

By MEREDITH PRICE LEVITT

The paradox is clear. Although the PC industry is one of the largest growing global businesses today, the vast majority of people still cannot afford to own one. In 2003, approximately 10 percent of the world's population had access to a PC. Six years later, that figure has only risen by about 5% and remains concentrated in the top 15 countries.

For MiniFrame's CEO Eli Segal, these numbers were the impetus behind the development of a software solution that would revolutionize the industry by providing an alternative to traditional hardware at a lower cost.

The innovative software, SoftXpand, harnesses the power of PCs by balancing the central processing unit, the graphic processing unit and the video memory (VRAM) that already exist within a computer. "We use these three elements to bring a transparent operating system to the user," says Segal.

In layman's terms, the company created software that can turn a single computer into eight distinct workstations. The end user is not even aware that he does not actually have a separate computer unless he looks under the desk and realizes that the hardware is missing.

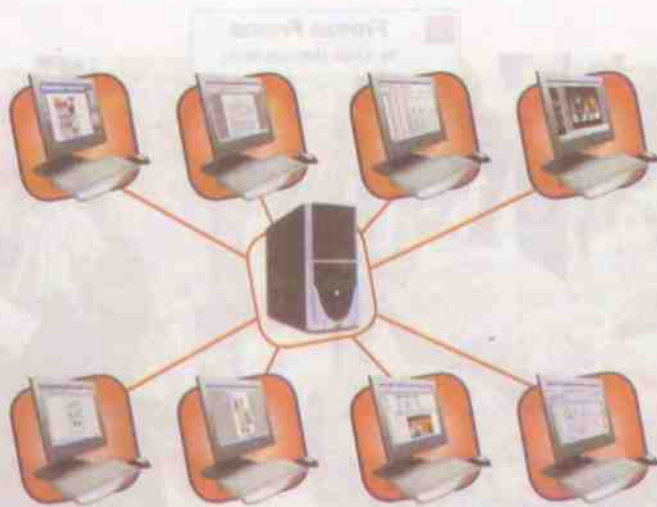
Unlike server virtualization technology, which creates multiple operating systems within one physical server, MiniFrame transforms a single PC into multiple, externally accessible physical workstations. SoftXpand functions in a manner that is identical to a PC. Each workstation has its own USB port that connects to the central server and it supports the same multimedia applications as any other computer. Although it does offer wireless capability, this is still an expensive option. Thus, the central PC is limited to 25 meters from the other workstations. Nevertheless, this remains an ideal set-up for schools, businesses, call centers, Internet cafés and government agencies that need many computers within a single environment.

Because the software significantly reduces energy costs, it also provides a greener solution. The company received the Green Apple Award for 2008 thanks to the 80% reduction in overall carbon footprints (one fifth of the electricity is required and CO2 emissions are significantly lowered). SoftXpand also cuts installation time and maintenance costs.

This spring, MiniFrame was awarded the prestigious Red Herring 100 Award, which recognizes privately-funded technology companies in Europe that excel in innovation.

"Israel's best natural resource is its technology," says Segal. "We're proud to be part of that tradition."

YET, DESPITE being able to offer more for so much less, the challenges are significant. On one hand, traditional hardware companies are resistant to a product that will lower their sales; on the other, people are often reticent to adopt innovations until they are proven. In a particularly telling example, Segal points out that in Jerusalem, the ratio of computers to students is parallel to a Third World country.



More for less

MiniFrame transforms a single PC into multiple, externally accessible physical workstations



The technology is ideal for schools, businesses, call centers, Internet cafés and government agencies. (Courtesy)



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"Only one computer exists for every 89 students," he says. "Why is this ratio still so low when Israel is a leading exporter of technology today worldwide?"

Indeed, although Israeli companies

make up between 10% and 15% of the Red Herring winners every year, they often turn to markets abroad first before they are accepted at home.

"I have a product that can offer the

same number of computers to students for a fraction of the budget and yet few schools here are willing to implement it," he adds. While schools in the United Kingdom, Mexico and Portugal have already adopted SoftXpand, local schools are much more difficult to convince.

"We make the pudding here but then we refuse to eat it," he says. "Many Israeli start-ups today are in the same predicament, and it shows a disappointing lack of vision on the part of our government."

But despite having trouble convincing the educational boards at home to implement it, SoftXpand has been well received. It currently has 35 partners across six continents, including stations in Israel at the Open University and Sheba Medical Center in Tel Hashomer.

Unlike some of its competitors, SoftXpand does not require any hardware and does not compromise on the performance of the PC. Nevertheless, it comes as no surprise that with this kind of innovation there are inherent problems. Licensing is one major snag. Although SoftXpand requires only one instance of the Windows XP operating system, Microsoft maintains that the number of licenses be equal to the number of workstations. Despite these limitations, SoftXpand plans to continue expanding beyond education and business to the consumer market in the near future.

"OUR VISION is that in the future, home entertainment will all be connected by one single device that connects the TV, the computer, cellphones and everything else," Segal explains. "You'll be able to use your television screen to work on your computer, download anything you want and play games as a team with other family members."

Some applications include having only one computer for the entire family that allows each person to work on his own machine without the cost and space of having multiple computers.

Another potential application Segal points out is in the gaming industry. "This type of system allows for new games to be created because people in the same home can play the same game with different views or team up to play with others online," he says.

The R & D department of MiniFrame already uses the system to write code as they can program on one computer and see the results on another. "My daughter and I already work side by side on it at home and I can even show her how to do things on her computer," Segal says.

With the deepening recession beginning to affect more and more countries, SoftXpand comes at a particularly opportune moment. People are seeking ways to reduce costs and help the environment. For many, this may provide a good solution without compromising on capability.

"I don't remember which American president said it, but it's not the size of the dog in the fight that matters, it's the size of the fight within the dog that counts," says Segal. "Innovation is all about facing and overcoming challenges. We're excited about the future."

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