Beyond WRC

David Hartshorn, Secretary General of the Global VSAT Forum,
talks to InterComms about the organisation's involvement in Africa

David Hartshorn is Secretary General of the GVF, the London-based non-profit international association of the satellite industry. The Global VSAT Forum consists of more than 170 members from every major region of the world and from every sector of the industry, including satellite operators, manufacturers, system integrators, and other service providers.

Mr. Hartshorn leads the Forum's efforts to facilitate the provision of satellite-based communications solutions throughout all nations of the world. In particular, Mr. Hartshorn works closely to support national-, regional- and global-level policy makers as they formulate state-of-the-art satellite regulatory frameworks.

He is also responsible for creating greater awareness of the commercial, economic, political and technological advantages that VSAT-based communications provide.

Mr. Hartshorn has worked in the satellite communications industry for 18 years, serving in sales, business development, publishing, and association offices based in North and Southeast Asia, North America and Western Europe.

He has been published in hundreds of editions of magazines and newsletters, and has spoken and chaired at conferences and seminars in every major region of the world.

Q: What has been happening since the outcome of the World Radiocommunication Conference 2007 (WRC-07), regarding interference issues between C-band satcom and terrestrial broadband wireless?

A: Since that time, we have been doing two things. First, we have set up and have received funding support from industry for the Spectrum Security Initiative. This will heighten awareness worldwide amongst stakeholders - public or private sector - about the value proposition of preserving access to spectrum used for satellite service delivery. What we have found before the WRC, was that there was an information gap. This was enabling the disjointed proceedings, where national administrations had considered a change in the way spectrum is used and in so doing, create the possibility of crippling satellite service delivery. We wanted to heighten awareness and provide more information to prevent that from recurring. We are setting up a website, and we are going out with surveys to get the latest information on where interference incidents are occurring. Reports continue to flow into us about new interference incidents. We are also seeking a formal linkage with the terrestrial wireless industry.

Q: Are there any examples of where you've worked with each other in the past and going forward commercially in the future?

A: For years now, the primary means by which the terrestrial wireless industry gets their signals backhauled out of remote areas in developing countries is by satellite. It is a well-established architecture and, as such, the terrestrial wireless industry, especially GSM operators, are one of the biggest customers worldwide for the satellite industry. As those terrestrial wireless operators begin to become licensed as WiMAX operators or begin positioning themselves to become operators of other forms of terrestrial wireless, they have a legacy of successfully relying upon satellite for backhaul to the PSTN. They are therefore reflexively turning to satellite to backhaul their deployment of WiMAX and other variants of next generation terrestrial wireless, particularly in developing countries. What has occurred traditionally has focused on voice services, delivered in remote areas of developing countries. Now, it's time for broadband.

Q: What about data based content?

A: What's new, is that WiMAX and other forms of next generation terrestrial wireless, want to offer broadband data to these remote communities. This is a new business model. It has been proven in the past that there is disposable income in these developing communities, and more significantly they will spend a significant portion of that disposable income to get voice services. The question that is now on the table is whether they will spend it to get broadband data? In many cases, an overlay needs to occur over these established voice infrastructures, and once that overlay occurs, how will it manifest itself locally? Will they want get access to online content sources from the cybercafé model, public kiosk or public call office in the village where people come in on an ad-hoc basis in the same way that they have grown accustomed to for voice services? Will devices be cost effective enough to enable individuals in these communities to have some level of ownership of the device and pay for monthly services? We believe the answer is, yes.

There are business models now in play which show that it is feasible to generate revenue sufficient to sustain

▶ the network financially on the back of these combined voice and data broadband services in what are being called Digital Communities. None of this is possible without terrestrial wireless and none of it is possible without the satellite piece enabling linkages to the public switched network. What we see now is strong interest from all sides in accelerating and enabling this trend so that it takes hold and gets traction in the developing countries. We are working very hard on this right now and the idea is to join forces with the terrestrial wireless industry and get past the spectrum dispute of last year and get on with business.

Q: Are you getting interest from governments and supra-national bodies in this work?

A: Our organisation committed itself to the ITU's Connect the World programme at ITU Africa at Cairo earlier this year, becoming partners in supporting Connect Africa, the first region that was announced. In doing so, our industry membership committed to significantly expand the extent to which satellite services are rolled out across the African continent. This could either be standalone satellite services or in support of other forms of communication and delivery, whether it is terrestrial wireless or extension of last mile for existing or fibre optic cables. The model for Connect Africa is really a mirror image of the basic structure that we envisioned for the Digital Communities initiative that we are rolling out, which is public and private sector collaboration. The models are based on a for-profit mechanism. That is why the sustainability question is so crucial in the initiative that we are focussing on. We have evaluated the financial performance of hybrid satellite and terrestrial solutions that have been deployed around the world. We are taking that experience and we are using it to develop templates that can be applied and can be pushed and pulled in different directions to suit local contexts. The standard template would serve as a guideline going in to the deployment of terrestrial wireless, supported by satellite for delivery of broadband data and voice in digital villages that is a model that tracks along the same lines that the ITU is pursuing in its Connect the World programme. So, we will be offering up the initiative as, one of a number of aspects of how we are supporting Connect Africa and other regional iterations.

Q: What is the role of government in this?

A: We believe that the role of the local government where the network roll out is occurring is to create an enabling regulatory environment where one does not already exist. Secondly, the local government we believe, should be

allocating seed money from their universal service fund to help jump start the rollout of these systems in their country. If a universal service fund has not been established in that country, then we believe one should be. For this and for all future initiatives, it would be of relevance at the local level. Those are the two key roles that we see local government playing in countries where deployment would occur. Secondly, there are funding entities in the world today who are keenly interested in enabling this. We believe that there is funding available from funding entities to assist the local government. Who knows what ratio that will be as it will probably differ from country to country. We also believe that there will be matching funding or support in kind from the private sector.

Q: What about direct engagement within Africa on this issue?

A: Fulfilling our commitment to Connect Africa, we are launching a series of very focused events, in the countries of Africa that are most economically politically and militarily challenged. This series of communication summits will kick off on November 12th with the first of these being held in the Democratic Republic of Congo (DRC) in Kinshasha. The Ministry has endorsed the summit and we are bringing in the terrestrial wireless and fibre optic industries to sit at the table with the satellite sector and government and to clarify the role of next generation communications in helping the DRC to rebuild its infrastructure in these times as they come out of civil war. Thereafter there

will be a series of similar events, tailored for governments like Liberia, Sierra Leone and elsewhere across the continent.

Q: What about commercial development outside the developing world?

A: What is great about what is happening in the developing world is that it is enabled by what is happening in the developed world. Just in the past two years, for the first time in history, we have begun to see mass roll out of consumer class bi-directional satellite earth station equipment and service in North America, Asia and Europe where hundreds of thousands of subscribers are already signed up. This is a profitable business model for the developed world. That has an indirect but immediate link with what is happening in the developing world. Now we see mass-market deployments and economies of scale in the production of equipment; this is bringing prices down even lower than they were. It had already come in under $500 per terminal allowing significant roll out into developing countries too. They really go hand in hand.

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