

# Global VSAT Forum

FOUNTAIN COURT, 2 VICTORIA SQ., ST ALBANS  
HERTFORDSHIRE, AL1 3TF, ENGLAND

TELEPHONE: +44-1727-884 739  
FACSIMILE: +44-1727-884 839  
EMAIL: [david.hartshorn@gvf.org](mailto:david.hartshorn@gvf.org)  
WEBSITE: [www.gvf.org](http://www.gvf.org)



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Fm: The Global VSAT Forum

**Re: VSATs: National Reform in the Regional Context**

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*"... universal access is now not so much an engineering or supply-side problem but rather a regulatory and policy challenge."*

- ITU World Telecommunication Development Report (March 1998)

Today, the nations of the world have an immediate opportunity to advance essential telecommunication policy objectives through harmonisation of regulations governing the use of fixed satellite-based network solutions.

During the past 15 years, the international satellite communications industry has been developing and refining network solutions such that today, there are more than one million so-called Very Small Aperture Terminal (VSAT) systems installed and operating in more than 120 countries.

Practically speaking, this level of deployment means that economies of scale are now being realised that enable the cost effective use of such systems and services for a broader range of applications – IP-based narrow- and broadband solutions that apply directly to universal access and sustainable development in even the most inhospitable locations.

This trend is not theoretical. International telecom services are already facilitating the creation of a global economy, where VSAT-based systems are used extensively in the developed nations to reduce costs, increase efficiency, and improve productivity.

Likewise, less developed countries (LDCs) are also turning to VSAT-based solutions which - being distance independent - make it possible to link the providers of raw materials to agents, to shippers, to importers, to retailers and, finally, to consumers in widely-separated geographic areas.

As retail demand increases (or decreases) each participant in the supply chain is able to instantly communicate that more or less supply is needed. This minimizes spoilage and

enables surpluses to be diverted to alternative sources of demand, thus maximizing the economic potential of any given nation.

Indeed, the benefits of VSAT-based communications are being realized in every sector of activity, both private and public. From banks and stock exchanges to schools, hospitals, and rural telecenters, VSATs are also being seized upon to elevate economic, educational, and health standards.

In turn, higher economic and social standards attract foreign investment, which creates employment opportunities, which leads to increased exports, which yields stronger hard-currency earnings.

With the advent of higher functionality and lower costs, VSAT services can now support a broader range of domestic and international communications objectives than ever before. A snap-shot of typical services includes:

- *Internet Via Satellite*
- *Distance Learning*
- *Rural Telecommunications*
- *Telemedicine*
- *Disaster Relief*
- *Government Closed User Groups*
- *National and Multi-national Networks*
- *Broadband Data Communications*
- *Multicast VSAT Services*
- *Intergovernmental and Corporate Applications*
- *PSTN Infrastructure Extension*
- *News Distribution Services*

The advantage to end users of such VSAT-based solutions is that vendors can provide an inexpensive, single communications platform serving an entire region or the world. Global demand for this level of connectivity has enabled VSAT technology to rise from being a niche technology capable of providing a small competitive advantage to professional users to a mainstream telecommunications service platform used by many of the world's largest corporations, governments, and personal users in the mass marketplace.

### **Regulatory Reform: The Missing Link**

Traditionally, while some LDCs have progressed quickly, other nations have not realized their full potential, largely because outmoded regulations inhibited or prevented the cost-effective provision of VSAT-based services.

More recently, though, this has been changing. The Global VSAT Forum's Regulatory Working Group – a non-partisan group of legal and regulatory experts - recently conducted a survey of the regulatory conditions applied to VSAT service provision in each country of the world.

The survey reveals that, through close collaboration between government administrations and the VSAT industry, effective national deregulatory approaches are now being implemented in an increasingly harmonised regional context through organisations such as the Inter-American Telecommunication Commission (CITEL), the European Conference of Postal and Telecommunications Administration (CEPT), and the European Commission (EC).

Similarly, a real and immediate opportunity exists not only for individual national administrations throughout the world, but also through regional and sub-regional groups such as the Asia-Pacific Telecommunity, the African Telecommunications Union (ATU), the Southern African Transport & Communications Commission (SATCC), the Economic Co-operation Organisation of West African States (ECO-WAS) and others.

In general, the Global VSAT Forum sees an increasing recognition by regulatory agencies that "less is more". In other words, many regulators now recognize that imposing *less* regulatory requirements results in *more* access to essential communications which, in turn, generates new business, creates jobs, yields higher export earnings, and attracts foreign investment.

The survey also reveals that minimal approaches to satellite regulation are not only possible, but they can be developed in a way that assures that the systems and services do not cause unreasonable interference. This is especially true for networks based on the use of VSATs, both in receive-only and interactive modes.

In this regard, the following are a few regulatory solutions that are being implemented in various regions of the world:

### **1) Blanket Licensing:**

Traditionally, most governments have required each individual VSAT terminal to be licensed; this was in addition to requiring a network operator's license. But years ago, the U.S. government implemented a new approach to regulating VSATs - "blanket licensing" - and it has been very successful.

With this regulation, certain classes of VSATs are configured based upon technical criteria - involving power level, frequency, etc. - that eliminate the risk of unreasonable interference. Thus, a single blanket license can be issued covering an unlimited number of VSAT terminals.

This approach has worked well both for the U.S. regulator, for the industry, and for end users. The U.S. - which has one of the most highly developed fiber-optic infrastructures in the world - is also home to the largest installed base of VSAT networks in the world. This shows not only that VSATs are an essential *complement* to terrestrial systems, but that the blanket-

licensing regime has been instrumental in facilitating the efficient and cost-effective use of satellite services.

The U.S. isn't the only country to adopt VSAT blanket licensing. Indeed, 43 European nations have now adopted a set of policy principles that provide for blanket licensing of receive-only and interactive VSAT terminals.

The policy principles were adopted through the regional Conference Europeene Conference et Telecommunications (CEPT) and, more recently, have begun to be *implemented* by individual national administrations.

Like the U.S. approach, Europe's policy principle exempts interactive Ku- and Ka-band VSAT terminals from individual licensing requirements, provided the systems meet pre-determined criteria. For example, in the European framework, to qualify interactive VSATs must have 2W or less power, emit 50 dBw EIRP or less, have an antenna aperture of 3.8M or less, and be installed 500 meters or more outside airport perimeter fences. (VSATs may still be installed within 500 meters of the airport perimeter, but they would require co-ordination and individual licensing.)

Countries that have implemented the policy include the Czech Republic, Denmark, Austria, Switzerland, the Netherlands, Luxembourg and Norway. And Germany, Italy and Bulgaria reportedly are soon to announce an implementation date.

When the blanket-licensing policy was initially adopted, nearly 20 European nations said they were prepared to implement the reforms nationally, including also Poland, Greece, Iceland, Ireland, Hungary, Latvia, and Lithuania.

It is important to note that Europe's implementation of blanket licensing is not *required* by the CEPT; rather, each individual country decides whether they want to implement on a local level - and the individual regulators are deciding to proceed based purely on their national interests.

## **2) Transparency:**

Huge amounts of time, money and effort are spent each year by the communications industries of every country in an attempt to determine what regulations apply to VSAT-based systems and services.

This difficulty - often referred to as a lack of "transparency" - is so severe that in many cases the service provider gives up or, worse, commits to provide service only to learn later about an obscure regulation which leaves them and the end user in a compromised position.

Again, recognizing the importance of facilitating VSAT service provision, governments around the world have begun prominently posting all such data on a website.

For example, the countries of South, Central and North America have developed a VSAT licensing database that includes the licensing requirements for many administrations in the

region. The database, which is administered by the member states of the Inter-American Telecommunications Commission (CITEL), can be seen at [www.citel.oas.org/pcc3/vsat/vsat\\_information\\_of\\_licensing.htm](http://www.citel.oas.org/pcc3/vsat/vsat_information_of_licensing.htm) There are now 16 countries that have posted their VSAT licensing requirements in this central location.

Meanwhile, the European governments have gone even further. A database has now been developed by the CEPT that includes the satellite-licensing data for each of 43 administrations at [www.eto.dk](http://www.eto.dk)

In the second phase of the European program - which is to be completed this year - when an applicant visits the site, they are to be able to apply for licenses in any combination of European countries using a single electronic application form. Each government retains total control of the licensing process, but the database and software facilitate simple access to information and easy processing of license applications by the individual administrations.

As with blanket licensing, all of the countries that are participating in transparency programs are doing so on a voluntary basis. The advantages of making data readily accessible are clear: Posting regulatory requirements is inexpensive, reduces the burden on administrations, and enables industry to effectively provide services.

### **3) Type Approvals:**

Type approval of telecom terminals has long been recognized by national administrations as a problem. Testing requirements from country to country are often redundant, resulting in major delays, higher costs and less efficient provision of communications.

That's why the Asian members of the Asia Pacific Economic Co-operation group (APEC) signed a Mutual Recognition Agreement to facilitate the elimination of redundant type approval testing. And that's why CITEL is currently moving toward adoption of a similar regime for South, Central and North America.

Further, recently, European Community (EC) legislation began to be implemented that *eliminates* government type approvals of VSAT and other telecom terminals. This change is being brought about with the Radio and Telecommunications Terminal Equipment Directive 1999/5/EC (the "R&TTE Directive"), which introduces a system based on manufacturers' declaration of conformity and relaxation of the regulatory constraints on the free movement and putting into use of terminal equipment.

And finally, as an interim solution the Global VSAT Forum's MRA Working Group recently developed a technical framework called the "Mutual Recognition Arrangement", which defines a set of standardized measurements that produce a data package. This package can be used to check compliance of an earth station antenna model with applicable performance requirements.

The GVF MRA framework can be used by administrations that accept the MRA data package as a means of satisfying their domestic type approval requirements.

As these new approaches continue to be implemented, the public and private sectors will benefit tremendously, with faster more cost-effective access to communications and elimination of unnecessary regulation.

#### **4) Open Skies:**

In the past, governments have developed policies to protect their country's satellite systems. These "Closed Skies" policies require service providers to use only locally-owned satellite capacity when providing VSAT services.

But in the long run, governments are realising that tremendous demand for Internet, data, voice, video and other essential services is best addressed by policies that permit open access to all satellite resources, assuming that they have been properly co-ordinated through the International Telecommunication Union (ITU).

This approach is gradually being adopted by administrations in every major region of the world including, for example, Nigeria in Africa, Brasil in South America, most of Western Europe and North America, and India in the Asia-Pacific.

While the policies being implemented around the world today are not completely open, they all involve permitting increased access to orbital resources, regardless of the satellite operators' country of origin.

#### **Concluding Remarks**

As is apparent, the trend globally - from Asia to Europe to the Americas to Africa - is for national regulators to improve regulations governing the use of satellite communications. Key aspects of these regulators' approaches include the following:

- Individual licensing of receive-only and interactive VSAT terminals is being eliminated in all cases, except where an unreasonable risk of interference is posed;
- Transparency of regulatory requirements is being assured;
- Type approval requirements are being simplified;
- Open Skies policies are being adopted; and
- "Light touch" approaches are otherwise being applied to facilitate the provision of services in a liberalised environment, both on the national and regional level.

These and other aspects of reform certainly warrant careful consideration. To the extent that any regulator is interested in further improving VSAT regulatory approaches, the Global VSAT Forum is committed to supporting your efforts in any way possible.

For example:

- The Global VSAT Forum has been developing a global database, which lists the regulatory requirements of each country as regards VSAT-based service provision. It may be useful as a free reference to see what regulatory trends are underway around the world.
- The Global VSAT Forum regularly provides - as a free service - regulatory workshops and seminars for governments. When a government expresses an interest in such a program, we jointly draft the agenda with the government to ensure that the appropriate subjects are addressed. Thus, the duration of the workshop or seminar depends entirely upon how much information is sought by the government.
- The Global VSAT Forum is a good source of expertise on a wide range of satellite-related topics, from technical issues, to regulation, to market data. If your organization needs such information, please feel free to contact us, and we will do our best to support your requirements - at no cost.

We look forward to supporting your agenda in any way possible.

Very Best Regards,

David Hartshorn  
Secretary General  
Global VSAT Forum