTC Timestamp	Local Timestamp	DevAddr	DevEUI	FPort	FCnt	NFCnt	AFCnt	RSSI	SNR	ESP	SF/DR	SubBand	Channel	LRC Id	LRR Id	LRR Lat	LRR Long	LRR GWCn	Device Lat	Device Long.	LoS Distan	M
	data	2022-10-26 04:39:22.019	2022-10-26 07:39:22.019	001BCF30	70B3D5B020084366	24	39			-96.0	9.0	-96.514...	SF7	G2	LC4	00000211	100033B6	37.97076	23.215706	2	37.97365	23.229712	1269	b

Mtype: UnconfirmedDataUp

Flags: ADR : 1, ADRAckReq : 0, ACK : 0

Mac (hex): -

Data (hex): fcb958638084f018029bfff8feff64 [not encrypted]

Driver metadata: model: - , application: -

Data size (bytes): 15

AirTime (s): 0.066816

LRR	RSSI	SNR	ESP	CHAINS timestamp {GPS_RADIO|-}	ISM Band	RF Region	GWID	GWToken	DLAllowed	ForeignOperatorNetID	ForeignOperatorNSID
100033B6	-96.0	9.0	-96.51497	CHAIN[0]:2022-10-26T04:39:22.019Z {-}	EU 863-870MHz	EU868_16channels.2269					
100033C0	-78.0	8.75	-78.54365	CHAIN[0]:2022-10-26T04:39:22.019Z {-}	EU 863-870MHz	EU868_16channels.2269					

Device [Lat (solv): - Lat: 37.97365 Long (solv): - Long: 23.229712 Loc radius: - Loc time: - Alt: - Alt radius: - Acc: - North Velocity: - East Velocity: -]

Reporting Status: On time

ISM Band: EU 863-870MHz

RF Region: EU868_16channels.2269

AS ID: TWA_100049015.57103.AS,TWA_100049015.59266.AS

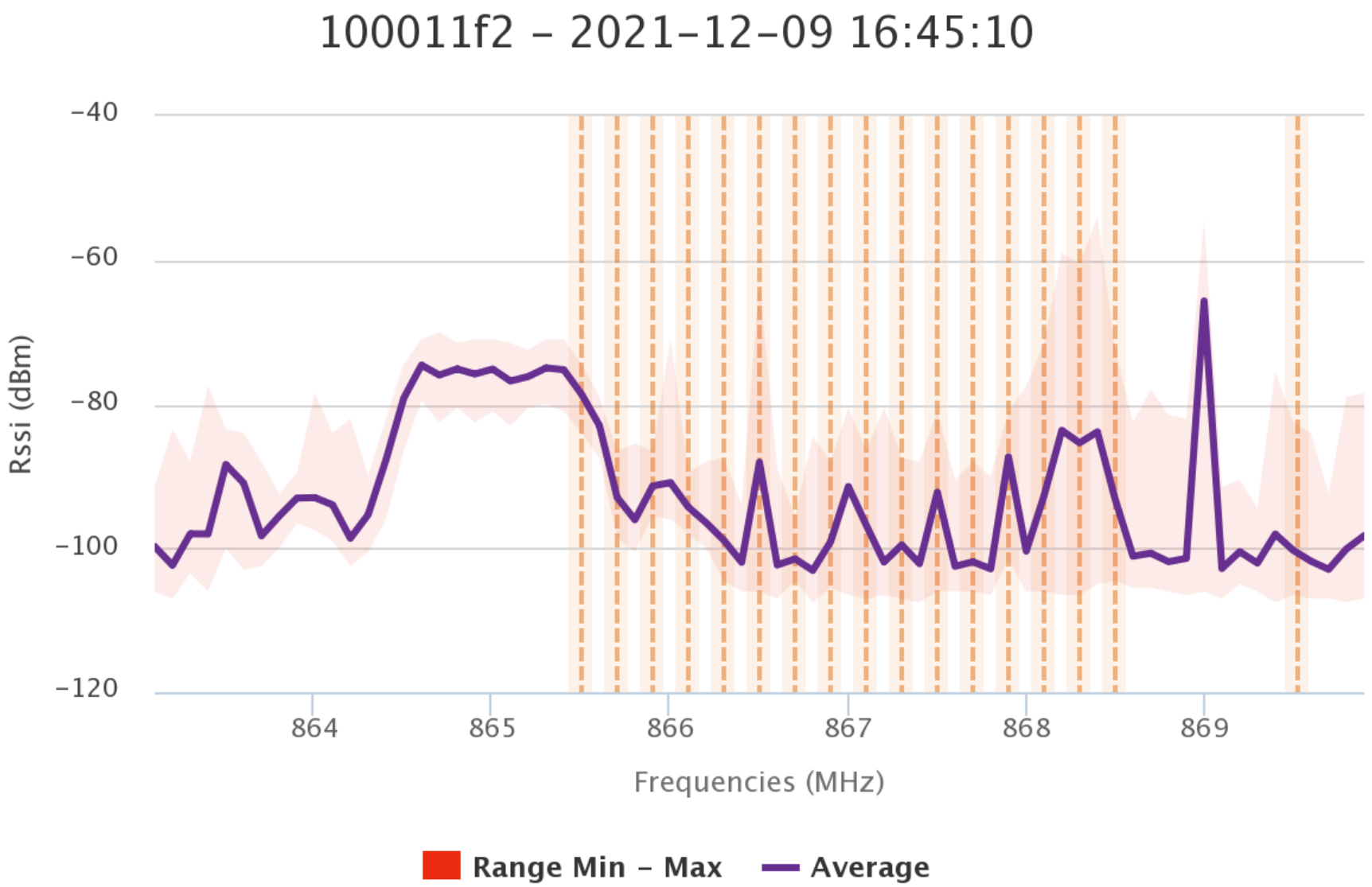
Frequency (MHz): 867.1

Current class: C

AS ID	Status	Transmission errors
TWA_100049015.57103.AS	Ok	None
TWA_100049015.59266.AS	Ok	None

	data	2022-10-26 04:39:17.143	2022-10-26 07:39:17.143	017D3360	70B3D5B020084440	24	39			-92.0	12.0	-92.265...	SF10	G2	LC5	00000211	100033B6	37.97076	23.215706	2	37.962303	23.202177	1513	b
	data	2022-10-26 04:39:16.683	2022-10-26 07:39:16.683	01E2BE94	70B3D5B020084394	25	37			-92.0	10.0	-92.413...	SF7	G2	LC6	00000211	100033C0	37.974976	23.232414	2	37.97328	23.22902	352	0
	data	2022-10-26 04:39:15.162	2022-10-26 07:39:15.162	00253A5B	70B3D5B020083477	25	37			-64.0	11.75	-64.280...	SF8	G2	LC5	00000211	10002FBB	38.052444	23.985634	1	38.049953	23.987175	308	5
	data	2022-10-26 04:39:14.120	2022-10-26 07:39:14.120	016DA920	70B3D5B020081331	24	39			-66.0	12.75	-66.224...	SF9	G2	LC9	00000211	100033C0	37.974976	23.232414	2	37.97546	23.233583	115	5
	data	2022-10-26 04:39:04.503	2022-10-26 07:39:04.503	00C71CD2	70B3D5B020084508	25	37			-84.0	10.5	-84.370...	SF7	G2	LC8	00000211	100033B6	37.97076	23.215706	2	37.971954	23.223526	698	7
	data	2022-10-26 04:39:03.095	2022-10-26 07:39:03.095	0008628D	70B3D5B020084405	25	40			-94.0	10.0	-94.413...	SF7	G2	LC5	00000211	100033C0	37.974976	23.232414	2	37.972248	23.22483	730	9
	data	2022-10-26 04:39:02.727	2022-10-26 07:39:02.727	0145560B	70B3D5B020056231	25	135			-81.0	9.25	-81.487...	SF7	G2	LC4	00000211	100011E2	37.841652	23.75942	1	37.841095	23.759907	75	3
	data	2022-10-26 04:39:02.175	2022-10-26 07:39:02.175	01F9174F	70B3D5B020084584	25	40			-108.0	2.5	-109.93...	SF7	G2	LC12	00000211	100033B6	37.97076	23.215706	1	37.971996	23.221827	553	2
	data	2022-10-26 04:38:59.921	2022-10-26 07:38:59.921	010D7ECD	70B3D5B020084483	24	39			-91.0	9.25	-91.487...	SF7	G2	LC7	00000211	100033B6	37.97076	23.215706	2	37.972004	23.220932	478	5
	data	2022-10-26 04:38:58.426	2022-10-26 07:38:58.426	00B05128	70B3D5B020056212	25	134			-39.0	9.25	-39.487...	SF7	G2	LC4	00000211	100011E2	37.841652	23.75942	1	37.841637	23.75939	3	9
	data	2022-10-26 04:38:57.145	2022-10-26 07:38:57.145	006D754D	70B3D5B020080746	24	39			-86.0	9.75	-86.437...	SF7	G2	LC12	00000211	100033C0	37.974976	23.232414	2	37.974335	23.23109	136	f
	data	2022-10-26 04:38:51.344	2022-10-26 07:38:51.344	01A43348	70B3D5B020082591	25	37			-76.0	9.25	-76.487...	SF7	G2	LC6	00000211	10002FBB	38.052452	23.98564	1	38.054913	23.984344	296	1
	data	2022-10-26 04:38:51.015	2022-10-26 07:38:51.015	010B3197	70B3D5B020084479	24	39			-82.0	9.0	-82.514...	SF7	G2	LC8	00000211	100033B6	37.97076	23.215706	2	37.97199	23.22039	432	2
	data	2022-10-26 04:38:42.935	2022-10-26 07:38:42.935	01B0C7A3	70B3D5B020056870	24	132			-97.0	9.5	-97.461...	SF7	G1	LC1	00000211	100011E2	37.841652	23.75942	1	37.83764	23.764145	609	2

Actility Spectrum Analysis Tool



Components of Success

Project planning
Proof of concept
Key Partners

Thank you for your attention

Actility

ITHACA S.A.
DestinationSmart

Thank You!

Continue the discussion and contact Actility technical and commercial experts at channels@actility.com

Or directly at:

ramez.soss@actility.com

sitha.oum@actility.com

cdelis@ithaca-sa.com