

Schussel's

DOWN SIZING JOURNAL

May 1992

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Microsoft Watch: *The Next Chapter*

As I predicted last month in the article "Microsoft Watch", Microsoft has remained in the news. Bill Gates, America's number one billionaire, sold 1½% of his stock holdings in Microsoft for \$100 million. Hey, after all, a young single guy needs some extra pocket change! Also mentioned in March's CCW was Microsoft's impending acquisition of Fox Software, which is located in Perrysburg, Ohio.


In April, a judgment extremely favorable to Microsoft was made by the federal court trying Apple's copyright infringement lawsuit against Microsoft. The judge

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Geo's Outlook

Battle of the 1990s

This is the first article in a two-part series by George Schussel on the major players in the current PC computer arena. In this month's issue, he discusses DEC's and Microsoft's roles in the downsizing market. The June issue will feature the second article in which IBM, Apple, and Novell will be discussed.

 In my role as industry analyst and commentator, I have the opportunity to talk with the head honchos of vendor companies such as Novell and DEC. Now that the downsizing trend (paradigm shift?) has been accepted as an

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Microsoft Watch...

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threw out most of Apple's claims, especially the most dangerous one dealing with overlapping windows. While there are some issues that must still go to trial, observers indicated that the remnants of the suit are strictly of annoyance value. This court decision was very good news for Microsoft, as well as the entire industry: it indicated that courts don't want to be the battleground for software wars. Such battles should be fought in the market (where Microsoft is currently becoming the heavyweight champion).

While still an operating system powerhouse, Microsoft is now also selling vast amounts of application software. However, in the applications game, there has traditionally been one important missing link from Microsoft's chain: database. Yes, the company sells SQL Server, but it is really Sybase (UNIX and VAX-based) technology repackaged for the PC market.

There is a history here — Microsoft has lusted after the DBMS market for many years. A while ago, an internal DBMS project, code-named Omega, was terminated after

an extended period of development. Another internal DBMS product, Cirrus — an extension for Visual BASIC — has been under development for 2½ years, and is currently expected to ship at the end of 1992. Rumors are that Cirrus is an end-user, friendly DBMS and filing system.

Borland's role

Once Borland acquired Ashton-Tate last fall, Microsoft's purchase of Fox became more likely for two reasons:

1. Borland is probably Microsoft's most dangerous

...Bill Gates...sold 1 1/2% of his stock holdings in Microsoft for \$100 million. Hey, after all, a young, single guy needs some extra pocket change!...

enemy. The two companies are bitter competitors in both the spreadsheet and languages markets. If Microsoft didn't produce a product competitive with Borland's dBASE, they would effectively be relinquishing the database market since SQL Server isn't competitive with either dBASE or FoxPro.

2. A condition of the Borland/Ashton-Tate merger was that Ashton-Tate drop the copyright infringement lawsuit against Fox. This

made Fox a more desirable acquisition.

A true DBMS

In this article, I am using the term "database" and/or "DBMS" carefully in describing products in the dBASE or FoxBase/Pro product category. More accurately, these types of products could be called business-oriented, application development languages with data file and rudimentary database capabilities. True DBMS products are characterized by functionalities that include:

1. Good physical/logical data separation — This allows many views of the same data. This capability provides for data independence.
2. Good multi-user capabilities — This means that a variety of programs can be simultaneously accessing the same area of the database. This capability requires the DBMS to have lockout and deadlock detection capabilities.
3. SQL support — Today, a requirement for any serious DBMS product is support for the ANSI standard database access language, SQL. In turn, such capability means that the product has to have intelligence on how to access the data physically, since SQL is a

language that supports a logical view of data. In other words, the program needs to determine an efficient physical access strategy to the data.

4. Transaction processing capability — This includes the capability to commit transactions or a series of events so that they all either successfully occur or abort together. TP capability must also include the ability to execute rollbacks by using a transaction log while insuring consistency in the database.
5. Security — There must be some way of identifying the various levels of a user's authority to the data. In other words, some users can read and some can write, while others can't even look.
6. Today, it is expected that a DBMS can be accessed from any number of independently supplied, front-end development environments (which could include dBASE or Fox products).

Since SQL Server is a back-end tool which provides shared DBMS services, the addition of the Fox product line complements Microsoft's current product strategy. Fox's products can be targeted to the million-plus developers who want to continue writing in

dBASE dialect and need a real DBMS for shared multi-user access.

Bad news for Borland

Since one of the critical features of Borland's new dBASE Server Edition 4.1 is access to SQL Server, the certainty of a similar product from Microsoft in the future presents a serious competitive challenge for Borland. The April 6 issue of *Business Week* included a story on the Fox acquisition entitled "*This has to be Borland's Worst*

..Enriched by Fox, Microsoft is set
to continue its march toward becoming
the powerhouse computer company
of the decade 2000..

Nightmare." Borland lost 10% of its market value as its stock price dropped from 69 to 63 on the day the Microsoft/Fox deal was announced. By late April, the stock was trading in the 40s range.

Without waiting for Borland to take the initiative, Microsoft is now likely to be aggressive in introducing new and different technologies into the Fox product line. The xBASE market will now eventually unravel. I expect that Fox products, dBASE, and Clipper (from Nantucket, number three in this market)

will diverge over time, leaving only a common ancestor in dBASE II and III compatibility.

Fox, with current sales of around \$45 million, is approximately 1/5 the size that Ashton-Tate was at the time of their acquisition by Borland. At a price of \$173 million (in Microsoft stock), the purchase price/gross sales ratio for Fox was about 4/1. Using the same ratio, Borland paid 2/1 for the purchase of Ashton-Tate. In other words, Fox's price, adjusted for size, was about twice that of Ashton-Tate's.

That sounds about right. Ashton-Tate had serious problems with its technical product deliveries over the two years prior to its acquisition, and its management had undergone serious turmoil and turnover. Fox, on the other hand, has had an extremely loyal workforce, and its founders are still in control (Dave Fulton, Fox's president and technical visionary, will be a featured guest lecturer at DCI's upcoming DATABASE WORLD conference in Boston, June 29 — July 1).

For Microsoft, the acquisition of Fox makes a lot of sense. It complements Microsoft's drive to be a major player in important software

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Microsoft Watch...

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markets that have a PC/networking/downsizing segment. In operating systems, Microsoft has dominant or very viable competitors with its DOS, Windows 3.x, LAN Manager, and upcoming Pen Windows and Windows NT products. And now with the Fox acquisition, Microsoft is a force in the following application areas:

- dBASE type development environment
- SQL databases
- languages
- e-mail
- word processing
- graphics
- CD-ROM software
- spreadsheets

Enriched by Fox, Microsoft is set to continue its march toward becoming the powerhouse computer company of the decade 2000. (See my other article in this issue "Battle of the 1990s", on page one, for further discussion on who is likely to offer Microsoft competition for leadership of worldwide computing in the 1990s.) If we ask who is likely to stop Microsoft from hegemony, the most likely characters are:

- Novell — The powerhouse in LAN operating systems appears to have an unsailable lock on this seg-

ment of the market. However, Microsoft's LAN Manager 2.1 has been getting excellent reviews which, for the first time, rate LAN Manager as technically superior to Netware. And now, Novell has announced that Netware 3.2 will have a protected architecture, something that LAN Manager already possesses.

- Borland — Borland can give Microsoft some good competition in certain application markets, for example, spreadsheets. How-

...The April 6 issue of Business Week included a story on the Fox acquisition entitled "This has to be Borland's worst Nightmare."...

ever, Borland has no competitive entry in the operating systems market and therefore is almost totally dependent on Microsoft for operating systems. Remember, as I am writing this article, Borland has NO products of substance in the Windows marketplace.

- IBM — *SDJ* has published extensive articles on the lack of leadership from IBM in the downsizing market. Although OS/2, which should be shipping soon, is expected to re-

ceive a warm market welcome, very little else that IBM has done in this segment of the marketplace deserves kudos.

- Apple — As Apple sets about remaking itself into a software company, I expect that it will emerge as the most important Microsoft competitor. You should expect the two companies to trade competitive blows through out this next decade. Since Apple has engaged IBM as a partner (through their jointly owned Taligent

subsidiary), I expect the combination of these two companies to offer Microsoft a real run for its money as Pink (the Apple/IBM/Taligent operating

system) challenges Microsoft's NT (expect this battle to get hot around 1994). The potential Apple/IBM deal looks even better as recent events and news stories have pummeled the Microsoft sponsored Advanced Computing Environment (ACE) initiative.

Read "Battle of the 1990s" for more on these points. This year Microsoft will continue to be the most newsworthy company in our industry. **GS**

Downsizing

What's Really Going On...

Ron Peri, President
Computer Support of
North America

When I use a word,"
Humpty Dumpty said,
"it means just what I
choose it to mean..."

Words can mislead just as easily as they communicate. It is the same with the word "downsizing." Nobody is completely comfortable with the word, but for now, it is the best term we have for describing migration from mainframes to less expensive computing platforms.

In this new field, confusion reigns. There are at least six different approaches that are currently being classified under downsizing and not all save money or improve performance. Understanding the different meanings will aid you

in determining what is best for your company.

Before we look at the different methods, let's consider some background. For more than twenty years, the primary approach to on-line processing has been host-based. In other words, all processing has been performed on a centralized system. Dumb terminals at local and remote sites provided a screen display and keyboard input, but all workstations shared one central processing system and each workstation or task was assigned a slice of the processing pie. As users were added, everyone got a smaller slice of pie, until finally, a bigger pie had to be purchased. Most mainframes use this approach to processing; it was a great approach when processing costs were very high and a company could afford only a few computers.

In the 1970s, manufacturers of mini-computers offered their systems as less expensive host processors that could replace mainframes. Data General, Wang, Prime, Microdata, Hewlett Packard, among others, offered a low-priced alternative to the mainframe.














Even IBM offered the System/36 and System/38 mini-computers. Generally speaking, these systems did not replace mainframes, but provided an alternative for new applications.

Since the introduction of the 386 microprocessor, PCs with mainframe power have been popping up on the desktops of America. Amazingly, a 386/25 has the same processing capacity as an IBM 3090/120E! Typically, the cost of processing an application on PCs is less than 1% of the cost of processing a similar application on a typical mainframe. Traditional host-based processing makes no significant use of these processors. Ideally, then, downsizing should transfer processing from an expensive centralized processor to inexpensive desktop processors.

Now, with that brief background, let's consider what different groups of people mean when they talk about downsizing.

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Winners and Losers May Edition

  Zenith
 and  Borland
  Compaq
   Microsoft
  Lotus
  H. Ross Perot

  
Best...

  
...Worst

Current Computer Wisdom

Dr. George Schussel

Zenith

Zenith/Heath, which distributes both Zenith and Apple computers, announced in April that it was shutting down its computer support stores and distribution business. This is another step downward for a company that looked like it would save the failing Zenith TV business of the mid-1980s. However, before their more recent trend, Zenith computers were pioneers in the laptop category, and achieved excellent success within the federal government. Unfortunately, a low level of product innovation, poor construction quality, and deteriorating support, are the qualities that characterized the company's operation by the time it

was bought by Bull. I don't believe that Zenith will be able to stage a comeback given the current competition from companies such as Compaq and Toshiba.

Borland

Microsoft's acquisition of Fox Software was certainly bad news for Borland. Prior to the acquisition, Borland was the 1,000 lb. gorilla of PC databases. Its Paradox and dBASE brands place both first and second in the market, and with Interbase, the company has the technological underpinning to become a tour de force on the server side for multi-user SQL databases. Now that Microsoft owns Fox, the technological favorite in the xBASE business, Borland is

looking at their future and seeing themselves as the smaller competitor to Microsoft! This and the acknowledged slippage of Borland's Windows deliveries for just about all of its products (you were warned by *SDJ* about that) combined to cause the market to hammer down Borland's stock from a high a couple months ago of 79, to around 47 in mid-April. However, I am now bullish on Borland again because 1) in the long run they are going to be very competitive in the database arena, 2) Microsoft's entry legitimizes the x/dBASE language as an important corporate standard, 3) the stock price is now more reasonable due to the late Windows deliveries.

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Current Computer Wisdom

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Compaq

Compaq's internal re-organization and re-engineering efforts are almost finished; their new, aggressively-priced, competitive products will be hitting the market by the beginning of May. The PC clone business is tough right now, but Compaq has a well-deserved reputation for top quality products. I believe that a competitive pricing strategy will increase the sales of Compaq computers.

Microsoft

For Microsoft, the purchase of Fox was a good move. They paid a substantial amount (\$175

million), but the payment was rendered in (possibly) overpriced stock. There is no doubt that Microsoft will easily double Fox's marketshare percentage. Their new release, Windows 3.1, seems to provide important improvements over Windows 3.0 without any downside in respect to its predecessor. Just as this issue was going to press, Microsoft stock soared 12 points on the news that a Californian court had thrown out most of the issues involved in the Apple lawsuit. Microsoft is definitely on a roll (For more details, see "*Microsoft Watch: The Next Chapter*" on the front page)!

Lotus

Lotus Corporation unanimously made everyone's stock buy list during April. Here is a

company that seems to be well on its way to recreating the office standard set 1-2-3 with their Notes product. Notes is being sold to large companies in bundles of 20,000 to 30,000 copies. An upcoming NLM (Netware Loadable Module) version is sure to sell like hotcakes. Congratulations Lotus, job well done.

H. Ross Perot

This month's CCW can't resist commenting on H. Ross Perot's run for President (of the US of course!) with a self-financed campaign. This absolutely beats buying a Lamborghini Countach as one of the most outrageous things someone can do. But, after General Motors gives you \$1 billion to leave their board of directors, what else but this campaign makes sense? **GS**

Periscope...

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Migrating from mainframes to PC-based networks

When network integrators discuss downsizing, this is most likely the method to which they are referring. It is truly downsizing, since it makes full use of all the capabilities of the desktop PC. It requires a network operating system (usually Novell's

Netware) and one or more superservers to be effectively implemented.

Standard LAN processing with either Novell or LAN Manager is neither client/server nor host processing. Rather, it is a file server environment. The application runs on the workstation while the file server pretends to be a local drive providing files as the workstation requires them. Since the major processing is running on the workstation,

when a new user is added, he brings his processing requirement along with him. Thus, thousand user and larger networks are possible.

When you read the accounts of companies like Echlin, Consolidated Insurance, FGIC, Keyport Insurance, and others that have reduced their annual data processing costs by 50% to 70%, this is typically the path they have chosen. This is the

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Periscope...

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"piranha approach" to processing: hundreds (or thousands) of desktop processors all gnawing away at the daily information processing requirements of the corporation.

There are many benefits to this method that go far beyond cost savings. These include:

- ease of use
- incredible amounts of inexpensive, top quality, off the shelf software
- simple expandability
- exceptional connectivity
- scalability

Additionally, this approach lays the groundwork for multimedia and other twenty-first century types of processing.

This migration approach is easiest to implement when replacing a single location mainframe with 20 gigabytes or less of DASD. More DASD and multiple locations significantly add to the complexity of implementing this solution. However, those limitations will disappear as communication and backup technologies advance.

Mainframe to hybrid PC LAN with database servers

Adding database servers to a PC LAN is the best way to implement downsizing for

most companies. The network operating system is run on one or more file servers to serve files, handle security, etc.

Application processing is performed on desktop PCs while database servers centrally manage the data. A true client/server environment is thereby created. Desktop systems can run DOS, Windows, MAC, OS/2, or UNIX.

This can be a very elegant solution when Novell's Netware is the network operation system, since the database server can run directly on the file server. Performance is excellent with Btrieve/Netware SQL and Oracle NLM. Unfortunately,

most other major databases have not yet been ported to this environment.

database servers can be implemented. Connectivity typically requires TCP/IP in addition to a network operating system.

The PC LAN/database server approach to downsizing has the significant advantage of being able to run RDBMS applications that have been tested in mainframe environments. Such applications can run virtually without change on the hybrid LAN. Therefore, robust, field-tested applications are available.

Mainframe to UNIX host(s)

Talk to mini-computer manufacturers, and this is what they mean when they speak about downsizing. Replace that old, tired IBM mainframe with a much faster and less expensive host-based processor. You may even be able to keep much of your old software by running one of the many CICS emulators in this environment.

With this methodology, the basic system architecture stays the same: there is a central data processor with one or more host processors supporting many on-line, dumb terminals. Even if the attached workstations are PCs, they will generally be run in terminal emulation mode.

One iteration of this approach includes running video processing on the PC (e.g. X-

...Migrating from mainframes to PC-based networks is the "piranha approach" to processing...

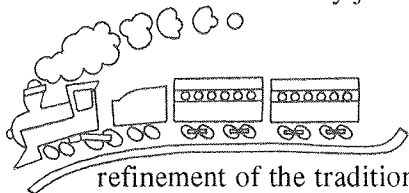
Unfortunately, most other major databases have not yet been ported to this environment.

Performance with Oracle NLM can be outstanding. Oracle predicts that a NetFrame NF450 with four application processors will yield 200 TPS in the TP-1 benchmark. That is five times the performance of an IBM 3090-200E running CICS/DB2.

For very large databases, it is also possible to use a Pyramid, Sequent, or another high speed UNIX server as the database server. This method combines the best features of DOS, UNIX, and Netware. As volumes increase, ever larger

Windows). The bulk of the processing is still done on the host processor in the traditional mainframe manner.

Major benefits derived from a UNIX host implementation include moving to a less proprietary platform and incurring only modest equipment costs. However, the architecture is really just a



refinement of the traditional mainframe approach. If a mainframe is like a locomotive, and a PC like a sports car, this method doesn't replace the railroad with cars. Rather, it replaces the big, expensive engines with sleek, quick, technologically superior engines that can run on many additional tracks. However, it still does not place your company on the highway to twenty-first century processing. In effect, this is the *"mini-computer replaces the mainframe"* approach of the 1970s and 1980s, but with better equipment and a new name.

UNIX has little or no capability to manage PCs and other systems that have their own operating systems; it is a great multi-tasking operating system with the ability to efficiently run multiple tasks on a central processor. UNIX makes a very good host system for a database server. How-

ever, without specialized file or database server tasks running, it is not able to make efficient use of the processing power in any attached PCs. Therefore, it is not a network operating systems like Netware. Although you can run Portable Netware or LAN Manager as a task under UNIX to provide these capabilities, the performance may not be adequate.

Mainframe to UNIX "client/server" (without a network operating system)

"Client/server" has almost as many definitions as

...Your ultimate goal is not to replace a mainframe, it is to solve a business problem with new technology...

"downsizing." Many people refer to Oracle, Sybase, Informix, etc. running on a UNIX system as client/server. In fact, if the only workstations attached are running as dumb terminals, both the client and the server are running on the UNIX host. For all purposes, such a method is just host processing under another name.

A true client/server environment requires an intelligent workstation processing application code, while one or more database servers manage the data. As the application workstation needs data, it sends a request to the database server. The database server then sends

only the data that matches the client request. This is a very efficient method for transaction-based processing.

There are a variety of methods for communicating between the clients and the server(s). Most are a variation of remote procedure calls in which the client workstation initiates a procedure that is run on the shared server. Various libraries of remote procedure calls exist from Netwise, HP, and others. A SQL request could be viewed as a standardized form of remote procedure call.

This approach is significantly more expensive than the hybrid PC LAN/database server solution and it is significantly more difficult to develop. However, it can provide the best

methodology for efficient wide area networking. The growing use of inter-process calls in place of RPCs is significantly enhancing this approach. Libraries like Momentum's XIPC do not cause the client workstation to wait while the remote server retrieves data which gives an improved performance. They also permit programming across multiple platforms that is completely network transparent. American Airline's CARGO system is being downsized using the above mentioned library.

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Periscope...

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This approach should be used when you have many geographically dispersed sites, money is available to fund the development effort, and you have plenty of time to build your own applications. For some very large environments, this is the only way to go.

Mainframe to hybrid PC LAN with mainframe RDBMS

Only a mainframe salesman would really believe that this setup should be classified as downsizing. Typically, this takes the form of a PC network front-ending a mainframe database (DB2, Oracle, Sybase, etc.). This can be a good solution if the mainframe database is efficient and economical. However, quite often, the opposite is true.

Usually, the desperate need for timely reports drives this approach. Executive information system products like Forest & Trees or Lightship provide excellent tools for rapid analysis and reporting when mainframe databases are involved.

This approach is not true downsizing. It is unlikely that much money can be saved. It can, however, be an excellent first step to a true downsized approach by adding the following steps:

1. Attach the PCs to a mainframe utilizing a LAN file server and a gateway.
2. Add a UNIX or Netware database server.
3. Migrate applications and data from the mainframe to the LAN.
4. Eliminate the mainframe.

Mainframe to smaller mainframe (usually an IBM AS/400)

While reading an article on the hidden costs of downsizing I noticed that most of the folks talking about hidden costs had utilized this method. This is IBM's basic approach to downsizing. It typically involves migrating from a 4381 or so to an AS/400. It is what IBM euphemistically likes to call "rightsizing." It may or may not be good for you.

In many ways, this is traditional host-based processing on a very well-priced system. However, the AS/400 is IBM's only proprietary system. There is no plug compatible AS/400 as there is with the rest of the IBM line. While the system is a good I/O engine, its processor is under powered. The B70, for example, is a 4.4 MIPS processor. That's slightly less processing power than a 386 SX operating at 20 MHz. In addition, the system has a limited growth path. Changing from the AS/400 to another IBM product requires major alterations.

If you have a network of PCs or Macs, the AS/400 is a real bear to work with. The available 3270 emulation is limited, and IBM's PC Support still takes far too much memory. Third party alternatives (Eicon, et al.) should be investigated for PC connectivity.

The AS/400 does have one great virtue: some outstanding software has been written for it. If the software matches your business and you can keep your growth under control, this can be a good solution.

Use a LAN to front-end the system and support E-Mail, word processing, and other prepackaged applications. Also, be very careful not to undersize the AS/400. You might also wish to consider IBM's RS/6000 as a higher powered alternative for less money.

Which approach is right for you?

The best approach for your company is very dependent on your objectives and current situation. PC-based processing will clearly provide the most economical solution over the long run. If you have PCs spread throughout your company now, savings will be fairly rapid. If, however, your company has avoided PCs and populated the desktops with dumb terminals, the cost of new PCs may be prohibitive.

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Battle of the...

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undeniable part of the computing world's future, the strategies of various vendors for coping with this shift are starting to form. In this article, I will comment on what those strategies are, and how successful they will be for the companies using them.

In no particular order, I believe the companies that will be the most important in shaping the downsizing trend in the 1990s are: IBM, Apple, Novell, Microsoft and DEC. These five will be the dominant influences that stand to reap (or lose) the most.

Why DEC?

The first four companies listed are probably on everyone's list of downsizing heavies, but my inclusion of DEC may strike some people as odd. Why do I believe that DEC will have a presence in the downsizing wave? First, let me state some of the background facts:

- DEC started the downsizing revolution: remember, that is what mini-computers were all about.
- DEC is the second largest computer company in the world (although HP is

almost the same size at this time).

- DEC's networking technologies and capabilities are considered second to none.

It is hard to exaggerate how badly DEC booted the first generation of PC/downsizing. In the mid-1980s, the company was riding a huge wave of success based on its VAX/VMS mini-computer environments, and the PC phenomenon just didn't grab their attention. I've heard stories indicating that DEC engineers developed

...The companies that will be the most important in shaping the downsizing trend are: IBM, Apple, Novell, Microsoft, and DEC....

PCs in the 1970s as moonlight or skunkwork projects, but those efforts were killed by Ken Olsen because he felt that non-networked, small computers were not a solution that customers would desire. I believe these stories since I can't think of any other company, in that time frame, that had engineers more capable of developing PCs.

Ken Olsen put his company at great risk by failing to foresee the PC phenomenon. When DEC finally did commit to PCs, it offered

a tripartite strategy of different, incompatible PC types (remember the Rainbow and DEC Professional?) to appease its varied mini-architecture users. To make this split marketing worse, DEC pursued a high cost/high price strategy. Needless to say, they faltered and have had to resort to dealing with Tandy for supplies of reasonably-priced, MS-DOS computers.

Even now, DEC is trying to determine exactly how to distribute PCs. Most recently, the company has tried DEC

Direct — a mail order, low-cost, distribution strategy. In looking at the machines currently being distributed this way, they appear to be reasonably, but not exceptionally,

priced. In other words, this hardware makes sense for sites that depend on DEC for mainframe EDP, but I doubt that DEC Direct will be highly successful in attracting a significant non-DEC marketshare.

DEC is currently doing better with its PC hardware distribution strategy, but I don't think that the company will recoup the leading position that was once possible.

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Battle of the...

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But, DEC is going to emerge as a leading downsizing player by following a different strategy — capitalizing on networking capability, integration software, and support.

Just look at who DEC is lining up with: Novell, Microsoft, Apple, and most of the leading PC powerhouses have struck joint marketing or development agreements with them. The company has its software engineers busily working on NAS as an environment that can integrate the diverse hardware and software environments that define downsizing and open systems.

As a matter of fact, DEC's definition of open systems differs from most others. While the typical idea of open systems means a certain interchangeability of system components, DEC is pushing a definition that promotes the ability for open systems to be able to talk to and exchange data with anyone. Using this approach, DEC can become a leading technology vendor; its Pathworks LAN software (a derivative of LAN Manager) is the highest rated of the various LAN Manager cousins.

The reason I believe that DEC will emerge from their long slumber in the PC/LAN end of the market is that they now understand that they can offer a unique level of services for:

- integrating diverse offerings from other developers
- supplying integration services for installing multi-vendor solutions
- supporting and servicing network-based environments

If the company is astute

...If the company can...change the old saw about DEC MARKETING being an oxymoron, they stand a good chance of pulling off a comeback....

enough to change the old saw about *DEC marketing* being an oxymoron, they stand a good chance of pulling off a comeback. I have been working recently with DEC GIS (General International — their marketing division for the world outside of the U.S. and Europe), and the managers in this unit realize the importance of riding the downsizing wave for the next decade.

Microsoft — Hail to the Chief

Microsoft's strategy for leading the charge into downsizing is chronicled by *SDJ* in both this and last month's issue, in the "Microsoft Watch" columns. Microsoft's approach is to push the development of important new technologies such as GUIs, pen computing, and CD-ROM, and then develop leading applications for the technologies. This includes developing partnerships with other leading computer vendors and creating consortia to help

market those new technologies. All of this tends to create a demand pull for the resulting market-unique products. It is pretty tough to argue against this type of approach.

As long as Microsoft can continue to deliver interesting products that have high perceived value, they are going to be hard to derail. Their overwhelming success has created a magnet effect, attracting other leading computer companies (like DEC) to the Microsoft consortia. The major upcoming risks for Microsoft are:

- *The timeliness and quality of the forthcoming UNIX and OS/2 challenger, NT.* In order to be a viable competitor in the mainstream computer busi-

ness, NT needs to arise as a serious contender. Given the experience of the NT staff, there is good reason to believe that NT will be delivered to fulfill all expectations. However, since no previous operating system (by anyone) has been delivered on time with only minimal bugs in its initial release, Microsoft will need to plow new ground to make its point with NT. And, a warning: in the past, Microsoft's success combined with some dubious business strategies have created enemies. If NT falters, the

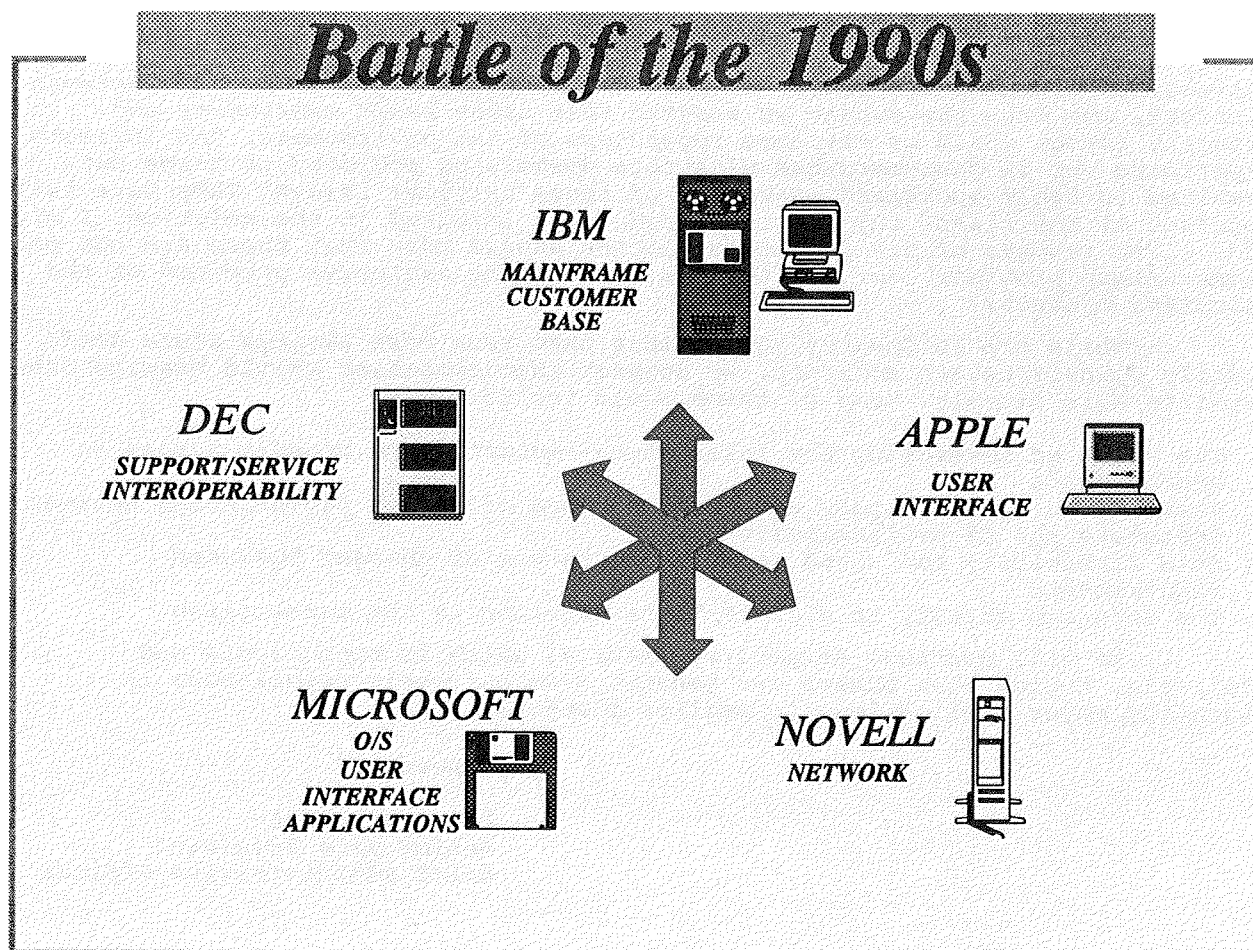
company will take a pounding both in the press and elsewhere.

- *The decision in a California courtroom on the Apple lawsuit.* This upcoming trial appeared to have the most potential for derailing the Microsoft express. Now, however, that threat has been removed.
- *The FTC investigation of Microsoft's business practices.* I have less information here, but a likely outcome would be the requirement to establish some type of hard wall between Microsoft's applications and systems

businesses. In other words, even a negative outcome for Microsoft isn't going to significantly alter the company's business. Perhaps they'll receive a public relations black eye, but I don't see too much of a business risk here.

Notwithstanding the points above, I still see Microsoft leading the charge into downsizing. **GS**

(The second part of this article will be featured in the June issue of SDJ and will discuss IBM's, Apple's, and Novell's roles in this market.)



A Letter to the Editor



In April, *SDJ* received two letters from the Keyport Life Insurance Company. Both Leslie Laputz, Vice President, Information Services, and Peter Reinhart, Senior Vice President, strongly refute some of the suggestions made by Michael O'Shea in his letter to the editor published in the February 1992 *SDJ*. The letters from Keyport are a strong endorsement of their careful migration to downsized technologies. Laputz claims specific cost savings on the order of 30% from downsized systems. In addition, the Keyport executives claim very satisfactory experience with reliability and flexibility. They feel that the downsized environment provides an important competitive advantage to their company in tough times. Following are excerpts from the two Keyport letters. *SDJ* will continue to publish letters that shed light on issues concerning downsizing.

April 9, 1992

Dear Dr. Schussel,

In recounting an article on our company's downsizing project (Keyport Life, in the April 1991 edition of *Network Computing*), Mr. Michael O'Shea states that the problems we experienced convey "a lack of understanding as to some basic issues that any mainframe shop could have warned the customer about." Unfortunately, in so stating, he reinforces the misconception that the disciplines and risks of managing a mission-critical IS environment are uniquely appreciated by mainframe shops. We have successfully migrated to a PC/network platform, and from the outset we assumed that these basic management and security issues would be the same regardless of the environment. The intimate experience our IS customers had with this downsizing project, it turns out, resulted in their increased awareness of these critical issues. They were fully apprised of the risks, the problems, and fully involved in the solution, I might add...The readers of his [O'Shea's] letter should know that these are not mainframe-unique problems, nor are their solutions the exclusive province of the mainframe mindset.

...While his [O'Shea's] admonitions that true cost savings alone don't justify downsizing are accurate, we suggest that companies should examine other benefits more closely. Some of these would include:

1. The value of leveraging the information resource more broadly across an organization
2. Positive cultural changes and creating more effective partnerships between customers and IS professionals
3. More flexibility and speed in adapting to new or changed business requirements
4. The enhanced ability to differentiate services in the marketplace

...We will continue to publish material which is both candid and realistic, hoping that others can benefit from our early experiences in migrating major applications to smaller platforms....

Sincerely,

Peter Reinhart
Senior Vice President
Chief Administrative Officer

April 9, 1992

Dear Dr. Schussel:

In "A Letter to the Editor" which appeared in your February 1992 edition, Mr. Michael O'Shea of Boeing Computer Services took the liberty of referencing another publication on downsizing...For your readers who may not receive this periodical [*Network Computing*], I would like to set the record straight and describe what we accomplished...

We are the 42nd largest, in terms of assets, of any life insurer in the country. We currently have \$8.8 billion under management and our annual revenues are approximately \$1 billion. Our active field force totals 40,000 people. Until our downsizing effort, we supported this business using costly mainframe computers running some of the more popular administrative software packages.

Until 1988, we were like many other companies in our industry. We employed a staff of analysts and programmers who lived in glass houses and supported the mainframe...Our costs were high and spiraling upward each year. Also, as we added more modifications to our software, it became increasingly difficult to install new releases from our vendor. Indeed, the last quarterly release we installed took six months to complete.

Beginning in 1988, we sought to explore the advantages of new technology and how we could incorporate that into our company, particularly our Policy Administrative System...Our users became full partners with our technical team as we jointly explored ways of improving our operation. Our goal was to improve our turnaround time to our customer, the amount of information we could provide, and our general level of service. We also sought to decrease costs both in computer expenses and in increased efficiencies.

We recognized that there would be risks inherent with the decision to go with new technology...Our conversions were accomplished in small, bite-sized chunks so that we never added too much strain to the system at once. We also kept active the migration path back to the mainframe [in the case that] severe difficulties arose. In the end, we determined that the risk was manageable and less than the risk of staying with outdated technology in the face of increased competition.

...In our environment...our users have become familiar with such terms as ethernet, superservers, NIC-cards, and relational databases. Jointly we explored the technology, assessed the risks, and decided to go ahead. This is a system not designed and created by technical people but a system where the users examined the business process and wrapped it in technology.

...The cost savings that we realized...are real. The 30% per policy reduction quoted in the original article was for total IS expenditures. This includes essentially fixed costs of running all other systems such as accounting, payroll, and investment. It also includes the maintenance and support of the network and associated hardware...

Addressing the reliability of a downsized platform, there are always risks associated with anything new. We have found ways of lessening these risks by being cautious, installing redundancies, and limiting ourselves to high quality equipment such as NetFrame. It is amusing to me that mainframe installations suddenly become such an icon of reliability when we discuss downsizing. How many of us have never had an operating systems problem on a mainframe?

...This downsized environment provides more flexibility to our insurance services [and] more service to our customers, [both] at a lower price than a mainframe. What can be wrong with that?

Sincerely,

Leslie J. Laputz
Vice President
Information Services

Periscope...

(continued from page 10)

If you have only one mainframe and all corporate processing is via locally attached workstations, a large PC-based LAN should be your best approach. If you have multiple locations or very large data requirement, add a database server. For extremely large multiple location application, examine the IPC/RPC solutions.

With all of this remember: your ultimate goal is not to replace a mainframe, it is to solve a business problem with new technology. *RP*

Ron Peri is the President and Founder of Computer Support of North America, an industry leading firm providing downsizing services from initial consultations through software conversion, hardware installation, and outsourced support. Mr. Peri can be reached at Computer Support of North America, Basking Ridge, NJ, (908) 766-9200.

Schussel's

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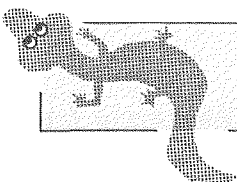
UPCOMING downsizing Events...

DATABASE WORLD, being held at the Hynes Convention Center in Boston, June 29 — July 1, 1992, is bigger than ever due to the inclusion of **CLIENT/SERVER WORLD**. While the **DATABASE WORLD** conference features presentations on PC databases, object-oriented development, database technologies, CSP, and DB2, **CLIENT/SERVER WORLD** will focus on the issues involved with client/server computing. And, as a bonus, once you have registered for one of these conference, you may attend the other free of charge. Running concurrently with the conferences is a public exposition that will feature and display the products referred to in the conference sessions.

Another DCI conference/exposition that will be of interest to our readers is **Downsizing EXPO**, being held in San Francisco, August 25-27, 1992. **Downsizing EXPO** can be thought of as the keystone to all DCI's downsizing events. As a three day conference in combination with a two day exposition, there are five tracks which cover the complete downsizing spectrum: **Downsizing Experiences, Windows Applications, Client/Server DBMSs, Open Systems, Networks & Their Management, Client/Server Applications.**

Being held in Los Angeles May 4-5, 1992 and in Toronto, July 14-15, is Jim Davey's two day seminar, **Application Development Technologies**. This seminar focuses on the new technologies that will be used to increase productivity and functionality in IS during the 1990s. Topics to be discussed include: downsizing technologies, UNIX, client/server computing, open operating systems, super servers, and DBMSs.

For more information on any of these classes, call DCI at (508) 470-3880.



For your enjoyment and ease of reference, like a chameleon, **SDJ** will be changing its colors monthly. Our changing color scheme will make it easier to spot each new issue at a glance, and quicker to reference past issues.