# Airport Enhances Operational Efficiency and Emergency Response

Auckland Airport improved its operational efficiency with Unified Communications and IP Interoperability and Collaboration System.

| EXECUTIVE SUMMARY |
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| **AUCKLAND INTERNATIONAL AIRPORT LIMITED**<br>• Transportation<br>• Auckland, New Zealand |
| **CHALLENGE**<br>• Protect passenger and employee safety |
| **NETWORK SOLUTION**<br>• Intelligently routed calls to the best qualified, available staff member<br>• Enabled staff members to monitor all radio channels and conduct phone calls using one headset |
| **BUSINESS RESULTS**<br>• Simplified collaboration with other agencies<br>• Reduced response time<br>• Increased operational efficiency |

## Business Challenge

New Zealand's largest airport, Auckland International Airport Limited serves more than 12 million passengers annually and is the workplace for approximately 11,000 employees. Its operations center is staffed 24 hours a day from a pool of approximately 70 personnel. The center handles an average of 7000 calls weekly, ranging from reports of faulty air conditioning and spilled beverages to security breaches, medical emergencies, car accidents, and aircraft emergencies. During emergencies, operations center personnel collaborate with local police, fire, and ambulance as well New Zealand's Customs Service, Ministry of Agriculture and Forestry, and Aviation Security Service. "Safety and security are paramount in an airport environment," says Debbie White, customer service manager at Auckland Airport. "We need the technology and processes to respond to events immediately."

In the original operations center, each desk had multiple radios and up to three telephones. To perform a certain job, such as coordinating a response to aircraft emergencies, a staff member had to be sitting at a certain desk with the appropriate communications equipment. "Emergency calls were accepted in one room with its own set of radios, while radios providing other relevant information might be in another room," says White.

In 2007, Auckland Airport decided to take advantage of advanced communications technology to increase operational efficiency for safety operations. Operations center managers identified the following opportunities:

- Improve staff members' ability to hear phone and radio conversations: Overhead noise from 22 radio channels and access control alarms made it difficult for staff members to hear radio and telephone conversations. "Clear, precise communications are essential for protecting

passenger and employee safety," says Fia Tauvela, senior security coordinator. "We have no room for mistakes because someone misheard."

- Enable communications interoperability: The dispatcher had to relay conversations between internal and external groups using different radio systems and telephones, causing delays and the possibility of misunderstandings.
- Shorten the gap between awareness and response: If someone called to report an incident, such as a medical emergency, the staff member had to hang up the phone before using the radio system to dispatch the response units. Enabling staff members to initiate dispatch while the caller was still on the phone would save valuable minutes.
- Optimize staffing: "We wanted the ability to measure call volume, call types, wait times, and abandonment rates so that we could plan staffing to help ensure an outstanding response," says Tony Wickstead, chief information officer.

"Using our existing IP network as the platform to unify all radio and telephone communications channels would help to improve service levels and increase operational efficiency, not only during emergencies but also for day-to-day operations," says Wickstead.

> "Cisco IPICS enables open communications across all of our different groups, no matter what radio or telephone systems they use."
> **—Debbie White, Customer Service Manager, Auckland Airport**

> "Teams can come together on virtual talk groups at any time, quickly and efficiently."
> **—Tony Wickstead, Chief Information Officer, Auckland Airport**

> "Before, when the red phone used for aircraft emergencies rang, we had to wait until the phone was hung up to receive instructions. Now, with Cisco IPICS, we can all hear and begin taking action without delay. Just one or two minutes' faster response can make a big difference in outcomes."
> **—Peter Stephens, Business Analyst, Customer Services Team, Auckland Airport**

## Solution

Auckland Airport met its goals for increased operational efficiency and crisis management capabilities with Cisco® communications and collaborations solutions delivered by HP, a Cisco Certified Gold Partner, with assistance from Cistech, a Cisco Advanced Technology Partner. The project included physically rebuilding the operations center, deploying technology from Cisco and HP, and implementing a change management process to help the team during the transition.

**Intelligent Call Routing**

Cisco Unified Contact Center Express provides intelligent call routing so that emergency calls as well as routine calls are directed to the right person, the first time. “During medical events and aircraft emergencies, it’s especially important that we route calls to a trained operator to respond as quickly as possible,” says White.

**Communications Interoperability**

Cisco IP Interoperability and Collaboration System (IPICS) enables operations center staff to join any virtual talk group or talk on the phone with their headset. “Cisco IPICS enables open communications across all of our different groups, no matter what radio or telephone systems they use,” says White. Using the Cisco IPICS Push-to-Talk Management Console (PMC) software on their PC, security personnel just click once to select the radio channel that they want to monitor, eliminating the need to work at a desk that has the physical radios. “The ability to collaborate with the click of a button instead of relying on a dispatcher to relay information enables more efficient response, and potentially a better outcome,” says Jim Swanson, HP’s solutions infrastructure practice manager. HP also integrated Cisco IPICS with the airport’s access control systems. Previously, alert conditions sounded an alarm in the emergency operations center, adding to overhead noise. Now, Cisco IPICS directs the alarm to the headset of the person in charge.

HP configured Cisco IPICS so that only authorized personnel can monitor New Zealand Police channels, and set up several other radio channels as listen-only, including conversations between airline pilots and the aviation tower. “Personnel no longer need to rely on a single individual to understand and disseminate information from the channel,” says Swanson. “Instead, all people who need the information are fully informed at every point during emergency operations.”

### Emergency Response and Disaster Recovery

Using Cisco IPICS, the operations center can set up an emergency operations center without delay, providing interoperable communications among staff, police, fire, ambulance, and the air traffic control tower. A secondary operations center on the other side of the airport, two kilometers away, is used for disaster recovery. If the primary center becomes unavailable for any reason, the team can begin working in the disaster recovery site within minutes.

## Results

The solution from Cisco and HP is enhancing collaboration and operational efficiency, helping Auckland Airport to meet its goals for safety, security, and customer service.

### Enhanced Collaboration

Now operations center personnel can do their jobs from any location instead of being tied to a particular desk with the appropriate communications equipment. “If the person who usually monitors the police channel is busy, the control room staff or even the shift supervisor can take over,” says Tauvela. And by eliminating excessive noise, the solution enables staff members to work without being distracted by their colleagues’ conversations.

### Increased Situational Awareness and Faster Response Time

Several factors have accelerated response:

- Cisco Unified Contact Center Express directs calls to the right resource, the first time.
- Real-time and historical reports enable the operations center to plan staffing so that calls are answered promptly.
- The ability to monitor multiple radio channels and the telephone through one headset provides greater situational awareness, according to Wickstead. “Teams can come together on virtual talk groups at any time, quickly and efficiently,” he says.
- With Cisco IPICS, staff members can dispatch a response crew from their headset even while the caller is still on the phone. “Before, when the red phone used for aircraft emergencies rang, we had to wait until the phone was hung up to receive instructions,” says Peter Stephens, business analyst for the airport’s customer services team. “Now, with Cisco IPICS, we can all hear and begin taking action without delay. Just one or two minutes’ faster response can make a big difference in outcomes.”
- Reducing the noise level in the operations center helps staff members to hear callers the first time instead of asking them to repeat information.

### Enhanced Day-to-Day Operations

Travelers and employees use phones throughout the airport to report emergencies. Previously, the operations center dedicated two operators to the service, one to talk to person on the telephone and the other to contact the appropriate emergency service. “Now, with Cisco IPICS, one individual can perform both functions because they can access the telephone and multiple radio channels through the headset,” Swanson says. “They can even connect the caller directly to the emergency responder.”

## Technical Implementation

Cisco IPICS is deployed on an HP DL320 server. Cisco Unified Communications Manager and Cisco Unified Contact Center Express reside on a resilient cluster of HP DL380 servers. Operations Center personnel use high-end HP xw6400 workstation PCs.

## PRODUCT LIST

**Unified Communications**

- Cisco Unified Communications Manager
- Cisco IP Interoperability and Collaboration System
- Cisco IPICS Push-to-Talk Management Center (PMC) Client
- Cisco Unified Contact Center Express

## For More Information

To find out more about Cisco IPICS and other Cisco Physical Security systems, visit http://www.cisco.com/go/physicalsecurity.

To find out more about Cisco Unified Communications go to http://www.cisco.com/go/unifiedcommunications.

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