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From: Paul Maritz
To: Brad Silverberg; Brad Chase
Cc: Moshe Dunie; Yaron Shamir
Subject: key/encryption technology
Date: Tuesday, September 21, 1993 8:48AM

Spoke with Brads/Bradc about maybe having the Israeli guy who is unhappy work with Bens on this, and related topics:

<<File Attachment: OPENNESS.DOC>>

Intellectual Property and Openness:

This memo is discussion of walking the fine line between protecting our intellectual property and dealing with how our customers perceived need for "open solutions".

Customers and Openness:

Our customers are currently schizophrenic about openness. On the one hand they are want to feel that they are investing in "open" solutions (here defined as solutions that do not lock them into a single vendor for any one component), and yet on the other hand in order to become more efficient and do less integration internally, they are all looking to reduce the number of vendors they have, and "build long-term partnerships" with those vendors that remain.

In a certain sense I get the impression that customers are looking to us to provide them with some justification as to why they can feel comfortable treating MS as one of the core, long-term vendors - they want us to provide some formula that provides an "insurance policy" wrt to becoming deeply dependent on MS products, and on Windows specifically. I think if we can define this insurance policy it will have an effect of accelerating the trend of view Windows as "strategic" and MS as a "responsible partner". I try to give some options for this below.

Intellectual Property:

With decoupling of layers in computer industry, manufacturing has become a commodity. In a certain sense all businesses now have to become based Intellectual Property assets - we can see the evidence of this all around us (the law suits we face, the threat from clones). This need to compile IP assets works directly against the "openness above".

Leaders/Followers Dynamic:

It also is a fact that it pays the "wanna-bees" in the industry to be much more open than it pays the leaders to be open. It forces leaders to look like "bad guys" as they protect their assets from the "wanna-bees", while the "wanna-bees" who have not yet established the worth of the assets can proclaim "openness" (vide COSE), while they also clone the assets of the leaders. The canonical example of this is Sun - when they were the leader of the UNIX pack, they resolutely fought Motif - now they are "enthusiastically" into COSE and WABI.

Emerging Area's Dynamic:

In new area's, "openness" can be also be an important marketing angle. Best example of this is "objects". Few customers know what they are, or who they will be used in their environment - but IBM is perceived as having gotten a leg up with DSOM because it is "open" (OMG compliant). We do not have a clear marketing answer to this - because our strategy ("extend OLE") is based on something that is not widely understood yet and is not considered an integral part of something that is widespread ("Windows"). This latter positioning of OLE as separate from Windows has been deliberate into to

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allow us the possibility of position OLE as cross platform, in order to counter things like DSOM and OpenDoc - so we are somewhat victims of our own strategy.

Commitments we have made (that may restrict our options in the future):

We have a patent exchange agreement with IBM, and we have signed a side-letter with IBM that says for all time we consider the API's in our "operating systems" (past and future) to be not protectable under copyright law. This is what IBM refers to when they say that they have the right to close "Windows" forever - more strictly speaking they have the right to implement our API's in IBM products forever - they do not have rights to other aspects of products (visuals?, exe formats?) that are protected by copyright law. Anything that is protected by patents they obviously have. This could allow them to become a sanitizing service for others in the industry - much as TI has served for Cyrix. This could be a huge issue for us, and may force us to start behaving as Intel as now doing - i.e. we will have to start using combination ("OS/app") patents - and not go after OS vendor (if they sanitize through IBM), but after the OEM or the ISV - just as Intel is doing.

We have committed to ISVs that programs written to current Win16/Win32 API and exe/PE format will run unchanged on all Windows platforms (Win32s, Win32c, Win32, Cairo). Figuring out who to deal with programs that are being delivered now will be an issue if we decide to change or provide alternate 32bit formats.

Options:

1. Status Quo:

All IP requires explicit license from MS, and royalty payments to MS. Deal with "openness" issue by treating it as a cross-platform issue and providing cross platform implementations of all key standards/interfaces - either proving them ourselves, or licensing third parties to do so (e.g. Insignia for Win API's on UNIX, or DEC for OLE on UNIX). Exception to this is our licensing of the SMB protocol to X/OPEN and OSF.

Given the way in which we are being cloned and sued, we can further "close" our environments if only to provide counter ammunition. Billg's mail on "patented exe formats" is good example of this.

The issue with this approach is that commitment to provide cross platform implementations and have a "reasonable" licensing approach is still very much of a "trust me" insurance policy for customers. It also gets "poor press".

2. Open Kimono

We announce that for any company that will do a royalty free patent exchange for an area (e.g. Windows) with us, we will make all our key spec's for that area (API's and protocols) "open" - i.e. any such company can use the specs in their products.

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This is the ultimate bet that we can keep clones on a treadmill and that having "poor clones" is in fact a distinct market advantage that we should boast about as proof of openness, and we should market this to our corporate customers as the "insurance policy" that they need. I think if we also explicitly extended our "Open Design Process" to corporate customers, this could be very effective.

Depending on ones views of the capabilities of likes of Sun on WABI - this could take any "moral imperative" they have away from them, and focus the spotlight purely on the quality/timeliness of their implementation.

I would not do this carte-blanche, but would make our declarations of "open area's" somewhat retroactive - e.g. I would declare "Win16 & Win32 & OLE2" open, but would hold off on Cairo/OLE until it was in broad use. This would help emphasize the treadmill effective, and provide an "out" if the clones start catching up.

I think we should realize that in some sense we are going to get cloned no matter what - at least on the Win16/Win32 generation - our current meager patent portfolio in those area's / IBM sanitizing effect probably ensures it. So it may be realistic to try to turn it to our advantage.

3. Restricted Openness:

I have been trying to think through some other variations. One possibility is that recognizing the reality that we are going to get cloned on Win16 (and maybe Win32) and there is probably little we can do about it, and the fact that for marketing reasons we may want to declare that we will continue to make extensions to SMB protocol to support Cairo "open" - how can we defined a level of openness that gives corporate customers a non-"trust-me" insurance policy, but still but substantial barriers in the way of a would-be-cloner.

An approach here would be to declare that for designated area's we will countenance "source level" and "wire-level" compatibility but not binary compatibility - i.e. an app developer will have to do some explicit to have his app run on an MS implementation and that MS specific version will prevent it from running on a non-MS version. This would true for an app that accesses local resources as well as an app that accesses remote resources.

This would allow us to make a "POSIX" style declaration to corporate customers (if you want to throw MS out - you just have to find another implementation and recompile/get new versions of you apps) - while forcing ISV's to do something explicit to support clones (e.g. put a WABI specific version on their disks).

4. Options for forcing MS specific versions of Apps

(i) Patented API's;

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Issue here is the IBM sanitization issue. It would mean that we would both have to have new API's and would probably have to go after the ISV rather than the clone vendor. We would take lot of PR flack.

(ii) Patented Exe's:

Same issue as above, and with issue that we would have to force movement off existing PE format by only exposing new API's through the new format.

Options for protectable assets in any new exe format

- simply patent the format (one wonders how strong this would be),
- use compression (downside is lot of prior thinking has gone into compression so again one wonders how protectable it is),
- use some new feature in exe's - could be an ANDF feature (whether it really gets used or not), could be some new fix-up scheme, etc.

(iii) Licensing:

We could maybe obviate the issue of patents, sanitization, etc. if every OS had a license server built-in that provided for some level license enforcement. This would mean that when an app was enabled it would require Microsoft to be explicitly a party to the transaction in some way in terms of providing an enabling ticket, and we could refuse to provide it for OS's that were not MS implementations. That ticket could also be used to descramble the exe format making it in effect MS (ticket) specific - even if the clone guys implement the same mechanism.

One could sell this as an anti-piracy approach which should help sell ISVs on the idea. Another more radical approach is to work towards the "cable industry" approach - we literally give away our OS software, and act as the distributor of application software (either on CD or on-line), taking a cut of application sales.

Actions:

1. I am going to work with Jimall/Brads about getting someone bright (Bens?) assigned to think through technical options above. Nathar - have you got anyone explicitly working on this.
2. I would be interested in people's opinion of this whole "openness" issue from the customer point of view. One can take a point of view that it is all "BS" and hypocrisy, but I actually think that customers (large ones) would favour a clear policy statement from us on this issue that gave them a degree of insurance.

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