

## [TAIPA Submission on TRAI Consultation Paper on In Flight Connectivity](#)

The telecom sector has been central to providing ubiquitous coverage and connecting the unconnected. The services have become a pivotal part of our life and we rely on it for our several daily activities. The telecom sector particularly in India has seen a sharp increase in the telecom subscriptions, with the number of telecom subscribers reach 1.2 billion. The overall tele-density has reached close to 94% and the number of broadband subscribers has crossed the 300 million mark.

The consumers now desire seamless connectivity regardless of their location - whether on land, in the air or on the sea. New advances in technology mean that flyers can now have access to telecom services than ever before. In-flight connectivity has come a long way since its inception a decade ago. Since 2007, in-flight communication services have been introduced by airlines in Africa, Asia, Australia, Europe, the Middle East and South America.

There has been an increasing interest and demand for broadband connectivity (both voice and data) to passengers on board a flight. The technological advancements have now also made it possible to provide telecom connectivity in flights including on board Wi-Fi services and mobile services in the skies.

As per estimates, the number of connected commercial aircraft is expected to grow from 5,300 in 2015 to 23,100 in 2025, accounting for 62% of the global fleet. Another study predicts that the number of aircraft offering wireless connectivity will rise to 14,000 by 2022 (a 50 percent connectivity penetration in commercial aircrafts). This study also projects that approximately 5,000 of these aircrafts will offer both Wi-Fi and cellular options. Thus, there is a huge demand for In Flight Connectivity across the globe.

Issues under Consultation

**Q.1 Which of the following IFC services be permitted in India?**

- a. Internet services
- b. Mobile Communication services (MCA service)
- c. Both, Internet and MCA

**TAIPA Response**

As India is at the cusp of digital revolution and there is an increasing demand for mobile service access during the flights. Therefore, both Internet and MCA should be permitted as In Flight Connectivity services in India.

**Q.2 Should the global standards of AES/ESIM, shown in Table 2.1, be mandated for the provision of AMSS in Indian airspace?**

**TAIPA Response**

Yes, Global standards should be mandated for provision of AMSS in Indian Airspace as this would help Indian IFC services to be in synch with Global IFC developments in future. There may be 2 alternative approaches to solution. The provisions proposed in table 2.1 are only related to point number 1.

1. Connectivity through satellite communication
2. Connectivity through terrestrial GSM

**Q.3 If MCA services are permitted in Indian airspace, what measures should be adopted to prevent an airborne mobile phone from interfering with terrestrial cellular mobile network? Should it be made technology and frequency neutral or restricted to GSM services in the 1800 MHz frequency band, UMTS in the 2100 MHz band and LTE in the 1800 MHz band in line with EU regulations?**

**TAIPA Response**

It is recommended that it should Technology and Frequency Neutral as Cellular technology is already moving towards this. However, operations may be restricted only in those frequency bands which are operational in Indian terrestrial networks

**Q.4 Do you foresee any challenges, if the internet services be made available 'gate to gate' i.e. from the boarding gate of the departure airport until the disembarking gate at the arrival airport?**

### **TAIPA Response**

Connectivity is already available from till the time an Aircraft is leaving the ground. Once the aircraft takes-off, In-flight connectivity services can takeover.

Hence, services may be made available from takeoff to landing phase and there is no need to use satellite based connectivity outside the Aircrafts.

### **Q.5 Whether the Unified Licensee having authorization for Access Service/Internet Service (Cat-A) be permitted to provide IFC services in Indian airspace in airlines registered in India?**

#### **TAIPA Response**

Initially, to give an opportunity to encourage the investor and to grow the IFC, there is a need to be a separate category for IFC services on a Neutral Host Model.

### **Q.6 Whether a separate category of IFC Service Provider be created to permit IFC services in Indian airspace in airlines registered in India?**

#### **TAIPA Response**

A separate category for IFC Service Providers may be envisaged which will offer neutral host platforms.

Further, it is strongly recommended that the entire Inflight communication service infrastructure to be installed and maintained by IP-Is for an accelerated provisioning of IFC services on a shareable basis. It is evident that the sharing model being practiced by the IP-Is for facilitating telecommunication service on ground is time – tested and a success. A similar model may be replicated for provisioning of In Flight Services.

### **Q.7 Whether an IFC service provider be permitted to provide IFC services, after entering into an agreement with Unified Licensee having appropriate authorization, in Indian airspace in airlines registered in India?**

#### **TAIPA Response**

It is a kind of Inflight Infrastructure which will be used for facilitating service run by TSP who are already having valid license. Inflight service infrastructure can be permitted to IP-1 holders to promote Operator neutral services. The sharing model being followed the Infrastructure Providers will allow the In Flight Communication infrastructure to be shared on a non-discriminatory basis.

### **Q.8 If response to Q.7 is YES, is there any need for separate permission to be taken by IFC service providers from DoT to offer IFC service in Indian airspace in Indian registered airlines? Should they be required to register with DoT? In such a scenario, what should be the broad requirements for the fulfillment of registration process?**

#### **TAIPA Response**

An IFC Service Provider may be required to obtain Licensee from DoT similar to Unified License as applicable on the kind of service provisioning.

**Q.9 If an IFC service provider be permitted to provide IFC services in agreement with Unified Licensee having appropriate authorization in airlines registered in India, which authorization holder can be permitted to tie up with an IFC service provider to offer IFC service in Indian airspace?**

**TAIPA Response**

The role of Infrastructure Providers – I should be taken into account for provisioning of installation and maintenance of telecom infrastructure required for IFC services. The success story of telecommunication services in India backed by the sharing model adopted by the IP-I is well known. Authorizing IP-I for provisioning of infrastructure for IFC services will lead to accelerated deployment of services.

**Q.10 What other restrictions/regulations should be in place for the provision of IFC in the airlines registered in India.**

No Comments

**Q.11 What restrictions/regulations should be in place for the provision of IFC in the foreign airlines? Should the regulatory requirements be any different for an IFC service provider to offer IFC services in Indian airspace in airlines registered outside India vis-à-vis those if IFC services are provided in Indian registered airlines?**

No Comments

**Q.12 Do you agree that the permission for the provision of IFC services can be given by making rules under Section 4 of Indian Telegraph Act, 1885?**

No Comments

**Q.13 Which of the options discussed in Para 3.19 to 3.22 should be mandated to ensure control over the usage on IFC when the aircraft is in Indian airspace?**

**TAIPA Response**

In case of the IFC through satellite, calls to be routed through Indian Satellite in Indian Territory for better control over confidentiality and security. In case of IFC through Cellular technology it should be routed through the telecom service providers operating in India.

**Q.14 Should the IFC operations in the domestic flights be permitted only through INSAT system (including foreign satellite system leased through DOS)?**

No Comments

**Q.15 Should the IFC operations in international flights (both Indian registered as well as foreign airlines) flying over multiple jurisdictions be permitted to use either INSAT System or foreign satellite system in Indian airspace?**

No Comments

**Q.16 Please suggest how the IFC service providers be charged in the following cases?**

**(a) Foreign registered airlines.**

**(b) Indian registered airlines.**

**TAIPA Response**

This should be left to the IFC service providers to innovate the business model and provide best in class, cost effective services. If required, same can be considered at a later stage.

**Q.17 Should satellite frequency spectrum bands be specified for the provisioning of the IFC services or spectrum neutral approach be adopted?**

No Comments

**Q.18 If stakeholders are of the view that IFC services be permitted only in specified satellite frequency bands, which frequency spectrum bands should be specified for this purpose?**

No Comments