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September 2019
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BIG SCREEN GOALS

How digital displays can transform your airport

India's airport boom • Scandinavian Mountains • ATM
Ground handling • African business aviation • Katie Cooper



A new era of communication

How airports communicate with their customers, be it airlines or passengers, is critical in ensuring smooth day-to-day operations. Tamsin Wilson explores how new technologies in display and voice systems are revolutionising the airport experience.

One of the implications of the huge growth in air traffic around the world has been the need for airports to rise to the challenge of communicating more efficiently with their customers, be it passengers or airlines.

Richard Wilks, aviation business development manager, EMEA, at NEC Display Solutions, states: "Airports are constantly challenged to offer an efficient proposition to their passengers,

discouraging confusion or anxiety during the travelling experience, while remaining profitable and attractive."

The increasing adoption of higher-resolution, immersive displays and directional audio is just one way in which airports are tackling this challenge. "Travellers want more than just a static screen showing advertising," says Sam Farrant, managing director, VPod. "They want to interact. They want all of the

answers at hand without having to run around the airport searching for someone," he says. Described as a "giant smartphone" Vpod's Vgreet is a one-stop solution. From one single-touchscreen interface, visitors can check flight times, find travel information, check-in for their flight and seek assistance. "You name it, the customer has one single point of contact," says Farrant.

DIGITAL DISPLAYS

Digital surfaces have been integral in helping to enhance the customer experience as well as being used to drive retail sales within the airport terminal. The big advantage being that content can be changed in an instant, with surfaces being used for branding and advertising purposes, but also to display important information, such as flight updates and news.

João Moreira dos Santos, European transportation vertical leader, LG Electronics, reveals that a recent study found that in airports that have embraced digital display technology, passengers are likely to spend more time in the retail area and are more likely to remember brands advertised on display screens. Subsequently, "overall sales in the airport will increase by around 30%," he says.

LG Electronics offers a range of display screen solutions for different areas of the airport. But the company's organic light-emitting diode (OLED) screens are currently generating a buzz. "OLED definitely helps create that 'wow' factor," says Moreira dos Santos. "Curved screens can be installed as digitalised pillars or to create immersive spaces such as waved ceiling areas. Transparent glass products are also ideal for duty-free retail spaces to improve the communication between brands and passengers and our self-lighting OLED units offer a perfect black as well as an accurate colour reproduction," he continues.

Underlining that LG Electronics' solutions aren't just suited to the big players, Moreira dos Santos highlights that the company's systems on chip (SoC)



"When I'm going somewhere, I really need to know where I'm going"

Friend in deed: Vgreet by Vpod aims to make airport's frustration-free.

platform (webOS) is increasingly being considered by regional and smaller airports to display their passenger information content. "Using our internal SoC platform, airports can avoid external computers while ensuring that the passenger information will be displayed without interruption (no more black screens due to external computer failure). With our webOS platform, airports are reducing their costs as they don't have to purchase, install and maintain external devices and they are increasing their ROI as the screen itself is able to receive the information from the flight information display system (FIDS) and show that information without any external device."

LOUD AND CLEAR

The ability to deliver information through effective voice communication technology is as integral as display technology when it comes to ensuring enhanced operations.

Sjoerd Keizerwaard, programme manager at AviaVox, says that the trend for "silent airports" is on the rise. "It's not about airports not making any announcements at all," he divulges. Instead it's about delivering announcements at the right time and in the right place, so that passengers are more likely to pay attention rather than be bombarded with messages that aren't relevant to them. He also highlights that it's becoming increasingly common for automated boarding announcements to be delivered in multiple languages to accommodate passengers of different

nationalities. The major advantage of this for airports, he says, is that "if done effectively, with tailormade software packages, the time it takes to board an aircraft can be significantly reduced."

Unlike most of its competitors, AviaVox uses Artificial Intelligence to deliver multilingual content. "We make computers speak as if they are human beings for which we use a state-of-the-art phoneme technology," Keizerwaard explains.

A LIFELINE FOR ATM

Beyond enhancing the passenger experience within the terminal, voice communications are integral in achieving successful, safe and on-time operations. In particular, voice communication systems (VCS) are the lifeline between air traffic control and pilots.

Air Traffic Control (ATC) communications have already begun to shift from analogue systems to combined voice and data services through the use of Voice over Internet Protocol (VOIP).

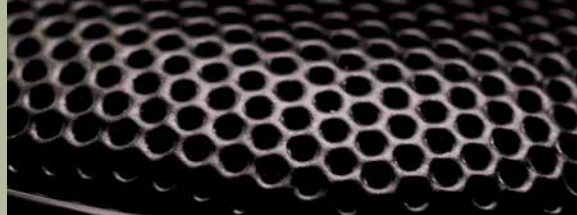
According to Hannu Juurakko, Frequentis VP ATM Civil, "the current

trend for streamlining and integrating controller tools in the tower is one we strongly see continuing, as we work towards integrating all the diverse controller applications into a single, combined and integrated Digital Tower." He adds that "by integrating the voice communication system and allowing it to be commanded by the tower automation solution, from a single screen, we are enabling further virtualisation of ATC operations." Fusing information from the voice communication system with information from the automation system creates a higher degree of automation, further supporting the controller by providing the right information at the right time. "Trusted and proven by more than 25,000 air traffic controllers, the Frequentis VCS3020X is based on a service-oriented open architecture that allows for fast and comprehensive integration with other services," he adds.

Using IP based voice communication systems creates a lot more flexibility and cost benefits in the technical operations of such systems. "Especially when migrating tower operations to remote tower operations, or when adding virtual tower operations onto local towers for airport expansion, the higher degree of automation, including the VCS is a key enabler for safe operations," concludes Juurakko.

Pioneering voice systems and innovative display technology might only be one piece of an airport's communications infrastructure puzzle. But, the overall role they play in ensuring efficient, effective and enhanced operations is key. ■



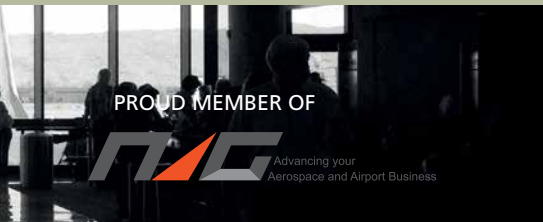


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T +31 [0]20 - 31 60 110 | E INFO@AVIAVOX.COM

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