TECH SCAN

IN-FLIGHT WI-FI

BAZAAR

WHERE MIND MEETS MARKET

In-flight Wi-Fi technology has become a digital lifeline while travelling at 30,000 ft, connecting us to the ground world. Though the idea of air-to-ground and satellite communications has been developed in the late 90s, the fruit of the innovation has reaped in recent years.

In-Flight Wi-Fi has become a necessity these days rather than a privilege for passengers. Airline companies are focused on improving their in-flight services to provide their passengers with the best-in-class flying experience which drives various technological advancements and innovations like In-Flight Wi-Fi technology.

Due to the constantly evolving aviation market, various technology firms have realized the importance of protecting their intellectual property rights in this rapidly evolving field. This growing need for Intellectual Property (IP) protection provides a sense of achievement as well as motivation for further innovation to the inventors in terms of protecting their invention. Thus, considering the social norms of recent years, the in-flight Wi-Fi technology holds significant IP potential.

TIMELINE

1999:
Boeing plans to develop Connexion; a satellite-based in-flight broadband service.

2004:
Lufthansa becomes the first airline to offer in-flight Wi-Fi using Connexion.

2008:
Gogo, the current global leader begins offering its service.

2010:
Inmarsat launches its Global Xpress Ka-band satellite service, offering significantly faster speeds.
Low Earth Orbit (LEO) satellite constellations, begin to emerge.

2012:
ViaSat, launches its Exede Ka-band satellite service. Gogo also launches its first ATG network in the USA using ground-based towers to connect to aircraft.

2013:
Airlines begin offering in-flight Wi-Fi on a wider range of routes and aircraft. Google X's Loon Balloon technology was introduced.

2014:
In-flight Wi-Fi is offered by many airlines as a standard amenity on long-haul flights. Facebook Aquila, a solar-powered drone developed by Facebook for use as an atmospheric satellite.

2015:
Airlines begin offering in-flight Wi-fi on more short-haul flights. Gogo launches a new 2Ku service, with speeds up to 70 Mbps.

2016:
High Throughput Satellites (HTS) provides increased bandwidth. In-flight Wi-Fi speeds continue to improve, with some airlines offering speeds of up to 1Gbps.

2017:
Airlines begin offering in-flight Wi-Fi on more regional and turboprop air. Vi-Sat2 developed.

2018:
In-flight Wi-Fi becomes more widely available, with over 50% of all commercial aircraft equipped with the technology. Facebook Aquila discontinued.

2019:
Airlines begin offering in-flight Wi-Fi on more domestic flights.

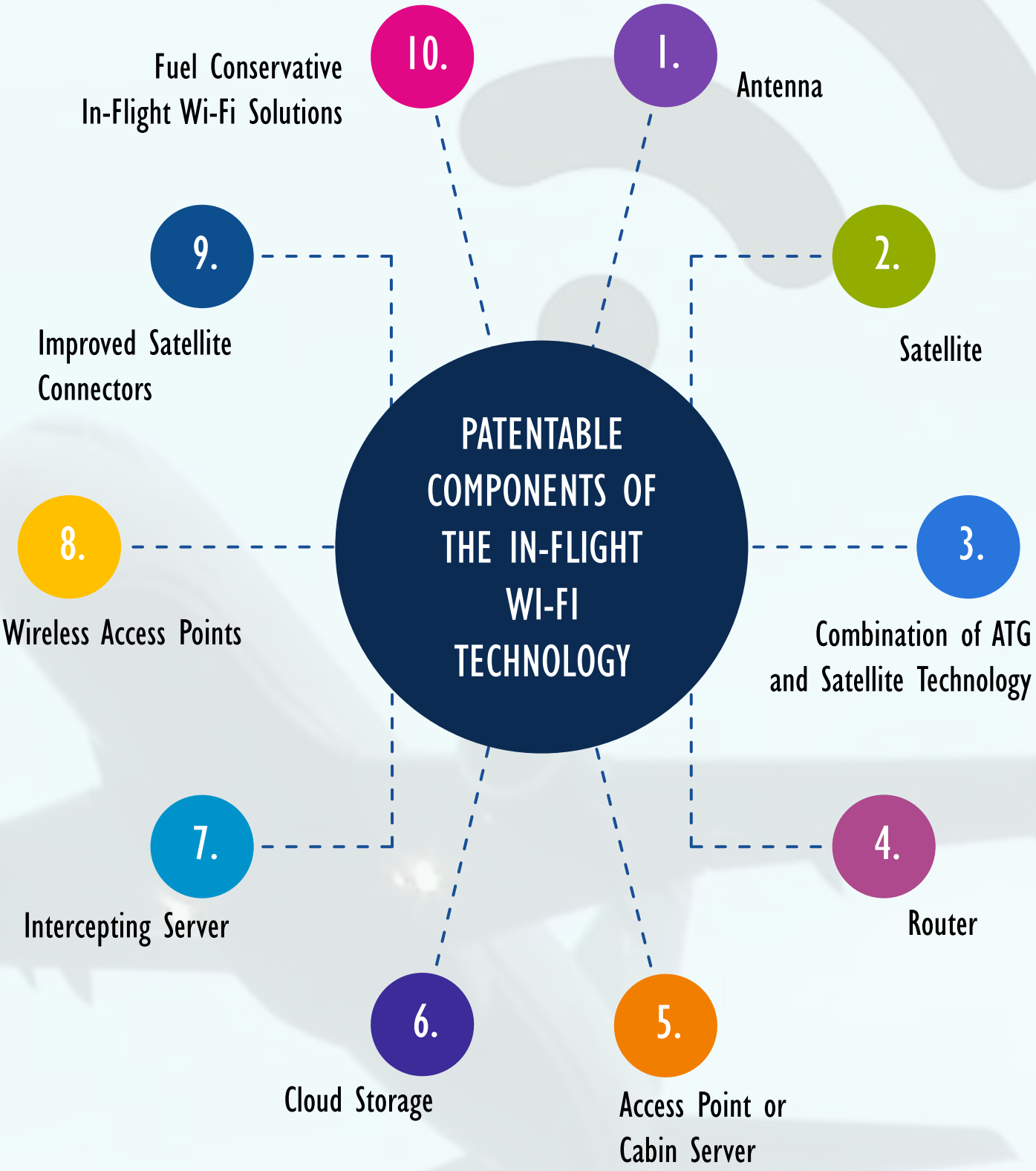
2020:
British Airways adopted the Inmarsat and Deutsche Telecom launched European Aviation Network (EAN) technology, utilizing both ATG and Satellite systems.

2021:
Airlines continue to invest in in-flight Wi-Fi, with a focus on improving speeds and reliability.

2022:
In-flight Wi-Fi is now considered a standard amenity on most commercial aircraft.

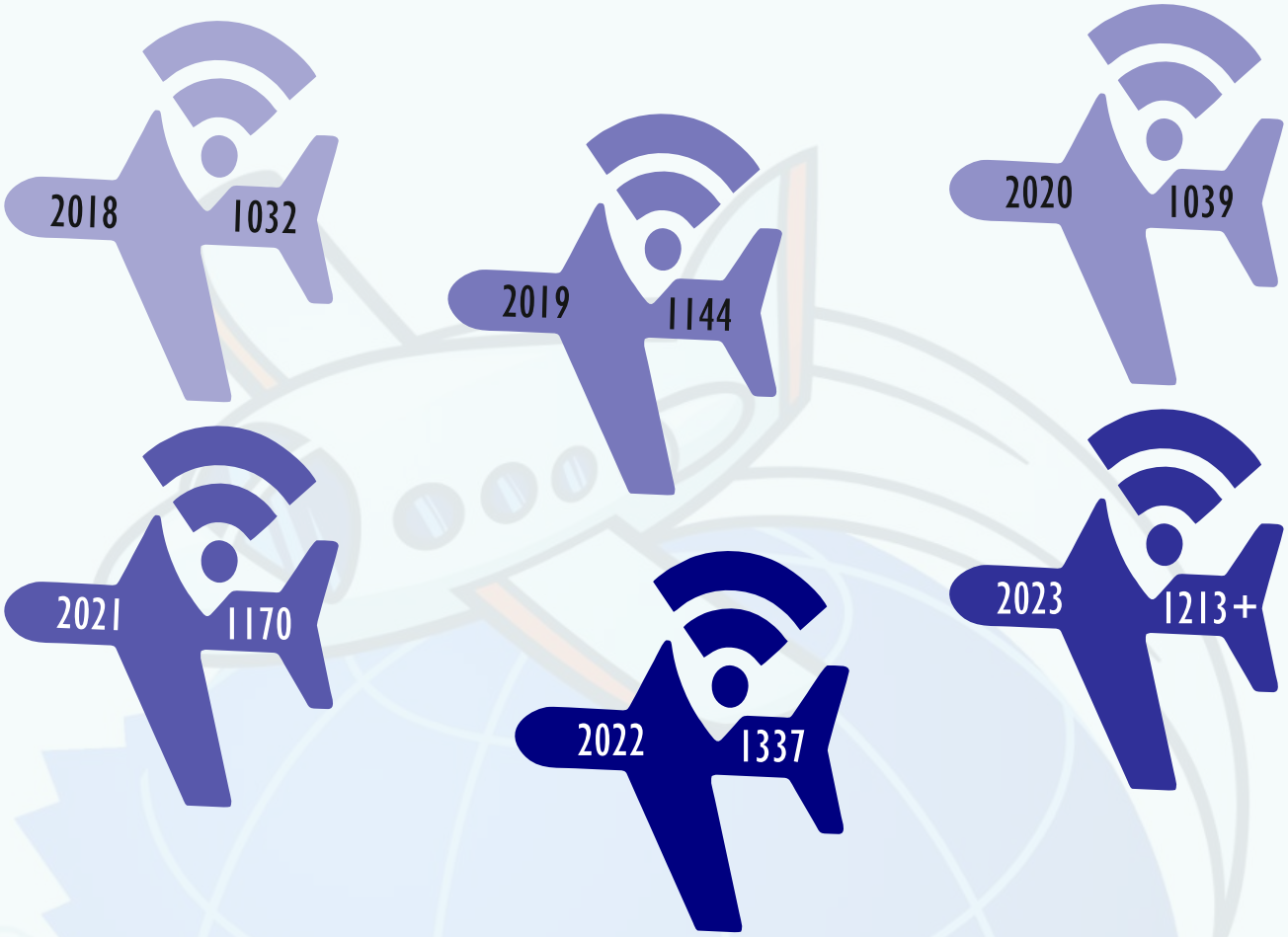
2023:
Airlines exploring new technologies, like using lasers and balloons to provide improved in-flight wi-fi connectivity.

PATENTABLE COMPONENTS OF THE IN-FLIGHT WI-FI TECHNOLOGY

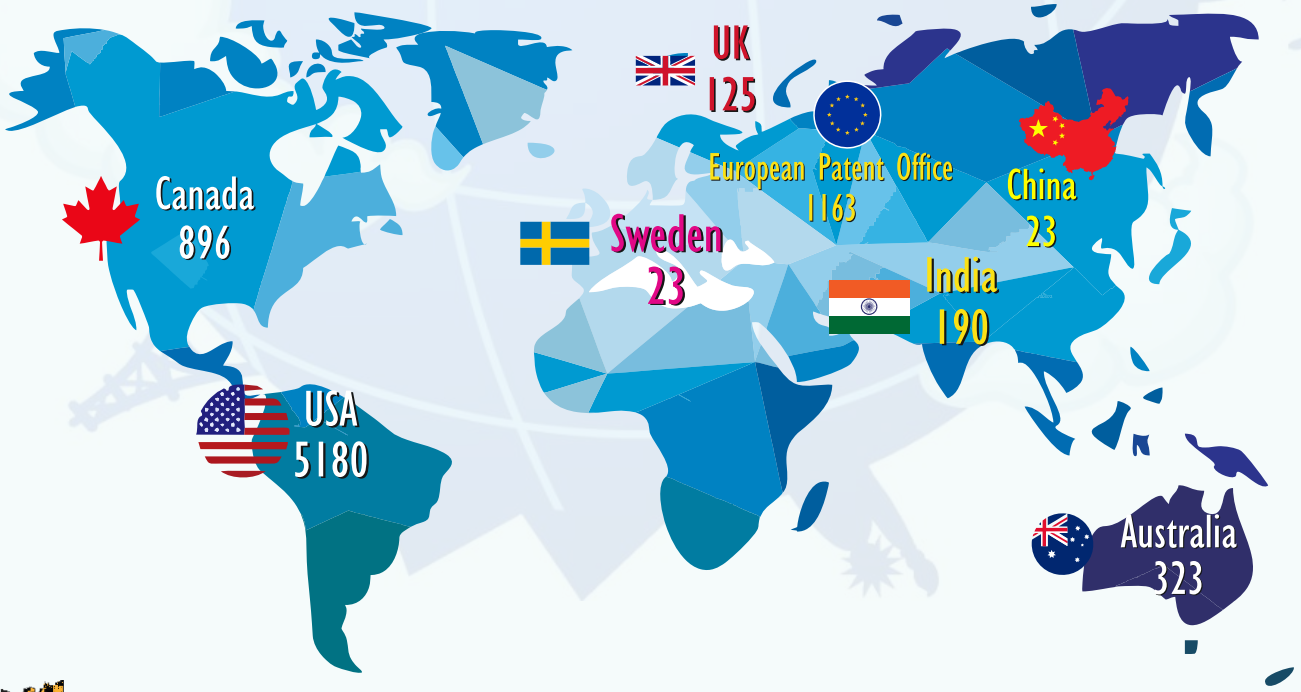


PATENT STATISTICS

No. of patent applications for in-flight wi-fi technology has observed a steady growth in the last 5 years globally.



PATENTS FILED IN COUNTRY



TOP APPLICANTS

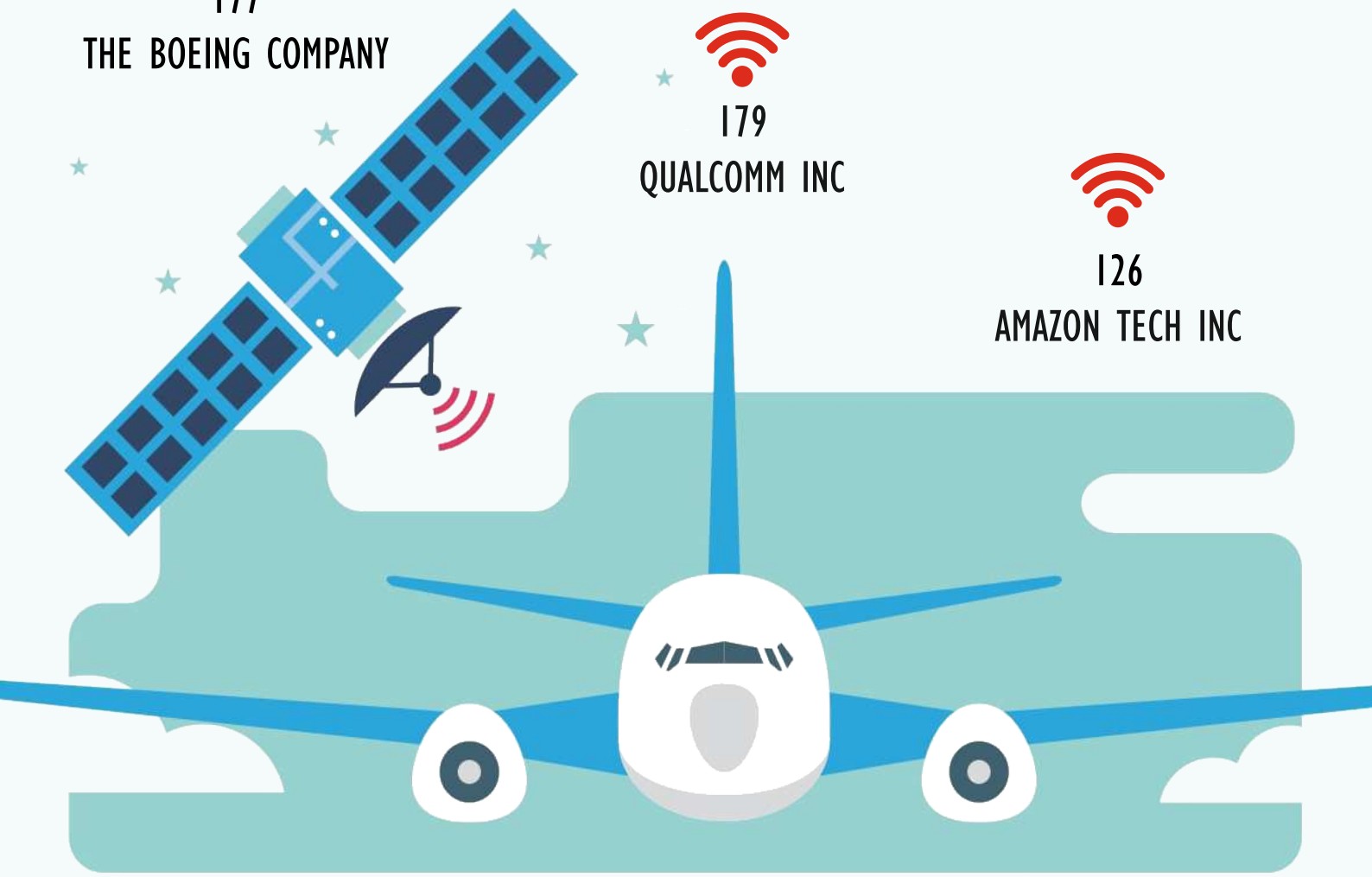
303
SZ DJI TECH CO LTD

175
HONEYWELL INTERNATIONAL INC

177
THE BOEING COMPANY

179
QUALCOMM INC

126
AMAZON TECH INC



122
WING AVIATION LLC

115
HONEYWELL INT INC

175
NVIDIA CO

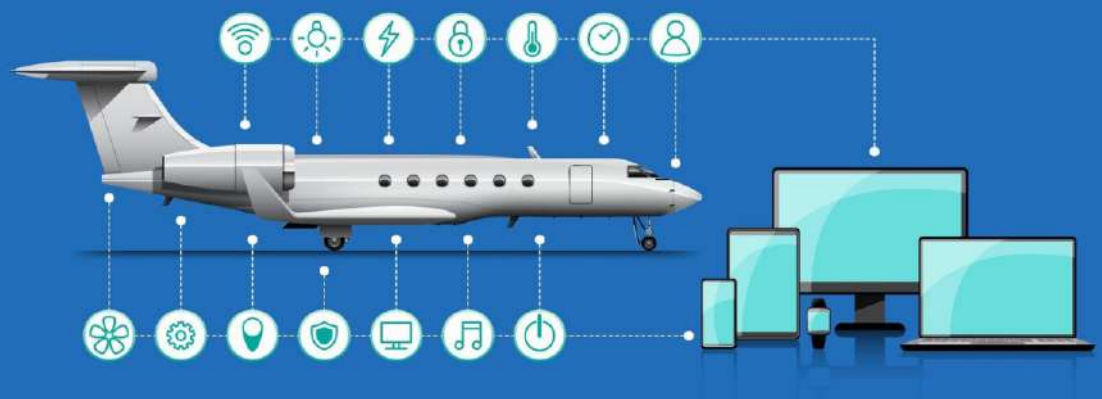
112
UATC LLC

114
GE AVIATION SYSTEMS LLC

Notable Innovation

Patent Application	Priority date	Title	Assignee
Us09553658	Jan 24, 2017	Router for aircraft communications with simultaneous satellite connections	Satcom Direct Inc
Us20230334990	Dec 29, 2020	Communication Method and Communication Device Based On 5g And Wi-fi 6	Micronet Union Technology (chengdu) Co., Ltd.
Us20210250784	Feb 22, 2022	Systems and methods for obtaining and distributing dynamic frequency selection data for wireless networks on airplanes	Panasonic Avionics Corporation
Wo2017172804	Mar 31, 2016	Airborne Radio System That Uses Nearest Sae-Gw for Anchoring New Connections Along the Flight Paght and Tunnels Existing Connections	Brocade Comm Systems Inc
Ep3582407	12.06.2018	System, Device and Method for Switching Air-to-ground Antennas	Bombardier Inc
20220291677	Dec 30, 2020	Multi-Mode Remote Identification (Rid) System for Unmanned Aircraft Systems (Uas)	RUMFERT, LLC
WO2020236672	May 17,2019	Wireless In-flight Entertainment System	Georgia Tech Research Corporation
CN110337087	Jul 11, 2019	Air Wifi Access Method And System	China Unicom
WO2023114463	16.12.2021	Wireless Aircraft Communication System	Cirrus Design Corporation D/b/a Cirrus Aircraft
Cn115884352	Sep 20, 2022	Synchronous Time Service and Data Transmission Method for Wireless Network Acquisition System	Chengdu Aircraft Industrial (group) Co., Ltd.

Database: WIPO PATENTSCOPE



If you would like to learn more about any of these areas or have specific questions, we're here to provide further information and insights. Our team is dedicated to driving progress and staying at the forefront of in-flight wi-fi technology.

About IP Bazzaar

IP Bazzaar is an initiative towards successful commercialization of Intellectual Property Rights. IP Bazzaar is a private limited company, acts for both innovators/creators and investors; and manages the commercialisation of Intellectual Property. It operates through a wide network of association with companies, industries, industry-associations, entrepreneurs, government organization, NGOs, Universities, Venture Capitalists, overseas law firms, overseas technology transfer companies and through Patentwire.

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Where Mind Meets Market

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