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Mission Critical Communications Market for Voice, Data, and M2M in Public Safety, Enterprise, Industrial and Government Sectors 2021 – 2028

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Abstracts

OVERVIEW:

The mission critical communications market is rapidly evolving as developing technologies provide solutions necessary to meet emerging demands for improved voice, data, and machine-oriented communications. Industry verticals that manage critical infrastructure (such as utilities, ports, and transportation) and services also require enhanced communications to safeguard assets and optimize operations.

This report assesses core public safety technology and solutions as well as emerging areas for mission critical communications including ultra-reliable low-latency communications for enterprise, industrial and government sectors. The report also provides analysis of supporting technologies for mission critical communications including 5G, AI, and IoT. The report also identifies market opportunities and outlook for mission critical communications, applications and solutions by industry vertical with forecasts for 2021 to 2028.

SELECT REPORT FINDINGS:

The global mission critical communication market will reach $32.6 billion by 2028, growing with 9.8% CAGR through 2028

Military, public transportation, and smart grids are the largest industry verticals in the non-public safety critical communication market segment

The global AI powered IoT critical communication market in public safety will

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approach $20.6 billion by 2028, growing 17.8% CAGR during 2021 to 2028

Asia Pacific is the largest region with a 43.8% of the total mission critical communications market and the greatest opportunity for certain technologies

IoT in critical infrastructure is the largest segment with 52% of the total market with growth driven by the need for inter-system communications and AI integration

Other than cybersecurity for support of critical infrastructure, there is nothing more important to government and sovereign nation safety and security than critical communications

In conjunction with land mobile radio (LMR) modernization, and industry digitization for the public safety sector transition from LMR to 4G and beyond, LTE Advanced and 5G networks establish and support mission critical voice and data communications as well as facilitate opportunities for new mission critical applications.

While mission critical communications technology is often referred to synonymously with the public safety sector, the need for ultra-reliability, low-latency, and/or high bandwidth capabilities are also necessary for enterprise, industrial, and government sectors. Like public safety, solutions in the commercial arena are typically realized via dedicated networks for specific industries including the public safety sector, transportation (air, rail, road, and water), utilities, mining, manufacturing, and the oil & gas industry.

Looking beyond LTE, 5G provides essential support for mission critical communications in many ways including improved support for quality of service through various mechanisms including 5G network slicing as well as other technologies optimized for what is known as Ultra-Reliable Low-Latency Communications (URLLC). Thanks to URLLC capabilities, 5G will be a viable alternative to WiFi for indoor mission critical communications.

5G network slicing and URLLC capabilities will work in conjunction with edge computing in support of latency-sensitive apps and services for various enterprise, industrial and government use cases. The combination of 5G and edge computing is expected to reduce network latency significantly, which will enable many previously tethered-only applications to achieve greater operational flexibility, such as nomadic

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implementation/operation or even mobility.

We see a few key technologies playing a key role in support of LTE and 5G, including Artificial Intelligence, big data analytics, and Internet of Things (IoT) solutions. The convergence of AI with IoT, known as the Artificial Intelligence of Things (or AIoT) is another important area as AI adds value to IoT through machine learning and decision making and IoT adds value to AI through connectivity and data exchange. The AIoT market constitutes solutions, applications, and services involving AI in IoT systems and IoT support of AI solutions.

The market for mission critical communications is rapidly moving beyond voice to encompass data, and machine-oriented communications. For example, the public safety community increasingly relies upon IP-based solutions for first responders (ambulance, police, fire) and dispatch communications as well as overall coordination in the event of a disaster.

Private IoT networks will also connect mission critical commercial operations, such as connecting infrastructure with monitoring and control, supported by AI and advanced data analytics. This will involve intelligent and connected systems that rely upon newly allocated 5G spectrum sharing management solutions for communications. Each of these technologies are evaluated in the report.

TARGET AUDIENCE:

AI and IoT vendors

System integrators

Public safety companies

Device and network providers

Government and policy makers

Infrastructure and essential services

REPORT BENEFITS:

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Mission critical communications forecasts from 2021 to 2028

Understand core technologies for mission critical communications

Identify companies, strategies, and solutions for mission critical communications

Recognize the role and importance of key supporting technologies including AI, M2M and IoT data integration, and big data analytics

Understand the evolution of public safety LTE technology and how 5G will improve first responder and dispatch communications effectiveness

Identify the market opportunity for mission critical communications in enterprise, industrial and government sectors including public safety, military and homeland security

Understand the role and importance of 5G including massive IoT, substantial bandwidth improvements, enhanced SLS support via network slicing, and ultra-reliable low-latency communications

COMPANIES IN REPORT:

AGT International

Amazon

AT&T

Atos SE

Bandwidth

Cisco Systems

Cobham

Codan Communications

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Dataminr

Enforsys

Ericsson

ESRI

FirstNet

General Dynamics Corporation

Google

Hexagon

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Honeywell International

Huawei Technologies

Hytera

IBM

iNet Public Safety

Intellitech Corporation

Intersec

Intrado

L3Harris

Microsoft

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NEC Corporation

Nice Systems

Nokia

Nokia Corporation

Northrop Grumman Corporation

Parallel Wireless

RapidSOS

Red Box Recorders Ltd.

SAP SE

SAS

Sonim Technologies

Twilio

Tyler Technologies

Verizon

ZTE

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