1.1.1. Bosphocom



Systems & Facilities:

Star: ND Satcom, SkyArcs

Mesh: ND Satcom, SkyWAN

Frequency: C and Ku-band

Hubs: Istanbul, Turkey

Satellites Used: Eutelsat W6, Intelsat 902,

904 & HellasSat

Service Area: Turkey and surrounding

countries

Install, S&M: Bosphocom and third

parties

Commercial Factors:

Growth: ~300% (2007/8)

Staff: ~25

Capacity: ~65 MHz

Revenue: ~US\$30m (2008)

estimated)

Business:

Mesh Business	Total	TDMA Business	Total	Bosphocom current serves
Mesh Installations:	~35	TDMA Installations:	~60	around 100 sites on its two
Mesh Customers:	<10	TDMA Customers:	Unknown	ND Satcom platforms.

mostly for broadband services in the Middle East on its SkyArcs system and supporting Turkish construction and oil & gas companies in the surrounding region.

In 2007, Bosphocom won the huge contract to supply, install and initially operate a 5,000 site network serving Turkish schools from Turksat. This network was successfully deployed on time in some of the most remote locations of Turkey.

Additional Information:

Bosphocom is a Turkish-based VSAT operator, 80 per cent owned by ND Satcom, the German VSAT systems manufacturer and satellite system integrator, with the remaining shares held by Mr Kerem Resuloğlu, the Managing Director of the company. ND Satcom is itself wholly-owned by SES Astra, one of the largest satellite operators in the world. Bosphocom was founded in 2004 and began initial operations based on ND Satcom's SkyWAN platform in 2005. The company has grown quickly since its inception and expected to reach \$30 million in revenues in 2008, helped greatly by the contract to provide a broadband network for Turkish schools via Turksat. It maintains offices in Istanbul and Ankara and employs approximately 25 staff. The company is licensed to provide all types of satellite communication services, including long distance telephony, internet access and application services.

Bosphocom is the only surviving part of a service strategy that was, at one time pursued by ND Satcom, so it was natural that its choice of platform was its parent's SkyWAN system. Initially then company found a market for this high-end system with Turkish construction



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companies with contracts in countries in the surrounding region. It maintained a similar focus by expanding into the provision of services for oil & gas companies, again working beyond Turkey's borders and this, in turn, has taken it into stabilised platforms on some rigs and some vessels. This service is small, but high value and took the business from nothing to a more than \$2 million in annual revenues in just two years.

However, it was 2007 that proved to be the company's pivotal year when it successfully bid to provide a network of 5,227 VSAT sites to Turkey's remotest schools. This project had achieved almost legendary status in the VSAT industry as a result of the length of time it had been on the books and potentially up for bid. Turksat is the government agency responsible for the network and, when the award was finally concluded in January 2008, Bosphocom had just eight months to commission a redundant hub in Ankara and deploy all of the sites. Many of these locations are scattered across the mid and east Anatolian region. are only reachable via dirt tracks and have poor electricity supplies. The penalties for failure were severe and, just to make matters worse, should the company have missed its October deadline, the sites, which were difficult enough to reach in good weather, would have been impossible to reach until perhaps March or April the next year. We visited the company in September and it informed us that it had 1,200 installations completed, but astoundingly, we understand that it met its deadline and over 5,000 sites were in place before the winter weather set in. The Turksat/Ministry of Education project represented a huge, one-off integration contract for Bosphocom including a nine month period of network operation. Following this, Turksat's intention was to run a bidding process for the rights to operate the network which might also be extended to cover as many as 10,000 sites in the future.

Growth potential for Bosphocom's service business is expected to continue to come from surrounding countries - Turkmenistan, Uzbekistan and Kazakhstan - particularly for Turkish companies doing business in these areas as well as for GSM backhaul. Demand for GSM backhaul in Turkey is expected to decline for the VSAT operators as TurkCell is creating its own company to provide the service in house. In fact, demand for satellite service in Turkey seems to have been in decline for many years. Several operators chase what little business can be found in what is a large country, but with a wealthy population concentrated in the dense cities of the west with a sparse, poor distribution of people in the east. Despite the investment put in by companies including Hughes, Comsat and BT over the years, as well as local companies like Ishnet, Dexar and Verinet, only around 10,000 TDMA terminals have been sold in Turkey since VSAT services were first launched in the mid-1990s and half of these were Bosphocom's Ministry of Education contract in 2008. DSL services are now widely available in the most populated and wealthy parts of Turkey and cost less than \$20 per month for a 512/2 Mbps service with GH-ADSL and VDSL also actively being rolled out. Competition is very strong in the west of the country where the demand is and, as an example, the both the Ministry of Justice and the Ministry of Statistics, which were both once prospective VSAT customers, are now being served by DSL.

Consequently, Bosphocom's believes that its business will continue to com from three main areas – high value mesh services, integration activities and voice termination – the latter being an area which is just being expanded. Whilst most of this will come from outside the domestic market, there is some demand for back-up and business continuity solutions within Turkey itself. In summary, Bosphocom has arguably achieved more in a few short years than some of its competitors have in more than 10. The downside is that it has to follow this success with something entirely new in 2009 and this is no simple task in a market as defined and segmented as Turkey. Whilst it is true that the company has a underlying recurring service business, this is relatively small in comparison with what it achieved in 2008. Nevertheless, there must be a good prospect that, having built the network, Bosphocom will have an insider's chance of winning a bid to operate it and it does now have possibly the best reference customer in the country.

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www.bosphocom.com Contact:

Alphan Lodi Sales & Marketing Executive Manager Bosphocom Zümrütevler Mahallesi, Hanımeli Caddesi 2/2 34852 Istanbul Maltepe

Turkey

Tel: +90-216-399-1399 Tel: +90-216-399-1222

Email: alodi@bosphocom.com