**From:** Carl Stork (Exchange)
**Sent:** Monday, July 12, 1999 7:21 AM
**To:** Mike Porter (Exchange)
**Subject:** RE: Intel/Microsoft Marketing

isn't intel already using linux for EDA?

-----Original Message-----
**From:** Mike Porter (Exchange)
**Sent:** Wednesday, July 07, 1999 1:42 PM
**To:** Bill Gates; Steve Ballmer; Bob Herbold; Shannon Perdue
**Cc:** Marshall Brumer (Exchange); Carl Stork (Exchange); Stephanie Boesch (Exchange); Brian Valentine (Exchange)
**Subject:** RE: Intel/Microsoft Marketing

We are now back on track after a series of joint "get your act together" meetings. Recently, Albert Yu re-committed to NT as the engineering group's OS. We have some work to do to be successful. Stephanie Boesch, BrianV's new "customer love" person, has been driving this from a product team level. Her last status mail to me seemed to indicate we were on a path to success, with two "things to watch for" items:
The confidential nature of Intel's environment. It's is quite literally their "crown jewels", and Intel's initial proposal; was to tie anyone who worked on this project such that they couldn't work with any other semiconductor manufacturer for a period of two years. Both our support and our consulting orgs said they couldn't work under those conditions. We currently have a NDA process in place that should provide a path to success. If it turns out to be insufficient over time as we get more and more intimate with their environment, we will re-visit this issue.
This particular area (EDA), coupled with Intel's current infrastructure, means that out of the box, NT lacks many of the features necessary for connectivity and migration into Intel's existing environment. Even with the addition of our Services for Unix, Intel's current requirements exceed what Microsoft has to offer. This put Intel in a position of having to rely on 3rd party file systems, network stacks, and shell/scripting tools. Unfortunately, many of these items, including a file system, were essentially freeware, and insufficiently debugged for the heavy production use Intel was subjecting them to. Microsoft's proposal was to have MCS come in and outline a plan, including working with these 3rd parties to ensure better reliability. Intel has pushed back about having to pay for these services. Last Stephanie and I spoke, it was still unclear how the consulting aspects of this migration project were to be funded.

-----Original Message-----
**From:** Bill Gates
**Sent:** Tuesday, July 06, 1999 10:33 AM
**To:** Steve Ballmer; Bob Herbold; Shannon Perdue
**Cc:** Mike Porter (Exchange); Marshall Brumer (Exchange)
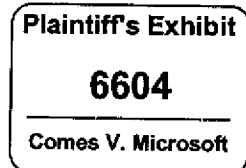**Subject:** RE: Intel/Microsoft Marketing

At the workstation leadership forum they reiterated their commitment to move all their stuff to Windows 2000.
I asked our people many times if there is any backsliding on their not using Linux for this.
If this has changed I wasn't informed. I knew I would get a chance to talk to Barrett and the question I asked was whether I needed to bring this up or not.
If we are not in good shape on this I need to know.

-----Original Message-----
**From:** Steve Ballmer
**Sent:** Tuesday, July 06, 1999 9:48 AM
**To:** Bob Herbold; Shannon Perdue
**Cc:** Mike Porter (Exchange); Marshall Brumer (Exchange); Bill Gates
**Subject:** RE: Intel/Microsoft Marketing

We cannot let intel do chip design on Linux ever   what do we need to do to change the decision who do we need to call   we will put whatever skin in the game they need

From: **Bob Herbold**
Sent: Monday, July 05, 1999 8:58 AM
To: Shannon Perdue
Cc: Mike Porter (Exchange); Marshall Brumer (Exchange); Bill Gates; Steve Ballmer
Subject: Intel/Microsoft Marketing

We had the marketing coordination conference call last week, and Jami Dover and her people feel very good about the relationship with the Microsoft marketing folks at this point in time. She and Dennis Carter( who is working 2 days a week at this time, phasing into retirement) can't remember when things have been so active and so clearcut with Microsoft. Jami's assessment with things was very similar to your's, Shannon. By the way, she was very high on the Office 2000 event. Naturally, they were also very pleased with the Workststion Leadership Forum featuring billg and craig, which generated a lot of positive pr. They didn't have any issues to bring up.

Mike, we didn't get into a lot of the specifics of the hardware issues, but she did say that the Win64/IA-64 work seems to be moving along fine. I did stress that we need early, stable hardware asap. She did cite that they were pleased that we have finally reached a NDA that allows us to work security issues together; a big step forward.

-----Original Message-----
From: Shannon Perdue
Sent: Tuesday, June 29, 1999 6:58 PM
To: Bob Herbold
Cc: Mike Porter (Exchange); Marshall Brumer (Exchange)
Subject: RE: Intel

On the OS marketing front things are straightforward & busy.

**What's going well**
**Windows 2000 Launch & Partner Participation**
Intel wants to play a key role in the Windows 2000 launch. We agree on this point and are in the planning process to define what this means.

**OS Strategy & Product Information**
We continue to share information regularly via bi-weekly conference calls. Includes strategy and specifics such as product milestones and delivery dates; key product features and directions. We have mutually acceptable joint messaging for upcoming technologies such as Geyserville (Intel's next generation mobile tech; basic but important that our OEMs understand our collaboration) for both MS and Intel field forces. Other items coming up include performance testing & subsequent messaging. We've also had success in putting out PR fires and obtaining positive press coverage around the Pentium III and MS OS/apps.

**Intel participation in Windows 2000 RDP**
Intel is sponsoring a Pentium III evaluation program in conjunction with the Windows 2000 RDP conference coming up July 6-8. Intel will participate in the conference to kick off this program and participate as a sponsor

Please let me know if you have any questions.

Shannon Perdue
Product Manager, Windows 2000 Client Marketing
Business Enterprise Division
Microsoft Corporation
425.936.9934

-----Original Message-----
From: Mike Porter (Exchange)
Sent: Tuesday, June 29, 1999 12:25 PM
To: Shannon Perdue; Bob Herbold; Marshall Brumer (Exchange)
Subject: RE: Intel

Bob,
I am the owner of the Intel relationship, in conjunction with Marshall, who is on sabbatical. I have pulled this broad overview together rather quickly. It would be worth our time to ask about the "New Business Group" at Intel (on the org chart I've included) and see what their plans are there. In general, the consumer space is going well, but there are a few road bumps in Miner's Server org. Intel's predilection for Linux and their NGIO efforts (which are failing) have been a long, slow burning set of frustrations for us. We do however seem to be making positive progress on all fronts of the relationship. If there are any specifics or drill down you'd like, please let me know.

Mike Porter

**Processor/platform/MS operating system/tools releases**
IA-64/Win64 The Win64 effort has made some pretty fantastic progress. Particularly since this was all done while trying to ship Win2K, it's an impressive effort. Steve Ballmer did the first public 64-bit demo as part of his WinHEC '99 keynote. The messages for Win64 are simple and clear:
Support Alpha & Merced
Single source code for 64-bit and 32-bit version of Windows 2000
Huge virtual memory support
SQL64
This is REAL
It should be noted that the Merced demo was done on a simulator, and we worked hard to ensure that a software emulated version of Merced looked decent next to Alpha systems. We've come a long way. Below shows Win64 achievements for the past 16 months. We have done this with very limited resources and during with Win2K, IE5, and other key deliverables.
10/97, started the project, designed, prototyped, talked to customers
12/97, Microsoft internal presentation
01/98, Design Preview with 170+ external developers. Released the first Win64 "SDK".
03/98, Kernel boot
04/98, WinHEC, Released the first Win64 "DDK" and second Win64 "SDK"
08/98, NT Beta 2 release. Delivered COM/OLE, MFC, NOTEPAD.EXE, CMD.EXE, CALC.EXE, SOL.EXE
10/98, Delivered networking, sandbox, limited WoW64
1/98, SQL64 is limping along
4/7/99, First Win64 public demo, WinHEC'99
Only feedback from Intel to you that I anticipate here is that our schedules are currently mis-aligned by 2-3 months (Intel being earlier with their ship dates than our OS dates). We believe that Intel will hit some delays and are being overly optimistic about what they can achieve by when. We believe, and have repeatedly stated that we can deliver the OS 12 months after receiving a large volume of systems sufficient to self-host our Win64 focused developers on. At present, Intel would like us to make that 9 months, while the NT group has been very clear that we need 12.
Key message to Intel: get us early, stable hardware ASAP.
**Consumer Space (Appliance Devices/Internet PC/Other alternatives)**
Intel sees Microsoft doing (or at least talking) more in this space on low-end, "non PC" devices. Intel is very interested in making sure that we keep the PC #1 on the net. They are concerned about where we are heading in the low-end space, and fear that WinCE and non-X86 processors might play a larger role here for Microsoft than they'd like. Intel now considers it important to be seen as a leader in the "appliance" space as they see a threat if they aren't clear leaders in this space. They believe StrongARM has a role to play in very low-end "fixed-function" devices, but not in any space that could threaten the PC. Intel sees three areas that need to be addressed to create x86-based "appliances":
Develop appropriate OS feature subsets and UI (that don't undermine the main PC role)

Eliminate "clunkiness" [David Cole's "It Just Works" message] (Boot Time, "Known Good" boot images, etc)

## Lower OS Royalties

The lower OS royalties is a message I'd expect Andy to drive hard as it's the one area he doesn't feel he's made any progress on with Microsoft.

We both seem to agree that there are different potential devices in this space: an internet terminal, a gaming console with web connectivity, a DVD, DVCR console with web access, etc). We seem to disagree on the relative priority of these devices. We sees the "game system" (PlayStation 2) as a threat growing upward into the PC space. Intel is presently focused on "Portal PCs" mainly because that's what they think OEMs want. You sent a great piece of email about the Playstation threat and the need for killer graphics. This meeting would be a great opportunity to make that case to Intel, as they don't get it yet.

Intel is looking for ways to engage Microsoft in these devices. David Cole and Pat Gelsinger have been working together, and we have set up a "Concept Platform Project" announced at WinHEC by Ballmer and Gelsinger (GeorgeM is leading this under DavidCol). Our first "kick-off" meeting tomorrow, we will cover fast-boot enhancements and legacy hardware reduction in the short term of the we plan to do together, with more to be investigated in this meeting. We have given Intel the feedback that there are several areas here that Intel is deficient in to competing in this space:

Integrated CPU/Graphics/Chipset solution (Timna) is a very poor solution for the graphics component

Enabling high-value digital content won't be possible without solving content protection issues (See Security section below)

Intel's primary feedback to us has been:

We don't have a "low-cost" OS solution

Fear of cannibalizing PC sales

Investigating ways to improve 3D perforamnce into their low-end CPUs

## Intel decision to deploy Linux for EDA (chip design)

Intel plans to deploy Linux to run their internal EDA (chip design) applications, due largely to NT stability issues. Andy, Craig, and Albert have all committed to maintain their long-term strategy on NT, and work closely with us on messaging for Workstation Leadership Forum.

Intel has been trying to move it's internal chip design applications from AIX to NT for ~3 years. There are two key apps; desktop (interactive design tools) and server (C-Sym, a batch processing app). The server application has been ported, but Intel cannot get close to the 99% availability target required for production use - they claim ~96%. They have frequent system hangs and 'blue screens'. We offered support thru local MCS, but Intel (Albert Yu) rejected our bid. They wanted more MS skin in the game. Albert and Louis Burns (VP IS) share the decision. Because of project deadlines, and their desire to design on Intel-based systems, Intel did a quick port of C-Sym to Linux. The Linux version is 'more robust than the AIX version'. Stephanie Boesh has put together a SWAT team and she has been working to pull multiple groups together within Microsoft to improve this relationship and get the project back on track. Last week, we re-secrued Albert Yu's committment to make this work.

## Networking

In general, networking has become something Intel is quite serious about. Apparently they've made over 15 investments in this space last year, and are approaching $1.5 billion in sales here. The primary concerns that Intel is expressing in the networking space are:

Networking business is strategically important to Intel

Intel has a perception that Microsoft is favoring one IHV (3Com)

Desire to grow NCG-MS strategic relationship

Jim Allchin heard a part of this message, quite by surprise, during a security update conference call several weeks ago. Since then, Jawad and his team have engaged Intel heavily, and we've had several meetings. We are investigating ways to work together. Intel has particularly been interested in Microsoft's participation in Open Networking, and we are investigating that now.

## Security

While we have both invested a ton of energy here, and have made some very real progress. We have finally reached agreement on an NDA that allows Microsoft and Intel to work together in the security space. There have been numerous technical meeting and we are beginning to bottom out on a digital content security architecture that could be assisted in hardware for very advanced levels of security.

**Most Recent Org Chart for Key MS Executive Contacts at Intel**

These people are all members of Intel's executive staff. (ESM)

Executive Office = Andy Grove, Craig Barrett, Gordon Moore

Intel Architecture Business Group = Paul Otellini

Pat Gelsinger - Desktop Products Group

John Miner - Enterprise Server Group

Bob Jecman - Mobile and Handheld Products Group

Home Products Group - Claude Leglise

Reseller Products Group – Jim Yasso

Platform Launch Operation - Jana Greer (Acting)

New Business Group - Gerry Parker

Craig Kinnie - Intel Architecture Labs

Ron Whittier - Content Group

Mike Aymar - Internet Services

Computer Enhancement Group - Ron Smith

Microprocessor Products Group - Albert Yu

Network Communications Group - Mark Christensen

Sales and Marketing - Jami Dover (Marketing) Sean Maloney (Sales)

Strategic Marketing - Dennis Carter

Information Technology - Louis Burns

Corporate Business Development - Steve Nachtsheim/Les Vadasz

Legal - Tom Dunlap

**Last Minute addition from Graham Clark:**

-----Original Message-----
**From:** Shannon Perdue
**Sent:** Tuesday, June 29, 1999 12:04 PM
**To:** Bob Herbold; Marshall Brumer (Exchange); Mike Porter (Exchange)
**Subject:** RE: Intel

Yes although Marshall is OOF on sabbatical. Mike - can you please provide high-level tech overview? Jami is the Intel marketing VP.

I'll send an overview later this afternoon.

-----Original Message-----
**From:** Bob Herbold
**Sent:** Tuesday, June 29, 1999 11:42 AM
**To:** Shannon Perdue; Marshall Brumer (Exchange)
**Subject:** Intel

I assume that you two are still the Intel brain trust. If not, let me know. I am going to have a call with Jami Dover from Intel tomorrow, and would be interested in what is going well, and what isn't. I don't need anything fancy; just a sketch of what you see going on.