Command and control – Merger and acquisition analysis

Transactions in the command and control room market

2015 through 2017

A Market Insight Report Exclusively
For iCERT Member Companies

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M&A Activity | **Insight**

Merger and acquisition analysis in the control room market
Transactions from 2015 through 2017

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This insight report seeks to provide perspective on the competitive landscape of the command and control room market with a specific focus on merger and acquisition activity within the past three years (2015 through 2017).

Because of the range of different technology suppliers and the many companies competing within the market, this analysis, rather than be exhaustive, discusses transactions completed by larger providers (that is, those ranked in the IHS Markit market share tables) or those transactions that the analyst has deemed notable because of interest from other suppliers, wide news coverage, or other reasons. The analyst has also chosen to focus on those transactions offering the most insight to the client base of the IHS Markit Command and Control Intelligence Service.

Changing competitive environment

Supply to the control room market has remained very fragmented, with several CAD and radio dispatch suppliers as well as other technology providers competing across the globe. However, this has slowly begun to shift over the past few years. Many suppliers have sought to broaden their product offerings to encompass the entire control room system rather than just supply niche products. One example is Motorola Solutions, which has acquired call-taking firm Emergency CallWorks to expand its call-taking solutions offerings. While Zetron also expanded from providing dispatch solutions to call-taking software and even video surveillance solutions.

Supplier consolidation is becoming more prevalent in the industry. In the United States, for example, public safety experts estimate there were nearly 30 different CAD providers approximately 10 years ago. By 2020, this number is forecast to fall dramatically to possibly four or five. This shift has already begun because of increased M&A activity in the control room market with acquisitions including Tritech's purchase of Tiburon, Tyler Technologies' purchase of New World Systems, and more recently Motorola's acquisition of Spillman. One of the major reasons for this type of acquisition is control room/PSAP consolidations, which typically result in bigger CAD system deployments. Bigger system deployments are typically targeted by larger suppliers including Hexagon SG&I (formerly Intergraph); a lack of smaller system deployments makes the marketplace challenging for smaller suppliers, which typically focus on lower-tier deployments. Because of the fewer opportunities for smaller suppliers, IHS Markit predicts there will likely be four or five major CAD players that will emerge to dominate the US market. The total market will continue to grow, despite fewer small tender opportunities because of the evolution toward larger, more advanced control room contracts.
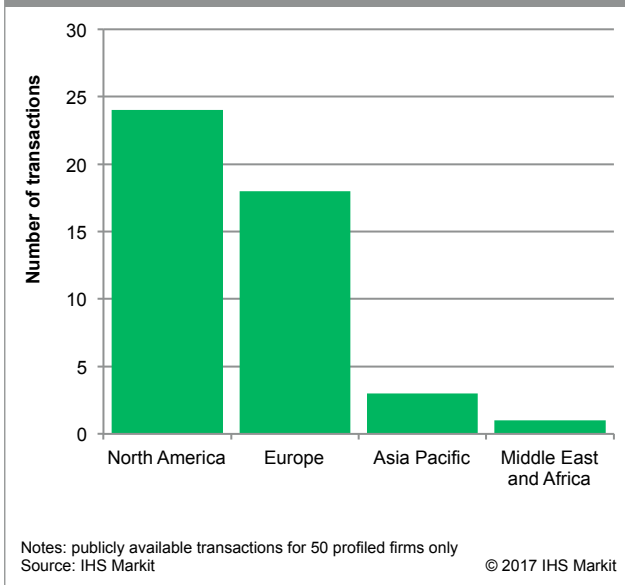
Key takeaways

While supply to the control room market is becoming more concentrated, many new suppliers have entered it, which has increased M&A activity.
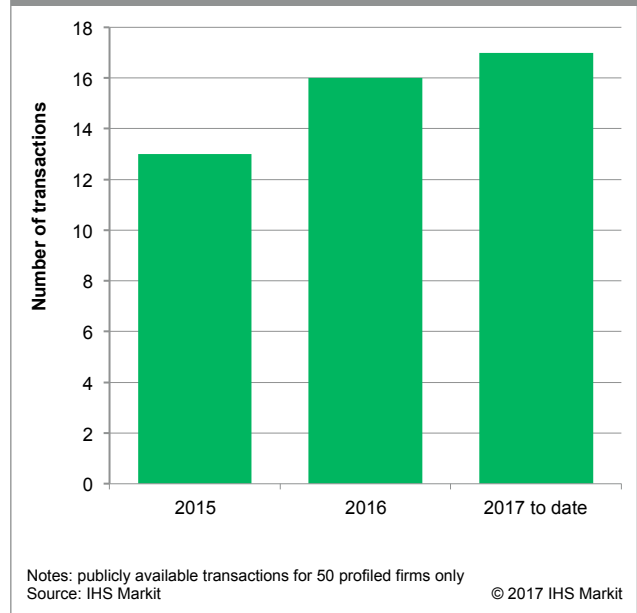
- **M&A activity appears to be on the rise since 2015.** Our analysts tracked 13 transactions in 2015 and 17 at the time of writing this analysis in 2017.

- The United States was the region in which most (20+) transactions took place.

The aforementioned acquisitions and others, including Comtech's purchase of TeleCommunication Systems, Inc., signal that the industry overall is becoming more concentrated yet still increasing in value, so offering considerable opportunity for investment. Many drivers continue to bolster the market, including several national initiatives, for example, NG911 and FirstNet; technological trends including broadband LTE, big data, and analytics; and greater interest in control room interoperability. Venture capital firms are beginning to understand the potential for growth and the value they can add by providing funding and strategic guidance. For example, in 2015, Silver Lake, a private equity firm, invested $1 billion in Motorola Solutions to accelerate the growth of its smart public safety solutions. Continued large investments like this will allow critical communications companies to continue next-generation technology R&D, grow their businesses and ultimately provide first responders with the most effective tools to save lives; the incentives are beneficial to all parties.

With the increasing trend for more data and the small (but growing) demand for cloud computing and hosted infrastructure, the North-American market is likely to see new suppliers, particularly ones with an IT infrastructure focus, entering this market because of the opportunities available. Because of supplier consolidation and increased competitiveness in the major markets like public safety, many suppliers are also shifting their focus to other market sectors. Niche suppliers are looking to the transportation, utilities, and education markets, which can use an adaptation of public safety solutions.
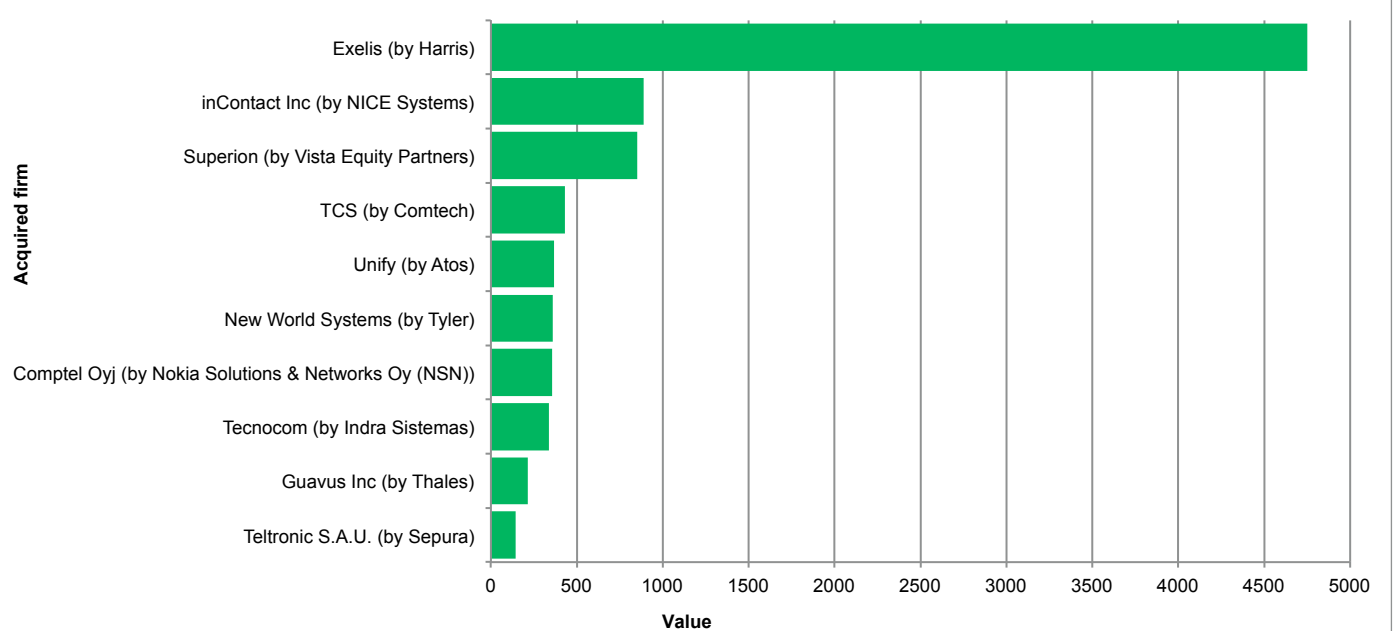
Command and control M&A transactions by region 2015-present

Number of transactions

North America: 24
Europe: 18
Asia Pacific: 3
Middle East and Africa: 1

Notes: publicly available transactions for 50 profiled firms only
Source: IHS Markit
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Command and control M&A transactions by year

Number of transactions

2015: 13
2016: 16
2017 to date: 17

Notes: publicly available transactions for 50 profiled firms only
Source: IHS Markit
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**Top 10 acquisitions by value
(Millions of USD)**

Notes: publicly available transactions with value if indicated.
Source: IHS Markit

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Notable M&A deals by major competitor

The following sections present M&A transactions by major command and control room Technology Service Providers (TSPs).

## Motorola Solutions

- Acquisition of Emergency CallWorks (2015)

    ○ **Firm type:** Call-taking, Next Generation 911 and Smart Public Safety

    ○ **Transaction details:** Financial terms were not disclosed. Emergency CallWorks operates as a wholly owned subsidiary of Motorola Solutions.

    ○ **Implications:** The acquisition has allowed Motorola to substantially develop its Next Generation 911 capability and has provided a basis for its Smart Public Safety solutions. Determining location and facilitating the flow of information from the public to call takers and emergency responders is a key factor in improving and optimizing emergency response.

        ▪ The CallWorks dispatch technology is web-browser based, allowing agencies to reduce back office server infrastructure and increase scalability and flexibility, allowing even small agencies to use the system, a strategic move as larger TSPs begin to address lower tiers of the market.

Key takeaways

Transaction activity was evenly mixed across the 50 firms tracked.

- **Motorola had the most acquisitions with four identified since 2015.**

- Tritech, Verint and NICE Systems all had three acquisitions since 2015.

- ▪ The CallWorks solution consolidates several processes and integrates technologies to simplify call-taking and dispatch.

- Acquisition of Spillman Technologies (2016)

  ○ **Firm type:** CAD and RMS supplier

  ○ **Transaction details:** No specific details

  ○ **Implications:** With the acquisition of Spillman Technologies, it is evident Motorola seeks to continue to expand its public safety software portfolio. A strategic acquisition for Motorola, the Spillman acquisition expands the firm's installed base of CAD and RMS users tremendously (1,700 agencies) and increases MSI's market share. The maintenance on this alone will be a significant source of recurring revenue for Motorola. Additionally, it brings a huge potential cross-selling opportunity for other smart public safety systems and broadband. Additionally, the acquisition allows Motorola to more effectively target the mid- to lower market tiers.

Command and control M&A transactions by firm 2015-2017

Motorola
TriTech
Verint
NICE Systems
Others

Notes: publically available transactions only; 46 total. Most of 'Others' had 1 entry.
Source: IHS Markit   © 2017 IHS Markit

- Acquisition of Airbus DS Communications (pending final action)

  ○ **Firm type:** Call-taking software, Next Generation 911, P25

  ○ **Transaction details:** The US 911 and P25 businesses were part of the acquisition, but not the European TETRA and TETRAPOL business or the LTE team. The Airbus DS Communications business has been for sale since 2014, so it was unsurprising that a firm like Motorola purchased the business.

  ○ **Implications:** The acquisition adds complementary products and services to Motorola's portfolio. It increases Motorola's share of the North American 911 and P25 businesses. With the Airbus acquisition, Motorola has positioned itself to be one of the very strongest players in the critical communications industry. The firm has also taken the right steps to 'future-proof' itself as it expands into the NG911 space, public safety software, broadband and analytics, among others. Motorola will not only continue to compete in the Tier 1 PSAP space, but at the lower tiers as well with the acquisition of Emergency CallWorks.

- Acquisition of Kodiak Networks (2017)

  ○ **Firm type:** cloud-based PTT and PoC solutions and management platform

  ○ **Transaction details:** Terms of the deal were not disclosed.

  ○ **Implications:** Acquiring Kodiak is another way Motorola has been able to diversify its revenue stream and gain market share across the critical communications industry as a whole. Especially with the Airwave acquisition in the United Kingdom, Kodiak will be a strategic move. As LMR users put their radio system upgrades on hold or seek to add users at lower cost, PTT has become a viable and cost-effective alternative and complementary system. By acquiring Kodiak, Motorola Solutions will have a solution that will allow it to compete in the market for carrier-integrated PoC solutions targeted to the enterprise market.
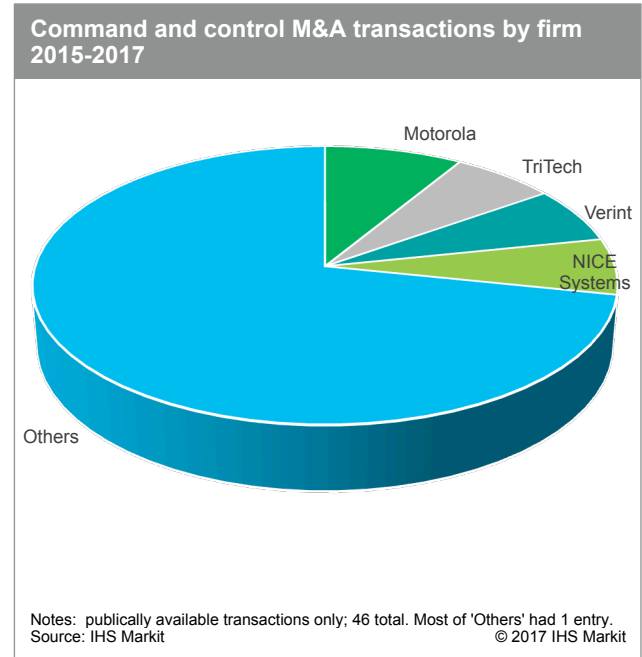
Tritech Software Systems

- Acquisition of Tiburon (2015)

    ○ **Firm type:** CAD and RMS supplier, cloud platform

    ○ **Transaction details:** With the acquisition, TriTech now serves over 100,000 sworn officers and protects more than 250 million people. The company supports installations in every US state, including 82 of the top 100 municipalities, and operations in 10 countries around the world. Tiburon had approximately 140 customers. With the acquisition, Tritech had more than 2,700 agency customers total.

    ○ **Implications:** This acquisition has allowed Tritech to expand its client base tremendously as many of Tiburon's 140 customers, were large Tier 1 agencies. More of Tiburon's customers, however, were in the Tier 2 and 3 markets. The firm had made several acquisitions of its own before being acquired, including Positron and Total Enforcement Group. Similar to other suppliers to the public safety sector, like Motorola for instance, Tritech's strategy seems to be an expansion into the lower tiers and broadening its user base through acquisition. While these are not always new business opportunities, the maintenance revenue stream is highly desirable.

- Acquisition of Zuercher (2015)

    ○ **Firm type:** CAD and RMS, jail management software, mapping, analytics, and other technologies.

    ○ **Transaction details:** Zuercher founder, Michael Zuercher, will continue to lead the Zuercher staff and will be a driving force in expanding TriTech's lower-tier market strategy. More than 120 customers use Zuercher products in 19 states. The acquisition increases TriTech's market penetration to more than 3,000 installed sites, including installations in every US state and 82 of the top 100 municipalities, as well as operations in 14 countries around the world.

    ○ **Implications:** Zuercher was specific to the 'Great Plains' region of the United States, as the firm is based in North Dakota. Again, this is an example of expansion into the lower tiers through acquisition, which is much faster than organic growth, which requires much time and effort to build up sales relationships in a region.

Tyler Technologies

- Acquisition of New World Systems (2015)

    ○ **Firm type:** public sector software, CAD and RMS, mobile computing, jail management, web-based information sharing and decision support

    ○ **Transaction details:** Tyler acquired NWS for $670 million in cash and stock ($360 million in cash and 2.1 million shares of Tyler's stock). The company had more than 2,000 public sector customers and more than 470 employees. The acquisition has been Tyler's largest to date. Wells Fargo Securities, LLC, acted as financial advisor to Tyler Technologies for this transaction. There were no plans to affect the workforce of either firm.

    ○ **Implications:** The acquisition has been very disruptive to the CAD and RMS markets, especially in the Northwestern United States. Tyler Technologies has become a prominent competitor as a result. The firm's strategy includes exploring growth opportunities from offering enhanced services, such as software as a service (SaaS), disaster recovery services, and cross-selling existing Tyler products to New World Systems' installed customer base. On top of this, Odyssey® courts and justice solution with the Aegis public safety platform creates a unique end-to-end enterprise criminal justice solution, allowing the firm to deliver a comprehensive criminal justice system to the market.

Atos

- Acquisition of Unify (2016)

  o **Firm type:** IT services, integrated communications, CAD, incident management, IP switch, call-taking software. Some of the firm's clients include the 112 centers in Spain, various agencies during the Rio Olympics, and the city of Indianapolis.

  o **Transaction details:** Atos acquired Unify for €366 million (adjusted from working capital). Net debt was €48 million at closing and the pension deficit was € 176million. This leads to an enterprise value of €590 million as disclosed on November 3rd, 2015 at the signing of the transaction. To generate the expected costs savings by 2017 (€130 million on an annual basis), Unify is completing its current €267 million restructuring plan. In addition, Unify is starting, as planned, its €103 million further restructuring plan which is fully provisioned at closing. Both restructuring plans are funded by the sellers.

    As of February 1st, 2016, the Services activity of Unify (c. € 0.4 billion annual revenue) was integrated in the Atos Service Line "Managed Services".

    Atos will divide Unify into two parts. The managed services part (40% in FY15) will move into Atos's now $6.3 billion managed services business. Atos has around 300 customers worldwide, two-thirds of which are also Unify customers. The Unify direct sales employees will merge into the Atos account-specific sales teams.

    The Unify platforms, software, maintenance, and installation elements (60%, or around $866 million) will fall under a newly established Unify Software and Platforms business unit.

  o **Implications:** With the acquisition of Unify, Atos is further bolstering its public safety focus in the United States and globally. At this stage, the company is not very well known in the United States; however, it is likely with the acquisition of Unify, that the firm will make a push in the NG911 market. This, however, will take some time (4–6 years) as agencies in the United States prioritize the shift the IP-based call-taking systems.

Comtech Telecommunications Corporation

- Acquisition of TeleCommunications Systems (2015)

  o **Firm type:** 911 call-taking software and surrounding infrastructure, commercial location-based services and deployable wireless infrastructure; cybersecurity; defense and aerospace components; and applications for mobile location-based services and messaging.

  o **Transaction details:** The value of the acquisition was worth $5.00 per TCS share or $430.8 million enterprise value. In 2015, TCS reported $364.1 million in revenues.

  o **Implications:** The acquisition is significant in Comtech's strategy to develop adjacent markets, most notably the public safety sector. Some of the benefits included:

    ▪ Scale and more diversified earnings, reducing volatility associated with challenging international (including emerging markets) business conditions

    ▪ Entry into commercial markets, including the public safety market which has a growing need for Next Generation emergency 911 systems

    ▪ Enhanced position with existing customers including establishing Comtech as a prime contractor on several US government contracts, including becoming the prime contractor for sale of its over-the-horizon microwave systems (troposcatter) products

■ Cost synergies

Hytera

- Acquisition of Sepura (2017)

    o **Firm type:** critical communications including TETRA, DMR, P25 and LTE system solutions

    o **Transaction details:** Sepura has high end-customers in more than 100 countries, and has the second-largest market share in public security in Europe. Hytera's acquisition of Sepura adds approximately 700 professionals and staff to Hytera's organization.

    The deal value was approximately $92 million in cash.

    o **Implications:** The acquisition gives Hytera excellent access to regional and vertical markets where it was previously limited. Sepura has a strong, well-established brand, on which Hytera can capitalize in both Europe and the Americas.

    Hytera has been making substantial headway in Europe with the previous acquisition of what is now known as Hytera Mobilfunk in Germany, and now Sepura.

    With the Sepura acquisition, Hytera gains two additional innovation centers, one based in Spain and one based in the United Kingdom, Hytera will be able to boost its R&D capability. Over 10% of Hytera's sales are invested in R&D currently.

    The significance of this acquisition is mainly regarding devices, both LMR and broadband or dual-network devices, rather than equipment found in dispatch centers and command and control rooms. While Hytera will continue to develop its radios and broadband devices, dispatch systems must be developed to provide compatible interfaces. Hytera will likely increase the interoperability of its dispatch consoles to better handle both radio communications and broadband-based communications devices.

Concluding remarks

The command and control room market has experienced increased activity over the past few years; as the number of TSPs in the market both consolidates, but also increases, as the market opens up to more specialized and niche technology providers. An 'ecosystem expansion' is underway, which is due to new demands by control room operators and new technologies developed in the commercial and consumer sectors.

Historically, the public safety sector (the control room market's largest industry vertical), has moved slowly, often several years behind the consumer sector. But because of changing demand (i.e. a younger generation joining law enforcement, demand for data and interoperability, and greater demands on emergency response systems), the public safety sector will shift toward new technologies as they become available. This shift will continue to drive M&A activity within the market.

Some of the implications IHS Markit proposes are that the traditional, critical control room technology markets, such as CAD including GIS & RMS and the voice dispatch markets, will be increasingly consolidated over the next few years as the market becomes more competitive. Control room consolidation and a reduction in number of available opportunities in the markets is one reason for this adaptation. At the same time, because of more macro-level trends like advances in the wider technology industry, new market entrants will have an opportunity; and will, in the future, continue the M&A cycle.

Glossary

- **CAD – C**omputer-aided dispatch software. A form of resource management software used by operators within a control room to dispatch resources. CAD software has several components that support the dispatcher. It contains a huge database of incident information and is also able to compare real-time incidents with previous ones and display an alert if the incidents are related. The CAD system also provides an interface for E911/E112 technology.

- **Call-taking software – C**all-taking software covers the intake processing equipment within the control room and is used in control rooms to receive emergency calls. Using a private branch exchange (PBX) or automatic call distribution (ACD) functions or other switching configurations, dispatchers can be in a centralized or decentralized location, but still use the same system. Initially the public telephone system identifies the telephone number through automatic number identification (ANI). Telephone companies can retain a database containing every assigned telephone number and corresponding address; cross-referencing the phone number provides the address through a process known as 'automatic location identification' (ALI). The telecom provider can now collaborate with public safety agencies to create a 'master street address guide' (MSAG). This allows the telecom company to match the emergency call with the appropriate public safety jurisdiction and route the call to the appropriate communication center. This process usually takes milliseconds; as the call arrives at the correct agency, the ANI/ALI information is displayed when the dispatcher takes the call.

- **FirstNet –** The First Responder Network Authority (FirstNet) of the United States was created under the Middle Class Tax Relief and Job Creation Act of 2012 (MCTRJCA) as an independent authority within the National Telecommunications and Information Administration (NTIA). The purpose of FirstNet is to establish, operate, and maintain an interoperable public safety broadband network. To fulfill these objectives, Congress allotted $7 billion and 20 MHz of valuable radio spectrum to build the network.

- **GIS –** Geographic information systems (GIS) use layers of geographical data to build a comprehensive mapping system; they were developed to support geographical inquiry and decision making. GIS gather data from a wide range of sources, unifying complex spatial information with descriptive information and allowing users to organize, analyze and view selected data easily

- **LTE –** 3GPP Long Term Evolution (LTE) is a standard in the mobile phone network technology tree that produced the GSM/EDGE and UMTS/HSPA network technologies. The latest generation of mobile telecommunication networks are collectively known as 3G. Although LTE is often marketed as 4G, first-release LTE does not fully comply with the IMT Advanced 4G requirements as it is not backwards compatible with 3G systems. While it is commonly seen as a cell phone carrier development, LTE is also endorsed by US public safety agencies as the preferred technology for the 700 MHz public-safety radio band.

- **Next Generation 911 (NG911) – R**efers to an initiative aimed at updating the 911 service infrastructure in the United States and Canada to improve public emergency communications services in an increasingly wireless mobile society. In addition to calling 911 from a phone, it intends to enable the public to transmit text, images, video, and data to the 911 via an Internet Protocol-based system.

- **P25 –** Project 25 (P25) or APCO-25 refers to a suite of standards for digital radio communications for use by federal, state/province and local public safety agencies in North America (and some other regions) to enable them to communicate with other agencies and mutual aid response teams in emergencies. In this regard, P25 fills the same role as the European TETRA protocol, although it is not interoperable with it.

  The P25 standard (which was developed by the Association of Public Safety Communications Offices, APCO) was created to develop a standard that would meet the specific needs of public-safety users in the United States. Many intrinsic problems existed with the old analogue systems, which could be successfully solved by implementing a digital network. The problems included overcrowded radio spectrum, poor voice quality, a lack of data transmission, and inadequate security.

- **PTT/PoC -** Push-to-talk, also known as Press-to-Transmit, is a method of conversing on half-duplex communication lines, including two-way radio, using a momentary button to switch from voice reception mode to transmit mode. All users can hear each other's transmissions and take turns speaking, using procedure words such as "over" and "out". Push to Talk over Cellular (PoC) is a service option for a cellular phone network which permits subscribers to use their phone as a walkie-talkie with unlimited range. A typical Push-to-Talk connection connects almost instantly. One significant advantage of PTToC / PTT is that it allows a single person to reach an active talk group with a single button press; users need not make several calls to coordinate with a group.

- **PSAP –** Public safety answering point, primarily a European and North American term. This is a center where emergency calls are received and the correct resources are dispatched based on the characteristics of the incident.

- **Public Safety –** Police/law enforcement, fire and paramedic/ambulance/EMS (emergency medical services).

- **RMS –** Records management software allows the control room to keep an accurate record of previous events and forms generated from previous calls. This interfaces with the CAD system and allows the dispatcher to access easily information on previous incidents at addresses. Record-management software allows the control room to hold records and details of protocols and processes in responding to certain events. For example, recording EMS response procedures allows the dispatcher to communicate information to the caller to assist the person in distress. In the case of the police and the fire service, having access to records management software that contains information on specific events or incidents and on response processes can improve the effectiveness of responding units and emergency responses overall.

- **TETRA -** Terrestrial Trunked Radio (formerly known as Trans-European Trunked Radio) is an ETSI professional mobile radio and two-way transceiver specification, developed by the European Telecommunications Standards Institute (ETSI) to carry data as well as voice to address the unique needs of public safety agencies.

- **TETRAPOL –** TETRAPOL is a fully digital, FDMA, professional mobile radio system for closed user groups, standardizing the whole radio network from data and voice terminal via base stations to switching equipment, including interfaces to the public switched telephone network and data networks. End-to-end encryption is an integral part of the standard.

- **Tier (0-3) –** 'Tiers' refer to the size of PSAPs or control rooms within the public safety sector. Tier 0 includes the largest control rooms such as New York City, Chicago, Houston and Los Angeles. Tier 1 typically includes control rooms with over 100 seats. Tier 2 is somewhat ambiguous as it can include systems with 5–20 seats, but also 21– 100 seats. Tier 2 is often sub-divided further by 'upper' and 'lower' tier. Tier 3 includes the smallest control rooms which usually comprise fewer than 5 seats. Control room vendors often compete in only one or two tiers, but recently larger, tier 1 providers have begun to target lower tiers through M&A.

- **Voice Dispatch –** Voice dispatch refers to the interfaces and consoles in the control room that connect dispatchers to field personnel via licensed mobile radio terminals. The console is made up of a monitor, which can have several screens and has a range of fields and entities referring to different channels or units in the field. After dialing an emergency number (e.g., 999 or 112), a caller is connected to a PSAP where a trained operator is prepared to respond to the emergency. The operator will verify the caller's location, determine the nature of the emergency, and decide the appropriate emergency response team to dispatch.

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