Everything you need to connect your aircraft

Lconnect – Your world of connectivity
**Connecting you to seamless success**

Seamless connectivity means more than having continuous online access in the air, and goes well beyond mere passenger entertainment. Lufthansa Technik sees a connected fleet as one that takes advantage of an integrated solution and embeds broadband capabilities into every aspect of the operation, from passenger to cabin crew, from cockpit and flight operations to maintenance. Lufthansa Technik keeps close ties with all major players in the connected aviation industry, from various system manufacturers all the way to connectivity service providers.

Lufthansa Technik is the integrating element in a market that demands speed and flexibility at all levels, from business planning to operation and in step with every advance in new technologies. Innovative strength combined with unique technical leadership and global production capacities make Lufthansa Technik the best partner for seamless business success in connected aviation. Your Partner. Your Connectivity.

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**In-flight entertainment and connectivity – IFEC**

**High time to connect your fleet**

**Worldwide connected commercial aircraft**

*Source: Inmarsat*

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>1</td>
</tr>
<tr>
<td>2017</td>
<td>5,000</td>
</tr>
<tr>
<td>2023</td>
<td>13,500</td>
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</tbody>
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83% of the passengers prefer to choose an airline that offers in-flight Wi-Fi.

54% of the passengers prefer in-flight Wi-Fi to other amenities such as meals.

Connectivity is a “must-have”. The vast majority of passengers already prefer an airline that offers in-flight internet access. In-flight Wi-Fi availability is clearly more important than mere in-flight entertainment. But differentiation is just the beginning: Airlines need to align their business models to avoid falling behind.

**Have you secured your slot already?** Timing is everything in a dynamically growing market with very limited installation capacities. An estimated future demand for 1,200 connectivity retrofits per year – that’s actually 20 lines operating in parallel – will most certainly create a shortage. Lufthansa Technik has ten lines available for connectivity modifications of any kind. If you plan to connect your fleet, it’s high time to get on board!

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**A whole world of connective elements**

**Consulting and business model solutions**

In a highly dynamic market, connecting your fleet requires both technological know-how and dedicated business model solutions. Lufthansa Technik can advise customers from the very outset of their business planning. This includes insights on the effect of any future technological advances or changes in customer requirements on retrofits or conversions.

**Project and fleet layover management**

Lufthansa Technik has experience in coordinating extensive modification programs, which ensures that any fleet size can be equipped with the newest technologies in the shortest time. Our agile fleet layover management adapts to customers’ operational needs.

**Engineering and certification**

Lufthansa Technik offers worldwide one-stop shop integration and is the best partner for engineering and certification (EASA 21J) issues of any kind. The integrated design solutions enable upgradeability and maintainability (ARINC 791-optimized baseplate). Existing Supplemental Type Certificates (STC) cover more than 70 percent of all available commercial aircraft.

**Software and hardware**

As a production organization (EASA 21G) and part of a sophisticated partner network of OEMs, Lufthansa Technik has the optimized sourcing strategy you expect from the leading integrator of connectivity solutions. Customers benefit from our unique, competitive package of software and hardware.

**Material kitting and logistics**

Backed by its leading aviation and MRO logistics, Lufthansa Technik’s material kitting and supply chain is optimally structured for worldwide modification programs of any size. Smart kitting solutions offer optimized pre-assembled and ready-to-use kits.

**Fleet and single aircraft installation**

Lufthansa Technik’s global production network offers modification of single aircraft or large fleets with an industry-leading turnaround time. Whether you plan a special modification layover or want to take advantage of a heavy maintenance check, Lufthansa Technik solutions fit every customer’s operational needs.

**In-service support and material pooling**

Once a customer fleet is connected, Lufthansa Technik still remains the preferred partner for troubleshooting and customer support. Its worldwide logistics network ensures that connected fleets stay that way.
More mobility for the world

Lconnect by Lufthansa Technik

Everything you need to connect your aircraft

From planning and installation to in-service support, from ground to air, from cockpit to cabin, from single aircraft to the largest fleet – Lufthansa Technik is the global one-stop partner for aircraft connectivity. Connecting its customers’ flying assets reliably, quickly and flexibly in a seamless solution prepares them ideally for all future challenges.

Lufthansa Technik’s unique triple competence as maintenance, design and production organization and its profound airline experience ensure the capability to manage requirements of any complexity level.

Fast installation of large fleets or single aircraft
Minimum aircraft downtime
Simultaneous installation of up to ten aircraft
Flexible installation during aircraft checks or special layovers
Worldwide installation possible
Strong network and partnerships
Longtime experience and know-how
Certification expertise
Airline-proven, fast logistics
Management of complex situations
Smart design with simple and flexible integration
Tailored solutions for every customer and aircraft type
Modular and scalable offer


Onboard network

The integration of interior equipment from Lufthansa Technik’s Original Equipment Innovation division as well as other systems such as BoardConnect by Lufthansa Systems creates a highly stable onboard Wi-Fi network. An integrated server acts as the router between the cabin network and the external data stream.

Air-to-ground antennas

Two lightweight, streamlined antennas mounted on the lower fuselage offer cost-efficient broadband connectivity.

Air-to-ground communications

A cellular tower network provides broadband connectivity over land masses. Lufthansa Technik and its technology partners bring the next generation of air-to-ground technology to Europe, one that combines flexible capacity and LTE speed.

Satellite communications

State-of-the-art satellite networks (GEO) are the backbone of globally available broadband connectivity services. In collaboration with leading connectivity service providers, Lufthansa Technik offers a second generation of its tail-mounted Two-In-One-Solution (TIOS) for Ka-band and Ku-band satellite communications.

Cockpit/cabin communication

The electronic flight bag (EFB) is one of many cockpit applications for high-speed connectivity. Others include turbulence and real-time weather information and onboard maintenance reports. Beyond cockpit applications, cabin connectivity supports value-adding services and enhances ancillary revenues.

Aircraft maintenance

Operational aspects of a seamlessly connected aircraft such as maintenance data access, failure reports and on-condition monitoring pave the road to true predictive maintenance.

Internet gateway

A system of gateways provides the ground-based infrastructure to connect satellites and cellular-based networks with the internet.

Fuselage-mounted antenna and radome installation

The broadband antennas, Ka-band or Ku-band mounted underneath a radome assure satellite communication between an aircraft and the ground station even during overseas flights. Lufthansa Technik solutions require minimal interference with the aircraft structure (better than ARINC 791), making them perfect for carefree lease return transitions.

Lconnect – Connectivity solutions from a single source

Find installation of large fleets or single aircraft
Flexible aircraft transitions
Simultaneous installation of up to ten aircraft
Flexible installation during aircraft checks or special layovers
Worldwide installation possible
Strong network and partnerships
Longtime experience and low-fees
Certification expertise
Airline-proven, fast logistics
Management of complex situations
Smart design with simple and flexible integration
Tailored solutions for every customer and aircraft type
Modular and scalable offer

In-flight entertainment and connectivity

The newest broadband technologies allow for high-performance in-flight entertainment and connectivity (IFEC). They provide seamless worldwide coverage for passenger internet access, including e-mail/SMS, video streaming, cloud computing, e-commerce, etc.
