



Port of Houston Targets Complex Crisis Communications Challenge Using AtHoc Connect

"With all of the options out there, it was very clear that AtHoc was the solution to communicate with our existing systems, or those we're bringing on, or unique requirements such as our regional petrochemical disaster alert system. We needed to have powerful two-way emergency communications, and AtHoc was willing to make it happen."

– Colin Rizzo, Emergency Manager,
Port of Houston Authority



Industry Regional Government Consortium

Location Houston, TX

Products AtHoc Connect

<http://www.portofhouston.com>

A Texas-Size Challenge

Ask most people about Houston, and they think of a vibrant Sunbelt city. Talk to Colin Rizzo, Emergency Manager for the Port of Houston Authority (POHA), and a very different perspective emerges.

According to Rizzo, “We have been Number One in US-foreign trade by tonnage for the last 19 years. We are the 12th largest port in the world. We are second in US-foreign trade by cargo value. And we are the second largest petrochemical complex in the world.”

Here’s how this scale plays out on a practical level:

- 600 full-time employees, with several thousand truck drivers, visitors and tenants entering POHA facilities on a daily basis
- Three major facilities covering almost 20 miles of shipping channel, ranging from open coastline to riverfront to docks and wharves
- 3300 ft. of docking space, 3600 sq. ft. of US Customs inspection warehouses, a 50-slot US Department of Agriculture inspection ramp, and 6 Post Panamax and 3 Super Post Panamax ship-to-shore cranes.

- Bulk cargo, container cargo, and petrochemical shipping, storage and refining, including some of the largest refineries in the US
- Asphalt and cement plants, bulk liquid storage, dry dock ship repair, fuel bunkering, and recycling operations

The City of Houston, the City of Pasadena and Harris County direct the Port of Houston Authority. Multiple other counties, municipalities, public entities, and private concerns either use, neighbor, or cross POHA property.

Even by Texas standards, the operations at POHA are massive, representing over 16,000 vessel arrivals and departures and an overall economic impact of more than \$617 billion per year. The Authority’s location is also unique. Major facilities operate up to and within the city limits of the fifth largest metropolitan area in the United States. Security and safety within POHA’s domain must also extend to protection for the millions of people who surround the Authority’s facilities and the waterways it patrols.

Snapshot: Port of Houston Authority

- 12th largest port in the world, covering geography ranging from coastal waters to ecologically sensitive estuaries to rivers, shipping channels, and operational facilities
- Responsible for safety and security across a massive range of petrochemical, container, bulk cargo, and industrial operations
- 20-mile area of accountability extends deep into the 5th largest metropolitan area in the United States, covering almost 6.5 million people
- Operations must coordinate across three major local governments, as well as numerous other counties, municipalities, and state, federal, industry, and union agencies
- Unique nature means that the Authority can be its own first responder, accept help from surrounding agencies, or provide assistance anywhere along the shipping channel

“It’s important that we are ready to respond and recover as quickly as possible. We are always practicing, with drilling and exercises. Going beyond people and property to economic impact, it’s definitely important that we prepare for both natural and man-made disasters.”

Complex Coordination for Emergency Response

Crisis communications at this scale, at even the most fundamental level, requires complex planning on the part of the Authority. Almost any incident involves coordinated activity across the following organizations:

- Local city and county first responders
- POHA's own land- and water-based first response teams
- Federal agencies including the US Coast Guard (USCG), US Customs and Border Protection (CBP), and Immigration and Customs Enforcement (ICE)
- State agencies including Texas Department of Emergency Management (TDEM), Texas Commission on Environmental Quality (TCEQ), Texas Railroad Commission (TRRC), and Texas General Land Office (GLO)
- Industrial agencies including the International Labor Organization, Houston Pilot Commission, and Channel Industries Mutual Aid (CIMA)

Complete Coverage for Natural, Man-Made and Other Potential Disasters

The Houston area is subject to both hurricanes and flooding. Depending on the situation, ships and other vessels of all sizes in might be commanded to a safe-harbor location, or evacuated through the shipping channel. This process can involve the movement of hundreds, even thousands, of watercraft at a time, each of which must be accounted for throughout the crisis. A similar mass migration of vehicles is involved with the thousands of trucks that enter or exit the Authority's facilities every day.

At the same time, the Authority's own water-based first responders must be able to navigate and respond to emergencies from offshore to well within the city's boundaries. Flooding, in particular, represents a significant challenge, since normally navigable waters may contain dangerous currents, large amounts of debris, or high quantities of flammable or otherwise dangerous chemicals.

The high concentration of petrochemical and industrial facilities throughout the shipping channel creates another set of potential disasters that must fit into the Authority's crisis communications planning. Ships can sink or leak, contaminating the waterfront. Fires and explosions can create toxic clouds over densely populated areas. In these situations, emergency response must be rapid, coordinated, and comprehensive to be truly effective.

Finally, POHA is an international facility located in a subtropical area. Incoming shipping can contain a wide range of threats, including undocumented immigrants, possible terrorists seeking ingress to the US or access to targets, communicable diseases, vector-borne diseases such as the mosquito-dependent zika virus, and invasive species. These situations require that multiple agencies react quickly to contain threats before people or property are placed at risk.

“When you go across county lines, it gets interesting when dealing with an emergency. And smaller cities and communities may not have funds available for the infrastructure to have their own emergency notifications systems. AtHoc helps us address that challenge.”

The AtHoc Solution

POHA's previous crisis communications system suffered from a number of critical shortcomings. First, it could only reach a limited number of internal staff during an emergency. Its reliance on phone calls and texts isolated its reach from both land-based and ship-board radio systems, digital signage systems, emergency radio communications, and the emergency management systems used by surrounding safety and security agencies.

Contact management represented another frustration. The old system was opt-in, meaning that individuals could choose whether or not to participate. Since the system did not integrate cleanly with personnel management systems, many former employees remained in the system after their terms of employment had ended.

Finally, the system lacked a streamlined method to build easily applied templates for the types of emergencies most likely to affect the Port of Houston area, including which personnel and organizations needed to be reached for each type of crisis. As a result, scalability became a major issue that impeded appropriate, rapid response, especially for crises that involved wider, more complex coordination with agencies beyond POHA's internal resources.

AtHoc's PortAlert solution for POHA directly addressed these issues. According to Rizzo, "AtHoc really keeps our notification system clean. We can pull from Active Directory and other solutions. More importantly, we now have the ability to ensure that everyone is notified – our employees, our tenants, neighboring areas, state and federal agencies."

By integrating with POHA's personnel management systems, access information for employees is accurate and up to date. Employees can be reached by preferred method when on site, when on call, and when they must be reached when off duty. The method of access adjusts automatically for status, so that employees normally on duty on a fire boat might be contacted via marine radio and mobile phone during their shift, while after-hours access might be via text and landline.

AtHoc's extensive support for FEMA emergency preparedness and other standardized planning tools facilitates crisis communications integration with the municipalities surrounding the port, as well as the multiple governmental agencies involved in emergency response along the shipping channel and the greater Houston metropolitan area. Marine radios and international shipping communications standards are part of the solution. As Rizzo explains, "AtHoc solves the communications challenges in our unique environment by allowing us to connect with external parties and enables us to communicate simultaneously in many different ways that will be most impactful."

PortAlert also facilitates rapid response through its ability to deliver bottom-up as well as top-down communications. Many of the potential threats to the port and the city can develop extremely rapidly. Staff need the ability to take coordinated action, even as senior managers and outside agencies are being contacted. AtHoc's structured approach to crisis communications ensures that response is as rapid as possible, while also ensuring that all parties are acting appropriately and accountably.

“With our previous notification system, we did not have a solution that could notify personnel outside of our facilities, or non POHA employees. In addition, our only means of communications were phones and limited texts. We had quite a few people who were no longer employed who were no longer in the system.”

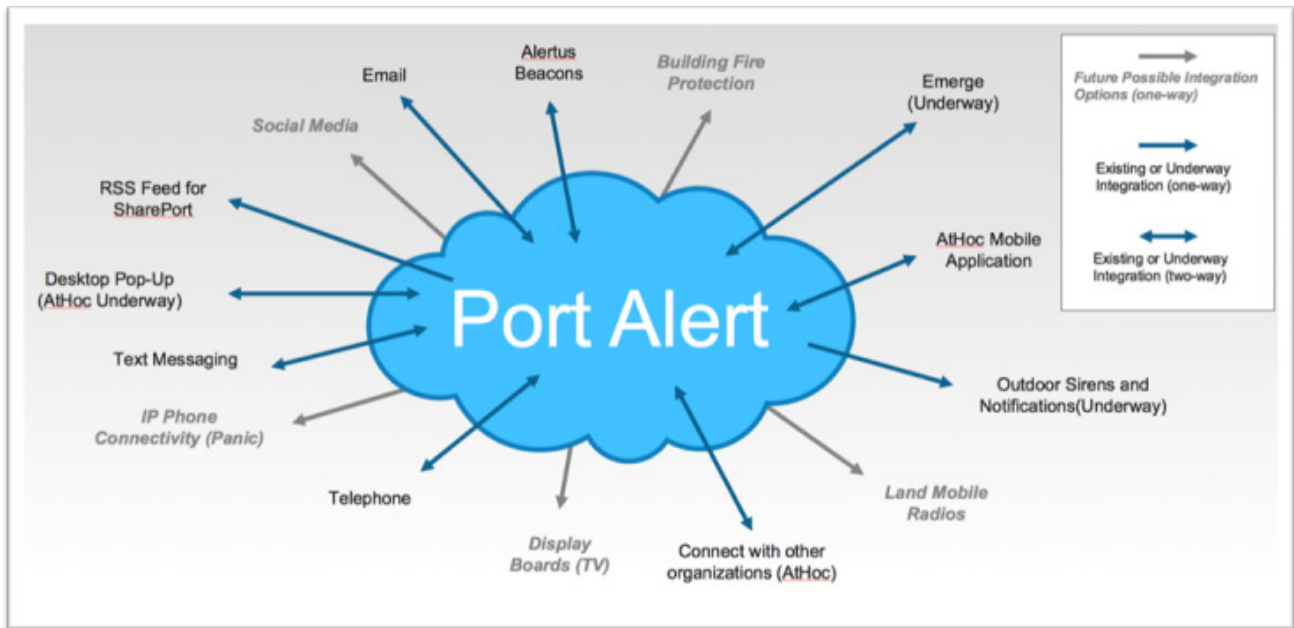
Powerful Results

POHA's PortAlert system now encompasses desktop pop-ups, a mobile app, phones, email alerts and text messages, as well RSS feeds, social media notifications, Alertus beacons, outdoor sirens, mobile radios, display boards, IP telephony, live connections to other organizations, and links to marine and emergency radio systems. AtHoc serves as the central hub that directs these communications, as well as delivering emergency task assignment and confirmation from the field that assignments have been accepted and completed.

The Authority has issued 165 alerts since the system went live. These notifications have covered everything from major fires in facilities within the port area to more mundane tasks. In fact, the exceptional

reliability of the overall system has given POHA the confidence to use the underlying technology for other tasks. For example, POHA's police department uses this infrastructure to notify officers that overtime shifts were available, which helps management schedule and staff shifts more easily.

The full breadth of the complex nature of the Authority's requirements have either been met, are in process of being addressed, or are being explored for future integration. In all, AtHoc's ability to meet the geographical, functional, and scalability demands for POHA's crisis communications needs has created a solution as big and as powerful and the region it protects.



The AtHoc PortAlert solution serves as a central hub for an extremely wide range of crisis communications channels, serving both internal and external emergency response contacts.

About the Port of Houston Authority

Turning Basin Terminal

- 40 multi-purpose docks or wharves with over 20,000 feet of docking space, accommodating vessels of up to 750 ft
- 2 million sq ft of covered transit sheds or warehouses
- Direct access to all of the major highways and thoroughfares in Houston and to points beyond, as well as as major railways
- 3.3 million sq ft of open space
- 5 million tons of steel processed in 2015

Barbour's Cut Terminal

- Six berths and nine wharves, accommodating ships up to 900 ft
- 1.2 million TEUs per year
- Currently investing almost \$700 million in upgraded facilities

Bayport Terminal

- Four docks
- 5 million TEU capacity (currently 50% built-out)
- 50 ramps for USDA inspections
- 6 Post Panamax and 3 Super Post Panamax cranes

Other Areas of Responsibility

- 150 private terminals
- 16,000 vessel arrival and departures
- City of Houston fire response (water-born)
- 2nd largest petrochemical complex in the world
- Massive steelmaking operations
- Many above-ground storage facilities
- Ocean-going vessels, barge traffic, and private watercraft

About BlackBerry

BlackBerry is securing a connected world, delivering innovative solutions across the entire mobile ecosystem and beyond. We secure the world's most sensitive data across all end points – from cars to smartphones – making the mobile-first enterprise vision a reality. Founded in 1984 and based in Waterloo,

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