

NC vs. PC: Which has lowest cost of ownership?

At the heart of the debate over network computers and PCs is the question of which machine provides the lowest total cost of ownership. Computerworld staff writer Justin Hibbard spoke with three industry analysts to probe the subject. Joining the roundtable discussion were Jack Gold of Meta Group, Inc. in Waltham, Mass., Brian Murphy of The Yankee Group in Boston and Chris Christiansen of International Data Corp. in Framingham, Mass.

CW: What elements make up the total cost of owning a PC?

Gold: The single biggest cost is administration and support. Then there's upgrades and help desk. The cost of the hardware and software is about 20%.

Christiansen: On a cost-of-ownership basis, most of it is staffing. Operations staffing is 70% to 80% of the cost.

Murphy: The \$12,000 to \$13,000 [total cost of ownership

for one PC] per year that you hear about in the industry is, in most cases, fiction.

It's going to depend on the company and the level of support they're going to provide. But the real issue is productivity. Whatever productivity gains you associate with PCs, users aren't getting them.

CW: Can the network computer really decrease the total cost of ownership?

Gold: If you're a user concerned with centralized management, security and everyone playing off the same sheet of music, then the [network computer] might make sense as a replacement for the old X terminal world. In theory, you could go to centralized software li-



"Most people want power; they want ownership."
— Chris Christiansen, International

censing, and you could save some money there. But if you're using it as a replacement for PCs on the desktop, it's not going to work.

Christiansen: I personally would rather have [a network computer]

Murphy: I don't think the technology [for the network computer] is completely there. The promise is this: Instead of installing a word processor and spreadsheet program on everyone's PC, you install it on a server. That's the main savings. There's a degree of streamlined software management. But do companies have the bandwidth on their networks to download all those applications?

The network computer is not going to be a slam-dunk success, but it does offer an alternative to the Wintel monopoly, [which] I think is going to be compelling to a lot of people.

CW: Microsoft Corp. recently announced a reference design for the NetPC, a simple, sealed-case PC with a 100-MHz or faster Intel Corp. Pentium processor, 16M bytes of RAM and an optional hard disk. It also announced the Zero Administration Initiative for

Windows, which is supposed to automate and centralize PC administration. Will these measures decrease the cost of owning PCs?

Christiansen: Skinnyning down a PC is going to be a lot more difficult to design [vs.] just starting from scratch with a network computer, where the form was designed around the function. It's tough to take a Lexus and convert it into a Chevette. But you could get a Chevette with some outrageous imagination for the price of a Lexus.

Murphy: Why would anyone in their right mind buy a NetPC, given that you can buy a machine with a hard drive for just \$100 more?

This whole Zero Administration Initiative is [Microsoft's] version of the network computer. It's their standard services repackaged to sound palatable to people who are interested in the network computer.

Net devices may lower license fees

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One user said she was still unsure if network computers would play a role in her company. But she said anything that streamlines the process of managing software licenses and cuts software costs is worth a look.

"It's not like anyone is really giving a great deal on a LAN pack. If you've got 30 users, you still have to buy 30 licenses," said Claudia Burmeister, MIS manager at Geiger Brothers, Inc., an advertising and printing company in Lewiston, Maine, that has about 200 PCs. "I want concurrent licensing options, and that seems likely with [network computers]."

LEGALESE LICENSING

The current approach to licensing desktop applications often involves reams of paper filled with clauses, stipulations and restrictions that vary among software providers.

The fact that applications used on a network computer reside on the server, not on the user's desktop, points to a server-based licensing model. That would allow companies to purchase a specific number of serv-

er licenses and get unlimited client versions for free.

Similar to how client/server applications are priced and licensed, a server-based model could further streamline the process of managing licenses. It would make it easier to determine which applications are being used and who is accessing those applications, users and analysts said.

TRICKY TRANSITION

But the transition period could be tricky as software developers contemplate licensing in the network computer and PC environments. Users will have to deal with the current desktop application licensing schemes and prepare to manage the way applications that run on a network computer are licensed.

One industry watcher was hopeful.

"The model that has worked traditionally for software pricing for users at terminals is perfectly reasonable for users that sit at [network computers]," said Jeffrey Tarter, editor of "Softletter," an industry newsletter in Watertown, Mass. "This model is fine-

because there are a lot of administrative management issues that I don't want to have to deal with. I don't want to have to manage version control across the group I work in, for instance. But most people want power; they want ownership.

thinking pricing and licensing models to accommodate software that runs on NCs and desktop PCs. But neither company would provide details.

In the Redmond, Wash., software giant's defense, Jonathan Roberts, Microsoft's director of product management at the Desktop and Systems Business division, claims Microsoft already has a server pricing model

— called Client Access Licensing (CAL) — that is widely emulated throughout the industry.

"I don't see a fundamental shift in our licensing. We have been doing Client Access Licensing for a long time with Windows and BackOffice," Roberts said. "PCs are not going away, and users will continue to need operating systems and desktop software."

Applets, components complicate issue

The emerging class of components and applets is expected to help drive down software prices, but it also could complicate the licensing landscape.

"This licensing and pricing could be worse than ASCAP [the music industry's model for doling out royalty payments]," said Jeffrey Tarter, publisher of "Softletter," an industry newsletter in Watertown, Mass.

"I pity the poor corporate developer who tries to deploy and build applications with components," Tarter said. "This has the potential to be a pricing nightmare."

But the good news is that a handful of companies are readying encapsulation technologies that will let developers

build pricing and licensing rules in to their components.

Another option, according to one user, is that the proliferation of network computers could lead to an Internet-based software rental scheme that could lower costs and ease licensing headaches.

"The legal, licensing and maintenance requirements might eventually make it cheaper for users to rent the software," said Mike Bailey, a systems analyst at Lockheed Martin Missiles & Space in Sunnyvale, Calif., which has more than 10,000 Macintoshes and 7,500 PCs. "Suddenly, then it's not a software purchasing decision — it's a software usage decision." — Lisa Picarille

Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement #0385697. Computerworld (ISSN 0010-4841) is published weekly, except a single combined issue for the last two weeks in December by Computerworld, Inc., 500 Old Connecticut Path, Box 9171, Framingham, Mass. 01701-9171. Copyright 1996 by Computerworld, Inc. All rights reserved. Computerworld can be purchased on microfilm and microfiche through University Microfilms Inc., 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Computerworld is indexed. Back issues, if available, may be purchased from the circulation department. Photocopy rights: permission to photocopy for internal or personal use is granted by Computerworld, Inc. for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of \$3 per copy of the article, plus \$5 per page is paid directly to Copyright Clearance Center, 27 Congress Street, Salem, MA 01970. Reprints (minimum 500 copies) and permission to reprint may be purchased from Sharon Bryant, Computerworld, Inc., 500 Old Connecticut Path, Box 9171, Framingham, Mass. 01701-9171. Requests for missing issues will be honored only if received within 60 days of issue date. Subscription rates: \$3 a copy; U.S. — \$48 a year; Canada — \$110 a year; Central & So. America — \$150 (surface) a year; Europe — \$295 a year; all other countries — \$295 a year. Subscriptions call toll free (800) 669-1002. POSTMASTER: Send Form 3579 (Change of Address) to Computerworld, Box 2044, Marion, OH 43305.

