Virtual teams keep Düsseldorf airport running smoothly

Case study

AIRBUS
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Sometimes it's not important to know the name of the person you're talking to. Instead you just need to get in touch with whoever's doing a particular job. That's how the teams at Düsseldorf airport work on the in- and outbound flights, thanks to the dynamic, role oriented communication system set up in their TETR A radios.

"This is me," says Marianne Schmitz as she points to her radio display, where there is an icon resembling a lady in a service uniform. By selecting the icon she opens her agenda for the day and her radio lists all the flights she will be handling during her shift. When a flight is ready for preparation, she "inputs" the flight number and the radio automatically connects her with the rest of the team via a virtual talk group. Now the team can talk to each other simply by pressing the PTT. And if Ms. Schmitz needs to call an individual team member, she can pick them from the phonebook list without necessarily knowing their name. It's enough to know that it's the person who is working at the gate, for example.

Ms. Schmitz is the operations manager for Aviation Handling Services (AHS) at Düsseldorf airport. AHS provides diverse airport services including passenger and ramp services and cargo handling, among others. AHS is one of the 20 user organisations that rely on the shared TETRA network, which is operated by SITA Airport IT. The system has been up and running for a year.

Focus on roles

Creating a role-oriented communication system was one of the key criteria for choosing the new system. The various user organisations needed to be able to communicate seamlessly within teams that change "on the fly". Fixed talk groups with fixed subscriber numbers were out of the question.

The TETRA radios from Airbus Defence and Space feature a Java platform. Together with the innovative ROCS solution from Mentura Group, this presented a completely new way of building a virtual, role-oriented communication system. The solution is based on dynamically changeable user roles and rights, as well as on tactical numbers.

"Ensuring quick flight turnarounds is our main task," says Manuel Wenders, operations manager for Düsseldorf Ground Handling. "With the previous analogue radio network it was a challenge to coordinate several flight operations with teams mixed up on the same radio channel. The main benefit of the new solution is that it provides a dedicated communication group for each team."

An easy transition

As the service provider, SITA Airport IT was looking for a system that is flexible and easy to adapt for the different user organisations. "With so many different players involved, taking a new system into use is a challenge in itself," says Joachim Brandt, senior project manager from SITA. "So it is mandatory that the system is as easy to use as possible to ensure a smooth introduction."

This was not an issue, according to Mr. Wenders: "Since the radios are so similar to cellular phones, users had no problem switching to TETRA."

Thanks to the radios from Airbus and ROCS, the implementation of the system was easy. The icons available with the Java™ application on the radio display help users understand the logic behind the system. Today, the system serves several airlines, airport service operators and other related parties in the airport. In total there are 1200 THR880i and TMR880i radios from Airbus Defence and Space in use in the TETRA system.

Düsseldorf deals with an average of 586 flights and almost 50,000 passengers daily. This alone keeps airport personnel busy, but the new radio system has also helped them cope under extra pressure. Exceptionally heavy snowfalls last winter could have caused some real headaches, for instance. Any delay caused by de-icing the planes or ploughing the runways has the potential to accumulate into significant hold-ups. Dynamic and coordinated communication between the various airport teams successfully helped maintain smooth operations and minimize disruptions.

Role-playing radios promote flexible working

High-pressure environments such as airports and mass transport systems at rush hour demand a flexible workforce who can step into a variety of roles. Role-oriented profiles let their communication systems to do the same. Setting up communication profiles that can be downloaded automatically to the right radio promotes flexible working in a variety of ways.

Pooled radios. Users can share a common pool of radios, since each person's communication profile can be downloaded to whichever terminal they are using.

Spare radios spring into action. Since the right profile can be downloaded instantly, spare radios can be brought into use very quickly.

Temporary profiles. Specific communication rights can be introduced into radios as needed, and removed afterwards. This means that radios can also be assigned to temporary workers or users from partner organisations without compromising security.

Create a role-based numbering plan. It is possible to define tactical numbers that will reach whoever is in a certain role. There is no need to know who this person is or which radio he/she is carrying. Similarly, the presence and status of people working in different roles is visible to the rest of the team.

Connect a team working on a certain task. The people working on a certain task will automatically be in the correct talk groups, which makes it fast and simple to reach them.

You can work with roles with the help of the Role Oriented Communications Server (ROCS), an advanced solution from Mentura Group.

Digital radio communications can keep airport operations down to earth. The right radio communications system can help airports streamline operations, manage flights, save money and improve security.

The TETRA solution from Airbus Defence and Space meets the needs of airport operators and professionals. This solution has proven its fit-for-purpose in real operations and in exacting environments.

Contacts

Airbus Defence and Space

Hiomotie 32
00380 Helsinki
Finland
T: +358 10 4080 000

MetaPole
1, boulevard Jean Moulin
CS 40001
78996 Elancourt Cedex
France
T: +33 (0)1 61 38 50 00

marketing@secureland
communications.com