

Airline ENTERTAINMENT INTERNATIONAL

SHOWCASE2012



What's inside?

- Plug and play IFE
- IFE retrofitting
- Linda Celestino Q&A

THE INTERNATIONAL REVIEW OF IN-FLIGHT ENTERTAINMENT & COMMUNICATIONS



www.AircraftInteriorsInternational.com



INQUISITIVE
INSPIRED
INVESTED

CONNECTING THE BUSINESS AND PLEASURE OF FLYING

Every year, more than 500 million passengers enjoy an amazing passenger experience on Panasonic Avionics- equipped aircraft. The time your passengers spend engaged with your in-flight entertainment and communications (IFEC) system is unique, and with a connected seatback, the opportunities to deliver your brand or drive ancillary revenue to a captive audience are limitless.

At Panasonic, we combine systems and software, global broadband connectivity, and proactive technical support to deliver passenger-centric business platforms.

By connecting passengers to an immersive in-flight experience, by providing advertisers and merchants with new business opportunities, and by connecting passengers to your airline and the IFEC system to the maintenance organization, Panasonic helps you meet your airline's business goals.



socialclimbing

Remember the days when an unfortunate blip in airline customer service resulted in a complaint at the desk or an irate phone call, easily remedied through an apology and a token of compensation? It might take a little time for the offended party, and their immediate family and social circle, to forgive and forget the experience, but it wasn't too disastrous for the airline.

Fast-forward to today – literally today, as we go to press – and Alaska Airlines is weathering a storm, with some misjudged customer service towards a disabled passenger escalating to the point that the airline staff are being touted (and tweeted) as “the worst in humanity”. It began with a fellow traveller venting his anger on Facebook at the man's treatment, which rapidly led to 500 posts, which led to a mass chastisement on Twitter, which led to the story hitting the headlines in print media around the world.

Airlines – and indeed other industries – jumping on the social media bandwagon thinking it will simply make them look up to date or create a cheap way of marketing can be in for a shock at how quickly and viciously these channels can bite the hand that feeds them special promotions.

Alaska has taken the beating, apologised, compensated the traveller, and promised extra staff training. However, it has been done in a manner that suggests a PR team using old methods with a new channel. As social media strategist Mack Collier once said, “If there's a firestorm erupting via blogs, your customers will expect you to respond via those same blogs, not via a carefully worded press release four days later.” The release took five days in this case (although it was also posted on Facebook and Twitter).

This is the new social age, with brand and customers in direct and shared communication. Social media is a very cost-effective way to gather customer information, communicate brand messages directly, promote special fares and spread a little publicity (see *In Touch*, page 14). And instant response to any criticism can nip it in the bud before it goes viral.

This instant feedback is set to become even more critical. As onboard WiFi becomes more commonplace, any customer service failing can be shared with the world before the landing gear has lowered. Customers are more likely to communicate complaints than praise, so this opportunity to garner real-time international goodwill could lead to cabin crew excellence.

But beware – it is not just airlines that can feel intrusion, as BA's 'Know Me' scheme has shown. In order to identify passengers and resolve any problems on the spot, iPad-toting airport staff and cabin crew will be able to see flight histories, past complaints and a picture sourced from Google images. Some passengers welcome the individual attention, others say it's an intrusion. This is where training comes into its own, to gauge the individual situation. Get it wrong and your Twitter and Facebook feeds will be red hot.

Remember, as Jure Klepic, a social media expert known for “taking ‘poking’ to a new level” says, “What happens in Vegas stays in Vegas; what happens on Twitter stays on Google forever!”

#carefuloutthere #enjoytheissue

Adam Gavine, editor

“AIRLINES JUMPING ON THE SOCIAL MEDIA BANDWAGON
THINKING IT WILL MAKE THEM LOOK UP TO DATE OR CREATE
A CHEAP WAY OF MARKETING CAN BE IN FOR A SHOCK”

EDITOR

Adam Gavine

ART EDITOR

Anna Davie

ASSISTANT ART EDITOR

Louise Adams

DESIGN

Andy Bass, Andrew Locke,
Craig Marshall, Nicola Turner,
Julie Welby, Ben White

CHIEF SUB EDITOR

Alex Bradley

DEPUTY CHIEF SUB EDITOR

Nick Shepherd

PROOFREADERS

Aubrey Jacobs-Tyson, Frank Millard

HEAD OF PRODUCTION & LOGISTICS

Ian Donovan

DEPUTY PRODUCTION MANAGER

Lewis Hopkins

PRODUCTION TEAM

Carole Doran, Cassie Inns, Robyn Skalsky

CONTRIBUTORS

Michael Childers, Bernard Fitzsimons,
Ben Frain, Adam Williams

CEO

Tony Robinson

MANAGING DIRECTOR

Graham Johnson

EDITORIAL DIRECTOR

Anthony James

ART DIRECTOR

James Sutcliffe

PUBLICATION MANAGER

Simon Hughes

INTERNATIONAL ADVERTISING SALES

Sally James

CIRCULATION & SUBSCRIPTIONS

MANAGER

Suzie Matthews

published by **UKIP Media & Events Ltd**

Airline Entertainment International,
c/o Aircraft Interiors International

Abinger House, Church Street,

Dorking, Surrey RH4 1DF, UK

Tel: +44 1306 743744

Email: aircraftinteriors@ukipme.com

The views expressed in the articles and technical papers are those of the authors and are not endorsed by the publishers.

While every care has been taken during production, the publisher does not accept any liability for errors that may have occurred.

Airline Entertainment International

Showcase 2012. This publication is

protected by copyright. ©2012

Printed by: William Gibbons & Sons Ltd,

P0 Box 103, 26 Planetary Road,

Willenhall, West Midlands, WV13 3XT

Cover image: Magic Torch

Aircraft
interiors
INTERNATIONAL

Airline Entertainment International

is a sister title to Aircraft Interiors

International magazine

www.aircraftinteriorsinternational.com



ARINC

The new choice for passenger Wi-Fi

In-flight no longer means out-of-touch.

Thanks to Cabin Connect passengers
can continue their connected lives
using their own, familiar devices via the
unparalleled SwiftBroadband network.

Whenever you fly . live . work . play .
communicate . . .
Cabin Connect . . .

To learn more email
emea@arinc.com

Realise the potential of passenger connectivity

CABIN CONNECT FROM ARINC

cabinconnect.aero/ae

ARINC, Pegasus One, Pegasus Place, Gatwick Road,
Crawley, West Sussex, RH10 9AY, UK • Tel: +44 1293.641200

NOW SHOWING

shorts

048 Linda Celestino Q&A

Meet Linda Celestino, general manager for inflight services at Oman Air and the incoming president of APEX, who shares what she sees as the biggest IFE issues of today and tomorrow

048 index to advertisers

what's on 006

Passengers' IFE tastes are becoming far more sophisticated than the traditional movie and sitcom offering

BEN FRAIN,
AIRLINE ENTERTAINMENT INTERNATIONAL

features



014 social media

When a passenger has a bad experience, social media means the whole world can know about it. It's time for airlines to learn a new way to listen and respond

ADAM WILLIAMS, AIRLINE
ENTERTAINMENT INTERNATIONAL

digital standards 024

Michael Childers negotiates the many levels of asset-managed interoperable digital components

MICHAEL CHILDERS,
AIRLINE ENTERTAINMENT INTERNATIONAL



high definition 032

Everyone's talking about HD, but many are not clear about the definition of standards and passenger benefits. Adam Williams puts us in the picture

ADAM WILLIAMS,
AIRLINE ENTERTAINMENT INTERNATIONAL



commercials

036 mission possible

Rockwell Collins addresses the challenge of matching IFE systems to airlines' needs

040 back to the future

Goodrich is positioning itself as a major player in the IFE retrofit market

042 image conscious

Broad experience and a broad offering from Imagik

044 plug and play

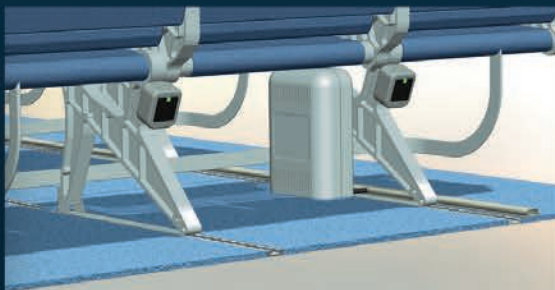
A new generation of plug-and-play IFE technology from Airline Services

046 paper view

Who needs a newspaper on board when you can have a Dawson Media Direct Digiredoo?



INFLIGHT
CANADA
www.inflightcanada.com



PED Power Module Easy to Install POWER

Provides Easy And Fast Installation of ISPS Systems
Eliminates Seat Re-certification or Modification Labor • Patented

what's on

We think we know what passengers want from their IFE, but are we right?

BEN FRAIN, AIRLINE ENTERTAINMENT INTERNATIONAL



As technology marches on, it affects us in more ways than we perhaps realise. Personal electronic devices (PEDs) provide easy access to a raft of content, literally at our fingertips. Has this now changed what people want from their IFE?

“Hollywood blockbusters will always be appealing, but it’s also important to remember that the vast majority of airlines are still flying with legacy equipment,” says Michael Reilly, COO at IFE content and technical services provider Stellar Inflight. “Legacy equipment was centred on movies, TV, music, etc. With newer platforms we are seeing alternative content – such as modern gaming, digital books and magazines – growing

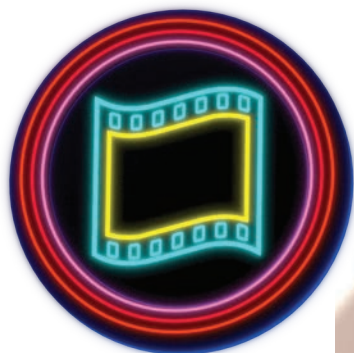
in popularity, according to the usage statistics we get from these platforms.”

Andrew Grant is Emirates’ passenger entertainment and communications manager. Due to the abundance of available media, the airline has facilities in place to take passenger requests. “On emirates.com we have a specific page that allows visitors to make requests before they fly,” Grant explains. “We also publish an email address, ice@emirates.com, in all our IFE listings guides and encourage passengers to write in to us. Every day, we get suggestions straight into our inboxes,” he explains. “The majority of emails we receive ask for new release movies. These are predominantly Hollywood movies; however we have



NOW SHOWING

HOLLYWOOD BLOCKBUSTERS
YOUR FAVOURITE TV SHOWS
WORLD MUSIC
IOS & ANDROID GAMING
BOOKS & MAGAZINES



our experts on...film

It's all well and good organising content for others but what do IFE managers actually enjoy themselves? When it comes to film, "I loved *The Guard* and *No Country for Old Men* but always enjoy films like *Superbad* and *Bridesmaids*. Plus *Senna* and *Searching for Sugarman* are great documentaries," says Virgin Atlantic's media manager, Cathy Walters.

Emirates' passenger entertainment manager Andrew Grant, meanwhile, has a taste for vintage, "This August when I am on my travels, I'll treat myself to *Where Eagles Dare*; it's an all-time favourite of mine. I'll also try out the Woody Allen movie *Zelig*; one I've not seen." Stellar's COO Michael Reilly meanwhile opts for "*The Ides of March* and *Limitless*."

Reilly also points out some events on the horizon, "I think the biggest film of the year is likely to be *The Dark Knight Rises*, which is the end of the Batman story. I'm also looking forward to the sequel to *Taken*."



01

noticed that as we increase the amount of international movie content on 'ICE' [Information, Communications and Entertainment], the number of requests for even more of the same has increased. Premium Hollywood content is still king, but only just; as our network widens and matures, the need for a greater depth of Asian, Latin American, European and African movie/TV product is becoming very apparent. Music-related requests also make up a considerable number – the requests are very heavily based on

geography as music tastes tend to be bound closely to country of origin."

TV ON THE UP In IFE content terms, movies and music have always been considered number one. TV, however, seems to be in danger of upsetting that status quo. "TV is definitely no longer seen as feature film's poor relation," explains Cathy Walters, senior manager for onboard media at Virgin Atlantic Airways. "For example, consider high-profile series we show such as *Homeland*, *The Killing*, *Mildred Pierce*, as





66

AN URBAN MYTH I AM HAPPY TO BUST IS
THAT BUSINESS PASSENGERS WANT BUSINESS
PROGRAMMING – THEY DO NOT 99



ILLUSTRATION BY MAGIC TORCH



...TV shows

It's no surprise that US drama is among everyone's favourites. "Entourage and more recently *Person of Interest* and *Homeland*," says Stellar's Michael Reilly. Meanwhile, Virgin Atlantic's Cathy Walters says, "The Bridge, Game of Thrones, Homeland and I just started *Veep*. *Modern Family* is still a favourite though." Emirates' Andrew Grant has slightly more criminal tastes, "I love anything to do with cops and crime and am very pleased that we are taking one of my top shows, *Banged Up Abroad*, this August."

01. A few highlights from Stellar's 2012 offering
02. With the EX2 system used by Virgin Atlantic, you can play a game on the handset while a film plays on the screen
03. *Homeland* is proving a big hit with passengers

well as the lesser known [in the UK] but similarly great-quality programmes such as *Boss*."

The growing popularity of TV shows is something that Stellar's Reilly recognises. "Movies are still the most popular overall, but TV is growing in popularity very quickly. Hence, airlines are asking us to now provide box sets more often, especially for the newer streaming systems."

Emirates' Grant relates a similar experience: "Complicated TV dramas like HBO's *Game of Thrones* is very

popular on TV right now, and we see that in our requests. We also see passengers asking for whole series of TV shows so that they can watch them on board just like a DVD or video-on-demand box set at home. The overriding constants are for more content and for more updates – passengers, especially regular flyers, are hungry for new content and are always asking for more."

COMMON MISCONCEPTIONS Grant is keen to dispel some mistaken beliefs

about IFE content: "What no passenger ever asks us for is travel shows and destination guides. Another urban myth of IFE I am happy to bust is that business passengers want business programming – they do not! They want the same vast range of entertainment that leisure passengers request. The final misconception is that passengers want light and fluffy programming – bland, easy-going content as a form of visual wallpaper. No one other than the occasional run-of-the-mill-sitcom fan asks for it. We actually get our best TV



Now Playing.

Experience what we see every flight.



rave

The new standard in IFE.

The IMS Company
2929 East Imperial Highway
Brea, CA 92821

1.714.854.8600 www.imsco-us.com



Please visit us at APEX. Call today for an appointment. - **Booth #1236**

...music

Emirates' IFE expert Andrew Grant has a taste for past classics that extends beyond film, "The music choice on ICE is huge but I keep going back again and again to a section called The Album Collection, a sort of Essential Albums of the last 20 or so years with 50 great albums from the likes of The Chemical Brothers, Radiohead, The Stone Roses, Primal Scream and plenty more." Stellar Inflight COO Michael Reilly is more of a singer/songwriter fan, recommending, "Rock, jazz and blues from Amos Lee, John Mayer, Gomez, or James Morrison."

Cathy Walters from Virgin Atlantic on the other hand is open to all genres, "Bad Boi to Beethoven but am really enjoying the 6Music shows." Games, however, don't feature highly for any IFE manager, "I have the hand to eye co-ordination of a fish," admits Grant.

Whilst Reilly also confesses that he's, "Not a massive gamer", but when the opportunity presents itself, "it's usually a first person shooter". Walters on the other hand, relates, "Embarrassingly, I've never even played one. Luckily we're a team here!"

When it comes to special mentions, Grant is keen to point listeners to their music library, "Our classical line-up is comprehensive, beginning with music from the Renaissance through to the modern day and covering just about every major composer. The choice is underpinned by a series of podcasts that chart the evolution of Classical Music from the 1400's to today. Even if you are not a fan, the podcasts are well worth a listen."



66

ONE OF OUR OBJECTIVES IS
TO HIGHLIGHT 'HIDDEN GEMS'
THAT PASSENGERS MIGHT
OTHERWISE OVERLOOK 99



04

feedback when we schedule high-end, complicated, dense or difficult factual programmes."

The mistaken belief that business passengers are merely business 'drones' is further exposed by Virgin Atlantic's Walters: "Business passengers may view air travel as a chance to catch up on guilty pleasures; an opportunity to watch content outside a shared experience. It could be anything from *Shameless* to *Ice Road Truckers*. As time is such a precious commodity, flights are the perfect opportunity to binge and catch up on six episodes of *Game of Thrones*, for example."

CONTENT FILTERING In the current climate, providing a rich IFE

experience for passengers is as much about editing and weeding out the many content possibilities as anything else. "One of our objectives is to highlight 'hidden gems' that passengers might otherwise overlook. Our in-house production team produce a monthly highlights show, *Best in Show*, which showcases the best of each month's lineup, focusing on the more independent titles," says Walters.

The selection process seems likely to grow exponentially, depending upon the range and variety of destinations an airline services. "The problem is that 'great' means many things to many people and it is only becoming more diverse as more people travel and tastes become more segmented. Airlines will

04. Airlines are keen to offer a range of music, with a genre to suit every passenger



66

ONCE THE IFE SYSTEM IS CAPABLE
OF MORE, THERE WILL BE MORE
CONTENT DIVERSIFICATION 99



05

have to display great expertise in provisioning a truly diverse and global IFE product backed with significant content volume to meet this demand," says Grant.

GAMING If movies are acknowledged as being historically most popular and current feedback suggests TV is likely to rival or exceed that popularity, what can we expect in the future? "Modern (iOS/Android) gaming is also proving to be popular," says Reilly, "so it's beginning to skew airline content requests. We are only at the very beginning of any shifts in content demand changes, but I think we'll see more of it. We'll see streaming gaming and other content that is not device-centric, regardless of whether it is in-seat or portable and regardless of the OS. Just like in the consumer world,

content is rapidly becoming about the ecosystem, not the device. When you combine a quality device with a quality ecosystem, the possibilities of what you can deliver to your customer grow enormously."

THE FUTURE So what do IFE managers and content providers feel is the future of IFE? "Once the IFE system is capable of more, there will be more content diversification. There was a divergence between IFE and consumer technology, and hence content, for so many years. Now that we are seeing convergence again, I think the airlines will be keen to prevent it diverging again," says Stellar's Reilly.

Grant also acknowledges the benefits the next wave of IFE technology: "On-demand content will be delivered in a much more timely



06

05. USB slots in recent IFE systems allow passengers to view images from their digital cameras on the screen

06. Passengers now look for more than just the latest blockbusters in their IFE

fashion and not constricted by overly long and product-limiting timelines as currently enforced by hardware and software limitations." He adds, "In future, not too far away I hope, HD content will finally become readily available in IFE."

Virgin Atlantic has already offered passengers a glimpse of this type of content expediency on its aircraft fitted with the eX2 system. "We featured near-live TV in the form of the England versus France match from Euro 2012 on some of our aircraft," says Walters.

We look forward to the day in the near future when airline entertainment offers an experience as good as home entertainment for the passenger. ▣

CONTACTS

www.stellarinflight.com
www.mascorp.com



SPECIALISTS IN IFE / AVIONICS REPAIR AND CERTIFICATION SERVICES



Aerocare has a fully equipped, dedicated workshop to enable repair and test of OEM components certified to EASA 145.

We can also support manufacture of Avionic/IFE equipment for modification and cabin enhancements certified to 21J/G, to include in seat cables, seat to seat cables and structural modifications to accept seat back and bulk head mounted equipment.



sales@aerocareinternational.aero
+44(0)1925 710694

www.aerocareinternational.aero

intouch

With flyers increasingly turning to social media to let the world know about their travel experience, airlines must learn a new way to listen and respond

ADAM WILLIAMS, AIRLINE ENTERTAINMENT INTERNATIONAL



The rise of social media has created the opportunity not only for airline marketing teams to reach consumers in new, engaging ways, but also for consumers to reach back. The question is whether airlines are listening and responding. As most experts will tell you, the secret to social media success comes from being a part of the conversation.

INVESTMENT PLAN Airlines already recognise the importance of mobile communication. The Airline IT Trends

Survey, conducted by SITA and now in its 14th year, stated that 93% of airlines view investment in mobile services as a top priority between now and 2015, and that 58% are planning major projects. Nine out of 10 airlines also plan to invest in social media by 2015.

Further, a recent study conducted by the Chaddick Institute of Metropolitan Development, at the DePaul University in Chicago, revealed that iPads, Kindles and Nooks account for 30% of all technology used in flight. Gogo research has found that 153



million passengers had access to the internet while in flight in 2011.

In other words, passengers are increasingly connected in flight and are able to communicate with friends, families and airline staff at the airport and in the air.

HOW AIRLINES ARE USING TWITTER

One of the most prominent social media tools is Twitter. Its attractiveness lies in its real-time and public nature. As users tweet (send brief messages of fewer than 140 characters) the tweets

become immediately available for viewing by anyone. For example, a simple search on Twitter for a phrase such as ‘#flying’ yields a host of consumers actively talking about their flying experience. Ergo, an airline can constantly monitor what passengers are praising or complaining about.

Recognising the enormity of that opportunity, Delta Airlines launched a specialised customer service team under the Twitter account @DeltaAssist. As passengers tweet about problems, the @DeltaAssist team

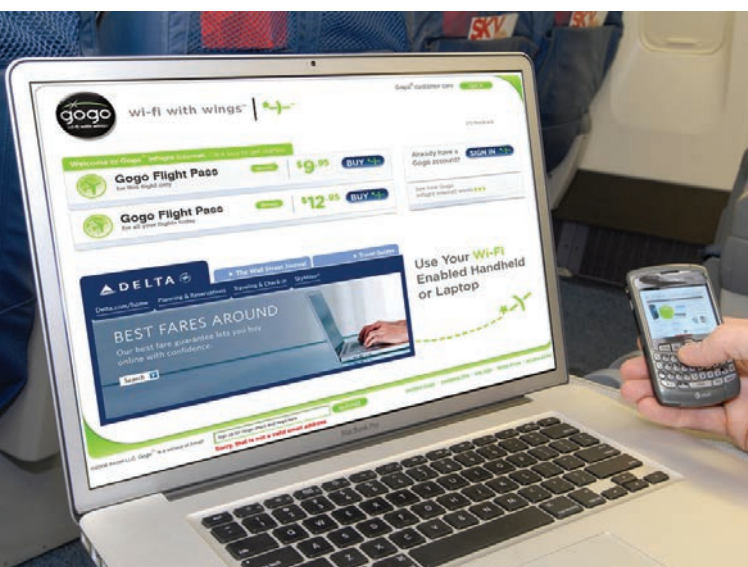


ONLINE SUBSCRIPTION AND READER ENQUIRY SERVICE



Request more details about
advertisers in this issue
of Airline Entertainment
International online at:

www.ukipme.com/recards/aeicard.html



01

in numbers

Airline social media consultancy SimpliFlying has devised the following statistics and trends regarding customer service:

- 71.4% of consumers tweet airlines on customer service issues
- 11 minutes is how long @DeltaAssist takes on average to respond to tweets
- Voice calls into customer service centres are projected to decline this year
- Dedicated customer service centres have been set-up on social media platforms. For instance, London Heathrow Airport has a Twitter Concierge programme
- Meanwhile, according to Ezeer, a website specialising in social media and travel, of the 191 airlines on Twitter, less than 90 tweet actively. And of those, 29 airlines provide 80% of all the tweets



66

'IN THE MOMENT' COMMUNICATION ALLOWS VIRGIN TO PUT A FINGER ON THE EMOTIONAL PULSE OF FLYERS

99

responds, within an average of 11 minutes, and begins resolving the situation. Most importantly, the team is empowered to take immediate action.

Pattie Simone, founder of WomenCentric.net, interviewed Allison Ausband, vice president of reservation sales and customer care for Delta, last year. Ausband commented in the interview, "So the channel [Twitter] really allows us to redirect them [passengers] and reset their travel when things do go wrong...As you think about Twitter being that customer support channel for us, it truly allows somebody from Delta to be with them throughout the whole travel ribbon."

Virgin America is also known for responding to comments on Twitter made by passengers in-flight. In fact Virgin runs marketing campaigns encouraging passengers to use Twitter while flying. Besides the obvious word of mouth advertising those campaigns encourage, the 'in the moment' communication allows Virgin to put a finger on the emotional pulse of flyers.

01. With inflight Wifi, such as Delta with its Gogo system, passengers can give real-time updates on their travel experience
02. KLM's Meet & Seat can help bring friends closer
03. KLM answers every tweet and post in person



02



03





04-05. Air Baltic's SeatBuddy helps you choose a neighbour who shares your mood



04

05

the dos and don'ts of social media

Shashank Nigam, CEO of SimpliFlying, and a social media expert on airlines and airports, shares his top five 'dos and don'ts' of using social media:

DO

- Respond to fans' posts – even if you cannot resolve the issue immediately, acknowledge the post, and promise a future resolution
- Humanise the experience and online conversation – you are not an answering machine
- Find out who among your fans are big advocates or influencers, and actively engage them
- Plan a long-term strategy for social media for sustainable engagement that runs long enough to show business results
- Develop an internal social media policy and have the relevant departments acknowledge their contributions/role in it

DON'T

- Don't delete your fans' posts
- Don't ignore your fans' posts
- Don't just 'push' messages – pull the fans in and seek their opinions, it's part of engaging them too
- Don't underestimate what the online fans can do for, or to, the brand – be fair in your treatment
- Don't just stop at ad-hoc buzz-focused campaigns, go for a long-term strategy based on business goals!

USING OTHER SOCIAL NETWORKS

Although Facebook is the top social network in terms of site traffic, it does not allow an airline to peek into passengers' experiences as easily as other social media. To engage with the airline, flyers must go to its Facebook page and leave a comment. Despite that, Facebook is still an important tool for allowing conversations to naturally occur between people.

Some airlines have also created less conventional approaches to using social media to improve the flying experience. For example, programmes such as KLM's Meet & Seat and Malaysia Airlines' MHBuddy give passengers the option to select seats next to friends or colleagues with whom they are connected on Facebook or LinkedIn.

One of the challenges with social media is in discovering where conversations are taking place online.

Twitter and Facebook are obvious places to start, but many passengers may choose a less popular service.

For example, forum sites such as FlyerTalk.com act as oases for ardent travellers, while Planely.com users can meet fellow members at the airport or onboard. In order to reach the right demographic, airlines must spend time discovering which services their passengers actively use.

Regardless of the site, Shashank Nigam, CEO of airline social media company SimpliFlying, recommends that airlines "start by being pleasantly helpful and friendly where passengers are on social media and integrate customer service on these platforms. Disruptions such as flight delays are not uncommon, so being helpful by initiating relevant updates to the passengers will make their experience more delightful."

66

TO REACH THE RIGHT DEMOGRAPHIC,

AIRLINES MUST SPEND TIME DISCOVERING

WHICH SERVICES PASSENGERS USE



99

ADD TO THEIR ENTERTAINMENT EXPERIENCE, NOT YOUR EXPENSES.

Inflight entertainment expectations are going up, while tape supplies are running out. The good news is you don't have to replace your entire system to provide passengers a digital IFE experience.

Update your current tape system with a digital video reproducer unit (VRU) from Goodrich for the system capabilities you want:

- Dual-language output of MPEG1, MPEG2, MPEG4 video
- Encrypted video (early window content) for playing Hollywood movies before cable and commercial DVD distribution
- Content downloads via removable hard-disk drive or compact flash memory, or
- Inexpensive support of DVD and HD discs via disc-based VRU

System retrofits with Goodrich VRUs help you minimize equipment cost, downtime and training. Join the airlines that have trusted Goodrich IFE systems for over 20 years.

For more information about Goodrich systems, contact us at ife@goodrich.com.

The new In Flight Entertainment System, flies.

Finally!... Airlines dream becomes reality!...

Reliable!

Light!

Simple to use!

Viable financially!

Lowest ownership!

Like all of them, fly...





Wandular

Could this device be the future of social networking? Sony Europe teamed up with design company Engage by Design to create a collaborative concept that might contribute to more sustainable lifestyles. Rather than the often superseded and replaced devices of today, Wandular is a multifunctional, modular device that is intended to evolve with you over your lifetime. The idea is that you would have a single device for life that would increase in emotional and personal value over time – like a well-loved watch.

“Wandular is an exploration of how we can relate in a different way to artefacts and services in the future and also hopefully reduce the amount of disposable electronics. The aim is to encourage people to attach more meaning to a technological device, and develop a long-term relationship with it. Wandular is about making technology more human and mitigating consumer behaviour for wanting “new stuff” through the use of emotionally durable design and cloud service trends. The idea is for Wandular to be magical, grow old gracefully with its host, and be upgradable as a service,” explains Rodrigo Bautista, founder of Engage by Design and the concept lead for Wandular.



66

CULTURALLY, USING SOCIAL MEDIA AS A CUSTOMER SERVICE TOOL REQUIRES EMBRACING A CERTAIN AMOUNT OF LOSS OF CONTROL

99



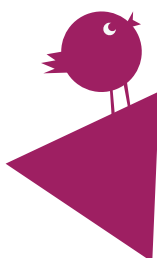
ARE AIRLINES READY TO SOCIALISE?

Operationally, using social media as a customer service tool represents a shift for some airlines. Most airlines have already adopted social programmes, but as part of the corporate communications department. Airlines need to invest in moving offline customer service teams and processes to an online environment. That shift means investing in training and social customer relationship management (CRM) resources such as Radian6 and Simplify360, which allow the team to listen, measure and ultimately engage better.

Nigam adds, “In a brief study that we did last year, there are two operation models that the top airlines on social media use. Virgin America and WestJet use the dedicated model where staff are assigned to perform solely social media functions. On the

06. With Wandular, Sony aims to buck the current trend for people to replace devices after a short period of time

ILLUSTRATION BY ANNA DAVIE



other hand, JetBlue and airBaltic use the integrated model, where staff from different departments are trained to perform social media functions.”

SimpliFlying reported last summer that airline social media team members respectively represented the following departments: 44% were corporate communications, 30% marketing, 13% customer service, 9% e-commerce and 4% interactive. In his best-selling book *Good to Great*, Jim Collins teaches the importance of the right people on the team. As social media is increasingly used as a customer service tool, expect to see more members of the team come from a customer service rather than a marketing background.

Culturally, using social media as a customer service tool requires embracing a certain amount of loss of control. Offline customer service complaints are handled in private.

They aren’t open to the public, tweetable and shareable with the click of a mouse. Online customer service, by contrast, is public, on display. However this double-edged sword also allows airlines to receive recognition for compliments and expressions of gratitude for a job well done.

Further, the mind-set to effectively lead social conversations is different to the marketing views of years past. With consumers empowered by social platforms, airlines must earn trust and respect as a participant within a community where a single post, tweet, video or comment can garner national attention and rebuke.

“The moment that helped push social media initiatives to the forefront was the closure of European airspace due to the Icelandic volcanic eruption in 2010,” states Nigam. “This saw a marked change in the social media

social circle

It's difficult to keep up with the ever-growing range of apps and sites to aid the travel experience. Here are a few of our favourites:

PASSBOOK BY APPLE Set to be released as part of iOS 6 for iPhones and iPads, Passbook provides digital versions of boarding passes including live updates to gates and flight times. Passbook will even include membership cards. Known for being tight-lipped, Apple appears to be releasing Passbook as the first step towards the larger iTravel ecosystem laid out to date only in patents.

YOUR PASSENGER RIGHTS BY THE EU This European Union application lets air and rail travellers know just what their rights are. For example, if a flight is cancelled, the app can tell the passenger if they might qualify for compensation and to whom they should complain.

FLIGHTTRACK BY MOBIATA From zoomable moving maps to real-time departure information, FlightTrack was picked by Forbes as one of the top 10 travel apps. The app has international coverage with 1,400 airlines and covers more than 16,000 airports.

BLUE LEGENDS BY LUFTHANSA Lufthansa passengers can virtually "check in" to airports, lounges and Lufthansa flights through foursquare. This does not take the place of actually checking in for a Lufthansa flight, however. Passengers are rewarded with ranks and badges for regularly checking in to Lufthansa sites. For example, users can become "Expert Pilots" on the routes they fly most frequently, and those who check in before 6am are awarded the "Early Bird" badge. Anyone who racks up more than 240,000 miles will receive the "To the Moon" badge.

TRIP JOURNAL VIRGIN ATLANTIC EDITION BY IQAPPS A branded version of the Trip Journal app, passengers record experiences and share real-time updates from their destinations. The app integrates with social networks such as Facebook, Twitter, YouTube and Flickr for easy photo and video sharing.

PLANELY Passengers simply tell Planely what flight they are on and Planely tells them what other Planely fliers are on the same flight, departure or arrival airport. Through the Facebook and LinkedIn integration, users can also connect with their friends and colleagues while travelling.

MONDOWINDOW.COM Moving map software that pulls social data, displaying it on the map as the aircraft flies over it. For example, if the passenger is logged into Facebook (and soon LinkedIn), then friends are shown below. Points of interest are pulled from sites such as Wikipedia.

07. Delta Connect means passengers can look up a restaurant at their destination, book a table, and let their social media network know where they're going



07

66

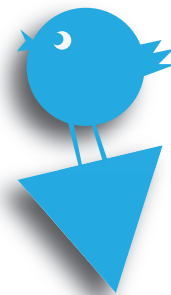
SOCIAL MEDIA IS AN IMPORTANT
ENGAGEMENT AND REAL-TIME INFORMATION
DISSEMINATION TOOL TO CUSTOMERS 99

landscape for the aviation industry. Suddenly, social media was important, relevant and worthwhile. No longer was it just a channel for marketing; it was an important engagement and real-time information dissemination tool to customers."

IT'S NO LONGER A REVOLUTION The social revolution is no longer any such thing. It has become a daily habit for many travellers. The only revolution is the one occurring within the airline industry to embrace customer service via social media, make use of the available tools, and engage in the conversation. ■

CONTACTS

<http://simpliflying.com>
www.sita.aero
www.klm.com
apps.facebook.com/mhbbuddy
www.planely.com



Your cabin's versatility. Showing daily.



Introducing PAVES™ 3. The industry's most versatile in-flight entertainment system from Rockwell Collins now delivers an overhead broadcast solution, a full on-demand in-seat entertainment solution or any configuration in between. With all content cached at the seat, single-point system failures are eliminated, giving users a smooth entertainment and flight information experience. Easy upgradability provides system owners with cost-effective options. Enjoy the performance.

Designed for single aisle

Highly reliable

Easily upgradable

True HD passenger experience

For a personal demonstration of PAVES 3, visit us during APEX, booth 445.

rockwellcollins.com

© 2012 Rockwell Collins. All rights reserved.

**Rockwell
Collins**

Building trust every day

nextlevel

The IFE industry is moving from rigid flat standards and a plethora of tape-based versions to levels of asset-managed interoperable digital components capable of dynamically creating required versions

MICHAEL CHILDERS, AIRLINE ENTERTAINMENT INTERNATIONAL

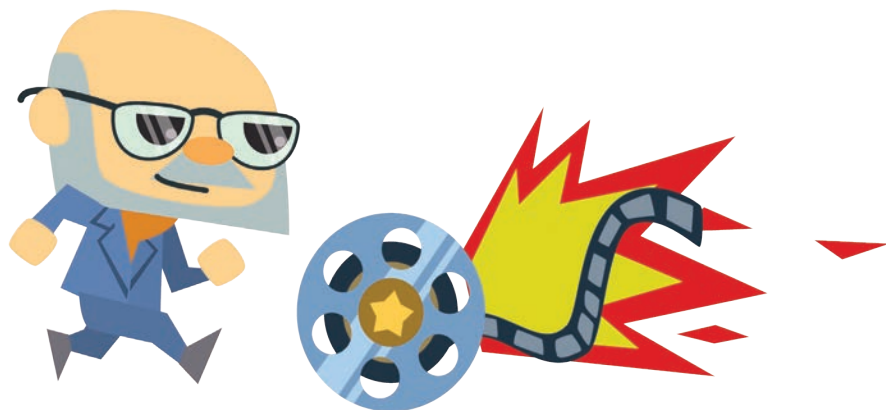


At its meeting in May in the Burbank, California facilities of digital technology giant Technicolor, the Airline Passenger Experience Association's (APEX) Technology Committee (TC) adopted the high-definition (HD) content delivery specification for IFE proposed by its High Definition Working Group (HDWG). Approved in June by the APEX Board, the specification left to the discretion of the system provider parameters such as whether to use a constant bit rate (CBR) or variable bit rate (VBR), and also established acceptable bit rate ranges rather than a fixed rate.

HD is only one of the emerging technologies that will reshape IFE's

content delivery supply chain of the future – and the common theme among them in their implementation is interoperability. Shifting from the idea of a single rigid standard, the concept of interoperability is that different standards and profiles are acceptable if they are interoperable.

The old paradigm of encoding from a tape master is yielding to transcoding from a mezzanine. A mezzanine is a mid-resolution working copy of the video asset that is of sufficient quality to render your highest output, yet small enough to move around, archive and manipulate. Increasingly, this mezzanine is not a tape with assets in a fixed configuration, but a digital file containing every possible asset and



maz3anine
Level

FILE-BASED
WORKFLOW

COMMON
FILE
FORMAT

DYNAMIC
ADAPTIVE
STREAMING

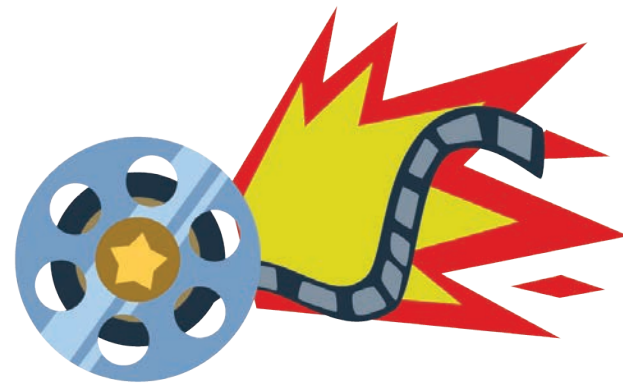
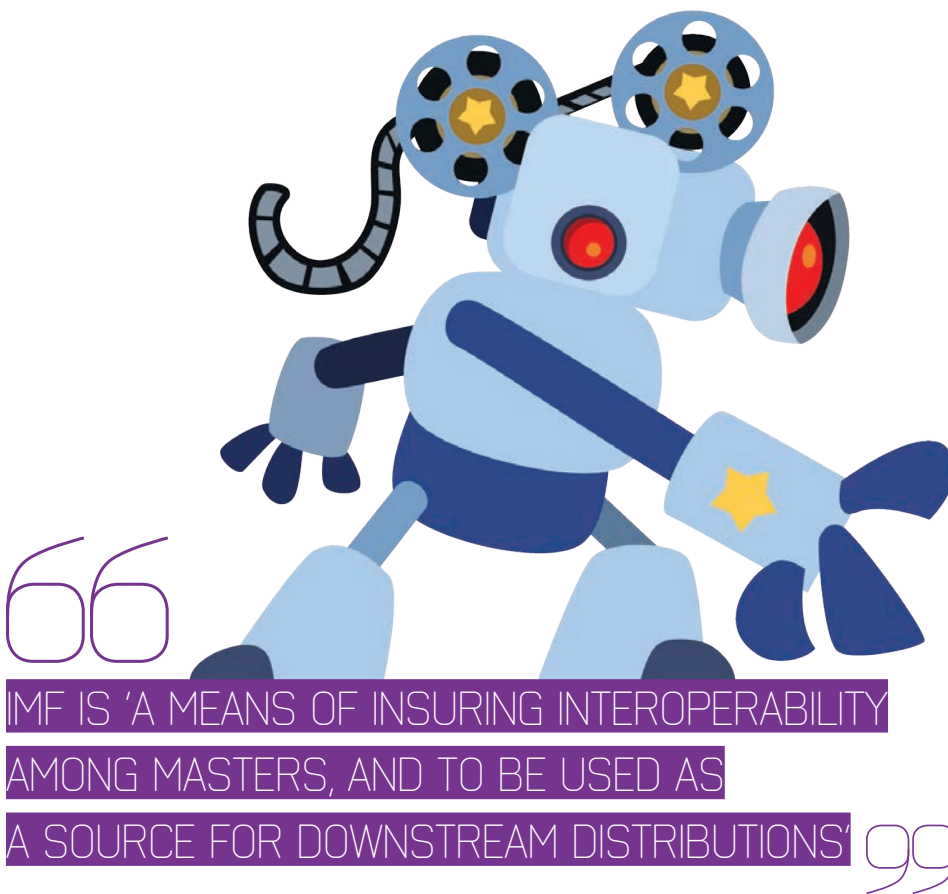
SECURITY
STANDARDS

ADAPTIVE
STREAMING

IMF

LET'S
DO IT!

H.265



IMF IS 'A MEANS OF INSURING INTEROPERABILITY
AMONG MASTERS, AND TO BE USED AS
A SOURCE FOR DOWNSTREAM DISTRIBUTIONS'

interoperable variable that can be selectively assembled into the needed version – it's like the difference between a *prix fixe* menu and *à la carte*.

FILE-BASED WORKFLOW The IFE community and the APEX TC in particular continue to look to the migration from tape-based to file-based workflow, described by Inflight Productions' vice president of technology Andy Beer at the May assemblage as a "distributed process [that] reduces turnaround time, reduces shipping costs with digital delivery, [and provides] 24-hour automated workflow processes, resulting in expedient, accurate and cost-effective content delivery".

File-based workflow has been an IFE industry objective since the formation of APEX's Digital Content Management Working Group (DCMWG) in 2001. The group's original mandate was to consider how to implement 'network delivery' of content using media asset management and eliminate the use of tape-based workflows.

But DCMWG's network delivery objectives were slowed by a protracted effort to codify MPEG-4 as the industry standard codec, an objective finally

reached with the codification of the APEX 0403 digital delivery standard in 2008, but requiring an update in 2010.

Today APEX's DCMWG acts as an oversight group focusing on the IFE digital content supply chain as an ecosystem, while appointing subsidiary working groups – such as the High Definition Working Group – to focus on component standards. And it looks like they just might have to launch a new working group to consider 'H.265' – a name used to describe the High Efficiency Video Coding standard that is expected to deliver the next generation of HD displays.

INTEROPERABLE MASTER FORMAT

The migration to file-based workflow will be greatly facilitated by the codification of the Interoperable Master Format (IMF), which is moving towards completion later in 2012 via a working group of the Society of Motion Picture and Television Engineers (SMPTE) chaired by Annie Chang, the vice president of post-production technology at Walt Disney Studios. IMF is designed to be a file-based architecture that will create file-based packages for many video distribution channels.

Originating in the University of Southern California's Entertainment Technology Center (ETC), IMF was the subject of an initial paper, *IMF Specification v1.0*, published by ETC in February 2011. In March 2011, Chang was named chair of the SMPTE 35PM Working Group for IMF to turn *IMF Specification v1.0* into a formal standard. By enabling the greater interoperability of file components, says Chang, IMF helps to reduce the number of file formats needed in the content delivery supply chain.

Interoperability, says Chang, is achieved through "constrained standards" and the reuse of existing standards where possible. IMF is "a framework for file-based assets (image, audio and subtitles)", she states. IMF is designed for business-to-business, and is not meant for archiving as it does not address issues such as file preservation. Under the concept of IMF, components – such as essence (image and audio), data essence (subtitles and captioning), and dynamic metadata (e.g. Pan and Scan) – are wrapped into Track Files, says Chang.

IMF stores the differences between versions rather than flattened linear versions, and allows for flexible versioning. For example, under IMF,



Definition of terms

HIGH-EFFICIENCY AUDIO CODE

To reduce storage requirements without a loss of audio quality, the APEX High Definition Specification now codifies HE-AAC at 64 and 128Kbps in single channel or joint stereo alongside LC-AAC and MP3.

MPEG-DASH

The MPEG-DASH standard – ISO/IEC 23009-1 – was ratified by the Moving Picture Experts Group in December 2011. But as observers wait to see which companies implement it, it is expected that there may be tweaks in the wording and further testing regarding its interoperability potential. “Standards are great,” says Christopher Levy of BuyDRM, “but the market is going to define where we are all ‘going’ in the future.”

VBR VS CBR

A major change in the HD specification just approved by APEX is the codification of a variable bit rate (VBR) alongside the constant bit rate (CBR). In previous APEX/WAEA standards, CBR was used so that potential spikes in throughput would not overpower the onboard delivery network. However, advances in IFE systems have resulted in many newer systems having the capability to manage those spikes. The HDWG found that VBR files actually require less storage space than CBR files as the number of scenes requiring bit rates lower than the fixed CBR rate exceed the number of scenes requiring a higher bit rate on the typical IFE movie.

it is possible to keep one image master for all Pan and Scan aspect ratio formats, which can be accurately reproduced with dynamic metadata.

IMF is not a mastering format. “It is a means of ensuring interoperability among masters and to be used as a source for downstream distributions,” says Chang.

The core framework of IMF comprises playlists, wrapping, and general image, audio and subtitling parameters, which will support modular applications to be ‘plugged in’ to this framework. This will allow for specific functionality such as higher compressed CODECs, specific resolutions or frame rates, and allows for different problems to be solved, says Chang. Interoperability is supported within an application, but not necessarily between applications, she explains.

IMF is loosely based on the SMPTE standards for digital cinema packages,

66

IMF STORES THE DIFFERENCES BETWEEN VERSIONS RATHER THAN FLATTENED LINEAR VERSIONS, AND ALLOWS FOR FLEXIBLE VERSIONING

99



ILLUSTRATION BY WWW.CHENTDESIGN.COM

which contain an MFX-wrapped JPEG2000 video, uncompressed audio, subtitles and captions. The concept of composition playlists to create a particular version at playout – for example, English audio or French subtitles – also comes out of digital cinema and eliminates the need for storage of multiple complete versions of a movie.

The addition of a few other files (e.g. Output Profile List, Asset Map, Packing List) creates an IMF package, according to Chang. This package can be sent to downstream vendors and distribution companies, and then used in its existing form, or transcoded to other formats.

Chang has participated on an advisory panel to the DCMWG and has spoken at numerous APEX TC meetings to help the IFE industry leverage the benefits of IMF and to participate in its ecosystem. She is expected to provide an update on IMF at the November 2012 APEX TC meeting in Southern California.

ADAPTIVE STREAMING The emergence of wireless IFE systems has introduced a number of new technologies into the supply chain to enable the interoperability of consumer devices with airline-provided head-end systems. Since 1993, traditional purpose-built IFE systems have followed an approach whereby APEX codified the digital delivery standards to which traditional IFE systems are typically built.

But when wireless IFE systems stream content to passenger-owned devices, this approach no longer works. Rather than designing the system to the requirements of the digital file, the

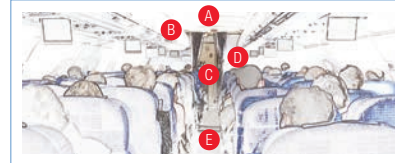
CAN YOU FIND VT MILTOPE IN THIS PICTURE?



[Scalable — Upgradable — Interchangeable]

You'd never know we were there, yet we're ubiquitous. Our end to end cabin network components and systems serve passengers, flight and maintenance crews worldwide with thousands of certified units flying on all major airframe types. Our open architect design utilizes a building block approach to give you an industry based solution for whatever you bring on board for years to come.

www.miltope.com • 1.800.645.8673 (1800MILTOPE)



- A Multi-Function Access Point (above ceiling)
- B Telephony Server (in overhead compartment)
- C n Printer (on flight deck)
- D Network Control Panel (in galley)
- E Network Server, Ethernet Switch and Application Server (in electronics bay)



A company of VT Systems

BECOME ONE WITH YOUR INDUSTRY JOIN APEX

WHO ARE WE?

A network of the world's leading airlines, suppliers and related companies committed to elevating the level of the passenger experience. APEX membership offers you a wide range of opportunities to excel in your industry. APEX will keep you current with the latest industry news, trends and developments and allow you to foster relationships with clients and colleagues from around the world.



WHAT ARE THE BENEFITS OF MEMBERSHIP?

- APEX EXPO
- TV Market Conference
- Educational Workshops
- Technology Committee Meetings

STAY IN TOUCH WITH APEX MEDIA

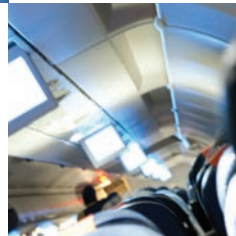
- AIRLINE PASSENGER EXPERIENCE magazine
- APEXnews Daily
- APEXnews Digest
- Access to apex.aero members-only section



WHO ARE YOU JOINING?

AIRLINE MEMBERS Including small and large passenger carriers worldwide. Over 100 airlines are members of APEX.

VENDOR MEMBERS Members from all aspects of the airline passenger experience including: aircraft manufacturers, motion picture/short subject producers and distributors, record companies, broadcast networks, telecommunications/satellite companies, inflight magazine publishers, content service providers, audio/video equipment manufacturers, software suppliers, programmers, advertising agencies, cabin amenity suppliers, caterers, seat suppliers, and many others.



Membership is just a few clicks away at apex.aero

For more information, contact APEX at +1.212.297.2177 or info@apex.aero.
APEX 355 Lexington Ave, 15th Floor, New York, New York 10017 USA

FOLLOW US ON:  @theAPEXassoc

 facebook.com/apex.aero



digital file must now be repurposed to the requirements of the client-side playback device. This process involves the identification of the most popular consumer devices – such as laptops, tablets and smartphones – and optimising a range of streams that deliver content to them.

Because the stream is adapted to the device, the term that is applied is referred to generically as 'adaptive streaming'. Among of the really key characteristics of adaptive streaming is that it is unicast versus multicast – meaning that it is an on-demand service that provides a separate stream to each client-side device. 'Multicast' refers to sending the same stream to all devices simultaneously, as in a linear broadcast environment.

In adaptive streaming, the head-end fileserver and client-side device exchange data that tells the server

MEZZANINE FILES

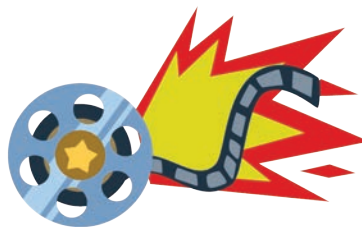
A 'mezzanine' file is a middle-resolution working copy of the video asset, which is of adequate quality to generate the maximum level output required, yet small enough to work with efficiently. A rule of thumb is that the parameters of the mezzanine should be at least as high as the maximum current output requirement, and ideally as high as the maximum anticipated future requirement.

Although many different sources may be used as a mezzanine, the ideal sources are component sources rather than composite sources so as to permit the selective integration of components into customised versions.

An example of a mezzanine in IFE might be a file with an MPEG-2 wrapper, 50Mbps video, MPEG-1 Layer 2 audio, and a 1920x1080 file size.



66



MOST OBSERVERS BELIEVE THAT IT'S NOT
A MATTER OF 'IF' BUT 'WHEN' APPLE
COMES ON BOARD 99

software the capabilities of the device as to playback and display. This enables the software to choose from among a number of different file versions of each unit of content, selecting the one with the characteristics that are nearest to the optimal for that device and network load.

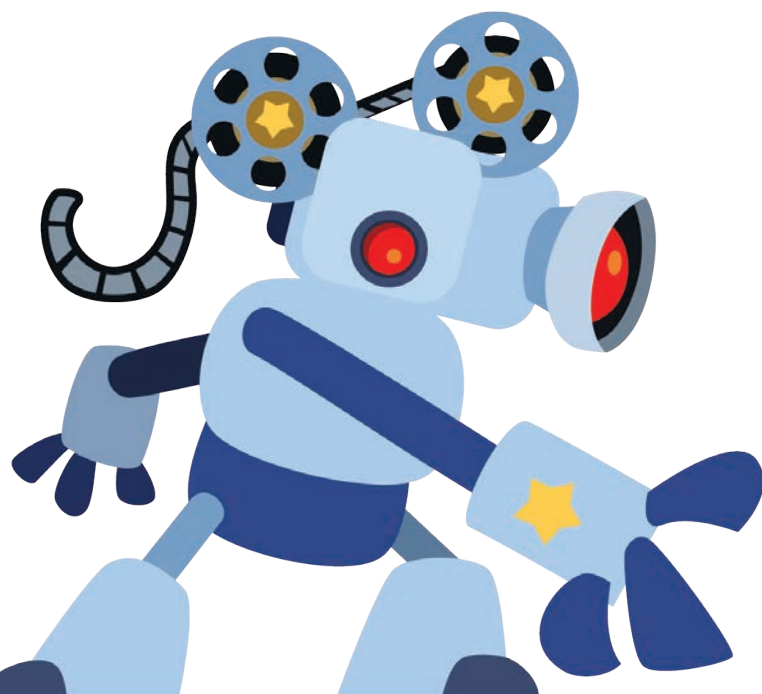
DYNAMIC ADAPTIVE STREAMING The next generation of adaptive streaming is called 'dynamic adaptive streaming', which is exemplified by MPEG-DASH – a developing ISO Standard. DASH establishes an adaptive streaming over HTTP standard that would potentially replace proprietary adaptive streaming technologies such as Microsoft's Smooth Streaming, Adobe's Dynamic Streaming, and Apple's HTTP Live Streaming.

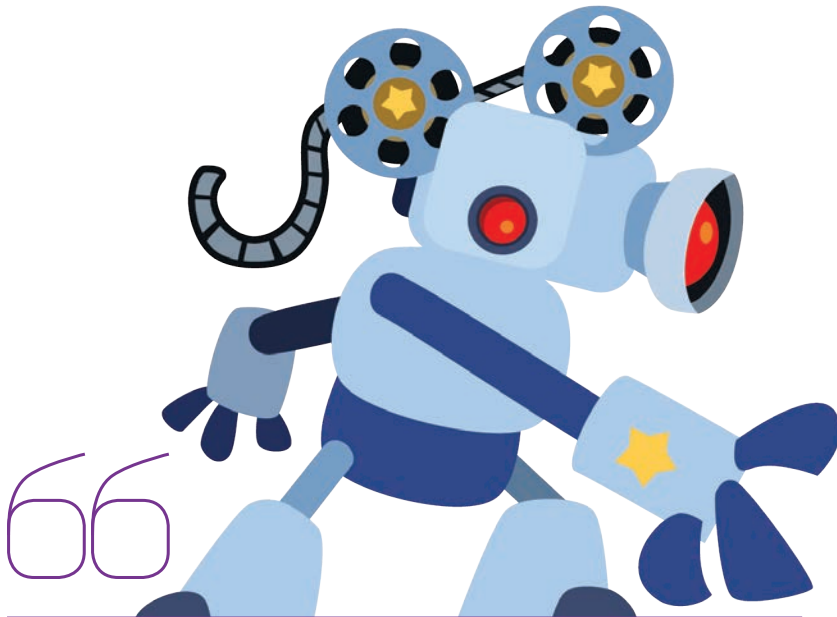
Among the issues slowing full implementation is that MPEG-DASH is codec agnostic – it can be implemented in either H.264 or in WebM. Apple and

Adobe originally withheld support for MPEG-DASH in the hope of codifying a royalty-free codec – an objective that seems unlikely to be realised – but Adobe announced in February that it was on board with DASH. In April, Microsoft announced that it will add DASH support to all of its client development kits that currently support Smooth Streaming, and will continue to provide full support for Smooth Streaming.

Most observers believe that it's not a matter of 'if' but 'when' Apple comes on board.

COMMON FILE FORMAT Another broad entertainment industry initiative involves the Common File Format (CFF) adopted by the Digital Entertainment Content Ecosystem (DECE) to underpin its UltraViolet consumer offering. UltraViolet is the new consumer value proposition that enables consumers to establish an





ULTRAVIOLET RESPONDS TO DEMANDS FOR CROSS-PLATFORM RIGHTS AND IS INTENDED TO REINVIGORATE HOME VIDEO 99

UltraViolet account, register multiple devices on the account (set-top box, laptop, smartphone, tablet, etc), share the account with other family members, and access purchased content from the registered devices or from the Cloud. UltraViolet responds to consumers' demands for cross-platform rights and is intended to reinvigorate the home video market.

To support UltraViolet and its multiple-device ecosystem, DECE has established the CFF, which is a video specification used for content download. It specifies video files based on fragmented ISO Base Media files

(i.e. MPEG-4 Part 12), using Common Encryption (five DRMs) containing AVC video, AAC audio, SMPTE Timed Text and Graphics subtitles, metadata, and several optional audio formats.

All of the parameters required for interoperability across the consumer's range of devices are adequately specified so that independently implemented encoders, publishers, delivery services and devices can reliably interchange and play back the same file. 'Media profiles' are used to distinguish between high definition, standard definition, and portable definition device capability.



About the author

Michael Childers is a long-time industry content management consultant and independent journalist. He was a co-founder of the original WAEA Digital Media Delivery Technical Committee that drafted the first IFE digital delivery standard in March 1995 and has chaired the APEX Digital Content Management Working Group since 2001. He is a member of the APEX TC Leadership Team.

H.265

In June, patent royalty administrator MPEG LA, LLC, announced a call for patents essential to the High Efficiency Video Coding (HEVC) standard (currently HEVC Draft 7). Also known as H.265 and MPEG-H Part 2, HEVC is intended to improve video coding efficiency for the benefit of mobile service providers and consumers, as well as to deliver next-generation, higher-resolution HDTV video displays for 4K and 8K Ultra High Definition TV.

COMMON FILE FORMAT

Common File Format (CFF) is a product of the Digital Entertainment Content Ecosystem (DECE), created to codify a set of standards that could deliver premium content (read 'movies') on both physical media and digital downloads. CFF supports the UltraViolet value proposition that enables an owner of UltraViolet rights to register up to 12 devices on which to view the movie or other content being purchased.



FORENSIC WATERMARKING If APEX's HD spec was lacking in any respect, it would be in the failure of the document to codify a security standard suitable for HD delivery. Although the new specification sets standards for encoding, it leaves it to each hardware platform provider to offer a security solution to every content provider – or at least to every one of the six major studios.

While APEX's DCMWG considers whether or not to initiate standards activity for IFE content security, new security solutions are entering the marketplace. One that was presented at the APEX TC meeting is called ContentArmor – a security solution from Technicolor that combines encryption with forensic watermarking.

Eric Diehl, vice president of security and content protection labs at Technicolor, described a process that potentially enables watermarking to not only the airline level, but also flight number level.

As high definition is implemented in IFE, new security technologies will always be an important part of the conversation. ■

Prepare for the future

INFLIGHT PERIPHERALS
IFPL

Near Field Communication:

- Quick & easy payment systems
- Link to loyalty programs
- Personalise travel experience



Generate Ancillary Revenue:

- Replace seat mounted magnetic swipe
- Enables e-voucher/mobile coupons through destination advertising

Self-Testing Jack - Rapid Fit:

- Indicator gives quick and easy system check
- Replace jack in 20 seconds!
- Every jack can be checked with just a glance



ADVANCED
INFORMATION

APEX 2012
See us at Booth 1167

...ALL PART OF THE PASSENGER EXPERIENCE

IFPL holds EASA approval 21G and supplies PMA parts through its distributors in the Americas



Tel +44 (0)1983 555900
enquiries@ifpl.com

PASSENGER ENTERTAINMENT TECHNOLOGY AND PRODUCTS

www.ifpl.com

FREE ONLINE SUBSCRIPTION AND READER ENQUIRY SERVICE



Request more details about advertisers in this issue of Aircraft Interiors International online at:

www.ukipme.com/recard/aircard.html



MOVIES

BACK HOME

ACTION

DRAMA

COMEDY

HORROR

FOREIGN



The Matrix



Troy



Hero



Kill Bill



Sin City



The Aviator

THALES

विमान के चमके उड़ान
हैबरेट को अपने फि
Stow and Lat
Taxi, Take off

vividdetail

HD is a hot topic, but the picture is unclear when it comes to the adoption of standards and the passenger benefits. It's time to sharpen the focus

ADAM WILLIAMS, AIRLINE ENTERTAINMENT INTERNATIONAL



Lately, there has been more and more mention, especially around trade show time, of high definition (HD) content on IFE systems. The consumer electronics market is pushing better quality screens on devices of nearly every size – but jumping on a trend just because it's in the headlines doesn't always prove to be a sound business practice.

As airlines decide whether to invest in HD systems and content, several issues must be considered, such as distance from passenger to screen, encoding standards and prices, and ultimately whether or not HD is good for the airline's brand or bottom line.

EYE SPY In order to properly address whether or not the human eye will detect the difference between an HD and a standard definition viewing experience, inflight service managers need to examine the relationship that exists between screen size, resolution and viewing distance. What many people may not realise is that the higher the resolution, the closer the viewer must sit to the screen in order to enjoy the full benefit.

For most seatback IFE systems, the distance from eye to screen does

indeed make HD content detectable. However, consider the distance from eye to screen for passengers viewing bulkhead and overhead systems. Seats may not be close enough to actually discern the difference and enjoy the full effect of an HD viewing experience.

THE GOING RATE Much like the quality of an image is expressed by resolution, the quality of an audio or video file is measured by the bit rate. In simple terms, the bit rate describes how much information is being transferred at a given moment. The higher or more dynamic the rate, the more information and therefore quality can be transferred.

Encoders, and also consequently airlines, use both constant and variable bit rates. As the name would suggest, constant bit rates remain the same throughout a movie. However, some scenes within a movie may be quite intense and would benefit from a higher rate. As an illustration, consider the recent blockbuster *The Dark Knight Rises*. A variable rate enables encoders to optimise the passenger experience by switching from a low rate during scenes without much movement on the screen, to a higher rate during action sequences.

01. The Thales TopSeries family now includes HD screens. Economy passengers certainly sit close enough to discern the benefit



CREATING GUIDELINES Although it may at times seem to be a dry topic, resolutions and bit rates truly determine quality. With that end in mind, the Airline Passenger Experience Association, better known as APEX, organised a working group to analyse HD standards as part of its technical committee. Approved in May of this year, the updated document, *Specification 0403: Digital Content Delivery Methodology for Airline In-flight Entertainment Systems*, outlines “the development and publication of an open, voluntary technical specification that encourages a common digital content delivery methodology”.

One of the main points addressed in the specification is bit rate options. For example, standard definition video is encoded in a range from 1.5MB/sec to 2.0MB/sec. However, the document suggests using a range from 4.0MB/sec to 8.0MB/sec for HD video.

The purpose of standardisation is to reduce the number of encodes required by each IFE manufacturer, and consequently, the cost of the encode. Joan Filippini of Paramount Studios says, “HD is an expensive proposition for airlines. They would need to install updated IFE systems that accommodate it. The truth is, however, unless the screen size is large enough, the average person will not be able to tell the difference. I do think it imperative that F/J classes, given the size of the screens, should be using HD files. As a studio, we prefer the quality



of HD, as directors and talent are very sensitive to how the movie looks.”

Filippini confirms that only one airline has flown HD content from Paramount, but discontinued the service as “the added expense of the HD file made it prohibitive for the airline”. Filippini also mentions that 720p, rather than 1080p, is generally sufficient for inflight use considering the relatively small size of most screens.

As stated in the specification itself, the document is a suggested guideline – and therein lies part of the challenge. Despite recent approval, the guidelines have yet to see widespread adoption. Speaking with IFE manufacturers and encoding labs, it seems the guideline is at times ignored.

HD IN PRACTICE IFE provider Lumexis touts the HD capability of its FTTS system. Chief technical officer Rich Salter, who says that Lumexis does indeed

consult the APEX specification, explains the several components important to an HD experience: “A ‘true HD experience’ is dependent on several components, including the video signal encoding, server storage and streaming capacity, network bandwidth and screen resolution. All these elements must be sufficiently robust to maintain the integrity of the high-quality HD signal – it’s not enough to simply transmit a 720p signal if the basic encoding rate is too low or if the network bandwidth or display resolution is not sufficiently robust to reproduce the HD quality.”

Salter is also a member of the APEX Technical Committee leadership. In reference to the APEX specification, Salter offers, “An HD standard is important to get the economies of scale by re-using the content rather than having to re-encode for each unique IFE system. However, the standards are not as long-lived as they used to be due to the ever-increasing rate of technology advance. For example, see Westinghouse’s 4K TV and the MPEG LA’s (patent licensing authority) call for Ultra HD patents – it all means that 720p and 1080p standards will not be the latest and greatest for very long!”

This 4K resolution, which is 4,000 pixels-wide by 2,000 pixels-high, has largely been reserved for in-cinema use, although video sharing site YouTube has begun to allow uploading and streaming 4K resolution videos.

- 02. Systems such as the TopSeries Avant also feature content storage in the seat to help protect against dark seats
- 03. The IMS Company’s RAVE system offers HD at a claimed half the cost of traditional IFE
- 04. Passengers can watch HD content on the screen while using other IFE functions on a handheld unit





05

66

AN HD STANDARD IS IMPORTANT TO GET THE ECONOMIES OF SCALE BY RE-USING THE CONTENT RATHER THAN HAVING TO RE-ENCODE FOR EACH UNIQUE IFE SYSTEM

99

05. Virgin America's RED IFE system combines HD content with web capability

CRITICAL ACCLAIM In 2010, airline flydubai launched the Lumexis FTTS system as its first user and currently has the system installed on 17 aircraft, representing 75% of its fleet. Dan Kerrison, inflight product development and customer experience manager at flydubai, comments, "We have seen a tremendous difference between HD and standard content. You can really tell when a movie is HD as the colours are more vivid and the picture quality better. One reason we chose the Lumexis system was for the unparalleled capability to stream HD content and the benefits of this are clear to see." Kerrison reports that 75% of passengers rate the picture and sound quality as being "good" or "very good".

Kerrison also adds, "Through the availability of HD on home TV sets, cinema, computers and mobile phones,

customers have high expectations, and with the Lumexis system, we have brought IFE up to the same standard."

As mentioned, HD continues to permeate consumer electronics. Most notable in recent news was Apple's inclusion of an HD screen in its third-generation iPad. Branded as 'resolutionary', the new iPad raises consumers' expectations.

When asked whether or not HD content would have an impact on the passenger experience, Darren Booth, who freelances for CNBC.com as their 'Road Warrior' editor and reports on airline and travel industry news at FrequentlyFlying.com, states, "It would certainly be an upgrade, although I think other current enhancements (for example, streaming to passenger devices) are a higher

priority." Booth is also of the opinion that HD content would "absolutely not" influence his airline preference, but rather would be a "nice bonus".

RESOLUTION? Without question, HD content provides a superior experience. However, common encodes, costs and system bandwidth and capabilities challenge the proliferation of HD content. And with few suppliers offering HD, higher resolutions, such as 4K, may not become available for quite some time. APEX is attempting to address certain questions through written specifications which could potentially reduce costs and speed adoption through the creation of single encodes. However, the fragmented IFE market doesn't always fly as a flock of birds – in one direction. ■



Finding an IFE solution that meets airlines' missions is a major challenge

missionpossible



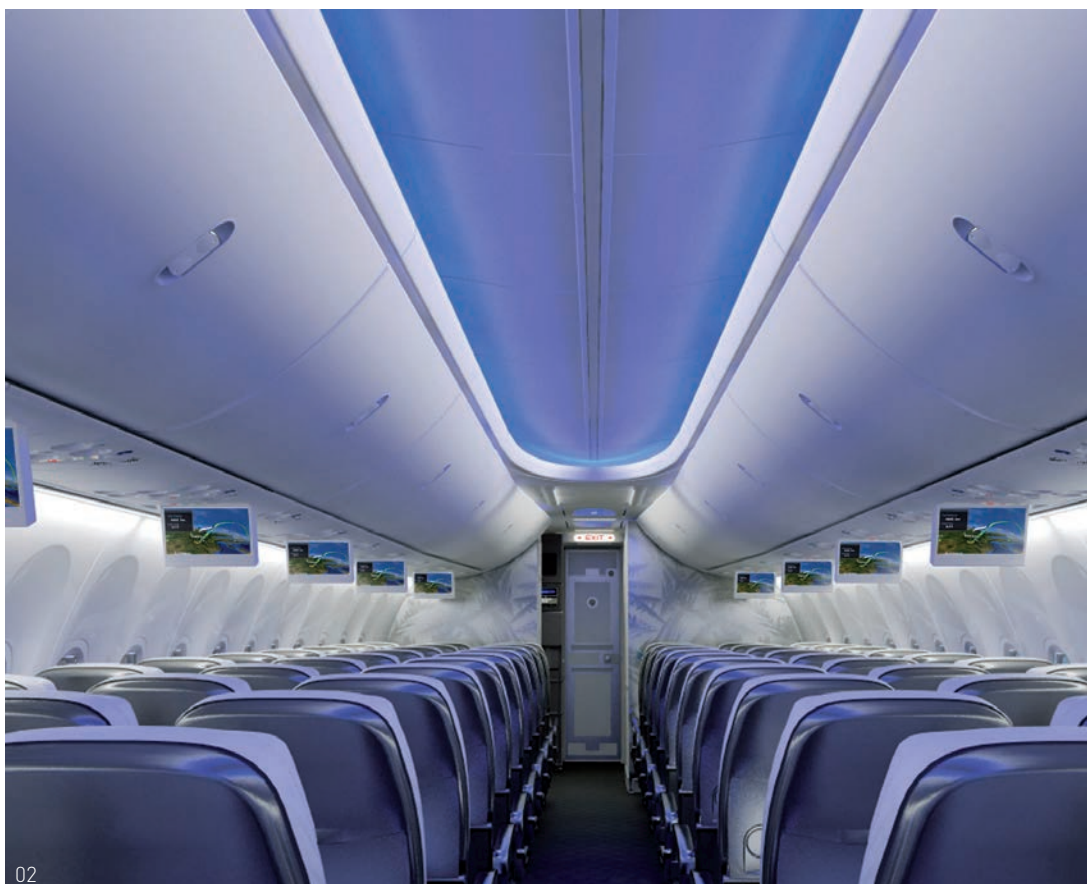
Airlines now have more options than ever for providing entertainment and information solutions. About 40% of single-aisle aircraft have some form of IFE, and now with wireless IFE capability, the doors are opening for the remaining 60% that do not. With wireless IFE, airlines can benefit from cost and weight savings by piggybacking on passengers' personal entertainment devices (PEDs) as a way to display entertainment or information. The question that remains is whether this is the optimum experience in all, or only some, environments? And with a relatively low barrier to entry in terms of initial outlay, will the likelihood of low-fare carriers using wireless IFE for PEDs drive up passengers' expectations of the IFE service in legacy or luxury airlines?

DEVICE CHALLENGES

Despite the tablet's growing popularity, research indicates that the majority of PEDs are smartphones; further, trend analysis shows that tablets are likely to reduce in size. Based on that, airlines relying on wireless

IFE for PEDs might find themselves providing their passengers with a relatively limited viewing experience. Can passengers be confident that their device – Android, Apple, Windows, etc – will satisfactorily access all content offered? Are airlines prepared to have cabin crews handle what may be a slew of IT-oriented queries? Will a lack of early Hollywood movie releases impact passenger satisfaction, or open the way to different types of content and applications that are typically less security-sensitive? And should all these challenges be overcome, will the bandwidth be sufficient to meet demand?

Even the distribution of airline-owned devices (AODs), some of which are studio-approved and capable of receiving early Windows Hollywood content, cannot resolve all the issues related to what is essentially still a handheld device: the ergonomics of comfortably enjoying media through a small handheld device is a considerable challenge – how to balance a drink, some food, and a PED in a limited space? This may work fine



for a one-hour flight, but what about a two- or three-hour flight? And of course managing inventory, and minimising the risk of theft or breakage, also requires considerable logistics.

Ultimately, would airlines prefer to provide their passengers with a large, high-definition overhead or in-seat monitors that are more reliable and less intrusive – both in terms of passenger space and demands on cabin crew – but that require a greater upfront investment? Perhaps a combination of all these options can meet the various needs of the economy-, premium- and business-class travellers, while achieving the airline's objectives of balancing investment with passenger satisfaction in an increasingly competitive environment.

MISSION STATEMENTS

"When going through the process of selecting IFE, it may be helpful for airlines to revert to their mission statements if they find themselves stuck while trying to choose

a solution," says Duc Huy Tran, director of cabin systems marketing for IFE maker Rockwell Collins: "They should ask themselves 'What is the purpose of our business?', 'How will this solution help us differentiate our offering from that of our competitors?' and 'How can IFE help our business grow?'"

Tran says answering these questions has become increasingly challenging, given the speed at which consumer technologies are introduced, and the rate at which the world's economies ebb and flow, requiring an ability to anticipate change and adapt to new strategies within much shorter timeframes than in previous decades.

PAVES 3

Rockwell Collins believes it has a portfolio of IFE solutions that can address the needs of any airline, and also assist the airline in 'future-proofing' itself to consistently provide a competitive offering, regardless of changes in the environment that will be inevitable over the life of the aircraft.

- 01. PAVES 3 IFE offers maximum versatility with full in-seat video and the ability to leverage PEDs
- 02. The second-generation dPAVES system
- 03. Blue Marble data on Airshow



03. The company has an entire team keeping track of consumer technology



"We unveiled our PAVES 3 IFE solution last year and touted it as offering maximum reliability, which holds true, but we also spread the word about its unprecedented versatility, whether installing full in-seat video, a hybrid of in-seat and overhead, or complementing any of these scenarios with the ability to leverage personal devices," Tran adds. "We feel that each airline is unique and work with customers to find a solution that makes the most sense for their mission."

"That's the beauty of PAVES 3's versatility – airlines can choose IFE configurations that meet their needs now, and know they are on a unique path for future upgrades and additions," Tran continues.

The PAVES 3 system builds upon Rockwell Collins' PAVES portfolio, which is installed on more than 2,000 aircraft, and provides dramatic reductions in size, weight and power consumption compared with server-centric architectures. The system is available as a forward-fit option or can be installed as an upgrade to existing PAVES 2 systems to bring in-seat capabilities to those aircraft.

Each in-seat unit has embedded storage so that there is no dependency on a head-end server: if one unit malfunctions, then a flight attendant uses a quick-release mechanism to instantly replace the unit with another. Additionally, the system's capacitive touch-

screen solution enables passengers to enjoy their own content on the media player unit's HD screen by connecting their PEDs to the seatback or in-arm unit. The HD on-demand, in-seat solution maximises passenger and operator satisfaction with a range of features powered by a robust operating system.

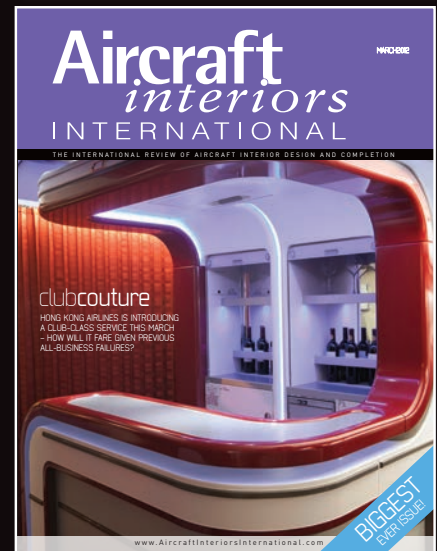
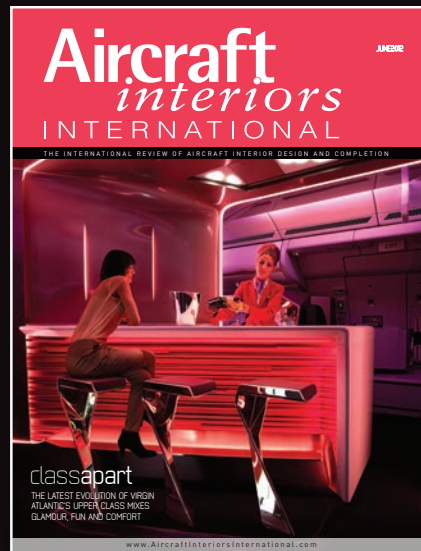
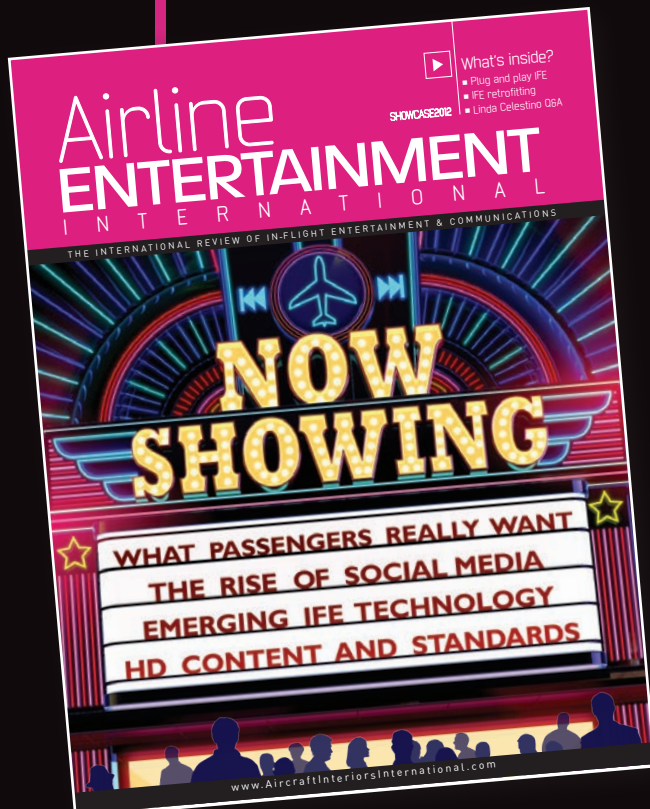
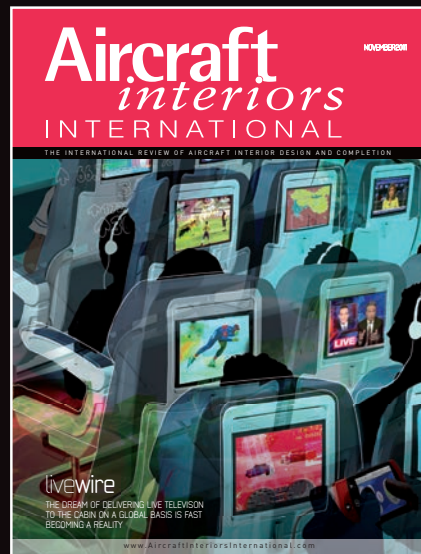
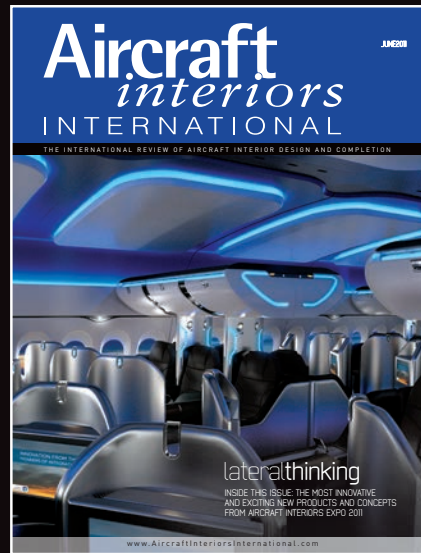
Tran says the company has not ruled out leveraging PAVES 3 technology going forward with a fully-fledged wireless IFE system, and is currently working with one airline group to develop WiFi-enabled applications. Tran recognises the impact that wireless will have, especially with low-fare carriers, and those airlines wanting to expand on the available touch points to reach customers throughout their journey.

"Wireless has a place in the airline IFE world," asserts Tran. "We envision many different IFE combinations for airlines – such as both wired and wireless solutions on the same aircraft for different sections."

Tran goes on to say that wireless can serve as an interim solution for airlines desiring a quick and easy upgrade for legacy aircraft without having to perform an entire interior upgrade.

"This is definitely an exciting time for airlines," he concludes. "They have an unprecedented opportunity to tailor the cabin to meet each flight's passenger needs." ■

Rockwell Collins
+1 319 295 4085
csmarketing@rockwellcollins.com
www.rockwellcollins.com
Reader Enquiry No. 501



www.aircraftinteriorsinternational.com

The Aircraft Interiors International website hosts a digital version of both this Airline Entertainment International supplement and the latest version of the Aircraft Interiors International magazine – plus a digital archive of past issues of both titles - and all the latest news, videos and exclusives you need to stay informed. You can also register to receive future issues and learn more about our advertisers via our online reader enquiry service.

Goodrich is positioning itself as a major player in the IFE retrofit market



backtothefuture

▶ Obsolescence in IFE systems is becoming an increasing concern among airlines of all sizes. Airlines are finding that replacement equipment for early IFE systems is becoming increasingly difficult to find, if it even exists, and also that maintenance can be costly and time-consuming. For example, many OEMs of Hi-8mm video reproducers have now left the market, making finding replacement parts for these systems nearly impossible.

DIGITAL SYSTEMS

As airlines explore different options to upgrade analogue video recorders and bring digital entertainment to passengers, they discover there are many options available, one of which is to replace outdated systems with new digital systems.

Although this option may give airlines a competitive edge in creating the ultimate passenger experience, it comes at a cost. Rewiring the cockpit, flight attendant gallery and passenger cabin to replace IFE systems in a fleet can be costly, demands lengthy installation time, and requires comprehensive employee training.

Another option is to replace and update portions of existing IFE systems – an area of the market that the Goodrich Corporation specialises in.

“This option allows airlines to use existing equipment and still provide a digital IFE experience to passengers,” says Dan Vargas, IFE business development manager at Goodrich Sensors and Integrated Systems. “It is generally less expensive and requires less installation time and employee training.”

Goodrich Corporation has been developing, qualifying and manufacturing airborne system components for commercial aircraft for more than 20 years. Rather than rely on products developed by third parties, Goodrich designs, manufactures and supports its own IFE products, such as Hi-8mm video and CD technology.

COMPLEMENTARY TECHNOLOGIES

In 2008, Goodrich Corporation, a global aerospace supplier for commercial and military markets with a strong portfolio of interior products, including lighting, seats and a variety of electronic flight deck systems, acquired TEAC Aerospace

ife@goodrich.com
www.goodrich.com
Reader Enquiry No. 502



- 01. Audio and video servers
- 02. A solid-state digital audio reproducer
- 03. HD digital video reproducer

Technologies. Goodrich determined that TEAC's electronic technologies, in both commercial aircraft IFE and military mission data systems, would complement Goodrich's breadth of interior products and systems.

The acquisition of TEAC's IFE products and expertise in avionics-grade electronic systems has proven complimentary to a variety of other Goodrich interior electronic systems such as electronic flight bags (EFBs), video surveillance systems, and external video monitoring systems.

The Goodrich cockpit data management system portfolio, which includes EFBs, provides a paperless cockpit solution with software integration, data management, design and certification.

The solution is designed to enable flight crews, maintenance personnel and flight operations groups to perform critical ground and inflight data management tasks electronically, quickly and efficiently. The Goodrich EFB is part of the FAA's NextGen air transportation system's operational trials, and its video surveillance systems are continuously being selected by airlines for both new and existing fleets.

"The synergies between Goodrich interior electronic systems and TEAC IFE technology will help strengthen the already-proven TEAC brand," says Vargas. In addition, with 24,000 employees across 17 countries worldwide, a solid network of support, and 140 years of experience in the aerospace industry, Goodrich has the capabilities and resources to advance TEAC's IFE technology and provide comprehensive customer support around the world.

"As the IFE industry continues to evolve, Goodrich is ready to meet the new demands of the commercial airlines," states Vargas.

MARKET POSITIONING

Goodrich is positioning itself in the retrofit market, with a full line of digital audio and video reproducers. "These are easy to install and offer a reliable, low-cost solution to airlines around the world," says Vargas. All of the video and audio components and systems are designed, manufactured and tested by Goodrich from the ground up. Goodrich also guarantees full configuration control, immediate spaces and availability, as well as local technical and logistical support. ■



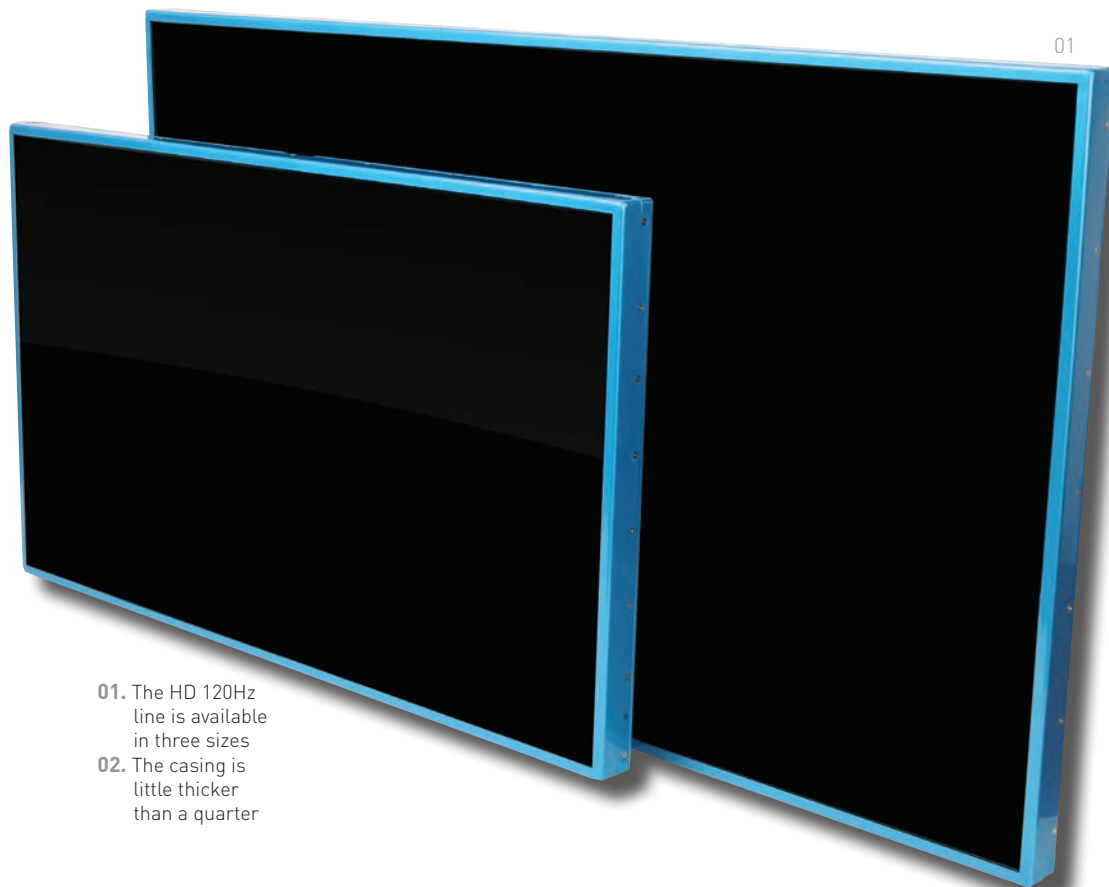
02



03


From design to supply, from power supplies to LED monitors, Imagik has broad experience in the IFE sector

Claudio Ovide
+1 305 529 4545
info@imagikcorp.com
www.imagikcorp.com
Reader Enquiry No. 503



- 01. The HD 120Hz line is available in three sizes
- 02. The casing is little thicker than a quarter

imageconscious

 In the latest move to expand on its new HD 120Hz line, Imagik is now adding a 17in LED monitor, as well as 24in and 27in models – these last two are ready for 28V DC and 115V AC installations.


Imagik can carry out the complete design and production of both power supplies and controller boards, as well as all mechanical parts, to ensure the most efficient possible outcome, as well as a product designed from the outset for the aerospace industry.



With more than 15 years' experience in the airline IFE business, Imagik is a leading supplier of flat-panel monitors, with products flying on board many of the world's most prestigious airlines.

The company's technologically advanced monitors, proven track record and ability to work with customers have enabled it to win a number of significant orders for retrofit or replacement monitors.

Imagik holds a number of supplemental type certificates (STCs) and parts manufacturer approval (PMA) products for the installation of its 17in, 32in and 37in monitors on Boeing 757s and 767s. The company has recently been given PMA on its 15in monitor installed on 747 and 777 aircraft, and is currently working on an FAA-STC for projector replacements on board 747s.

Imagik holds both FAA 145 and EASA 145 repair station approvals. The company strives to produce the best monitors at reasonable prices, without compromising on quality and reliability. 

We Improve Reality less power, less weight...

Further lowering weight, power consumption and slightly over one inch in thickness, these monitors will bring the latest available viewing experience into the aircraft.



HD-120



IMAGIK
The Airline Monitor Company

www.imagikcorp.com

Airline Services
has developed
a new generation
of plug-and-play
IFE technology



01

plugandplay

01. AeroScreens are suitable for bulkhead, overhead and centre-aisle positions

With more than 25 years' experience in servicing aircraft interiors, UK-based Airline Services Limited (ASL) is bringing its strong values of reliability, customer service and value for money to the IFE sector, with a range of innovative products aimed at the cost-conscious retrofit market.

The AeroStream XP1 has been specifically developed with space, weight, cost and energy-saving in mind. It offers the speed, clarity and flexibility of a digital delivery system, with improved reliability and support at a highly competitive price, while delivering a superior performance.

AeroStream XP1 is a solid-state digital plug-and-play device that directly replaces tape and DVD players in legacy IFE systems. The XP1 has a 160GB to a maximum of 250GB solid-state hard drive that can carry 40-60 high-definition videos, depending on the size of the video file and the available hard drive space. Content loading time for current XP1 units is 24 videos (4GB/video) = 96GB = 1 hour 34 minutes (1 video = 3.92 minutes). Each XP1 has a composite video output which is capable of delivering 720i HD-quality video content.

In addition to the AeroStream XP1, the ASL 175 AeroScreen – a 17.5in HD-ready monitor – has also been designed and developed in-house by Airline Service's own engineering team. The AeroScreen is interchangeable between its bulkhead mounting and centre-aisle retract mechanism. It offers improved

reliability, reduced weight and lower energy consumption while delivering a screen image of excellent clarity and brightness.

ASL's director of engineering Simon Sixsmith says, "In recent years, we have developed new products tailored to the demands of modern airlines and passengers. Our highly skilled, specialist engineering team has taken the latest developments from the world of consumer electronics and adapted them to incorporate the specialist requirements of our industry, enabling us to offer simple, cost-effective solutions for in-flight entertainment.

"The experience we have built up by servicing existing IFE systems has been a valuable tool in building robustness, reliability and performance into our own systems," adds Sixsmith.

ASL performs aircraft interior-related engineering, design and workshop activities at its facilities, which hold EASA Part 145 approval for repair and overhaul of seats, galley and IFE equipment, along with EASA Part 21 J & G (Design & Manufacture).

ASL also has a soft furnishings division, which specialises in the design and manufacture of seat covers, curtains and related accessories in both high volume and smaller bespoke quantities. ASL is the UK's largest provider of aircraft presentation services (interior and exterior cleaning, carpet fitting, cabin presentation and laundry services, and de-icing), with facilities at the UK's 10 largest airports. ■

+44 (0) 161 495 6900
enquiries@
airline-services.com
www.airline-services.com
Reader Enquiry No. 504

The AeroStream XP1



'Plug and Play' Simplicity

Introducing the AeroStream XP1 from Airline Services. A solid state digital IFE player with 160GB hard disk capacity. Weighing under 4kgs, the AeroStream XP1 is reliable, cost-effective and easy to install.

Fully studio approved by major film houses for Early Windows content

For further information call +44 (0)161 495 6951
email sales@airline-services.com
or visit www.airline-services.com





Who needs a newspaper on board when you can have a Digiredoo?

paperview



Paper, the original IFE platform, still serves its purpose today. It is wireless, portable, multilingual, revenue-generating and content-rich. It integrates news and lifestyle, fun and games into a product passengers can carry away, blurring the lines between onboard and offboard media.

No certification issues, no system failures, no power source, no batteries required, paper media is perfectly suited to passenger needs, though the future may be paperless. The internet has taught us that, yes, media must adapt, and we love to interact with it, but ultimately we do still need a good read.

John Howe is MD of Dawson Media Direct, provider of written word media to airlines. "Publishers are redefining themselves for the digital age," explains Howe, "and airlines want new ways to cut costs, to engage with tech-savvy travellers and to win credentials as green corporate citizens. Both ends of our supply chain are ready for change."

Understanding that both ends also expect digital evolution, not revolution, Howe and his DMD team this year launched 'Digiredoo', a complementary service to help each of its 150-plus client airlines make the transition at a pace to suit them and their customers.

The phase now underway (initially in the business lounge of Eurostar) is a portal for lounge customers to download free premium

content to their own devices, via multilingual interfaces optimised for laptops, tablets and smartphones. The range of masthead titles is growing as more media owners see the value of such lounges as sampling environments. They reach a quality business audience in a window of downtime and relaxation, and offer the invitation to subscribe.

A challenge for DMD technology head Kevin Birchmore was devising a solution flexible enough to host many digital formats, from web app to PDF-type 'flat file' edition, and various device-specific interfaces, while keeping it all easy on the eye and easy to use.

The task only gets more complex when Digiredoo launches onboard. Reproducing the Digiredoo Online product inside the cabin, Birchmore reckons, is the easier part of the equation. "When the streaming technology is in place," he says, "we can deliver to carry-on devices in much the way we do online, without need for connectivity."

Birchmore acknowledges that collaboration is required with platform providers for Digiredoo Inseat to proliferate, but believes the prospect of a richly populated digital newsstand is an exciting enhancement for hardware suppliers, as well as for airlines. The first test of its appeal comes at the Apex Expo, when DMD launches the Digiredoo Inseat app for iPad solution Bluebox Ai. ■

Dawson Media Direct
www.dawsonmediadirect.com
Reader Enquiry No. 505



Good news travels fast (Good magazines too)

At least they should, in an age of ultrafast connection and even faster growing customer expectations. Digiredoo will help keep your passengers informed and absorbed throughout the airside experience.

From DMD, the world's leading supplier of newspapers and magazines to airlines, Digiredoo enhances your print proposition digitally, instantly and weightlessly. It complements our market-leading print service in an integrated multichannel solution leveraging our USP as a truly global media aggregator.

Our phased rollout covers three new products and one all-through airline media proposition:

Digiredoo Online is an exclusive internet portal with integrated eReader, now delivering digital media to laptops, tablets and smartphones in premium class lounges.

Digiredoo Inseat is developed to host a content-rich offering on any participating IFE platform, fitted or portable.

Digiredoo Direct is a cabin application designed to deliver eBooks to personal devices via installed wireless IFE servers.



Digiredoo offers a clean, cost-effective enhancement to any airline's service and delivers many valuable benefits:

- Lets all passengers access all titles
- Serves more languages, cultures and nationalities
- Saves cabin space, weight and fuel costs
- Helps meet environmental targets
- Migrates airline publications to paperless delivery

DMD has more airline clients and publisher relationships than any other CSP. With over 30 years in media fulfilment across the globe, we are uniquely able to deliver digital editions and newsstand apps to the airline industry worldwide. Our network covers Europe and the Middle East, Asia and the Americas, and our digital innovation to date embraces both content and platform solutions.

Join us at APEX Expo 2012 to discover how DMD and Digiredoo can help you deliver superior print and digital media products to your passengers around the world.



To view Digiredoo Online visit
digiredoo.net/demo

For more information contact
Kevin Birchmore: +44 (0) 7971 155164 /
Kevin.Birchmore@dawsonmd.com
or ask your **DMD country manager**

Join us at **APEX Expo 2012 / Stand 1257 /**
17-20 September / Long Beach CA





As general manager for inflight services at Oman Air and the incoming president of APEX, Linda Celestino is becoming a major name in the IFE industry

WHAT IS YOUR BACKGROUND AND HOW WILL YOU BENEFIT APEX IN YOUR NEW ROLE?

I am thrilled to have the opportunity to lead APEX during what is sure to be a year of continuing industry changes. After changing its name more than two years ago, APEX is currently in a unique position of strengthening its foundation to be more efficient and to adapt to the changing marketplace.

The activities of our members have evolved over the years, especially airline members, and they are now responsible for a wider range of activities than just entertainment. We see this as an opportunity to increase membership and to expand on our mission to improve the passenger experience. I intend to listen to member feedback while working with the APEX board of directors to recruit more industry colleagues and form strategies that will make our organisation even more relevant.

Within APEX, I have served as the organisation's vice president. I've been a member for years and recently became more involved with the group's marketing and communications committee as its chair. I hope that my experience will help APEX realise a goal of broadening its reach and increasing value for members.

WHAT DO YOU SEE AS THE MAIN ISSUES IN IFE TODAY?

The IFE industry now faces more change than it has in its entire history. How we respond to that change will be crucial in the coming years. Demographics are evolving, and our passengers are no longer content with a limited menu of music options or a single DVD playing for an entire cabin of people with different interests. They need to connect.

As an industry, it's our job to give them the resources and the opportunities to do that. Passengers also want options, so we promote an environment that gives passengers more control over their flight experience. APEX plays a critical role in facilitating this type of change by way of education and networking opportunities.

WHICH ONE THING COULD MOST BENEFIT THE PASSENGER EXPERIENCE TODAY?

Options. Passengers like to have control, and it's our responsibility to give it to them when we can. From an industry standpoint, this is not a new concept; we've long offered various radio and television options on certain flights, for example. Now we must adapt to new demands for connectivity and comfort. We must recognise that passengers bring many of their own devices on board (it's all part of the growing demand for control and choices), and we must be equipped to meet their individual needs.

WHAT WILL BE THE NEXT STEP IN IFE?

The next step in IFE will depend in part on evolving consumer preferences and in part on how the industry frames its own future. Through demonstrations and education, we can keep ahead of passenger expectations – whether that means HD video, gaming or wireless inflight internet. Our members can achieve this by working closely with one another to monitor trends and anticipate passenger interests. I hope that APEX can serve as a forum in which every aspect of passenger experience can be explored.

ARE YOU SEEING DIFFERENT IFE DEMANDS IN DIFFERENT MARKETS?

Passenger interests are beginning to converge, regardless of the market. What once was unique to one part of the world could be commonplace tomorrow. Consider Facebook and Twitter; less than a decade ago, they were emerging novelties largely confined to personal computers and laptops. Today, the world is saturated with social media accessible from mobile devices. In that respect, it is important to cater to different markets. It is also paramount to recognise when and where markets will overlap and become universal. APEX, in effect, acts as a marketplace for sharing ideas across a far-reaching industry.

WHAT ARE YOU MOST LOOKING FORWARD TO AT APEX EXPO IN SEPTEMBER?

The Expo gives us a chance to learn about novel approaches to enhancing the passenger experience from the groups that have tested them out. For that reason, I look forward to this year's educational opportunities. We have many sessions planned that will touch on topics such as connectivity, branding and social media. These topics are incredibly important right now, as they change so much from year to year – whether you're in the business of manufacturing seats that improve circulation or you're tasked with picking high-quality, affordable options for IFE.

Although the role of APEX is to facilitate innovation and communication year-round, the expo is our best opportunity to reach out and make meaningful connections with each association member. As I prepare to take the helm of this global association, I hope to use the expo as a chance to learn how members would like to shape our mission going forward. The input from events like this is invaluable. I sincerely look forward to seeing everyone at the highly anticipated Networking Reception & Dinner Event at the Museum of Latin American Art in Long Beach, California, on Wednesday 19 September. ■

INDEX TO ADVERTISERS

Aerocare International Ltd.....	10	Dawson Media Direct Ltd.....	47	Rockwell Collins.....	23
Aircraft Interiors International Online Reader Enquiry Service.....	31	Goodrich Sensors and Integrated Systems.....	19	SiT Cabin Interiors.....	20
Airline Entertainment International Online Reader Enquiry Service.....	16	Imagik International Corp.....	43	Spafax.....	Outside Back Cover
Airline Passenger Experience Association.....	28	Inflight Canada.....	5	The IMS Company.....	13
Airline Services Ltd.....	45	Inflight Peripherals Ltd.....	31	VT Miltope.....	28
ARINC EMEA.....	2	Linstol USA.....	Inside Back Cover	www.AircraftInteriorsInternational.com.....	39
		Panasonic Avionics Corporation.....	Inside Front Cover		

Not all headsets are equal

The noise canceling NC-200 headset is comfortable, light weight and provides passengers with an exceptional sound quality on board the aircraft.

Manufactured with high quality material, the headset offers the airlines a durable product, strong enough to be refurbished again and again.



UK +44 1252 620630 – LinstolUK@Linstol.com

US +1 239 530 7865 – LinstolUSA@Linstol.com



Aircraft Models & Gift Items | Amenity Kits | Headsets | Comfort | Disposables

www.Linstol.com

spafax

content on the go

We know...
what
games
you play

We know...
what
content
you search

We know...
what
magazines
you read

We know...
what
movies
you watch

spafax.com/research

North American Research Wave • February/March 2012
Spafax - unlocking the secrets of content on the go

