PaxEx Innovations- New Power, Connectivity Technologies on Tap for APEX '19

Astronics, the industry's partner for PaxEx innovation, plans to introduce several new connectivity and power technologies at APEX this year in Astronics booth 1429. The new technologies bring together a set of power, connectivity, and data solutions that help airlines and airframe manufacturers improve the passenger flight experience while providing cost and operational efficiencies.

New! Bringing Cabin Wi-Fi to the Edge of Innovation

Astronics will introduce its new Edge Cabin Network Platform to support IFE customers with a smarter, scalable hardware solution. Intended for any aircraft including wide bodies, narrow bodies, and regional jets, this new system offers:

- Elimination of the head end server to save weight and complexity

- Fewer boxes for a faster installation time

- Decentralized architecture to provide intense scalability plus greater security

- Smaller, lighter packaging with full cabin networking functionality

- Wireless content and SSD format loading options

"We're taking inflight connectivity hardware to 'the edge' of innovation with this new IFE platform introduction," said Michael C. Kuehn, President of Astronics CSC. "Our new Edge Cabin Network Platform employs the power of a distributed computing system architecture to eliminate weighty servers while improving the passenger Wi-Fi experience. With this new strategy of a distributed architecture, IFE providers can provide a scalable, secure system, offering airlines the option to deploy only as many as they may need to create the optimal, cost- and performance-effective configuration."

See the Edge for the first time at APEX, booth 1429.

New! Tech Talks

Throughout the event, Astronics will feature Tech Talks in the booth. Topics include:

1. A Look Ahead at What's Next for the Internet of Flight
2. Scalable Concepts for Integrating Portable IFE
3. Considerations When Selecting a Wireless Charging Solution for Commercial Aviation Applications
4. Securing, Deploying, and Managing the Next Generation Aircraft Interface Devices
5. Improving Cabin Efficiencies using Smart Aircraft Sensor Data

Stop by the booth to see the talk schedule.

New! Fast, Easy In-Seat Power Retrofits

Astronics leads the industry with in-seat power innovations, currently flying on more than 260 airlines. To make future retrofits even easier, Astronics is introducing its EmPower® *Xpress* product, an on-seat USB outlet housing solution for its EmPower in-seat power product line.

EmPower *Xpress* easily adjusts to the seat rail, either forward or rear-mounted, for maximum flexibility. Attaching to the seat without affecting the seat structure means the installation can occur quickly and without the need for seat service bulletins. Key features include:

- Option to fit either a dual USB or single USB outlet unit. Photo shows Astronics Dual USB Type-A and USB Type-C outlet unit configuration.

- Attaches to seat tube, eliminating need to recertify seats

- Fast installation

- Lightweight: <3% of seat weight (0.650 lbs MAX, 0.594 lbs nominal)

"With this new retrofit solution for in-seat power, the airlines now have a faster, easier, more configurable retrofit method than ever before," explained Aaron Clarke, Vice President of Cabin Electronics for Astronics AES. "For very little extra effort, airlines can now offer the inflight charging services that today's passengers expect on every flight."

The simple, intuitive installation ensures a retrofit solution that installs in just minutes per seat. See more details.

New! Extending the Range of Aircraft Data

At APEX, Astronics will display the latest version of its webFB® Aircraft Interface Device (AID), which includes an extended Wi-Fi range to wirelessly connect to cabin IFEC systems, enabling real-time data collection and transfer to the ground.

By connecting our webFB AID to the cabin IFEC system, airlines can benefit from:

- Automated post-flight data transfer to eliminate costly and latent manual data collection

- Real-time transmission of aircraft data to enable in-flight reporting of monitored conditions

- On-board document storage to provide ready backups of Electronic Flight Bag (EFB) content

Ultra compact and easy to install, this smart AID acts as a server and a router to provide a cost-effective AID solution without the need for aircraft mods.

"Based on customer feedback, we have enhanced our successful webFB product line to provide a larger reach into the market. Our new webFB Extended Range models go beyond traditional EFB connectivity to now expand into IFEC data connectivity, which will help airlines realize operational savings through the use of real-time aircraft data," said Jon Neal, President of Astronics Ballard Technology.

See the details on the Extended Range webFB.

As shown at AIX. The Carry-On IFE Powerhouse: Sierra Portable IFE

Astronics will launch its third generation Sierra Portable IFE, a carry-on IFE solution that provides full-featured inflight entertainment on aircraft from small private jets to large widebody commercial aircraft, without the need for any installation.

Sierra offers robust construction and functionality. It delivers a suite of features that are unparalleled in today's portable IFE marketplace. In addition to its content streaming capabilities, Sierra also offers an automated onboard cellular radio, support for moving map applications, and a dedicated third Wi-Fi radio that enables networking of multiple units.

Key features include:

- 12 hour battery life with dual hot swappable batteries

- PA pause functionality

- Up to 2 TB of storage with front removable SSD

- Enterprise class 802.11ac, Wave 2 access point

- Autonomous cell modem operation

- Aircraft power option available

- Tested to DO160 standards

"Sierra Portable IFE delivers unmatched performance," says Michael Kuehn, President of Astronics CSC. "Our reliable, scalable platform is the serious carry-on IFE solution."

[Learn more about the Sierra Portable IFE](#).

Updated. Future Technology Explorations

You can always count on Astronics to bring some innovative technology up for discussion. This year, the explorations will continue in the Li-Fi arena plus feature alternate gesture control technology applications for use on aircraft.

"We're planning to show gig speed Li-Fi capabilities for potential cabin Li-Fi applications," explained Mark Schwartz, Vice President of PDT, an Astronics company. "We'll also feature alternate gesture control, which uses electric currents from your brain to move objects. And finally, we'll show some Li-Fi gate data link applications, and how it can populate the CWAP with content according to your seat number."

Don't miss it! Stop by booth 1429 at APEX to preview these new technologies and dream aloud with us.

Updated. Smart Sensing on the Aircraft

At the core of Astronics' innovative, patented Smart Aircraft System is Internet of Things (IoT) network technology that autonomously collects and aggregates data from a wide range of sensors installed in the aircraft cabin. The system, demonstrated by Astronics throughout APEX, collects nearly any type of sensor data and wirelessly transmits this data to locations and applications where the crew can improve airline operational efficiency. For example, the system can sense seat occupancy and position, depletion of consumables like paper towels, and the status of safety equipment such as flashlights and lifejackets.

A primary application of this technology, the Intelligent Bin Solution, will be on display. This leading edge, patent-pending system is able to detect and report—in real-time—information about the status of overhead bins such as the percentage of fullness, , which speeds aircraft boarding processes and reduces passenger stress. In addition, the system reports the temperature, humidity, pressure, and air quality within the bin, which helps detect outgassing events such as those that precede a lithium-ion battery fire. This early warning can increase safety and avoid costly aircraft diversions.

"Our new Smart Aircraft System integrates hundreds of advanced sensors with our webCS wireless communication server to collect and present meaningful data to crew members on their portable electronic devices," explains Jon Neal, President of Astronics Ballard Technology. "There are a multitude of uses for this new system, which brings new data and insights into the hands of the crew to increase efficiency, improve safety, and lower operating costs."

The Intelligent Bin Solution is an APEX/IFSA Award Finalist, and expected to start airline trials later this year.

Learn more about Astronics Smart Aircraft Initiatives.

And finally...the really great news ☺...Happy Hour!

Press Invited – Please RSVP to Michelle

Please join us from 4:30 to 6:00 pm on Tuesday, September 10, in our booth 1429 for food, fun, and music with the Astronics crowd. Hope to see you there!

Innovation at 30,000 Feet Starts with a Conversation at 30 Inches

Where some companies start with a contract, we prefer to start with eye contact.

Astronics brings a long history of working side-by-side with customers to innovation and the successful introduction of new technologies and products to market. These new technologies plus Astronics' existing proven, certified, systems enable Astronics to supply airframe manufacturers, airlines, IFE providers, and other industry participants with a myriad of solutions from a single vendor partner.

Interested to meet with us at the show? Make your appointment by emailing events@astronics.com.

Note to editors: Astronics will be conducting media briefings in the booth on these new technologies plus other news items. Please schedule your appointment by emailing:

Michelle Manson, Director, Corporate Marketing & Communications
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425.463.6603

Thank you!