Embracing modern PTT technologies in aviation for better turnaround

By Magnus Hedberg   11 Jul 2016

The global aviation industry is growing rapidly with traffic volumes having increased by around six percent per year for many years, equating to a doubling of traffic every 12 years. New airlines, cheaper tickets, improved passenger experiences both on and off the planes, a change in consumer behaviour favouring experiences and air travel all contribute to this positive trend that I (and experts like IATA) expect will continue.

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On the other side of the coin – if there is one – we have cities, airlines and airports caught off guard by the surprisingly high demand in air traffic and the necessities of stricter security measures. Airports have become congested. Increased competition and digitisation are squeezing profits and accentuate the need for lower expenses.

The industry is characterised by low profit margins, largely because of competition from budget airlines, which now accounts for a quarter of the world market. The growing competition forces airlines to focus on more efficient logistical solutions, cost savings, and smarter customer interactions. The industry growth also means more and larger airports, which in turn requires increased efficiency and smarter solutions on the ground, in order to uphold important key success factors such as punctuality and swift turnaround.

Outdated turnaround routines

An important factor for punctuality in aviation and efficient use of aircraft is the successful coordination of the turnaround process at the gates, i.e. the process of loading, unloading, and servicing an aircraft. This process, normally between 25 minutes up to an hour, is a time-critical teamwork, based on efficient communication.

However, most ground staff at airports around the world still use traditional and out-dated two-way radios (walkie-talkies) with a momentary button to switch from voice reception mode to transmit mode when communication is taking place between the flight crew and the ground staff. Controlling the number of users and associated channels is complicated and time-consuming. Quite often you can also notice people screaming, yelling and making gestures, trying to communicate with each other in this security critical working environment. These are ancient and inefficient communication tools, not suitable for an industry that wants to be in the technological forefront, aiming to be smooth and efficient and profitable.

Remember, an aircraft only makes money when it is in the air!

Push-to-talk technology improves airlines' competitiveness

There is huge potential to improve communication between the flight crew and ground staff with more modern, yet simple and user-friendly, technologies. An increasing number of airline companies tend to abandon the ancient walkie-talkie communication solutions, replacing them with more modern communications solutions based on digital models such as the push-to-talk (PTT) over cellular phones, a service that enables subscribers to use their phones as walkie-talkies with an unlimited range over existing mobile networks. PTT has several advantages:

• It is a cloud-based solution that allows communication directly through the user's smartphones (and tablets/laptops).
• PTT enables simple and safe communication between employees through the push of a single button.
• It uses existing mobile networks, with no need to build and maintain your own network.
• The sound is much clearer than walkie-talkies which reduces the likelihood of misunderstandings.
• The administrator easily controls the number of users, associated channels, and access.
• The solution can include push-to-talk accessories such as acoustic headsets and Bluetooth-based PTT buttons (i.e. handsfree).
• It is secure.
• It is a cost efficient solution (extremely cheap to buy and install – and can also reuse existing investments in two-way radio equipment)

Most importantly, the solution is very easy to use. During a turnaround procedure, the flight crew connects their mobile phones and tablets to the push-to-talk group corresponding to the actual gate. Ground crew joins the same talk group with their two-way radios or smartphones, and communication is established between all functions to turn around the aircraft in the most efficient and safe manner. Having the service delivered as a managed service based on a service platform makes the supplier responsible for operations and support of the service, and ensures that the service is delivered according to the stipulated Service Level Agreement (SLA).

Time limited and defined project tool

Aviation is perhaps the industry that can draw the most obvious benefits from the new advanced PTT group communications solutions. But PTT has also gained interest from organisations in other industries where instant group communications are instrumental, such as safety and security, construction/infrastructure, energy, and retail.

An increasing number of companies appreciate the fact that the new solutions are cost efficient, scalable and flexible, and allow staff of various sizes to communicate, without having to make major new investments in communication systems.

Being able to link people working together in what can be described as 'time limited and clearly defined short projects' in a user-friendly communications network gives them an opportunity to share information and resources in a way that they have not been able to do with their previous traditional communication devices.

PTT solutions based on standard smartphones and tablets/laptops make task group communications faster, more flexible, secure – and, not least – more cost efficient. It might be the single most efficient and beneficial measure that airlines and airports can implement in their quest for improved services and lower costs.

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