

Infocus

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content
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A hand is shown interacting with a tablet displaying the Windows Start menu interface. The screen shows various live tiles for applications like Microsoft Software, Microsoft Minesweeper, and Microsoft Word. The background is a blurred image of the tablet and the hand.

**On-board
entertainment**
Provision, protection,
programming

A supplement to

Inflight

CREATIVE CONTENT MANAGEMENT

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WWW.GLOBALONEMEDIA.CO.UK
ONEMARKETING@GLOBALONEMEDIA.CO.UK

Alexander Preston Editor

Introduction

There was a time when in-flight entertainment (IFE) consisted of reading, talking to your fellow passengers or looking out of the cabin window. Simpler pastimes for a simpler age.

In today's digital era, passenger expectations are now much greater than previously. Changes in the way we consume media, coupled with advances in technology, are having a profound effect on IFE – from hardware, to software to programming.

In our latest *Infocus* supplement, we delve into the programming side and take a look at some of the varieties of IFE currently available.

With airline budgets on programming in the hundreds of thousands of dollars bracket, delivering relevant, up-to-date and entertaining content is not only crucial in the pursuit of great passenger experience, but financially prudent that it is achieved appropriately.

It's here where the role of content service providers is so central. Gaining insight, not only into passenger tastes, but also into the legalities of licensing and performance rights for example, ensures that an airline's curated library of audio/video content is fit for purpose.

It's the difference between a box office blockbuster (*Avatar*) and a box office flop (*The 13th Warrior*).

But surprisingly, it's the moving map which seems to grab our attention more.

These solutions not only entertain and engage passengers, but create additional ancillary revenue opportunities. Passengers are captivated with high-definition, interactive maps that let them follow their flights in real time, exploring the virtual globe and making time fly.

For *The Jam*, entertainment may have been about "watching the tele and thinking about your holidays", but today's in-flight content is less aspirational and more inspirational.



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Content is king

The relationship of content providers with their airline customers is key in ensuring a successful and relevant in-flight entertainment library.



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The right rights

Without a coherent and valid digital rights management (DRM) policy, an airline faces a blackout on their in-flight entertainment.



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Away from the small screen, airlines are finding that music can help create a unique and stimulating passenger experience.



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Airlines are inspiring their customers and growing engagement with the most up-to-date destination content, relevant to their brand.



IFE services have become a key element in the design of aircraft cabins.

Content is king

IFE might be one of the most expensive elements on an aircraft, but it is also integral to the passenger experience. Chloë Greenbank gets to grips with the backbone of this industry – the content service providers.

In-flight entertainment (IFE) has come a long way since 1921, when Aeromarine Airways showed the film *Howdy Chicago* to its passengers as they flew around Chicago. A DeVry suitcase projector was strapped to a table in the aisle of the 11-seater aircraft to screen the film and there was no audio.

But it was then not until after the 1960s that IFE (in terms of screen entertainment) became more mainstream. And it was only in the 1990s that the demand for video, TV, gaming and audio entertainment really gathered pace, becoming a major element in the design of aircraft cabins.

Today IFE is integral to the overall passenger experience and is offered as an option on almost all wide-body aircraft and even some narrowbodies too, either embedded in screens on the aircraft or through in-flight Wi-Fi on personal electronic devices (PEDs).

Aside from ticket prices, passenger experience is the most crucial factor as to whether airlines get repeat business or recommendations. So, despite the huge costs – according to market researchers, Research and Market, IFE services cost airlines an estimated US\$2.85 billion in 2015, a figure that is expected to rise to \$5.8 billion in 2020

– it's an investment that airlines are having to embrace in order to stay in the air.

"IFE is the most expensive part of an aircraft after engines," says Mathieu Reboisson, sales and marketing senior executive, Global One Media, which sets itself apart from other content service providers (CSPs) as it's able to offer hardware engineering technology alongside its content and software services. "The return on investment of this high cost is simply, passenger satisfaction. Whatever cost an airline applies, if passengers are not pleased, they have wasted this investment..."

THE ROLE OF CSPS

When you look at the statistics for the number of passengers flying around the world, the potential for the IFE business is staggering. According to IATA some 3.6 billion passengers flew in 2016 and it is estimated that around 750 million of these will have been exposed to IFE services. It's a huge market and one that CSPs are making the most of.

Typically, airlines will appoint traditional or boutique CSPs, such as Global Eagle, Global One Media, Inflight Dublin, Spafax or Stellar to purchase and manage their IFE content, which ranges from Hollywood blockbusters, to TV shows, documentaries, gaming and audio.

"There are a handful of big airlines who will deal directly on the commercial side with studios, because they have the bandwidth internally to go through the procurement

The increase in Wi-Fi connectivity and PEDs means that CSPs can now stream content directly to personal devices.

process of purchasing films and the associated rights,” says Amir Samnani, SVP content services at Global Eagle. “However,” he continues, “when it comes to screening, processing and editing those films, an airline won’t have the relevant equipment or capabilities, so it makes sense for them to go through a CSP.”

Currently working with over 85 airlines, Global Eagle has agreements in place with all the major Hollywood distributors, as well as independent and foreign distributor companies. Samnani explains that once content has been secured, it must be thoroughly vetted, and often translated into multiple languages, before being added to an airline’s IFE catalogue.

“There is a standard guideline that has been created detailing what is acceptable for viewing on airlines,” he says, outlining that subject matter such as scenes of terrorism and violence are generally best avoided, while it’s also important to be aware of religious and cultural sensitivities. In addition to these standard guidelines, individual airlines might have their own requirements that CSPs need to adhere to when screening content.

“It’s also important that we work simultaneously with distributors to make them aware of what we are editing out or changing, so that they remain the content owners,” says Samnani, revealing it’s a question of keeping all parties happy. “The providers need to be comfortable with what we’re doing, but we also need to make sure the content is suitable and appropriate for our airline clients.”

THE CONNECTED AIRCRAFT

The recent increase in personal electronic devices (PEDs) and internet connectivity on board aircraft is transforming the IFE industry, as the combination of these elements means that companies are now able to stream content directly to a passenger’s handheld device, without the need for expensive embedded hardware.

Potentially eliminating the need for seat-back screens, travel website Tnooz has calculated



that an airline can save up to \$24 million for a 200-seat aircraft when the traditional on-board IFE is replaced with PEDs.

Airlines around the world are already embracing on-board connectivity. Virgin America has teamed up with ViaSat to enable passengers to stream Netflix content on board its aircraft, while carriers such as Qantas and JetBlue are offering their passengers free high-speed Wi-Fi in-flight services. But, says Samnani, rather than feeling threatened by this advancement in technology, CSPs should see it as an enhancer, something that opens up opportunities and complements the services already available on board.

This is certainly true for the team at Global One Media. “As technical cabin designers, connectivity is part of our planning,” says Reboisson. But, he admits there are still some challenges to be overcome: “Daily updates such as news and sports have always been a challenge with audio/video on demand (AVOD) technology. Connectivity has resolved this with the introduction of Ku and GX Ka Live TV, however AVOD will remain the main source of content due to bandwidth restrictions and airline content control.”

There’s also an issue over rights and licensing when it comes to passengers travelling between different countries and streaming content on board to PEDs. While Netflix for example won’t necessarily have secured the rights for films to be watched in different territories, CSPs will have secured the international rights so passengers are able to watch the film being shown on board, no matter where they’re flying.

WHAT FLIES AHEAD

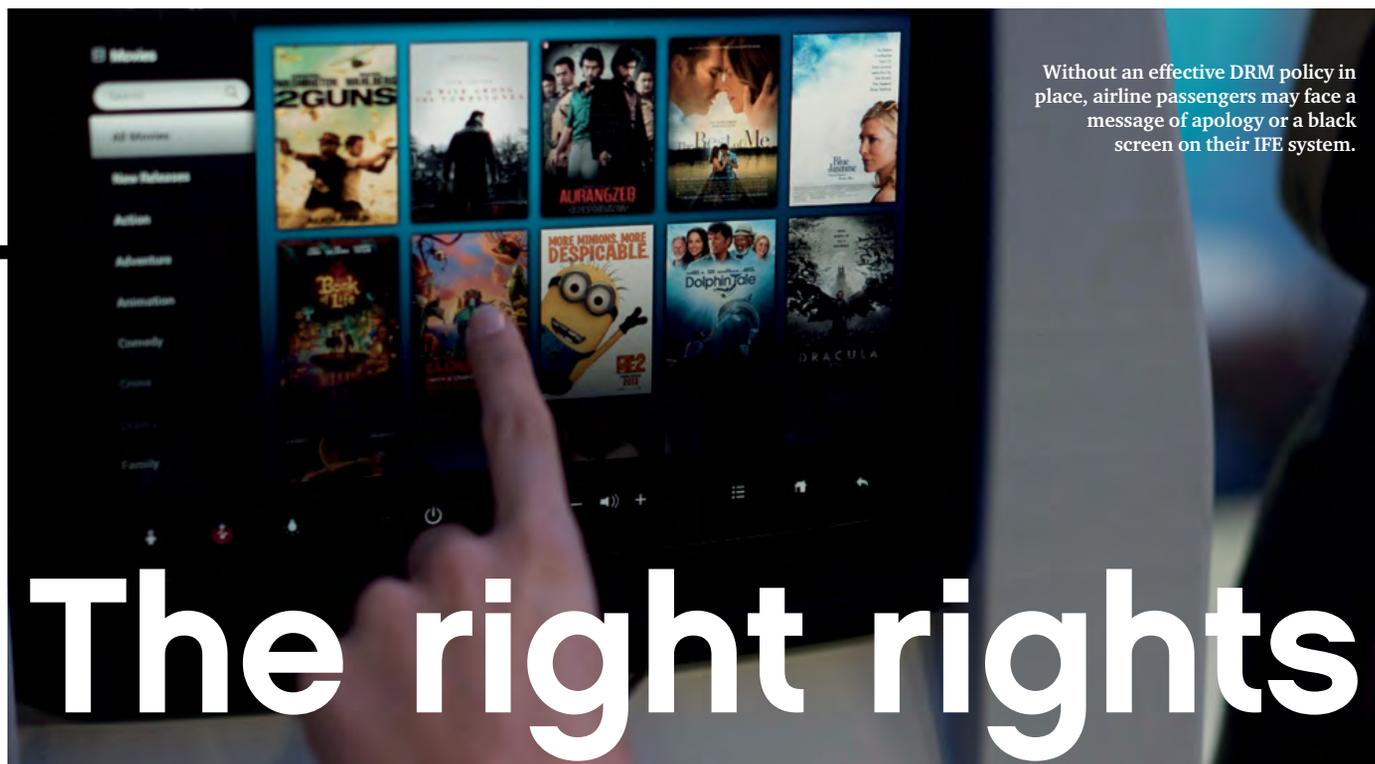
One of the biggest focuses for CSPs moving forward, and particularly with the emergence of in-flight Wi-Fi, is to look beyond the traditional IFE content services they provide by exploring new opportunities, such as destination content and shopping services, as well as personalising the experience for passengers.

Joshua Flood of Valour Consultancy, which is producing a report on the ‘Future of Inflight Entertainment’, reveals that “airlines are becoming more aware of the potential to generate ancillary revenues via product and destination services advertising”.

What’s more, Flood explains that the expansion of connectivity on board commercial aircraft is opening up a multitude of capabilities for airlines (particularly around personalisation), and choices for passengers to use different services. “Why,” he asks, “should travellers expect the airport duty-free selection to be the pinnacle of their shopping experience?”

Passengers are, after all, “a known demographic with high levels of disposable income captive in a metal tube for hours on end,” Flood concludes. “When faced with the right content, passengers can and will spend money on ancillaries.”

The opportunities for CSPs to capitalise on this market are seemingly endless. They just need to think beyond traditional audio and video content and seek out innovative and logistical solutions that will further enhance the all-important in-flight experience and maximise passenger spending. ■



Without an effective DRM policy in place, airline passengers may face a message of apology or a black screen on their IFE system.

The right rights

Content is precious. A weak or non-existent digital rights management (DRM) system could lead to an entertainment blackout for an airline. Alexander Preston discusses the DRM landscape and how to keep a watchful eye.

While in-flight entertainment (IFE) systems have been around for some time, it is only recently that they have become an integral value addition for airlines, primarily on long routes.

But before airlines rush out to curate their programming libraries to achieve that sought-after competitive advantage, the thorny issue of digital rights management must first be addressed.

Roger Matthews, managing director of GoMedia, a European on-board infotainment systems provider for transport operators, explains that airlines can't just jump in and start providing audio and video content. "As with all other forms of distributable media, without effective DRM in place, these entertainment services are at risk of breaching copyright laws."

RED FLAG

So what is DRM? And why is it so important?

DRM, says Matthews, is a system of technologies that media owners put in place when distributing their intellectual property to a wider audience, with terms set by the media owners on how the content is accessed and used. The types of media typically

covered by DRM are music, film, books, software, programming and even emails.

One of the chief petitioners for DRM is Hollywood, as Juraj Siska, CTO of IdeaNova, a provider of in-flight entertainment solutions, contends. "As digital content is reaching more targets, both geographically and number and type of screens, Hollywood studios are understandably concerned that their content cannot be easily compromised."

DRM is therefore primarily used to restrict the end users' ability to copy the content illegally.

"Without DRM technology," asserts an Axinom spokesperson, "pirating valuable digital goods is as easy as copying a file."

As an illustration, HBO's hit show *Game of Thrones* is the most pirated TV programme of all time, with more than 350,000 download links posted online in 2016 alone.

KEYS TO THE KINGDOM

To ensure such premium content is protected, the industry relies on a form of public-key encryption schemes, such as that provided by castLabs.

Bryce Pedersen, VP Marketing, elaborates. "Before being distributed, content is first

encrypted rendering it unwatchable. Until a user receives a special piece of secret data (often referred to as a 'content key'), media remains locked. DRM entails the workflow process of ensuring that authorised users securely receive key licenses for content they wish to view."

Axinom expands further. "At the core of any DRM technology there is encryption. Encryption protects well against someone eavesdropping on the (Wi-Fi) network and getting their hands on encrypted content. But without the decryption key it's close to impossible to access the content. The hardest part for any DRM technology is protecting decryption keys on an end user's device. This is the number-one priority.

"To achieve this, decryption keys are provided only in encrypted form and only to trusted DRM components on the device. Obviously the DRM player on the device is such a component. At some point it uses the decryption key, decrypts and displays the content."

By way of illustrating this, the company imagines an attacker who is a skilled programmer. "Performing a so-called re-engineering attack, the attacker analyses the playback software and tries to identify the code that performs these operations to get a hold of the decryption key. If successful the content is compromised. To fight this kind of attack the DRM components on devices are "hardened". This is a complicated and

Bring-your-own-device is both a challenge and an opportunity for CSPs and their airline customers.

expensive process, and the result is important: the DRM player components on the device are a lot harder to analyse and re-engineer. Even very skilled attackers are defeated by this measure and attempts to extract decryption keys are rendered unsuccessful. Additionally, newer devices even go a step further by moving key handling and decryption components into hardware. This way it is even harder for an attacker to get access to content in its unencrypted form.”

A POTPOURRI

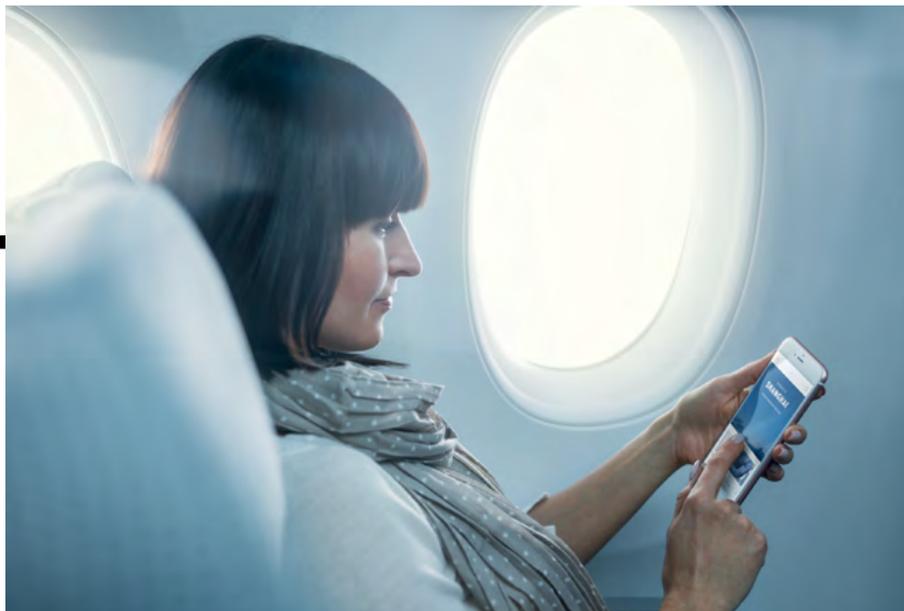
It's no surprise that DRM can be quite a complicated headache to implement and maintain as different devices and browsers support different DRM system technology: Android supports Google Widevine DRM, Edge browser supports Microsoft PlayReady, and iOS devices support the FairPlay Streaming system. Added into the mix is the fact that studios can also mandate what content quality a viewer should receive based on their device supporting either hardware DRM (generally allows high-definition content) versus software DRM (generally allows only standard definition content).

By providing support for all leading DRM technology, castLabs enables secure content delivery across all consumer screens regardless of which system is used on a viewer's device.

“Lowering the cost and complexity of traditionally expensive IFE components is our primary goal for airlines. DRMtoday Onboard was developed to be an inexpensive local aircraft server with a low hardware and software footprint. Our DRM server can even run on a Raspberry Pi.

“A large benefit of the DRMtoday Onboard solution is helping companies avoid these complexities altogether so they can bypass the high investment and time required to become experts in all matters of DRM,” says Pedersen.

Help is also on hand from Axinom. The German-based company contributes to standardisation efforts like MPEG-DASH, and is a member of the DASH Industry Forum.



“With our customers we perform on-site workshops during which all aspects of a secure content protection solution are discussed,” the company says. This is always tailored to the specific needs of the individual project. Especially for on-board entertainment there are many particularities that require consideration. For example, from a content security standpoint, systems that support playback on seat-back screens are different than systems supporting BYOD scenarios. Those in turn are different to systems that use both screen types simultaneously by allowing passengers to remote control the in-seat screen with their own device and play content on either screen.

“In all cases, with Axinom CMS, Axinom VIP, Axinom CDS, and Axinom DRM we offer a platform that allows for building efficient workflows and great user experiences while keeping content secure and protected during the entire life cycle.”

Content protection during content preparation and transfer to aircraft is equally important, and the company's portfolio offers additional components that, when used in combination, provide the highest protection for premium content throughout its life. A public/private key infrastructure ensures that only authorised components get access to content. “Our product portfolio helps customers automate as much of the content preparation pipeline as possible, minimising the possibility for human error,” the company says.

The importance of DRM is amplified by new bring-your-own-device (BYOD) scenarios where consumers have full control over the playback device.

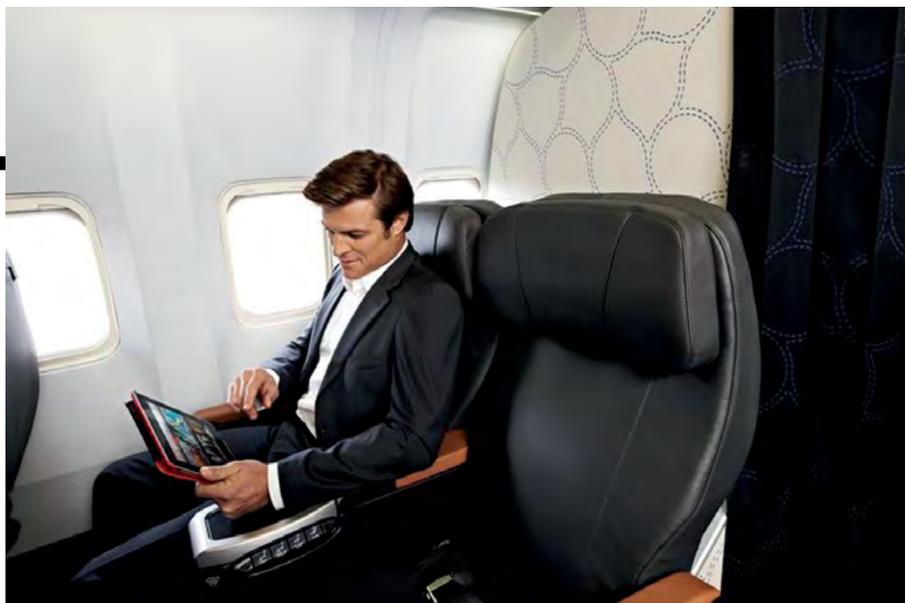
PLAY IT BACK

A service whereby passengers connect via a dedicated app or web browser to stream content to their smartphones and tablets requires a strict DRM system. Since this content is being streamed, it must be suitably protected and this is associated with how the service is implemented and operates.

“This is a much bigger threat to content security than devices built into the seatback have been. A solid DRM solution is mandatory,” cautions Axinom.

Implementing an on-board infotainment system, like those GoMedia has developed for Virgin Trains, Eurostar and National Express coaches, would operate in very much the same way on aircraft, says Matthews. “All content is downloaded to an on-board server. This can be done in a variety of ways, from USB, Wi-Fi, satellite or 3G/4G. Once connected to the airline's dedicated app/portal, passengers will be able to stream content to their own devices. In terms of DRM, content is only accessible to passengers when they are connected on board, but progress is saved so that returning passengers can pick up a movie from where they left off last time.”

Axinom DRM is capable of providing persistent DRM licenses. This means that content decryption keys can be stored on the device in a controlled and secure manner, while making sure content usage rules stay enforced. As an example, the company says that using this technology an airline could allow their passengers to download a movie during flight and watch it for another 48 hours after leaving the plane. An alternative approach could involve an on-ground portal



Passengers now expect to watch their favourite TV programmes and films any time, anywhere and on any device.

with identical content. This way an airline could allow passengers to access the on-board content via an on-ground portal during a defined timeframe before and after the flight.

However, the company believes that the bigger obstacle is that of the content licensing agreements with content owners. "Such agreements are often structured around different markets, like home entertainment/non-theatrical. Inside content owners' organisations these markets are often handled by different teams. The whole IFE business for years has been centred around acquiring licenses for display during flight. Striking a deal that involves a mixture of different markets is necessary for the described use case. That's the tricky part here," the company says.

OFFLINE VIEWING

BYOD scenarios offer many more possibilities to improve the user experience. For example, by pairing the passenger's device with the seat-back screen. This way an airline can tailor the seat-back experience to individual passengers by using the app as a synchronisation mechanism. Possibilities are almost limitless – from displaying the passenger's preferred language to showing a list of favourite shows to knowing which movie a passenger did not finish watching on their last flight and continue exactly where they left off.

According to Siska, BYOD is IdeaNova's standard mode of operation. "The majority of our business is delivering systems that would

support heterogeneous browsers and devices customers bring with them to the aircraft," he says. "Our technology provides multiple modes of playback: in aircraft playback, download before you fly or ability to resume playback upon initial preview in the lobby, lounge or after the flight completed in the convenience of the passenger hotel room."

In 2016, the company introduced its next generation of INPLAY players.

The offline playback provides a unique opportunity to download content before travelling, eliminating any need for on-board infrastructure. To provide this, INPLAY uses an adaptive download feature that automatically adjusts download speed to the bandwidth available to passengers. Adaptive download is one of the newest features of available digital streaming technology.

The new INPLAY player also provides adaptive streaming, a capability available with the introduction of Dash DRM technology, and of which IdeaNova was an early adopter. This feature provides an opportunity to deliver content on more platforms and offers interoperability between content encryption providers.

Offline DRM support will also be introduced to the solutions offered by castLabs, Pedersen confirms. "Offline support will be introduced this quarter to broaden IFE DRM use-cases and meet the changing expectations of consumers.

It's worth noting that offline playback outside of an aircraft's streaming server also largely depends on the player application

itself supporting this feature (which we also provide through our PRESTOplay player SDK suite)."

UNIVERSAL PLAYGROUND

castLabs' SDK works across all common browsers and browser versions, meaning developers no longer need to consider browser specifics as the player automatically delivers protected playback using the available technology in each browser. Playback utilises HTML5 and MSE/EME with either Common Encryption (CENC) or FairPlay Streaming for DRM on modern browsers.

Plugin-free playback is the future as browser vendors seek to increase performance by handling video and DRM natively. However, until all consumers are using modern HTML5 browsers supporting EME, plugins are still relevant. To account for this, PRESTOplay includes a fall-back playback option using Silverlight with PlayReady for older browsers.

With castLabs SDK, customers can continue to use PlayReady-protected Smooth Streaming content in HTML5 using alternate DRM systems. This means they can begin to adopt the MPEG-DASH standard while still using their existing Smooth Streaming assets.

Looking toward the future, GoMedia's Matthews is enthusiastic. "When it comes to long-haul airlines, passengers expect an IFE system to be implemented on board; but given the technological advances made in mobile technology in recent years, seat-back screens are no longer the most attractive option. Fully fledged on-board infotainment systems, with a strict DRM programme in place, represent the best option to bring high-quality content straight to passengers' own devices. The opportunities are almost limitless, so with a little creativity airlines will be able to generate content previously inaccessible to them. It is an inspiring time to be active in such a thriving industry, and it is exciting to see how airlines will go about implementing wireless technologies across the board."

However, he adds the caveat, "All media companies have responsibilities with their suppliers and customers, and these must be taken very seriously indeed." ■



Airlines are experimenting with new partnerships, including the potential for concerts and artist-curated radio channels.

A musical odyssey

Alexander Preston hears how airlines and their partners are providing playlists to watch the clouds go by.

“Music is essential to people’s lives, and travelling would be a worse experience without it,” affirms Simon Cole, CEO of 7digital.

“As connectivity and technology has improved, consumers have had access to more music, delivered in ways that make it quicker to navigate and easier to fit into their lives. Today, music lovers are much more used to being able to listen to whatever they want, wherever they want. For airlines to provide their passengers with a great music experience in the skies would be considered catching up with consumer demand, rather than regarded as a nice bonus. Soon, connected plane will be much like connected

car and we expect music to be a major part of the interactive offering in the planes of the future,” he says.

Cole has just overseen the signing of a two-year deal with Global Eagle to provide technology, access to music, web development expertise and rights holder reporting for new in-flight services launching in late 2017. As Cole remarks, “This marks an exciting first step for us into in-flight entertainment.”

7digital is the largest independent producer of programming for the BBC, launching Radioplayer in multiple territories, and powering services for partners like HMV, Electric Jukebox and Panasonic. The company has provided access to music for

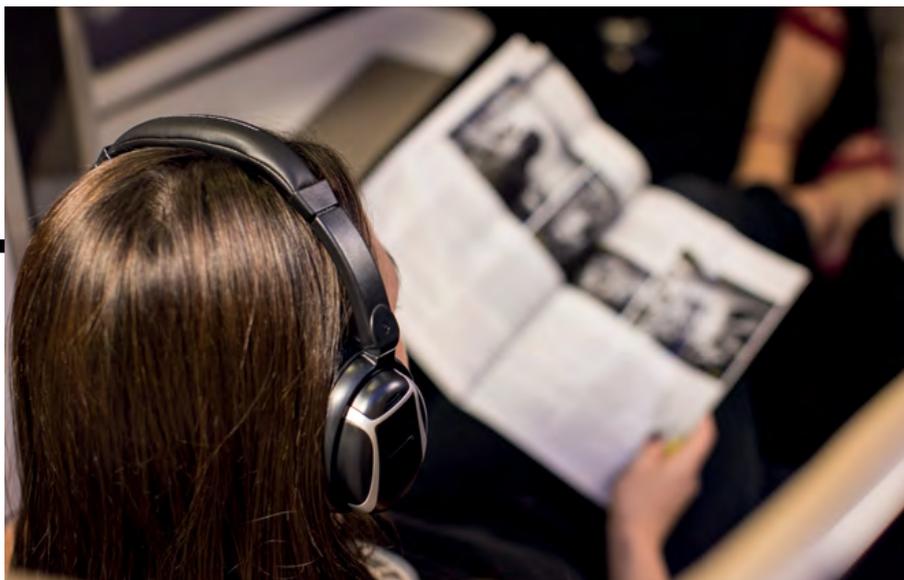
clients such as Onkyo, Global Radio and musical.ly.

“We have built our business since 2004 by making access to digital music simpler for clients – and, therefore, for their customers. Music is incredibly complex and there is a huge barrier to entry for companies where music is only part of their offering. Aside from the integral technology requirements, it would take significant amounts of time and resources to navigate the complicated world of licensing with the hundreds and thousands of labels, publishers, distributors and collection societies involved across numerous territories,” he says.

COME TOGETHER

“In order to deliver a great experience to the end customers – the passengers – the in-flight entertainment industry needs a specialist company to help. As the global leader in B2B digital music, 7digital is a natural partner for IFE companies looking to simplify their music supply chain. Our relationship with the music industry, and our knowledge and skill as a long-time radio production company means that we have a great deal to offer, both in technology and in the area of creative content and curation,” Cole adds.

For its part, Global Eagle’s audio services go beyond just audio on-demand albums. It extends to boarding and landing music; hosted/non-hosted radio shows; and podcasts and audiobooks.



Depending on the airline's requirements, the company can refresh content on a monthly or annual basis.

The selection and curation of audio does not differ significantly from TV and film. Both involve individuals who research upcoming releases and propose suggestions based on their knowledge of the airline's passenger profile.

EVP of content and media Walé Adepoju explains how the company works with airlines and music labels. "Our producers will research upcoming releases from schedules provided by label contacts. Our major clients have dedicated producers who have in-depth knowledge and experience about specific airline requirements for passengers and will curate playlists based on a theme, mood or genre of music.

The producer will work with the wider team as well to create playlists linked to TV/film offering; for example to celebrate the release of *Wonder Woman*, playlists were curated to celebrate female artists.

Events and/or anniversaries can also be marked with special features. For example, following the death of David Bowie at the beginning of 2016, passengers on British Airways long-haul flights were able to listen to some of his most memorable tracks through specially curated content, throughout April. This included a number of audio documentaries as well as concert recordings.

Adepoju continues. "We have label contacts globally and so audio producers will also discuss with regional contacts local artists to promote. An example of this would be with Air New Zealand, where we obtained permission for ANZ to be the first airline to have Lorde's *Melodrama* album on board."

LOCAL SUPPORT

Alaska Airlines was a relative latecomer to the in-flight entertainment party but now one of its priorities is to ensure that customers aren't receiving "plain vanilla anything" aboard its flights.

At the beginning of 2016, the airline partnered with Seattle's Sub Pop Records to bring some of the label's best music on board – for free.

According to a Sub Pop representative, the partnership came together very easily. "We're both local Seattle companies. Sub Pop has a store at Setac Airport right near the Alaska gates." Indeed, a former Sub Pop employee was on an Alaska flight and tweeted to ask why the two companies weren't working together. Soon after, the Twitter conversation turned into a real plan of action, "which we were very happy to do since we all genuinely love flying Alaska," the representative added.

The partnership with the medium-sized independent record label launched with the Beach House album *Thank Your Lucky Stars*, and gives passengers the chance to listen to one complimentary featured Sub Pop title per month on Alaska Beyond Entertainment (Alaska's direct-to-your-device in-flight entertainment service) and two albums per quarter on its rentable tablets.

"We have our own unique way of designing every experience of travel – from locally sourced food to space-enhancing seats and now music," David Scotland, manager of IFEC for the airline, said at the time. "And Sub Pop is a way for us to do that in the music and entertainment space."

"There's definitely a big appeal for doing something specifically with Alaska," noted Chris Jacobs, general manager of Sub Pop

Records. "Because Sub Pop is so overtly and proudly associated with the region, and so is Alaska, it makes sense."

Such local patronage can allow airlines to deepen the relationship it's built with core customers and provide them with a piece of home.

As Scotland explained, "One of the things that our customers from the Seattle area tell us very often is that they feel like they're already home when they get on the plane, and there's a comfort there."

ARTIST SHOWCASE

Sub Pop artist Cullen Omori, whose solo debut *New Misery* featured on Alaska flights, was enthusiastic about the opportunity.

"There's no better audience. You have a captive audience that's stuck on a plane for X amount of hours. And so, there's no better time to pitch them some music to listen to."

It's a sentiment shared by Nick Evans, general manager of radio and audio production company The NoiseHouse. "We want as much exposure as possible for as many of the artists we represent on as many airlines as possible. Airlines being able to play major record labels is key," says Evans.

The company has worked with airlines for over three years, and includes British Airways, Etihad, KLM and Virgin as its client base.

For most of these airlines, The NoiseHouse sends them two-hour mixes every month, made up of the latest music that represents the artist, and featured in their radio show. Current artists include Avicii, Eric Prydz and Sasha.

As Evans explains, the mixes are different on each airline, and are a great way for the artist to highlight any new music. "We facilitate this for our artists in order for their mixes and music to have exposure on airlines," Evan says, but admits "it's not a growing market right now because a few airlines are not able to play major label records, meaning not all mixes are valid."

Validity may in part be due to licensing, which Global Eagle's Adepoju says is a different regime to that of TV/film. "TV/film rights are generally more straightforward, with Global Eagle obtaining the rights from a single source: the studio or distributor. To



Accentus produces worldwide high-profile concert and opera recordings including the Lucerne Summer Festival.

put a piece of music on board, more rights holders are involved: the label and publishers (usually more than one publisher has an interest in one track),” he explains.

The company currently does not have any direct licensing arrangements with independent labels but does provide independent music through collection society licences.

In 2015, Global Eagle announced an agreement with Sony Music – the first of its kind in the in-flight entertainment industry. It provides cradle-to-grave rights coverage over the whole audio production process, from sourcing the asset to performance on board. The airline pays a monthly licence fee based on the percentage of Sony content on board the aircraft according to a set rate card.

A year later, Sony signed a global licensing deal with Stellar Entertainment, giving Stellar access to Sony Music’s extensive library of artists, past and present, current and emerging.

THE CLASSICS

While classical music audio is present on airlines, Yukie Bürkner-Damm of Accentus Music believes there is a lack of premium classical music video content to complement it. “We are convinced that classical music on video is especially suitable for long-haul flights when passengers have the time and ease to enjoy full-length performances. With some operas for example lasting up to three hours, it could be a good, maybe sometimes surprising alternative for the passenger who

expects movies and series mostly. Even for those not too familiar with classical music, watching this on board can be a relaxing, mind settling experience for which in busy everyday life there is not necessarily a slot.”

The company recently became an APEX member and is set to enter the IFE market.

“We are hoping to supply any of our more or less 100 programmes we produced so far with approximately 15–20 productions added every year. Among those, we have ‘regular ones’ like recordings of the Lucerne Summer Festival, the Bachfest Leipzig or recordings from the NCPA in Beijing which could work as a series. We mostly add a full-length performance to each of our documentaries so learning about a specific topic or person and then watching the full-length performance could be a good match – again, especially when time and mind allows on a long flight. Seasonal programmes are available (Christmas for example) as well as World Music performances. As the in-flight market is so diverse in culture and targeted groups (passengers ranging from business travellers to tourists) we believe that we can serve any taste when it comes to classical music – ‘serious’ content, lighter classic, operas, documentaries produced all over the world,” Bürkner-Damm says.

AUDIO DNA

If audio can complement TV and film selections for passengers, it can also support an airline’s brand.

The merger of LAN (Chile) and TAM (Brazil) into LATAM Airlines, was one of biggest mergers between airlines to date.

This new brand posed a big challenge: to create a unique and at the same time plural identity that represents the whole continent. Sound Thinkers was invited to create a sonic signature for LATAM.

Sound Thinkers assembled a team for the project, travelling to six cities in Latin America on board LATAM’s aircraft. With the data generated by the company’s Sound Perception Matrix, the team identified every sound impact during this journey, mapping the whole experience.

After gathering all the information, they were able to define and develop the brand’s DNA, creating the Meszcla concept, which involves discovering and mixing new sounds, also feeding the touch points with its customers. The words ‘mezcla’ and ‘mescla’ mean ‘mix’ in Spanish and Portuguese respectively.

Music became the main vehicle in the process of making LATAM the ambassador of a nonstereotyped ‘latinity’, mixing Hispanic and Brazilian textures.

With the help of a doctor in music and cognition, they identified one common aspect to most Latin American rhythms: the tresillo, which, as the company explains is, “a rhythmic subdivision that is behind bossa nova, tango, salsa and much more. Instead of focusing on specific styles, we considered all the possibilities that tresillo affords and then added worldwide sounds, so every musical production by LATAM is based on a culture mix. Inspired by this concept, LATAM’s sound logo consists of a motif of five short notes with a specific rhythmic profile, timbre and instrumentation. This is how Meszcla happened.”

According to the Sound Thinkers team, “Meszcla is a cultural mix that gives LATAM a unique and unexplored sound identity, transcending the creation of a Sonic Signature and, more important, helping the brand to realise how it can use sound to recreate not only its identity, but to change the flying experience.” ■



IMA's model has pioneered the concept of providing passengers with advertiser-sponsored destination content.

Wish you were here

Destination content is a hot topic when it comes to current IFEC trends. Chloë Greenbank looks at the factors driving this sector.

Destination content is nothing new, and it's certainly not rocket science. In the days before the digital revolution passengers would simply refer to the in-flight magazine or a guide book to source information about the city or region they were flying to. Occasionally, as an aircraft prepared to land at its destination, tourism boards would play an alluring promotional video accompanied by a gentle, soul-searching soundtrack to sell the key highlights of their region to visitors.

But, says Duncan Jackson, president at FlightPath 3D – which is transforming the face of destination content by producing state-of-the-art, interactive 3D moving maps – that has all changed. “The digital revolution has now occurred and it has given birth to a generation

of networked consumers with huge appetites for innovation.”

For today's traveller, there is an element of expectation that is centred around the need to be as informed in the air as they would be on the ground. But they're also looking for more than simply an 'infomercial' selling the well-trodden tourist trail.

So, one of the greatest challenges facing destination content providers, enthuses Jackson, is “how to make the content more engaging and immersive”.

CAPTIVE AUDIENCE

Robert Zickwolff, president and CEO at Inflight Media Associates (IMA) is in agreement, saying: “The idea is not to bombard passengers with 30-second commercial spots, but to entertain them while on board. The way we set out to do this is that we sell airtime to regional, national and international travel clients (tourism boards, hotel partners, etc.) and give them a non-invasive, memorable creative option that's really more impactful than a commercial spot.”

With its roots going back 18 years IMA is an industry veteran when it comes to the arena of travel-themed destination content. Since starting out it has produced ten in-flight series for airlines including Air Canada, America West, Continental Airlines, Delta Air Lines, Frontier Airlines, United Airlines and Virgin America.

But, explains Zickwolff, it was after launching on Air Canada and America West in July 2000, followed swiftly by Continental in November that “IMA really pioneered the concept of presenting passengers with advertiser-supported destination content”.

Acknowledging that airline passengers are a captive market, Zickwolff points out that the “millions” of viewers IMA has every month are “somewhat stuck in one spot for a few hours with a screen in front of them”.

When it comes to providing them with destination content, airlines have traditionally had the choice of “offering pay-per-view options or just placing commercial after commercial”. But IMA's model of a combined solution that enables revenue generation as

well as passenger entertainment offers a win-win situation for all concerned.

“That’s exactly why we lay such an emphasis on the entertainment factor of our original content. We appreciate being the free entertainment source for the passenger and by presenting them with a compelling story and a fresh view of a destination, all accompanied by beautiful visuals; we gain and retain their attention. And, of course, all the while we’re driving traffic to our advertisers – a true win-win.”

IMA’s content that airs on board is created by their in-house production team. “We have mastered the art of taking that client, that spot on the map, and creating an amazing storyline that then keeps the passengers not only entertained, but also really plants the seed in their mind to go and check out destination X on their next trip or plan the annual family vacation there,” says Zickwolff.

Keeping content ‘in house’ is something that Arrival Guides – a destination expert that has really expanded its in-flight segment in the last two years, having partnered with PXCCom – considers integral to its success.

“The old model we worked with was that we commissioned freelance contributors to write the content, which was then distributed for free and we got our revenue through advertising” says Federico Giusiano of Arrival Guides. “But,” he continues “that wasn’t a great model for us, so now we have our own in-house editorial team who manage and maintain some 400 destinations. But we also work with over 200 tourist boards who can manage and update their content as frequently as they like. We then license that content to airlines and in-flight providers.”

By connecting directly to Arrival Guides’ application programming interface (API), PXCCom, which offers a comprehensive in-flight digital content management suite, can then upload the content to its own cloud-based back office. This content is then integrated into the IFE platform and transformed into an interactive experience that also helps drive ancillary revenues for airlines.

Moving forward, “the challenges are set by passengers. Tech-savvy travellers’



FlightPath3D’s interactive moving maps are changing the face of destination content.

expectations are always growing at a fast pace. Far faster than the IFE industry’s cycles and lead times. With our solutions, we try to push the boundaries, by enabling airlines to become more agile in their in-flight offering,” says Cyril Jean of PXCCom.

KEEP MOVING

A constantly evolving and hugely popular element of destination content is the moving map. Initially on-screen maps operated simply as a flight tracker service, enabling passengers to check the duration of their flight to their destination, the speed of the aircraft and the temperature at their destination. But now passengers want to go deeper.

Tapping into the popularity of this channel on an airline’s IFE system means that airlines can make use of moving, interactive maps to create another layer of passenger engagement. This is something that FlightPath3D is already pioneering.

“Many IFE companies have come from a traditional hardware experience, whereas we have come from more of a California consumer web experience” says FlightPath3D’s Jackson.

“We hear a lot about the passenger experience, but we’re thinking about the ‘user’ experience – we look at it from the

perspective of what the passenger needs and what needs to be solved,” says Jackson, explaining that passengers want constant information sources when on board. They want to know ‘when will I arrive at my hotel, what are my ground transportation options to get home, how much will it cost, what can I do when I get to my destination?’ and so on.

FlightPath3D’s Moving Map ‘geo-tainment’ service prides itself on being the ‘most engaging in the industry’ and by all accounts it’s certainly living up to this reputation. Passengers can follow their own travel progress using 3D views and explore the world around them with free roaming mode. They can also benefit from FlightPath3D’s Destination City Guide service, which comes fully stocked with hundreds of points of interest (POI) locations around the globe. The embedded POI displays seamlessly blend onto the 3D earth background, so users can explore airports, navigate city streets and investigate sites, hotels and restaurants across the region.

Even young passengers are catered for with FlightPath3D’s kid-themed maps. By providing a visually engaging format and using themes such as animals, sports, technology and geography, each map entices junior flyers to interact and explore destinations around the world.

With bookable content providing opportunities for ancillary revenue, Wcities' content provides value both on and off the plane.



LOCATION-BASED SERVICES

"It's unsurprising that we have a 50% open rate on an in-flight journey, and on long-haul flights it's not uncommon for people to sit in the map for over an hour" says Jackson, explaining that they are averaging almost eight different points of interest being opened per viewing.

"We're starting to formulate use cases around what and where people like to go in a city. That's one of the reasons we have orchestrated a capability and product offering that truly gets down to location-based interaction within the map. So, you can actually have a look around."

It's important for airlines to acknowledge that the end point of a passenger's journey is no longer the gate. What's more, surveys show that airlines that make the destination experience accessible in the inspiration phase and on board the flight are more likely to win the booking and loyalty of customers. Providing information that's relevant to their destination and which empowers passengers by providing them with logistical solutions is integral to enhancing the overall passenger experience before, during and after the flight. But it's also something passengers are coming to expect.

Fraser Campbell of Wcities, which is part of the Paves system on Rockwell Collins that is currently flying in business jets and has

several implementations due to be launched this autumn, explains that being able to provide value both on and off the plane is key to Wcities' service. "A user can select the things to see and do and take that with them in a mobile app or a printed PDF that is emailed to them." In addition, a host of ancillary revenues can be layered on top of the experience to provide bookable content.

ANCILLARY REVENUE OPPORTUNITIES

When it comes to airlines generating revenue from their customers, destination content services provide a powerful platform for them to be monetising.

"Airlines typically know who their customer is, where they're going and when they're going to get there", Jackson says, explaining that destination content needs to be powered by a set of challenges and experiences you're trying to sell for, then it has to be looked at from a passenger experience perspective. In that sense, every airline should have a vision as to what sort of questions they'd like to be able to answer for their passengers and how far they want to go in terms of providing additional information and services to passengers.

Like PXCom and other providers, FlightPath3D classes itself as a software company that charges a licence fee for its

product, which the airline then pays for. They have a suite of applications and tools that can be tailored for the end user's requirements. Typically, it supplies services based on a software fee, but it can also work on revenue share, commission and advertising as well.

One thing that all providers are in unison about is that airlines should really consider destination content as a revenue generator rather than an expense, with IMA's Zickwolff enthusing that "yes, airlines need to offer the platform that the content airs on, which can be either a seat-back screen or a digital platform for the passenger's own personal electronic device, but then from that, the airline should be able to start generating revenue right away."

Ancillary revenue is typically generated through advertising (digital advertising throughout IFE systems and specific in-destination section advertising) and from the destination deal bookings themselves.

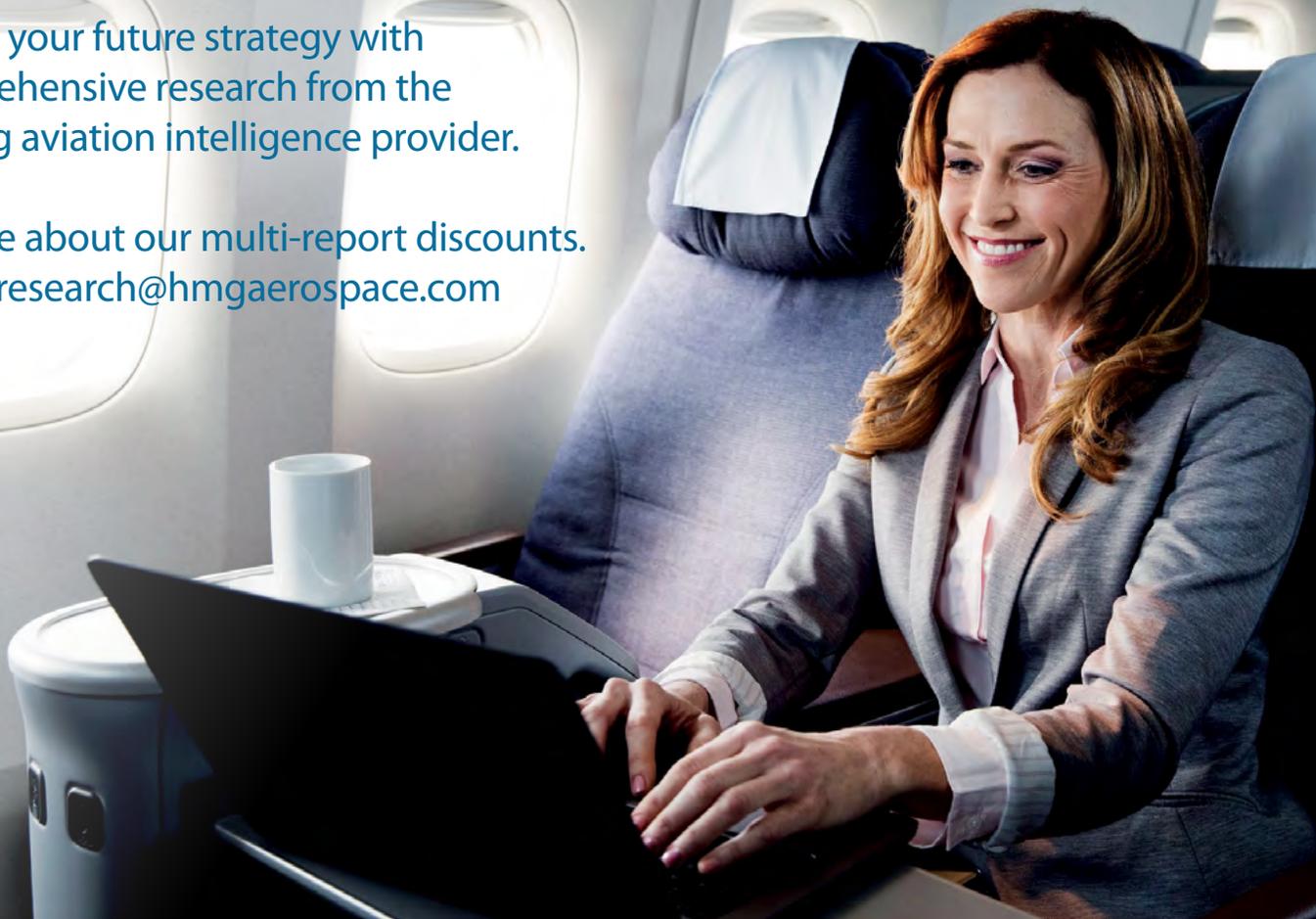
But beyond traditional advertising, partnerships based around logistical solutions and establishments within a destination, airlines, and destination content providers are now broadening their reach. "Some airlines are already trying to develop an enhanced retail offering, so that passengers can purchase say a TV while flying, then it will be at their door when they arrive at their destination," says Arrival Guides' Guisiano.

With destination content clearly enjoying its moment in the spotlight, airlines, if they haven't already, need to embrace this opportunity to stay ahead of the game and further enhance the overall experience by enabling passengers to access authentic, personalised content both on board and on the ground.

And when it comes to taking the next flight for destination content, FlightPath3D's Jackson concludes that the future of destination content is very much anchored around four key points: an immersive experience, solving passenger needs, location-based content and billions of dollars of in-destination spend. ■

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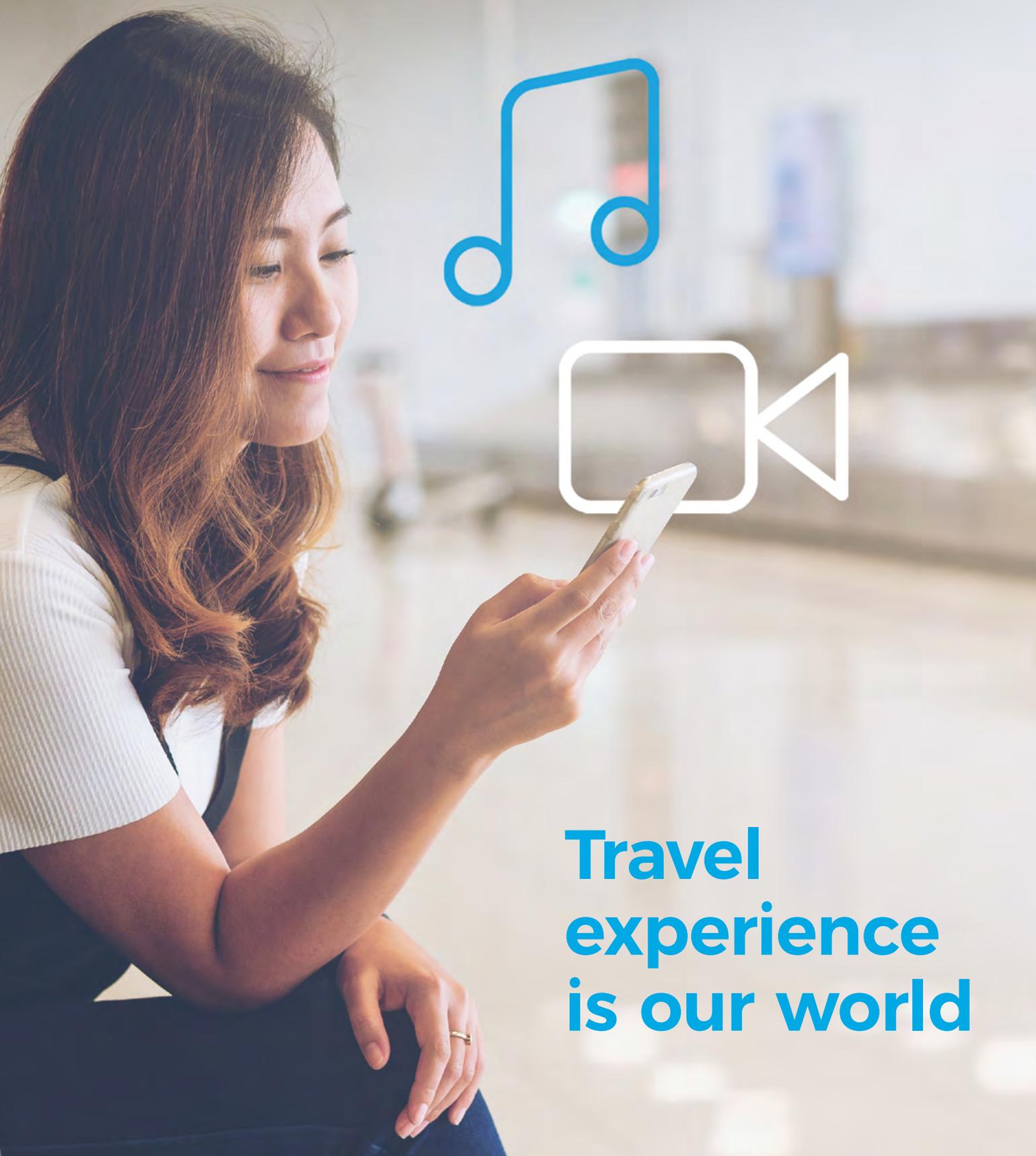
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