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Fwd: IFC-Consult

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Mon, Nov 13, 2017 at 10:08 AM

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----- Original Message -----

From: "**B. K. Syngal**" <syngal@duaconsulting.com>

Date: Nov 11, 2017 9:21:34 PM

Subject: IFC-Consult

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Dear Shri Abbas

attached please find response to IFC consultations. Request condone lateness please. best regards, Syngal

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 **TRAIConsultIFCQuestionnaire11-11-2017BKS.docx**
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A Request for waiver of late submission

Voice inflight communications have been available for nearly three decades now. In the mid-nineties Air India did provide satellite communications to the newly inducted 747s. In US, Arinc was also a provider of Aeronautical communications. Therefore, In Flight Communications have been evolving over time.

We see that the Inputs are required on three segments:

A Space: We believe for the sake of synergies to be using globally established space segment, which have been duly coordinated by DOS/ISRO/WPC. We note that some of the global service providers of these Aeronautical services like Inmarsat have not been considered. To my reckoning, they provide direct Aero services at L or S band. Why have they not been considered is bit intriguing? Anyway, use what is available; no point reinventing the wheel and causing delays to service provision.

B Ground Segment or Earth Station, no brainer; have our own to cover satellites in the visible arc, which have been duly coordinated. Insat will come when it comes.

C Inflight Customer Use Device: two types would be required, 1) Laptops and 2) feature and smartphones. Again, there must be compatible devices which should be used. It is presumed that for wifi access standard frequencies would be deployed so that any normal Laptop etc can be used for Internet access and that phones will be compatible for use inside the plane at 1800 MHz or nay other band.

ISSUES FOR 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

A. Both

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

A. Adopt Global Standards, why spend resources on something already tried and tested. In addition, an early introduction of services?

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?

A. Follow standards already developed.

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?

A. Airlines do carry an announcement on the use of devices only after cruising height is attained, which is after ARM ALL DOORS what is the big deal for loss of connectivity for this small hiatus?

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

A. I doubt if all UL licensees will have Ground stations. Where and in which part do Indian UL licensees have a role to play. At best, they could be sim card providers for the hand set. Let them bill them as Roamers.

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

A. That would be a better option from the point of view of Ground Station Ownership and leasing of space segment on coordinated satellites.

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? 30

A. Yes

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 fulfilment of registration process?

A. Of Course they must follow the process of permissions etc, especially for operation of the earth station or ground segment.

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?

A. In simple terms it is a long distance pipe connecting space to ground, either an ILD operator or NLD operator should be in a position to connect to an Indian switching centre like any satellite call and internet connectivity.

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

A. all precautions from security perspective, and frequency authorisations for space and aircraft.

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?

A. The reciprocity principles be followed. They have to observe the law of the land as much as an Indian consumer would. They should be advised Indian ground segment when in Indian airspace.

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?

A. Agreed

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?

A. Age old issue, our sovereignty and security is prime. Therefore, ideally mandating INSAT is no brainer, but given the practicality an Indian owned and

operated Ground Segment is a must. Push coming to shove switch off the pipe over Indian space.

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

A. Ideal yes, or else foreign satellite system leased through DOS

Q.15 Should the IFC operations in international flights (both Indian registered as well as foreign airlines) flying over multiple 31 jurisdictions be permitted to use either INSAT System or foreign satellite system in Indian airspace?

A. Ideally, INSAT and through an Indian Ground Segment

Q.16 Please suggest how the IFC service providers be charged in the following cases? (a) Foreign registered airlines. (b) Indian registered airlines.

A. NLD calls over Indian air space or as determined by service provider

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

A. Spectrum neutral approach compatible with global standards

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?

A. any specifics will defeat the purpose of timely provision of service ad to costs. Follow global standards.

Any other questions: There is no mention of cockpit communications, space craft health communications and navigation etc