

Chicago O'Hare International Airport Case Study



PROBLEM: The Chicago O'Hare International Airport consistently remains one of the busiest air terminals in the world with more than 65 million passengers and nearly 900,000 flights annually. Direct communication and interoperability among various departments, organizations, federal agencies, and emergency services throughout the airport is critical to ensure the safety and security of the traveling public. However, being able to notify, assemble, and deploy the proper responders to emergency situations in the most efficient and effective manner possible presents several challenges.

Currently, the O'Hare International Airport Communications Center utilizes a paging program that requires them to support 500 dedicated terminals with 500 modems for sending pages to the appropriate responders. Each terminal requires an agent or operator intervention to be able to generate and send a page or wireless message. Being able to follow-up, escalate, and re-send pages is extremely time consuming, making notifications for emergencies and non-emergencies tedious, costing valuable time and resources. Notifying the appropriate responders, agencies, and personnel can take several hours depending on the event.

The Communications Center would like to centralize and modernize all wireless communications under a single platform in order to streamline and automate the majority of their paging and wireless messaging needs. The Center would like to reduce the number of dedicated TAP lines to reduce some of the delay and costs associated with sending large volumes of pages. They would also like the ability to structure or categorize their responders according to various departments, agencies, or other factors. Finally, using a web-based Graphical User Interface will help expedite system deployment as no client software is required to be installed on any send terminal.

SOLUTION: After carefully evaluating several solutions including a custom in-house solution, the airport Communications Center decided to implement HipLink Application Messaging into their notification center. The intuitive user interface and powerful administration of HipLink ensured a smooth implementation and short learning curve for the center. Also, the modular design and scalability of HipLink allows additional features and capacity to be added as needed.

RESULTS: HipLink is an integral part of the O'Hare Communications Center. By utilizing a combination of Internet and analog wireless protocols, HipLink provides a vastly more robust messaging solution than their previous paging system. The Center can now use the speed and reliability of the Internet to send messages and pages, drastically reducing their paging and messaging costs. In addition, custom escalation and receiver groups have also been defined within HipLink, enabling the Communications Center to automate many of the messaging functions that were previously performed via manual intervention. This has helped improve notification and deployment of emergency responders within O'Hare Airport from several hours to, depending on the situation, only several minutes.

Paging and wireless messaging are critical components for any response team, more so for airports where timely responses to situations are the difference between life and death. Having a reliable communication platform is paramount for the success of any airport response team. HipLink brings reliable messaging to the O'Hare Communications Center carrier failover and architecture. Failover occurs when a message is sent over a defined protocol, but the message for whatever reason fails to be delivered over the carrier network. The message is then re-sent using a specified back-up protocol.

Finally, the robust Departments feature of HipLink allows the Communications Center to group receivers logically according to location, agency, responsibility, severity or emergency, or any defining characteristic. The Departments feature also allows for distributed administration across all defined groups, so each group can assign an administrator to maintain user and device information, status, and more. This not only ensures the proper responders get notified of events, it also helps reduce complexity by streamlining administrative functions to keep receiver information current and accurate.

The O'Hare Communications Center has defined various Departments within HipLink to provide effective communication to responders according to the type of event. For example, in the event that an airplane overshoots a runway, Fire, Ambulance, FAA, TSA, air frame manufactures, runway maintenance, and various other groups need to be notified and assembled in the timeliest fashion.

Departments allows Center dispatchers the ability to notify all necessary personnel from a single terminal by simply clicking on the Department name, typing a message and clicking send. This helps expedite sending messages and notifications to various internal and external agencies and groups, as they are all housed within the HipLink notification server. Now, when events occur and teams of personnel need to be notified, the O'Hare Communications Center relies on HipLink to send targeted messages to the right people in the fastest, most logical method possible.

