

International Telecommunications Satellite Organization (ITSO)

GLOBAL BROADBAND SATELLITE INFRASTRUCTURE INITIATIVE

I. INITIATIVE SUMMARY

Currently, one of the highest priorities of the international community is bridging “the digital divide”. This contribution offers a possible solution to close this gap.

This digital divide is due, in large part, to the unbalanced distribution of telecommunications infrastructure between regions, countries, and urban and rural areas. A possible way to correct this imbalance and accelerate the provision of information and communication technology (ICT) services on a worldwide basis would be through an innovative public-private partnership that would lead to the establishment of a global broadband satellite infrastructure. Due to its competitive advantages, the use of satellite technology would enable this broadband infrastructure to be universal, available within a reasonable time frame, and with the required quality and affordability. For this purpose, it would be necessary to create an open global market for broadband equipment and services through a universal technical standard, to access dedicated spectrum and orbital resources, and to develop a minimal and pro-competitive regulatory framework.

The emergence of a global broadband satellite infrastructure could be the result of a win-win partnership between the public and private sectors. The forthcoming World Summit on Information Society (WSIS) (Geneva, 2003 / Tunis, 2005) is the ideal platform for the consideration and launching of such an initiative.

II. OVERVIEW

Resolution 1721 (XVI) of the General Assembly of the United Nations sets forth the principle of the availability of satellite communications to the nations of the world on a global and non-discriminatory basis.

In its application of this U.N. Resolution, the international community, at the initiative of the United States, created in the late 1960s the International Telecommunications Satellite Organization to operate a single global commercial telecommunications satellite system that provided expanded international basic telecommunications services to all areas of the world on a non-discriminatory basis. The objective was to ensure that developed and developing countries equally benefited from emerging satellite technologies. Systems such as Arabsat for the Arab states, Eutelsat for Europe, and the Rascom project for Africa have emulated the success of this model on a regional basis. It also paved the way for dozens of successful private satellite systems.

It is now universally accepted that ICT services are the engines for economic and social development. Compared to cable solutions, satellite technology offers the advantages of ubiquitous coverage, point-to-multipoint transmission capabilities, seamless transmission, independence from terrestrial infrastructure and rapid deployment. Thus, satellite technology could, on an affordable and timely basis, bring broadband Internet services to developing countries and to rural and remote areas in developed countries where terrestrial infrastructure is largely non-existent or its rollout is prohibitive. Broadband Internet services represent a powerful means to support vital telecommunications applications, such as telemedicine, distance learning, electronic government and telecommerce.

Overall, the satellite industry already has developed all of the components needed for a global broadband satellite infrastructure. Unfortunately, all of the planned broadband satellite projects target only the high profitability markets that usually are well served already by terrestrial technologies, and do not take into account the needs of developing countries.

It is important to note that today, over 70 countries that account for more than 60 percent of the world's population are satellite dependent for their national and international telecommunication services; further, nearly all other countries are dependent on satellites for their communications with those countries. Therefore, it is urgent to facilitate the emergence of a global broadband satellite infrastructure with the capability to provide, on a worldwide and non-discriminatory basis, two-way highspeed Internet access, in accordance with the provisions of Resolution 1721 (XVI) noted above, as well as the International Telecommunication Union (ITU) Resolution 64 which mandates non-discriminatory access to modern telecommunication facilities and services.

At a time when most intergovernmental satellite organizations have privatized their business activities to ensure fair and active competition among all satellite operators and to strengthen their financial foundation to better discharge their public service obligations, it is not feasible to envision a new global project that would be owned and financed by the public sector or by a single operator. Therefore, any new initiative, including the proposed global broadband satellite infrastructure initiative, must rely on the market, competition and the involvement of all operators on voluntary basis.

In order to promote the emergence of such a global broadband satellite infrastructure that requires high-powered satellites and substantive investments, a new, pioneering public-private partnership needs to be forged.

III. ROLE OF THE GOVERNMENTS AND INTERGOVERNMENTAL ORGANIZATIONS

The international community should use the unique opportunity presented by the WSIS to encourage the establishment and development of a global broadband satellite infrastructure that would provide universal, two-way, high-speed Internet access through individual or community low-cost, small-dish platforms. This ambitious objective will require that Governments and interested intergovernmental organizations develop an appropriate global policy and framework that will attract private investments. This would require:

- Identification of a limited number of geostationary orbital positions and frequency spectrum resources, associated with predetermined geographic areas, exclusively dedicated to the global broadband satellite infrastructure. The national allocations in the existing ITU Plans for Direct Broadcasting Satellite services (DBS) and Fixed Satellite Services (FSS) constitute prime resources for this initiative. Countries would be requested to modify, if necessary, part of these allocations to permit identification of a number of regional orbital positions and associated frequency spectrum that could be exclusively dedicated to the

provision of global broadband services. In this regard, it is important to note that most of these national allocations are not used for the moment. Consequently, consultations should be undertaken to evaluate the extent to which parts of these national allocations might be better utilized for a global broadband satellite infrastructure that secures ICT services for these countries.

- Consideration of the relevance of having a worldwide market for broadband products and services through a universal technical standard. In addition to ensuring the interoperability between different broadband satellite networks, such a standard is necessary to foster mass production with regard to equipment manufacturing, especially with regard to the user terminals. Lower equipment costs would benefit all users, particularly in developing countries. The ITU and its Member States and Sector Members, along with the satellite industry and all standardization bodies, should be invited to contribute to the development of this universal standard for broadband satellite services and equipment. In doing so, due consideration should be given to the provisions of the ITU Resolution 101 on the implementation of the Internet Protocol (IP) for public telecommunications networks.
- Establishment of a pro-competitive and harmonized regulatory framework that promotes the necessary investments in global broadband satellite services. This framework would include:
 - Granting “landing rights” to all participating broadband satellite operators.
 - Granting authorization to qualified national service providers on the basis of minimum common licensing requirements.
 - Ensuring interconnection among all participating broadband satellite operators. This interconnection would facilitate ubiquitous international service coverage and make it possible for all users to freely communicate, regardless of the satellite operator to which they are connected or the services they use.
 - Ensuring competition by allowing at least two operators to provide broadband services in each geographic region.
 - Considering the public service dimension of two-way high-speed Internet access.

IV. ROLE OF THE PRIVATE SECTOR

The political will of governments to develop a worldwide market for the satellite-broadband industry will represent tremendous business opportunities for private sector. Therefore, the telecommunications industry, particularly the satellite operators, should be stimulated to participate in the development of a global broadband satellite infrastructure.

In order to benefit from prime orbital positions and frequency resources and to access a worldwide harmonized market, the participating operators would be required to commit to the following:

- Financing their own satellite infrastructure to provide broadband services in the predetermined geographic area(s) they have decided to cover. For investment purposes, the predetermined regional geographic areas would be designed to include developed and developing countries.
- Using the orbital positions and spectrum resources identified for the global broadband satellite infrastructure exclusively to provide broadband services in conformity with the universal technical standard specifications.
- Providing interconnection of their satellite network with the networks of all of the other participating satellite operators.

V. CONCLUSION

The creation of a global broadband satellite infrastructure provides a unique opportunity to bridge the digital divide and to offer high-quality, two-way high speed Internet services to all users throughout the world. Satellite technology makes it possible to develop this infrastructure within a reasonable timeframe and at a reasonable cost. To achieve this objective, an innovative public-private partnership is required. This partnership would be based on dedicated orbital positions and frequency resources, a universal technical standard for broadband services and a pro-competitive and harmonized regulatory framework.

The global broadband satellite infrastructure initiative presents an opportunity to allow Internet access to all mankind and offers the telecommunications industry important new business opportunities.

Adoption of the attached draft Resolution by the WSIS would serve as an important first step towards the development of a global broadband satellite infrastructure.

DRAFT RESOLUTION

Global Broadband Satellite Infrastructure

The World Summit on Information Society (Geneva, 2003),

Recognizing the urgent need to harness the potential of knowledge and technology for promoting the goals of the United Nations Millennium Declaration and to find effective and innovative ways to put this potential at the service of development for all;

Recognizing the pivotal role of the United Nations system in promoting the development, in particular with respect to access to and transfer of technology, especially information and communication technologies and services, inter alia, through partnerships with all relevant stakeholders;

Recognizing also that the ITU is the organization best able to seek appropriate ways to provide for development of the telecommunication sector in a manner that facilitates economic, social and cultural development;

Considering that the United Nations General Assembly recommends that the preparation for the Summit finalize both the draft declaration and the draft plan of action;

Resolves to:

1) Endorse the build-up of a global broadband satellite infrastructure system that could serve all regions of the world on a non-discriminatory basis, using low-cost terminals for two-way, high speed Internet access.

2) Invite the Secretary General of the ITU, the Director of the Development Bureau, the Director of the Radiocommunication Bureau and the Director of the Standardization Bureau, in coordination with the ITU Member States and Sector Members:

- To identify sufficient orbital and frequency resources and their associated coverage to be used exclusively for the provision of global broadband satellite services;
- To propose a single technical standard to be used for the provision of broadband services in conjunction with these orbital locations and frequency resources; and
- To propose harmonized telecommunications satellite licensing regulations with the objective of creating an open global broadband satellite market.

3) Establish a Consultative Review Committee, composed of the interested public and private stakeholders, to further define the conditions for the establishment of a global broadband satellite infrastructure.

4) Instruct the Consultative Review Committee to report to the second session of the WSIS (Tunis, 2005).