

CHAPTER- IV: 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**

HUGHES: Initially only Internet services should be allowed. Spectrum issues would further complicate the legislation and delay the implementation. Currently the airlines demand is more for internet and less of Mobile Communication Service. The Civil Aviation rules mandate that the cellular phone should be in “non transmit mode” (flight safe mode). More studies and amendments are needed to the Civil Aviation rules first for enabling the mobile phone in “Transmit mode”.

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

HUGHES: The ITU-R M.1643 is an universally accepted standard and should be adopted.

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?

HUGHES: In the initial phase, MCA services are not desirable and is not a need of the airlines. If the Government feels MCA is a necessary service, then the suggestion in response to Q. 9 needs to be considered.

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?

HUGHES: This is clearly in the Civil Aviation domain and the ministry’s opinion should be sought on the same. It is desirable to have ‘gate to gate’ internet service.

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?

HUGHES: We understand the question as if Unified License having authorisation for Access/Internet Service (CAT-A) be permitted to provide IFC.... In addition to VSAT authorisation. IFC is a satellite based service. The current UL permits only the Access & NLD services apart from VSAT for provision of satellite based internet. The internet authorisation on a standalone basis cannot provide this service. The current structure should be maintained. Additionally, no fresh authorisations should be created for this service. TEC can come out with a revision to the current IR document (or a new IR document) for this service and NOCC/WPC can be the approving agencies for this service.

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

HUGHES: The IFC provider can be treated at par with a cyber-café. The same rules and regulations can apply. The IFC service provider should register under the “Other Service Provider” category.

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?

HUGHES: Yes. The IFC service provider should be made to register in a new category defined under “Other Service Provider”. Once this is done, the UL can automatically provide connectivity under the existing norms.

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?

HUGHES: The same guidelines that are applicable to “Other Service Provider” category can be applied.

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?

HUGHES: Only VSAT service providers. Currently VSAT service providers have adequate infrastructure for provision of such a service and there are enough providers for a healthy competition. The VSAT service providers are well versed with the regulations of operating an earth station. So this service should be initially be restricted to VSAT service providers. Since the service provided is internet, the VSAT service provider should also have a ISP CAT-A authorisation for provision of this service. **The VSAT service provider essentially is providing a telecom pipe into the plane. So for the purpose of licensing, the service provided by the VSAT service provider should be treated as a “Carrier Service”.** Once the VSAT service is treated as a “Carrier Service”, then many services like internet or MCA can ride on top of this carriage and can be provided by service providers who are licensed to provide those services. For eg. If internet is the required service in the aircraft, then VSAT service provider in conjunction with a ISP can provide the service (incidentally all of the VSAT service providers are Class A ISPs). If MCA is the desired service in the aircraft, then the VSAT service provider in conjunction with an access provider can provide the service. The primary responsibility of getting the pipe into the aircraft and complying to all the security guidelines rests with the VSAT service provider.

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

HUGHES: The gateway for provision of this service should be in India. This should be applicable for both domestic airlines and airlines that are operating in and out of India.

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?

HUGHES: The regulations define the safety and security of the service. It also ensures that the service does not infringe upon other services and can be effectively monitored and controlled. So there should not be any distinction in terms of the regulations. However, w.r.t space segment, domestic airlines should be mandated to use Indian space segment. Foreign airlines could use space segment by entering into contracts with foreign satellite operators after obtaining technical clearance from Department of Space.

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?

HUGHES: Yes

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?

HUGHES: For both domestic airlines and foreign airlines operating in and out of India, an India gateway should be mandated. This will ensure proper implementation of LEI. Any type of mirroring of LEI etc. is inadequate and the actual data is terminated on a gateway outside the country. It is in the national interest to prefer INSAT/GSAT space segment for domestic flights and foreign satellites for foreign airlines operating in and out of India. We recommend that any aircraft just overflying the Indian airspace should be kept out of the jurisdiction of this service as it is impractical to implement any rules and regulations.

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

HUGHES: Yes. It is in the national interest to prefer INSAT/GSAT satellites for domestic operations.

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?

HUGHES: Both Indian registered aircraft as well as foreign airlines flying in and out of India should be covered by a similar regulation. However, DoS can provide a technical clearance to a IFC provider for foreign airlines to operate on a foreign satellite. Any airline that is flying over the country should be exempt from the regulations as it is impractical to implement any sort of control over them. In both the domestic airlines case and the foreign airlines operating in and out of India, the gateway should be in India.

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

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

HUGHES: Both license fees and Spectrum Usage Charges are levied on the service provider operating the service. Today the “Other Service Providers” are exempt from any license fees. The same should be applicable to the IFC providers as well.

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

HUGHES: Currently, DoT in consultation with DoS have laid out guidelines on the frequency bands used for VSAT communication. The same frequency bands should be adopted for this service as well. This service is not any different from a VSAT service but for the mobility part. As the VSAT services evolve to cover additional frequency bands such as Ka, this service would automatically extend to the same.

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?

HUGHES: Ku and Ka

K. Krishna
Vice President & Chief Technology Officer
Hughes Communications India Ltd
Plot No. 1, Sector 18, Electronic City
Gurgaon - 122015
Haryana, India
Phone: +91 9811055671