



Radio Spectrum Assurance

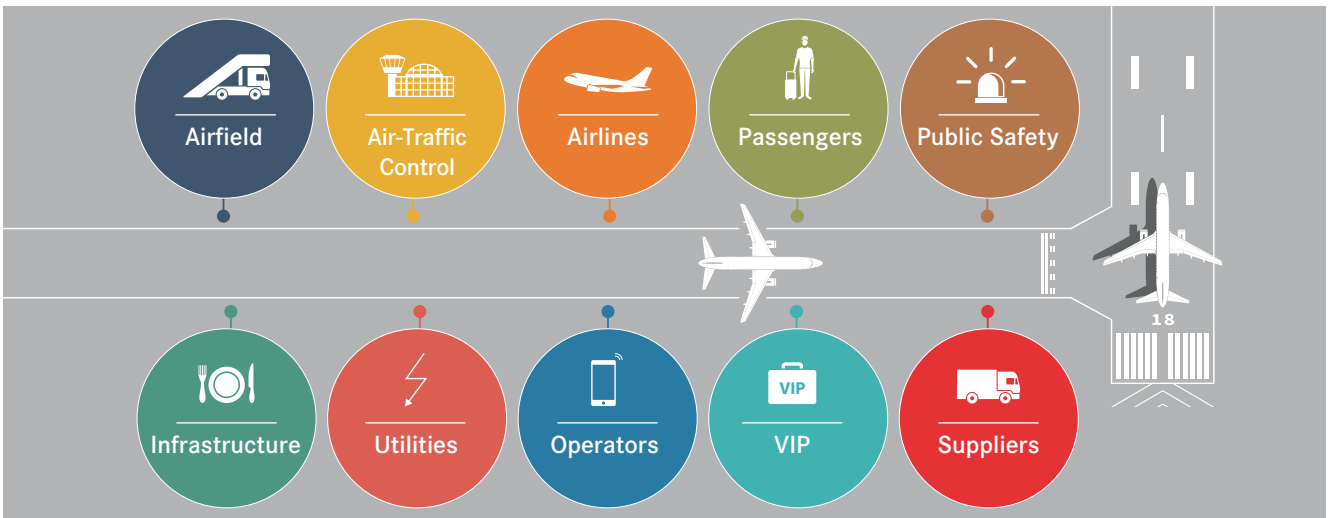
Smart Airport Solutions

Independent & integrated solution provider for the planning, analyses, supervision & management of radio communication infrastructures

Spectrum Challenges at Airports

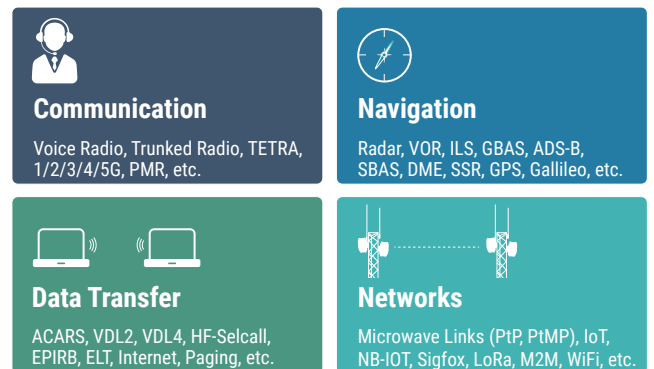
Highest density of network infrastructure

Airport requirements and services are constantly growing and the demand for wireless communication for both land-side and airside continues to increase. Different kinds of wireless services exist. The most obvious ones are those of mobile operators serving their subscribers, but there are also many others such as those linked to air traffic control (ATC), public safety, services on and around the smart airport for dispatch, logistics, passenger flow control, self-moving baggage systems and other IoT applications. All of these services rely on wireless communication, requiring spectrum on and around the airport.



Radio spectrum users

The variety of spectrum services outweighs that of spectrum users which is complex to operate and manage. In addition, new radio services for IoT networks and 5G mobile communications will be introduced at airports increasing the demand on airport operators. There is a concrete need for efficient spectrum engineering and management in order to accommodate all required wireless services within the congested spectrum environment and limited geography as it is within the airport footprint.



Radio spectrum services

Did you ever wonder ...?

- how much wireless equipment do you have on site? Are they safe?
- if those equipment are in line with ITU- & your national authority regulations?
- if those equipment fulfill every legal requirements?
- if there are any interferences between some equipment & your entire infrastructure?
- if in case of trouble you can quickly identify the concerned equipment & their owner?
- about the potential financial damages that arise from failure of your radio communications equipment and network?
- if you have taken into consideration all radio communication network aspects while planning new infrastructure?
- how much added value you & your partners are generating thanks to an efficient and robust network connectivity?

→ **We have the answers ...**

Our expertise

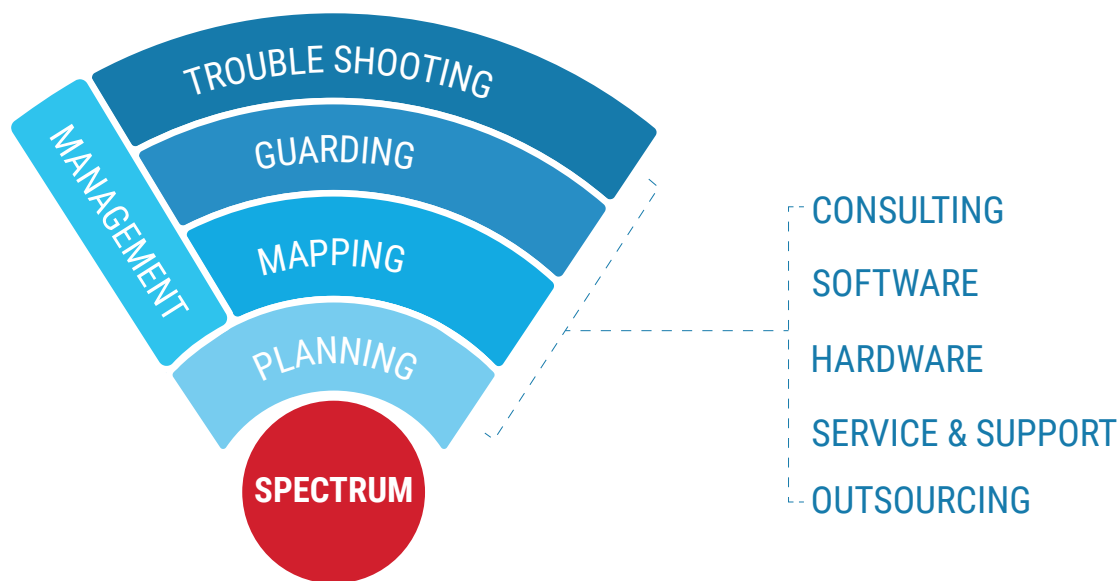
Ensuring efficient radio spectrum management means avoiding interference, detecting, identifying and locating signal intrusions, and organizing evolving radio infrastructure. This requires a full solution portfolio of products and services in the area of wireless communication – starting with know-how, hardware and software.

LS telcom, as an **independent and integrated solution provider** for wireless communication, offers outstanding expertise and technology, which allows you to keep

control of your radio communication infrastructure. LS telcom supports airports by giving them solutions to secure their complex and versatile radio communication infrastructure, so they can assure and guarantee a safe, sustainable and serviceable security and business model.

At the customer site LS telcom plans, analyses, supervises and manages every available radio communication infrastructure thanks to its own software and hardware.

Integrated radio assurance solution



Business portfolio

Planning

Services and tools for conception, design, realization and optimization of reliable, highly available and safe indoor and outdoor radio networks.

Management

Workflow-based approval and management processes for radio communication infrastructure and users. Management solution based on a central spectrum database, co-existence, analysis, governance and internal rules.

Mapping

Spectrum inventory measurements and coverage simulations to validate the current spectrum usage. Identification, location and assessment of unknown transmissions. Improving the data basis for future decisions.

Guarding

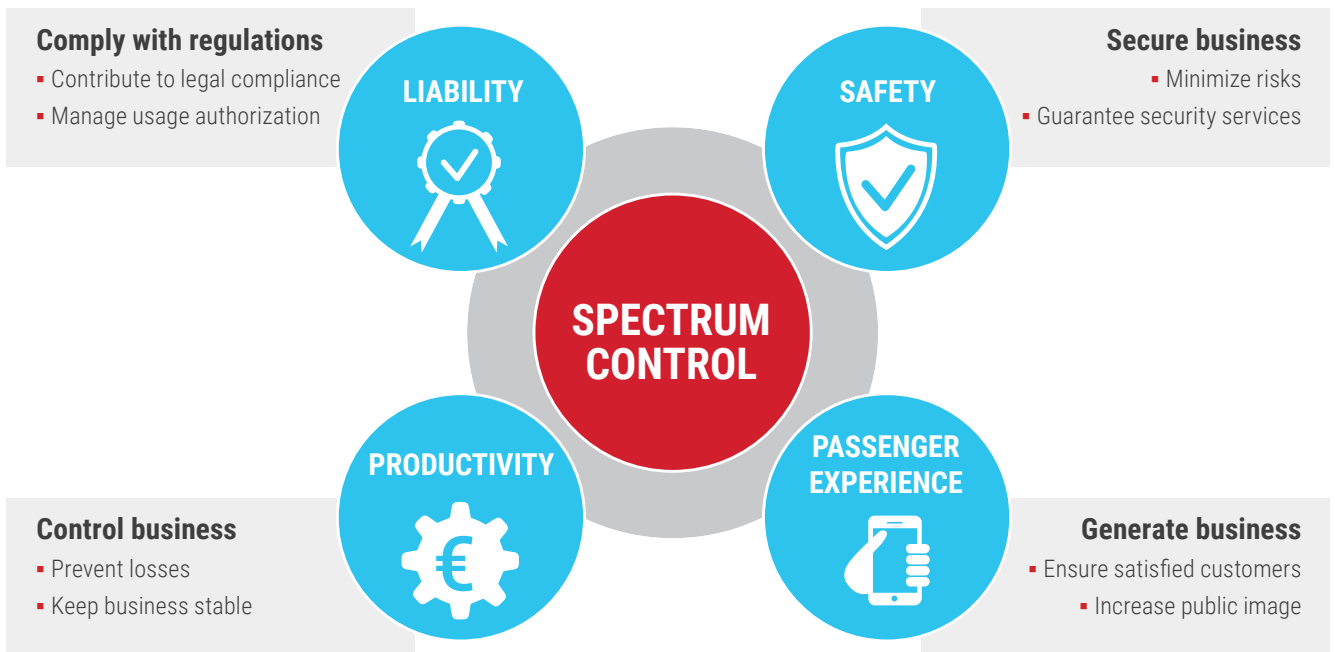
Permanent radio monitoring as a preventive early-warning system to avoid, identify, locate and solve network problems. Avoiding problems preferably before they become safety or business critical.

Trouble shooting

Elimination of identified problems and issues.

Your **ONE-STOP ENTERPRISE** for all your radio assurance needs.

Where you can benefit



One example where we successfully deployed our services

Amsterdam Airport Schiphol commissioned LS telcom for frequency management & licensing to become a "Leading Smart Digital Airport".

The challenge:

Ensuring a safe, interference- and incident free radio environment at the airport while providing enough radio frequencies for all radio networks, services and applications required at the airport under the growing demand from all customers for wireless air and ground communication.

The solution:

Development of a general licensing framework and introduction of an automated spectrum management system including a frequency database and radio monitoring capabilities accompanied by consulting and supporting professional services by LS telcom experts.

The result:

Amsterdam Airport Schiphol now has full visibility of the used radio spectrum and infrastructure. They deliver their customers excellent, highly reliable, interference-free and save radio services at the airport. The airport can detect incidents, misuse and illegal frequency use and react immediately. This contributes to the general safety at Schiphol Airport and improves its overall positive passenger experience significantly.



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