



**RSM/COAI/2017/202**

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**Subject: COAI Response to the TRAI Consultation Paper on  
In Flight Connectivity (IFC)**

Dear Sir,

This is with reference to the TRAI Consultation Paper on In Flight Connectivity (IFC), released on September 29, 2017.

In this regard, please find enclosed COAI response to the Consultation Paper.

We hope that our submission will merit your kind consideration and support.

With Regards,

Yours faithfully,

**Rajan S. Mathews**  
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**Response to TRAI Consultation Paper on  
In Flight Connectivity (IFC)  
Released on September 29, 2017**

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1. We would like to thank TRAI for giving us the opportunity to respond to this very important Consultation Paper on the In-Flight Connectivity.
2. India is lagging behind with regard to provision of In Flight Connectivity (IFC) and needs to catch-up with other countries which are already providing this service / solution.
3. We are of the view that the move to permit the IFC services in India will significantly improve passenger experience, and bolster non-aeronautical revenues for the airline industry. Further, it will create new revenue opportunity for Telecom service providers.
4. The Consultation paper primarily focus on the provisions of IFC services through Satellite based Systems. In this regard, we would like to submit that internationally aviation industry has long relied on satellite-based systems to support on-board communication services. These systems are vital for trans-oceanic/international flights where Air-to-Ground communication is not possible.
5. The Air -to- Ground (A2G) communications is best suited for the continental fleets (within a land mass). A2G communications has major advantage over the Satellite based IFC as it is more affordable, having low equipment cost, Quick installation time, Low cost per Mb, low latency etc.
6. In light of the same, we are of the view that the Authority may also consider the A2G based solutions for the IFC in addition to the satellite based solutions while framing its Recommendations on the issue.

### Query-wise Response:

**Q1. Which of the following IFC services be permitted in India?**

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

### **COAI Comments:**

1. We are of the view that the Government may consider allowing both Internet services and the Mobile Communication services as Inflight services.
2. In this regard, we would also like to submit that the Wi-Fi based access technology combined with AMSS will only permit Internet services while MCA will permit voice, text, video and internet services by utilizing the mobile cellular systems and have wider reach and use.

**Q2. Should the global standards of AES/ESIM, shown in Table 2.1, be mandated for the provision of AMSS in Indian airspace?**

### **COAI Comments:**

1. Yes, global standards of AES/ESIM should be mandated for the provisions of AMSS in Indian airspace, in case the In- flight connectivity is being provided using satellite Communication. This will ensure that services in India are aligned to the global standards.
2. In case the Inflight services are provided through the terrestrial Air to Ground (A2G) communications, these standards should not be mandated as the same is based on the 3GPP Standards.

**Q3. 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?**

### **COAI Comments:**

1. As highlighted in the Consultation paper the Network Control Unit (NCU) can be used to prevent an airborne mobile phone from interfering with terrestrial cellular mobile network.

2. Also, Mobile Communication services on board Aircraft' (MCA) should only be allowed to be provided at least 3000 meters above ground level, in order to address the issue of interference with the terrestrial cellular mobile network.

**Q4. 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?**

**COAI Comments:**

1. We submit that at airports, services are already being offered by existing licensees.

**Q5. 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?**

**COAI Comments:**

1. Yes, the Unified Licensee having authorisation for Access Service should be permitted to provide IFC services in Indian airspace in airlines registered in India.

**Q6. Whether a separate category of IFC Service Provider be created to permit IFC services in Indian airspace in airlines registered in India?**

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**Q7. 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?**

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**Q8. 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 fulfilment of registration process?**

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**Q9. 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?**

**COAI Comments:**

1. The permission for the provision of In-flight Communication services can only be given as per the Section 4 of Indian Telegraph Act, 1885. Thus, as highlighted in the Consultation Paper, Access service licensees such as CMTS,UAS UL(Access) and UL(All services) should be allowed to provide the IFC services, which is currently not permitted in Indian airspace. Such services should only be permitted over the licensed spectrum while maintaining the principles of spectrum and technology neutrality.
2. Thus, we do not suggest for any separate category of IFC service provider under the Unified Licence to be provisioned.

**Q10. What other restrictions/regulations should be in place for the provision of IFC in the airlines registered in India.**

**COAI Comments:**

1. The IFC solutions should comply with similar quality and security standards as defined for terrestrial mobile services. Conditions should also be prescribed with regard to technical standards, interference aspects, interception, etc. Such rules may be framed by the Hon'ble Authority and the Government.

**Q11. 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?**

**COAI Comments:**

1. We are of the view that the rules/Regulations for the provision of IFC services to domestic and international airlines may be the same.

**Q12. 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?**

**COAI Comments:**

1. Yes, the permission for the provision of IFC services can be given by making rules under Section 4 of Indian Telegraph Act, 1885

**Q13. 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?**

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**Q14. Should the IFC operations in the domestic flights be permitted only through INSAT system (including foreign satellite system leased through DOS)?**

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**Q15. 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?**

**COAI Comments:**

1. We are of the view that the IFC operations in the domestic & International flights be permitted only through INSAT system (including foreign satellite system leased through DOS) in Indian Airspace. Beyond the Indian Airspace, the aircrafts can be permitted to use either INSAT or international satellite systems.
2. In case of A2G based IFC, no such provisions are required as the same is provided by using the bands used for the terrestrial mobile services.

**Q16. Please suggest how the IFC service providers be charged in the following cases?**

- (a) Foreign registered airlines.**
- (b) Indian registered airlines.**

**COAI Comments:**

1. We are of the view that the licence fee of 8% of the AGR should be specified for the IFC service provider and pass through of the amount paid by IFC provider to Unified licensee should be allowed.
2. We would further like to submit that the commercial and technical terms and conditions of the agreements between TSPs and Airlines may depend on various factors such as bandwidth, latency, speed etc. Thus, we suggest that market forces should be allowed to develop various business models and there should be minimal regulatory intervention in this aspect.

**Q17. Should satellite frequency spectrum bands be specified for the provisioning of the IFC services or spectrum neutral approach be adopted?**

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**Q18. 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?**

**COAI Comments:**

1. We are of the view that IFC services should be allowed over the licensed spectrum bands while maintaining the principles of spectrum and technology neutrality.

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