

# PMSE Management System

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Fairspectrum



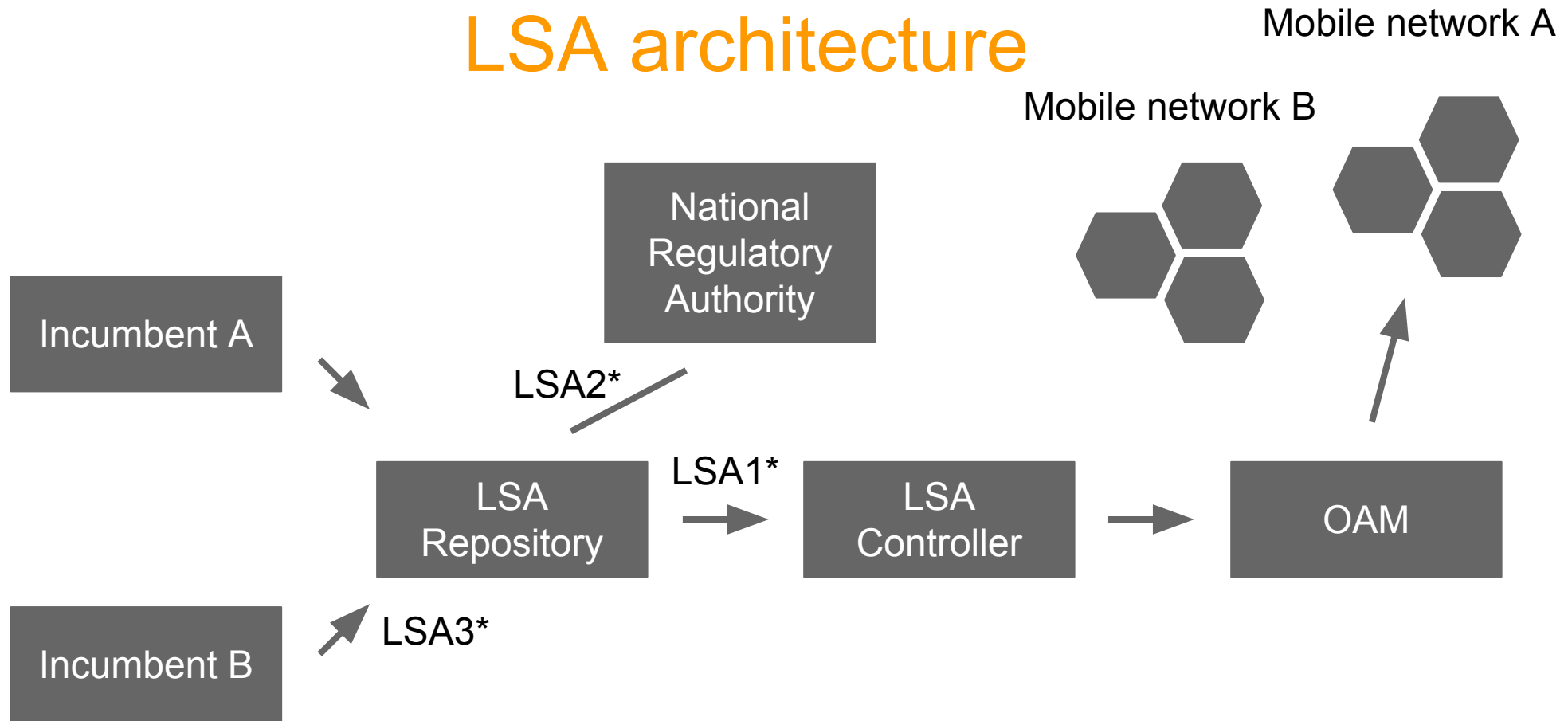
- Interference management needs in LSA system
- Roles and tasks
- Features



# Interference management needs in LSA system



# LSA architecture



\*) LSA1-3 ETSI TS 103 235

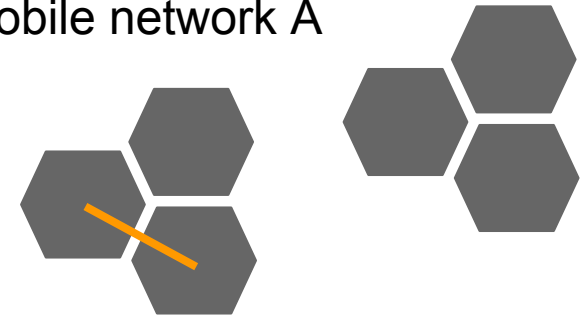


# Interference protection

## Inter-cell

Mobile network B

Mobile network A



OAM

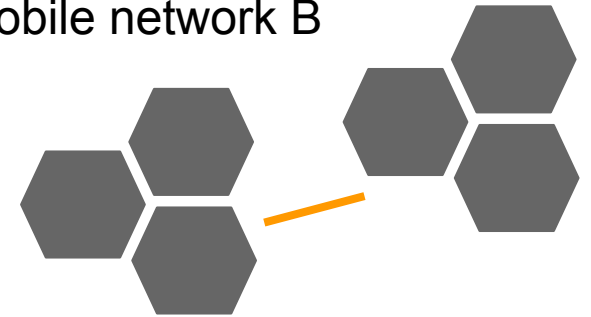


# Interference protection

## Inter-operator

National  
Regulatory  
Authority

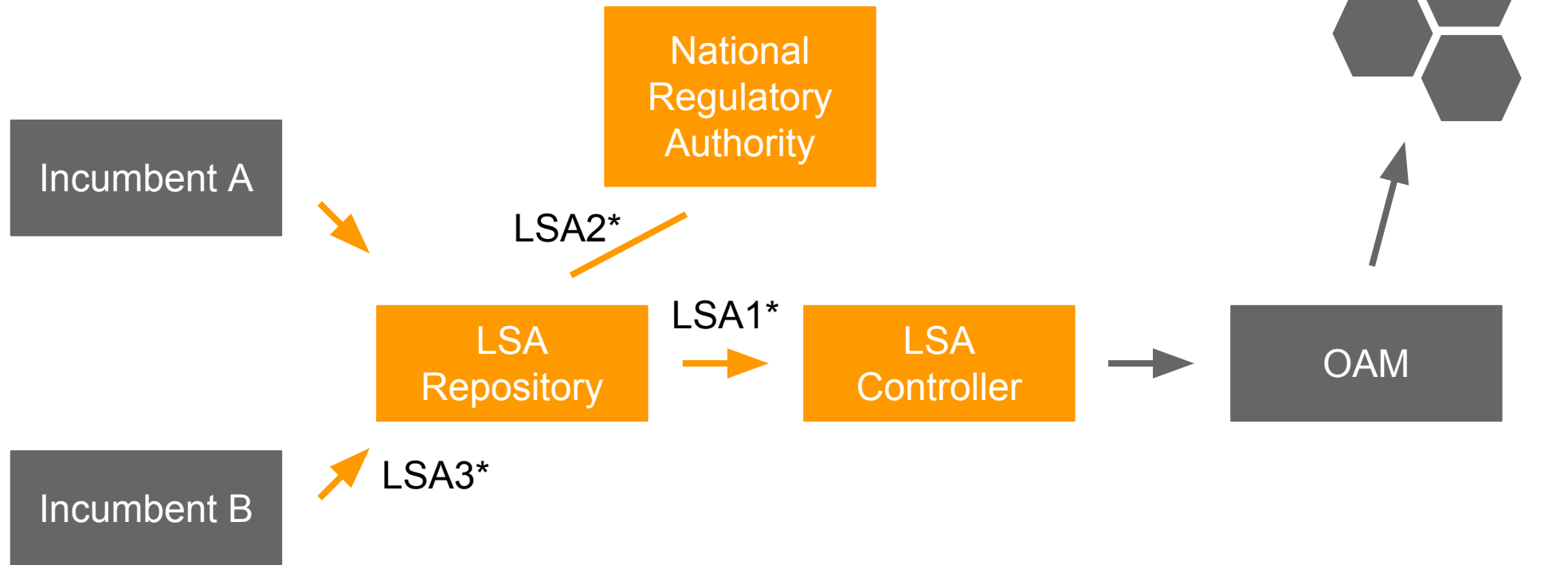
Mobile network B



Mobile network A



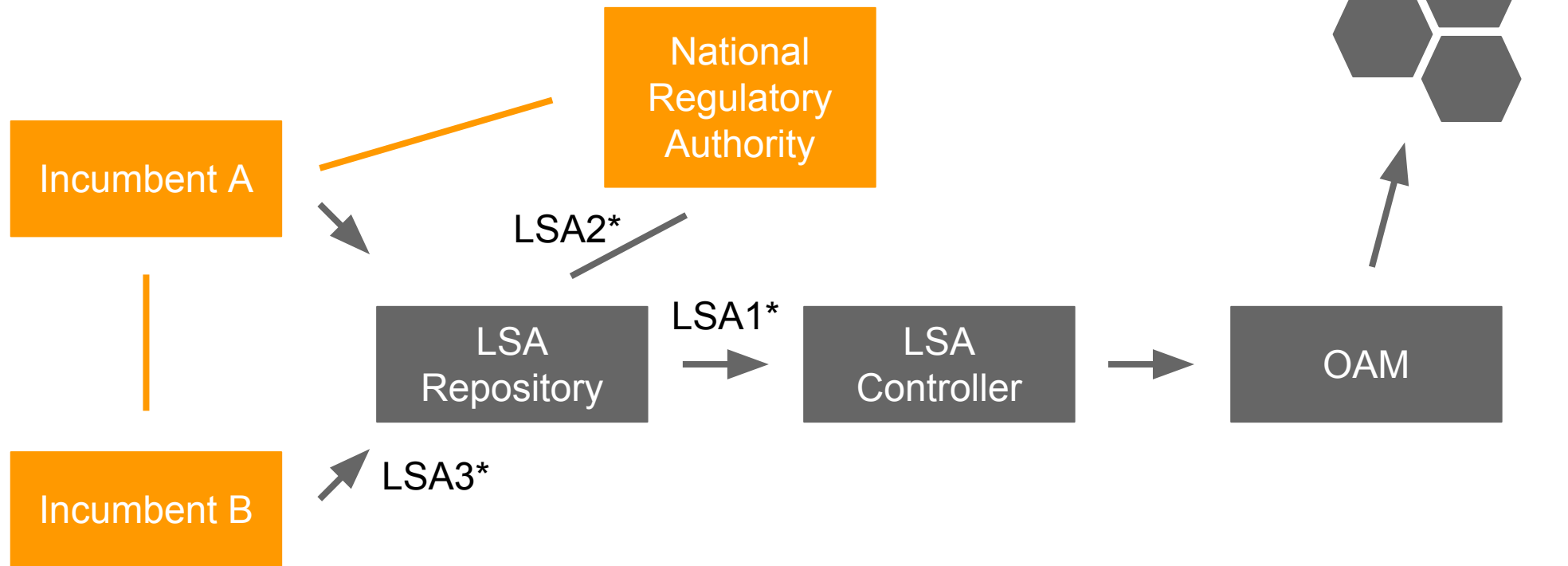
# Interference protection Licensee - Incumbent



\*) LSA1-3 ETSI TS 103 235

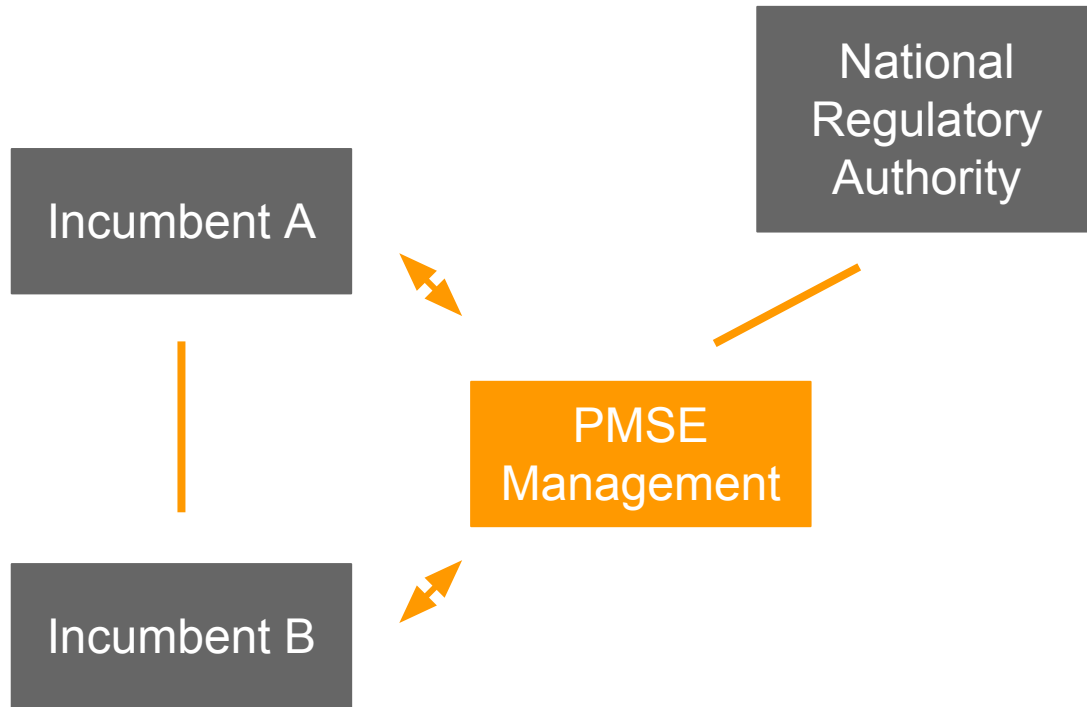


# Interference management Incumbents





# PMSE Management System



# Roles in PMSE management system



# Licensee

- New reservation
- My reservations
- Reservations and blockings
- Change profile
- Documentation

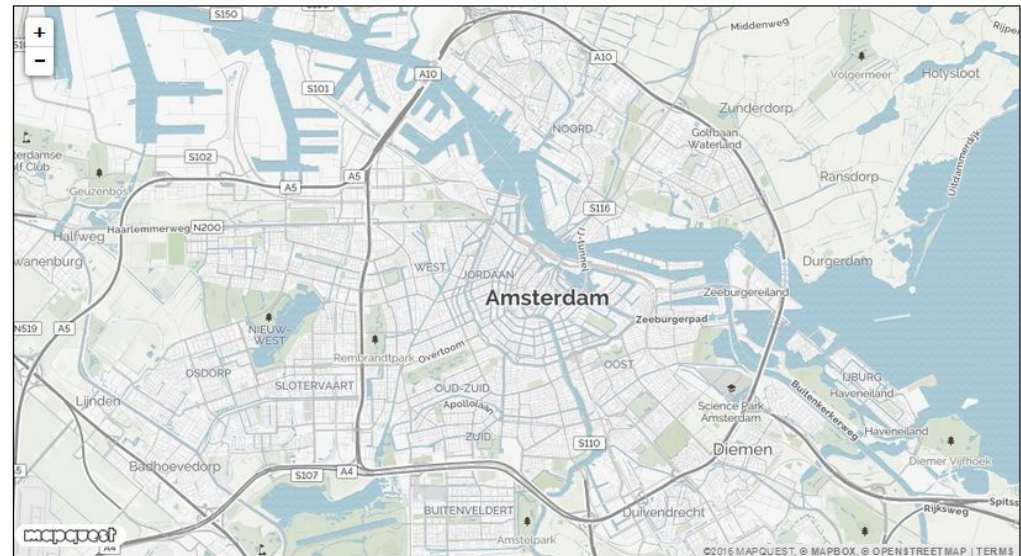
www.isanl.com  
Would you like to share your location with this site?  
Learn more...  
Share Location

Agentschap Telecom  
Ministerie van Economische Zaken  
Log out

New reservation My reservations Reservations and Blockings Change Profile Documentation

## New reservation

Latitude	Longitude	Coverage (meters)
<input type="text"/>	<input type="text"/>	<input type="text" value="1000"/>



## Start Date and Time

<input type="text" value="2016-09-14"/>	<input type="text" value="15:00"/>
E.g., 2016-09-14	E.g., 15:00



# Frequency Planner

- Parameters
- Block and release
- Reservations
- Change licensees
- Export
- Documentation

**Parameters**   Block and release   Reservations   Change licensees   Export   Documentation

### Parameters

Start frequency (MHz)  
2300

Total bandwidth (MHz)  
100

Channel bandwidth (MHz)  
10

Max. interval between time of reservation and start of reservation period (days)  
20

Max. duration reservation period (hours)  
48

Time when reservations released (min. interval before start of reservations) (hours)  
24

Block area threshold level (dBm)  
-106

Propagation model and device parameters

Selection model

free space

extended okumura-hata



# Inspector

- Checking reservations
- Documentation

Checking reservations   Documentation

## Checking reservations

Of licensee

Unique reference code


Start Date and Time  
2016-08-27   11:30  
E.g., 2016-08-29   E.g., 11:30

End Date and Time  
2016-08-31   11:30  
E.g., 2016-08-29   E.g., 11:30

Use location  
 No  
 Yes

Latitude	Longitude	Operating Radius (meters)
<input type="text"/>	<input type="text"/>	1000

Close map





# Administrator

- Manage users
- Documentation

**Manage users** | Documentation

## Manage users

**Search users**

**User type**  
 Frequency planner  
 Inspector

**Username**

**Contact**

**Telephone number**

**Email**

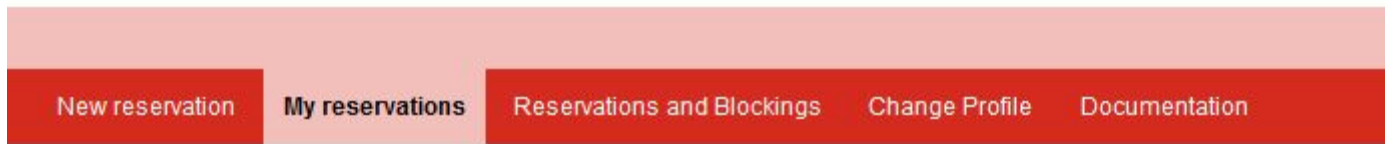
**Password**



# Features



# Queueing



## My reservations

Past reservations

### Active reservations

Unique ID	Event name	Start time	Stop time	Action
-----------	------------	------------	-----------	--------

No reservations found.

Active queued reservations

### Past queued reservations

Unique ID	Event name	Start time	Stop time	Action
-----------	------------	------------	-----------	--------

14438234	Test_queue_1	2016-09-04 12:45	2016-09-04 17:45	<a href="#">Map</a> <a href="#">Delete</a>
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**Channels:** 2320 - 2330 MHz | 2330 - 2340 MHz | 2380 - 2390 MHz | 2390 - 2400 MHz

Export reservations

Show reservations on the map





# Email notifications

Reservation confirmed!



Inbox x



**Isanl@fairspectrum.com** via [amazonsees.com](#)

2:02 PM (15 minutes ago) ☆



to me ▾

Unique code: 14488345

Event name: Test

Date of reservation: 2016-08-29 13:02

Start time: 2016-09-13 13:00

Stop time: 2016-09-14 13:00

Latitude: 52.374456883174

Longitude: 4.8642940545687

Coverage: 7873.59

Reserved channel:

Channel number: 10 - Frequency: 2390 - 2400 MHz

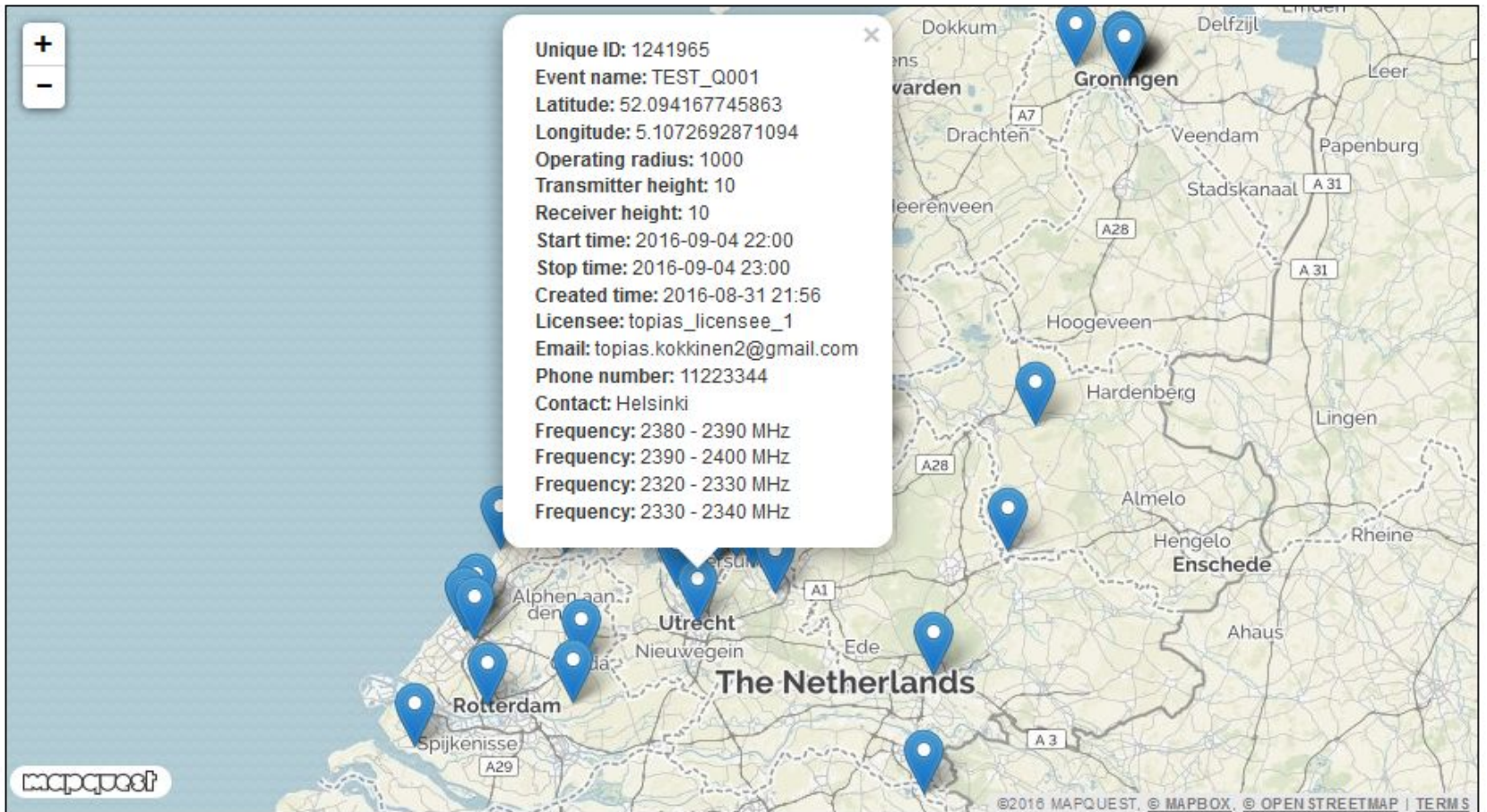
Telephone number: +3585048

Contact: Finland

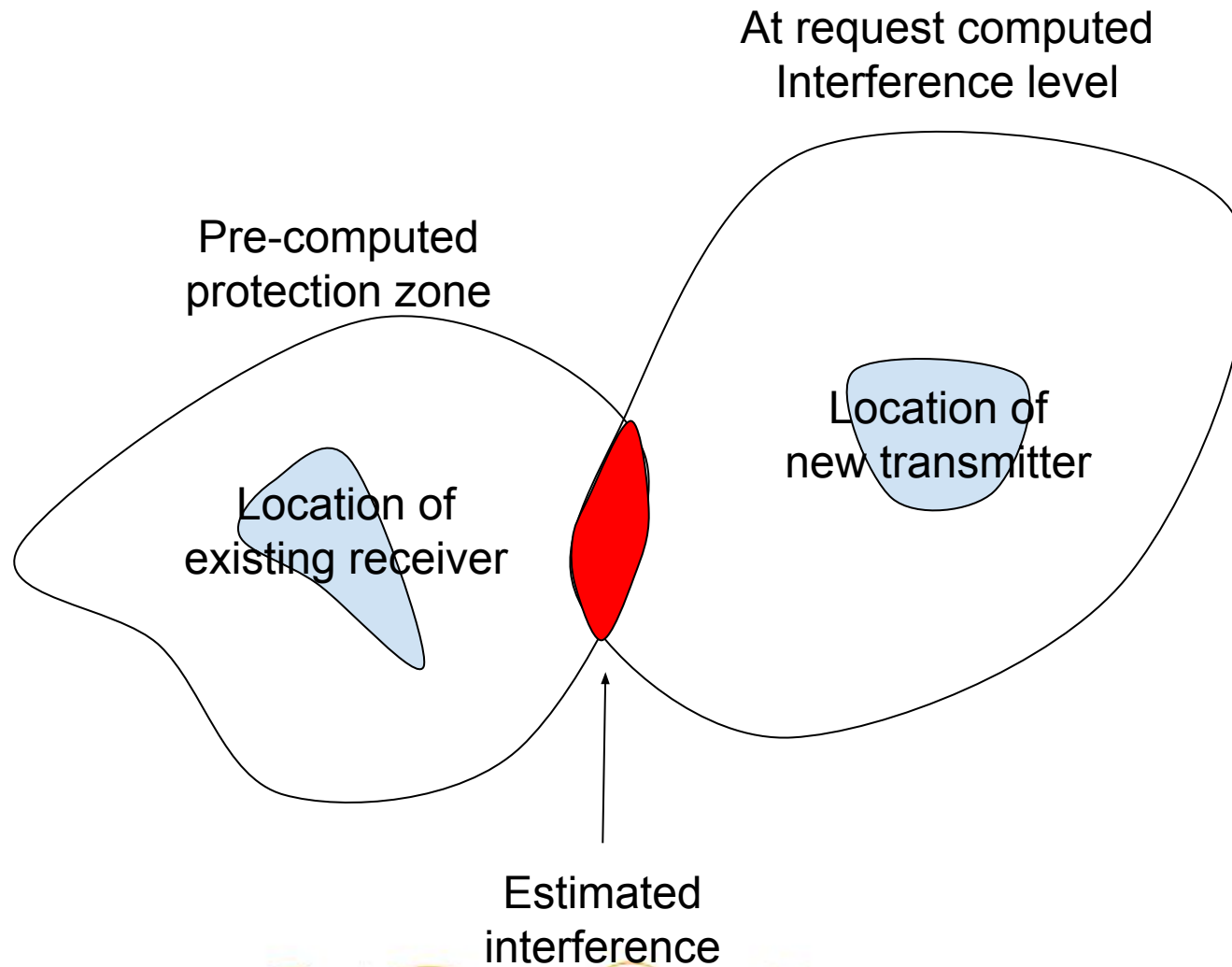


# Map

Close map



# Interference protection



The logo consists of several concentric, slightly irregular orange circles that create a sense of motion or a signal. The word "Fairspectrum" is written in a clean, grey, sans-serif font, positioned to the right of the circles.

# Fairspectrum

