Air-travel to reach new altitudes of comfort.

Our smart-phones and tablets have slowly but surely become extensions of our very own personalities: The apps we use, the music we listen to, the games we play and the people we get in touch with our devices makes them nothing but a true mirror of ourselves.

It makes sense that we want to take them with us everywhere, but certain situations and places, like on planes, were troublesome for our little digital companions, as their use was discouraged by airline policies.

But things are changing, and thanks to NXP you'll soon be able to take your smart devices to 10,000 meters or above and use them during all stages of the flight as like you were just having a stroll at the park.

The Digital and Secure Processes in the Cabin for Passengers and Crew (DiProPax) is a newly developed industry standard in which passengers and crew use their near field communication-enabled (NFC) devices as the key of the in-flight internet connection and entertainment and catering services.

DiProPax arises as a way to provide more security and comfort to the increasingly popular "bring your own device" (BYOD) trend, in which people consume content from the in-flight Wi-Fi with their own smartphones, tablets or laptops. On certain aircrafts, the content of the devices can also be broadcasted to the personal screen of the passenger.

The new banking-grade layer of security provided by the Tap-to-Pay NFC authentication will also make on-air payments for entertainment content, food and beverages a swift experience for both passengers and crew, positively impacting the revenue of airlines and opening the option to diversify their current services.

Security compromises precluded the technology, the possibility of interference of the DiProPax technology with other crucial on-board system was a worry that was proved to be wrong during its development. But interference was not the only concern, as passengers accessing the intra-net of the on-board system was also a possibility of security breaches, but thanks to the NFC authentication and security interfaces developed as part of the project we're now sure that we know which devices correspond to each passenger and that the integrity of the main on-board systems cannot be compromised.

For airports, it has already been decided by IATA and SITA to apply NFC technology, thus pioneering digital travel. In-flight shopping and access to in-flight entertainment with payment by Tap-to-pay is expected to stimulate additional revenues for the airlines. Convenient access will lower the passenger's entry barrier to in-cabin self-services.

Together with partners Airbus KIDSysteme, Stollmann and the technical University Hamburg-Harburg (Institute for Cabin Systems) NXP (BU S&C CTO) has created this new technology by investigating secure passenger-to-cabin communication using NFC and secure authentication based on contactless chip card technology. The strict security requirements imposed by the cabin and ground segment will require dependable identification, convenient authentication and encrypted data communication.

The technology is currently being tested and implemented by Airbus and is expected to reach commercial airlines soon, making flying an even more enjoyable experience for everybody. Where do you want to go next?

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