Washington State Implements Emergency System Using AtHoc Connect for First Responders

“We needed a technology partner to be just as flexible, agile, and innovative as our project was. We wanted to do extraordinary things out-of-the-box without having to invent a wheel. We looked for companies that could meet our rigorous demands, and found that with AtHoc.”

– Bob Pessemier, Senior Technology Consultant, WA-COP
Imagine a traffic accident, and the emergency response that usually occurs. Now think about that accident happening on a major interstate artery, and the resources that are required. Next, visualize a traffic accident involving hazardous materials. The picture quickly becomes clear about how complex a wide area emergency response can become.

A recent single traffic accident near Olympia, WA tied up traffic for 15 hours, and 17 different agencies were involved. This is what the Port of Seattle, the Puget Sound region, and the State of Washington had to wrestle with. The Puget Sound Region needed to upgrade its emergency response system, and Bob Pessemier, Senior Technology Consultant for the Washington Common Operating Platform (WA-COP), was part of the effort.

A Common Operating Platform is a collection of communication, collaboration, command and control, and information sharing technologies that allow multiple stakeholders to access relevant displays of information to improve coordination and decision-making. The Seattle-Puget Sound region is a unique environment that is enhancing public safety cooperation and joint operations across the full spectrum of state, local, regional, and federal governments.

“We started out with a maritime grant with a port-centric focus,” Pessemier said. “But, we became convinced that if we did that, we would be limiting ourselves. Instead, we selected a system with rich capabilities appropriate for any police department, fire department, or agency with an emergency management role.”

After obtaining funding from the Department of Homeland Security and assigning the Seattle Police Department to be the lead agency, WA-COP collaborated with 20 different types of agencies and hundreds of individual groups in the Puget Sound region. These ranged from police and fire departments, to trucking and railroad companies, commercial and government ports, First Nation tribal organizations, and the U.S. Coast Guard.

**Snapshot: WA-COP**
- Regional solution to provide first responders and other stakeholders in the Puget Sound area and State of Washington with a way to efficiently and effectively share information during daily business operations or emergency incidents
- Stakeholders are local and regional government agencies, private companies in Washington, maritime agencies, state, and federal agencies
- Funded through grants from the Department of Homeland Security, administered by the City of Seattle Police Department
- Currently operational and open to expansion into other Washington jurisdictions by invitation

**Communications Challenges**
- Multiple agencies, each with their own internal standard operating procedures and communications methods for day-to-day operations, plus “special,” unfamiliar procedures for highly complex emergencies
- Lack of understanding or awareness of what the technology is about, what it can and cannot do
- Recognition that communications systems designed for high-frequency, low-complexity operations become overwhelmed in high-complexity situations
- Constantly shifting stakeholder personnel, requiring a constant learning curve
“You need to be able to talk to anybody on any system, not just the radio – with information sharing and support systems that are flexible, adaptable, and agile.”

“AtHoc was a clear winner in our evaluation and technical analysis.”
Leaders at WA-COP realized that developing a system from the ground up and serving a widespread and heterogeneous community would be prohibitively expensive and likely would never get off the ground. “Brick building,” as Pessemier described the act of constructing a system using raw parts from scratch, invites failure. King County and Seattle had spent more than $10 million on a “brick-by-brick” solution for an information management solution that still does not work the way it should. So, WA-COP opted instead to gather individual best-of-breed applications and integrate them using a modular approach.

“You don’t have to spend tens of millions of dollars to get an effective, functioning, flexible, adaptable platform that can make a difference,” Pessemier asserted. “If you can get creative enough, and use the right components, like AtHoc, then you can create cost-effective ways to facilitate and enhance the safety and security of any community.”

WA-COP decided to work with ready-made “building blocks” instead of unfinished “bricks” – identifying the core elements of the ideal system, finding the companies that offered the best solutions, and concentrating on linking everything into a viable result more quickly and cost-effectively than building a system from scratch.

For the critical areas of mass notification, alerting, and crisis communications, WA-COP chose AtHoc Connect.

“I first worked with AtHoc when I managed public sector partners for another company, and got a good sense that they were extremely focused on making sure that whatever they did for their clients was going to work in a stellar way,” Pessemier said. “They had customers with extensive experience in using the Connect Network and the AtHoc Emergency Mass Notification System. We needed a company that could be just as flexible, agile, and innovative as the WA-COP project already was.”

After a bake-off of various companies, Pessemier said, “I knew for sure there was not anybody better than AtHoc. Between that, and the AtHoc’s demonstrated commitment to its clients, it was easy to say, ‘We need this component in this project.’”

WA-COP’s objective was to build a system to meet today’s needs and tomorrow’s. In that respect, they found a reliable partner with AtHoc. “AtHoc became the clear choice because of its capabilities and functionalities, the advanced technology they have developed, and the direction they are going,” Pessemier added.

Technology Objectives

- Create system that easily merges with existing, independent systems
- Ensure that information flow among different “building blocks” works effectively and reliably
- Determine where the response system does break down, and then fix it with the appropriate tools and technologies
- Develop secure system that provides information effectively, but according to legal and security standards of individual agencies
- Prove that AtHoc Connect can improve emergency planning and response and can help WA-COP save lives and property that might have been lost by slow or incomplete responses
“The value AtHoc provides to our project is quite high, because of its rich functionality and reliability, and the different platforms you can communicate with.”
Seamless, Organic Integration

WA-COP acknowledges that each individual organization will have its own systems and will use them, while grafting WA-COP’s capabilities onto the systems they already know how to use. The design team also determined that designating an emergency system suitable for a Level 4 emergency, separate from the systems used for a Level 1 emergency, would cause problems.

“Because those emergency systems are used so infrequently, people are unfamiliar with them, and they’re not used effectively,” Pessemier emphasized. This arrangement could lead to yet more confusion. “Whatever systems you use to communicate for the everyday high-frequency, low-complexity events, it’s important to use those same systems during the low-frequency, high-complexity events.”

Therefore, WA-COP encouraged agencies to maintain their own communications systems, while incorporating those pieces of WA-COP that were suitable for them. By emphasizing a more “organic” approach to emergency communications, first responders felt more comfortable using the new tools along with their existing resources for more complex emergencies.

“End users apply their creativity and how they want to use the system, and this makes it even more useful,” Pessemier explained. “AtHoc is the kind of tool you can do that with, and that’s why we selected it. There are going to be some ways that people will use AtHoc effectively we could never have imagined at the beginning of this project.”

The State of Washington’s Common Operating Platform is currently free and open to all Washington maritime, public safety, and private sector stakeholders as grant funds and software licenses permit. WA-COP will continue to evolve their system and gain more experience and successes, and AtHoc will be there to assist them in their growth.

“AtHoc was the clear choice for us because of not only the capability and functionality and technology they have developed, but the direction they are going with us,” Pessemier said.

Frequency and Complexity

WA-COP developed a method for explaining levels of complexity in emergency situations, based on the number of disciplines and jurisdictions involved in an emergency.

- **Level 1** – Single discipline in a single jurisdiction: fire department responding to a house fire. This would be the simplest type of emergency, in terms of communications issues.
- **Level 2** – Multiple disciplines in a single jurisdiction: warehouse fire, involving several fire commands, numerous police for traffic control, EMS, and so on.
- **Level 3** – Multiple disciplines in multiple jurisdictions: major traffic accident along a major transportation corridor, involving police, EMS, fire department services, plus mutual aid from other towns for emergency response and traffic routing.
- **Level 4** – Multiple disciplines involving multiple jurisdictions and multiple levels of government: a major disaster with the Washington State Ferry system, involving local first responders, the State Ferry Authority, U.S. Coast Guard, and others.

“Every agency has their own emergency plans,” Pessemier pointed out. “Whether they work together well is a whole different thing. Seattle alone has three different volumes of emergency planning documents.”

Responding to Emergencies

Depending on how complex a response is required, there are five components to a response:

- Incident Command and Control
- Situational Awareness
- Interoperable Communications
- Information Sharing Support Systems that are flexible, adaptable, and agile
- A User-Defined Operational Picture
Case Study

AtHoc Connect Benefits to WA-COP

- Ready-made “building block” approach to system integration: using AtHoc Connect’s native tools and innovations for adding to, rather than redefining, existing systems
- Total commitment by AtHoc team members to WA-COP’s integration team
- Solid, stable application that can be trusted to perform as expected
- Provides a user-defined operational picture for each stakeholder according to legal and operating guideline specifications
- Flexible, adaptable, agile presentation of layers of information specific to stakeholders
- Supports multiple methods of communication, beyond just radio, to provide a complete and adaptable emergency picture as needed
- Connects organizations to seamlessly coordinate in real time, resulting in faster and more coordinated responses
- Enables partnered organizations to manage and control their own contact lists and messaging protocols

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