

## Review: MiniFrame SoftXpand Business

Package supports six users on a single Windows desktop system



SoftXpand delivers green IT by sharing one PC between six users

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Businesses looking to save money on IT deployments and significantly reduce their carbon footprint should investigate MiniFrame's [SoftXpand Business](#) system.

SoftXpand installs onto a desktop PC system, to which six monitors, six mice and six keyboards are attached. Six users can then log on simultaneously and use what feels like a traditional desktop PC.

The theory behind this configuration is that a traditional desktop PC has underused processing power, which could easily be used to service six user accounts running under one operating system.

Had the system been linked through an RJ45 cable, using layer-3 switching would make the systems essentially separate, with each user being unaware that five others are sharing the same system. However, the USB cabling and graphics card connections mean that user systems will essentially be located closer to each other, probably in visual contact.

The benefits would be that firms deploying the package would need only one system and a fully configured backup system in the unlikely event of a failure. Application management and other associated system management costs would similarly be reduced, since initial setup would be a once-only exercise. Patching and system administration would be limited to the one desktop system.

The peripherals are standard, and the desktop PC is to all intents and purposes standard, albeit with subtle modifications to improve performance and reliability. For instance the power supply used in the system is a more reliable and energy efficient model.

Users log on to the host and can access any applications installed by the SoftXpand administrator, be they standard office productivity or processor-intensive graphics applications. However, these applications have to be [certified for use by MiniFrame](#), since profiles for each user need to be serviced correctly by the applications. Firms needing to use non-certified applications should consider this before deciding to use SoftXpand.

The hardware used in our review of SoftXpand was a standard desktop system running an Intel Core2 Duo E4500 processor running at 2.20GHz, with 2Gb of 400MHz system memory and an 800MHz Front Side Bus. The motherboard is an MSI model with an nVidia nForce 650i SLI SPP chipset and an nForce 650i SLI MCP Southbridge. The hard disk was a standard Maxtor 80GB STM380815AS model.

There were three nVidia GeForce 7100 GS graphics adapters installed in three of the seven PCI slots. The 7100 GS cards each have one analogue VGA port and one digital DVI port, so we could connect six LCD panels to the system. We used four of the six USB ports at the rear of the system and another two from a PCI card with two USB ports and a single FireWire 400 port to connect to six Targus USB hubs. A keyboard, mouse and USB to microphone/headphone minijack adapters were plugged into the Targus hub, with headphone/microphone sets connected.

All users are given an account with 'limited' privileges, so they can run but not install applications. They can also look at system properties, but the ability to change them is stopped through 'greyed out' sections. Only the system administrator can change system properties or install applications.

Once SoftXpand was installed and the six accounts created, we could fire up the system and log into each account. Windows XP Professional Service Pack 2 was running on the system, and initially the only application installed was Microsoft Office Professional Edition 2003.

Running six Word sessions did not overly trouble processor utilisation, and browsing web pages did not pose problems, although the main bottleneck would be the network connection.

The interesting point about MiniFrame is that, whenever a bottleneck is encountered, whether network, graphics, processor or disk related, upgrades could be put in to partially or totally fix the problem.

We encountered no issues running SoftXpand, although since all network connections went through one Network Interface Card, users downloading large files off the network could create problems for other users. In our opinion, some form of network load-balancing similar to the way SoftXpand delivers processor and graphics capabilities would be an advantage.

We could connect an external USB-connected hard drive to the system to back up disk space in the event of the desktop system suffering hardware failure, although MiniFrame said that the system can also be backed up through networked servers.

One grey area is the legal intricacies of licensing software for SoftXpand. We contacted Microsoft and MiniFrame for their views on operating system and Office licensing for SoftXpand.

Graham Arthur, Microsoft's corporate attorney in the UK, said that the company leaned heavily towards firms needing six separate operating system licences for this system.

Gordon Gazaway, Microsoft's programme manager for open licences, commented: "In situations like this, 99 per cent of the time just ask 'How would I license this if these were all normal desktop PCs?' and that will be the correct answer. "

We asked MiniFrame chief executive Eli Segal about the likelihood that Microsoft would object to its product on the grounds that it is not legal and a breach of the end-user licence agreement.

"Firstly, you can now see that the question is not whether our software is legal, but rather the number of licences required, which is clearly a revenue issue," he said.

"Microsoft needs to understand how our software solution differs from common, hardware related multi-user solutions on the market, which clearly do need one XP licence per workstation, and how we are more similar to software applications by Microsoft and other vendors that require only one licence.

"Examples of software applications by Microsoft that offer multi-user capabilities, and only require one XP licence, are MultiPoint and Media Center to name a couple. I trust that Microsoft is aware that they cannot have different rules for their own applications and applications of the same nature by other vendors.

"If our software-only application has just perfected the concept of these applications, how can the licensing terms be different?"

MiniFrame's UK distribution partner, [Kira Supplies](#), said that, as for the Microsoft Office productivity suite, it would recommend purchasing six licences.

Licensing issues aside, IT managers would only have to install one copy of the application, whether an Office productivity suite or an anti-virus package, and would only have to patch one system and keep it in good working order.

In our opinion, the administrative burden would be greater than for a single system, but much less than for six separate systems.

The green credentials of SoftXpand also appear obvious, since firms would save on the capital cost of deploying five more desktop systems with all the necessary power and cooling costs.