Erik Stevenson

From: Paul Maritz
To: bradsi; jimall; jonl
Subject: draft of systems priorities memo
Date: Monday, October 11, 1993 9:58AM

attached is draft of memo that I have done on system prorities. It does
not contain any radical new news, but I did want to catalogue issues
and options. Please do not forward at this point. As I note, each of
you has righst to say "I told you so", but I need your feedback.

< <File Attachment: OBJS1093.DOC> >

Systems Release Strategy - Draft: 10/10/93

This memo deals with the current issue, and the options, we face in our priorities for systems releases.

Note: Others have seen these issues earlier and more clearly than I have - jimall, bradsi, and jonl all have the right to say "I told you so".

Background "Facts":

1. The current center of gravity in the installed base market is 4MB, and the center of gravity in the new machine market is beginning to approach 8MB. It will not be until 1995 before 8MB is center of gravity of installed base, and 16MB the center of gravity of new machines (and laptops will lag this trend, just as they currently do).

2. Thus in the market place at the current moment, we face the following two major problems: (i) Windows NT does not run in 8MB, and (ii) Windows 3.1 (which does run in 8MB) does not multi-task well. These two facts are what are currently undermining our ability to say that Windows family covers most of our customers computing needs, and is what is leaving OS/2 a major opportunity to become entrenched (as an "8MB desktop OS that does multitask"). We should not panic, but we should be very focused on this as a very real threat.

3. As a consequence of not running well in 8MB, NT sales will be anemic in CY'93 and CY'94 - we will not likely sell more than 250,000 units worldwide in FY'94 (counting the 80K PDK sales). While NT 3.11 (forecasted for May'CY94) will improve this situation (NT 3.11 will most likely get NT to run acceptably in 12MB, and well in 16MB), it will not alter it materially.

4. Cairo will not lower NT's resources requirements, and may in fact increase them.

5. As a consequence of being outside of the "mainstream" in terms of machine resource requirements in CY'93, CY'94, and probably even CY'95, and thus being low volume in these years, it will be impossible to get broad ISV attention to function that is unique to the NT platform.

6. For this reason, we will have to realize that we have only two major "ISV events":
    (i)   Chicago in Q3'94 (when machine requirement for high volume is: runs in 4MB, runs really well in 8MB)
    (ii) Successor to Chicago in late '95/early'96 (when machine requirement for high volume is: runs in 8MB, runs really well in 16MB).
    This means that NT/Cairo will have to derive its broad ISV support from the above two platforms, and consequently the priority of running Chicago and "successor to Chicago" apps must be very high for the Chicago and NT/Cairo groups. Beyond the server, there will be few other NT/Cairo unique apps.

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More background: Objectives:

As a division we have the following objectives (in priority):

1. Above all, maintain desktop market share.

2. Increase revenue and profit by raising the per PC revenue that we get from $35 (on average) to over $50 (on average) over the next 3 years.

3. Keep the ISVs busy implementing new Windows functions, and the cloners on a treadmill.

4. Grow our market share on the server to over 30% over next 3 years.

5. Establish new functionality to allow us to accomplish above goals, and prevent "middleware" from reducing our OS's to "graphical C> prompts":
   - support for workgroup computing
   - distributed systems capability
   - object oriented programming paradigm

6. Make things simpler for the end-user:
   - make the PC an appliance

Implications of the above objectives:

1. Market Share:
    Since our most immediate issue is a possible loss of market share to OS/2 on the desktop, we should focus on the most immediate way of addressing it - i.e. get Chicago shipping as soon as possible. Bradsi and I must be willing to lie down on the tracks over this one. Beyond its currently committed set of functionality, and subject to any major performance/size/useability issues, there is nothing worth delaying Chicago over. This will become a major issue internally as we seek to make Chicago our next "silver bullet for all ills". It means we need to be prepared to decide how to deliver things like Russs's Online client & Paulo's Multimedia stuff in an update release, or through alternate means.

    What does it mean for Chicago to stop OS/2 dead? I believe we have to do following:
    (i)   Provide a smooth multitasking environment - this does have customer value, and IS what is currently selling OS/2. To do this we need to get the focus moved to 32bit applications. This means that it is critical that the MS applications group (at a minimum) have a 32bit version of Office ready to go with 60 days of Chicago.
    (ii   Perform very well on 8MB (better than OS/2), and OK for existing scenario's on 4MB.

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(iii)   Have a "cool" image. I believe that our new Shell, Plug n'Play, and
          Remote operations capabilities will do this.

2. Increase Revenue and Profit:

The most immediate opportunity to do this will come from increasing net per PC revenue
on Chicago. The basic strategy here will be to:

(I)   Offer OEMs following options:
        -   a base ("silver") version of Chicago at same price as DOS/Windows
            today (approx. $35)
        -   offer them a Premium ("gold") version at a significantly higher royalty
            rate.
        -   offer them pieces of the premium versions for extra royalties (over the
            base rate), so that OEMs can selectively enable hardware features.

(ii)   Offer end users an upgrade package that upgrades any version of Windows
        (past or present) to Premium ("gold") level. The net retail revenue of this
        package would be equal to or greater than the royalty we would receive from an
        OEM.

Figuring out this packaging such that it will be acceptable customers and OEMs in terms
of value, will not cause us to lose market share, will not used against us by our
competitors, and will incent ISVs, is a large and key challenge for us.

What strategy to pursue for NT? First yet more background:

The following are all priorities for NT/Cairo today, we need to decide which ones to
optimize for, in what time frame. I list them out first, before giving some
recommendations:

1.   Compete for market share vs. Novell:
        Since this is a priority for us, and since this is something that clearly Windows
        3.1 and even Chicago cannot address, this should clearly be a high priority for
        the NT effort. We should probably say that until 16MB becomes "normal" (late
        CY'95/'96), should we say that this should be the #1 priority for the NT group? If
        so what about Notes (see next objective)?

        However, competing with Novell is complicated in that, as Jimall and I have
        previously articulated, the way to win market share on the server, is to win it by
        changing the relationship between the client and server - and have the client
        increase the functionality and integration it expects from the server - only then
        can we will start to really turn the tide. This means that until we can get OFS
        function onto a high volume client (late'95/96), we are going to have slow
        progress vs. Novell.

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2.   Compete for market share vs. Notes.
      Again this is inextricably tied up with the client. I do believe that "OFS" strategy
      of:
      (i)   "consolidating the all the incompatible, hard to administer, workgroup
               databases into the file system", and
      (ii)   "enabling the Shell to be the basic browsing/query/forms composition
               tool for the workgroup database") is a very powerful one,
      but it will not work until we have this function (OFS and the OLE based Shell
      environment) on the high volume client.

3.   Defend against OS/2:
      The goal here was to use NT's "real OS" capabilities vs. OS/2. Owing to memory
      requirements as noted above - we will be able to use NT only in limited
      situations.

4.   Defend against UNIX on the high-end desktop and the server:
      This remains a viable goal for the server but it will mean having to do a lot of the
      server apps ourselves (at least initially) to overcome momentum and hostility
      from existing UNIX server ISV (see NT as commoditizing their market). On the
      client we probably have to pay more attention to "workstation" technology (e.g.
      3D) - but even if we are successful, the numbers will be small.

5.   Pioneer and introduce new software technology:
      e.g. Win32, DFS, DS, OFS, CairOLE, Components Forms, etc. The issue here
      as noted above, this will not matter to ISVs, or affect the Novell/Notes war until
      they are exploited on a volume client.

6.   Support new types of hardware:
      Windows NT was engineered to support new hardware: SMP and RISC. SMP is
      important today on the server, and may become important on the client in '95/'96
      (Intel is positioning P54C - 0.6 micron Pentium - to be used in pairs, to provide
      an upgrade path for customers).

      RISC could become important, but not until the next generation of RISC. I.e. to
      be brutally honest, in the current contest between R4400, HPPA, PPC 601 and
      Pentium - it is safe to say that 486/Pentium/Intel clones will be the winners on
      the PC desktop. To the extent that RISC is important in near term, it will be on
      the server. The next opportunity for RISC at the desktop will be in the timeframe
      of the P6 vs. MIPS R10K (a.k.a. T5)/IBM PPC 620 battle (CY'96). To win, they
      have to open up a > 2x advantage.

The above points paint a fairly bleak picture of our investment in NT hosted technology
being two/three years ahead of its time in terms of giving us a decisive market
advantage. We face triple whammy of (i) not deriving decisive competitive advantage
from it during this period, (ii) having to fund it (550 people in systems), (iii) having to
explain and market it.

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So what should we do with respect to NT/Cairo?

First, I think we should consider what our medium/long term (CY'96) endpoint should be. I believe that this should be a Windows client and server that do the following:
- support the functions needed for us to compete long terms (new file system, and UI and programming environment that exploits it),
- is truly scalable across hardware (i.e. we have one client SKU that covers range of interesting hardware).

In this timeframe, the concepts of NT, Chicago, Cairo disappear for all customers and ISVs (exception perhaps of device driver writers). We are back to "standard" and "enhanced" mode. Customers get one SKU for client, one SKU for server, and maybe decide to enable some extra functions by paying more.

When can we realistically achieve this? If we say that the scalable client is based exclusively on NT ("plan of record") , then realistically this going to be when a Pentium class machine with 16-24 MB of memory will be both high percentage (> 60%) of new machines, and greater than 30% of installed base - this will not be until late CY'96/'97 (i.e. 3+ years from now). If we want it before then, it means that we have to have an "8MB client" (with OFS, and associated UI/programming environment) - and I believe this means that we cannot rely solely on the NT base to deliver this, and must host the next set of key client functions on Chicago as well (latest code-named for this release is "Memphis", but has also been called "ChiCairo" and "London").

Key features of NT/Cairo:

1. NT base functions (portable, secure, high-performance server, SMP):
   We probably do not need these for the client until CY'96 - and then only high-end clients. It is OK to leave these "16MB" unique.
   These functions are crucial for the server, and we should invest to keep them competitive vs. Netware, UNIX, Workplace OS.

2. API's:

Given discussion above, we will have the following two generations of API's:

(i)   Q3'CY94: "Chicago":
      The Chicago generation of Win32, and the EMS generation of "MAPI" & "Capone message types" (I don't totally understand the latter). We have to make sure that there is a release of NT (call it "Cairo") within 6 months of Chicago that definitely runs the Chicago generation of Win32/MAPI/Capone message apps - all of them. Given this six month constraint, we need to decide how many other objectives we can accommodate:
      - how much supersetting of rest of Chicago can or should be done (e.g. Plug and Play),
      - what can be done to improve combination of EMS/NT combination

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- how much next generation (see next point) technology can we introduce on NT (DFS, OFS, DS), and how much of this technology could be exposed to the Chicago in this timeframe (e.g. could we at least release DFS for Chicago at same time as Cairo),
- how much can we allow into NT 3.11 without jeopardizing above.

(ii)   Q1'CY96: "OO Environment on Chicago" (or "Memphis")
This is when we take functionality currently in Cairo, and put it on the 8MB client - i.e. OFS, Cairo OLE, Component Forms based UI/Shell, Component Forms based end-user development environment ("CDE") which competes with Notes's end-user environment. This combination of function replaces to a large extent the MAPI/Capone messages environment.

We can make two decisions about this "OO Environment" function:
(i)   Subject to getting Cairo out within six months of Chicago, Jimall can decide how much of this function to put into Cairo as get it done early, allowing us to have it tested for volume deployment in CY'96. But until then we should be under no illusions as to how this would help vs. Novell/Notes.

(ii)   It is confusing to even have to speak about it until we have it on the high volume client - until then (Q1'CY96) we will just have to take our lumps and use NT's base function to compete with Novell, and EMS/MAPI/Capone to compete with Notes.

Options for public positioning NT/Cairo before Q1'Cy'96:

Given above options for NT/Cairo priorities, our public position can be:

Option A:
-     MS's UNIX for the Server (scalable, secure, SMP, etc.)
-     A secure version of Chicago for the client (which requires 16MB).
-     Technology introduction platform for new API's and distributed systems features.

Option B:
-     MS's UNIX for the Server (scalable, secure, SMP, etc.)
-     A secure version of Chicago for the client (which requires 16MB).

Recommendations:

1.   **Ship Chicago ASAP** to hold our market share - don't hold it back for other objectives.

2.   MS must **ship 32bit Chicago apps** within 60 days of Chicago to support Chicago. We need the applications group to re-align around this, and consider implications on this like component forms.

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3. **Adopt decision (I) and positioning A on NT** - but do not let priorities get confused. It means we must close all remaining issues on API that are exposed in Chicago, and which have to be supported in Cairo.

4. **Ship Cairo within 6 months of Chicago** (i.e. no later than Q1'CY95) with 100% superset of API ad UI content- ensure that we have 95% confidence plan to do that.

5. **Articulate clearly where we are going**: scalable client and server in Q1'CY'96.

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SECTIONS NOT COMPLETE

Interaction with MS Applications Release Plan

Current MS apps plan is:
- do minimal update releases for Chicago with 60 days of Chicago.
- do a major release in mid'CY95 based on Chicago API set and Component Forms.

Interaction withn MS Tools Release Plan:

The Cross-platform Challenge

Both Novell ad Lotus are mounting an explicit cross-platform challenge to us. How should deal with this?

Organization/Morale:

Are we organized optimally to do all of the above? What are morale implications for Systems (esp. NT team)?

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