LS telcom
Smart Spectrum Solutions

Global Spectrum Experience

Spectrum Management

Dynamic Spectrum Access

DSA, LSA and white space database solutions

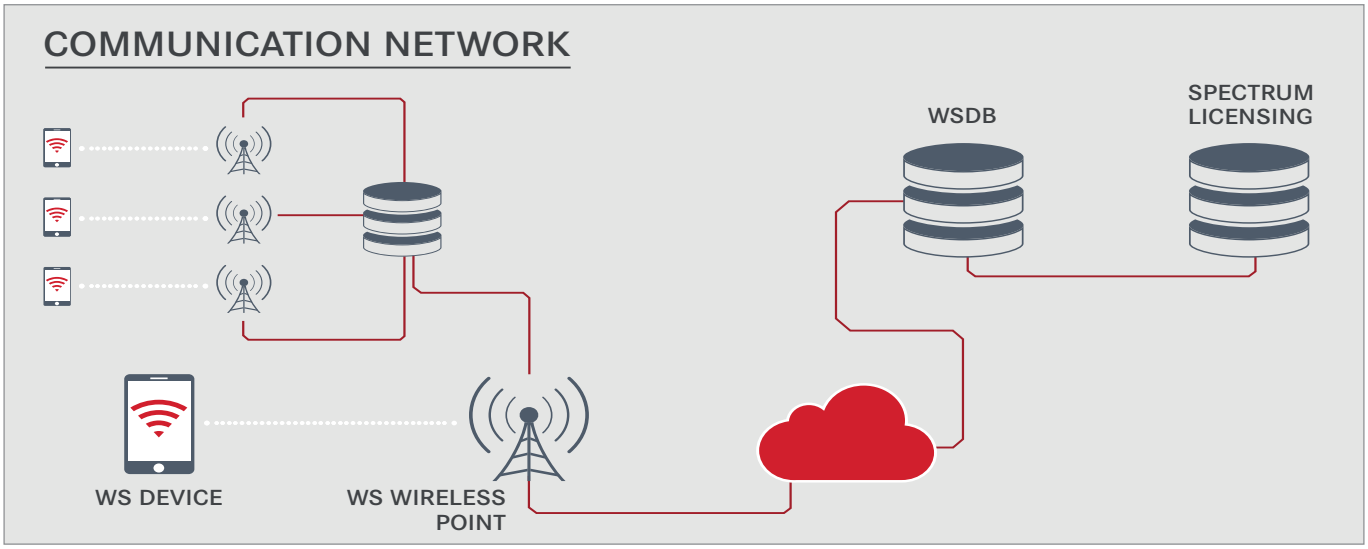
Enabling Dynamic Spectrum Access (DSA)

Spectrum has become a precious and scarce resource in many regions of our planet. This raises the demand for more innovative use of the resource rather than just distributing it amongst the eligible parties according to given standards or on a first come first serve strategy. Looking at the real spectrum usage nowadays, even in populated areas many frequencies are unoccupied for most of the time. As a consequence, Dynamic Spectrum Access can be a solution. So far, in the license exempt areas, technologies like Wi-Fi, using listen before talk, were the choice for many years. TV white space as an initial representative of dynamic spectrum access now reaches out into the real licensed world of TV frequencies.

LS telcom provides powerful DSA databases that allow you to make use of the white spaces. Self-negotiating devices communicate directly with such databases and receive usable frequencies in a fully automated manner. For this purpose, the requesting devices need to report their location and device type and are registered in the database. In return, they get a list of available frequencies e.g. refreshed every 15 minutes.

The dynamic spectrum database approach consists of

- The whitespace management database (WSDB), which includes the whitespace spectrum assignments, registration and authorization
- The spectrum license database, including spectrum license data of incumbent users and protected spectrum
- Infrastructure with a large number of access points
- The consumer access devices



White space management solution

How does it work?

1. The user of a whitespace device requests access to the whitespace database
2. The user is registered and access is provided and authorized
3. The user can then make a request for available whitespace channels
4. Available channels are assigned and authorized

There are periodic updates and control messages between the whitespace database and the spectrum license database to guarantee interference-free use of all frequencies.

For further information, please visit our website www.LStelcom.com or contact Info@LStelcom.com.