

From: Paul Maritz
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"THE REVENGE OF THE SERVER"
(Confidential)

This memo summarizes thoughts on several fronts:

- competition from Novell and IBM,
- the SQL Server business,
- will we sue Sun over their Windows clone?
- etc.,

but it is really focused on the "high-end" business as whole - where we face real and growing competition.

The basic theme is that although we have been able to ride a "bottoms-up", desktop-driven wave to great success, this wave may be broken by standards that are being driven either by:

- Applications that are really platforms (Netware & Notes),
- Line of Business computing standards (the "new IBM" = DCE+OMG+Transarc).

These standards enjoy two perceived characteristics that Windows does not: they are "cross-platform", "open", or both. In the current turmoil, these attributes are powerfully attractive to customers. In addition to having one or both of these attributes, Lotus and Novell have the great advantage of being able to sell an "app" (or "ready packaged solution").

At the same time, we are starting to reach the situation where "Windows and Microsoft" are becoming threatening to customers - they are worried about their dependence on Windows and Microsoft. I don't think this is an overwhelming trend yet, but I have started to hear it recently - and I am sure our competitors are fanning it wherever possible.

Most of the analysis below goes into how "non-MS" API's will get established on the desktop - one might ask why this is a big-deal - what does it matter? The answer is that the next generation of NON-COMMODITY applications are not going to be differentiated by additional graphics or window management features, but by their information access, information categorization, information publishing, information tracking, transaction processing capabilities. It is precisely these sort of API's that are being set by these "non-MS" forces.

Rather than just wring my hands, I have tried to include below important things that we need to be doing. They will have a possibly large near term financial impact. We should take them seriously though.

1. Dangers.

(i) **Novell** - Novell is dangerous not only because of Netware 4.0 per se, but because they are intent on becoming a "CROSS PLATFORM" PLATFORM company. They are dangerous because they have a good entry app (Netware 4.0), and deep pockets with which to fund the development of a "CROSS PLATFORM" PLATFORM. Their intent was made abundantly clear at Brainshare a week ago. Their message of being cross-platform, and being on the surface aligned with the "open standards" world (OMG), and having an app (NW 4.0) to sell, makes them very dangerous.

(ii) **Lotus** - enough said, except that once again it is the combination of an app (Notes) that leverages a platform (Notes), and being cross platform (allows them to have many allies, and be "non-threatening") that makes them tough.

(iii) **IBM** - IBM is more dangerous than we realize. Our sales people tell us that "OS/2 is a dead issue" (which I don't believe), but the real threat from IBM is not on the desktop per se. The danger is that they will again establish a CROSS-PLATFORM PLATFORM. Some facts:
- IBM is strongly pushing the combination of DCE, OMG/DSOM, Transarc, Taligent as a toolkit - as the real foundation on which to build the new-age, information-at-your-finger-tips, client-server environment. We should not underestimate this - they are pushing this as a platform. It comes across again as CROSS-PLATFORM and "OPEN". They don't have as readily identifiable app as Lotus does, BUT they are telling a "complete marketing story" to accounts that they can supply a solution that addresses their needs from Enterprise Connectivity (DCE), Transaction Processing (Transarc), mid-level servers (AIX/RS6000), and desktop (they say they will put their API set on whatever platform the customer wants: Windows, OS/2, AIX).

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2. Things we need to do:

Summary:

- A. We need near/medium term high-end APPLICATIONS.
- B. We need to be interoperable with the enterprise/TP environment (make it easier to sell Windows desktop and Windows app servers in DCE, Transarc, Novell environments), and we need partners to back this up.
- C. To attack the cross-platform stance, and to allay customer concerns about Windows as a safe standard, and of excessive dependence on MS, and to put our competitors more completely on the defensive - we need to formally "open" the Windows API.
- D. We need long term transaction processing support.
- E. We need to group the marketing/planning together so as to tell a consistent story. We are going to be in tough battle - we can't have a fragmented, poorly communicated strategy. Also our strategy is explicitly an "OS-strategy" (or more explicitly it is a Cairo-based strategy). I won't go into this in depth in this memo (want to get it out this weekend).

A. HIGH-END APPLICATIONS:

We need near/medium term app(s) to sell into the high-end. Otherwise the platform sell is just too hard and abstract.

The candidate apps are:

- SQL Server (near term)
- Hermes (near term)
- EMS (near term)
- Cairo (medium term)

SQL Server:

This is currently the best app that we have that appeals to the high-end. We should fix the relationship with Sybase by getting effective control over their strategy, to ensure that the Windows NT platform is their #1 focus in both development and sales. I.e. we should:

- either we should buy a significant stake in them (sufficient to ensure they focus on MS platform and protect against hostile acquisition), and hand marketing/dev of SQL Server back to them. If we get out of dev/marketing, I think they will do 100% U turn and see MS Platform focus as huge opportunity,
- or we should buy them outright.

This also requires us to realize that Sybase will be our high-end data base technology. We don't have the time to develop an alternative.

Hermes:

This is a hot application in that there is a critical need for the kind of solution it provides. We have also caught IBM and Novell somewhat off guard in that their solutions are either very klunky (IBM) or still in development (Novell). I will increase staffing and focus to ensure timely delivery of Novell and Macintosh components. We also need to ensure that it is integrated by our large SI partners (see more on large SI partners below).

EMS:

I need to understand this better. My feeling on this is that we have to get it out of the door asap and look to it provide basic workgroup support only. We should not try to delay EMS, and make it

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into OFS. Instead we need to **focus 100% on Cairo** - it is the best high-end app we are likely to have. See next point.

Cairo/OFS:

We need to position Cairo basically as "the OFS platform" and get it out by end of '94. In this sense Cairo = NT+DFS/DS+OFS+Customization Tools. We need to position it as an "application" for that makes it easy to provide integrated workgroup support and client/server computing. It is the environment that provides one set of tools to customize and administer the information that goes into and comes out of: group communication, workflow tracking, decision support, and line-of-business client-server apps.

This means downplaying (not eliminating, just initially downplaying) positioning of Cairo as "complete enterprise networking solution", and playing up the way it integrates into DCE and Netware. We need to make Cairo as compelling and non-threatening as we can.

To get Cairo to not suffer too much from the fact that it is an operating system (!! - we see the technical advantages of this; customers, with the help of our competitors, may initially see this as a problem!) - we should position it as being direct extension of the "Windows Standard" (see point C. below).

B. Interoperability and Partners:

The key issues here are:

- a. interoperability with Novell and DCE
- b. interoperability with OMG
- c. Interoperability with Transarc
- d. "Enterprise capable partners"

a. Novell and DEC:

On interoperability with Novell and DCE, these will be priorities in our systems product plan. For DCE, I intend to make a concerted effort to work with DEC on this - and to incent them, we may have to even pay them royalties (gone are the days when we can use the "helps you sell H/W" line). In re-organizing systems, I will probably make this the explicit charter of an "interoperability" group that will take care of all "non-Novell" interoperability work that we do (e.g. SNA, OSI, etc.). Novell interoperability will be a core responsibility of each product group.

b. OMG Interoperability:

We should again get DEC to do this. They want to do it.

On the wider issue of "taking OLE" to OMG - I think this is a pipe dream. OMG has become controlled by our closest competitors (IBM, HP, Novell, Sun). There is no way they will let anything that even smells like an MS API into the tent. We may be able to slow them down a little, but it will have zero market impact - and we will only have to continue to explain why we are not following OMG when they decide against us. Instead we should go for the whole enchilada (see below).

c. Interoperability with Transarc?

I think this is important. DEC is porting their transaction processing stuff to NT, but I don't know how well received it is. Maybe we should get King's company to focus more on this.

d. Enterprise Capable Partners.

Here are our "friends", and what they want from us:

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DEC: Our best "friend". Genuinely committed to Windows on the server as well as desktop. The only one to make this endorsement so far - although they temper it by saying they will have OSF and VMS on server too - but they do openly admit that Windows NT will be important server OS, and are porting all their "value-add" to Windows NT. What do they want:
- desktop applications for Windows NT on Alpha,
- to make money at being our enterprise capable partner - i.e. they want us to position and promote them and their "enterprise" stuff as being best able to integrate Windows into big picture. Right now that means they want us to say good things about DCE and OMG (!).

I think we need to continue to take DEC very seriously and build the partnership. We probably have to do better job of communicating to the Desktop apps group why work for Alpha is not just "make work".

ICL: Thanks to efforts by MS (and Perttir in particular), they are becoming increasingly Windows and MS focused - they are very close to saying "Windows NT is a server". It helps that their UNIX and SPARC business is losing money big time (i.e. the old ICL is dying and the old Nokia is what remains). What they want - a structure whereby we won't compete with them for enterprise business; and they want input into WOSA.

Siemens: Thanks again to lots of MS effort (again including Perttir), relations are improving - they are willing to say to their customers that "If customers want it, they will sell Windows NT as a server". They want same things as ICL. They are little scary as a partner, as their financial condition is so bad (they need to lay-off 15-25,000 people!), but parent company has deep pockets, and we should view their predicament as an opportunity.

Olivetti: Still not willing to say "Windows NT" is a server, but will be dragged there by their customers. I doubt whether Olivetti can survive long in the high-end business.

Those are our "enterprise capable" friends. Missing are: IBM, HP, NCR, Fujitsu, Bull. These OEMs are going to be really tough - anyone who is making money out of UNIX today is not our friend.

It will be a challenge to see if we can build partnerships with others. The obvious candidates are the non-OEM houses (EDS, AA).

C. Windows as a Standard

We will be announcing that we will license 3rd. parties to do a Windows layer on UNIX, and that we sell one for the Macintosh.

However, in addition to this, I think we stand to gain much more than we lose by actually making Windows (including OLE) into an official API standard. The idea is that we would "fast-track" Windows through X/OPEN, much as the COSE group is now trying to do with their stuff. Why do this?

(i) We have a lot of new API's that we need to get accepted! Specifically OLE. Over time OLE will come to almost completely replace the "Windows API". Although we have a good "bottoms up" driven strategy to establish OLE, we are in the early stages of this and as explained above, there is a real danger that other API's will get preferred and supported. By getting Windows and OLE blessed, it sets us up to extend these API in natural ways, and have these be the "natural" things for the industry to support. We avoid the whole OMG issue. OMG (and all the other stuff layered on to it) just becomes an alternative API set.

(ii) It helps blunt the whole cross-platform thing - it explicitly make it clear that Windows can be (if it needs to be) cross-platform.

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(iii) At the high-end, where we are most exposed, customers want and need the "assurance" that standards given them. They are betting their businesses, this helps them make the bet.

(iv) I don't think we give up much control at all - we have some much infrastructure already in Windows and OLE that we will be occupied for many years just extrapolating it. I.e. We have enough critical mass now to be able to standardize something safely.

(v) We give up intellectual protection vs. clones.

Firstly, I am not advocating that we give up all intellectual property, it takes more than API's to build a clone. E.g. we would explicitly NOT give up rights to UI/look-feel copyrights, we would NOT give up rights to data formats, we would not give up "mechanism" patent rights. It is just the API. If someone did a "pure Windows clone" - we should absolutely sue them.

But I am not convinced that suing Sun is even a productive thing to do:

- it will take years and we will not get an injunction to stop them shipping,
- we will take tremendous negative push back from customers.

This is a different situation that the Apple Lawsuit where if it had looked like we would lose, then ISV investment would have dried up. In this case, a suit could have the reverse effect, ie. it would not affect ISV investment in Windows, and may actually increase ISV investment in non-MS solutions. The real issue is whether it would stop end-user customers buying Sun's solution - which it might, but again it would feed the call for "non-MS controlled solutions".

Note: I am leaving aside the issue of whether it is even possible to successfully sue over API's. Rather I am convinced that we should reap the positive benefits of having people support our existing standard, and using that as means to legitimize our expansion into new function and markets.

D. Longer Term Transaction Processing and more fundamental Line-of-Business Support

Davidv (and others) has been pointing out that there is a need to integrate "workgroup" and "line of business" computing. That we cannot view these as separate in the long term. Not only will we have companies like Lotus with Notes establishing a platform, but companies like Oracle will be coming at us from the starting point of expanding their "line of business" environment to include workgroup computing and will have good linkages. We need to think this through. Davidv is preparing a pitch on this.

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SYNERGY AND EFFICIENCY IN THE (mainstream) MS PRODUCT LINE

This memo is intended to provoke constructive debate.

Problems:

As we all know, we have at least the following major problems:

1. Declining ability to differentiate our applications from competition, and the possibility of severe price pressure.
2. Too many products and in particular too many overlapping products. This is not only a big resource drain (development, marketing, localization, etc.), but it makes it harder to sell them, and will cause real customer problems down the road - maintaining all these things, explaining how to administer them, how they do/do not interoperate, etc. It also causes high frustration levels in terms of internal relationships within the company.
3. We don't have credible products to counter Notes and Novell.
4. In systems, we have overlap between Chicago and Cairo, and difficulty selling NT.
5. In many ways Cairo is the answer to reducing our product line and competing with Notes and Netware - but NT/Cairo are not credible inside the company - which leads to people try to build "interim" solutions, and causes product proliferation - compounding the problem.
6. Our cost structures and efficiency are way out of line - we have too many people. Our numerous business units and management hierarchy are causing us to duplicate and proliferate.

So... this is an admittedly very "simplistic" effort to try to firstly articulate a framework for what our product line should be (in say H1'95), but secondly, and more importantly, to try to think through the really hard part: how to get there - i.e. what should happen to current projects. I know that are a TON of issues that are not addressed here, but we have to start thinking this through.

Product Framework:

In H1'95, the company should be selling the "products" diagrammed below. Note:

- it is necessary to read the notes,
- the color shaded groupings could indicate packaging, i.e. our basic product line COULD be reduced as indicated - of course there other ways to package things,
- the framework is not intended to be exhaustive - there will be other products - but these would form the "anchor" products.

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Direct Distribution and Sale of Software to the End User.

The following trends are fairly obvious for systems software revenues in the coming years:

1. Windows has become an OEM phenomenon. We have 80%+ market share.
2. We are currently receiving between \$35-\$50 per OEM for DOS and Windows. Joachimk thinks that with the price decreases in h/w, he will not be able to increase this - at least on a per system basis.
3. Windows NT (and its high-end successors) will be limited to 20% of the market (this is not to say that we can't have products that incorporate Win NT technology and which reach the broader market - it is just that if they do, they will have to obey same OEM price model).

This means that systems business is inherently limited in growth by:

1. the rate of new h/w sales, and
2. our ability to sell upgrades.

To address this, I want to start planning and developing the capability to harvest more dollars per PC by utilizing "direct" sales to the end-user. This has been discussed in various guises for some time - eg. CD that we distribute as a paid subscription that allows a user to use certain software as part of basic subscription (eg. updates) and also to unlock further software after phoning in his credit card number, etc.

I want to put a serious program in place to do it now.

To this end, I will:

1. work with Brads to assign a smart program/product manager to start researching/planning how this will work for Chicago, lay out a couple of scenarios that we can review in near future.
2. commission work from Stevesh (now part of Nathanm's world) to research/develop the necessary distribution technology to enable the easy distribution and purchase of the software - so that we can have this ready to go with Chicago.

This summarizes thoughts on several fronts (SQL Server business, competition from Novell and IBM, role of NT, etc) - but it is really focussed on the "high-end" business as a whole, and builds on mail sent earlier on making Windows an "open architecture"

The basic theme is that there are three "clear and present dangers" to MS's continued string growth. All are to do with the establishment of a new, non-MS "platform" which could have severe impact on the systems business, and with time, severe impact on the desktop apps business.

Again some of this analysis is not "new", but some of it is becoming clearer to me at least. I have included below important things that we need to be doing. They will have a possibly large near term financial impact. We should not shy away from them though.

1. Dangers.

The dangers below constitute ways in which increasing numbers of apps, particularly the more valuable "run-your-business" apps, can/will get written to non-MS APIs. Although the bottoms-up, personal productivity APIs have had rampant growth, this barrier could be one that essentially causes us to be squeezed out of 30% of the market (over time), which would constitute enough of base to branch out at MS in other segments - just as we are trying to do now at the traditional mini/mf guys.

(i) Novell - Novell is dangerous NOT because of Netware 4.0 per se, but because they are intent on becoming a CROSS PLATFORM PLATFORM company. They are dangerous because they have a good entry app (Netware 4.0), and deep pockets with which to fund the development of a CROSS PLATFORM PLATFORM. Their intent was made abundantly clear at Brainshare. Their message of being cross-platform, and being on the surface aligned with the "open standards" world, and having an app (NW 4.0) to sell that meets near term need, makes them appeal to customers - it makes them very dangerous.

(ii) Lotus - enough said, except that once again it is the combination of an app (Notes) that leverages a platform (Notes) that makes them tough.

(iii) IBM - IBM is much more dangerous than we realize. Our sales people tell us that "OS/2 is a dead issue", but IBM is very much alive in the high-end space. Some facts:
- IBM is strongly pushing the combination of DCE, OMG/DSOM, Transarc, AIX/RS6000 - as the real environment to build new-age client-server environment. We should not underestimate this - they are pushing this as a platform. It comes across again as CROSS-PLATFORM and "OPEN". They don't have as readily identifiable app as Lotus does, BUT they are telling a "complete marketing story" to accounts that they can supply a solution that addresses their needs from Enterprise Connectivity (DCE), Transaction Processing, to mid-level servers (AIX/RS6000), to desktop (OS/2 - its is "better Windows", and if you dont like OS/2, we will put the "layer" on Windows and UNIX too). I hear consistently from accounts now that IBM is filling the vacuum - accounts know that the "OMG" line and ask why we are not using OMG.
- An overlooked fact: IBM continues to sell significant numbers of LAN

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Servers (I am getting data pulled - but sales of LAN Server continue to greatly exceed those of LAN Man). They have a base to build off.

(iv) For the first time, I am hearing from customers that MS is "too powerful" - they worry about becoming beholden to MS. This sentiment is being fanned by our competitors.

2. Things we need to do:

PS: If we don't do most of things below, then we should re-think most of the investments we are making at the high-end (including Cairo) as we will be too little, too late.

Summary:

- A. we need near/medium term high-end apps (our platform competitors will all be pushing them)
- B. we need to be interoperable with the enterprise/TP environment,
- C. to compensate for the breadth of our offering and customer fears, we need to formally "open" elements of Windows platform,
- D. we need long term apps.
- E. we need to group the marketing/planning (if not the development) of these high-end pieces into one group.

A. We need near/medium term app(s) to sell into the high-end. Otherwise the platform sell is just too hard and abstract. The candidate apps are:

- SQL Server (near term)
- Hermes (near term)
- EMS (near term)
- Cairo (medium term)

SQL Server:

This is the best app that we have that appeals to the high-end. We should fix the relationship with Sybase by getting effective control over their strategy to ensure that the MS platform is their #1 focus in development and sales. I.e. we should:

- either buy them outright,
- or we should buy a significant stake in them (sufficient to ensure they focus on MS platform and protect against hostile acquisition), and hand marketing/dev of SQL Server back to them. If we get out of dev/marketing, I think they will do 100% U turn and see MS Platform focus as huge opportunity.

Hermes:

I will increase staffing and focus to ensure timely delivery of Novell and MacIntosh components. We also need to ensure that it is integrated by our large SI partners (see more on large SI partners below).

EMS:

My feeling on this is that we have to get it out of the door asap and look to it provide basic workgroup support only. I need to understand this better. We should not try to delay EMS, and make it into OFS.

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Cairo/OFS:

We need to position Cairo basically as "the OFS platform" and get it out asap. We need to ensure that we have some great OFS exploitive "app" inherent in Cairo when it hits the street - I hope the Inference technology can supply this, as well as the custom folders for document management (mail etc). This means downplaying (not eliminating, just downplaying) positioning of Cairo as "enterprise networking solution", and playing up the way it integrates into DCE and Netware.

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Below are my "high-level" assumptions, objectives, challenges thinking for FY'94 Systems Business. These should be self-evident, and I will be reviewing them in our upcoming planning/budget meetings, but I thought writing down my views ahead of time would be useful. Please send feedback before I/you distribute further.

Background Assumptions:

FY'94 will be an "event-less" year for Systems - i.e. we will be coming off the MS-DOS 6.0, NT, Mouse 2.0 launches, and building to the Chicago launch at the end of the FY. This will mean that we do not have a large "new" retail opportunity.

Windows 3.1 will, for new machines, be almost 100% an OEM business. Thus any way that we can effectively "raise the OEM price" of Windows by licensing additional software to OEMs is very important.

We will not be trying to artificially boost Windows NT volume, instead we will be focusing on building infrastructure (developing sales partners, training, and support channels - generically "solution providers"). We will be trying to focus NT on new opportunities where Windows 3.x is not sufficient - the server business, particularly application servers, and the high-end desktop - hence the positioning of "client-server".

We will be starting to introduce customers to Chicago and to Cairo, mainly to respond to customer requests for information - but we should assume that neither of these products ship in FY'94. We should thus make information available carefully, without causing disruption to existing sales, and above all preserving the concept of a "Windows Family". An element of this will be to "FUD" our competitors (OS/2 and UNIX) all of whom will be claiming various levels of Windows compatibility.

We will have stronger, more focussed competition in FY'94 - particularly at the high-end.

Objectives/Challenges:

1. Make Windows for Workgroups successful - it represents the major revenue upside in both OEM and retail channels. It is also strategically important as every secured WfW customers is a great prospect for Windows NT servers, and for Chicago down the line.

We need to not lose focus or heart on Windows for Workgroups. We should "quietly" (i.e. no arrogance, avoid implication of failure of WfW 3.1) relaunch with WfW 3.11 (Snowball) and continue the VAR/small reseller push. At the same time we should try to get every OEM we can to offer WfW. The WfW team needs to prepare a good FY'94 plan outline and ensure we have buy in from sales entities (OEM and Subs).

Forecasting guidelines: forecast conservatively but not too much so - this is one area where we and OEM/Subs should take some internal stretch goals. Snowball will be a good product - the inclusion of the FAX software, RAS client software, etc. starts to put this product into the "plain good value" category - particularly for OEMs.

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Competition/Challenges: Novell Personal Netware, Lantastic, OS/2 2.0, VAR/small reseller channel development, end-user perception/understanding of the product, sales channel share of mind.

2. Build Infrastructure for and with Windows NT.

With Windows NT, we have to walk the path between not over promoting the product as "Turbo Windows", but promoting it sufficiently to ensure that channel invests in training and support, and that the appropriate customers evaluate and design in Windows NT. I.e. the real metrics we use should be: training & certification goals, design wins for client & server, server unit sales. It is not a goal to achieve artificially high client sales (e.g. large per system OEM deals etc.). We need to ensure that our internal and external communications accurately reflect the above.

We should be explicitly working wherever possible with "solution partners", encouraging them to invest, and to see Windows NT as an opportunity. We should be involving Windows NT sympathetic Systems Integrator OEMs on very large, support intensive bids. In order of Windows NT sympathy, these OEMs are: DEC, ICL, Siemens, Olivetti. The subs should establish good working relationships with these companies.

Forecasting Guidelines: Forecast conservatively. The goal for Windows NT is not units per se, but infrastructure and design wins that will set us up for increased volume in FY'95 and beyond.

Competition: UNDX, Netware (particularly as Novell tries to reposition it as an application server), IBM & OS/2 2.0

Challenges: Unrealistically high expectations in the market, growing the infrastructure and channel expertise.

3. NT Related Products:

Hermes - this is a hot product with our customers, and we can open doors with it. However we should not expect it to ship until end of CY94, and we should be careful not to get carried too far with the product. Customers want it to solve all their systems management problems. We should be clear what it does not do. We are working to ensure that the SI OEMs integrate Hermes into their solution, so we can involve these entities when the customer wants an all encompassing solution.

SNA Server - this is a means towards an end - i.e. we need the product to complete Windows NT connectivity (which it does very well, so we should not hide it), but it is not a revenue opportunity in its own right. We will push distribution through certified resellers only - preferably the large SIs or specialists.

SQL Server - this is both a lever to sell NT and a revenue

opportunity. We will try to ensure that NT is viewed as an open platform that the likes of Oracle can play on, but SQL Server is a great product that we and our solution partners can sell.

4. Mouse Business:

We should remember that the mouse is approx. 25% of systems revenue and approx. 30% of systems profits! We have taken an explicit decision to have a two part strategy with the introduction of new mice:

- (i) Go for overall profit (even at the expense of share) in the retail mouse business. We will be the "cool" mouse.
- (ii) Get share in the OEM channel using lower cost mice, leveraging low cost mouse technology that we are acquiring.

We thus need not to lose focus on Mouse in the retail business. This is going to be a challenge in the new "sales" model. We need to educate the GMs and DMs as to how much of the revenue and profit comes from the Mouse (are GM's / DM's explicitly aware of profitability in the US?) - to ensure that Mouse gets the appropriate mind-share and \$-share of promotional funds.

We should be "getting the business" in the OEM Channel.

Forecast Guidelines: Forecast appropriately given above two part strategy (profit in retail, volume in OEM).

Competition: Logitek in retail, Logitek and "no-name" guys in OEM.

5. Other Hardware Business:

We will continue to invest in the sound card business with a dual charter: retail revenue, and spinning off designs and software that we can license to OEMs - this represents another way that we can in effect raise the OEM price of Windows by inducing OEMs to license add-on software.

5. Digital Office:

We are starting on a new venture to build new business in "non-PC" office equipment. Almost all of the revenue will be OEM derived.

- (i) Printer Software to enhance UI, speed, and quality of Windows Printing. WPS remains the retail product, but during FY'94 we will be working to turn this into a broader OEM opportunity. There is a potential for FY'94 revenue.
- (ii) Handheld Device ("Winpad") - Compaq will be our lead OEM, and the goal will be to widen this out to include 5-6 others. Little FY'94 revenue potential.
- (iii) Intelligent Windows FAX Machines - this does represent FY'94 OEM revenue opportunity.
- (iv) Telephone and other office device software - in development, no FY'94 revenue.

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We will be starting however to do market positioning in FY'94, and need to budget accordingly. This will be to position MS as having the "practical, business-like, office-oriented" approach to these new non-PC computing devices (vs. Apples "gee whiz" positioning).

6. ISV's:

Our challenges for the ISV community in FY'94 are summed up in "Win32 and OLE2".

Broad ISV's: We need to get the message out to ISVs that to succeed they need to have Win32/OLE2 enabled apps by end of FY'94 - or they will not be competitive. We have to build the training necessary to make it reasonable to develop an OLE 2 app. These ISVs should be targeting Win32c (Chicago subset of Win32), but starting now on NT.

High-end ISV's: Windows NT is here, go for it. We need to continue to court the UNIX/AS400 community, and the verticals as part of the infrastructure building for Windows NT.

7. General Competition:

General desktop competition:

- OS/2 is NOT dead. IBM continues to spend heavily and we have to assume that this will not change. We need to keep our OS/2 messages focused on:

- OS/2 is not a "better Windows" - have to do this carefully, but we have to focus once again on the reviews that will be done for OS/2 2.1.

- IBM is on a Windows treadmill, ISVs are not writing to PM, and Windows is evolving and IBM will be stretched to keep up.

High-end Competition:

- The broader IBM message which is based on DCE and OMG, and which promises "top to bottom" client-server computing in an "open, cross platform" way.

- Notes - enough said. We have to continue to sell the Windows platform.

- Novell - getting more insidious all the time. They will be making strong cross-platform API push, as well as pushing enterprise solutions based on NW4.0.

I will send separate memo on the "high end" situation, as I think we need stronger actions.

Non-PC Competition:

Competition here is clearly Apple. We have to start positioning ourselves as outlined above.

9. Windows in Japan:

This the market where we can dramatically increase share. We need to be working carefully

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with the Japanese sub to capitalize on this. We should have explicit goals for this market. Win3.1 will have been launched, but we need plans for WfW (Snowball) and for Win NT. We need to think very carefully how to position / market Windows NT in Japan, given the immaturity of non-NEC infrastructure there.

10. Derive more revenue per PC:

We need to ensure that we have a business plan and product plan in place to derive incremental revenue in FY'95 from the installed base - i.e. have an explicit program to supplement our base OEM revenue by selling additional software and services into the installed base. Rogers Weed in Richr's area will be owning this for Systems.

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