

Supply vs. Demand

How will the new “Supply” of broadband information impact the “Demands” on your time, and that of your communications center.

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Preface

Presidential Partners, LLC is pleased to present **Supply vs. Demand, "How will the new "Supply" of broadband information impact the "Demands" on our time, and that of your communications center.** We hope that this focus group outreach initiative has significant value and will prove to be informative and educational. We feel that the report is an accurate representation of the opinions shared by focus group participants and accurately represents the dialog captured during the focus group sessions conducted in August Of 2013 in Anaheim, CA.

Acknowledgments

Presidential Partners wishes to acknowledge and thank the participants of both focus group sessions for their dedication and loyalty to the public safety professions. We also would like to express our appreciation to the Association of Public Safety Communications Officials for their support and cooperation.

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Supply vs. Demand

How will the new “Supply” of Broadband information impact the “Demands” on your time and that of your Communications Center?

Executive Summary

Presidential Partners Consulting, LLC (“PPC”) in cooperation with APCO International produced and conducted Broadband Network (FirstNet) focus group sessions during the APCO International Conference in Anaheim, CA in August, 2013. The intent of this effort was not to respond to every issue related to the impact on public safety communications centers by the Broadband network development, but to simply raise the awareness levels for public safety officials and application developers of the potential affect (both good and bad) this new broadband technology may have on our nation’s communications centers, as well as the individuals, who operate them.

Facilitating the focus group discussions were the founders of Presidential Partners Consulting, LLC: Willis Carter, Chris Fischer and Richard Mirgon. One of our goals at PPC is to “Build Bridges to the Future”. In the case of broadband network development, we believe that this can be achieved only if meaningful discussions between the public safety users and the technology providers occur. Public safety broadband is a new dynamic being introduced to first responders that will create new efficiencies, reduce cost, and improve services. Ultimately, meeting all of our goals, which is saving more lives.

Unfortunately, our nation’s telecommunicators, the nations “first” first responders, have for the most part, been left out of much of the planning and discussions to date, which are related to broadband development. This is regrettable, because those who operate our nations emergency communications centers are, in our opinion, key to the successful design, deployment and use of this network, as well as the applications, which will become part of the daily workflow for which they will be expected to manage.

If our readers take one thing away from this document, we hope that it will be that the desire to *supply* greater quantities of information can, and is, quickly producing unprecedented demands on the resources currently available to our nation’s emergency communications centers. Attempting to receive unlimited amounts of unrestrained data and moving it to its intended end points creates substantial demands on our nation’s communications centers. This effect can be demonstrated in a simple analogy. Imagine transferring the liquid contents of one container to that of another of an equal or greater size by using a funnel. Although both of the

containers have ample capacity, the size of the funnel will determine how much fluid can pass between the two containers regardless of how much capacity there is on each end.

Purpose of Effort

The purpose for conducting the focus groups was to initiate candid discussions with the public safety communications practitioners, who operate our nation's emergency communications centers and will be the ones, who will use the FirstNet broadband public safety network and ultimately the applications which are approved for use on the network. Among the goals for these discussions were to extract data and obtain insight that can help policy makers, technology developers, manufacturers, and suppliers of communications technology and software to better understand how the new public safety broadband network may impact our nation's emergency communications centers and the personnel, who manage and operate these facilities. The discussions presumed that the new public safety broadband network would not only support a greater "supply" of information but would also create greater volumes of information that would place greater "demands" on the time and resources of our nation's public safety emergency communications centers.

Demographics of Participants

Participants attending both focus groups represented a strong cross section of individuals representing communications center management including: dispatch supervisors, communications center managers, training supervisors, senior managers, and executive directors. Invitees were drawn from a list of over 225 names of public safety communications professionals, who were in attendance at the APCO (Association of Public Safety Communications Officials) 2013 conference in Anaheim, California, which provided a unique opportunity to collect data. The invitees were specifically selected based upon their function and/or position within their organizations. The demographics of the groups represented a mix of male and female, ranging in ages from early 30's to mid-50's, from agencies located in different parts of the country, some of which small, and others large and all with different levels of experience within the industry.

Structure of Discussions

Presidential Partners conducted two, two-hour sessions with a total of 30 participants. In order to set the stage for the discussions, each participant was asked to introduce him or herself and share with the group some basic information relating to the size of their agency, the services provided, and the size of their service area. As mentioned above, participants represented geographic cross sections ranging from small to large communication centers and possessing a diverse range of knowledge about the FirstNet broadband network. Each attendee was asked if they were familiar with efforts to create a nation-wide public safety broadband network with responses ranging from “not familiar at all” to “somewhat familiar”.

The Participants in both focus group sessions were encouraged to join and actively participate in very informal “round-table” style discussions aimed at extracting information regarding their thoughts, concerns, and expectations of the new public safety broadband network (FirstNet). Each session began with the facilitators presenting a high-level and very broad overview of the proposed Public Safety Broadband network including some of the envisioned functionality of the network (see appendix 1). The presumption presented to the group was that this public safety grade data network will provide a conduit through which a variety of information can be pushed and pulled to and from our nation’s emergency communications centers in much greater quantities than imagined today.

Presentation

The discussions within the focus groups began with each attendee introducing him or herself, an exercise, which was important so that all participants could better understand the perspective and point-of-view of each of the other participants. In an effort to both inform attendees and to gather information from them, facilitators initiated a discussion on just a few of the many “applications” that may be available and/or approved for use via the network. The intent was to provide some exposure to the attendees what is on the horizon. The following applications were chosen for use as starting points for the discussion. Each of these is available from APCO’s Applications Community website at <http://appcomm.org>, and each was chosen based upon the potential impact (positive or negative) it could have on a public safety communications centers.

- EmergenSee – *This app will “instantly begin streaming video, audio, GPS location in real-time to first responders who can start a two-way text conversation (with the communications center) and send help.”
- Active911 - *This is a digital messaging system that delivers alarms, maps, and other critical information instantly to first responders. Active911 also allows response efforts to be monitored in real time.
- Chirange – *This is a secure enterprise cloud service or host on your organization's own servers/network, you can deploy Chirange Incident Commander as a standalone application or integrate it with existing computer systems or your own data source. This is an incident management system.
- ELERTS - *This app lets smartphone users send a description, photo and GPS location to local authorities.

*Description by application developer

Discussion

Supply

Interestingly, the overall sense of the participants was that these, “public safety apps”, create more problems than they solve. It was also noted that some of the supporting documentation accompanying these apps even suggest that using the app is more important than calling 9-1-1, a position very strongly rebuked by both groups of participants. After this discussion, a consensus quickly formed supporting concern with how quickly that new technology is evolving and how in some cases, it is actually out-pacing public safety’s ability to implement the technology.

Participants related how that even the technologies that are currently available and in use in their communications centers, are producing huge, additional demands on their staff and management. Also, the group voiced concerns about how difficult it is to imagine how some of their communications centers would cope with the additional workload produced by adding even greater quantities of applications and data.

Several participants cited, as one example, an application being used today in which a “consumer” is allowed to submit medical and assorted other personal information, to a centralized data repository. The intent is that this information then can be made available to call takers and/or dispatchers, as well as potentially even field units in the event of an emergency request for service corresponding with the discreet address associated with the record. Some of the participants reported that they were using such an application and had

concerns, which related primarily to the potential for liability exposure associated with the use of the service, because of the possibility that the data could be obsolete. They referred to the possibility of vital information, which is transmitted via the system being inadvertently overlooked, misunderstood, or miscommunicated to first responders by communications center personnel. They cited examples of high risk exposure during periods of call overload situations when a call taker or a dispatcher may be extremely busy and, therefore, lack the time to be able to provide sufficient attention to calls of this type.

Participants also felt strongly that the new technology, along with its added workloads, will force agencies to alter their current recruiting and hiring practices. This surge in technological advancements and the increased volume of data being exchanged may likely change the dynamics of recruiting and hiring telecommunicators. A new generation of workers who have grown up with a computer and with a mouse in their hand at an early age learning to play video games have much different skill sets than their successors. This group of individuals may have the mindset of actually wanting *more*. This is unlike the more traditional mindset that *more* is just that.....more information to process resulting in more work, which will require more staff and ultimately present more exposure to liability.

Most agreed that many telecommunicators are already monitoring 4-6 constantly updating monitors. Will these numbers grow even larger, and more importantly how much information is just too much? Who will make the determination as to which information is actually processed by the communications center, and which information simply flows through the communications center to the field units? How will information flow through the public safety communications center and will it be with or without operator intervention and/or oversight?

All of these factors impact the acknowledged fact that that telecommunicator turnover is already high. Many agencies are seeing an average turnover rate of 20% or higher, and most of the participants said that they expected to experience even higher turnover rates with the continuing advent of this new technology. The added stress caused by the added workload is expected to be a contributing factor to that increase. This concern drives the question: Do public safety communications managers understand the potential need to increase staffing with the advent of broadband?

It is noteworthy that both of the groups expressed concern over the fact that some tenured employees simply may not willingly adjust to these new advances in technology. This dynamic is not new. It has been observed in many emergency communications centers in times past, as the industry shifted from using a "card" based dispatch and tracking system to the automation provided by computer aided dispatch systems.

Will these more tenured employees adapt, bearing in mind that many of these employees had difficulty adapting to new computer-aided-dispatch systems or mobile data capabilities? How will communications centers cope with the prospect of losing this experience as they become faced with the loss of their most senior employees? The “people” issues proved to be extremely important to the participants in that it surfaced repeatedly during these discussions. Most agreed that global changes in job descriptions and duties of telecommunicators will in all likelihood change. Specifically, the jobs for which existing employees applied for and were hired to do will not look the same following significant broadband deployment.

Can telecommunicators realistically expect to see changes in their job classification, or pay range as a result? Will these potential changes affect collective bargaining between the labor unions and the employer? Could labor present the potential argument that the changes in job responsibilities is a change in working conditions, and, therefore, must be re-considered in contract negotiations? Also, how will these issues impact the issue of early retirement for telecommunicators? Some states have a provision similar to the fire service or law enforcement that offer “20 years of service and out.” Most retirement systems do not have such provisions for telecommunications, and it is more common that the provision is “30 years of service and out.” Some of the systems consider the employee’s age, but most focus primarily on years of service. This was quite concerning to the focus group participants in general since the job of telecommunicator is becoming more and more demanding, stressful and complex. Employers will still expect these tenured employees, who are not required to retire after 30 years of service, or when they reach 65 years of age, to be able to keep up with the new demands.

Additional concerns discussed included:

- To what extent will current operational procedures require updating, and what new policy and procedures will be required in order to address the new processes and/or new technologies that will touch the telecommunicator?
- What level of standard of care will be expected?
- Will the tax paying public understand that staffing resources directly impact services?
- How much longer will it take to get a new hire trained? This is already a very time-consuming and difficult process. The washout rate is significant even with improved training and testing methods and techniques.
- What will the new training look like? Will the current training staffs be able to understand the technology well enough to train to new procedures?

It was very clear to the observer that there was a high level of concern and discomfort during these conversations. Participants felt that the very large cities or agencies would be able to adapt much more quickly due to, at least the perception, that staff resources are not an issue as

with the medium to smaller agencies. It is important to remember that the majority of the 6,000 PSAP's in the country are one or two position operations. Some also perform additional and non-telecommunications duties such as records responsibilities and, sometimes, booking responsibilities. Participants were very concerned that even *if* the broadband features, which have been discussed, were available to them today, how it will impact the surrounding communities, who are not ready to adopt the new technology?

Video

Perhaps the liveliest discussion involved video technology and the potential to be able to transmit live video feeds directly into the communications center. Participants in both focus group sessions asked questions and voiced concerns regarding live video feeds and the potential that they would routinely find their way into the public safety communications centers. The participants had many questions and concerns regarding their ability to control these "feeds" as well as the types of information being processed over these feeds and amounts of information being presented to telecommunicators. One participant indicated that she envisions a position being added to communications called a "multimedia" position or a "**multimedia telecommunicator**." She envisioned this to be a position dedicated solely to handling texts to 9-1-1, video from the field and a variety of other applications that may eventually be utilized and beneficial to the telecommunicator or field personnel. Most believed this was a solid prediction based on present knowledge levels.

Viewing video and making decisions based upon what is *seen* rather than *heard* will require different skill sets, which in turn, will require a more diverse training curriculum. Will video increase the vulnerability of jurisdictions to added risk and liability? Specifically, what if the "actual" situation on scene is in reality different from what the telecommunicator "saw" during the video which was provided at the time of the call? Will telecommunicators become witnesses and/or be required to write reports or testify in court?

Text to 9-1-1

Similar to the concerns related to video were those related to texting, mostly due to the fact that the telecommunicator will not have the opportunity to verbally connect and communicate with a caller, and will not have the advantage of hearing voice inflection or background sounds.

As the public safety communications agencies begin to advance towards the deployment of Next Generation 9-1-1, participants agreed that the advanced capabilities of text and video are becoming a reality. In its "Report to Congress and Recommendations, dated February 13, 2013, the Federal Communications Commission stated that "NG911 will facilitate interoperability and system resilience, improve connections between 911 call centers, and support not only traditional voice 911 calls but also the transmission of text, photos, videos, and data. These new capabilities will enhance the accessibility of 911 to the public (e.g., by enabling video and text-to-911 for persons with speech and hearing disabilities), and will provide PSAPs with enhanced information that will enable emergency responders to assess and respond to emergencies more quickly and effectively." Some wireless carriers have made a commitment to launch texting to 9-1-1 by May 2014. Other carriers offer the service in some limited markets today.

So what may be some of the limitations associated with text to 9-1-1? Text messages may prove difficult to understand due to the texting lingo being used predominately today by the younger generation. However, participants agreed that some, regardless of age grouping, would rather text than place a voice call when reporting emergencies. This represents a shift in culture for the average communications center and its telecommunicators.

The advent of streaming video capabilities, texting to 9-1-1 and a variety of other applications that could theoretically stream information directly into the communications operations areas, appear to be especially problematic when applied to recruiting, hiring and training. Telecommunicators are screened, tested, hired, and trained in the traditional style of verbally asking questions and from the verbal responses extracting pertinent information from the caller. They then convert this information into a meaningful dispatch message to emergency response apparatus and personnel. Participants were very unsure of how video and text to 9-1-1, for example, would impact these hiring processes.

The impact on standards and best practices was also a concern that surfaced during the discussions. Participants are painfully aware of the amount of time it has taken to develop and implement standards for text to 9-1-1 and NG9-1-1 in general. Participants were quite concerned that companies may be marketing their products and approaching these new technologies without benefit or regard for standards, or at least best practices being in place to guide their proper development and use. They strongly supported the notion that these standards should be in place before the FirstNet broadband network becomes operational. Many of the participants recalled the early days of Enhanced 9-1-1, when pre-arrival instructions were being implemented by some jurisdictions, and how the disparity of capabilities and the standard of care among agencies and jurisdictions varied dramatically.

Demand

Public Expectation

For years the general public has been somewhat confused with regard to public safety agencies' abilities and services, because of the disparate deployment of technology from one jurisdiction to another. Because we are a part of an increasingly mobile community, expectations coupled with the rapid deployment of technology causes public safety concern that the public perception may exist that implies that technology is universal and is available everywhere. This is not always the case with public safety technology. Local jurisdictions across the nation continue to make independent technology choices, because common services are not always available in all jurisdictions and have varying fiscal resources. The most fundamental example is the fact that today, even some 30 years after the advent of cellular services, there are still areas of our nation where neither 9-1-1 nor 9-1-1 location technology are available. The perception, however, may be that location information is automatically available to the telecommunicator regardless of where one lives in the nation. This creates an assumption that the caller doesn't have to "know" where they are located in order to gain assistance in the event of an emergency. When developing applications that use location information, application development without a full awareness by the developer of public safety systems and processes, can lead to applications that create consumer expectations that are unrealistic or even dangerous. The citizen consumer may be led to believe that they are getting help when in fact they are not. This could ultimately lead them to make decisions that are not in their best interest.

The topic of public education generated lively discussions during the focus groups on how to develop and deliver this complex message to the general public. Most agreed that still today, some of the public barely grasps the concept of E9-1-1, without even trying to deal with any of the other technology that continues to emerge. Participants remained concerned that different communities would offer different levels of service or standards of care, which could create more confusion to their citizens. This confusion complicates the ability of the telecommunicators to handle calls quickly and professionally. Participants agreed that public expectations are at times, and through no fault of their own, very unrealistic.

To further complicate the issue, some public safety agencies are developing and deploying applications on their own. This has caused some difficulty for the telecommunicators. They did acknowledge, however, that they were aware of some new applications in the market that they have used and have found helpful.

Operational Demand

Focus group participants also raised concerns regarding records retention. How will the potential increase in the amounts of information (data/video) that will arrive to the com center impact existing records retention activity? What additional requirements will evolve as this new technology becomes a routine part of the communications centers work flow? Will States' records retention laws eventually require communications centers to catalogue and store data as is the case today, for most of the information processed by public safety communications centers? Many agencies are already having difficulty complying with liberal public disclosure laws, which require agencies to make this information available upon request. Many are already struggling to keep up with the demands for voice log recordings and call summary requests.

The groups were unsure of how these new technologies would integrate with existing technologies - for example legacy computer-aided-dispatch and records management systems that are not at the end of their normal life cycle and are not ready to be replaced? Not all agencies will have the resources that will be required to upgrade to NG9-1-1. All of the participants voiced concern over the integration of this newer technology with existing telephone systems and radio consoles.

Group Observations

During the focus groups, participants realized that they may not be as informed regarding broadband and its association to the applications issues. They believe that for the most part, they have been left out of the discussion. They suggested that to improve this situation, more information should be made available at the public safety communications center level, and managers of these centers should be encouraged to provide input and share information with their employees. Technology and applications' developers should be made aware that they are making technology decisions that will affect these emergency communications center employees. They also asked that more focus groups similar to the two held at the APCO conference be planned. The participants also requested that the information gained, as a result of the focus groups, be used to exchange information, pose questions, and hopefully, receive answers from those in the technology industry, who understand the "business."

Each agreed that outreach will be critical as the broadband initiative develops. The participants wanted to know if considerations for the network design and functionality were being based

upon any research. They suggested that APCO support the appointment of a subcommittee of the current FirstNet Broadband committee to insure operational issues are fully understood and adequately considered during the planning of this network. They also felt strongly that they would like to be better informed as broadband becomes a reality so that the public safety professionals, who operate public safety emergency communications centers, can embrace the advancements in technology and support the new capabilities in efforts to become more valuable employees.

The participants expressed some confusion with regard to the content of the "APCO Applications" website. The site, <http://appcomm.org> lists some 300+ public safety related applications. Most of the participants were under the impression that these applications had undergone some degree of vetting through an APCO process. Participants seemed surprised to learn that even though the site contains a wide collection of applications, they are not vetted nor are they subsequently approved by APCO. One specific comment was; "When I look at articles or recommended sites from APCO, I have always felt that the information/applications have met the APCO standards. I found out at the focus group that it is not the case". The general consensus of the both groups was that APCO needs to be clearer on the home page that these are not vetted or endorsed applications.

In closing each session, each group was asked to rate their priorities and/or concerns regarding broadband and its impact to communications centers in the order of importance to them individually. They agreed on the following:

- ✓ Staffing impacts
- ✓ Funding
- ✓ Education and Training
- ✓ Retention
- ✓ Employee wellness
- ✓ Standard of care disparity
- ✓ Policies and Procedures
- ✓ Vetting and certifying applications which run on the network
- ✓ Education of policy makers

While this short list may not encompass all areas of concern by the public safety telecommunicator community, we feel that it is an excellent starting point for future discussion.

Conclusion

Technical

Based upon the feedback by participants of both focus group sessions, some common and potentially serious perceptions frequently surfaced:

Applications are being developed in an environment void of valid public safety involvement or oversight causing a lack of understanding of:

- Public safety information processing methodology and retention standards.
- The protection of information that enters public safety networks for evidentiary purposes.
- How the application impacts human resource reserves.
- How public safety networks support information delivery.

As a result:

- Applications are being developed that have little chance of meeting public safety's or private consumer needs or expectations.
- Applications are being developed that have the potential to inflict a negative impact on consumer expectation and safety.
- Network design must take into consideration the full integration of NG9-1-1 networks along with base layer IP networks.

Operational

Public safety communications centers are facing formidable challenges today finding recruits who are the right fit to deal with both the world of public safety telecommunications and the greater demands associated with new technology. Currently, most communication centers' hiring processes focus on a particular set of knowledge, skills, and abilities which can make an applicant well suited to effectively interview a caller. These skill sets assist the telecommunicator in accurately evaluating what they are *hearing* on the telephone, and correctly making a determination for action. Telecommunicators are psychologically screened at most centers to determine if they have the "right" emotional makeup to handle what they will be *hearing* and processing. Both groups voiced concern over how much input a telecommunicator can absorb and process, while maintaining accuracy, effectiveness and efficiency. They voiced major concerns relating to the, at least perceived notion, that broadband will bring with it additional burdens for communications staff.

Recommendations

An effective public safety response system relies on multiple public safety disciplines from sometimes multiple jurisdictions, working harmoniously toward a common goal.

Software developers eager to support these emergency response systems and supply both public safety and private consumer marketplaces with applications that will permit seamless connection with public safety emergency services are encouraged to:

- Engage professional public safety professionals in all disciplines in order to better understand the unique functionality of each.
- Work with computer-aided-dispatch, land mobile radio manufacturers, and others so as to gain a full understanding of the role each plays in an effective public safety response system.
- Insure network design can support all public safety applications to include NG9-1-1.
- Participate with public safety associations such as the Association of Public Safety Communications Officials (APCO Intl) and their Applications Community (<http://appcomm.org/>) Project.

Additional research and work in this area to define how applications will impact the public safety call process and documentation needs to occur. Presidential Partners Consulting intends to address some of these needs by continuing outreach to public safety via focus groups and public safety user engagement.

Based upon the focus groups' discussions, there is significant concern and the real perception that technology decisions will be (are being) made by those, who may not fully understand the potential of the impact that their decisions may have on emergency communications center operations.

About Presidential Partners

Presidential Partners Consulting, LLC (PPC) is a premier public safety communications and technology consulting firm specializing in all areas of communications center operations. Together our partners have over 90-years of senior management experience in public safety and emergency communications center management, and believe that the most valuable product in our inventory is the combined knowledge and skill sets that our managing partners bring to the firm.

Just as important to us as our professional qualifications are our ethical standards – we stand behind our work and we stand behind the agencies we serve.

Our goal is to gain a clear understanding of our clients' needs, and then offer effective, common sense solutions.

<http://presidential-partners.com/>

Appendix – Power Point Presentation Used in Focus Group



Welcome and introduction

- **Who we are?**
- **Why are we doing this?**
- **How long will this last?**

Presidential Network – Building Bridges to the Future



New Applications for Public Safety

4 Examples of APPS that impact you.

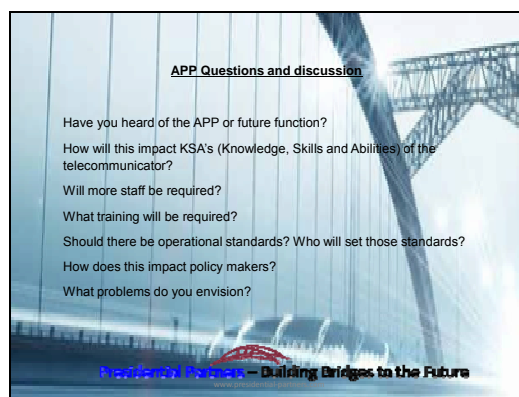
Emergensee
An app that sends live video to first responders.

Active911
An app that requires you to push new incoming information via email.

Chirange Commander
On scene Incident command software that you are not part of.

Elerts
An app that allows the community to push information to you.

Presidential Network – Building Bridges to the Future



APP Questions and discussion

Have you heard of the APP or future function?

How will this impact KSA's (Knowledge, Skills and Abilities) of the telecommunicator?

Will more staff be required?

What training will be required?

Should there be operational standards? Who will set those standards?

How does this impact policy makers?

What problems do you envision?

Presidential Network – Building Bridges to the Future

How it works: Step 1



- 99% of CAD systems can do this without modification
- Email is sent to a unique email address for your agency
- Example: 1234-nDhWorjDjw@alert.active911.com

Active 911

www.presidential-partners.com

APP Questions and discussion

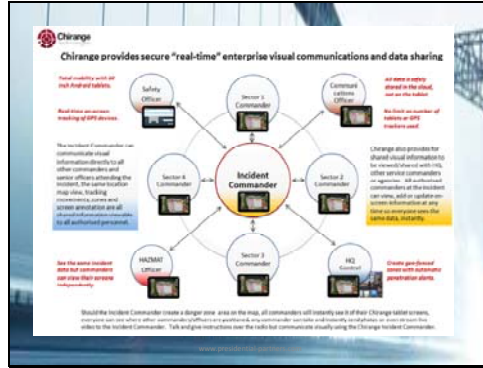
- Have you heard of the APP or future function?
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- Should there be operational standards? Who will set those standards?
- How does this impact policy makers?
- What problems do you envision?

Presidential Partners – Building Bridges to the Future

Chirange Commander

Chirange has inbuilt flexibility, you can subscribe to our secure enterprise cloud service or host Chirange on your organization's own servers/network, you can deploy Chirange Incident Commander as a standalone application or integrate it with existing computer systems or your own data source.

Presidential Partners – Building Bridges to the Future



APP Questions and discussion

Have you heard of the APP or future function?
How will this impact KSAs (Knowledge, Skills and Abilities) of the telecommunicator?
Will more staff be required?
What training will be required?
Should there be operational standards? Who will set those standards?
How does this impact policy makers?
What problems do you envision?

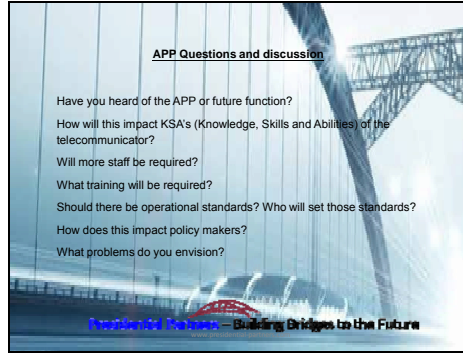
Resilient Networks – Building Bridges to the Future

ELERTS

Public safety for a smartphone world
Public safety is a shared responsibility. When something just doesn't look right, the [ELERTS app lets smartphone users send a description, photo and GPS location to local authorities](#). Now, people can use their smartphone to make a difference in the safety of their community or organization.

ELERTS is a revolutionary public safety communications platform
[Our public safety systems provide two-way communications](#), geo-targeted alerts, high resolution photography, and confirmed message delivery. ELERTS systems can help any campus, hospital, company, transit system, city or other organization improve overall public safety.

Resilient Networks – Building Bridges to the Future



APP Questions and discussion

Have you heard of the APP or future function?
How will this impact KSA's (Knowledge, Skills and Abilities) of the telecommunicator?
Will more staff be required?
What training will be required?
Should there be operational standards? Who will set those standards?
How does this impact policy makers?
What problems do you envision?

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Early Adopters

Do they....
Help develop products?
Or
Create problems?

Who are they?

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Wrap Up

What activity in broadband do you see impacting your job?

Thank you for participating.

Additional information and comments can be sent to...
info@presidential-partners.com

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