



CASE STUDY

Providing Interoperable Communications to Madison County Indiana Agencies

Coronavirus: A Multi-Agency Cross-Jurisdiction Response Effort

Around the world and in the United States, COVID-19 response relies on the ability for public agencies and private hospitals to collaborate. While the emergency response community has trained and prepared for this type of event by instituting **Incident Command System (ICS)** and **National Incident Management System (NIMS)** standards, the magnitude and severity of the pandemic posed unprecedented challenges.

Traditional interoperability methods often overlook a range of media (video, data, etc.), focusing instead on bridging radio systems. These methods often present technical challenges to the personnel charged with implementing the bridges due to the complexity of task and the infrequency of implementation and training. Furthermore, a changing communications environment that includes more devices, including smartphones, tablets and laptops, provides increased opportunity for increasingly clear voice communications, as well as video, photos and data file sharing.

Challenges: Addressing critical communication needs with voice and video sharing

Madison County Indiana is committed to bringing effective and efficient services to the people of the “**Heartland**”. The mission of the Madison County Emergency Management Agency is to protect the lives and property of the residents of Madison County from technological, man-made, and Natural Disasters. Brent Jensen, Executive Director at Madison County Dispatch, oversees training for Central Dispatch employees, and acts as a liaison to all outlying departments, including but not limited to Police, Fire/ EMS and Information Technology, coordinating efforts to improve technology and infrastructure to ensure efficiency.

“*Having worked in public safety for 15 years, I know one of the unique challenges impacting dispatch is implementing interoperable communications...*”

said Jensen.

CASE STUDY: Mutualink Provides Interoperable Communications to Madison County Indiana Agencies

"I realized that with Mutualink we can bridge not only the public safety agencies in our area, but also hospitals and the Coroner's Office, which is a game-changer during this pandemic."

- Brent Jensen, Executive Director at Madison County Dispatch

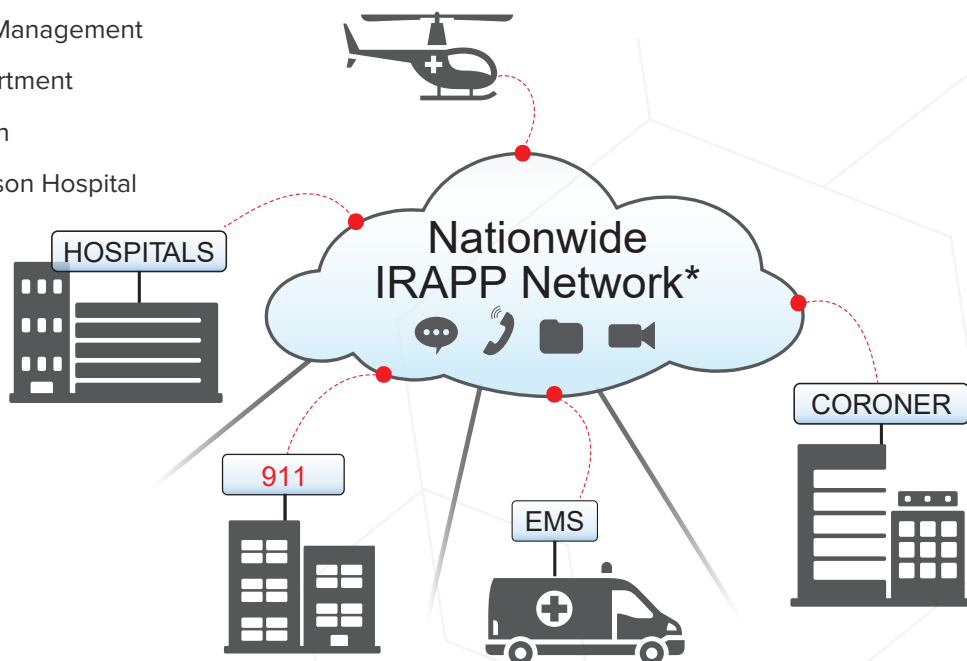


Solution: Mutualink Edge with @Team Push-to-Talk creates a communications network for optimal coordination

Using Mutualink's interoperability solutions to connect EMS, hospitals, 9-1-1 dispatch and the Coroner's Office increased the level of operational communications between the partners helping each other efficiently respond to the COVID-19 crisis. Overcoming long-standing and otherwise immovable communications barriers led to rapid adoption of the platform. As described below, Mutualink is an innovative technology capable of bridging communications systems regardless of compatibility.

Mutualink software and hardware is deployed to quickly connect:

- ✓ Madison County Emergency Management
- ✓ Madison County Health Department
- ✓ Community Hospital Anderson
- ✓ Ascension St. Vincent Anderson Hospital
- ✓ Ascension St. Vincent Mercy Hospital
- ✓ Indiana University Health
- ✓ Madison County Central Dispatch

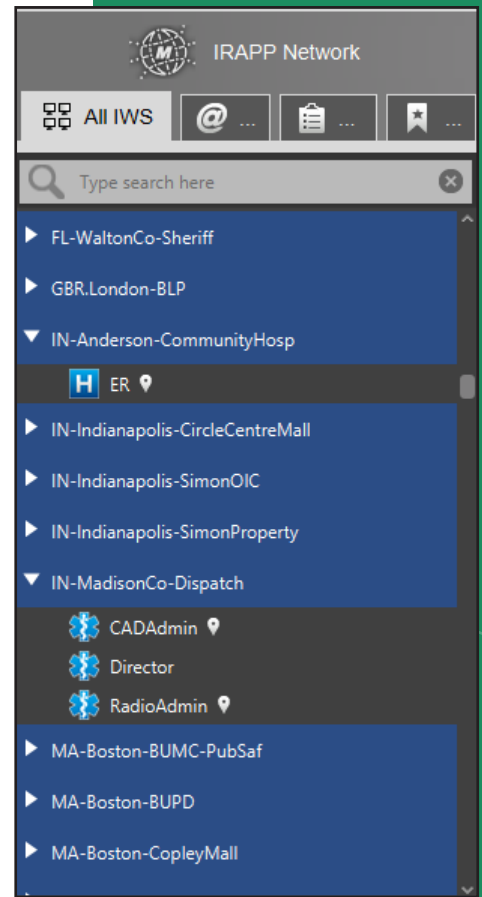


Mutualink

Mutualink Edge IWS licenses are downloaded onto desktops or laptops at each hospital, located in the emergency room to enable coordination with ambulances. Ambulances are equipped with Mutualink Edge @Team push-to-talk apps on ruggedized smartphones. The app enables voice and video to be shared from the field for optimal situational awareness and ease of use. Communication between the hospitals and ambulances extends to and includes 9-1-1 dispatch, where a radio gateway also provides a bridge to radio transmissions as needed. Finally, an Edge IWS at the Coroner's Office enables coordination as required.

HIPAA-Compliant

The HIPAA-compliant system creates a communications network with full voice interoperability to include radio, smartphone and push-to-talk bridging. With voice, video and data available in real-time, first responders are better able to optimize emergency management and reduce the time needed to make decisions and take necessary action. For instance, because COVID-19 patients experience a wide range of symptoms, first responders can work with hospital staff to triage en route. Using pre-established @Team talk groups to connect dispatch, ambulances and hospitals avoids the need for relayed conversations. The addition of ad hoc talk groups and Edge IWS incidents enables dispatch to include other collaborators as needed. And Mutualink's attention to ease of use helps make the platform accessible even during times of high stress.



“We were initially looking at Mutualink to help coordinate with the department of transportation when our attention was necessarily diverted by COVID-19. Being in conversation with Mutualink made it obvious that this technology was ideal to help ease communications throughout this crisis.”

- Brent Jensen, Madison County

With Mutualink's robust interoperability platform, Madison County is now experiencing expected communications efficiencies while also uncovering new and unexpected opportunities to lower costs and widen their collaboration footprint. Most fundamental to their operations, Madison County now has a direct line for real-time information exchange with the hospitals and Health Department, which was previously a gap. As a result, the safety and health of the community is prioritized.

For Madison County, the focus now is on expanding the system to neighboring public safety agencies, corporate security departments, higher education and public schools. For Mutualink, the possibilities for use cases identified by the County open endless opportunities for integrations.



VOICE

Connects incompatible radio systems, PTT apps, mobile phone and landline phones.



VIDEO

Shares video streams in real time.



DATA

Shares floor plans and other critical situational information.



RESULTS:



1: Reduction in absolute spending on compatible communication devices

Bridged radio, smartphone and push-to-talk enables Madison County to increase their collaboration footprint while maintaining the current communications systems.

The Mutualink software platform, called Edge, brings interoperability to both office-based computers, as well as laptops and smartphones. By having the ability to bridge disparate communications devices, Madison County can add collaboration partners and their systems on an ad hoc basis.

As partners join the Mutualink network, they can onboard their radio systems, video resources and smartphones using Mutualink Edge and Radio and Video Gateways. The deployment is also scalable, with initial installations focused on software, with minimal hardware. As needs change it can be rolled out more widely.

2: Broad range of use cases optimizes the technology investment

Madison County originally considered adding Mutualink interoperability after hearing about how the Florida Department of Transportation used the platform for cross-community collaboration and information sharing. The idea was to enable cross-agency, cross-jurisdiction interoperability with the Indiana Department of Transportation. During the exploratory phase, however, the coronavirus epidemic altered the county's collective focus. This shift brought them to the realization that the platform was precisely what was needed to create seamless communication among and between dispatch, the health department.

Recognizing the strain that responding to the pandemic would place on first responders in triaging and transporting patients to hospitals whose emergency rooms were similarly strained, Brent Jensen began considering the communication gains that could be achieved with Mutualink to bridge radio traffic from dispatchers with smartphones in ambulances and emergency room personnel on computers. Once the deployment was completed (within

weeks of the virus reaching Indiana in early March), the county immediately recognized the benefit of expanded communications.

As part of their deployment, the county procured a Mutualink VCD connector to enable live video to be streamed from a helicopter and shared across the Mutualink Edge IWS platform. This level of situational awareness significantly enhances the value of the airborne video.

By late April, surrounding public safety agencies Adams Markleville Fire Protection Territory and Chesterfield-Union Township Fire Department collaborated on a special rescue training using Mutualink to communicate between fire, dispatch and an emergency room doctor. EMS Command sent live video from the scene of a mock accident while extricating a victim from a vehicle. With the invaluable medical direction, the team had awareness of injuries the victim may have sustained and how to minimize complications during the extrication.

3: Faster incident resolution

In emergency situations, response time is often cited as a critical factor to mitigating loss of life and minimizing impact to property and the environment. Response time, however, is only the beginning. Madison County's success comes from reducing the time it takes to resolve an incident. Getting to a sick COVID-19 patient fast is important. Resolving the incident to get the patient quickly transported to needed medical treatment can prove lifesaving.

Since it began tracking time to resolution, Mutualink has found an average of 50% reduction in time to resolution when the same exercise is conducted without Mutualink and with Mutualink.



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