THE UNITED REPUBLIC OF TANZANIA

TANZANIA COMMUNICATIONS REGULATORY AUTHORITY

GUIDELINES ON THE LICENCING OF V- SAT SYSTEMS AND NETWORKS

1.0 Introduction

V-SAT is a form of satellite telecommunication technology which allows for the communication of voice, data and video through the use of small satellite dishes, usually less than 5 meters in diameter.

Communication signals are transmitted between V-SAT terminals situated in different locations via satellite. If the two V-SAT terminals are located in different countries, they would be able to perform the same functions as an international leased circuit between the two countries.

The advantages and opportunities made possible by these small aperture terminals are clear. Because it is relatively light-weight and easy to set-up, V-SATs are ideal for deployment in remote locations such as rural and sparsely populated areas needing communications.

Considering the way V-SATs provide communications linkage for the extension of services to remote areas, they can be grouped in two major categories, which are Two way V-SATs and Receive Only V-SATs.

The capability of V-SAT technology to deliver a host of services over a very large area in a multicast mode, directly from the satellite provides it with a unique advantage over other existing technologies. The broadband

multicast capability of V-SAT technology can be used to provide innovative applications such as Tele-Medicine, Newspapers-on-line, Market rates and Tele-education even in the most remote areas of our country. It can act as an important tool for bridging the digital divide.

Receive Only V-SATs do provide a cost effective and useful means of spreading the above mentioned services and a wide spectrum of others, for operators who are also planning to provide them.

On the other side, Two way V-SAT services are usually primarily confined to domestic communications for extending services to areas where basic telecommunications infrastructure may not be in place, or the terrain proves too difficult to utilize alternative means, cost effectively. They are also used by, Government institutions and agencies, Embassies, United Nations agencies, International organizations and large corporations and companies, for inter-branch corporate communications.

Ideally, the use of V-SATs for cross-border communications should be limited to situations where countries at both ends of a V-SAT link consent to the bypass of their domestic telecommunications infrastructure, for the purpose of facilitating a bilaterally and mutually agreed telecommunication need.

The tele-services that V-SAT Network infrastructure can provide depend upon the limitation on bandwidth. A bandwidth of 512 Kbps is generally sufficient for wide band applications like video conferencing, Tele-education and Tele-Medicine and is recommended for two-way VSAT applications.

However, keeping in view the demand for new broadband applications, a maximum bandwidth of 2 Mbps per downlink be permitted, for Receive only VSAT category, as the services which are intended to be offered through Receive only VSATs fall mostly in the areas of information, education, health and social services. These necessarily need to be low cost services in order to gain mass popularity, which will only be possible if the relative spectrum license fee is kept low.

2.0 V-SAT Licencing Guidelines

2.1 The Authority shall consider applications for V-SAT Licenses from parties intending to exploit V-SAT systems and networks under the following application categories:-

(i) **Cross border Private** V-SAT
(ii) **Domestic Private** V-SAT
(iii) **Domestic Commercial** V-SAT
(iv) **Cross border Commercial** V-SAT
(v) **Receive Only** V-SAT Operator
(vi) V-SAT terminal for **Radio determination Services**
(vii) V-SAT Terminal for **Space Research** related services
(viii) V-SAT Terminal for **Amateur** related services

2.2 Licences shall be granted under the following categories:-

LICENCE	APPLICATION FEE	ANNUAL LICENCE FEE
Cross border Private Dedicated V-SAT	USD. 200	USD. 3000
Domestic Private Dedicated V-SAT	USD. 200	USD. 500
Domestic Commercial V-SAT	USD. 200	USD. 200
Cross border Commercial V-SAT	USD. 200	USD. 3000
Receive Only V-SAT	USD. 100	Exempted
V-SAT terminal for **Radio determination Services**	USD. 100	USD. 200

V-SAT Terminal for **Space Research** related services	USD. 100	USD. 200
V-SAT for **Amateur** Satellite Services	USD. 100	USD. 200

2.3 For Two way V-SAT networks, a bandwidth of 512 Kbps, generally being sufficient for a wide band of applications, is recommended and shall be observed.

2.4 A maximum bandwidth of 2 Mbps per downlink is recommended and shall be permitted, inline with the demand for new broadband applications.

2.5 The applicant shall submit a duly filled application form, attached with the technical specification of the V-SAT equipment intended for use. The same shall include the name and address of the satellite service provider, satellite system to be accessed, together with transponder to be accessed.

2.6 Licenses for Receive only VSATs shall be given free.

2.7 In the case of large international corporations and companies necessitating the implementation of cross-border inter-branch communications, the applications shall be considered on case by case basis, upon proof of no objection by the regulatory authorities of the countries involved.

2.8 V-SAT networks for Government institutions and agencies; Humanitarian Relief and Disaster mitigation organisations, Educational and Medical institutions, shall pay 50%of the private V-SAT network licence fee.

2.9 All Cross border V-SAT operators shall be required to furnish the Authority information on the contractual agreement and operational arrangement on lease of space segment made between the applicant

and the corresponding gateway operator shall be made available to Authority.

10.0 For cross-border Private V-SAT links, authorization from regulatory authorities at the two ends of the link shall be provided, and the applicant shall guarantee that the V-SAT link is purely and strictly for intra-corporate communication and not for inter-corporate or shared use.

10.1 Private V-SAT Networks shall by no means, be connected to any public telecommunication network, at both ends of the link.

10.2 V-SAT network operators shall not provide any publicly subscribe able telecommunication services.

10.3 V-SAT users' scope of services shall cover only the reception and/or transmission of telecommunication signals. The reception and/or transmission of publicly subscribe able satellite television signals by Private and Commercial V-SAT system is strictly prohibited.

10.4 To ensure that there is no third party traffic being carried on the V-SAT network, the shared use of satellite bandwidth by V-SAT licensees will not be approved by the Authority.

10.5 The installation and maintenance of V-SAT equipment shall be carried out by competent technical personnel of parties duly licensed and authorized by the Authority, as Installation and Maintenance Contractors, and registered with the Engineers and Contractors Registration boards.