

In-Flight Wi-Fi

Are Expectations Too High?



Andrew Penn · Mike Greene

The long-term promise of In-Flight Connectivity (IFC) may be tempered in the near-term by consumers' alternative entertainment options, suggesting a need for greater focus on IFC applications beyond the cabin.

The sky may be the limit for in-flight connectivity (IFC) over the long-term; however near-term adoption may be tempered by consumers' alternative entertainment options. Consumer broadband habits and onboard Wi-Fi take rates to-date suggest that already-deployed technologies (such as DTH over Wi-Fi, and onboard, server-stored content) may limit near-term demand for in-flight broadband.

Providers would be wise to plan accordingly by considering additional offerings and business models to drive revenue generation in the aircraft connectivity market.

Over a decade of broadband IFC – from slow start to rapid investment

Despite a slow start, the last few years have seen significant investment and new entrants into the broadband IFC market. Boeing's first-to-market commercial IFC offering in 2004 was cancelled after only two years of service, citing weak airline customer demand. But today six different IFC providers are in the market and in fact are working hard just to keep pace with surging demand from the airlines, which are investing hundreds of millions of dollars to get connectivity off the ground. In fact, the leading US market IFC provider, Gogo, has a backlog of more than

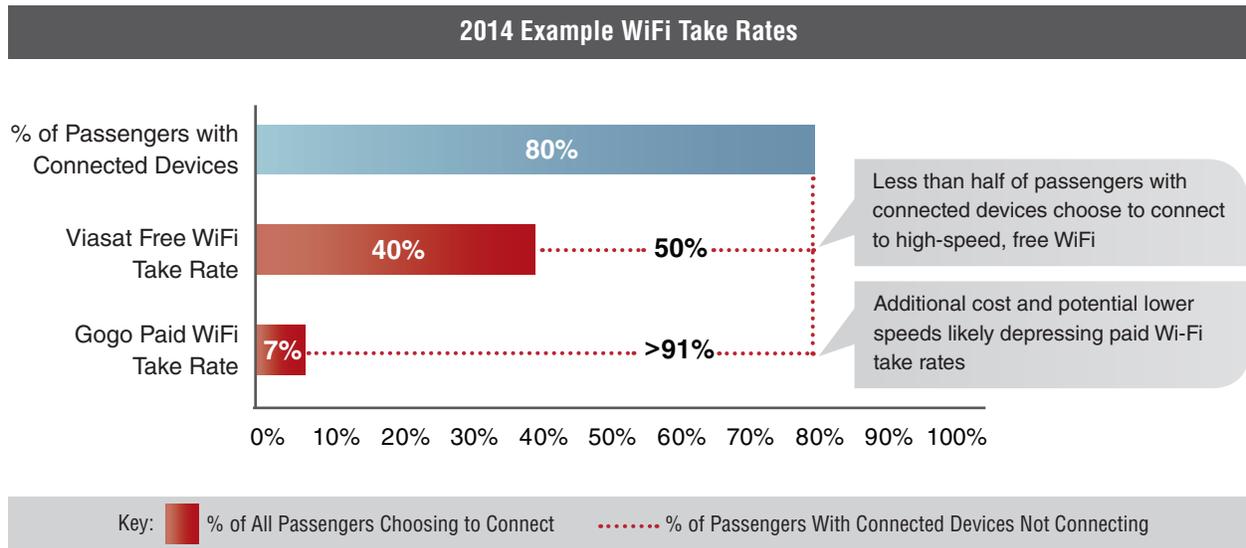
1,000 aircraft, and the past three years have seen numerous transactions, partnerships, and new products in the IFC space—all while equipment prices have fallen by 80-90%. It appears that the era of airline customer connectivity has arrived.

But... should we curb our IFC enthusiasm?

Although many signs in the IFC market point up, some stakeholder actions suggest the market may still face headwinds. For example, AT&T exited its IFC partnership with Honeywell only eight months after it entered the market. There are, of course, a number of reasons why AT&T may have backed out, such as entrenched competition or more enticing alternative investments. One intriguing possibility, however, is that services demand from passengers may need more time to catch up with the airlines' recent IFC adoption. And, at almost 80% of current global IFC revenue, services are where the money is.

Nearly one quarter of all commercial airline miles flown are on aircraft outfitted with cabin Wi-Fi, however, current onboard Wi-Fi take rates appear low. Gogo has reported take rates at under 7%, and higher-speed, free offerings from JetBlue and Norwegian Air are seeing rates of only 40% and 35%, respectively.





Substitutes for real-time IFC: video entertainment alternatives

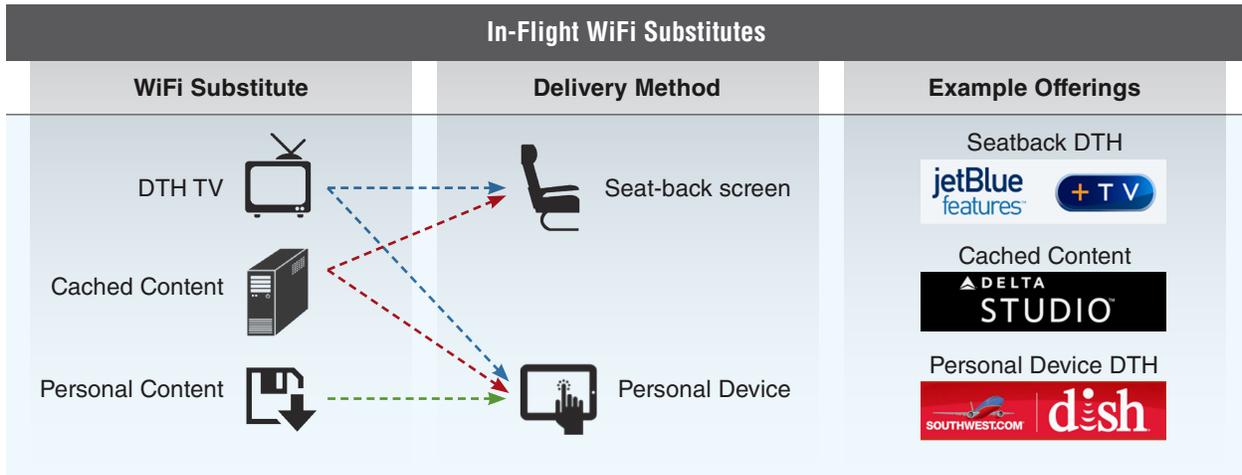
With a survey-estimated four out of five passengers carrying Wi-Fi-enabled personal devices, these take rates may seem low; but taken in the context of wider consumer broadband demand, these rates begin to make sense. Broadband customers look to video for their entertainment: Last year Cisco estimated that 78% of all internet traffic comes from streaming video. However, multiple methods of in-flight video already exist, including legacy seatback screens, customer-downloaded content brought aboard, and recent offerings of onboard server content (e.g., Gogo Vision) or Wi-Fi DTH (e.g., Southwest Dish) distributed to a customer’s own device. Notably, all of these options have

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one thing in common: these IFC entertainment substitutes do not need two-way connectivity. They are delivered over an onboard network that requires no data transfers from the aircraft, and the content’s local nature results in performance that is comparable to even a home-based cable provider’s “On Demand” offering.

Consumers are content religious but delivery agnostic

Passengers do not care whether House of Cards is streamed from their Netflix library or from an onboard server; current onboard Wi-Fi take rates reflect this fact. Moreover, some IFC providers have recognized this, with connectivity leader Gogo developing Vision, its server-based video entertainment offering (e.g., Delta Studio). Eventually most passengers will demand some form of real-time connectivity from 30,000 feet. In the near term, however, current Wi-Fi distributed DTH and onboard server-based content will likely be sufficient for many – potentially slowing consumer growth.



While cabin IFC represents the biggest long-term market, operators and OEMs in the near-term might look to more creative business models and new offerings to supplement their core IFC business.

Longer-term promise – personalized content

A recent study indicated that the millennial generation finds YouTube content more entertaining than TV content. If this trend continues, the next decade should bring higher IFC demand as the current entertainment substitutes become insufficient. However, there will be significant pressure on operators and service providers to meet high revenue expectations in the nearer-term. This suggests anyone in the IFC market value chain should consider whether they are doing enough to close their business case – and whether more creative approaches to monetization are needed, for example, more flexible pricing models, partnerships and sponsor agreements – and potentially extending offerings to the cockpit and to flight operations data services.

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