INTELSAT

Shaping the Future of **Connected Air Travel**

Five Critical Questions for Meeting
Today's Airline Operator Challenges

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Facing New Expectations, Seizing New Opportunities

Just a few short years ago, airline passenger expectations were less sophisticated. Customizing inflight experiences by routes and regions was good enough. Yet fluctuating travel demand, a new mix of travelers, and diverse and evolving passenger needs mean airline operators must demand more from their inflight internet—starting with flexible and scalable software capabilities that help them respond to shifting expectations quicker and easier than before.

Answering five fundamental questions will help you isolate and address key challenges in delivering a new kind of passenger experience. An experience driven by emerging technologies comprised of a unified ecosystem of software-defined satellites, networks, and a significantly more advanced software platform.
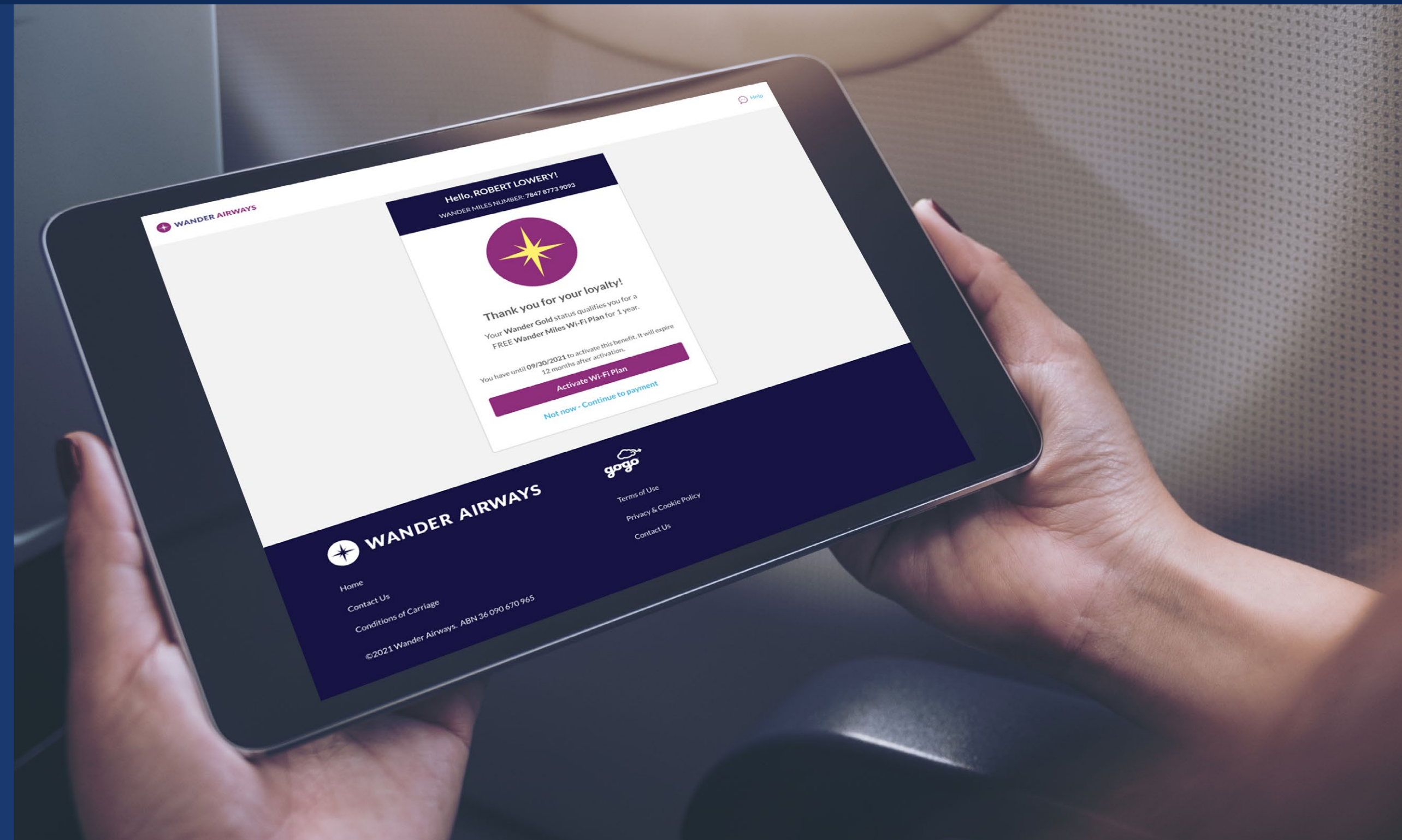
01

What if you could provide passengers with continuous inflight internet and define experiences unique to an individual?

Rapidly changing passenger expectations and a universal desire for more individualized experiences already pose significant challenges to airlines worldwide. But managing the passenger experience is just the beginning for today's airline operators.

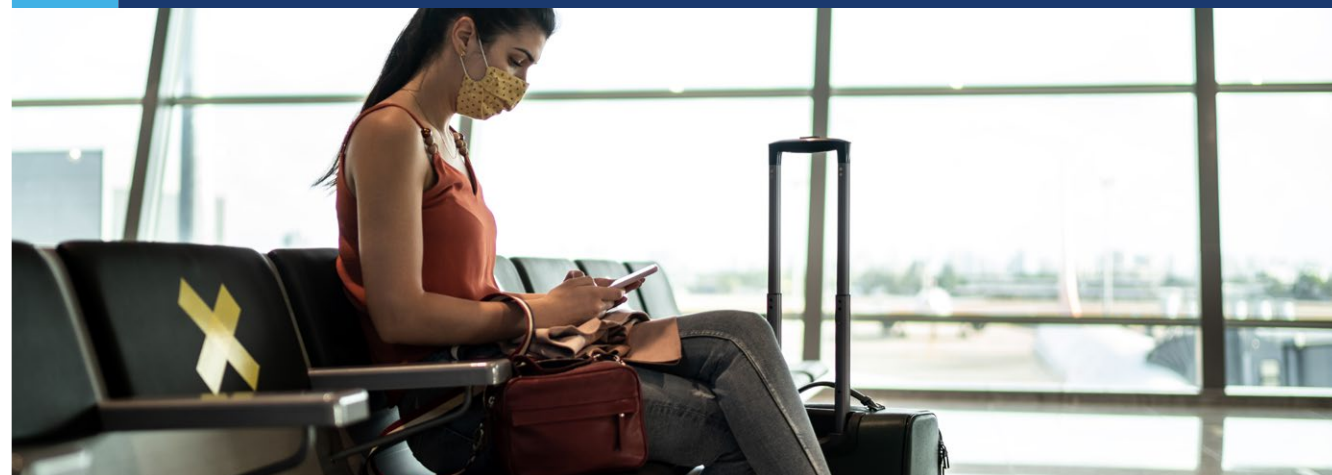Airlines continually focus on passengers AND key business objectives that include:

- Increasing revenue

- Improving operational excellence

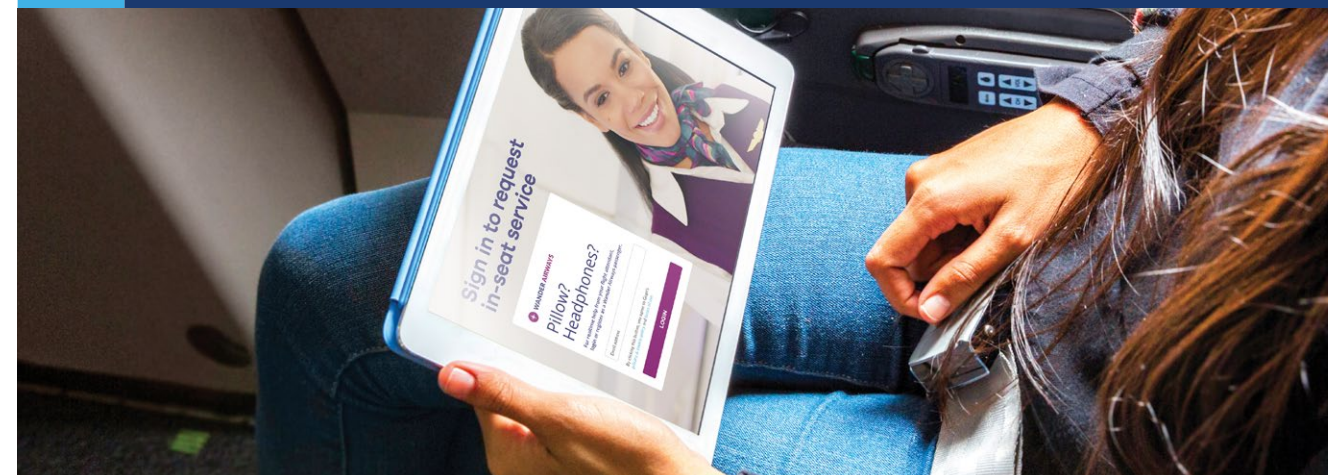- Reducing time to market of new/enhanced inflight capabilities

Expectations. Evolved.

Passengers require more than just ubiquitous inflight internet coverage.

Seamless end-to-end connectivity

Inflight services personalized just for them
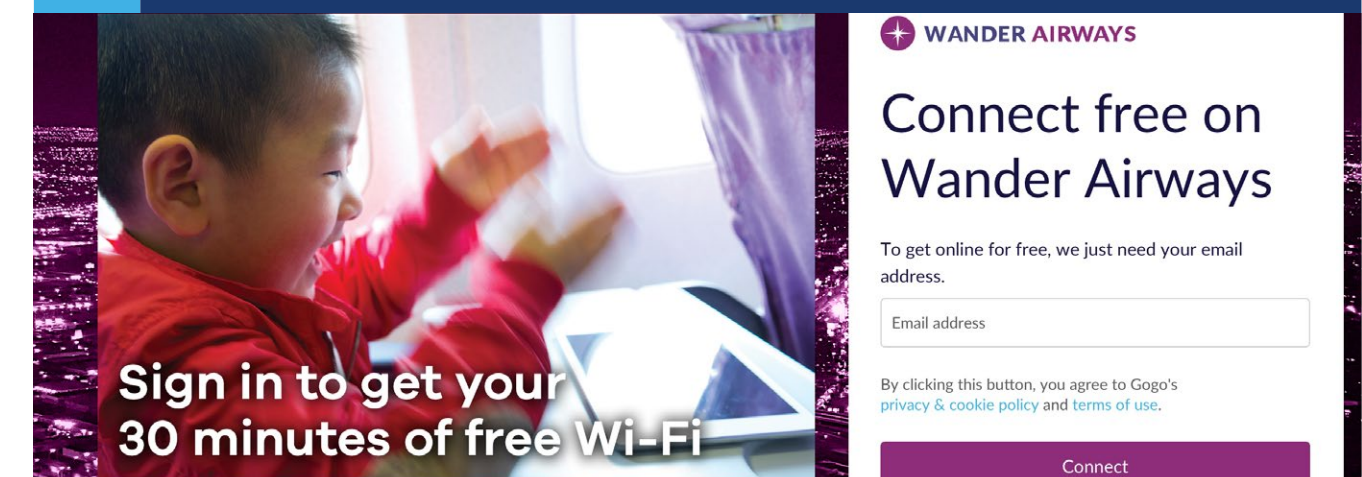
Ability to use their favorite apps

Perks from their favorite brands

Staying connected with the ones you love

Free access

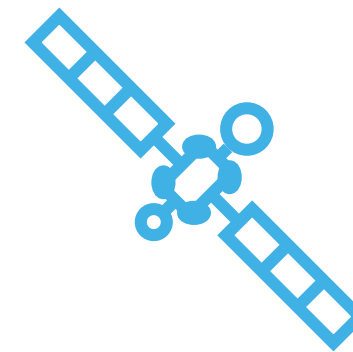Improving Airline Passenger Loyalty with Today's Connectivity, Whitepaper © 2019, Valour Consultancy
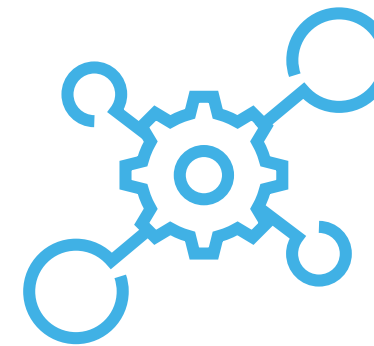
The Elements of an Exceptional Experience

Airline operators need to stay nimble and provide unique services that keep passengers coming back.

Shifting expectations and increasingly high demands require next generation capabilities.

Satellites

Software-defined satellites fundamentally change the game, delivering services when and where they are most needed by dynamically steering bandwidth as needs change.

Networks

A global unifying 5G network driven by airline-defined business rules optimized by algorithms that efficiently allocate capacity and bandwidth based on demand.

Software

Software solutions enable operational agility and strategic growth by making it easier to:

- Introduce new inflight services faster

- Enhance the passenger experience through loyalty, personalization, and partnerships

- Manage inflight connectivity fleet-wide

02

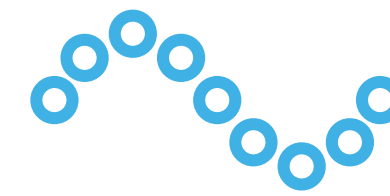# What if your airborne platform could enable operational excellence?

Emerging Passenger Electronic Devices (PEDs) technologies. New hardware platforms and access technologies. Evolving global technology standards. They all require an airborne platform that is agile enough to keep pace.

The Onboard Experience (OX) Platform, embedded within the 2Ku Onboard System, provides built-in flexibility to improve the passenger experience and scalability.

Getting New Inflight Experiences to Market Faster

The Intelsat OX Platform is where flexibility and scalability meet for speed and simplicity in staying on top of new passenger technologies.

Flexibility

- Adopt new features and capabilities outside of a software certification event

- Fewer updates to the core operating system

- Update IFEC system software as needed:
  - Entertainment content
  - Portal configurations
  - Permit and block lists

Scalability

- Support multiple inflight system hardware and software configurations

- Adapt to new access technologies and LRUs

- Adopt the application enhancements independently of the LRU operating system
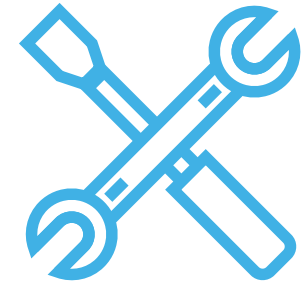
03

What if you could provide passengers with an end-to-end connected experience that just works?

In a dynamic commercial aviation industry where technological complexities are part of its DNA and airlines redefine their offerings on a daily basis, the fundamentals of a simple, satisfying passenger experience can be easily overlooked.

Delivering an inflight experience that keeps customers focused on travel versus technology begins with seamless device roaming—allowing the passenger to easily move from the ground to aircraft to destination airport, with an automatic connection every step of the journey.
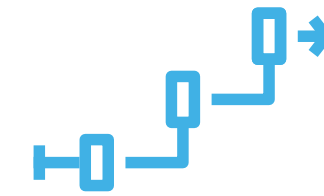
New & Legacy System Support

Intelsat's combination of software and hardware delivers uninterrupted device roaming whether it's a new or existing installation. The system supports open and modern standards including Hotspot 2.0, but also legacy authentication such as EAP-SIM or EAP-AKA, ensuring older devices and legacy services continue to work.

A Predictable Upgrade Path

Supporting roaming on legacy systems while continually improving the experience with the latest technologies affords a predictable upgrade path that is fiscally responsible. Intelsat services work across all airframes and network types (including air-to-ground and satellite) and will continue to work as new hardware and software become available.
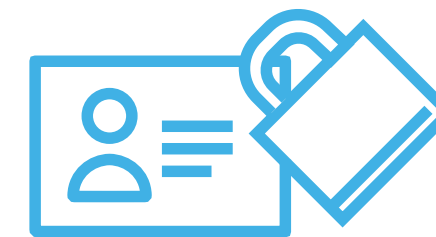
Passenger Benefits

On every flight, seamless roaming can help passengers stay in touch with family, friends, and work matters. A child's gaming app simply works, with all data ready and waiting. Open and easy connections give passengers opportunities to buy additional services or add greater bandwidth to support data-hungry apps.

Secure & Rapid Subscriber Information Exchange

Based on the cellular plan or other entitlements, the network connection can be provisioned with throughput and other Quality of Service guarantees. Usage data such as session duration and data consumption can facilitate billing, abuse prevention services, and revenue sharing.

Explore the Possibilities

Intelsat services, utilizing our back-office and open standard APIs, simplify integration across inflight connectivity (IFC) suppliers, while delivering benefits including:

- Reduced time to market and less cost

- Greater personalization for high-valued customers and loyalty campaigns through the Passenger Toolkit APIs

- Higher passenger satisfaction

04

What if you could customize the inflight passenger experience to your brand and deliver it from your laptop anywhere, anytime?

A Positive Passenger Experience Drives Brand Loyalty

Any airline brand is strengthened when it has the agility to adapt to fluctuating passenger inflight expectations. Unfortunately, an array of challenges can get in the way:

- Difficult-to-introduce new inflight experiences due to software certification

- Lack of business-friendly tools to update or modify the passenger portal

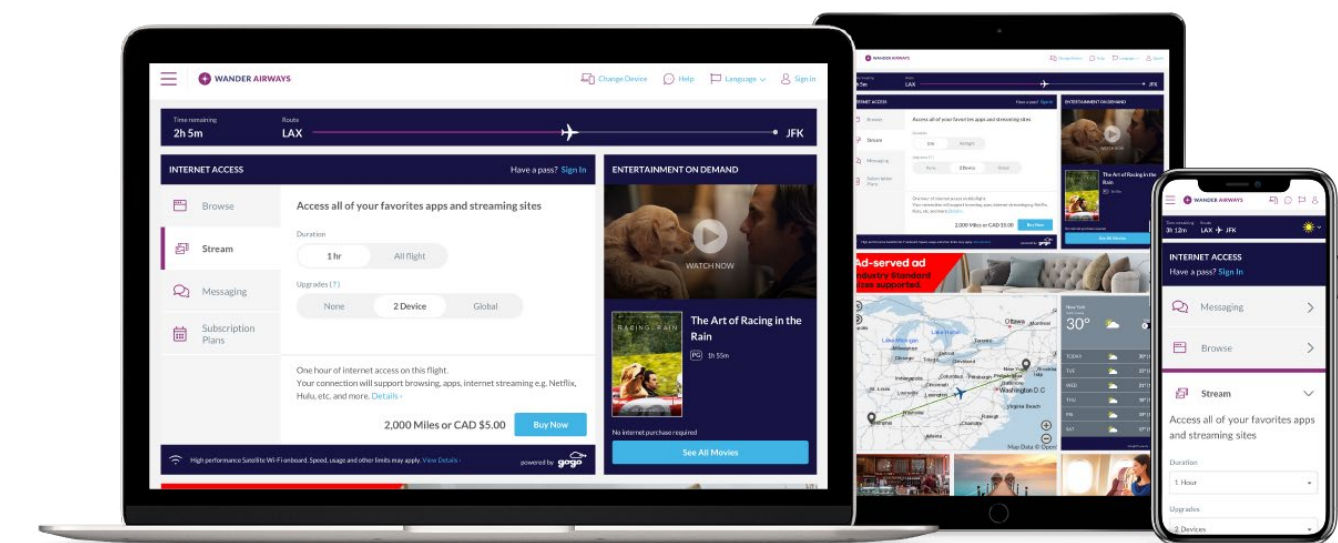- Complexities of multiple internal and third-party

Building the Experience of the Future

Intelsat's powerful new software solutions are designed to deliver efficiency through automated processes that offer flexible, streamlined implementation and capabilities that can be quickly turned on or off at any time.

Features Managed by You

Onboard Portal

The Onboard Portal delivers inflight connectivity and passenger services. Built by Intelsat and managed by the airline, it delivers the airline's unique branding look and feel, as well as differentiating experiences. Intelsat's advanced testing framework ensures quality performance, putting speed, flexibility and configurability in the airline's hands.
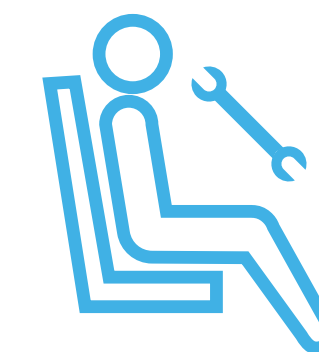
Watch our video about the Onboard Portal

Watch Now

Content Management System (CMS)

Passenger Toolkit

Building the Experience of the Future:
Content Management System

Customization on Your Terms

The Content Management System (CMS) is exclusive to the Onboard Portal, allowing non-technical users to customize the inflight passenger experience directly from their laptop, anywhere, anytime.

- Change fonts, text, colors, backgrounds

- Make sitewide layout revisions

- Update image assets and content

- Save a library of portal configurations

- Create seasonal and route-specific campaigns

Building the Experience of the Future:
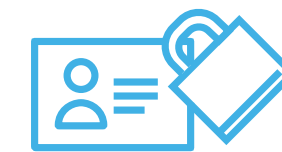
Passenger Toolkit

More Potential for Services

The Passenger Toolkit provides service capabilities with opportunities to enhance and customize the inflight customer experience. It also allows airlines to market and sell more inflight services while delivering stellar customer service.

These capabilities are available with the Onboard Portal platform on Intelsat equipped aircraft, and many can be offered to multi-IFC provider systems.

These APIs connect to the airline's services by riding atop all internet service providers transferring relevant data to customize the inflight experience.

Our APIs enable a wide range of capabilities, including:

User Authentication

Mobile App Enablement

Subscription Services

Free or Sponsored Service

Promo Codes
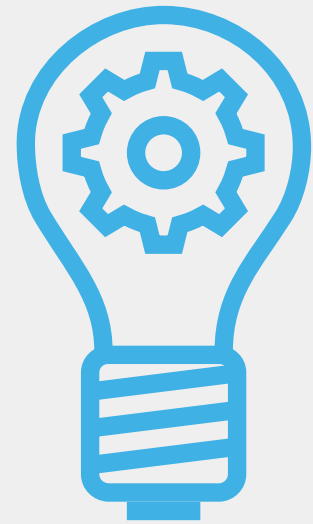
Payment Options

Loyalty

05

What if you could tap into the unifying network ecosystem of the future, today?

Intelsat Is Creating
The Network Of The Future

This global ecosystem of integrated space and terrestrial technologies, networks and providers, and solutions and services will enable seamless, easy-to-deploy, end-to-end performance.

The Intelsat network offers airlines the key to a more efficient, more profitable way of operating.
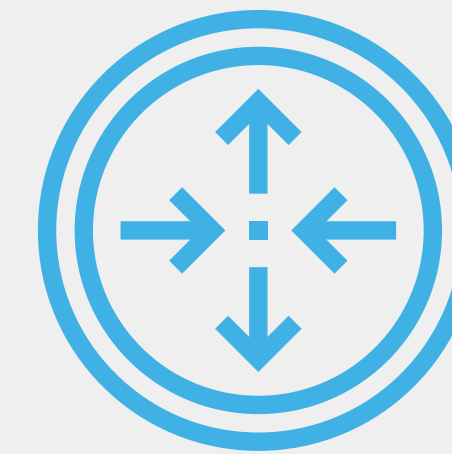
Innovation

Uniting multiple orbits and bands of today's satellite and terrestrial networks in a single, software-defined 5G network

Investment

Building on an already strong foundation, Intelsat will invest over $2B in the first phase of this next generation network
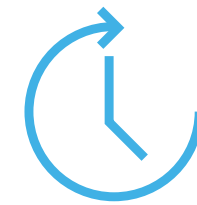
Integration

Bringing together the industry's leading partners to create a bold new future only we can build
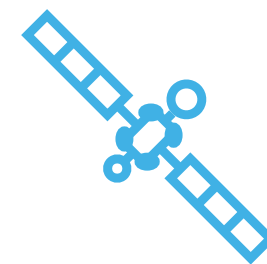
Solving the Challenges of Today and Tomorrow

Intelsat is relentlessly focused on eliminating complex network management, gaps in coverage, and complicated, costly-to-develop hardware.

Driven by the Future
The Intelsat global unifying network is purpose-built to support future technologies, providing a path to tomorrow while protecting investments today.

Advanced Satellites
Our software-defined satellites and networks improve performance and efficiency faster than ever

Innovative Antennas
Our satcom antenna is uniquely forward compatible with SDS and LEO/MEO constellations
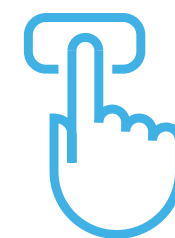
Passenger Focus
Our carrier enablement and software capabilities deliver end-to-end connectivity experiences that just work

Total Integration
An airborne platform that integrates efficiently with multiple inflight system hardware and software configurations

Simple Portal Design
Add and change capabilities for passengers and partners with minimal effort
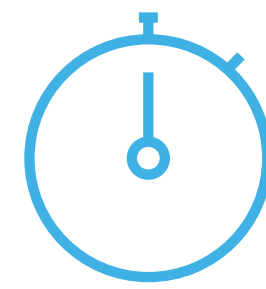
Software-defined satellites

Functionality, Efficiency, Performance

Our software-defined satellites provide dynamic and predictive coverage, designed to concentrate bandwidth where - and when - it is most needed, delivering exceptional performance and seamless reliability.

Dynamic Bandwidth
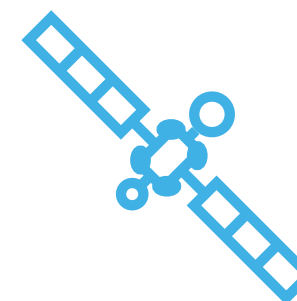Follow-me beams react to signals from the terminal and eliminate beam switching for uninterrupted passenger service

Efficiency and Performance
SDS concentrates bandwidth where usage demands are high, improving economics and delivering superior connection, especially over high-traffic areas and hub cities

Future proof
Implement new and enhance existing services over the lifetime of the satellite

Software-Defined Satellites

Scalable Capacity for Key Advantages

- Route-specific provisioning delivers more megabytes to the aircraft

- More prescriptive capacity allocation

- Reliable, always connected inflight connectivity

- Improved bandwidth (radio spectrum) allocation

- Reduced network bottlenecks via near real-time reallocation of higher concentration capacity

- Real-time reporting and analytics help visualize network and application usage patterns

- Better interactive application performance

Built with extensibility in mind, the OX Platform is ready for new capabilities & features.
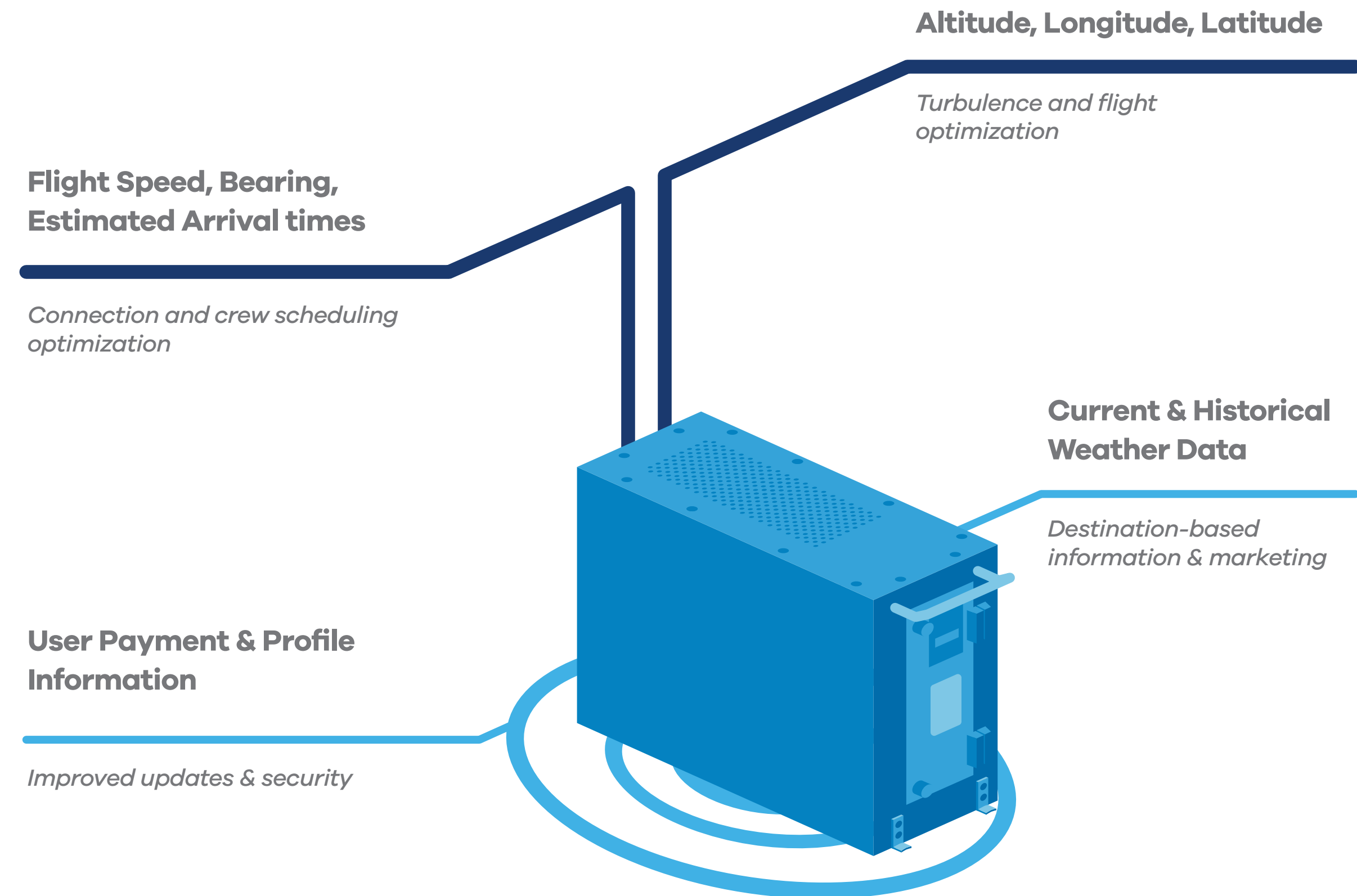
A Platform Built for the Future

Imagine a common platform optimized by machine learning that offers continuous growth opportunities.

- Emerging APIs will rely on the OX Platform to offer innovative perks such as back-end services for food/beverage or gaming
- Uninterrupted passenger experience
- Security model that adapts to evolving threats

Altitude, Longitude, Latitude

Turbulence and flight optimization

Flight Speed, Bearing, Estimated Arrival times

Connection and crew scheduling optimization

Current & Historical Weather Data

Destination-based information & marketing

User Payment & Profile Information

Improved updates & security

A large range of data is collected and processed by the OX Platform and can be accessed through APIs

The Everything-Connected Passenger Experience

As Intelsat lowers the costs of airborne connectivity, even more passengers are connected from start to finish on more devices than ever. Software now enables a curated cabin experience with customized options to enhance the passenger experience.

Food and Beverage

Predictive catering and personalized recommendations provide passengers with the refreshments they expect

Concierge Enablement

Passengers can better pass time with an expanse of digital and physical buy-onboard opportunities

Travel Planning

Forward-looking, integrated details of car rental, hotel reservations and vacation packages give passengers more spontaneity and peace of mind

Ready for the Bold,
New Future?

Meeting the high expectations of passengers and delivering more business
to your airline begins by exploring Intelsat's unifying network of tomorrow.
Only Intelsat delivers the size, scale and advanced technology
to drive this global unification. It's a leap forward in flexibility, scalability,
and world-class passenger experience.

See how Intelsat can help you shape the future of connected air travel.

Speak with an Intelsat expert today.

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