

2016 BROCHURE

PROSPECTS FOR IN-FLIGHT ENTERTAINMENT & CONNECTIVITY

FORECASTS TO 2025



4th Edition | A **Euroconsult** Executive Report

Sector dynamics, analysis and forecasts addressing the IFEC market for commercial airlines and business aviation. This executive report consists of PDF, PPT and XLS files.

- ✓ **130 pages**
- ✓ **More than 70 graphs and tables**
- ✓ **Comprehensive digital files**
- ✓ **Price starting at 4,000 euros**
- ✓ **The report covers 6 regions:** North America, Latin America, Europe, Middle East & Africa, Asia, Oceania

Total revenues from passenger connectivity services are expected to grow from \$700 million in 2015 to nearly \$5.4 billion by 2025, a 23% CAGR over the 10-year period. At the end of 2015, 72 airlines had already installed or announced plans to install passenger connectivity systems on board, and the number of connected commercial aircraft had increased by 21% compared to the end of 2014.

The launch of High Throughput Satellites (HTS) in both Ku-band and Ka-band is expected to be a game-changer for the in-flight connectivity market. Total Ka-band HTS supply will increase threefold to reach 1,500 Gbps by 2018, while Ku-band HTS supply will increase fivefold to reach 285 Gbps in 2018. Beyond 2018, an even larger volume of capacity, targeting the in-flight connectivity market, is expected. HTS systems will not only tremendously increase data speeds to the plane compared to regular satellite systems, but will also significantly lower costs, thereby further driving the adoption of IFC services. With more airlines opting for cabin connectivity, companies that have not yet made a decision will be increasingly pressured to offer such services to match their competitors.

The number of connected commercial aircraft is expected to grow from 5,300 to 23,100 over the 2015-2025 period, accounting for 62% of the global fleet. In the business aviation market, the share of VSAT solutions is also seen increasing dramatically, as the largest service providers on the commercial aviation market announced plans at the end of 2015 to address this market.

ABOUT PROSPECTS FOR IN-FLIGHT ENTERTAINMENT & CONNECTIVITY

Prospects for In-Flight Entertainment & Connectivity analyzes the IFEC market for both commercial airlines and business aviation. Over 15 interviews have been conducted with stakeholders from around the globe and across the full value chain, including satellite operators, service providers, antenna/modem manufacturers and airlines. The report assesses trends for both content & equipment provision.

A MUST READ FOR:

- ✓ MSS & FSS Operators
- ✓ Inflight Connectivity Providers
- ✓ IFE system providers
- ✓ Satellite Equipment Manufacturers
- ✓ Satellite Manufacturers
- ✓ Investors & Financial Institutions
- ✓ Government Agencies

KEY FEATURES

- Overview and trends of the IFE market
- Inhibitors constraining IFE development
- E-aircraft solutions: The smart plane concept
- Analysis of the business aviation and commercial aviation addressable markets
- Strategic considerations, market share & business models for operators, service providers, IFC equipment manufacturers
- Analysis of airlines' IFEC business model
- Regional analysis of IFEC current installations and 10-year forecasts on the business aviation and commercial aircraft markets
- Connectivity service revenues by technology for commercial airlines and business aviation
- 10-year forecasts for capacity requirements by region for commercial airlines & business aviation
- 10-year forecasts for FSS satellite operators' revenue for commercial airlines & business aviation

THE REPORT COVERS 6 GEOGRAPHIC REGIONS:

North America, Latin America, Europe, Middle East & Africa, Asia, Oceania



TABLE OF CONTENTS

01 \ STRATEGIC ISSUES AND FORECASTS

- > The In-Flight Connectivity Market in 2015
- > Strategic Issues & Forecasts
 - In-Flight Entertainment: Growing Adoption of Wireless Solutions in Single-Aisle Fleets
 - In-Flight Connectivity: A Fast-Growing Market
 - The Smart Plane Concept Taking Shape
 - Upcoming HTS Capacity to Further Drive Growth
 - A Highly Concentrated Service Provider Market
 - Tremendous Changes Expected in the Service Provider Landscape
 - Flexible Service Providers' Business Model
 - IFC Equipment Manufacturers Highly Tied to Service Providers
 - Factors Inhibiting IFEC Growth
 - The Commercial Aviation Market
 - The Business Aviation Market

02 \ IFE SERVICES & E-AIRCRAFT SOLUTIONS

- > Evolving IFE Integrates New Media Consumption Trends
 - IFE has become an integral part of passengers' journeys over the years
 - IFE is an integral part of airlines' brand recognition
 - IFE: A market attracting a growing number of companies
 - More IFE options available to passengers due to changes in viewing habits
 - Wireless IFE solutions drive ancillary revenues
- > In-Flight Connectivity: A Fast Growing Market
 - Mobile-phone and Wi-Fi services
 - Various networks offering in-flight connectivity
 - Bandwidth to aircraft: Technology solutions benchmarks
 - Bandwidth to passengers
 - Regulatory complexities
 - Convergence of entertainment and connectivity
- > E-Aircraft Solutions: The Smart Plane Concept
 - Electronic flights bags will improve aircraft operations
 - Tracking services to become a necessity
 - Cabin crew applications for enhanced passenger services
 - Improved maintenance operations to generate major savings
 - A wide range of new opportunities for the smart plane

TABLE OF CONTENTS

03 \ IFC ECOSYSTEM AND VALUE CHAIN

> Network Operators

- MSS still holds a significant market share
- Inmarsat, the pioneer MSS operator in the aviation market
- Iridium, a solid positioning in the aero market
- Growing involvement of FSS operators
- HTS satellites to support a new generation of broadband systems
- Different business models for satellite operators
- Air-to-ground attracting new players

> Service Providers

- In-flight connectivity brings new players into the market
- HTS set to be the name of the game
- STCs are key requirements for service providers' installations
- A business model with clear operating leverage
- Major commercial service providers now heading toward the business jet market
- The next generation of IFC networks is around the corner
- A very active market for mergers and acquisitions

> IFC Equipment Manufacturers

- Strategic considerations
- VSAT antenna manufacturers
- Radomes
- Modems
- ATG equipment
- MSS (L-band) equipment

04 \ ANALYSIS & PROSPECTS OF THE COMMERCIAL AVIATION MARKET

> Commercial Airline Market

- Close to 26,000 commercial aircraft in operation at the end of 2015
- Supportive market trends for airlines
- Further growth ahead for the addressable market
- Increased penetration of IFC
- Airlines' business models for IFC
- Airlines in North America lead the IFC market; airlines from emerging regions are growing fast
- 19% of IFC-enabled airlines are low-cost carriers
- Commercial airlines' market forecasts through 2025

05 \ ANALYSIS & PROSPECTS OF THE BUSINESS AVIATION MARKET

> Business Aviation Market

- The global business aviation fleet has been growing for a decade
- The global business aviation fleet grew by 2.4% in 2015
- North America remains the largest market
- Business aviation still offers growth opportunities for IFC
- Business aviation market forecasts through 2025

GRAPHS & TABLES

02 / IFE SERVICES & E-AIRCRAFT SOLUTIONS

- ❑ TYPES OF IFE
- ❑ BANDWIDTH REQUIRED PER APPLICATION
- ❑ HD VIDEO STREAMING, REQUIRED BANDWIDTH PER PLANE
- ❑ PASSENGERS' JOURNEY DRIVEN BY VARIOUS SERVICES
- ❑ PASSENGER ENTERTAINMENT DURING A FLIGHT USING EMBEDDED IFE SYSTEMS
- ❑ MAIN EQUIPMENT MANUFACTURERS BY TYPE OF SYSTEM
- ❑ LIVE TV SERVICES PROVIDED BY AIRLINES
- ❑ SYSTEMS: KEY STRENGTHS AND WEAKNESSES
- ❑ BANDWIDTH TO AIRCRAFT - PEAK RATE
- ❑ BENCHMARKING OF THREE HTS SYSTEMS FOR IN-FLIGHT CONNECTIVITY
- ❑ KEY SERVICE PROVIDERS' POSITIONING

03 / IFC ECOSYSTEM & VALUE CHAIN

- ❑ HTS CAPACITY SUPPLY, IN KU-BAND AND KA-BAND, BY REGION
- ❑ WORLD CAPACITY SUPPLY
- ❑ SERVICE PROVIDERS' COVERAGE MAPS
- ❑ CONNECTED AIRCRAFT BY TYPE, AS OF 2015
- ❑ GOGO: SERVICE SEGMENT PROFITABILITY
- ❑ GEE: CONNECTIVITY SEGMENT PROFIT
- ❑ CONNECTIVITY SERVICES: AVERAGE ANNUAL REVENUE PER AIRCRAFT
- ❑ NUMBER OF CONNECTED COMMERCIAL AIRCRAFT PER AIRCRAFT TYPE IN 2015
- ❑ SERVICE PROVIDERS MARKET SHARE PER REGION
- ❑ VSAT ANTENNA MANUFACTURERS' MARKET SHARE IN COMMERCIAL AVIATION INSTALLATION (2015)
- ❑ VSAT MODEM MANUFACTURERS' MARKET SHARE - INSTALLATIONS (2015)
- ❑ INMARSAT'S AERONAUTICAL SATCOM SERVICE PORTFOLIO
- ❑ SERVICE PROVIDERS' STRATEGIES
- ❑ PLAYERS PROVIDING IFC SERVICES DIRECTLY TO AIRLINES
- ❑ SERVICE PROVIDERS' STC PER TYPE OF AIRCRAFT (LINE-FIT AND/OR RETROFIT)
- ❑ LEADING ANTENNA MANUFACTURERS BY SERVICE (2015)

04 / ANALYSIS AND PROSPECTS - COMMERCIAL AIRLINE MARKET

- ❑ VALUE CHAIN FOR THE COMMERCIAL AVIATION INDUSTRY
- ❑ EVOLUTION OF MONTHLY RPK (IN BILLIONS)
- ❑ REGIONAL YEAR-OVER-YEAR RPK GROWTH
- ❑ EVOLUTION OF COMMERCIAL AIRLINE INDUSTRY REVENUE AND NET PROFITS
- ❑ IFC PRICING ELASTICITY
- ❑ TIME-BASED PRICING RANGE FOR ONBOARD CONNECTIVITY
- ❑ DATA-BASED PRICING RANGE FOR ONBOARD CONNECTIVITY
- ❑ CONNECTED AIRCRAFT BY TECHNOLOGY
- ❑ NUMBER OF CONNECTED AIRCRAFT BY AIRLINE TYPE
- ❑ NUMBER OF CONNECTED COMMERCIAL AIRCRAFT IN 2025 VS 2015
- ❑ NUMBER OF IN-FLIGHT CONNECTED ENABLED COMMERCIAL AIRCRAFT BY AIRLINE AND BY REGION (2015)
- ❑ TOTAL TERMINALS IN COMMERCIAL AVIATION, BY TECHNOLOGY
- ❑ NUMBER OF MSS/KU-BAND/KA-BAND/ATG TERMINALS IN COMMERCIAL AVIATION
- ❑ TOTAL VSAT CAPACITY REQUIREMENTS - COMMERCIAL AVIATION
- ❑ KU-BAND/KA-BAND CAPACITY REQUIREMENTS - COMMERCIAL AVIATION
- ❑ FSS SATELLITE OPERATORS' REVENUE - COMMERCIAL AVIATION
- ❑ TOTAL IN-FLIGHT CONNECTIVITY SERVICE REVENUE BY TECHNOLOGY FOR COMMERCIAL AIRLINES
- ❑ COMMERCIAL AVIATION TRAFFIC
- ❑ COMMERCIAL AIRLINE FORECASTS

05 / ANALYSIS & PROSPECTS - BUSINESS AVIATION MARKET

- ❑ BUSINESS JET & TURBOPROP SHIPMENTS
- ❑ VALUE CHAIN FOR THE BUSINESS AVIATION INDUSTRY
- ❑ U.S. JET UTILIZATION BY CATEGORY
- ❑ MARKET SHARE BY OPERATOR - BUSINESS AIRCRAFT 2015
- ❑ NUMBER OF CONNECTED BUSINESS AIRCRAFT IN 2025 VS 2015
- ❑ TOTAL TERMINALS IN BUSINESS AVIATION, BY TECHNOLOGY
- ❑ MSS/KU-BAND/KA-BAND/ATG TERMINALS IN BUSINESS AVIATION
- ❑ TOTAL VSAT CAPACITY REQUIREMENTS - BUSINESS AVIATION
- ❑ KU-BAND/KA-BAND BANDWIDTH REQUIREMENTS IN BUSINESS AVIATION
- ❑ FSS SATELLITE OPERATORS' REVENUE - BUSINESS AVIATION
- ❑ TOTAL SERVICE REVENUE BY TECHNOLOGY IN BUSINESS AVIATION
- ❑ BUSINESS AVIATION SEGMENTATION
- ❑ SATCOM APPLICATIONS FOR BUSINESS PEOPLE
- ❑ SATCOM DIRECT PRICING FOR INMARSAT SWIFTBROADBAND
- ❑ SATCOM DIRECT PRICING FOR VIASAT YONDER SERVICE (KU-BAND)
- ❑ SATCOM DIRECT AND GOGO PRICING FOR IRIDIUM AERO SERVICE
- ❑ GOGO BIZ DATA PLANS
- ❑ BUSINESS AVIATION FORECASTS



ORDER FORM

(1/2) (COPYRIGHT ON REVERSE SIDE IS MANDATORY)

PROSPECTS FOR IN-FLIGHT ENTERTAINMENT AND CONNECTIVITY 4TH Edition (2016)

Please complete this form and return by e-mail to reports@euroconsult-ec.com **or** by fax to + 33 1 48 05 54 39. If you have any questions about ordering, would like to enquire about specific corporate licenses or would like to order for multiple locations and/or legal entities, please contact reports@euroconsult-ec.com or call +1 (514) 903-1001. **All prices are in Euros. All orders must be prepaid** (if not possible, please contact us). Applicable VAT taxes will be added in Euros.

1

Product		Price	Total
eFiles (PDF/PPT/XLS files) (Including additional Excel tables for key figures, full-page graphs and a PDF of the report)		€ 4,000	
Additional digital file (s)	Qty:	€ 400	
Enterprise license		€ 10,000	
VAT if applicable companies based in France must add VAT 20%			
Product Total in Euros (€)			

3

Accounting Dept. E-mail: _____

4

Invoicing Address (Please use capital letters)

First name _____

Last name _____

Company name _____

Occupation _____

Address _____

Zip Code _____ City _____

State _____ Country _____

Phone _____ Fax _____

E-mail _____

2

Payment Information

Company VAT n° (required for all companies)

Credit Card



VISA



Mastercard



AMEX

Cardholder Name (as it appears on card)

Cardholder Number
_____|_____

Expiration Date (month/year) | Cryptogram (last 3 digits on the back)

Cardholder's Signature

Bank Transfer

(All bank charges are to be paid by the sender)

to EUROCONSULT, please NOTE IMPERATIVELY:

Swift-BIC code: CM CI FR PP

IBAN: FR76 3006 6109 1500 0200 6760 132

Account n° 00020067601

CIC Nanterre Enterprises, 105 Rue des 3 Fontanot, 92022 Nanterre Cedex, France.

Cheque or Money Order Enclosed

Payable to Euroconsult:

86 Blvd. Sebastopol, 75003 Paris, France

5

Delivery Address (If different from invoicing address)

First name _____

Last name _____

Company name _____

Occupation _____

Address _____

Zip Code _____ City _____

State _____ Country _____

Phone _____ Fax _____

E-mail _____



COPYRIGHT AGREEMENT

FOR THE SOFTCOPY AND/OR ELECTRONIC FILES OF:

PROSPECTS FOR IN-FLIGHT ENTERTAINMENT AND CONNECTIVITY 4TH Edition (2016)

Please complete and return the order form & copyright agreement by e-mail to reports@euroconsult-ec.com or fax to + 33 1 48 05 54 39. Each team user must sign a copy of the copyright agreement. Please complete the information below for each user of the research files.

Please read this license agreement carefully.
By using the report files, you are agreeing
to adhere by the terms of this license.

SINGLE USER LICENSE

a) This product is licensed only for a team working together on a project, working on the same site in the same company. The person signing this agreement is responsible for the use of the research files. Euroconsult must be informed of all users of the research files before use. The information may not be shared with other company sites or other work teams in the same or other companies in any form, neither photocopied nor reproduced, including for internal use. The content of the research files may not be stored, transferred, or copied to any type of electronic storage device.

b) No part or extract, in any format whatsoever, must be transmitted to any other organization, including cooperative entities and subsidiaries. All licenses purchased at the additional license price are for internal use only by the organization ordering (same company name, same location as indicated on original order form). Euroconsult must be informed of the users of the additional licenses purchased.

c) All data or information extracted from the research files for use in other documents must rightfully use the copyright reference: *Euroconsult, name of report, year*. Before any other use of the information contained in the research files, prior written consent by Euroconsult is required.

d) This Agreement shall in all respects be governed by the laws of the Republic of France. The user agrees that the proper jurisdiction and forum for the resolution of any claim arising under this license shall be at Euroconsult's sole option.

Research Report User

First name _____

Last name _____

Company _____

Occupation _____

E-mail _____

Date _____

SIGNATURE: _____

Research Report User (For additional user)

First name _____

Last name _____

Company _____

Occupation _____

E-mail _____

Date _____

SIGNATURE: _____

* The content referring to both the research report and the electronic files when applicable.