



IN CONVERSATION WITH PANASONIC AVIONICS

Jeff Sare, Vice President, Connectivity Solutions at Panasonic Avionics Corporation talked about their partnership with ST Engineering iDirect for their In-Flight Connectivity (IFC) service.

Tell us about how upgrading your aero platform and leveraging the advanced mobility capabilities enables reliable operation and cohesive orchestration of your global network.

When Panasonic Avionics first launched connectivity services for its airline customers, our focus was on building and delivering a global Ku-band satellite network that delivered wide-beam coverage across over 99% of all the world's air routes. At the time, we were using v1 of our aircraft antennae, and a modem from ST Engineering iDirect that was able to generate a bandwidth of 12-15Mbps to an aircraft.

Since that time, we've upgraded our satellite constellation, and introduced our Third Generation Network. We've done this by layering high throughput satellites (HTS) and most recently the first of several extreme throughput satellites (XTS) over high air traffic areas. We introduced a new single panel antenna that delivered dramatic improvements from the previous version and worked closely with

ST Engineering iDirect to develop a new modem for our Third Generation Network. When we started testing the new modem on the Dialog® platform, we forecast that it could provide 250 Mbps per plane in areas where there was sufficient capacity and HTS coverage.

Today, with best-in-class satellites in our Network, we're seeing a 15+ fold improvement in throughput. Recently, a China Eastern flight using our new Extreme Throughput Satellite (XTS) service on the highly advanced APSTAR 6D communications satellite saw peak speeds reaching 200 Mbps. As a result, passengers were able to enjoy services like streaming video, video conferencing, downloading large files, and high-speed web browsing, on multiple devices, all at the same time.

While the modem isn't the only reason for that massive increase in speed and bandwidth, it is a critical component in our communications infrastructure, and has contributed significantly to Panasonic Avionics' ability to enhance the connectivity experience of our airline customers and their passengers.



How important is aero platform flexibility to offering your unique portfolio of inflight services?

This level of flexibility is vital to Panasonic Avionics to ensure we can deliver seamless connectivity of sufficient bandwidth to airlines and their passengers. It gives us the ability to support widebeam, HTS and XTS simultaneously. This flexibility is key to our ability to simultaneously deliver Internet connectivity, OTT applications and our global television service for the best possible price.

The flexibility to connect seamlessly to all the satellite types enables us to offer a high speed connection on everyday commercial flights. As airlines have different commercial objectives, we need to offer tailored connectivity rather than 'one size fits all'. A flexible platform makes this possible, by enabling different service plans and connectivity bundles with different speeds and profiles.

Having a versatile aero platform also enables better dynamic load balancing between overlapping beams. Advanced modem technology not only saves our airline customers money, but has shortened the time between satellite beam switches by over 70%, enhancing the passenger experience. Additionally, by realizing full potential of the antenna capability, we have been able to reduce ground hardware expenditure on beams greater than 54MHz.

What has been the biggest difference for your airline customers since your worldwide aircraft upgraded to your current ST Engineering iDirect aero platform?

Our airline customers have reported a number of tangible benefits as our connected fleet has been upgraded. The most prominent is the faster connectivity speeds available to passengers inflight, enabling them to continue much of their 'on the ground experience' in the air. Faster beam switches have also made a difference – particularly to passengers working while flying, and also helpful for cabin crew connectivity for activity such as in-flight retail purchases. The platform also enables us to be more responsive to satellite network requests from our customers.

How has your third gen network paired with ST Engineering iDirect technology to facilitate a streaming class of IFC service?

This partnership has made it possible for Panasonic Avionics to offer a reliable and competitive streaming product in-flight. Not only that, but it has enabled us to offer HD streaming.