

# IN-FLIGHT WI-FI

**Market entry  
Technology**

**Medium difficulty  
Interviewer-led case**

This case evaluates an adjacent market opportunity for a telecommunications equipment supplier serving the aviation industry. It covers all the elements of the case interview scorecard and requires strong judgment.

## Problem definition

Your client, SkyCo, is the leading telecommunications equipment supplier serving the aviation industry. They provide a broad portfolio of hardware and software products used for in-flight communication between pilots and air traffic controllers, working with major aircraft manufacturers such as Airbus and Boeing.

SkyCo is exploring opportunities to accelerate revenue growth and is considering entering the in-flight Wi-Fi equipment market. They would supply the necessary hardware and software to aircraft manufacturers for new aircraft, as well as to airlines for retrofitting existing aircraft that are not yet equipped with Wi-Fi. The equipment is assumed to be a one-time installation that remains in service for the lifetime of the aircraft, with no ongoing maintenance required. Control of the passenger-facing Wi-Fi platform typically remains with the airline, which may use it to generate additional revenue; this potential revenue stream is considered out of scope.

**SkyCo has asked for your support in evaluating this opportunity.**

## Additional information

If requested, share that:

- SkyCo is the leading player in the aviation telecommunications equipment market, with ~\$7B in sales last year.
- The primary objective is to drive significant revenue growth without compromising overall profitability; no specific revenue target has been set.
- Entering the in-flight Wi-Fi equipment market would require end-to-end development, but R&D is confident in execution, as the technology is less complex than SkyCo's existing products.
- This is a global opportunity.

### Question 1 (Structuring)

How should we evaluate this opportunity?

#### Possible answer

1. *Is the in-flight Wi-Fi equipment market attractive?*
  - a. *Is it large enough? (New aircraft? Retrofitting?)*
  - b. *Is it growing? (What demand drivers? Are they sustainable?)*
2. *Is SkyCo well positioned to capture a significant share of this market?*
  - a. *Who are the customers and what are their needs?*
    - i. *Aircraft manufacturers (for equipping new aircraft); key purchasing criteria include cost, reliability, weight, space required*
    - ii. *Airlines (for retrofitting existing aircraft); key purchasing criteria include all of the above, plus ease/ speed of installation to avoid long grounding time*
  - b. *Who are the competitors and how do they perform against key purchasing criteria of customers?*
  - c. *Will SkyCo be able to differentiate vs. existing competitor offerings? What would be their edge?*
3. *Can this opportunity be a profitable new business for SkyCo?*
  - a. *Initial investment required (R&D, manufacturing facilities, etc)*
  - b. *Potential revenue*
  - c. *Running costs (Fixed and variable costs)*
4. *What are the capabilities and risks associated with this opportunity?*
  - a. *Capabilities: R&D of Wi-Fi & satellite technology in the high-constraint aviation environment, manufacturing at attractive cost, etc.*
  - b. *Risks: longer than expected R&D costs, technological disruption, competitive response, unexpected events causing a decline in global air travel, etc.*

### Question 2 (Math)

Let's estimate the revenue potential of this market.

**Based on Exhibit 1 and 2, can you estimate the potential market size (in \$) for in-flight Wi-Fi equipment globally, in Year N?**

#### Interviewer guidance

- The candidate should calculate the potential market from equipping new aircraft and retrofitting existing aircraft.
- To calculate the annual market from retrofitting existing aircraft, candidates need to estimate % uptake per year. If the candidate needs a hint, suggest using the speed of adoption.
- Candidates may reach a slightly different numerical answer if they use different assumptions.

#### Additional information

- Price per unit today (Year N) is \$1.5M

Exhibit 1: Commercial passenger aircraft total \

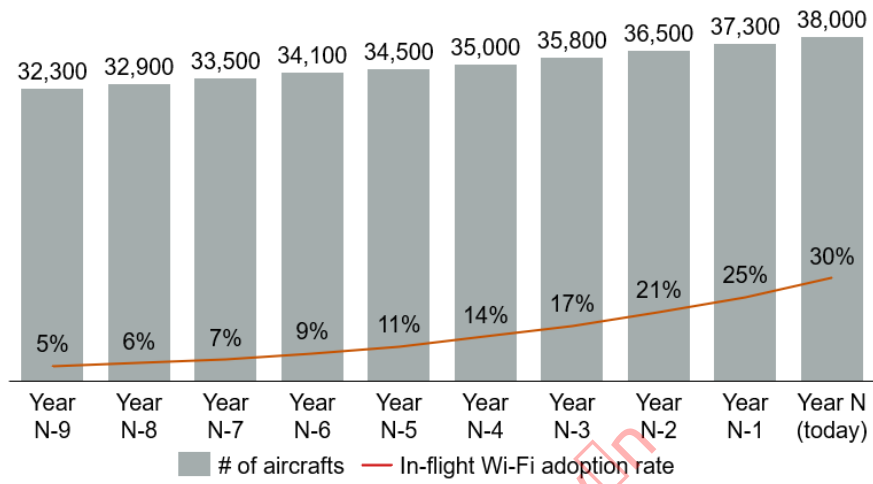
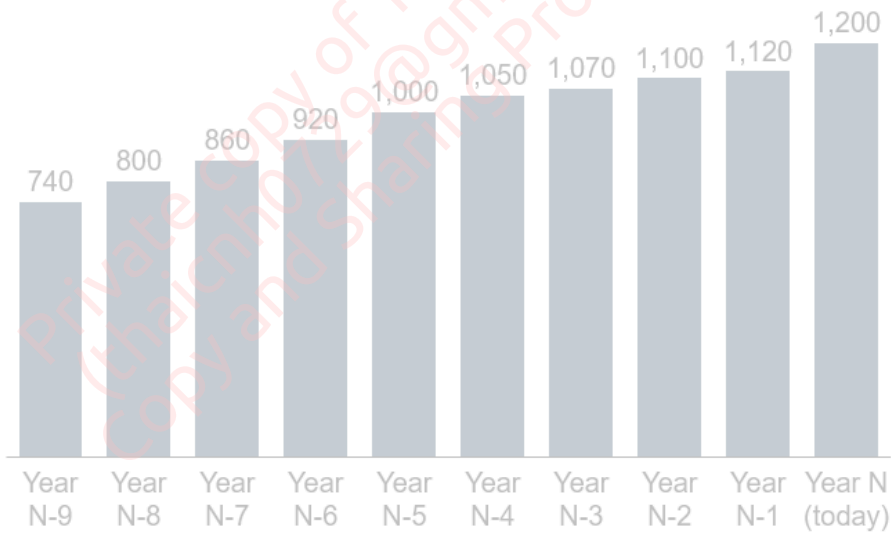


Exhibit 2: Annual production of new commercial passenger aircraft



**Possible answer**

1. We will segment the market into
  - a. Equipping new aircraft
  - b. Retrofitting existing aircraft
2. New aircraft (annual market in Year N)
 

= 1,200 × \$1.5M

= **\$1.8B/year** (assuming 100% of new aircraft will be equipped with onboard Wi-Fi \_\_\_ 33).
3. Existing aircraft (multi-year opportunity):
  - a. 70% of 38,000 = 26,600 aircraft left to be equipped (estimate based on fleet size at the beginning of Year N, assuming final adoption rate of 100% and excluding the 1,200 new aircraft added during Year N).
  - b. Market potential: 26,600 × \$1.5M = **\$39.9B** (one-off opportunity, over several years)
4. Conclusion
  - a. Annual flow of ~\$1.8B from new aircraft: this is a sustainable market opportunity over time, although with some limitations
    - i. It assumes all aircraft will be equipped, but some low-cost airlines or aircraft that only operate on very short flights may not require to be equipped with Wi-Fi
    - ii. It assumes constant price; price may go down as adoption goes up and as competition intensifies
    - iii. We should also note that the # of new aircraft has been growing steadily over the last 10 years – hence this market opportunity may become larger if the number of new aircraft continues to grow.
  - b. Total long-term potential of ~\$40B from retrofitting existing aircrafts: this is a large one-off market that will be accessed over multiple years as existing planes are retrofitted with Wi-Fi technology. Some limitations to this estimate are:
    - i. Some aircraft that are at the end of their lifecycle will probably not benefit from such an investment from the airlines
    - ii. Same other limitations as for new aircraft (see above)
    - iii. Annual size of this retrofitting market opportunity depends on speed of adoption by airlines; we can observe in the first chart that adoption is picking up pace in recent years and has increased by 5 p.p. in Year N. Hence, we can estimate that Year N market size from retrofitting segment = 38,000 × 5% × \$1.5M = **\$2.85B**
  - c. **Overall Year N market size estimate = \$1.8B + \$2.85B = \$4.65B**
5. The in-flight Wi-Fi equipment market appears attractive from a size standpoint, when compared to the current revenues of SkyCo (~\$7B).
  - a. We should, however, note that part of this market (retrofitting segment) will not last to perpetuity (one-off opportunity to equip existing global fleet), and that adoption pace may slow down in the future. In addition, we should bear in mind that this market sizing exercise assumes stable price and 100% adoption rate.

### Question 3 (Judgement & insights)

Let's dive deeper into the retrofitting opportunity; that is, quipping existing aircraft.

**How fast do you think this retrofit market will be captured, and what factors, positive and negative, would influence the speed of adoption?**

#### Possible answer

1. *To estimate the speed of adoption, we should consider both accelerators and barriers. We may see an S-curve adoption, often seen with new technologies. In this pattern, adoption is slow at first, accelerates as benefits become proven and costs decrease, then tapers off as the market saturates.*
2. *Factors that could accelerate adoption:*
  - a. **Rising passenger expectations:** *Connectivity is increasingly seen as a basic service, especially on long-haul and premium routes.*
  - b. **Airline differentiation & competition:** *Airlines may move quickly to offer Wi-Fi to remain competitive, particularly in markets with high business travel.*
  - c. **Ancillary revenue potential:** *If airlines can monetize Wi-Fi access, it strengthens the business case for investment.*
  - d. **Partnerships or bundled retrofits:** *Collaborations with aircraft manufacturers or leasing companies could streamline upgrades and reduce friction.*
  - e. **Declining costs over time:** *As production scales and technology matures, unit costs may drop, accelerating adoption during the middle phase of the S-curve.*
3. *Factors that could slow adoption:*
  - a. **High upfront investment:** *At \$1.5M per aircraft, retrofitting represents a major capex decision, especially for low-cost carriers.*
  - b. **Operational disruption:** *Installation may require aircraft to be grounded, affecting fleet utilization and revenue.*
  - c. **Logistical complexity:** *Large, global fleets with varied aircraft models make coordination difficult.*
  - d. **Economic uncertainty:** *Macroeconomic downturns or fuel price shocks may cause airlines to delay non-essential upgrades.*
  - e. **Uneven regulatory environments:** *Some regions may have stricter approval processes or less supportive infrastructure.*
4. *Observed trend:*
  - a. *Adoption has picked up pace in recent years and increased by 5 p.p. in Year N (compared to just 1 p.p. in Year N-8 and 3 p.p. in Year N-3) – confirming the interest of customers for this technology.*
  - b. *Based on the S-curve principle, we can make the assumption that we are still in the acceleration phase of adoption – although it is more challenging to estimate when adoption will start to slow-down.*
  - c. *To do that, we would need to have deeper insights on customer behaviour / preferences.*

5. *In conclusion, adoption will likely follow an S-c acceleration, particularly once the value proposition is proven and installation becomes more efficient.*
6. *A realistic estimate might be that the retrofit market will unfold over the next 10 to 15 years. Current level of adoption and recent acceleration trend seem to indicate that adoption will further accelerate for a few years, before slowing down again.*

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**Question 4 (Creativity)**

Imagine a low-cost airline CEO is reluctant to invest in Wi-Fi equipment. **How could SkyCo convince them?**

**Possible answer**

1. SkyCo should attempt to reframe in-flight Wi-Fi as a strategic asset, not just a cost. Key approaches that the candidate can propose include:
  - a. *Flexible pricing models: Offer revenue-sharing or leasing to avoid upfront costs and tie payment to usage or passenger volume.*
  - b. *Ancillary revenue: Highlight new income streams from paid access, advertising, or e-commerce.*
  - c. *Operational gains: Use Wi-Fi to enable real-time flight data sharing, crew tools, and digital services.*
  - d. *Customer experience: Emphasize improved satisfaction and competitiveness, especially on longer or business-heavy routes.*
  - e. *Quick-install solutions: Provide lightweight, fast-to-retrofit equipment to minimize downtime.*
2. *Together, these could make the investment more financially and operationally attractive for low-cost carriers.*

**Question 5 (Synthesis)**

**What is your recommendation to your client at this stage and what are potential next steps?**

**Possible answer**

1. *We were asked to evaluate the in-flight Wi-Fi opportunity. At this stage, I would recommend that SkyCo further investigate and begin preparing for entry into the in-flight Wi-Fi equipment market. The opportunity appears strategically attractive and potentially transformative in terms of accelerating revenue growth:*
  - a. *The market size is significant, with a \$4.65B annual opportunity combining new aircraft and retrofit segments — nearly 70% of SkyCo’s current revenue.*
  - b. *The retrofit segment alone represents a ~\$40B opportunity over the coming years, and adoption is accelerating, suggesting we are in the early to mid-phase of the adoption S-curve.*
  - c. *SkyCo already has deep relationships with key customers (aircraft manufacturers), and strong credibility in aviation telecom — this could provide a competitive advantage in a fragmented market.*
  - d. *The required technology is well within SkyCo’s R&D capabilities, and commercial synergies may exist with the current business.*
2. *That said, a few caveats must be carefully considered:*
  - a. *This would require significant upfront investment and a ramp-up in new capabilities (e.g., Wi-Fi-specific hardware design, commercial go-to-market with airlines).*
  - b. *The price point per unit is high (\$1.5M), so commercial success will depend on SkyCo’s ability to convince customers of the value and reduce installation friction.*
  - c. *The retrofit market is one-off by nature, so SkyCo should also think early about longer-term recurring revenue models (e.g., service layers, upgrades, or partnerships with connectivity providers).*
3. *Potential next steps*
  - a. *Deep-dive business case: Refine the financial attractiveness by estimating development costs, production costs, and expected market share under different adoption scenarios.*
  - b. *Competitive landscape & differentiation: Map key competitors and identify where SkyCo can win — via performance, price, reliability, or integration with other systems.*
  - c. *Customer insight: Conduct interviews with key OEMs and airline clients to test willingness to adopt SkyCo’s future solution and understand purchase drivers.*
  - d. *Commercial & operating model design: Define potential go-to-market options, partnerships (e.g., aircraft lessors, integrators), and operational setup needed for launch.*
  - e. *Stage-gated investment plan: Develop a clear roadmap with early technical prototypes and commercial pilots, limiting exposure until early traction is confirmed.*