MARKETPLACE
Shlomo Maital

Warp speed for networks

ON JULY 19, SHARES OF AN Israeli semiconductor company, Mellanox, rose by almost 50 percent in a single day on both the Tel Aviv Stock Exchange and on NASDAQ. Lucky shareholders have seen their stocks double in value in one year. The market value of Mellanox shares is now $3.7 billion and exceeds that of Bank Leumi, Israel's second largest bank.

Despite the global recession, Mellanox shares have risen from NIS 27 ($6.70 in 2008 dollars) to NIS 380.70 ($94.50) today. The reason is Mellanox's phenomenal profitability (71 percent gross margin) and revenue growth (from $48.5 m. in 2007 to a possible $600 m. in 2012). Investors love rapid growth.

And what has driven Mellanox's phenomenal growth is speed, loads of it. In the TV series Star Trek, "warp speed" was a faster-than-light propulsion system. The secret of Mellanox's success is "warp speed" technology, connecting companies and their clients with enterprise data centers (where data, software, etc. are kept) – but it is not science fiction. Mellanox hardware can transfer 100 gigabits per second, or a hundred 2,600-page Encyclopedia Britannicas every second.

Mellanox was founded in 1999. Its founder Eyal Waldman is a serial entrepreneur and, I believe, a genius, though in my recent interview with him he denied both labels. After graduating from the Technion in Haifa, he worked for Intel from 1989-93 as part of a highly successful team that developed the Pentium microprocessor. Waldman left in 1993 along with several others on his Intel team to co-found Galileo with Avigdor Vilentz. When Galileo, which made high-speed communications hardware, was acquired by an American firm, Marvell, in 1999, Waldman left to found Mellanox. It is based in Yokneam, south of Haifa, and in Sunnyvale, California.

Waldman had a key insight earlier than most other entrepreneurs. He saw that computing would shift to the "cloud," a system where businesses keep their data and software at distant sites and access them through a network, named for the cloud-like shape of the diagram that describes the system. This will

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mean that the bottleneck in computing, Waldman reasoned, will not be computing power, memory or data storage, but speed – how fast you can transfer data over the network.

Mellanox hardware delivers speed, more of it than its competitors, including giant Intel. Calling Mellanox a semiconductor company is like calling Ferrari a car firm. As a small "David," Mellanox has slain much bigger "Goliath" competitors.

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In a recent speech at a Technion conference, Waldman explained one unusual reason why data transfer speed is so important – electricity. Facebook, he notes, spends a third of its operating budget on electricity, because its thousands of servers burn huge amounts of kilowatts. "Warp speed" data transfer simply means using fewer watts of power.

"At Mellanox, we have almost daily challenges," Waldman said. "We have many obstacles. We once did a life-saving project for the company in only three months! This was impossible, unheard of. The team did and saved the company. I don't know of another

team that would even have attempted it."

I and others have often commented that Israel has failed to grow a truly jumbo-size global high-tech company (with, say, $1 b. in annual sales) from start-up size since 1995. Mellanox and founder Waldman are proving us wrong.

Why has Mellanox not been acquired, like most other start-ups, swallowed by a giant US firm? For one, Waldman truly wants to build a global giant, not do a quick exit and bank a huge check, and he seems capable of doing it. For another, thank Oracle founder Larry Ellison. California-based Oracle sells database software, about $11 b. worth every quarter. Oracle sells speed in accessing and using huge databases ("10x more speed!") and Mellanox helps provide it. Ellison bought 10 percent of Mellanox stock. This investment acts as both a seal of approval for Mellanox and deters other companies, who know Oracle wouldn't agree to sell its shares.

Mellanox is one of a handful of Israeli high-tech firms that have outsourced some of its engineering to the West Bank. It has hired Palestinian engineers from Ramallah through a Palestinian outsourcing firm. Waldman believes business partnerships between Israelis and Palestinians can contribute to peace in the region. ●

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