

Subject: Fwd: Microsoft OS & Digital Video Computing Platform Update
 Date: 3/24/98 11:08 AM
 Received: 3/24/98 11:14 AM
 From: Mitchell Weinstock, schlepper@apple.com
 To: Larry Lowe, llowe@apple.com
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----- Begin Forwarded Message -----

Date: 03/24 6:35 AM
 Received: 03/24 8:39 AM
 From: Richard Doherty, RDoherty@envisioneering.net
 To: Mitch Weinstock, schlepper@apple.com
 Fiona Lee, Flee@apple.com
 CC: Rick McEachern, mceachern.r@apple.com

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 March 23, 1998
 Mr. Mitch Weinstock
 Ms. Fiona Lee
 Apple Computer, INC.

Subject: Microsoft OS & Digital Video Computing Platform Update

Dear Mitch & Fiona:

We are pleased to update you with the latest Windows OS and platform roadmap from our recent Microsoft management meeting in New York and Hanover, Germany at CeBit.

Microsoft Client Computing is based on Two Models
 Lots and Lots of CE Devices
 WinTerm Thin Clients

Bill Gates (and Nathan Myrthvold and Craig Mundie) prefers the WebTV/CE Video (LAN Adapter - 10BaseT, Broadcast Tuner, cable Tuner, DSL Adapter) model for the long run. Steve Ballmer prefers the Microsoft IS subscription model - sell repeated updates to NT & Hydra as well as for existing servers, PCs, Workstations, NetPCs, Handhelds, Mobile & THIN clients..ancient PCs.

Working against this is how stubborn Steve Periman has become at migrating the MIPS based WebTV Plus to an all CE model by summer. Also, Periman has a track record for NOT working well with hardware or software IHVs and ISVs. This is confounding the CE Video rollout, as WebTV networks in Palo Alto has become the default Windows consumer video research lab.

Palo Alto is NOT doing the Jupiter "Win Book" low cost gray scale and color screen CE notebook Pcs designed for consumers and educational markets. However, WebTV is at the hub of nearly every digital video CE design, and their enthusiasm seems to peak and wane with the timetable of visits from Bill G himself.

Gates truly wants CE and Consumer DSL to become the universal consumer platform, accepting content from hundreds of thousands (if not millions) of NT Hydra "screen servers" which will push content and centrally registered site

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license applications "screens" to each client. Gates is passionate about this, so much so that he has not stopped to verify that his DirectShow and NetShow competencies will allow his this streaming media and screen control. He wants it. Most server makers believe he will pull it off.

Compared to this trio of support for CE, Steve Ballmer prefers the huge opportunity of the Windows Everywhere terminal mode with a ferocity that would likely trigger antitrust complaints should he ever be compelled to testify in Washington. He wants hundreds of millions of users updating Windows each year, afraid to do business, or to a lesser degree, consumer gaming & entertainment, without the latest monthly or quarterly upgrades.

This will ensure guaranteed income from thin clients for years, guaranteed subscription updates to make sure the Hydra servers can best be administrated and can most efficiently deliver just the screens a client is entitled to.

Hydra Servers (usually, but not always NT 5.0 servers) will be used to push graphic screen "solutions" to client terminals.

Microsoft Cable Box Status

We enjoyed lengthy discussions with Nick Conte, who works under Craig Mundie in Broadcast PC business development, and Microsoft NT Hydra (media and terminal server) managers in Europe.

Conte came to New York just to brief Envisioneering, Gartner Group and Link Resources. Conte wound up pumping Envisioneering when we seemed to know more than they did. The upshot:

- 1) Just a few HUNDRED CE based TCI boxes might be made this year and in operation by year's end despite the hoopla over 5 to 11 million systems.
- 2) No spec exists for the box. NO delivery dates. NO financing.
- 3) John Malone keeps denouncing Intel as having NO chance for the box design win. This appears to be just negotiating ploy.
- 4) TCI Has NO intention of allowing the boxes to be sold at retail, despite agreements with GI, Sony and the 1996 telecommunications act ordering retail "convergence cable box" versions be made available.
- 5) Malone does NOT understand the PC model or the Internet despite his Doctorate.
- 6) Malone also does not want to relinquish control of conditional access to anyone..least of all Microsoft or Intel. (Big mistake).
- 7) Malone does not want boxes that can be expanded with U DSL, Satellite, Broadcast or DVD adapters. ie..why should there be any port save an infrared one?

In other words, John wants control, despite Open Cable, despite the 1996 Telco Act, despite the investments in Comcast and GI by Microsoft, despite Sony's investment for what they were told would be RETAIL boxes.

A real mess. This will likely break within the industry (if not the FCC and Wall Street) within the next six weeks.

Microsoft Hydra "Screen Projector"

NT Hydra is designed to essentially pump parallel processed power application screen images down to the lowliest of PC screens (386, 486 based), handhelds, cable boxes, the works. Thin, thin, thin clients. Screen images at VGA and SVGA resolutions.

While Hydra was earlier presented as a purely NT 5.0 solution, at CeBit managers said there is a good chance that NT 4.0 code will be made available. This might be delivered on a large dedicated account basis.

We believe this is a bonafide QuickTime image delivery enhancement opportunity for these thin clients, as there exists NO DEMONSTRATED means of delivering rich graphics, animations or video to these thin clients. The question is whether to partner with Citrix, do an end run around Redmond, or cut a deal with Microsoft.

We will have several people at WinHEC in Orlando, and provide immediate updates to your group as needed.

Please call with any questions you may have. On behalf of all of us at Envisioneering, until we speak next, I remain,

Very truly yours,

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Richard F. Doherty, Director

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"Apple's QuickTime is our delivery vehicle of choice for multimedia. Strata is probably one of the biggest supporters of QuickTime and we use it in all our products. We're looking forward to the new QT 3.0 and plan on supporting much of its new functionality in our upcoming releases of VideoShop and MediaPaint."

Jim Boyd, Strata, Senior R+D Engineer

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