From: Peter Kukol
Sent: Sunday, October 12, 1997 7:01 PM
To: Patrick Dussud; Michael Toutonghi
Subject: FW: Intel meeting October 22 - technical content

GOVERNMENT EXHIBIT 561

Please don't forward, please just let me know if you have any comments ...

-----Orginal Message-----
From: Bill Gates
Sent: Sunday, October 12, 1997 6:04 PM
To: Jim Allchin (Exchange); Marshall Brumer
Cc: Joachim Kempin; Nathan Myhrvold; Rick Rashid; Eric Rudder; David Vaskevitch; Peter Kukol; Cameron Myhrvold; Bill Gates; Mike Porter; Butler Lampson
Subject: Intel meeting October 22 - technical content

I have a critical meeting with Intel a week from Wednesday. I want to convince them that they need to stay away from Oracle NCs and work more closely with Microsoft.

I will have to spend some time reviewing the low end and how they screwed us there and describing our strategy. I will have to spend some time explaining how we think customers view NCs and what we see happening with JAVA. I will send separate mail to the groups who focus on low end, java and NCs to get their input.

My three big propositions to them are that: low end stuff should be a clear subset and feed the PC architecture, SUN byte codes are bad for them and working closely with Microsoft represents the only path under which hundreds of millions of customers will want their very very high performance chips.

I will cover the low end continuity point in mail to the group specialized on that issue.

SUN byte codes are bad for them:

The idea here is that SUN byte codes level the playing field for someone wanting to build a microprocessor. Instead of having to test for hardcore compatibility with x86 which is very hard you just have to write a byte code interpreter. Also the advanced features of the chip will not be exploited. For Merced the situation is even worse - the Merced instruction set will not be cloned so Intel wants binaries using Merced to be quite common. I also believe JITed byte codes will not take advantage of the Merced instruction set.

I claim that their credibility lent to Oracle/SUN will push the world over to byte codes.

The only concrete action item in here is for Jim/David to pick a few people who are very technical to help me on this point. I don't want to say that Microsoft will never do a software architecture but I do want to point out that the SUN approach does not allow Intel innovation to look good.

I want them to understand that helping NCs and JAVA will push us to do Windows and other software in SUN byte codes even if we don't rewrite them in JAVA. I want them to understand this is more likely that everyone rewriting their software or middleware duplicate operating systems being great and free or no on exploiting Windows.

Evangelizing together we can move the market to take advantage of their very fast processors

I don't think it helps Intel to explicitly fragment development activity. In fact I think NT on Merced in the near term is their best hope of getting Merced volume. Looking out beyond that I think our work on natural interface (I mean by this our research work on putting speech/handwriting/linguistics/learning together in a bayesian framework) is the only concrete thing that can happen fast enough with enough volume to make 200mips chips look bad then make 500mips chips look bad, then make 1200mips chips look bad...etc..etc.. This is what Intel needs from the software market.

One thing that is tricky is to explain how their efforts with Oracle/JAVA and SUN make the bad scenarios for them more likely - the world moves to byte codes as a mainstream choice, the world fragments so using cycles goes slower, they don't work with us to make the natural interface stuff happen fast...