



Public Safety LTE

A Global Assessment of Market Size, Technology, Vendor Trends and Spectrum Allocation 2012 - 2016

March 2012

Overview:

Considered as the de-facto standard for Public Safety broadband communications, LTE is rapidly gaining momentum within the Public Safety industry. As a result, Public Safety agencies, vendors and service provider are heavily investing in Public Safety LTE, with over eleven commercial contracts awards (as of March 2012), and several prominent international trials.

While initial investments appear promising, there still remain a number of key issues that need to be addressed such as frequency spectrum allocation, funding for global Public Safety LTE deployments, QoS prioritization of Public Safety LTE users in commercial networks, and interoperability with legacy Land Mobile Radio (LMR) systems such as APCO 25 and TETRA.

This report provides an in-depth of the global Public Safety LTE industry to address the aforementioned issues, in addition to providing a detail assessment of the technology, market size, and key trends within the Public Safety LTE industry.

Key Findings:

- Over the next five years, the Public Safety LTE will grow at a CAGR of 90 % accounting for over \$ 6 Billion in revenue by 2016, up from \$ 240 Million in 2011.
- Operator service revenues will constitute a vast majority of the revenue, followed by managed services and integration, representing a lucrative opportunity for vendors and system integrators to build, own and operate Public Safety LTE networks.
- Europe will lag behind Middle East, Asia Pacific and Latin America in the early adoption of Public Safety LTE technology due to stringent spectrum regulation policies. A number of Public Safety LTE trials are already underway in these regions

Target Audience:

- Public Safety Agencies
- Cellular Network Operators
- Public Safety Network Operators
- System Integrators
- Cellular Network Infrastructure Manufacturers
- LMR Infrastructure Manufacturers
- LMR Radio Manufacturers
- Smartphone Manufacturers
- Mobile Computing Equipment Manufacturers
- Public Safety Application Developers

Report Benefits

- **Global Spectrum Allocation for Public Safety LTE:** A global assessment of spectrum allocation and funding for Public Safety LTE deployments, based on input from regional regulatory authorities.
- **Global Public Safety LTE Market Size, Contracts & Trials:** A global review of the worldwide Public Safety LTE market including assessment of revenue share by market segment (infrastructure sales, services, user device sales, etc), and a review of global contracts and trial engagements.
- **RAN Sharing and Roaming:** The term "RAN sharing" refers to sharing of actual eNodeBs. As part of this arrangement, each operator accesses the shared RAN with its own EPC. Vendors are also considering the implementation of Inter-PLMN hand-over (as opposed to roaming) and then for LTE Commercial carriers to deploy Policies for Service Level Agreements that include Priority Access (Access Class Barring, Preemption and ARP) and QoS/ QCI assignment for default and dedicated bearers. The report assesses in detail how many of vendors and commercial carriers will support RAN sharing, roaming and inter-PLMN handovers which will be key factors towards the adoption of commercial LTE RANs for Public Safety applications.
- **Global QoS Requirements for Public Safety LTE Communications:** A detailed assessment of global requirements for Priority access and High QoS for Public Safety subscribers, for shared commercial LTE networks, while they roam on to Commercial Networks.
- **Public Safety LTE Devices and End User Applications:** An assessment of device usability characteristics, Multi-Radio LTE/ LMR interoperability technology, Software and Applications (VoLTE, PTT over LTE, IMS, IP).
- **Vendor Trends and Roadmaps:** A detailed assessment of solution portfolios and roadmaps for major infrastructure/ device vendors and system integrators
- **LTE-Advanced Support for Heterogeneous Commercial/LMR Networks:** In-depth assessment of the LTE Advanced standard and technologies and spectrum planning for Fixed/Nomadic based Pico Cells/Femto Cells and mobile base stations (e.g. LTE Cell on Wheels (CoW)) and proximity based services such as Direct Mode Operation (DMO) in LMR systems, which have broad implications for the adoption of Public Safety LTE services.
- **LTE based Public Safety Tactical Systems and Military Applications:** Detailed market assessment of LTE based Public Safety Tactical Systems such as CoW, Cell over Light Trucks (COLTs) and Military Applications for LTE.

Companies in Report

- | | | | |
|--------------------|----------------------|-----------------------------------|-----------------------------------|
| • 3GPP | • FCC | • Motorola Solutions | • Tecore |
| • Abu Dhabi Police | • Harris Corporation | • Nokia Siemens Networks | • TeleCommunication Systems (TCS) |
| • Alcatel Lucent | • Hong Kong Police | • Oceus Networks | • Thales |
| • APCO | • HTC | • Qatar Armed Forces | • US Army |
| • AT&T | • Huawei | • Qualcomm | • US Department of Defense |
| • BayWEB | • Intrado | • Raytheon | • Verizon Wireless |
| • Brazilian Army | • IP Wireless | • Samsung | |
| • Cassidian | • KPN | • Sao Paulo Military Police Force | |
| • Ericsson | • LA-RICS | • Tait | |
| • ETSI | • Motorola Mobility | | |

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