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PoC Market Expands

as Use Cases, Applications Grow

There has been a divide in the market as some users look for a simplified dedicated PTT device, while others look for a more fully featured device.

By Danny Ramey

As more and more industries and organizations adopt push-to-talk (PTT) over cellular (PoC) technologies, the market is seeing a wide variety of use cases and needs that are pushing innovations.

"There's going to be a spectrum of users and there's going to be a spectrum of devices," said ESChat CEO/President Josh Lober.

Lober said that spectrum ranges from users who want a simplified device focused specifically on PTT communications to users who need a device with PTT as well as specific extended capabilities.

"You have users who need a device that looks like a radio, feels like a radio and works like a radio but need capabilities such as RFID or a specific application, as well," said Mike Ippolito, general manager for A Beep, which provides PoC services through its DigaTalk+ service.

Through both its radio PTT and PoC services, A Beep serves a variety of verticals including school buses, security companies, public safety and others. The PoC service appeals to many of those users who in the past used the radio PTT service, Ippolito said. "All those fleets that fit in the standard LMR space fit in this space as well."

Many of these users come seeking solutions to communications problems such as range or in-building coverage but do not always have large budgets with

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which to address the issue.

"These are all things that with two-way radio become incredibly difficult to solve without a lot of money," Ippolito said.

Similarly, Carlos Chajin, vice president of Kirisun Americas, said PoC services have begun changing the radio rental market. He said that Kirisun's PoC solution is being used in a variety of applications including small-to-midsize public-safety agencies, national parks, hospitals and private ambulance companies.

"It's diversified, so I think this type of PoC has slowly taken over a lot of that typical two-way radio rental market," he said.

Kirisun's solution uses PoC radios running SIM cards and runs through a web-based server to provide communications. The nature of the system proves useful to dealers because it does not have some of the same issues with traditional radio infrastructure, Chajin said.

Because the PoC runs through the web and not over traditional infrastructure, it reduces the need for technicians to service towers and lowers the cost of maintaining the service because that physical infrastructure is not there.

As with some of the other services, the devices used on Kirisun's solution operate on a cellular SIM card but that card is placed in a

Some agencies are adopting web-based PTT apps to help management and office workers better communicate with field workers.

body that is similar to a radio, as many of the users of the service are still looking for the advantages of such a form factor, Chajin said. "We maintain the ergonomics and look of a radio but inside is a cellular data modem to our platform with our developed software."

Orion Labs CEO Greg Taylor said that the company doesn't view the push-to-talk market as just over cellular anymore.

"We are the service at the point of work and the point of work is never just cellular these days," Taylor said, noting that frontline workers in a variety of vertical markets, including public safety, critical infrastructure and business, perform their duties in a variety of environments including in buildings, underground, in highly secure facilities or out in the wilderness. Because of all of these connection points, it is essential that PTT apps integrate into a variety of different systems and applications, such as satellites and systems specific to particular industries.

"It's really much more than over cellular," Taylor said. "The way teams work, they cross various

connection points."

For example, Orion introduced a web-based PTT solution that is intended to help extend the PTT operations from the frontline to the operations system or office. This extension of PTT services has also helped organizations adapt to employees working from home due to the COVID-19 pandemic while still staying connected.

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— Jason DePue, Vice President of Sales for Siyata Mobile

"We think it's important because it frees up the ability for people with browser-based devices to be involved in the dispatch process," Taylor said. "We're serving frontline teams but part of that is their supervisors and operations team."

Taylor said that Orion considers this brand of PTT that extends over a larger variety of devices

and services as PTT 2.0. For Orion, this new brand of PTT covers a variety of innovations as well as endless system integrations.

One key innovation that Orion has championed is artificial intelligence (AI) and its ability to automate certain services within the PTT space. Orion's PTT service offers voice bots that allow users to automate specific parts of the app to fit their unique needs.

The voice bots can be programmed to respond to certain commands, information or metadata and then perform certain commands. For example, an organization can automate a routine radio check. Normally, when an employee performs a radio check, someone such as a dispatcher, has to respond. But with AI, a voice bot can hear that call for a radio check and return a response to that user, so they know the radio is working. This then frees up dispatchers to perform other tasks. In another example, a word or code could be used to trigger an emergency response to help an employee in need.

"We really do think PTT 2.0 is in certain ways crossing a chasm that a lot of vendors will struggle with and that chasm is how do you make these enterprises more productive," said Orion Labs Chief Marketing Officer Michael Schwartz.

While some users on the PoC spectrum are looking for more advanced features, other users are looking for a device specifically dedicated to PoC with few other features. These so-called internet of things (IoT) devices provide PTT applications with small screens and few other data features for organizations that want an extremely simplified PoC experience.

"A phone is not the right description for this thing," said Jason DePue, vice president of sales for Siyata Mobile, which has developed the SD7 IoT device. "The best way to describe this would be an LTE walkie talkie."

The SD7, for example, carries a display that is less than an inch and allows two lines of text. The key focus of the device is on PTT. There is no application store for the device but applications are provisioned using a mobile device management system.

Lober and DePue said that the nature of the IoT devices don't require as robust a data plan as a traditional broadband device, allowing users to select cheaper IoT data plans to pair with the device. "It's a simplified device on a simplified rate plan," DePue said.

Lober noted that the IoT devices are not intended to replace a radio in an organization's communications system, but instead to serve a very specific purpose those organizations need for simplified PTT communications. For example, the devices can prove useful as part of a cache of spare devices that agencies maintain in the event of a disaster. These simplified devices, which require little

programming can then be handed out to volunteers or other agencies and allow them to instantly communicate over PTT.

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"You see this all the time where an agency has a cache of hundreds of Android phones prepped with ESChat but a third of the people you hand it to are going to look at it and say, 'I don't know how to use this because I use iOS,' " Lober said, noting that the simplified devices are easier to teach to new users.

Siyata has looked at the potential of adding applications other than PTT to its IoT device but DePue said the company is carefully deliberating any application expansions because the IoT devices are so focused on PTT.

One example of a potential non-PTT feature would be near field communications (NFC), which a security company, as well as others, could utilize to have users check in at different locations by tapping the device on a node, but that feature is still being explored.

"Because of the form factor, we don't want to overpromise and underdeliver on the apps," DePue said. "The real focus on this device is push to talk over cellular."

One key element of the market that is helping drive applications is the number of accessories that are available to pair with PTT applications now, Lober said. "In a lot of cases, accessories make or break the mission."

For example, a device paired with the right speaker microphone or headset can prove useful for a law enforcement officer who is undercover and needs to maintain PTT communications while remaining discreet or for a worker in a high-noise environment that still needs to communicate.

The many types and applications of PoC communications will only continue to grow as the technology evolves. That continued growth will continue to drive new innovations in the market and lead to more use cases and users. ∎

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Photo courtesy Orion Labs