Overview of Latin America Rules and Policies x the WorldSpace Digital Broadcasting System (2nd part of the WorldSpace presentation)

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Introduction

This text intends to give an overview of the various difficulties faced by WorldSpace with regulatory agencies' rules and policies in Latin America. Other important players in the region are the local Broadcaster's Associations.

When WorldSpace started looking for the regulators some years ago, it became clear that our system was not correctly understood neither from a technical nor from a commercial point of view. Its capabilities and technical requirements (e.g.: spectrum usage) were simply not understood or sometimes misunderstood. The channel capacity (that varies according to the audio quality desired), the capability to transmit multimedia files, its possibility to be dynamically reconfigured, the differences between the transparent and processed payload and the corresponding uplinking stations and many other unique features of the WorldSpace system generated many questions and delays in the regulatory process.

Our potential local partners like local/regional broadcasters and content providers saw us as competitors and not as partners. WorldSpace is not and cannot be considered a conventional broadcasting company. It is a new direct satellite delivery platform that conveys digital audio and multimedia services to the end user. It can be considered the "broadcaster of the broadcasters". Anyway, while WorldSpace is seen as a competitor, a lot of opposition lobbying is done.

As a completely new service, usually the regulatory agencies did not have any particular regulated service where the WorldSpace service could fit.

"Broadcasting" Concept

In Latin America the concept of Broadcasting (translated as Radiodifusión in Spanish and Radiodifusão in Portuguese) is key to licensing systems like WorldSpace. Broadcasting is not a simple telecommunication technique but is a legal concept. Maybe there are historical reasons that led to this confusion. As a consequence of this legal concept, broadcasting services have a number of restrictions for licensing. For instance, requirements such as only national companies and/or citizens can be granted a license and country sovereignty usually makes the licensing or authorization to operate any service that can be considered "Broadcasting" quite difficulty. In some countries even the concept of national company is not clear.

The L-Band and other services

From a technical standpoint, the lack of definition of the use of L-Band (1,452 to 1,492 MHz) or its current use by other services has also contributed for the delay in the regulatory process in Latin America.

The possible future use of the L-Band for Terrestrial Audio Broadcasting (T-DAB) is also important in our considerations. Latin America follows the USA AM/FM sound broadcasting model. Such services are usually privately owned and operated as opposed to the European model that historically was operated by the Governments. The technical standards are the same or very similar to the ones used by the USA (including spectrum/channel allocation). As the USA is not going to use the L-Band for T-DAB, they are developing the IBOC (In-Band On Channel) system. The advantage of this system is that it allows the use of the current spectrum/channel allocation. It does not need a new frequency band to allocate terrestrial digital audio broadcasting and all current broadcasters can switch to the digital service using their current analog channel. The transition to the new digital service can be gradual. It does not require that more than one station or service share a transmitter (as required by the European standard, where up to five or six services share a common transmitter). That is a problem in a very competitive market. On the other hand, the cost of transmitting equipment and receivers for the European T-DAB system is higher than the current analog systems and to the estimated costs for switching to the IBOC system.

It is interesting to note that in many countries the lack of the definition of the use of the L-Band (reserving it for T-DAB) and at the same time statements that the European system is not adequate for the Latin America countries (that is a paradox) are common. This demonstrates that this type of ambiguity is often use as a protection for captive markets against other forms of services.

It is expected that the IBOC system be fully defined and tested by middle of 2001.

WorldSpace Actions

What are the WorldSpace actions in order to expedite the regulatory process?

One of the main points is to have local consultants that fully understand the WorldSpace system from a technical point of view. It is also important to them understand the commercial side of the system. Once they acquire the knowledge of the WorldSpace system, they can use their knowledge of the local regulations to match our service license/authorization needs with the local rules.

It is also important to clarify the regulatory agencies about our services. Presentations are given to them showing how the frequency bands are used, what are the system capabilities, how the uplinking system works (the transparent and processed versions), etc. As important as the technical side of the system is to show them what are the possible commercial relations that

can be established with local partners and how our system can be used to increase the information affluence in that region.

It is interesting to note that most of the technical information is contained in the documents required by the ITU and sent to the various administrations. We have noted that it is not easy to extract relevant information from such documents. This can be due to the somewhat encrypted manner the information is given in the documents as well as by the short time the normally overloaded officials have to analyze the data. This almost always leads to a not correct interpretation of the data.

WorldSpace has also contributed with the development of studies that can help service planning. This includes not only the WorldSpace service but also other possible future services. For instance, WorldSpace sponsored an independent study for the use of the L-Band for T-DAB in the São Paulo City area.

Participation in local/regional Broadcasting Commissions meetings like the CBC-11 (Comissão Brasileira de Comunicações), CITEL PCC-II, Mercosur Broadcasting Commission, etc. is also helping to make the WorldSpace system better understood. Usually themes like the spectrum usage/allocation, system capabilities, interference assessments, etc. are considered within those commissions.

Finally, showing the WorldSpace system to Broadcaster's Associations and to independent broadcasters/content providers also contributes to clarify the technical and commercial sides of our system. In many cases the individual broadcaster's opinion is quite in favor of the system as opposed to his Association's position.

Conclusions

The association of a telecommunication technique (broadcasting) to a legal concept is often a restrictive factor in the regulatory process in the region. The lack of understanding of a new system/service both technically and commercially generates opposition to it. Contributions to clarify all aspects of the system/service ease the regulatory process.