

TeamConnect™ by PAR White Paper

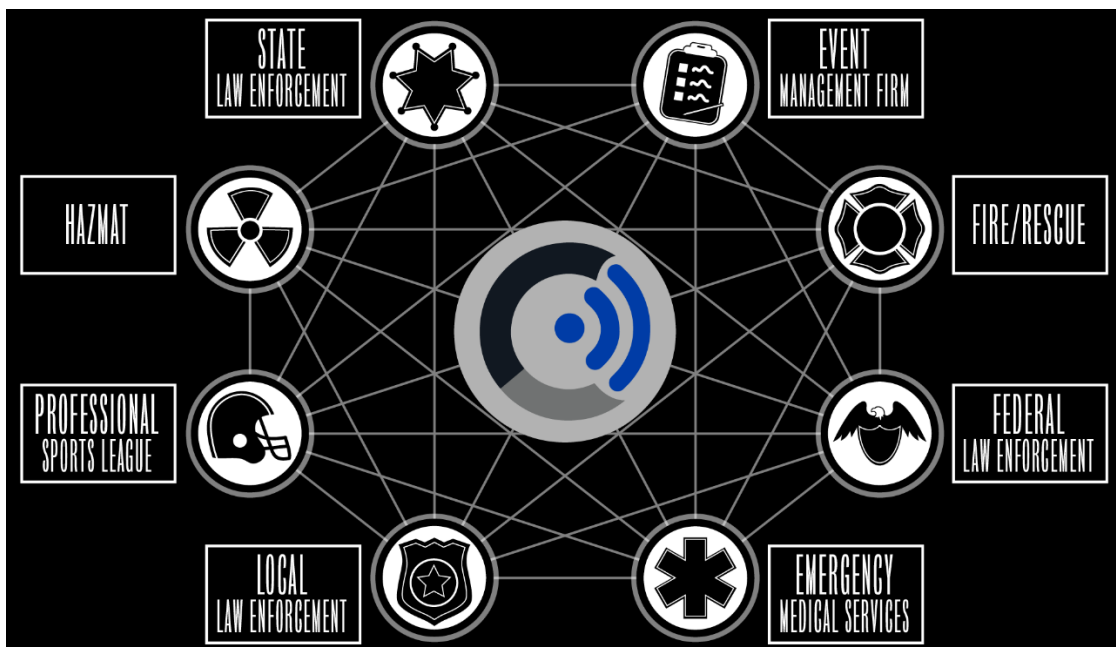
Introduction

Safe and effective management of a large event – whether planned or unplanned – typically requires communication between multi-jurisdictional teams. To meet the complex collaboration needs of event managers, emergency responders, and facility administrators, PAR Government developed TeamConnect™ by PAR as a multi-tenant, software-as-a-service (SaaS) solution that is a companion product to the Android Team Awareness Kit (ATAK) originally developed by PAR for the U.S. Defense & Intelligence (D&I) community. In a decade of real-world deployments, TAK technology has enhanced communication and coordination between individuals within small groups in the field. TeamConnect is a cloud-based application that facilitates direct communication and sharing of diverse information in real-time among personnel from an unlimited number of participating organizations using the mobile devices they already carry.

What is TeamConnect?

The TeamConnect application serves as a collaboration bridge that enables government agencies and private sector organizations to communicate with each other and share real-time information in situations where they otherwise have no communications network in common. TeamConnect is a cloud-based server that distributes information to users in the field primarily through an application that is easily downloaded onto their mobile phones, tablets, or laptops.

TeamConnect enables individuals to share their GPS location details in real time with other personnel. In addition, the server transmits diverse information such as text, photos, documents, videos, maps, and GPS coordinates. A TeamConnect administrator can add users and form groups in minutes via a web-based dashboard. The administrator can manage participation levels of individuals and organizations, restricting information access and direction if needed.



The secure TeamConnect server resides in the AWS GovCloud and is maintained by PAR Government, eliminating the need for an end user to invest in system hardware or hire a system manager. For clients with cloud computing restrictions, TeamConnect can be deployed as an on-premises server option. The TeamConnect On The Go (OTG) app may be downloaded by end users for free from the Google Play Store.

Who Can Benefit from TeamConnect?

TeamConnect can be deployed by any public or private sector organizations for situations that require real-time communication between numerous individuals in the field, even from disparate agencies or groups, to ensure safe and successful outcomes.

These include:

- **Event Organizers** – sports competitions, concerts, festivals, political gatherings
- **Emergency Responders** – law enforcement, security firms, medical teams, food/water suppliers
- **Search and Rescue Teams** – public safety, volunteers, marine agencies, air patrols
- **Facility Managers** – utility/energy plants, campuses, hospitals, theme parks

TeamConnect Benefits

The bottom-line benefit of TeamConnect is that it saves lives, time, and resources by enabling organizations to respond quickly and effectively to rapidly changing events on the ground. The TeamConnect solution accomplishes this by enhancing real-time situational awareness and information sharing by all federated individuals and groups, creating a common operating picture that minimizes confusion and maximizes cooperation.

Other TeamConnect benefits include the following:

Innovative Commercial Successor to TAK Server– TeamConnect is a server built to complement the CivTAK and ATAK technology developed for the U.S. Government by PAR Government more than a decade ago. Since then, 20 organizations worldwide have deployed this situational awareness technology successfully in high-stress, mission-critical situations.

Comprehensive Situational Awareness – TeamConnect shares *diverse* data sets such as voice, text, video, documents, maps, and GPS coordinates. Communication formats can be varied from users to user, user to select team, user to command, and user to entire force.

Team Safety – Operating in Beacon mode with the On the Go apps, TeamConnect automatically tracks the individual GPS locations of all team members for reporting to

the administrator and other personnel even without ATAK or CivTAK. If an end user is hurt or lost, assistance is swift and precise.

Affordable – TeamConnect clients are not required to invest in server hardware or a full-time system administrator. PAR Government maintains the system, keeps it updated, and can provide 24/7 support.

Rapid Deployment – With minimal instruction, a new customer can set up a TeamConnect group in about 10 minutes. New end users can be added with a single click. End-user training takes less than an hour. No technical expertise is required.

Complete Lifecycle Management – TeamConnect is the only situational awareness tool on the market that allows clients to plan and train for events, utilize the system during the event and record all responses and activities, perform a post-event review, and run hypothetical event scenarios.

Secure – TeamConnect communications channels are secure, using protocols standardized by the banking and healthcare industries.

How TeamConnect Works

TeamConnect supports a hierarchical structure, with the organization being the top level, such as the Department of Homeland Security (DHS), Local Sheriff's Department, or Private Sector Event Organizer. The organization's administrator is any named user who invites individuals into a group or approves requests to join a group. Within the organization there are multiple groups. An individual can belong to many groups but only participate in one at a time. Shared groups span organizations to facilitate communication for a specific purpose and then are severed when no longer needed.

The shared group organizer determines the communication directionality, e.g., if a Federal agency is the organizer, it may want to see where local members are, but locals may not see locations of the Federal agents, or voice communication may be restricted.

TeamConnect in Beacon mode is used on a mobile device with the On the Go application, without a need for ATAK. Beacon transmits an individual's location to other group members at a designated interval. This is effective for tracking K9 units or people who need their hands free while working but still need to report location.

TeamConnect Case Study

Corona Fire Department: Situational Awareness in Major Events and Everyday Activities

In 2019, Firefighters/Paramedics from the Corona Fire Department, California, responded to an active shooter situation. Despite the dangers of the rapidly unfolding event, the team performed its duties according to protocol and with acknowledged success. Afterwards, the responders used

a new situational awareness tool called TeamConnect to review their performance and determine how they could enhance their execution in the future.



“The guys used TeamConnect to replay every step of their response, step by step,” said Corona Fire Captain Andreas “AJ” Johansson.

Corona Fire was first introduced to the ATAK technology while providing mutual aid assistance for major wildfires in the northern part of the state. For several fire seasons, the California National Guard (CNG) has deployed the MQ-9 Remotely Piloted Aircraft (RPA or drone) over large wildfires and streamed full-motion video and fire-

line mapping information to Incident Command Posts.

Impressed with the ability of this video data to provide situational awareness during rapidly evolving wildfire events, the Corona Fire Department purchased Android smart phones and tablets to deploy ATAK. To network the ATAK devices together, Corona Fire chose the commercially available TeamConnect application from PAR Government.

Located between Los Angeles and San Diego, the department operates seven stations staffed by 100 firefighters and EMTs responsible for about 60 square miles of a rugged terrain, including populated urban development. Even though most California wildfires occur hundreds of miles from Corona, the department regularly sends vehicles and crews to help battle the blazes under a mutual aid program.

“Receiving the drone videos of the wildfires overlaid on maps [via CivTAK] was powerful and profound,” said Capt. Johansson.

Johansson spearheaded TeamConnect implementation in Corona. The Android TeamConnect On The Go application was loaded on the tablets and cell phones that are standard equipment on the department’s emergency vehicles. Crew members are trained to grab a tablet or phone whenever they disembark from the engine or truck.

“TeamConnect tracks the locations of the devices on a map...so the commanders can see where individual crew members are, not just vehicles [as is the case with standard automatic vehicle location technology],” said Johansson.

Since TeamConnect deployment, the situational awareness technology has been used frequently in responses to search-and-rescue operations, tactical-responses, swift water rescues and wildfires.

When Corona sent an engine to Northern California to fight the Walker and Kincade fires of 2019, Johansson used TeamConnect to keep tabs on the crews from headquarters 800 miles away in Corona. Each day he created an updated vector map showing the fire perimeters and other key features. He transmitted these maps to the crews via TeamConnect. Onsite, the crews also used TeamConnect to tap into the real-time video from the National Guard's video stream.

"Our guys could see the incident map and see where they were with TeamConnect," said Johansson.

Although Corona implemented TeamConnect primarily for use in managing major incidents, the department uses the system on an almost daily basis to improve coordination in many routine calls.

PAR Government: A Heritage of Success

PAR Government is rapidly becoming known as the Situational Awareness Company. PAR leverages a successful 50+ year heritage providing situational awareness, ISR, situational information sharing, and geospatial solutions to the U.S. government with significant presence in the Defense/Intelligence sector. Solutions developed by PAR Government have been battle-tested and proven in challenging environments and situations worldwide.

The commercially available TeamConnect offering has deep roots in the Android Tactical Assault Kit developed by PAR Government more than a decade ago at the request of the U.S. Department of Defense to enable better communication and information sharing between groups in the field.

Two different government products morphed from this successful technology, both modified and deployed by PAR Government. The MilTAK mobile application was created specifically for approved military organizations. For non-military customers including state and local governments, ATAK was renamed the Android Team Awareness Kit or CivTAK, which offers many of the same advanced functionality without the military-specific modules. With CivTAK alone, group members can communicate only if they are on the same network or WiFi, but not between different networks.

To expand the use of CivTAK as a commercial product, PAR developed the TeamConnect back-end application as a simple, user-friendly cloud-based service that operates on mobile devices, such as smartphones and tablets. As a cloud-based server, TeamConnect has broken down communications barriers that once stood in the way of cooperation between and among governmental and private-sector organizations during multi-jurisdictional events.

For D&I and civilian agencies currently using the TAK-based military and civilian solutions, TeamConnect by PAR is a complementary solution that enables them to migrate to the cloud-

based environment. Organizations that once communicated only among personnel within small groups via ATAK will be to collaborate securely with diverse entities and individuals in the public or private sectors.

A related offering, Esri Mission, is built on TeamConnect technology and runs in the Esri Enterprise as a server extension. Esri Mission has a command and control structure and is complementary with TeamConnect.

Call to Action

For general information, visit the PAR Government website at www.pargovernment.com or email TeamConnect@partech.com.