Ben Slivka

Sent:

Thursday, December 11, 1997 2:26 PM

To: Subject: Holly Marklyn mmr mails for you

FW: Middle

MMR Topic: Product: FW: MMR: Wed FW: mmr 12/3/97 FW: Renvigorating mmr: draft agenda anagement Retreat: Group Organ... 2-5pm, 12S/1094 ... meeting notes

the company...

for 12/16, s...

mmr: 12/8/97 paulma notes

Fw: next cut at ms mission sta...

Holly, when you've read these, let me know when you want to get together and chat.

You should also get a copy of the Barry Oshry books about top/middle/bottom spaces - I've got extras if you want to drop by, 30/1216.

Key thing is not to be "bottoms" and bitch about how much better the company would be if "tops" did X, Y, and Z instead, we - as middles - need to exert leadership and start making the changes we want ourselves.

Looking forward to meeting with you! --bens

Plaintiff's Exhibit

6262

Comes V. Microsoft

1

Ben Slivka

Sent:

Sunday, December 07, 1997 8:32 PM

To:

Bob Kruger (Exchange)

Subject:

FW; Middle Management Retreat: a short summary for you

----Original Message-----

From: Ben Slivka

Sent: Wednesday, November 26, 1997 1:18 PM

To: Paul Maritz: Jim Allchin (Exchange); Brad Silverberg; Craig Mundie; Bill Gates

Cc: Jon DeVaan; Bob Muglia (Exchange); David Cole; John Ludwig; Brad Chase; Moshe Dunie; Rich Tong; Harel

Kodesh; Natalie Yount

Subject:

Middle Management Retreat: a short summary for you

45 middles (see to: list below) spent M & T learning about organizational dynamics, and then applying that knowledge to the key (organizational) problems we see at Microsoft.

It was clear to me and I think most of the middles that we <u>middles</u> need to change how we operate. We need to take on responsibility for identifying cross-group problems and working together to resolve those problems. Instead of constantly looking to "tops" (you guys) to fix problems and escalating to you to resolve cross group conflicts. We need to take problems off your plate so you have more time to focus on goals and strategy and leadership

Also, we conducted a small "retention" survey, and the results were very encouraging – contrary to popular belief, almost no one was planning to leave MS in the next year. 2-4 years was the most common response, but even there the comments from most people (I'll send in separate mail) were very optimistic about MS and very uniform about what keeps them here.

This "middle integration" is going to be an ongoing effort — us middles have to get into the habit of working with each other in productive fashions on a much more regular basis. After the 12/1 presentation by bill/paul to the level 14+ folks, individual teams are going to incorporate that info into their problems and try to come back with very, very concrete actions. The middles will reconvene Wed, 12/3 to review. We'll be sure to copy you on the results, but our goal here is to find action items for ourselves. It is <u>not</u> our goal to dump more issues/problems/actions in your laps (you have enough already).

Please let me know if you want more details/info/etc. Thanks, bens



MMR Microsoft Problems.doc (89...

---Original Message----

From: Ben Slivka

Sent: Wednesday, November 26, 1997 11:00 AM

To: Andrew Kwatinetz; Anthony Bay (Exchange); Ben Slivka; Ben Waldman; Bill Baker; Bill Veghte; Blake Irving; Brian Arbogast; Brian MacDonald; Chris Williams (WPG); Chris Jones; Craig Fiebig; Dave Reed; David Cole; David Thompson (NT); David Vaskevitch; Dennis Tevlin; Don Bradford; Doug Bayer (Exchange); Duane Campbell; Ed Fries; Eric Engstrom; Eric Rudder; Frank Artale; Grant George; J Allard; Jawad Khaki; John Zagula; Jon DeVaan; Jon Thomason; Julie Larson; Kathleen Hebert (Schoenfelder); Kathryn Hinsch; Megan Bliss, Moshe Lichtman; Paul Gross; Ralf Harteneck; Richard McAniff; Rick Waddell; Steven Sinofsky; Ted Kummert: Tom Button; Will Poole; Yusuf Mehdi; Yuval Neeman

Cc: Andrea Tevlin; Kevin Purcell; Kathy Falzetta; Steve Guggenmos; Janene Poziombke (American Express Travel);

Natalie Yount

Subject: MMR: Next steps

Importance: High

Thank you all for taking the time out of your busy schedules to spend time on the Middle Management Retreat!

I especially want to thank abay and jonde for joining me in sponsoring this event, and andreaum, kevinpur and kathyfa from EMD for doing such a wonderful job organizing and planning and advising us. sgugg and v-jpozio did a super job coordinating all the RSVPs and the Salish room reservations. And, last but not least, Barry and Karen Oshry (the Power & Systems folks) for developing their model of organizations and flying out to help us learn.

The results of the survey were very good news. At least with this group of individuals, we do have time to do the hard work to improve the organizational dynamics within Microsoft, and provide each of us with a more satisfying work environment. See separate mail from me with the detailed comments from the survey, and jonde will be sending out the XL spreadsheet with the rest of the results.

I was very impressed by the enthusiasm and professionalism everyone applied to the simulation, the learning afterwards, and the work on the Microsoft problems we identified. We've got a lot more work to do on these problems (see below), but I think we made some strong progress in the barely 4 hours we spent on them. I'm sorry we weren't as organized about "next steps" at the end of the day on Tuesday (we all got an opportunity to make mistakes and learn something at the MMR, especialy me!), but I think we managed to veer onto the right path before we finished.

The fundamental lesson from this top/middle/bottom stuff is that middles have to work together, reinforce and support each other -- "integrate" -- in order to solve organizational problems. A quarterly meeting isn't going to cut it — we each need to commit to spending quality time on a regular basis to with other middles to attack and solve the key problems Microsoft faces. This really is an adjustment for all of us -- we won't be successful if we stay in our little bunkers/comfort zones and just focus 100% on our own products/projects. It's also very clear that we cannot put the burden on the tops to drive this stuff – they're already maxed out ("sucking it up") as it is. Our individual initiative in attacking this global, cross-group problems is the best medicine – by empowering ourselves, we will be empowered!

Toward this end, craigfi, frankar, and I are going to draft a "middle pledge" that will, I think, include a summary of the middle effective leadership actions (stay out of the middle, facilitate top/bottom communication, etc.), and also sample language for review goals re: middle integration. I'm with chrisjo — I'm going to middle integration goals to my review!

Here is <u>my</u> attempt at recording the problems and top 2 action items/recommendations – each of the owners owes me a more detailed piece of mail today. And, of course, you'll all be working on these problem areas over the next few weeks to come up with very concrete action items!

Problem: Strategy vs. "Category"

Owner: yuvain

- Bill/Paul communicate clear, customer-focused goals not specific technology unification
- Increase middle-middle communication

Problem: New Ventures: Innovation vs. Grand Unification

Owner: Bill

- Don't encourage architecture & unification at expense of product shipment & customer focus
- Drive unification decisions down into the organization

Problem: Middles working together better

Owner: RichardM, GrantG

- Middles should meet on a regular basis, supported by tops and review goals (focus on timely problem solving, sharing best practices, networking)
- Yearly plan: tops set strategic direction, middles work on implementation, tops force "middle-to-middle" conflict resolution

Problem: New Microsoft Mission Statement

Owner: andrewk

- New mission statement: e.g., "Access to the new world of thinking and communicating"
- Relate each groups goals to mission, reorganize as appropriate

Problem: How to (re)organize the product group

Owner: johnza

- Public/permanent org principles: driven by busines objectives and clear customer objectives
- Broader, clearer enlistment process

Problem: Where are decisions made?

Owner: jallard

- · Clear charters, roles, responsibilities meet to review yearly
- Follow through and communicate on decisions

Problem: Microsoft's Negative Image

Owner: kathrynh

- Strategic Charity position MS as the company that is going to keep the US competitive, improve education, reduce trade deficit, increase jobs
- Program for partner success win/win approach/culture, PR on partner success, beef up DRG/ADCU, partnership audit – what do they want from us

<<< end >>>

Middle Management Retreat - Microsoft Problems November 18, 1997

ABay, BenS, JohnLu, JonDe, SteveSi

Here are some <u>ideas</u> for problems/issues to discuss on day 2. Everyone will have a chance to add to/modify the list at the end of day 1. We'll stack rank the list so that we can attack the most important problems on day 2.

What is your team's core competency?

What do you do better than other groups at the company? In other words, if you could allocate all of your resources on one thing, what would that be? Since you don't allocate your resources that way, why not? What is missing from the company and other groups that cause you to round out your investments the way you do? So much of our time and energies go toward defining around the work others are doing, or to trying to "use" other people's code. Is that necessary? Couldn't we all be more efficient if we had a clearer competency map for the product teams?

Over promise and under-deliver

Groups seems to have a need to be the center of the future, to promise far more than they can deliver. This needs to be balanced with our need to know where we are going and what our long term goal is, but we make a large number of false trade-offs based on promises that even the most optimistic person would doubt. We need more under-promising and over-delivering.

Strategy v. "Category"

There is a lot of stress over innovating for the sake of improving our corporate strategy v. innovating for the "category" we find each of our products (noting that category is an ephemeral concept). Why does this tension seem to breed an either/or tradeoff? Is that necessary? I don't think it needs to be, but we don't have a system in place that appropriately makes these tradeoffs. I think in the past billg has been let down by so many local optimizations that he has every right to assume we're never doing anything optimized globally. On the other hand, have we gone too far on strategy? Did we make the average new hire's job too complex -- imagine you are starting in Office working on some new feature (perhaps Year 2000 support). The number of groups, people, products, etc. you need to deal with is overwhelming.

Customer perspective and focus

Lots of people talk about customers, but when was the last time any of us actually went and listened and watched someone using our product without talking to them? When was the last time we used a competitive product instead of our own? When was the last time we spoke to real customers and not IT directors or people in the EBC or at trade shows? I think this is important even if you're in the server side of things. What do you know about how your product is used in real life? So many decisions are based on "feeling" or "intuition" or feedback from sales and marketing, and not actual users. Do we have a realistic view of how our products are perceived—so many decisions are false optimizations because we do not share the same customer (for example, not being consistent in Word and Excel, because we were optimizing for WordPerfect v. Lotus when our customers were buying "Office").

Where are decisions made?

It seems like we spend a lot of time dealing with escalated decisions, either escalated to us or that we are escalating? Why is this? You can imagine that every time this happens someone feels disempowered. It is a symptom of something that

we do this, but what? Why do we not feel like the buck stops with us? Escalation should be viewed as a failure. People should feel that they have failed when they have to pull in paulma or billg to solve something. Instead, people feel like heroes when they escalate, get the backing of upper mgmt, and get to tell the other team to back down. Long term this is incredibly damaging -- it builds ill will within the company targeted at other teams, and it doesn't develop decision-making and conflict resolution skills within the organization.

Trust

Do we as middles really trust each other? Why not? We are all naturally cynics (or perhaps Cynics) but do we go too far? How come we are unable to rely on other teams and people for things? We've had a large number of successes in this area--NT4 shipping the shell, Office making Windows applications, NTS shipping FrontPage, etc. Is it that these have not been personal wins?

Reality

We seem to be unable to have realistic dialogs about the values of technologies. This is really two problems. First, often the owner of the technology is talking about the long-term goals and what will be whereas the consumer/critic is looking at what really is (the trust issue). Second, we have large numbers of people that do technology without a real customer focus (see above). We are a technology company, but our view needs to have matured to use technology to solve specific scenarios and problems, not technology because it is "cool" or is "seems" like it would "solve" problems.

How can we work (middles) together better?

In general we have a hard time getting groups to commit to work together. Even when a commitment is made, it is even harder for the end result to be achieved. What would we have to do to make it easy for groups to work together? What things have been successful? What things have caused problems? What guidelines should we use to detect a "good" commitment vs. a "bad" one? For example, VBA commitment with Office was "good" because it had resources dedicated to the deliverable, clear statement of priorities communicated to the groups, and a reasonable amount of trust in the groups' ability to deliver to each other that included shared schedule milestones. (There are plenty of skeletons too, to be sure.) It is hard to imagine a world where the need for cross group dependencies goes away, so it is important to figure out how to make this work.

New ventures: Innovation vs. Grand Unification

We have an extraordinarily difficult time going into new areas of work. We joke that we would never have been able to build FrontPage at Microsoft (witness *Blackbird*) because it would have been crushed under the weight of strategy (not everyone has the tenacity bens did with IE, along with the backing of bradsi). Why is this? If we are to succeed long term we need to recognize that not every product is strategic at inception, and some even become strategic with some pain along the way. There seems to be a very large conflict between "innovation" and "grand unification theory". Many people find that they are asked to innovate within the confines of the strategy-of-the-day, and that these confines preclude true innovation. It seems like when you want to start a new effort that ignores or disagrees with the "strategic direction", groups doing the "strategic" work try to kill your project. At the same time, it is true that we need to improve our existing product line, and so we need to ensure that innovation occurs on our existing code bases.

Partnering

We do not make it a priority for the company. It is not part of anyone's goals typically. We are learning now as a company that, if the industry does not feel that they can participate in your success, then they will go to any extreme to prevent your success. Some of our most important teams show disdain for partners. For instance office -- only 14 products are listed as being office compatible, and some of them are Microsoft products. Do we not care about partnerships with office?

The Microsoft mission statement

"A pc on every desk and in every home" is no longer stirring or that relevant. We have largely met this goal or have gotten as close as we can practically get. We need a new mission. It needs to be an industry mission -- for us to grow, we need to grow the entire industry -- there is no room for us to gain share. We need to articulate to the world how we are going to grow the industry. Sun has been great at this with the WORA message -- it is not a "buy sun products" message, it is an industry message. We need something that addresses how we will grow the whole industry over the next 10 years

Senior management should focus on setting policies and goals

We need senior mgmt to lead us by providing us with this mission, and by setting corporate policy on business issues. Senior mgmt should not be making detailed decisions on storage infrastructure. We have people who are more capable of doing that and can do that given the right goals.

How should BillG/PaulMa "manage" the product group?

We likely agree we are unhappy with "the deal" as it exists for us today. What should the deal be? Focus on decision-making authority at different levels of the organization. What business processes should be owned at different levels? How do product decisions and product interoperability get decided? What are legitimate levers of control for Bill and Paul to exert? How do you wish your relationship with Bill & Paul worked? It would be interesting to think about this from different levels in the organization (i.e. bradsi/jimall will think about it differently than ionde/davidcol/johnlu/moshed/bobmu than stevesi/frankar/etc...)

Is the product group organized optimally today?

Ignoring the needs/skills of individuals within paulma's group, what criteria and priorities would you use to organize the product group? What are the key business objectives, what are the customer requirements? Some clear input to paulma, jimall, etc on how we would like to see the organization structured. Not in the sense of who manages which bits or products, but in the sense of a clear "command and decision hierarchy" so that what key functions actually we are empowered to drive/own is clear. Most of us feel generally unempowered today. Consider the analogy of the navy, which has structure that everyone can understand and manage within. We don't want something so rigid, but if I own product "x" or project "y", then my span of control should be clear to me, and clear to the other people I work with. And should not be randomly usurped. This needs to fit into the discussion above about middle relationships as well as upwards and downwards. Now is the time to set up a structure where paul, jim, and brad focus on a higher order set of issues and stay out of the day to day details while empowering us to run those. So we should describe what we mean by that to whatever degree we can agree and also what direction and leadership we want from them

<<< the end >>>

John Zagula

Sent:

Friday, November 28, 1997 10:23 PM

To:

Ben Slivka

Cc:

Ben Waldman; Moshe Lichtman; Craig Fiebig; John Zagula; Jon DeVaan; Anthony Bay

(Exchange); Erin Finnegan

Subject:

MMR Topic: Product Group Organization - Draft Summmary

Here's my attempt at summarizing our discussion and conclusions. Please jump in and comment on anything missing or inaccurate.

Topic: How is the way the product group is current organized helping or hindering our ability succeed? How could we organize more effectively?

Basic Recommendations for Paulma:

1. Take the time to enlist input on the reorg from a broader set of people.

- It's more important to engage the people who be effected up front as it is to quickly attempt to solve their problems.
- A more open process for determining the overall structure will make detailed implementation more effective and quicker.

2. Determine and make public the goals and principles driving the organization decision

- Base these at least in part on the input received from the process above
- It is assumed that the final organization proposed could be easily mapped against these principles

Initial Observations and Discussion Summary:

Problems with current organization

Overall, the problems all seem to stem from *complexity* (of the structure, of the product lines, of dependencies, of communications) and *fragmentation* (of priorities, of authority, of ownership). This results in the following:

- Customer confusion they have to work through our complexity; they are looking for a unified solution or strategy, we don't have one for them, every division has a different answer. Example - try finding all the info you need about any topic on microsoft.com
- Business decisions/strategy are fragmented for every major problem or issue there is more than one clear owner, escalation tends to be forced to higher and higher levels where the answers remain at the vision level rather than the strategy level; many of these cross-divisional problems go on being un-addressed because no single owner arises.
 Example - who owns our Notes strategy?
- There is no place where our technology and business strategy converge below the top. Example how has Digital Nervous System get translated into actions/messages/product strategy that hits the customer?
- This complexity goes beyond strategy to simply getting things done. There are too many dependencies to manage.
 Example no one owns all of the four Ps for any marketing effort (pricing is owned by the customer units or Steve, product is owned by the product group, promotion by marketing, and place/distribution overlaps between marketing and customer units).
- Given this complexity we general revert to a tactical focus. Example Home Essentials, a tactical bundling solution to the strategic goal of moving into the home market.
- Priorities/trade-offs are not clear or not happening between groups. It is very hard to kill low priority efforts.
 Example, team manager (????)
- Motivating people is more subtle than it used to be. Example It is no longer as simple as rallying everyone behind "beat the competition"

Advantages of current organization

For all of these problems, we are clearly still doing something right.

- Large, clear competitive threats still generate quick, unified focus. Example Netscape/IE
- Discipline in product shipping, marketing execution etc.
- Through-out, we still do an amazing number of things.
- Good people there is still a high level of faith in the company as a whole, and a general willingness to stick it out

while we sort some of these problems out.

We continue to ship award winning products.

Scope

The issues above affect all aspects of WPG and beyond:

- Product strategy
- Marketing
- Sales/field

Potential Principles for Organizational Change

- Flatter fewer layers of decision making
- More clearly prioritized fewer groups driving solving the biggest problems (freight trains, big missions, core product lines, core customer focus)
- Simpler in relationship to the customer, the competitor set, the product interdependencies, economies of scale
- More fully empowered all aspects of business and strategy ownership and authority delegated to clear mission owners, fewer dependencies
- Clarity everyone knows what the priorities are and what their role is in addressing them. Changes in priority are communicated.
- Integration resources if integration is a priority, then dedicated resources to drive management of the interdependencies

Next Steps for Group:

- Work on refining the principles
- Invite other participants to the discussion (possibly people from the customer units)
- . Meet on Tuesday my admin will set up meeting with all on the co line
- · Present to the rest of the group on Wednesday
- · Adapt principles based on group input.
- Suggest organizational alternatives.

John Zagula

Desktop Applications Marketing johnza@microsoft.com http://dadweb/officecom/ http://www.microsoft.com/office/

Ben Slivka

Sent:

Sunday, December 07, 1997 8:31 PM

To:

Bob Kruger (Exchange)

Subject:

FW: MMR: Wed 2-5pm, 12S/1094 (Whidbey), my notes on billig talk today

----Original Message-----

From: Ben Slivka

Contr. Manday Do

Sent: Monday, December 01, 1997 10:36 PM

Andrew Kwatinetz; Anthony Bay (Exchange); Ben Slivka; Ben Waldman; Bill Baker, Bill Veghte; Blake Irving; Brian Arbogast; Brian MacDonald; Chris Williams (WPG); Chris Jones; Craig Fiebig; Dave Reed; David Cole; David Thompson (NT); David Vaskevitch; Dennis Tevlin; Don Bradford; Doug Bayer (Exchange); Duane Campbell; Ed Fries; Eric Engstrom; Eric Rudder; Frank Artale; Grant George; J Allard; Jawad Khaki; John Zagula; Jon DeVaan; Jon Thomason; Julie Larson; Kathleen Hebert (Schoenfelder); Kathryn Hinsch; Megan Bliss; Moshe Lichtman; Paul Gross; Ralf Harteneck; Richard McAniff; Rick Waddell; Steven Sinofsky; Ted Kummert; Tom Button; Will Poole; Yusuf Mehdi; Yuvaf Neeman; Andrea Tevlin; Kevin Purcell; Kathy

Falzetta

Cc:

To:

Brad Chase; Deborah Black; Lou Perazzoli; Ed Stubbs; Brian Valentine (Exchange); Rich Tong; Jonathan

Roberts; Russell Stockdale; Tod Nielsen; Dawn Trudeau; John Ludwig

Subject:

MMR: Wed 2-5pm, 12S/1094 (Whidbey), my notes on billg talk today

Given the billg talk today, I'd like to propose that instead of revisiting the topics from the retreat, we do the following:

We spend the first half hour in small groups (3-5 people) identifying top 3-5 problems for MS (we'll start with the billg list of key scenarios and technologies from today), then merge them up to form a single, prioritized list. Then, we'll break up into groups to work on these top problem areas.

thanks, bens

Here are my notes:

BillG 12/1/1997 Presentation to Level 14+ MS People

Talk about strategy mostly today, some on public perception.

"A glimpse, to inspire your confidence in senior management, about how we develop strategy" [bill rolls video of BillG and SteveB in a VW Golf – take-off on the VW commercial – with the "da, da, da" sound track. Bill plays with a little doll, Steve and Bill make strange hand motions, they find a Sun machine in a garbage pile at curb side, load it into their car, later it smells, they dump it.]

Going to talk about "MS Version 3.0" – version 3.0s typically have very few bugs, are very successful.

Best of Times

- Great people
- Product strength (Win9x, NT, Office, BackOffice) integration is our key strength
- · Innovative work in new areas: MSNBC is leading web new source, Expedia, Barney
- · Great research
- Most admired company
- Hardware innovation prices going down, screen resolution and hard disk capacity increasing
- Vision of Digital Nervous System [for companies], web Lifestyle [for individuals]

When we start a new business, important to be open minded, may take years to become profitable.

At the CEO conference, attendees wanted to hear more from us on how prescriptively companies should adopt technology. We tried to avoid being salesy at the first conference, we'll do more next year.

DavidV "Silent Boom" slide

Shows rate of adoption by US households of various technologies over time (telephone, electricity, TV, radio, microwave, etc.). PC and Internet adoption is well ahead of the curve vs. all other technologies.

Digital Nervous System

- Disseminate information from structured and unstructured sources
- Automate informal and formal business processes easily at low cost
- Requirements
 - Integration
 - Internet-scale directory and security
 - Linguistics
 - · Great collaboration
 - · A new generation of Office
 - A clear platform for developers very confusing now, ADCU should help

Notes vs. Exchange

We succeed in top-down selling situations, but then find departments have Notes apps deployed that are very hard to displace. Historically we were the bottom-up sellers – the tables are turned now with Notes and Exchange

Web Lifestyle

- A widely accepted Internet identity so you can visit sites, shop, etc. without constantly reentering information about yourself
- Communicate using rich content with
 - Individuals or groups
 - Real-time or asynch
- Requirements
 - MegaServer need to create a service for mail, schedule, files, etc.; need to define and lead development of key protocols (or AOL, others will do it instead)
 - Simplicity

Competitors

Lotus Notes

- Exchange doing well in US, Europe
- Notes growing strongly, hard to displace once companies adopt Notes
- We lack solution today for cases where notes is strong MS is torn between SQL and Exchange, Notes solves some
 problems better than either SQL or Exchange.

Oracie

- Oracle 8 was very well executed on time, great features
- 70% database share in corporations
- Taking on communication/collaboration

Netscape

- High browser share
- Most credible for client-side middle ware
- Not being successful in e-mail

Sun with IBM help

- Java
- Building alternate OS promising WORA (write once, run anywhere)

AOL

- 11 million subscribers
- Building AOL "environment"
- Could become major middleware competitor

Bill Gurley, formerly analyst (now a VC), wrote about "software as a service" in FORTUNE magazine.

Newcomers

- Hotmail? 10+ million accounts, half of them actively used
- · Visto? file replication: "briefcase" on the web

Intelligent TV

 Oracle, Sony, Thompson... -- very important, will compete with PC. We're working hard to sell TCI, others on our technology

Handheld devices

PalmPilot

The Worst of Times

- Public attacks DOJ, Nader, Internet Competitors
- · Competitors aligned "funny, it's not anti-trust if they are ganging up on Microsoft"
- PC too hard to use should have put at the top of this list
- Stock price too high, many people in this room have a lot of financial freedom
- Unclear role in new markets (like set top box)
- Software as a service many service providers may provide more and more software functionality for free to sell service
- Organizational difficulties with technologies, scenarios and empowerment

It's strange that "people are worried about what we might do" - like Gary Reback

"WebTV - advertising is the hope for profitability"

Microsoft Image Study

[Bill showed several slides on ratings both by PC users and the general public. Some of the trends were encouraging, others discouraging. The negative press re: DOJ and Nader have had an impact. Went by too fast for me to transcribe it all.

Key Scenarios

- Simple use of PC
- WinTone: Totally managed PC
- Collaboration securing and replicating information
- MegaServer: sharing files, messages, schedules with roaming
- Digital Photography
- · Tablet PC in a meeting
- · Natural language: web search, phone

Key Technologies

- · Simple user model
- Unification of files, mail, web, directories
- Forms
- Natural language
- Security
- Schema for common objects: people, places, products, ...
- Error management: events, logging, help, ...

1998 Management Changes

- Increase dialog among top contributors and between groups
- Clear architectural leaders and community of architects
- · Assign key scenarios to champions

1998 Key Objectives

- Win95, NT5, Office 9x, SQL 7: TCO
- MSN focuses on MegaServer using platform technology biggest regret: didn't assign critical mass of developer talent to MSN
- Establish #1 position for IMG properties
- Clear message to developers: DNA/Win94, including COM+
- Establish WinCE on non-PC devices
- · Great start on Simplicity and Linguistics

Q&A

Q: What about Yahoo and Nintendo as competitors?

A: Yahoo we compete with in some areas, collaborate in others – Yahoo distributes some of our IMG properties today. Nintendo doesn't think of themselves as broadly [as they might], so not a big concern now.

Q; What about code security on the Internet?

A: Yup, that's important. Security is a hard problem, won't be a single owner for security.

Q: How do we concretely simplify developer message in 1998?

A: Hard in 98, not easy in 99 – we need people inside MS to work together to solve this. This is the hardest near-term problem for ADCU.

Q: How is our relationship w/Intel?

A: Intel has two low-end problems: (1) low-cost PCs (like Cyrix MediaGX) – consumers and businesses are interested in \$600-700 PCs. Good for us, bad for Intel; (2) Hydra could become emotional issue for Intel, but it still requires mips on the server, so don't think so. Intel wants to do joint projects w/us to consume MIPS – they have so much money to spend on this. "I've spent 4x more time with Intel management vs. this group in the last 2 months" convincing them about what to think about Java, NCs, etc.

Q; What are we doing to turn PR trends around?

A: Talking about partners – PC manufacturers, solution providers; Why are bankers and newspapers so afraid of us? When almost anyone is asked who their major competitor is, they say Microsoft now. Even Disney! Maybe we should go out and start competing with Micky Mouse!? It's because the Internet is changing their business model. It's not like we're going to start a bank. On the arrogance rating, not sure you can be successful in business without some of this perception. SteveB adds: MS does so many things so well, when we don't, people think there must be some reason – they decide we're arrogant; that we don't think we need to solve the problem.

Q: How should we [senior folks at MS] work together better? Are there any action items from this meeting? A: We're not going to impose solutions, we want <u>you</u> to offer your ideas. Champions for scenarios will help, and spending more time with this group of people will help

[&]quot;Cannot manage products as we have in the past" - we're too big now

- Q: When I talk to a customer, and they ask by SQL and Exchange don't use the same store, who do I turn to for an answer?
- A: That's a problem, for sure [that the source of an answer is not obvious]
- Q: What video formats for HDTV are we promoting?
- A: [Bill gives some quick discussion about various formats, and I think says we're going to start with "480p" and encourage people to move to "720p". This is how we will bootstrap HDTV.]
- Q: Simplicity problem seems very deep how do you decide between plastering over the complicated stuff we have, versus tossing stuff out?
- A: You can hide things, like the file system. There was a mail thread on this recently. But, can we really do this? Best case, NT 6 time-frame have to start now!
- Q: Are there other companies we should be working with?
- A: Compaq, for sure. They bought Tandem recently, really driving on servers. HP increasingly. NEC. SteveB adds think of it as the norm, rather than the exception, that we partner with other companies. Intel, Compaq, and TCI someday if we lose enough money with them. SGI has refocused on NT, even seeding graphics leadership to us graphics is very important to them.
- Q: You said the stock price could be very volatile, what do you see happening in the future?
- A: I don't like to talk about the stock price. We're very early in the software business, still. 99% of the value to be created is still in front of us. Near-term, NTW penetration, NTS/BackOffice growth will drive profitability. Can we ramp up NT 4 adoption now? That would help us with NT 5 adoption. PC sales are a key variabole, as is NT popularity.
- Q: What are we doing to match/exceed Notes?
- A: SQL+Exchange is the answer. We win on e-mail today. Access + SQL 7 should help next year, SQL 7 includes a client-side version. One question is whether Access is a simple enough development tool. It will be the release after "platinum" (of Exchange) before we can convert Notes apps.

<<< The End >>>

Ben Slivka

Sent:

Sunday, December 07, 1997 8:30 PM

To:

Bob Kruger (Exchange)

Subject:

FW: mmr 12/3/97 meeting notes

Maybe help richardm w/enterprise scenarios?

----Original Message-----

From: Ben Slivka

Sent: Thursday, December 04, 1997 12:48 PM

To:

Chris Williams (WPG); Julie Larson; Dawn Trudeau; Kathleen Hebert (Schoenfelder); Richard McAniff; Kevin Johnson (ECU); Jonathan Murray; Eric Rudder; Duane Campbell; Brian MacDonald; Jon Thomason; Bill Baker; Chris Jones; J Allard; John Zagula; Megan Bliss; Robert Welland; Ralf Harteneck; Will Poole; Doug Bayer (Exchange); Brian Arbogast; Paul Gross; Tom Button; Grant George; Bill Veghte; Jawad Khaki; Steven Sinofsky; Andrew Kwatinetz; Ed Fries; Rick Waddell; Yusuf Mehdi; Blake Irving; David Cole; Brad Change.

Chase

Cc: N

Middle Management Retreat; Paul Maritz; Jim Allchin (Exchange); Brad Silverberg; Craig Mundie; Andrea

Tevlin; Kevin Purcell; Natalie Yount; Bob Herbold; Steve Ballmer

Subject:

mmr 12/3/97 meeting notes

Thank you all for spending 3 hours yesterday on "MS Version 3.0".

A big accomplishment yesterday was the start on the "MS 3.0 Product Plan", i.e., how should MS methodically (and quickly) redefine ourselves over the next few months to attack our key challenges <u>and</u> meet the paulma 1/14/98 reorg date. briana/ericr/jallard are driving hard to publish a first draft of this plan by EOB Monday.

Here are my notes on the high-level sketch (briana, please feel free to send a more detailed version):

Define Mission: Goals & non-Goals;

owners = andrewk

team = yusufm, chrisjo, bens (plus folks from steveb land) + davidcol

deliverable = 10 key goals/non-goals + strawman mission (will deliver draft to ericr Monday for eric's doc)

meeting = full-day offsite in the next two weeks

Customer segmentation/scenarios (we picked the 4-5 obvious ones, didn't argue too much) owners = blakei (home), chrisjo (small business), richardm (enterprise), pgross (developers), jawadk (ISPs), julielar will coordinate across these customer segments

team = owners will enlist appropriate other middles from product and sales groups

deliverable = "buzzword" for each scenario (like "jimmy's xmas present"), one page description of segment, two pages per scenario, limit to 6-10 scenarios/segment (for focus)

meeting = TBD by owners & their teams

3. Technical themes

owner = jallard (editor)

team = TBD (please volunteer, talk to j)

deliverable = Technical audit & 1-2 page description of all current technology

meeting = TBD by jallard + team

4. Timeline

Have to complete this all in advance of 1/14/98 paulma all-hands meeting; ericr will have proposal in his EOB Monday draft.

Additional Action Items:

Jmurray mentioned that there are a lot of customer visits coming up this month, he will send details to mmr alias.

Jmurray will also help get more folks from stevel's group connected to our MS 3.0 efforts,

Johnza will forward the Microsoft Customer Taxonomy to mmr alias.

EdF will help get more IMG folks connected to our MS 3.0 efforts.

The "next steps" are all focused on driving forward on refining and executing the MS 3.0 Plan.

I think there is general agreement that we need to identify key customer scenarios, and then organize the product group

around these customer scenarios

Individual breakout owners will send their notes to the mmr alias; I've included my notes below on the general discussions:

As a starting point, we discussed bill's presentation on Monday, and here were the observations:

- No clear Vision/Mission no roadmap for the future; DNS + Web Lifestyle are two near term, unconnected
- Scenarios didn't seem applicable, some too vague, others too specific; too technology-focused
- No insight into how to manage MS differently no process for how to proceed forward
- Didn't seem like bill prep'd much for the talk just a collection of existing slides?
- What are 3 key things we have to execute on to be successful 5 years from now?
- DNS what is it, really?
- Integration why is this good?
- Oversimplified problems especially how hard it is to achieve simplicity
- Scenario and Architecture owners "must" be in product teams if they are to be successful. These people will be
 ignored/ineffective if off on the side
- Wasn't clear how '98 key objectives help us win against our competitors

The first three items [I resorted these from the order they were supplied] are the key missing things, and we believe the MS 3.0 Product Plan effort above will address them. We're driving on this to help paulma and billg redesign MS.

After this discussion, we broke of for 20 minutes into 7 different teams to identify the "top problems facing MS". That generated the following list, which is a mixture of strategic problems and process problems:

- Company/Product Visions mission, metrics
- 2. Better technology sharing between product groups and between research and the product group
- 3. What should paulma's job be?
- 4. Who owns platform architecture? Any way to have (public statements) last longer than 3-6 months?
- 5. Customer taxonomy, market segmentation, and key scenarios
- 6. How to make decisions across org/product boundaries?
- What is MS 3.0 planning process? Can we make it more formal? [This is the one we really latched onto, per above!]
- 8. Who are the owners for cross-group scenarios?
- 9. What groups should own which scenarios?
- Get product groups & steveb groups & customers more connected
- 11. How do we better anticipate change?
- 12. How do we get entire company focused and bought into MS 3.0?
- 13. How do we get IMG more involved? Software as a service will become more important.
- 14. How do we get input from/communicate to MS executives? [By doing this mmr thing... [3]
- 15. How do we balance investment in existing business models (& products) with new business models?
- 16. How do we decide what not to invest in?
- 17. How do we balance (cross-product/brand) scenarios vs. existing brands/products?
- 18. How do we scale org (from 11bil to 50bil)?
- 19. How do we grow, retain senior management?
- 20. How do we innovate give our legacy code bases/products?
- 21. How do we innovate in absence of external competition?

After building this list, we spent 20 minutes voting/arguing about how to proceed (we're process losers, we all agreed). Finally, we decided to stick with our original (random) 7 teams (meganb suggested this from the outset, we should have listened to her). Here were the team scribes and my very brief notes -- team owners will send out fuller notes:

Yusfum, web lifestyle/home

goals: 1) you can do stuff you couldn't before, or hard things are easier

2) save time, save money, enrich your life

briana, MS 3.0 Product Plan (see above)

pgross, enterprise customer scenarios/taxonomy

edf. Fear + Other scenarios

Ed noted: "This is the worst group to build scenarios - go talk to customers"

1. My 8 year old can use my computer and I am not scared (that he will trash it, delete files, find out my net worth, etc.) – home scenario

- 1. The MIS manager (i.e., helpdesk technician) can use my computer and I am not scared (small business scenario)
- 2. The business suite of apps/templates that allow the SMORG to turn on computer and get business planning, tax planning, legal advice, etc.
- 3. The home suite of services that connects the home to essential services such as mail, scheduling, phone/messages, shopping, etc.
- 4. Install software and nothing breaks, i.e., other software, device drivers, peripherals, etc.

<<< the end >>>

Ben Slivka

Sent:

Sunday, December 07, 1997 8:36 PM

To:

Bob Kruger (Exchange)

Subject:

FW: Reinvigorating the company -- update on mmr work

----Original Message-----

From: Ben Slivka

Sent: Friday, December 05, 1997 1:42 PM

To: M

Middle Management Retreat

Subject:

FW: Reinvigorating the company - update on mmr work

Fyi...

----Original Message-----

From: Ben Slivka

Sent: Friday, December 05, 1997 1:41 PM

To: E

Bill Gates: Paul Maritz

Cc: Eric Rudder; Jim Allchin (Exchange); Bob Muglia (Exchange); Collins Hemingway; Nathan Myhrvold

Subject: RE: Reinvigorating the company -- update on mmr work

There are several groups (see "mmr 12/3/97 meeting notes" mail for details) working in parallel on:

- mission/vision/goals do we need to modify/expand upon "a pc on every desk and in every home"?
- customer scenarios we broke this out as home, small business, enterprise, developer, ISP [not everyone agreed on ISP as separate, but we didn't want to argue]
- 3) technologies what are the key technology assets and the key technology challenges

Timeline

Work on elaborating each of the above areas, send out drafts for review to mmr alias

Next 7 days 12/12/97 12/16/97

and reenergize MS.

Present drafts to mmr group 1:30-3:30pm, 12N/Camano; discussion Present revised draft to billg/paulma/et. al.; lots of discussion/feedback

The goal of the mmr group is to help the executive staff get this stuff figured out: this is not about whining, it's not about running away from difficult problems, it's not about disintegration, it is not a revolution. Rather, we're trying to focus on customer problems and customer benefits, with the thought that this would be a great guide toward how we reorganize

If there are any problems/issues/questions that you want to make sure we address, please don't hesitate to write! Thanks, bens

----Original Message-----

From: Bill Gates

Sent: Friday, December 05, 1997 8:25 AM

To: Eric Rudder

Cc: Paul Maritz; Jim Allchin (Exchange); Bob Muglia (Exchange); Ben Slivka; Collins Hemingway; Nathan

Myhrvold

Subject:

Reinvigorating the company

I think there is actually a consensus that part of reinvigorating the company involves creating a "vision" for customers. We would take DNS, DNA (vision for developers) and Web life style and lay out what we want to do for people. If people really want to understand DNS they are welcome to meet with Collins who spends most of his time on it.

This would be embodied with a set of scenarios for various customer types.

We also need a technical vision. This would be embodied with a list of key technology issues. For example what we need to do with voice or schema or forms. This document would simply state the goals – not the code bases

or anything like that.

Ideally these documents would be both exciting, and crisp. However they are a lot of work. I am not sure how to pull them together.

I have been thinking I need to do them myself but I would love it if that is not the case. It appears Ben is having some people do work that could be used for this which is great but I wonder how we will bring all the pieces together.

One plan is to wait for Ben's group to make progress on the scenario thing while I work on the technology thing and then try to get them to come together.

I will send you the progress I had made on the "technology" one. I will also enlist Nathan to help me with this one.

Ben Slivka

Sent:

Sunday, December 07, 1997 10:19 PM

To:

Middle Management Retreat

Cc:

Natalie Yount: Paul Maritz

Subject:

mmr: draft agenda for 12/16, setting expectations

Here is the draft agenda for 12/16 (and 12/12) that I've been working through w/ericr, clwill, kevinpur, and others. Your comments are welcome (mmr is up to 65 people, so please use "R" judiciously).

Clwill and I are meeting w/paulma tomorrow morning to get his input on this agenda - I'll send out notes after we meet.

Ground Rules/Assumptions for 12/16 meeting (billg/paulma/bherbold confirmed, steveb is oof, trying to get jeffr):

- 1) This meeting is an opportunity for middles to present and executive staff to listen. Executives may ask for clarification on the presentation, but we're not asking for any decisions to be made or any opinions on our presentation to be instantly rendered. Our belief is that this will take pressure off the executive staff and also permit our input to be full considered. The executive staff can schedule a follow-up interactive meeting if they like.
- 2) Our presentations of mission/vision and customer scenarios are quick drafts. In particular, we'll have spent less than 2 weeks - part-time - on the customer scenarios. No one in mmr would claim that our results in this short period of time are definitive. And some of you have expressed concern that we are the best/right set of people to be attacking these customers. I say: No Whining! If there are indeed key scenarios for our customers that MS products do not address (very well) today, I think this group of people has enough IQ and customer empathy to find them! Bill's mail on Friday shows that he is very interested in this stuff, so I think he'll at least give us credit for trying:

"I think there is actually a consensus that part of reinvigorating the company involves creating a "vision" for customers. We would take DNS, DNA (vision for developers) and Web life style and lay out what we want to do for people. If people really want to understand DNS they are welcome to meet with Collins who spends most of his time on it. This would be embodied with a set of scenarios for various customer types. [emphasis mine]"

3) We should take a stab at filling out WPoole's Venn diagram of the DNS, DNA, and Web LifeStyle circles. As bill indicates above, these are the customer areas he cares about, and these are the ones that we also identified. EricR and ChrisJo and others have proposed doing to versions of this diagram - one showing where products fit into the circles, and the other where technologies fit into these circles. EricR is going to take a stab at those early this week and send them out for review. Obviously these end up being reorg recommendations if it turns out that we organize the product group into DNS, DNA, and WL divisions. But, heck, we want to influence the reorg so let's take a stab at these! I ask each of you to put aside your personal interests here and help us build these diagrams guided primarily by customer benefit

Draft Agenda (2 hours total)

Time Speaker:Topic

5 min ericr: introduction/ground rules

10 min bens: overview of MMR - why are we doing this

20 min_yusufm(?): mission/vision draft

5 min_julielar: introduction to customer segments/scenarios

20 min_richardm(?): DNS scenarios (enterprise)

20 min_pgross(?); DNA scenarios (developers)

20 min_blakei(?): WL scenarios (home)

10 min_bens(?) The two Venn diagrams: one w/products, the other w/technologies

10 min erior: wrap up

Two hours is pretty short, so either ericr or I will be hard core about the time limits. ©

If you are presenting, I assume you'll produce a crisp (i.e., short) set of PPT slides - eric and I will "edit these for clarity and length" if you don't. ©

I've got (?) after speakers to indicate who I think will do the presentation, but individual teams should feel free to choose different presenters. I volunteered for the Venn diagrams because I didn't know who else wanted to do them, let me know if you want to volunteer.

Also, instead of sending out a big document on Monday (as ericr had promised), we decided to substitute this piece of

mail. After we've gotten through 12/16 we can come back and work on a nice flowery document (though of course eric is probably working on it anyway!).

A few people have asked about "next steps" for after 12/16. My assumption is that we'll get input from executive folks, and that the customer scenario teams will build up a bit more steam. In particular, I think we'll be able to get a broader participation from key contributors inside and outside of the product group. Also, given the holidays and paulma's reorg deadline (remember that 1/14/98 all-hands meeting at Key Arena), I suspect that we'll have at least the start of a new organization in hand before we can spend much more time on this. So, this is the week when we have an opportunity to really make a big impact!

Finally, I want to take this opportunity to thank each of you for your hard work and dedication to this effort. I know it has been difficult, especially with the outcome uncertain, so I appreciate everyone taking the risk on this!

Please send me your comments/questions/issues! Thanks, bens

Ben Slivka

Sent:

Monday, December 08, 1997 11:22 AM

To:

Middle Management Retreat

Cc:

Natalie Yount

Subject:

mmr: 12/8/97 paulma notes

Clwill and I spent 30 minutes w/paulma this morning, discussing the two e-mails:

"mmr: draft agenda for 12/16, setting expectations"

"MMR Topic: Product Group Organization - Draft Summary"

This meeting went very well -- Paul said "I fundamentally agree w/everything".

Then he posed these questions:

- 1) How do we institutionalize these scenarios? Do we have a full-time team?
- 2) How do we get consistent technical thinking so that we don't get 3 (assuming DNA, DNS, and WL divisions) different sets of infrastructure?
- 3) Tactically, over the next month (and long-term), how do we involve each of these three subgroups in the product division: a) the top 40-50 leaders, b) the 200+ senior folks, c) the rest of the division (7k-8k people!)

Who would like to try and answer the above questions?

Paul *does* want us to take a stab at what divisions should result, and, most importantly, what are the key scenarios that help these divisions work together cooperatively? I would assume that each division has a core scenario that it drives, as well. It is just a little bit different from the DNA/DNS/WL Venn diagram, since you are not forced to assume that there are three divisions – we should still do those Venn diagrams we discussed earlier.

Who would like to take a stab at this proposal?

And, an interesting though exercise: If we had had this idea of customer scenarios back in 1992, what impact would that have had on Win95 & NT? Both products have been very successful w/customers, yet there was a lot of organizational pain. What would we have done differently, and what would the impact have been on the products and our cutomers? Who would like to take a stab at answering this question?

A reminder on mmr meetings

Fri 12/12 1:30-3:30 12N/Camano – review & fine-tune presentation for 12/16 meeting Tue 12/16 11:00-1:00 <tbd – clwill> -- present to billg/paulma/bherbold/et. al.

Thanks, bens

From: Yusuf Mehdi

Sent: Wednesday, December 10, 1997 3:00 PM

To: Yusuf Mehdi; Ben Slivka; Chris Jones; Andrew Kwatinetz; David Cole, Eric Rudder

Cc: Brad Chase; Mich Mathews; Michael Hebert; Ben Evans; Jon DeVaan; Rick Waddell; Jonathan

Roberts; Greg Shaw (Corp. PR)

Subject: Fw: next cut at ms mission statement

Here's a slightly modified version of our thoughts/suggestions on a new mission. I have tried to include as much as possible feedback I received from mmr folks and others, though some of it was contradictory to other feedback.) I co: folks that either provided feedback or have stated an interest in the work in progress. Overall it is still rough even for just a list of thoughts. Not sure if folks have time to meet once more before friday but i could do late today. Pls send some feedback regardless so we can continue to iterate.

Case

Microsoft needs to update its corporate mission statement to reflect the growing importance and set of investment we are making in getting people and businesses connected.

Pros:

- An updated mission statement can provide a framework for rationalizing overlapping charters and conflict between product groups. For example today we have differing goals for IE and Windows, and IE Start and MSN Portal which derive from different visions on our business model. We also can better include IMG services and Web TV devices which are not easily categorized under the existing mission.
- We might also better address the PR/image problem that stems from customers struggling to understand Microsoft's value proposition. With a clearer perspective and communication of our customer value proposition we can help address the today's company image of a ruthless competitor that is focused primarily on the competition.

Cons:

- Is there a precedent for when a new mission statement fixed problems of focus and clarity, internally or externally?
 - ->Yes. In some respects, the IPTD division drafted its own mission to drive browser share (vs generate revenue) and that changed the way we distributed products, partnered with 3rd party companies like Disney and AOL, and wrote software for different platforms (for x-platform). A clear mission statement might help us make some of the new tough choices.
- How do you measure the success of a new mission statement?
 - -->We can do this sampling employees via survey on clarity of focus and role within the mission; external pr metrics
- Why not stick with the old mission statement? We aren't complete on that and we can retrofit some of the new technologies?

->Assumes that you either redefine existing terms and concepts under old terminology or we exit out of existing businesses. Also essentially says that you will not make material changes to our existing org and focus

Draft - Proposed Mission Statement

Microsoft is a software company. We are about connecting every person and business together via the personal computer to access the new world of thinking and communicating.

Important phrases and why:

- personal computer we still see the pc as the center of industry innovation, continuity with our current vision
- connecting people and business reflects the importance of the Internet and focus on people
- new world of thinking and communicating reflects the advances we seek to bring to computers, eg., voice, thought, conferencing. also reflects our aspirations for customers and that we are forward looking

Key technology efforts that underly this mission (we should consider how to org around these):

- PC Simplicity to get broad acceptance and use of the computer we must make it easy to use
- PC Connectivity to provide access to info we need to wire computers with other pc's and information devices
- Business Services productivity tools must combine with central business services such as email, commerce
- Personal Services a base set of communication tools and consumer services to enable the web lifestyle

Key supporting tools/implementation details

- Customer oriented vision and detail for application to Home Users, Business Workers, and Developers
- Open Internet Standards Pledge part of fleshing out the mission is in these type of documents
- (Possibly) User Bill of Rights what customers can expect of our sw
- (Possibly) Businesses Goals Whitepaper where and how we will compete idea is to remove FUD of MS trying to own everything

How's it relate to the old mission statement - "A computer in every desktop and in every home"

We have not deterred from the old mission statement. In fact, the importance of connectivity and access to information has made our mission of a computer on every desktop and in every home only more relevant. The new power and mobility of the PC opens up a wealth of consumer benefit that we feel is better captured in the new mission statement. With only 3% of the world's population using computers in their everyday lives, we have a long ways to go.

What is the Web LifeStyle and how's it relate?

Part of achieving our mission means that consumers in the future will be living and benefiting from the web lifestyle. The web lifestyle promises to save users time and money in the course of their everyday lives (much as the phone or car did earlier this century). It also promises greater enjoyment and enrichment in basic communication, education and work. Specific scenarios that the

Microsoft mission and web lifestyle hope to impact are:

- 1. Communicating and Information Publishing. Scheduling, email, buddy list, personal web publishing family pics, audio and video conferencing with family
- 2. Managing Information and Personal Affairs. Bill payment, personal finances, home control of vcr, security, sprinkler system, travel planning, signing legal documents, managing health, designing home interior, to do lists, remote assistants
- 3. Entertainment and Information Consumption. Web watching of news, sports, weather, movies, music, gaming
- Shopping and Commerce. Buy hard goods, buy electronic bits, music, windows shopping, cost comparison and research
- 5. Working and Studying from Home. Anything I can do at work I can do at home, Bringing home docs and work, accessing company servers and information, time and resource tracking (billing hours)

What is the digital nervous system and how does it relate?

One aspect of the Microsoft vision is that businesses will employ a digital nervous system to improve worker productivity, automate business processes, and provide more timely and accurate data for decision making. The digital nervous system assumes the following key customer scenarios (collinsh should provide)

- Communicating and Information Publishing. Scheduling, email, corporate publishing of work, progress reports.
- Managing Information and People. People management through priority setting and project elegation, simple automatic access to relevant information, knowledge retrieval (alert of project problems)
- 3. Information Consumption, Data Mining. Smart use of filtering, content control, accessing and analyzing data
- 4. Commerce and Transactions. Buying and selling goods, tracking and billing, etc
- 5. Line of Business and Personal Productivity. MS Market, FinWeb, MS Expense