The Unifying Voice of the
Emergency Communications Industry

iCERT
Industry Council for Emergency
Response Technologies

Contents

03

A Message From The Chairman:
Darrin Reilly

iCERT MEMBERS:

I want to thank all members of the Industry Council for Emergency Response Technologies (iCERT) for their tireless efforts extended to the public safety industry. Your collective participation in iCERT is a key indicator of your desire and willingness to actively serve our industry.

I am hopeful that all of you are very pleased with the progress that iCERT continues to make in advocating for emergency response funding, policies, and technologies. During this past year, there has been much more discussion and action tied to the challenges that industry participants face as the public safety market transitions from analogue to digital-based networks and solution sets. The need to accelerate this transition is multifold which includes, but is not limited to, providing networks and services that support multimedia data (e.g. voice, data, images, video, etc.), the added cost and "risk" tied to maintaining and supporting legacy technologies, and the overall need and desire to capture more information tied to each emergency request/response event.

Implementing Advanced Technologies

There have been plenty of newsworthy events that highlight the impact multi-media services can have on emergency events. The easiest example of this is the growing desire by the public and many in the justice system to greatly expand the use of body-worn cameras. Smartphones are now so pervasive that they are providing a first-hand view of emergency events. As a result, the public safety marketplace truly needs to implement advanced technologies in order to better plan for, respond to, and recreate emergency events. This will be a prime focus for iCERT in the coming months.

We also made great progress working within the public safety ecosystem to help amplify the need to press forward with advanced emergency response technologies and services. As a unified industry association, we are able to come together on common themes that impact the public safety marketplace. A prime example of our unified leadership was the Cyber and ICT Security Forum that we developed and executed in early 2015. Through the Cyber and ICT

AS A UNIFIED INDUSTRY ASSOCIATION, WE ARE ABLE TO COME TOGETHER ON COMMON THEMES THAT IMPACT THE PUBLIC SAFETY MARKETPLACE.

Security Forum's program and presentations, iCERT informed government practitioner and technology industry attendees of the challenges in protecting emergency communications infrastructure and systems.

Funding For Emergency Response Technologies

In April of 2015, we published a research report on funding for emergency calling in America, in part, as a result of a comprehensive Request for Proposals (RFP) iCERT issued in 2014. Rather than taking on the full range of tasks described in the RFP under a single all-inclusive research effort, iCERT opted to address these important matters through a series of research reports, given the evolving nature of these issues and the need to prioritize key items of more immediate concern, as well as the potential of overlapping with other entities on similar research studies.

As many of you may recall, the team at Texas A&M University's Academy for Advanced Telecommunications and Learning Technologies was selected as our partner in

conducting this study. The key task/report for the study was to Identify 911 and Next Generation 911 Funding Needs. This was simply the initial area of research under this multi-phased effort, as transition to NG911 systems is a vital matter for current consideration.

The resulting iCERT report distilled and conveyed findings associated with financial, technological, and policy-related matters for the transition from legacy 911 to NG911, which has been well-received by our public sector partners and associations. As we progress forward we will continue to evaluate additional task items to add to our research library. I would ask all of you to reference the iCERT website for all our research/reports tied to funding.

To continue with the funding theme, iCERT was active in four states in the 2015 legislative cycle, substantially supporting efforts to add pre-paid wireless service to the surcharge systems in Missouri, New Mexico and Hawaii, as well as a comprehensive emergency communications reform package

05

in Pennsylvania. While legislation to add a fee structure on prepaid wireless in the above-noted three states did not pass, Pennsylvania did pass a comprehensive law fostering a series of funding and operational improvements for emergency calling and communications. This legislation illustrates the prospect for a nationwide state model.

The final item associated with funding that I want to highlight is iCERT's recently released report on the *Sharing Economy in Public Safety*. This document is crafted as a market guide and offers the reader an overview of past, present, and future resource-sharing (consolidation) efforts in the Public Safety Answering Point (PSAP) community.

As communications operations combine into regional centers; as jurisdictional information technology officials assume collective roles over agency-based spending; and, as the current economy continues to compel agencies to reduce staffing levels, the nature and extent of emergency communications planning and procurement has transformed into what is now an ever-changing landscape, where many challenges lie ahead for the field of emergency response technologies. The report enables iCERT members to learn more about the trends toward a shared economy for these crucial public safety services, and how they can capitalize on future business opportunities.

Federal Regulatory Activity
The key item to note in 2015 involved an ad hoc consortium of associations that worked together to develop guiding principles and actionable items in response to the Federal

Communications Commission's (FCC) Notice of Proposed Rule Making (NPRM) on 911 Governance and Accountability. The group drafted a white paper, filed as an ex parte submission for the record, with key stakeholders that included the Alliance for Telecommunications Industry Solutions (ATIS), CTIA-The Wireless Association, the National Association of State 911 Administrators (NASNA), the National Emergency Number Association (NENA) and the United States Telecom Association (USTA), proposing overarching principles and deliberate steps that can be taken as espoused by the public sector and industry partners listed above.

The paper was crafted to do the following:

- Aid the FCC's efforts to address the complex governance, accountability, and reliability issues presented by today's evolving 911 systems and services.
- Respond directly to the FCC's challenge to industry and public safety to collaborate on best practices.
- Offer an overarching approach for addressing the long-term viability of the nation's 911 system, with recommendations for specific actions to ensure effective and reliable 911 services into the future.
- Represent the belief of the stakeholders group that the 911 ecosystem – vendors, public safety trade and practitioner associations, public safety authorities and agencies, and federal, state & local governments – can play a collaborative role that can bring about these changes to our 911 ecosystem in a seamless and successful manner.

- Demonstrate that when iCERT delves deeply into an issue, and takes on a leadership role, effective policy-making is a key outcome of such efforts.

As we progress we will continue to unify our efforts on common issues and items that impact and accelerate the development, deployment, and support of emergency response technologies and services.

As you can see, iCERT continues to provide a valuable unified voice within the public safety industry. Your direct involvement within our numerous committees and working groups, and formal/informal input tied to our events and papers, is invaluable. Please continue to leverage all the benefits that iCERT can provide. Additionally, please do not hesitate to let us know if there are any areas where we can better serve you and your firm. I sincerely thank you for your continued support of iCERT, and most importantly, for your dedication and commitment to serving the public safety industry.

Respectfully,

D. J. Reilly

DARRIN J. REILLY
Chairman
The Industry Council for Emergency
Response Technologies - iCERT

07

Executive Director's Message:
George Rice

As indicated in Chairman Reilly's letter, never have the demands on our industry been higher. This necessitates that we continually refer to and review our mission and goals, and indeed the basic themes that undergird iCERT's purpose as an organization. The Industry Council is the recognized and unified voice of the commercial sector in the field of public safety technology, working in concert with key stakeholders to advance policies and strategies that support emergency services.

This core principle has guided us on our path to accomplishment since our founding in 2006. And as we now enter our tenth year of service to the field of emergency response technologies, our path forward remains clear and rooted in this same purpose. Our programs and efforts represent a collective industry perspective that provides valuable insights for our public sector colleagues. The need for these insights persists, and iCERT not only stands ready to take up this challenge, the Association and its member companies welcome the opportunity to contribute to, and lead on, matters of great importance to the systems and technologies that protect life and property around the world.

iCERT helps you be heard, be counted, be influential, be visionary and be global. Along with advocating for emergency communications, iCERT gathers leaders, conducts and disseminates research, and offers insights into the future of the industry. Whether it's analyzing and assessing the impact of new technologies on emergency communications, or implementing existing ones and learning

from others in overseas markets, only iCERT provides companies with a central repository of knowledge and leadership in the emergency communications industry. And, our members are more connected to issues of importance for their company goals, and to those of the emergency response community as we've grown into the known and trusted source for engagement with the commercial sector on matters of public safety technologies.

During the past year, iCERT engaged in a series of activities that support the established goals of the Association and its member companies, while anticipating future needs in this ever-changing industry. The pages that follow will provide a holistic view of the capabilities and yield of the Industry Council for Emergency Response Technologies during 2015 and beyond.

George Rice
Executive Director
iCERT

08   Events

Forum on Cyber and ICT Security

In March, iCERT held a forum on cyber and ICT security in Silicon Valley to foster examination, coordination, and collaboration on matters of information and communications technology security related to emergency calling and communications systems in the near term and into the future. Security policies and technological capacities must be considered as agencies and emergency responders begin to use new broadband and IP-based systems. Guidelines and processes need to be crafted, and the unique tools available to address these growing matters need to be explored and discussed.

Through the program and presentations, iCERT informed government practitioner and technology industry attendees of the challenges in protecting emergency communications infrastructure and systems. The event included a series of expert panels of presenters with experience in emergency communications and other relevant domains, and closed with a roundtable exchange with the audience. The panels had a common theme: while the emerging next generation (IP-based voice and data) environments have unique vulnerabilities and consequences, much can be learned from cyber encounters experienced in other domains.

This iCERT forum helped the public safety community by fostering a distinctive dialogue on these critical issues. The post forum report provides details on the sessions and outcomes from this well-attended and highly interactive forum hosted and presented by iCERT.

iCERT-APCO Canada Joint Forum on NG911

The joint forum with APCO Canada held in Toronto represented an exceptional moment of collaboration and international exchange of knowledge, with high levels of participation during the two days of sessions. End-users, policy makers, manufacturers, and other industry stakeholders convened to discuss issues related to the provision of 911 service over next generation networks in Canada. Our partner and the sponsors found great value in the level of information sharing, as well as with issue and organizational visibility.

In addition to the thought provoking panels and interactive brainstorming sessions that took place at the event, we also provided a chance for participants to attend hands-on product demonstrations hosted by industry leading manufacturers. Our mini-expo exhibitors showcased technology products and innovative research, and provided delegates with a chance to experience and learn about the latest trends in our industry.

iCERT Annual Membership Meeting

The 2015 iCERT Annual Membership Meeting, hosted by Board Member company Motorola Solutions, entailed a highly interactive set of panel sessions (one policy-based, one market-based) and two briefings on emerging uses of technology for public safety (one by Chicago Police Deputy Chief Jonathan Lewin, and the other by FirstNet President TJ Kennedy). ICERT's commercial sector research partners Deltek and IHS Technology provided the market briefing, with support from academic research partner Texas A&M University. The members in attendance were not only privy to valuable information and knowledge sharing activities, but also to the in-depth networking opportunities offered throughout the meeting.

This annual event has become a must-attend for those looking to gain insights into the current and future issues affecting emergency response technologies.

010   Reports

iCERT Funding Research - NG911 Readiness Study:

In April 2015, iCERT published a research report, The Status of NG911 Deployment in the United States, on funding for emergency calling in America, in part, as a result of a comprehensive RFP issued in 2014. Rather than taking on the full range of tasks described in the RFP under a single all-inclusive research effort, iCERT opted to address these important matters through a series of research reports, given the evolving nature of these issues and the need to prioritize key items of more immediate concern, as well as the potential for overlapping with other entities on similar research studies.
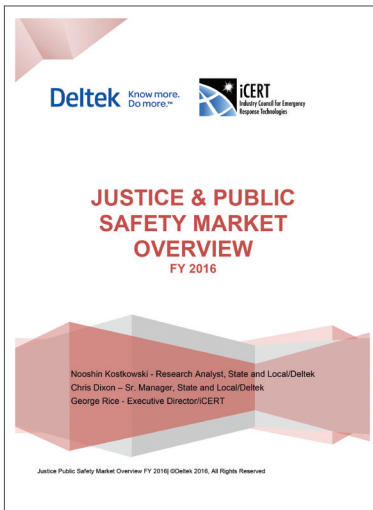
The team at Texas A&M University's Academy for Advanced Telecommunications and Learning Technologies was selected as our partner in conducting this study, and our Board of Directors and internal research group elected to begin with the task of identifying 911 and Next Generation 911 funding needs for the initial area of research under this multi-phased effort, as transition to NG911 systems is a vital matter for current consideration.

The purpose of conducting the study, under the research parameters for this task, was to evaluate the current status of NG911 transitions in states across America, by:
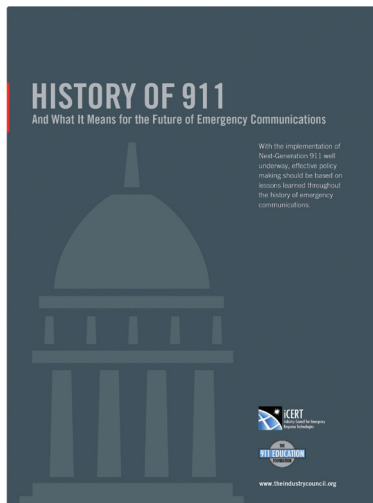
• Assessing the anticipated cost of the transition on both a state and national level;
• Reviewing existing funding levels to determine whether funding levels are adequate to support a transition of this magnitude;
• Identifying obstacles to completing the transition, and
• Considering the impact of external factors that may influence the transition timeline.

The research team conducted interviews with key decision makers in states and performed a comprehensive review of other studies, reports and plans. The resulting iCERT report distilled and conveyed findings associated with financial, technological, and policy-related matters for the transition from legacy 911 to NG911, which has been well-received by our public sector partners and associations. The report was made publically available, and it also represents just one area of intended study in a continuum of efforts that should shed light on the issues at hand, while assisting stakeholders with critical decisions and policy matters.
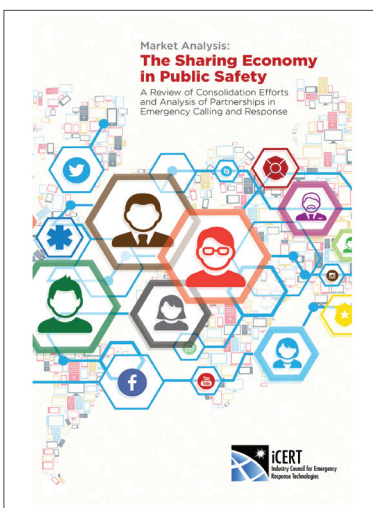
011

FY 2016 Market Overview: As with previous years, our 2016 Market Overview report offered a preview of state-based spending for information and communications technology, prepared in partnership with Deltek/GovWin. This report is an analysis of how states intend to direct their expenditures on justice, public safety and homeland security initiatives throughout 2016. Our goal in presenting this data is to offer a high-level overview regarding the scope and direction of public sector expenditures throughout these areas. This report helps iCERT members analyze the expected setting of expenditures in order to best suit their business designs.

History of 911 Report: The History of 911 report provides background, and acts as a precursor, for further policy and technology development pertaining to emergency calling and response. This publication was jointly produced by iCERT and our research subsidiary, the 911 Education Foundation (9EF).

The report is issued as a pro bono service to our government and nonprofit partners, trade media, and the industry at large. It is designed to educate public and private sector stakeholders about the importance of 911's history as it relates to its technical and policy origins, its current status and its future development. This report is a critical resource for ensuring that agencies, regulators, legislators, and industry have a longitudinal understanding to foster the success of NG911 adoption and implementation across America and in other regions. It has been globally distributed, and has been covered by trade media as an important element for understanding these crucial matters. An audio version of the report has also been made, which can be downloaded and listened to from iCERT's home page.

Report on the Sharing Economy in Public Safety: This effort marks iCERT's first foray into the field of fee-based report development and sales. Crafted as a market guide, the Sharing Economy in Public Safety offers the reader an overview of past, present, and future resource-sharing (consolidation) efforts in the Control Room/PSAP community. As communications operations combine into regional centers; as jurisdictional information technology officials assume collective roles over agency-based spending; and, as the current economy continues to compel agencies to reduce staffing levels, the nature and extent of emergency communications planning and procurement has transformed into what is now an ever-changing landscape, where many challenges lie ahead for the field of emergency response technologies.

Through this report, iCERT members and other commercial enterprises will learn more about the trends toward a shared economy for these crucial public safety services, and how they can capitalize on future business opportunities. Further details are available in the Report Prospectus.

012   Membership Services   New Programs

Annual Sponsorship Package

In order to provide members with an opportunity to shape their involvement in iCERT activities in a holistic manner, and under a yearlong strategy, an annual sponsorship package concept has been developed. On the Annual Sponsorship Form, member companies will find a menu of options from which to choose and create a package to suit their marketing needs.

Sponsorship packages are based on a calendar year sequence and independent of a member company's dues cycle and related payment. Sponsorship packages should be crafted, secured and purchased in advance of – or at the outset of – the program year for the activities selected. Annual dues payments can be added in full to the sponsorship package should a member company prefer to make a single payment for dues and sponsorships. For those wishing to take advantage of this program and secure slots for engagement and visibility, members should complete and submit the sponsorship package form. A telephone conversation can then be scheduled to go over specifics and to finalize the package.

Grant: Resilient Emergency Dispatch Center Research with the University of Houston

As a subcontractor to the University of Houston, iCERT has been awarded a modest level of grant funding through the US Department of Homeland Security, over a three-year period, to study and assist in the demonstration, evaluation, and design of low cost and open standards-based mitigation strategies that can significantly strengthen the resilience of today's 911 and NG911 systems against malicious acts such as DDoS attacks. iCERT has begun to assist the project by providing industry feedback and input to the study, while contributing expertise through the participation of iCERT member company volunteers.

This effort represents the first government-based grant awarded to iCERT, and should pave the way for further activity along these lines, for both iCERT and The 911 Education Foundation.

013 Key Policy Efforts

911 Stakeholders Group - Consensus Plan

Members of iCERT's Policy Committee worked in concert with representatives from stakeholder organizations including ATIS, CTIA, NASNA, NENA and USTA, to develop a strategy over several months during 2014 and 2015, in response to the FCC's NPRM on 911 Governance and Accountability.

These efforts resulted in a Consensus Plan designed to ensure reliable and resilient 911 services as consumer and public safety networks transition to Next Generation 911 technologies and systems. This plan was developed through a series of discussions spanning months, and reflects a viable path forward as the FCC seeks to address issues surrounding 911 governance and reliability.

The plan proposes a set of overarching principles and deliberate steps that can be taken as espoused by the public sector and industry partners. This effort also represents a moment of distinct leadership on the part of iCERT, on an issue of tremendous importance not only to emergency calling as a service, but also quite distinctly to the interests of commercial enterprises that provide these life and property preserving solutions.

Targeted States Campaign

iCERT was active in four states during the 2015 legislative cycle, substantially supporting the addition of pre-paid wireless service to the surcharge systems in Missouri, New Mexico and Hawaii, as well as a comprehensive emergency communications reform package in Pennsylvania.

While legislation enacting a fee structure on prepaid wireless in the above-noted three states did not pass, Pennsylvania did pass a comprehensive law fostering a series of funding and operational improvements for emergency calling and communications. A summary prepared by the County Commissioners Association of Pennsylvania outlines the enhancements and changes to that State's design which support regional consolidation and resource sharing, while prohibiting the use of 911 funds for other services. This legislation illustrates the prospect for a nationwide state model.

Additional Policy Efforts

iCERT was also active in 2015 on matters associated with Technology Transition and Alerts and Warnings. Policy statements on these issues were developed by working groups of the Policy Committee and vetted for Board approval, resulting in the industry positions posted on iCERT's Policy Statements web page, which were also disseminated to the trade media and among our partner organizations.

014   Partnerships and Outreach

NASNA Annual Briefing and Ongoing Coordination:

iCERT hosted its annual joint reception and dinner with NASNA, following a briefing provided to NASNA's membership by iCERT. Issues surrounding 911 governance and accountability were prevalent during the briefing, along with the prospect of enacting state legislation that would assign a portion of newly created or augmented taxes on tobacco to support 911. Lead FCC staff members were also in attendance during the briefing, allowing iCERT to reach this important constituency as well. Follow up coordination on the tobacco tax issue has netted a decision to craft model legislation for applying tobacco tax funds to 911. iCERT also garnered the support of NASNA for the 911 Stakeholders Group and we continue to work in close collaboration on a number of issues. As always, the reception and dinner was widely attended by both partner organizations.

iCERT Panel at PTI Smart Cities and Counties Summit:

In March, iCERT hosted a panel during the Public Technology Institute's Summit on Smart Cities and Counties, crafted to brief CIOs on public safety communications aspects regarding the growing trends under this topic. The themes of: best practices and use cases of smarter cities and counties; partnerships for data sharing and champions for adoption of technologies; and, data analytics and predictive technology were covered during this session, setting the stage for iCERT's ongoing engagement on these critical matters.

iCERT Panel at Critical Communications Middle East:

iCERT was invited to form and moderate a panel on Securing Critical Communications: Transitions to LTE Networks and Convergence with IP-based Emergency Calling during the Middle East regional event of the Critical Communications World expo series in Dubai, UAE in October. Working with key iCERT members, a panel outlined and discussed the development and deployment of three-digit emergency calling systems (999, 911, 112, 000) as well as public safety broadband systems, with a focus on how these two types of networks will converge in the future and thereby present further prospects for cyber breaches and security vulnerabilities.

In that not all regions or countries have broadband capabilities, the panel also noted that this is a barrier to global adoption. Presenters discussed for the attendees the basic setup of control rooms in some regions (their current network environment) and described how they might be designed to support the secure evolution from basic emergency calling to a converged system of public safety broadband and IP-based (next generation) 911/999/112/000, etc. emergency calling.

Global Marketplace Webinar:

In June, iCERT and its research and data analytics partners IHS and Deltek conducted an informative webinar on the Global Marketplace for Emergency Response Technologies in the 21st Century. Experts discussed and analyzed unique trends occurring collectively across the globe, while delving more deeply into details associated with continental regions and the American marketplace at various levels of government. Attendees came away with an enhanced understanding of the US and worldwide marketplaces in this ever-evolving industry. This webinar was a pro bono service for the industry and was widely attended, with a series of informed questions following the presentations. This was the second installment of this now annual marketplace webinar.

016 Closing

During 2015, iCERT's member companies came together yet again under the banner of this Association in order to better serve their clientele – the public safety community and the public that they serve. Our many activities undertaken, and engagements realized, during 2015 have served iCERT's mission well as we reflect on the previous year while at the same time looking forward to 2016 and beyond. Key to our ongoing success will be a continued capacity to unite the commercial sector in the field of emergency response technologies; to help guide policy and technology discussions and programs toward the end goal of more effective and efficient emergency services.

As evidenced through committee work, ad hoc efforts, coalitions, Board-directed projects, important forums and web events, as well as through critical information and awareness campaigns, iCERT is a dynamic community where our members share and exchange insights and expertise while they connect with peers and to public safety professionals. This past year was one where iCERT's definitive leadership and capacity for collective action helped foster important advances in public safety technology development and implementation. As we take on the challenges of the future – such as data management, digital evidence, public safety broadband and others – iCERT will remain rooted in the core concepts of its founding, as the Association and its members focus on solutions that make the present effectual and the future assured.

017   iCERT Members

Executive Committee Board Members

Hexagon SI
Steven Marz
Vice President, Safety, Security &
Infrastructure
iCERT Board Secretary

Intrado
Craig Donaldson
Senior Vice President, Regulatory and
Government Affairs
iCERT Board Treasurer

Mission Critical Partners
Kevin Murray
President & CEO
iCERT Past Chairman

TriTech Software Systems
Darrin Reilly
Chief Operating Officer
iCERT Chairman

Verizon
Don Brittingham
Vice President, Public Safety Policy
iCERT Vice Chairman

Board Members

AT&T
Joe Marx
Assistant Vice President, Federal Regulatory

Hitech Systems
Henry Unger
President

Intel Security
Patrick Flynn
Director, Homeland/National Security
Programs

Motorola Solutions
Dan Sawicki
Director, Applications Product Strategy

TeleCommunication Systems
Tim Lorello
Senior Vice President and Chief
Marketing Officer

The Digital Decision
Robert LeGrande
Founder and CEO

TKC Consulting
Thera Bradshaw
President and Founder

Unify
Steve Shanck
Senior Vice President and North America
General Manager

Voiance
Michael Bernard
911/Government Business Development
Manager

Zetron
Ellen O'Hara
President and CEO

General Members

911 ETC
Larry Scott, President
ACD Telecom
Ali Shahnami, Vice President

AECOM
Cheryl Giggetts, Senior Vice President,
Technology Solutions

AirBus Defense and Space
Jeff Wittek, Chief Strategic Officer

Emergency CallWorks
Craig Dollar, President

Frequentis
Vince Campanella, Vice President,
Engineering

GeoComm
Tim Torres, Director of Strategic Alliances

Goodmill Systems
Petteri Suomalainen, Chief Executive Officer

Harris
Michelle Johnson, Director, Product
Management, Communications Systems

IPST
Gary Payne, President and Chief Executive
Officer

Lockheed Martin
Traviss Green, Principle Business
Development Manager

NowForce
Jason Goldberg, Sales Director

Pictometry
Scott Sherwood, Corporate Sales
Engagement

Precision Global Alert
W. Hutch McClendon, Chief Executive Officer
and President

Priority Dispatch
Ron McDaniel, Senior Vice President

Rave Mobile Safety
Tom Axbey, President and Chief Executive
Officer

Reveal Media
Chris Muir, Vice President, International
Business Development

SceneDoc
Alex Kottoor, Co-Founder and Chief
Executive Officer

TracFone
Leighton Lang, Senior Vice President and
Assistant General Counsel

True Position
Robert Morrison, Executive Vice President

Widelity
Mike Lasky, Principal

Winbourne Consulting
Jeff Winbourne, Chief Executive Officer

iCERT
Industry Council for Emergency
Response Technologies

Entrepreneur Members

Presidential Partners
Richard Mirgon, Founding Partner

Public Safety Group
Tony Harrison, President

Public Safety Ventures
George Heinrichs, Managing Partner

Research Partners

Deltek
Jeff Webster, Director, State and Local
Government

IHS Technology
Thomas Lynch, Mobile and Radio
Aerospace

Strategic Partner

The RedFlash Group
Jake Knight, Partner

Become a member

You are just one person. Yours is just one company. What can one person do to safeguard the future of emergency communications?

What can one person do to improve the standing of communications among the entire emergency response industry and spread innovative ideas? You can join iCERT, where your insights and expertise will add to the many ongoing considerations in the emergency response industry.

Joining iCERT means you're not alone. iCERT represents the best of the emergency communications industry, advocating for enhanced funding for 911, bringing leaders together to share visions of a safer, more secure world through better communications, studying the emergency communications arena and sharing expertise with other stakeholders.

iCERT is the only organization that brings the entire industry together. Why? Because when we speak with one voice, we can move mountains.

Become one of us.
Join iCERT today at:
www.theindustrycouncil.org

PO Box 42563, Washington, DC 20015-2604

iCERT

Industry Council for Emergency
Response Technologies