

Adding value on the ground

BY ROBERT BELL

When you read the words “satellite communications”, what is the image that comes to mind?

For most of us, the image is of the satellite orbiting in space 36,000km from earth, its solar panels extending like great wings and gleaming in the sunlight against the starlit backdrop of space. Its multiple transponders receive signals beamed up from earth and re-transmit a perfect replica to the ground: the miracle of space communications as first conceived by Sir Arthur C Clarke 60 years ago.

That basic “bent pipe” system represents both the strength and the weakness of satellites in space. Their strength lies in the simplicity of this design. Because it is so simple, it has proved immensely adaptable as analogue has moved to digital and compression software has vastly increased the capacity of the transponder. Their weakness is that there is no value added aside from their unique location. What you put into the receiver is what you get from the transmitter.

For value-added, you have to stay on the ground. When I read the words “satellite communications”, I think of the ground segment first. This may have something to do with my title as executive director of the World Teleport Association (WTA).

But it is simple fact that teleports add the value to satellite communications by managing the complexities of the network in order to get the greatest throughput from the transponder, and by bundling a vast

array of services into the basic bent pipe circuit.

This helps explain the decision of all of the global satellite carriers — from Intelsat to PanAmSat and SES Americom — to build or buy teleports. They are keenly aware that satellite bandwidth is essentially a commodity, and that commodities tend to be bought on price, nothing more. By entering the teleport sector, they hope to increase the value they can add to the customer's business.

Sizing the Teleport Market

Given the importance of the teleport sector, there is surprisingly little meaningful data available about it. Most teleports are either privately held or are units within much larger publicly held companies that do not break out their financial results. As a result, at WTA, we have only been able to offer estimates in response to countless questions about the number of teleports worldwide, total sector revenues, geographic distribution and purchasing power.

In April 2005, however, after 18 months of labour, we finally had some answers, in the form of a research report called *Sizing the Teleport Market*. It makes interesting reading for those in the broadcast business who are responsible for ensuring that programming reaches cable headends, broadcast affiliates, enterprise customers and the consumer's home.

The study defines a “teleport” as a fixed satellite transmission facility that provides service to



external customers.

This definition excludes truck-mounted, flyaway and portable antennas for satellite news-gathering, special events or similar purposes. It also excludes uplink facilities operated by TV and radio broadcasters, cable-TV channels and direct-to-home (DTH) providers for their own use. Both groups are important players in the satcom market but they represent different segments from the fixed commercial operator.

The study sizes the worldwide commercial teleport market at US\$12.8 billion in annual revenues. Of these, about \$8.6 billion, or 67%, come from the teleport's own services and \$4.2 billion, or 33%, from the resale of capacity on transponder and fibre capacity.

The *Satellite Industry Indicators* study, published by Futron Corporation in cooperation with the Satellite Industry Association, estimated that worldwide satellite services revenues were \$55.9 billion in 2003, the most recent year for which data is available.

This figure suggests that the teleport sector was responsible for producing some 15.3% of the world's satellite services revenues and may control as much as 23% of revenue flows to the industry. “Control”, in this case, means that it is the teleport operator that has the customer relationship.

The Asian contribution

Asia contributes some \$2.3 billion, or 18%, of teleport-sector revenues, compared with \$3.8 billion, or 30%, each in Europe and North America. Of the top 25 countries in terms of teleport-sector revenue, 10 are in Asia, but only two of the top 10 — India with \$566 million and Japan with \$357 million — are Asian nations.

The presence of these two countries among the top 10 is interesting, for it reflects vastly different histories. India's No.3 position is a reflection of its vast geographic size. Although satellite communications ceased to be a government monopoly only recently, the formal monopoly provider, VSNL, invested heavily in teleports in order to connect the far-flung regions of the world's largest democracy.

By contrast, the population of Japan is concentrated in such a small geographic area that satellite was a relative latecomer to

Top Countries by Teleport Sector Revenue

Rank	Country	Total Revenues	Teleport Services Revenues
1	USA	\$3,086.3	\$2,149.1
2	UK	\$ 587.6	\$ 407.6
3	India	\$ 565.7	\$ 436.8
4	Canada	\$ 512.3	\$ 374.9
5	Brazil	\$ 475.8	\$ 338.6
6	Australia	\$ 460.4	\$ 348.6
7	Germany	\$ 431.8	\$ 260.7
8	Japan	\$ 356.9	\$ 271.0
9	Russia	\$ 324.6	\$ 162.2
10	Italy	\$ 303.3	\$ 221.7
11	France	\$ 274.9	\$ 201.9
12	Spain	\$ 234.9	\$ 132.1
13	China	\$ 227.3	\$ 158.7
14	Netherlands	\$ 225.1	\$ 173.5
15	Singapore	\$ 216.0	\$ 164.4

US\$ in millions

the communications mix, but the liberalisation of telecommunications in 1985 created an active market for DTH TV and helped to drive the growth of commercial teleports there.

The data assembled for *Sizing the Teleport Market* also makes it possible to identify cities that are the teleport capitals of the globe. Once again, Asia is under-represented.

Of the top 25 cities in terms of teleport-sector revenue, only two are in Asia: Singapore and Tokyo. Singapore's No.2 position in the ranking is the result of its government's strong commitment to making that island nation the dominant broadcast and content distribution centre of the region. Tokyo's No.7 position reflects the intense concentration of Japanese business activity in the capital city.

What do these statistics say about the satellite communications market in Asia?

Clearly, it is underdeveloped compared with the markets in North America and Europe. This is certainly not the result of lack of capital or demand. Asia is the world's most populous region and is rapidly becoming its economic powerhouse. Rather, the problem is the lack of liberal, transparent and effective telecommunications regulation on the part of too many governments in the region.

Where governments hold onto ownership of a monopoly or dominant carrier, there can be no level-playing field. Where regulations make it difficult or uneconomic for new entrants to gain licences and provision services, there can be no level-playing field.

It is hard enough for new entrants to compete with a dominant carrier in a fully liberalised environment, because the former monopoly has an enormous sunk-cost network already in place, while competitors must capitalise and build them from scratch. It takes very little extra disincentive to make the game

not worth playing.

I feel strongly about this issue because my sector, the teleport sector, has so much to offer the market in terms of high-value services. Teleports today are not the simple “earth station farms” of the 1970s and 1980s.

In addition to serving the core broadcast, cable and DTH market, today's teleport-operating companies focus on identifying, growing and defending market niches where they have an opportunity to add significant value to the basic business of uplinking. These include:

- Business TV;
- Enterprise multimedia networking;
- Maritime and offshore communications;
- Distance learning;
- Digital signage and other proprietary broadcast applications;
- High-security networking;
- Niche DTH and cable-programming distribution;
- Network integration and backbone connectivity for mobile telephony; and
- Internet backbone connectivity and VoIP.

In a sign of increasing maturity, the teleport has evolved into a platform for providing customers with complex, end-to-end solutions to communications needs that can only be met by including a satellite link in the network. And this characteristic defines so much of Asia that conditions stunting the teleport sector are also stunting consumer choice, media industry revenues and the economic development of the region.

The full text of *Sizing the Teleport Market* is available free to members of World Teleport Association and for sale to non-members at www.worldteleport.org/Teleport/sizing_market.html.

Asia-Pacific Broadcasting Union will alternate with the World Teleport Association and CASBAA to appear in every other issue of APB, highlighting various association news to the industry.

Top Cities by Teleport Sector Revenue

Rank	Metropolitan Area	Total Revenues	Teleport Services Revenues
1	London, UK	\$267.9	\$190.7
2	Singapore	\$216.0	\$164.4
3	Los Angeles, CA, USA	\$195.9	\$135.9
4	New York, NY, USA	\$192.8	\$132.8
5	Madrid, Spain	\$167.7	\$103.4
6	Atlanta, GA, USA	\$158.4	\$106.9
7	Tokyo, Japan	\$147.0	\$112.6
8	Miami, FL, USA	\$120.4	\$103.3
9	Hong Kong, China	\$114.8	\$ 72.0
10	Toronto, ON, Canada	\$109.5	\$ 83.7
11	Washington DC, USA	\$105.5	\$ 75.5
12	Rio de Janeiro, Brazil	\$102.5	\$ 72.5
13	Sao Paulo, Brazil	\$102.5	\$ 72.5
14	Houston, TX, USA	\$ 99.4	\$ 69.4
15	Athens, Greece	\$ 83.3	\$ 49.1
16	Detroit, MI, USA	\$ 83.3	\$ 49.1
17	Moscow, Russia	\$ 79.3	\$ 40.9
18	Boston, MA, USA	\$ 46.6	\$ 38.0
19	Orlando, FL, USA	\$ 33.5	\$ 20.7
20	Chicago, IL, USA	\$ 33.5	\$ 20.7

US\$ in millions



Robert Bell is executive director of World Teleport Association (www.worldteleport.org). WTA is headquartered in New York City and has regional representatives in Los Angeles, London, Hong Kong and Tokyo. Bell welcomes your comments at rbell@worldteleport.org.