

Actility Enterprise Channels Webinar

December 2022



Actility
Connecting with intelligence

Agenda & Introduction

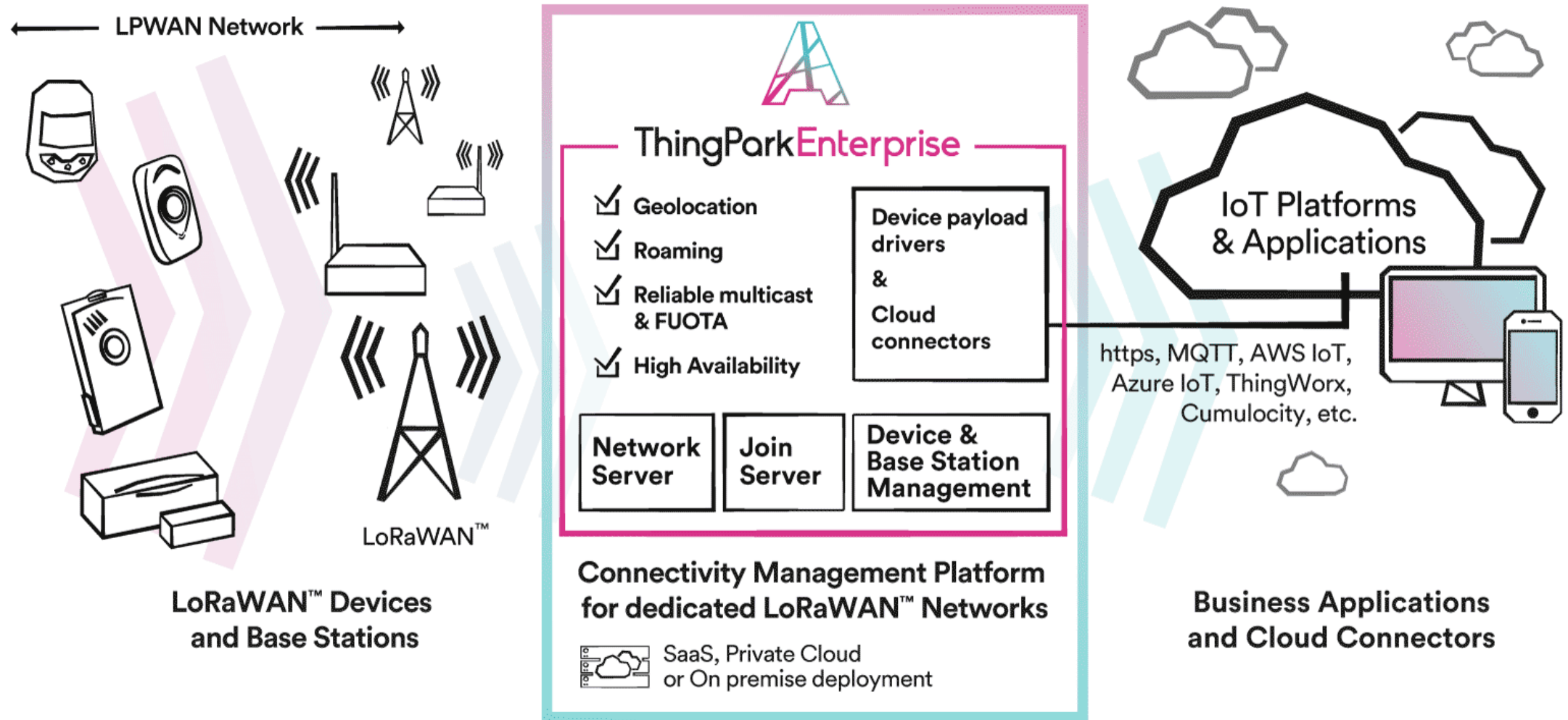
Lode Van Halewyck



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

ThingPark Enterprise – Solution Overview



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.

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**

What's New? Actility Central

Sitha Oum





Dashboards

Activity

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

Dashboards

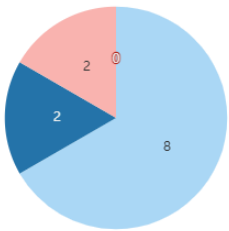
Customers

8

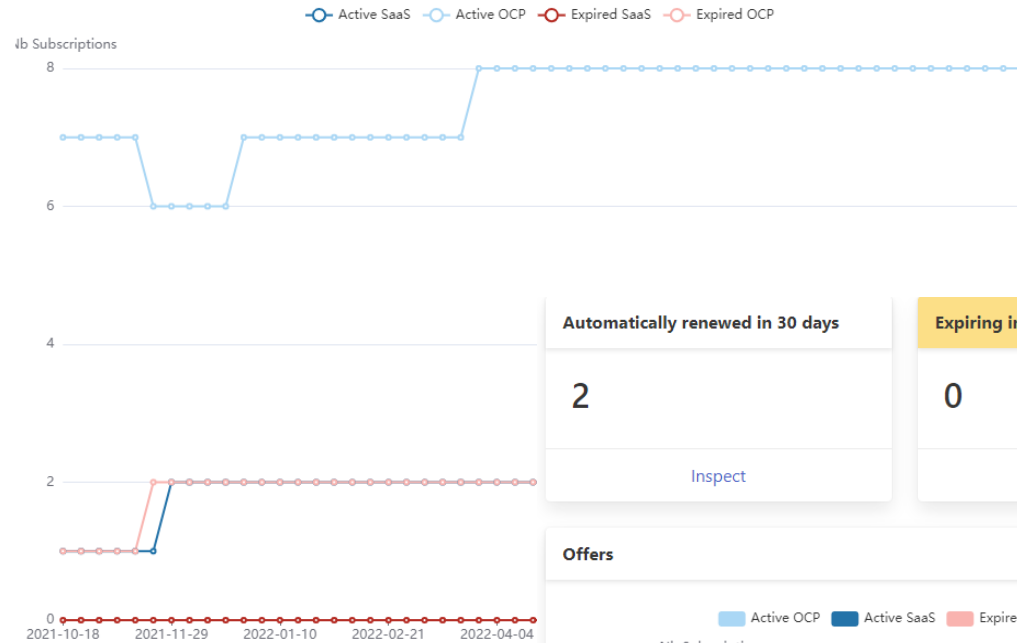
with active subscriptions

Subscriptions

Active OCP
Active SaaS
Expired OCP
Expired SaaS



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

Active OCP Active SaaS Expired OCP Expired SaaS

Nb Subscriptions

10

8

6

4

2

0

Standard Per Gateway License

90-days Trial

Internal use license

Dashboards for Channel Partners

- Offers usage

[Dashboard](#) [Add a new customer](#) [Terms & Conditions](#)

[Home](#) [Customers](#) [Offers usage](#) [Subscriptions](#) [Transactions](#)

Type ALL [v](#)

[Search](#)

[Click on line to see offer usage details](#)

Name	Type	Active v	Expired
Standard Per Gateway License	OCP	7	1
Internal use license	OCP	2 / 5	0
Standard Per Gateway License	SAAS	1	1
90-days Trial	OCP	0	1
Starter Pack	OCP	0	0
90-days Trial	SAAS	0	0
Internal use license	SAAS	0 / 5	0

20 [v](#)

[Previous](#) [1](#) [Next](#)

Standard Per Gateway License - usage details [i](#)

Devices :

- Options not customizable

Base Stations :

- Overall: 35 base stations subscribed
- Average: 5 base stations per subscription

Network based location :

- Options not customizable

High Availability :

- 0 subscriptions using High Availability



Email notifications enhancements

Actility

Weekly Email to Channel Partners

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

Activity Central Weekly report



noreply@thingpark.com

To: Network Operations, Sitha Oum

Cc: Central Admin

Dear Activity 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.

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

About to expire Emails

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

[DEV] Your ThingPark subscription will expire in 7 days



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.

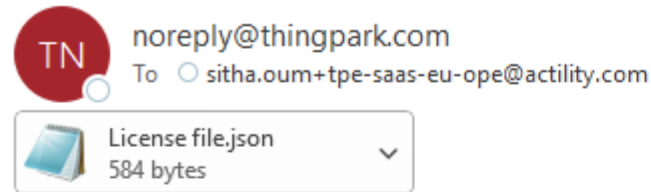
Best regards from the ThingPark team.

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



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.



License control enhancements for SAAS

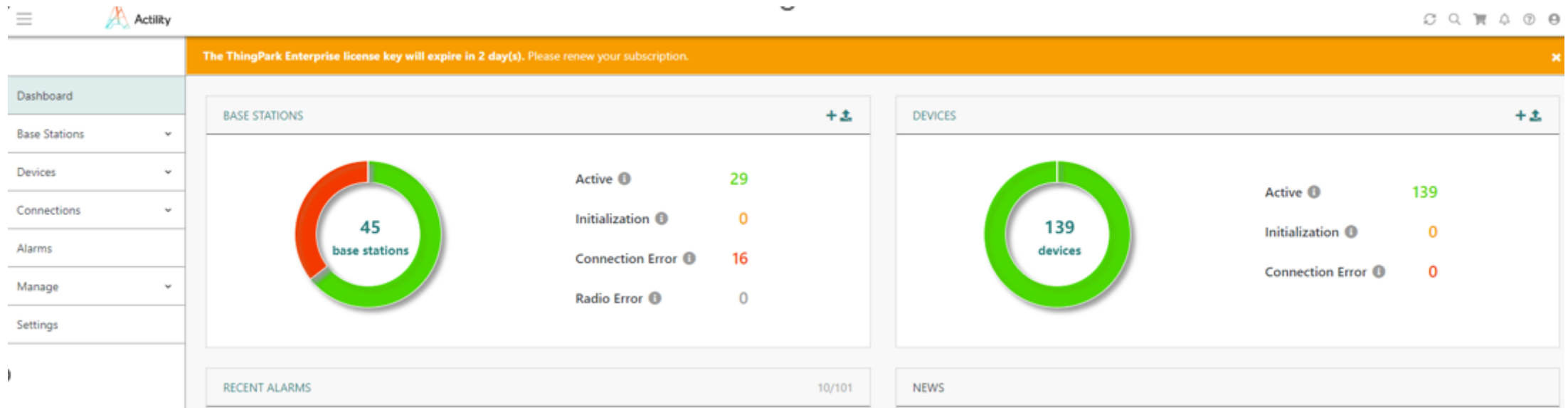
Actility

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

The screenshot displays the 'Activity' web interface. On the left is a sidebar menu with options: Dashboard, Base Stations, Devices, Connections, List, Create, Alarms, Manage, Operating Management (highlighted), Multicast Groups, Domains, and User Accounts. The main content area is titled 'Operating Management' and is divided into two panels. The left panel, 'NETWORK TOOLS', contains three buttons: 'WIRELESS LOGGER', 'NETWORK SURVEY TOOL', and 'SPECTRUM ANALYSIS TOOL', each with an external link icon. The right panel, 'LICENSE MANAGEMENT', is titled 'Your License Information' and shows three fields: 'Number of Devices' with a value of 500, 'Number of Base Stations' with a value of 'Unlimited', and 'License Expiration' with a value of '2022-10-27 11:15:58'.

About to expire license banner



Expired license banner

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

Activity

The ThingPark Enterprise license key has expired for more than six months: read-only access is granted and all connections have been deactivated. Please renew your subscription.

BASE STATIONS

4 base stations

Active: 0
Initialization: 0
Connection Error: 4
Radio Error: 0

DEVICES

450 devices

Active: 146
Initialization: 304
Connection Error: 0

RECENT ALARMS 10/105

1.41 BASE STATION CRITICAL
Base station connection status 2022-10-11 08:07:04

1.27 BASE STATION CRITICAL
Base station connection status 2022-10-11 08:06:59

1.25 BASE STATION CRITICAL
Base station connection status 2022-07-21 02:50:02

0.116

NEWS

CONNECTIONS

	Name	ID	Devices
https://	TPX LE - ADM	TWA_100046600.50899.AS	450
https://	WMW	TWA_100046600.50902.AS	450



Enhancements for Sales Admin

Actility

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

[Home](#)[Customers](#)[Offers usage](#)[Subscriptions](#)[Transactions](#)


Click PO Reference cell to edit content

Transaction ID	PO Reference	Date ▾	Customer ID	Subscription ID	Administrator ID
> 000003780	-	2022-07-27 03:00	CUS-ACTILITY	actility-training	auto-renew@actility.com
▼ 000003748	-	2022-06-29 03:00	Internal ID	Internal use	auto-renew@actility.com

Type	Offer	Option	Granted unit	Engagement period	Subscription date	Activation date	Exp./Int. date
Subscription	OCP Standard Per Gateway License			1 year	2022-06-29 18:18	2021-06-29	2023-06-29 18:18
Subscription	OCP Standard Per Gateway License	Base stations	5	1 year	2022-06-29 18:18	2021-06-29	2023-06-29 18:18
Subscription	OCP Standard Per Gateway License	High Availability	1	1 year	2022-06-29 18:18	2021-06-29	2023-06-29 18:18

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

**Activity Central**
ThingPark Subscription Management Channel Portal

[Dashboard](#) [Add a new customer](#)

[Home](#) [Customers](#) [Offers usage](#)

Click PO Reference cell to edit content

Transaction ID	PO Reference	Date	Customer ID	Subscription ID
> 000003780	#1234 ✓	2022-07-27 03:00	CUS-ACTIVITY	activity-training
> 000003748	-	2022-06-29 03:00	Internal ID	Internal use
> 000003735	-	2022-06-23 03:00	Internal	tpe-nala-sandbox
> 000003723	-	2022-06-16 07:40	Activity	APAC CS LAB TPE
i 000003720	-	2022-06-13 05:38	Activity	APAC CS LAB TPE
> 000003719	-	2022-06-12 18:34	Activity	APAC CS LAB TPE UCP 112

Sitha Oum
Activity Demo TPE CP

Logout

1 Offer

2 General

3 Project

4 Contact information

Finish

Subscription name

My Subscription

Subscription ID

My Subscription ✓

Installation ID

cb21708bbf7eaf8a981dbf7fcd1183e10fb9247d1a8c105620983b2b47e1bab ✓
This is a sha-256 hash

PO Reference – Optional

#12345
Purchase Order reference associated to the subscription

Previous

Next

A Partner Success Story

Christos Delis, Ithaca SA

ITHACA S.A.
Destination**Smart**



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**

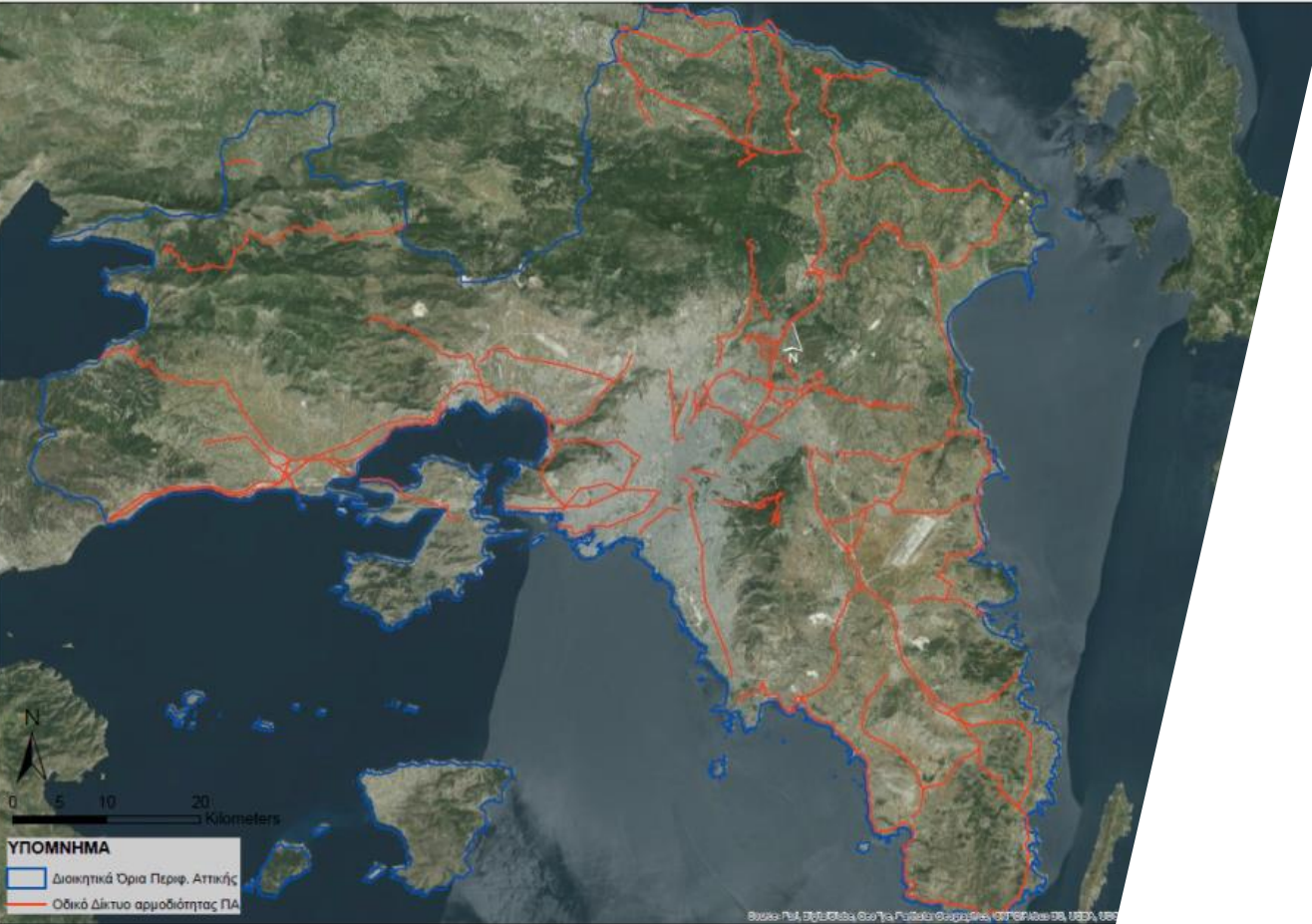
42 Watts rated power, comparing to 400 Watts of the old Sodium lamps

- **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





Network description

Street light controllers: **23.790**

Gateways: **179**

Actility TPE SaaS Network Server

LMS application server

Attica region

Total Area: 3.808,10 km²

Road Network: 1.700 km

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



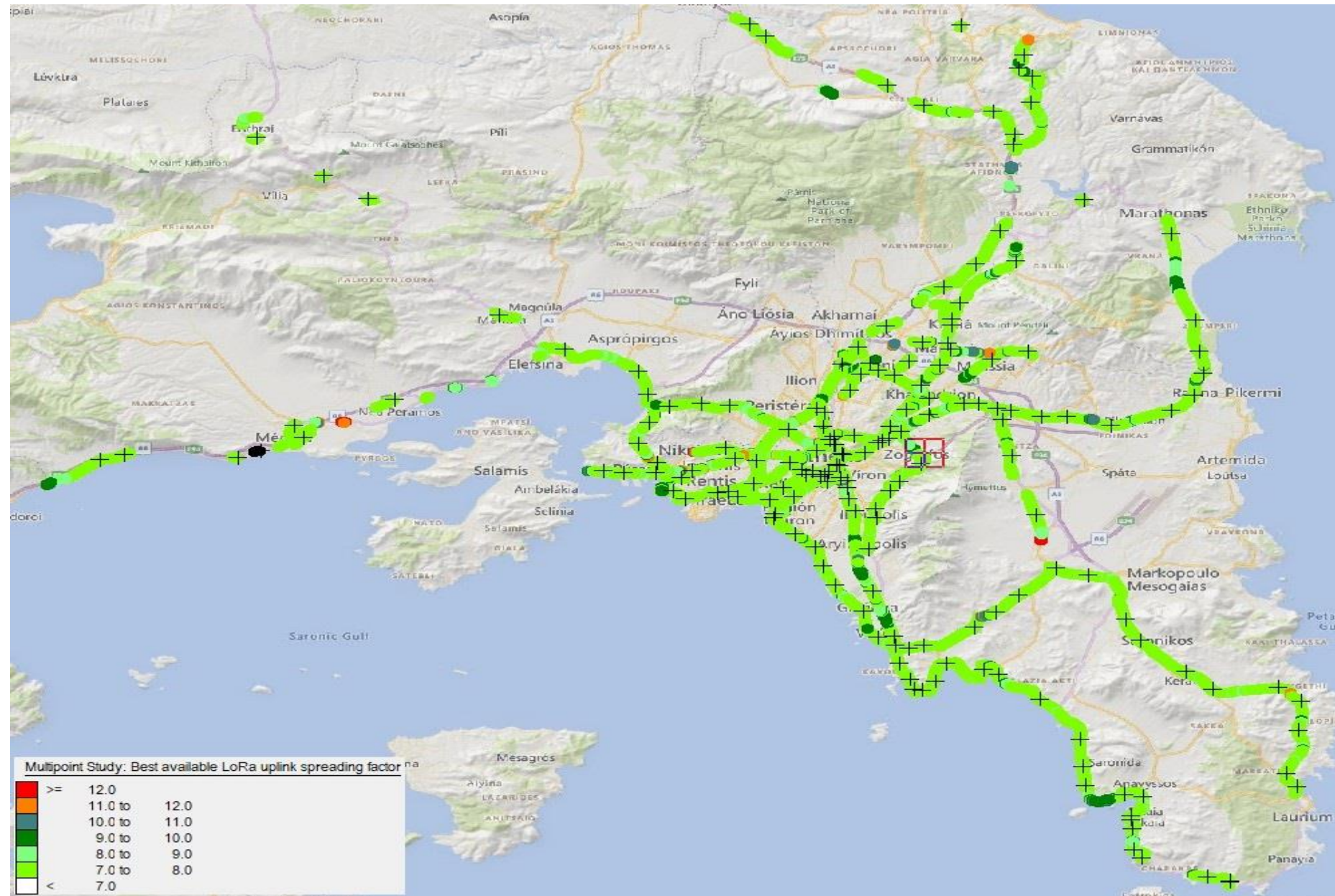
Terrain databases

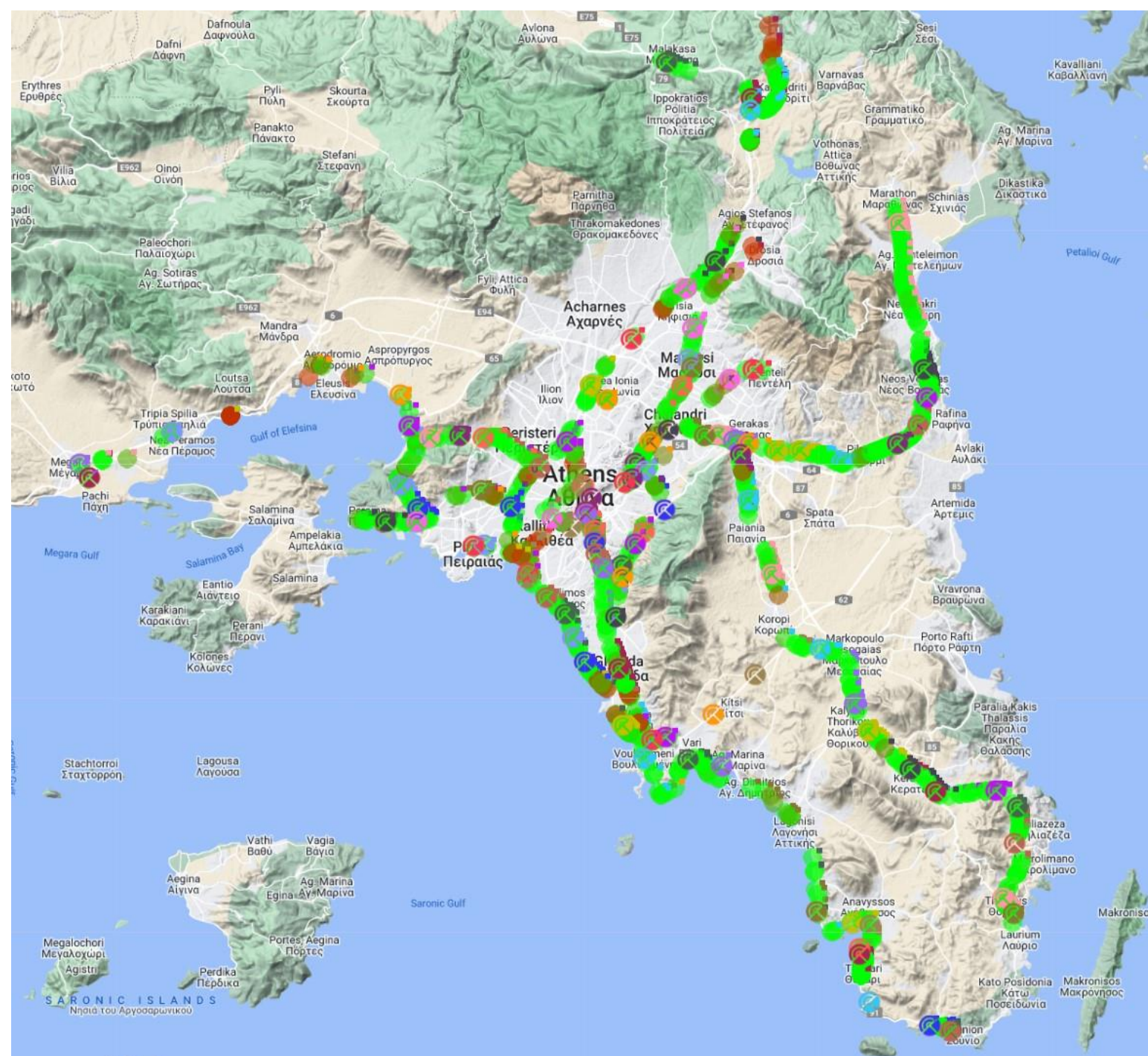
-
- The screenshot displays the HPLink software interface, which is used for radio link budget analysis. The main window is divided into two primary views: a 2D terrain profile on the left and a 3D map view on the right. The 2D view shows the signal path (red line) and the terrain (green line) over a distance of 0 to 4 km. The 3D view shows a map with buildings and a yellow line representing the signal path. A 'Link Details' dialog box is open, providing a comprehensive overview of the link parameters.
- Link Details Dialog Box:**
- | Tx001 -> Rx001 | |
|--------------------------------------|----------------|
| Path: | Tx001 -> Rx001 |
| Name: | Tx001 |
| Length: | 0.4144 km |
| Number of obstacles: | 3 |
| Excess pathloss: | 62.62 dB |
| Alt. Absorption loss: | 0.00 dB |
| Path loss for Stats: | 145.21 dB |
| Horizontal: | 2.00 m |
| Path Fresnel zone clearance: | -3.67 |
| K factor: | 1.333 |
| Flat fade margin: | 92.83 dB |
| Net fade margin: | 72.87 dB |
| Annual fade outage: | 0.00 sec |
| Annual rain outage: | 0.00 sec |
| Percent availability: | 99.9999 |
| Required C/I+H Ratio: | 18.00 dB |
| Link throughput: | 0.000 Mbps |
| Adaptive modulation table: | none |
| Adaptive modulation label: | none |
| Fade outage method: | ITU-R S500 |
| Rain outage method: | Cane |
| Link and 2 ID: | Rx001 |
| Site name: | Rx001 |
| Latitude: | 38.064321 |
| Longitude: | 23.764659 |
| Received signal level: | -11.21 dBmW |
| Receiver noise level: | -120.99 dBmW |
| Antenna Height (ASL): | 2.00 m |
| Antenna elevation (AMSL): | 194.30 m |
| Point az. to link and 1: | 226.77° |
| Pointing elev. to link and 1: | -0.02° |
| Antenna gain to link and 1: | 35.00 dB |
| Net diversity gain: | 0.00 dB |
- The dialog box also includes a 'Link Details' section with 'Propagation Models' (OK, Cancel, Help) and a 'Write PDF' button. The main window includes a 'Change To Height' dropdown, a 'Style' button, and a 'Reverse' button. The 2D view shows a terrain profile with a red line for the signal path and a green line for the terrain. The 3D view shows a map with buildings and a yellow line for the signal path.

Use of a deterministic model, Anderson2D plus Fresnel zone loss & ground reflection.

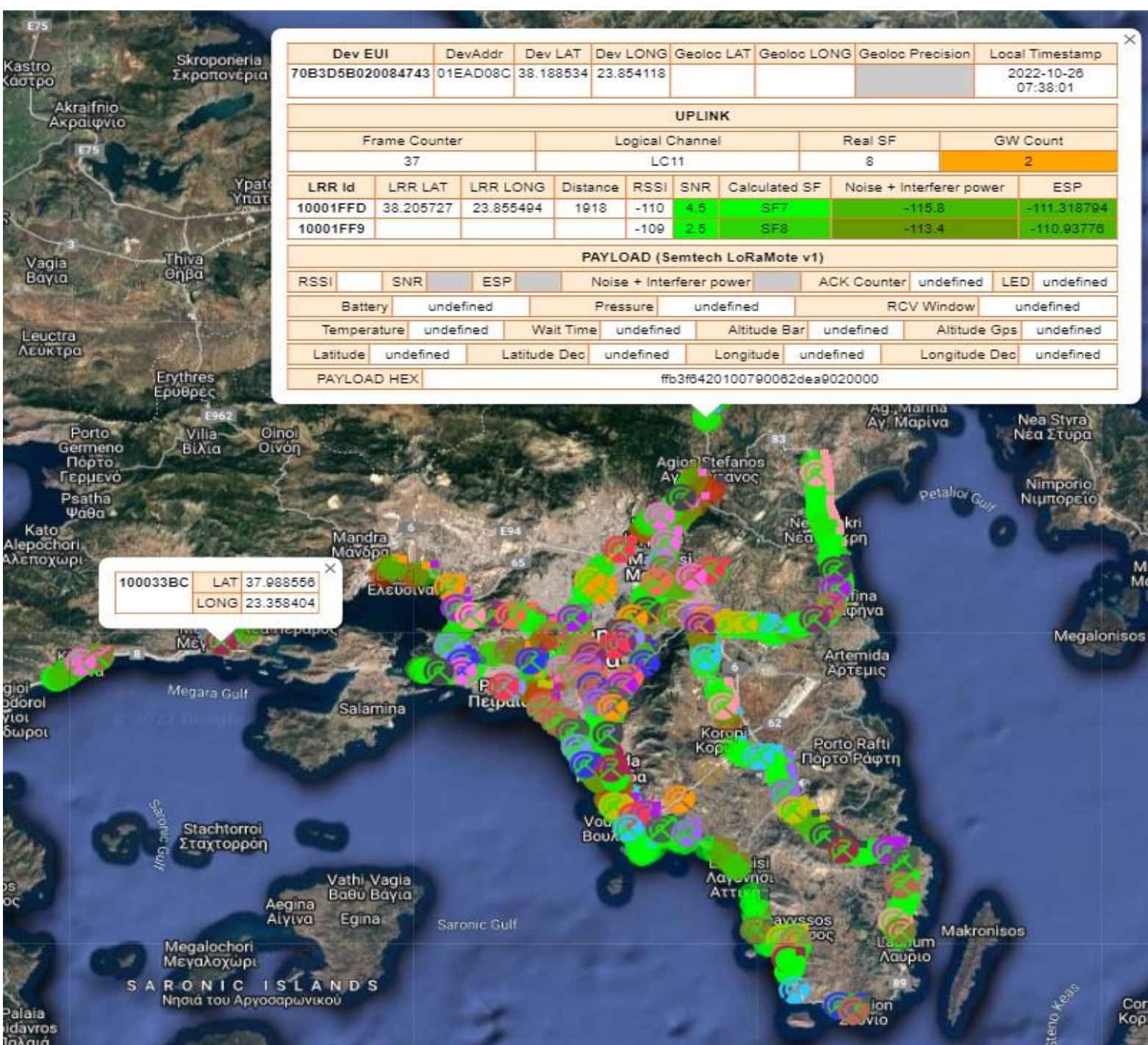
31

Multipoint study – Best available LoRa Uplink SF





Activity Network Survey Tool



Actility Network Survey Tool 2

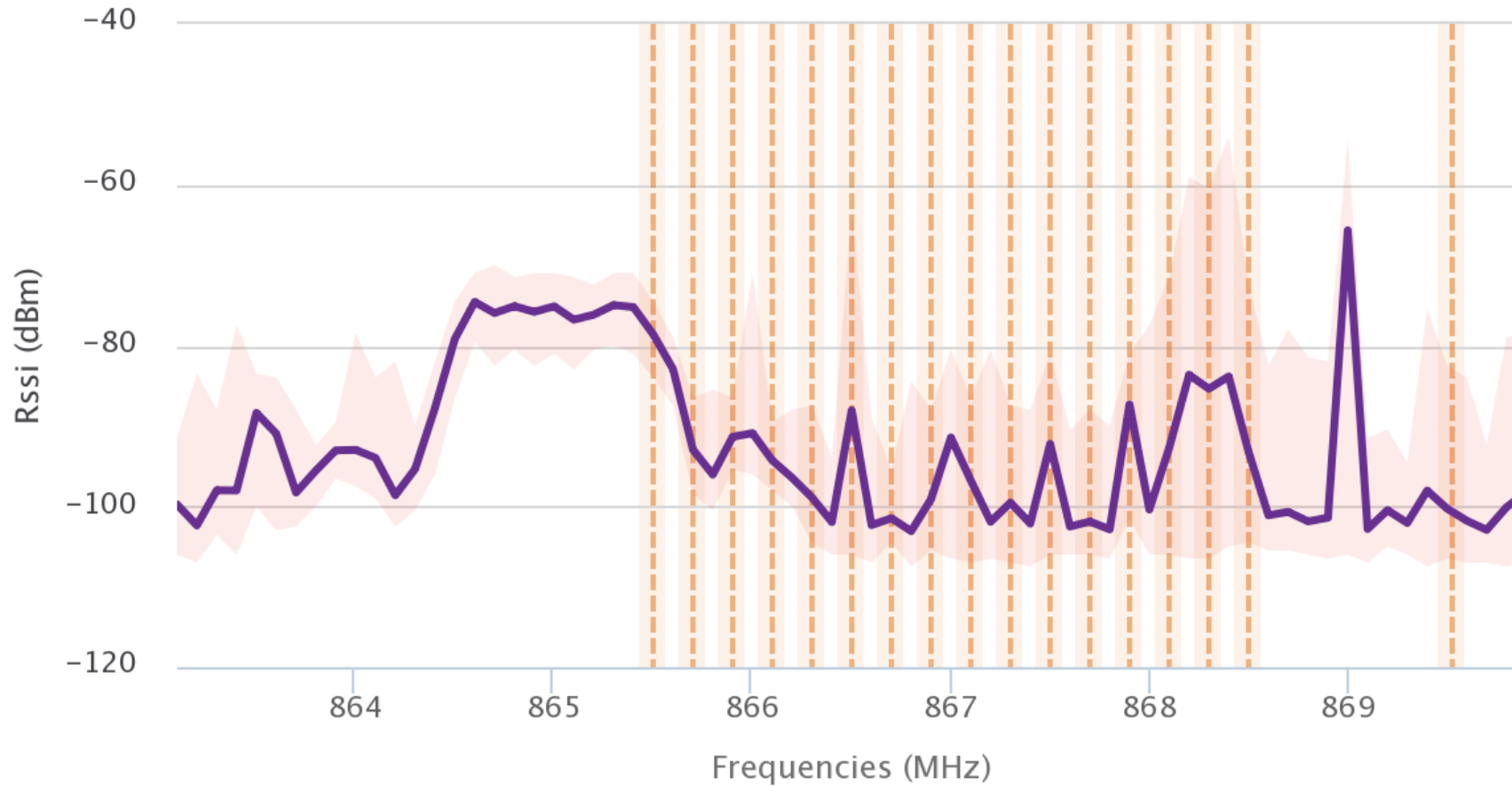
Activity Wireless Logger Tool

Last packets

		UTC Timestamp	Local Timestamp	DevAddr	DevEUI	FPort	FCnt	NFCnt	AFCnt	RSSI	SNR	ESP	SF/DR	SubBand	Channel	LRR 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	7083D5B020084366	24	39			-96.0	9.0	-96.514	SF7	G2	LC4	00000211	100033B6	37.97076	23.215706	2	37.97365	23.229712	1269				b																																													
<div>Mtype: UnconfirmedDataUp</div> <div>Flags: ADR : 1, ADRAckReq : 0, ACK : 0</div> <div>Mac (hex): -</div> <div>Data (hex): fcb958638084f018029bfff8feff64 [not encrypted]</div> <div>Driver metadata: model: -, application: -</div> <div>Data size (bytes): 15</div> <div>AirTime (s): 0.066816</div> <table> <tr> <th>LRR</th> <th>RSSI</th> <th>SNR</th> <th>ESP</th> <th>CHAINS timestamp {GPS_RADIO}-</th> <th>ISM Band</th> <th>RF Region</th> <th>GWID</th> <th>GWToken</th> <th>DLAllowed</th> <th>ForeignOperatorNetID</th> <th>ForeignOperatorNSID</th> </tr> <tr> <td>100033B6</td> <td>-96.0</td> <td>9.0</td> <td>-96.51497</td> <td>CHAIN[0]:2022-10-26T04:39:22.019Z (-)</td> <td>EU 863-870MHz</td> <td>EU868_16channels.2269</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>100033C0</td> <td>-78.0</td> <td>8.75</td> <td>-78.54365</td> <td>CHAIN[0]:2022-10-26T04:39:22.019Z (-)</td> <td>EU 863-870MHz</td> <td>EU868_16channels.2269</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div>Device [Lat (solv): - Lat: 37.97365 Long (solv): - Long: 23.229712 Loc radius: - Loc time: - Alt: - Alt radius: - Acci: - North Velocity: - East Velocity: -]</div> <div>Reporting Status: On time</div> <div>ISM Band: EU 863-870MHz</div> <div>RF Region: EU868_16channels.2269</div> <div>AS ID: TWA_100049015.57103.AS,TWA_100049015.59266.AS</div> <div>Frequency (MHz): 867.1</div> <div>Current class: C</div> <table> <tr> <th>AS ID</th> <th>Status</th> <th>Transmission errors</th> </tr> <tr> <td>TWA_100049015.57103.AS</td> <td>Ok</td> <td>None</td> </tr> <tr> <td>TWA_100049015.59266.AS</td> <td>Ok</td> <td>None</td> </tr> </table>																												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						AS ID	Status	Transmission errors	TWA_100049015.57103.AS	Ok	None	TWA_100049015.59266.AS	Ok	None
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																																																																		
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	7083D5B020084440	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	7083D5B020084394	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	7083D5B020083477	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	7083D5B020081331	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	7083D5B020084508	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	7083D5B020084405	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	7083D5B020056231	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	7083D5B020084584	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	7083D5B020084483	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	7083D5B020056212	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	7083D5B020080746	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	7083D5B020082591	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	7083D5B020084479	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	7083D5B020056870	24	132			-97.0	9.5	-97.461	SF7	G1	LC1	00000211	100011E2	37.841652	23.75942	1	37.83764	23.764145	609				2																																													

Activity Spectrum Analysis Tool

100011f2 - 2021-12-09 16:45:10



Range Min - Max Average

Components of Success

Project planning
Proof of concept
Key Partners

Thank you for your attention



Activity

ITHACA S.A.
Destination**Smart**

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

