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Future Solutions: Universal Access

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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.

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 regions like Asia, but also through regional and sub-regional groups such as APEC the Asia Pacific Telecommunity 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.

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 http://www.citel.oas.org/vsat/ vsat_information_of_licensing.asp.

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 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.

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.

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. India provides a good

example. The country has its own locally-produced satellite constellation, which was protected by a policy that prohibited the use of non-Indian satellite capacity.

But demand from the Internet and software industries was so great - and the potential to boost the economy was so high - that the government decided to permit open access to all satellites for Internet service providers who held international gateway licenses. The licenses were made readily available by the Indian government.

The new policy was implemented in January 2000, and the positive results were immediate. Many companies were suddenly able to expand their services, and dozens of new companies began to provide connectivity to end users. Availability of service increased while prices decreased. New jobs were created, and Indian software producers - who generate more than $30 billion per year in revenues - were provided with a cost-effective means of exporting locally-produced goods.

All the while, India's INSAT constellation continues to be a primary source of capacity and, indeed, the government recently announced plans to expand the constellation. Now, the Indian government has announced a second phase of satellite-sector deregulation, with license fee reductions and other reforms.

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.

Global VSAT Forum: The GVF is the UK-based independent, non-partisan and non-profit organisation representing every major world region and every sector of the VSAT industry. It has more than 130 members and serves as the unified voice of the industry in regulatory, policy and trade matters. The Forum co-ordinates regulatory and policy solutions at the national, regional and global level, and supports educational and promotional programmes in every nation of the world.