
From: David Cole
Sent: Wednesday, October 27, 1999 9:49 AM
To: Rick Belluzzo; Bill Gates
Cc: Steve Ballmer
Subject: RE: getting our consumer act together

I think we are saying close to the same thing.

Delivering the end-to-end consumer solution is hard when you split the client/services stack at any point. (I can't do single logon/ID without some changes to base Windows for example.) I am worried about Windows itself becoming more appropriate for consumers with Option B. The end-user advocates would not be there to drive making it compatible, getting rid of error messages, simplifying, etc. The best shot at making it work if there has to be some split is to sync the base Windows schedule with the service offering schedule so the requirements can be met. There will still be endless meetings on who makes photos better for example. We'd have to think about the business model and product offerings in the new world: is there basic windows that OEMs pick up for just business, and Windows as a service for consumers? Or do we offer basic Windows to OEMs for consumers as well? (note today OEMs don't split the world into business/consumer like we do, compaq for example lumps small business and consumer together because of retail distribution so we give them headaches on whether to install Win9x or Win2k on their retail lines)

We have probably exhausted the usefulness of this thread and should meet when you get back. We also should meet as a group.

-----Original Message-----

From: Rick Belluzzo
Sent: Wednesday, October 27, 1999 7:35 AM
To: David Cole; Bill Gates
Cc: Steve Ballmer
Subject: RE: getting our consumer act together

David,

I think you have the right view on what needs to be done and I think that you are absolutely the best person to do it. I am probably not objective when it comes to where it should be done. I am convinced that if we don't do this in CCG we will have trouble achieving several goals--building a common set of back-end services to access on multiple devices, building a business model that allows us to develop a strong services offering (not in contradiction to the windows model). I think we have enough experience with Windows to know the points of leverage that we need to retain, but the services models are all very new and poorly developed with MS. If we fragment this we will never achieve the development of critical mass. Also, I think it is difficult to expect the windows group to cover the broad range of challenges that would also include consumer services. But, I think the most important thing is to execute the strategy that you discussed. I will do everything I can to make it work, whatever direction we take.

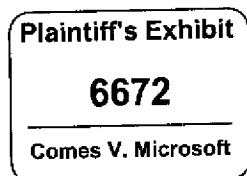
Rick

-----Original Message-----

From: David Cole
Sent: Tuesday, October 26, 1999 10:07 PM
To: Bill Gates
Cc: Rick Belluzzo
Subject: RE: getting our consumer act together

Since the topics span several businesses, we should get together as a group and discuss. Who are you expecting to drive such a meeting? Do you want to use a few hours of Think Week for that? I'd say a group discussion would be important enough, but not a 1-1 at this time. Please let me know and I can try to work it out

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The job that looks the most satisfying for me personally might not be the one that supports the company strategy best, it all depends on the business model optimization. The satisfying job right now looks like the Windows Neptune job, where we want to build Neptune as a service. That job gets more complete (and thus satisfying) if the MSN platform features (Passport, mail, messenger, communities, calendar, search, and portal) are done as part of the Neptune effort so one team can do this end-to-end. We could do portions of that downlevel as well.

I don't think my saying this is Neptune requires that it be done out of Jim's group, although there are some advantages to that. We could think out of the norm here and do the end-to-end consumer windows release from Rick's group so we could get a critical mass of consumer stuff in one spot. (living room, home networking, webtv, etc) That is a lot different than the services/middleware approach but I think it's the right path. The critical requirement of making that work is a sync'd schedule with brianv since I am dependent on him to ship a Win2k product.

My Windows bias is showing here of course. The service offering needs to be available on multiple devices too, so it's legitimate to say we need the killer consumer services app which we charge by the month to use. It does great things for the PC, it reach all kinds of devices, it works on your home network even if you aren't online. It'd be new territory for me which means I don't know if it's satisfying or not

David

-----Original Message-----

From: Bill Gates
Sent: Tuesday, October 26, 1999 9:14 PM
To: David Cole
Cc: Rick Belluzzo
Subject: RE: getting our consumer act together

I would love to discuss this either 1:1 or in a group sometime soon.

Unfortunately I am heading out to New York tomorrow and then on Think Week next week. I would interrupt Think Week if it was important to do so.

I want to solve this problem and make sure you personally feel like you have a great charter to move our consumer act forward.

I am quite flexible about how we do this.

-----Original Message-----

From: David Cole
Sent: Tuesday, October 26, 1999 6:06 PM
To: Jim Allchin (Exchange); Bill Gates; Steve Ballmer; Rick Belluzzo
Subject: RE: getting our consumer act together

It would be great if we could get together soon and discuss.

There are a few other flavors of the options to think about, for example, one twist on option A would be: move all the back ends for email, calendaring, passport, and storage to Windows in addition to what I suggest in option A so we can get the integration we think is required. The premier online service would just be Windows, we'd ship a downlevel version (mars) as it makes sense to get members and platform adoption. We would offer access as an option. This model would further allow us to tune under one management structure between the royalty and the service fee. MSN becomes content and ecommerce properties in this world.

-----Original Message-----

From: Jim Allchin (Exchange)
Sent: Tuesday, October 26, 1999 5:00 PM
To: David Cole; Bill Gates; Steve Ballmer; Rick Belluzzo
Subject: RE: getting our consumer act together

I haven't seen any mail on this topic from anyone other than david and myself.

There are three components to David's mail. I believe the first issue (how we treat Windows) is the most important. I believe we need to think about this from a business side as well as technically since the different between Option A and Option B laid out below come down to how we want the company run. Assuming we worked out how to avoid shipping overlapping DLLs and how we could avoid confusing developers, etc. (all hard issues), then I think it comes down what business model you want to optimize for. I have a lot of opinions on this, but I am not sure putting them in mail is worth it.

Bill/Steve: What do you want to do? What is the time line to get together to resolve?

jim

-----Original Message-----

From: David Cole
ent: Saturday, October 23, 1999 5:58 PM
To: Jim Allchin (Exchange); Bill Gates; Steve Ballmer; Rick Belluzzo
Cc: David Cole
Subject: getting our consumer act together

I've tried to organize my thoughts a little more on how to get our consumer act together. This email focuses on what I think are the 3 critical consumer areas which are most unhealthy today: Windows as a service, the home network, and the living room. This is written with "how to organize ourselves" in mind.

Goals

- Make Windows relevant and exciting again in order to sustain leadership and the royalty
- Build a consumer service revenue stream
- Gain technical, industry, and business leadership in the home around the PC, service, living room entertainment, and home networking thus creating new business opportunities for Microsoft and partners.

Windows as a service (WinTone)

It's assumed that making Windows just-work, getting leadership in digital media; and connecting it to everything are fundamental and should be done by the Windows group. Turning Windows into a service in order to increase it's relevance to consumers is critical as well, but there is a fundamental question about whether we use that service oriented relevance to sustain the Windows royalty, or to create a new service based revenue stream. I believe that how we resolve that question dictates how you think about the organizational approach to do the work.

First, Windows as a service means 4 categories of things to me:

- Making all the things currently thought of as Windows service oriented. Help, getting automated support, app compatibility lists, data extensions, access to applications and updating them, updating components, etc.
- Allow the user to make their Windows selectively part of the web. share files, access to data from anywhere, roam a new class of applications, put a reflection of the desktop on the Web so function and data can be accessed from anywhere, single logon, any device.
- Add new service backed features needed to make Windows more relevant to the consumer. Activity centers for digital media and other common tasks, work at home, games, etc. Built in communications for email, instant messages, finding buddies, and more. Unified local desktop with web portal, unified local and web search.
- Internet Access. Certainly Windows as a service needs access to the internet. If the primary goal is a new service revenue stream, then access needs to be an integral part of the service. If the goal is Windows royalty, then I would say that access is not part of the service, for the consumer it's like buying hardware to run Windows. This warrant further discussion of course, as logic would dictate that for integration purposes and the billing relationship, that access must be part of Windows as a service. The dream is that Windows as a service will have the kind of end-user demand that Windows itself has

enjoyed so we can choose not to deal the cost and complexity of world wide access, similar to how we've chosen not to get into the PC hardware business.

Since this is ultimately about organization, I should list the existing efforts/components that contribute to Windows as a service.

- **Windows Update.** keep Windows up-to-date and healthy.
- **MegaSupport.** web based support intended to create the feedback loop needed to make Windows just work and dramatically drive down support costs. gp fault, hangs, other errors are automatically uploaded and looked into.
- **Living Windows.** This is the notion of having help files, tips/tricks, data extensions, app compatibility lists, and other parts of the system today be web based so we can improve the experience over time.
- **Windows reflection.** Have your desktop available on the web, along with the shared files, data, settings, and apps you want to roam.
- **Application hosting.** (app catalog) This is getting your apps as services from the web. Could be remote execution of a Windows app, ESD of a Windows app, online purchase, web services, or a new web style Windows application. We include 3rd party apps in this and charge them a royalty.
- **Digital media activity centers** for photos, music, video, games.
- **Passport** for single logon.
- **Hotmail** (or a replacement), **Jump**, **Instant messenger** for communications/collaboration.
- **MSN communities.** (perhaps this and the windows reflection are the same)
- **Integrated portal and search;** local and web based things are accesses and launched the same.
- **Other Content and vertical properties.** (activity centers are a specific class of a vertical property)

One principle worth calling out is that integration of the client and services is crucial to the experience. Certain some mature services can have clean interfaces which a client can access (pop3, imap, dav), but the best experience and maximum monetization come from client/services integration. This is the only way for example that Mars can succeed, it's the only way activity centers will succeed. Operational excellence can be centralized of course, as can well established web platform services like passport will be someday, billing, and ad sales and exchange for example.

Windows Service Execution Options

I see 2 basic options (with various flavors) to execute on this. The 2 options are generated based on how you prioritize the goals of using this service to sustain the Windows royalty, or create a new service revenue stream.

Option A) optimize for Windows relevancy/excitement in order to sustain the royalty. To me this means building the service as part of Windows.

- The Windows team would own and drive the services for Windows Update, MegaSupport, Living Windows, Windows reflection, application hosting, activity centers. The windows team would also do the end-to-end UI for mail, instant messages, sharing, unified portal (desktop) and searching. They would utilize the service backend for mail (hotmail), calendar (Jump), messenger, search, and passport instead of reinventing those. The way web sites/apps plug into the UI is the job of the Windows team.

- CCG continues to do the back ends for email, instant messages, calendar, passport, storage. They would also do a downlevel client (Mars) to deliver these services. They would continue to offer access.

This is basically the plan we are on today with Neptune. What is really different? a) I have assumed some unification of access, portal, communications, and the Mars client on the CCG side. b) Windows team owns the end-to-end service for activity centers and the new desktop, borrowing/leveraging content from MSN as required. c) the service that comes with Windows is Windows. certainly MSN branding will be there as content and some services are done with MSN.

What is good about this: For starters we can balance adding features to windows to maintain the royalty value proposition, (with some minor service revenue to break even on service operations), and go for a new service stream via MSN.

What bad about this: Ongoing negotiations between the divisions on what is Windows, what is MSN. What would the MSN client look like on a new version of windows? Also, the Windows service is really for new versions of windows in this model, our competitors are selling across all versions of windows. we don't achieve the client/services integration that we think is needed on an ongoing basis.

Option B) Optimize for a sustainable consumer service revenue stream. To me this would mean building almost everything I have talked about as a application, middleware, and service layer on Windows.

- Windows would continue to do the basic Windows shell, but they would not enhance with a new web based UI or app presentation model. Classic IE would be in the Windows team too. Windows Update, MegaSupport, and Living Windows would be done in the Windows group as well.

- CCG (or a new group) would do the end-to-end user experience and services for windows reflection, application hosting, activity centers, email (hotmail), calendaring (jump), instant messages, sharing, unified portal (desktop) and searching. Think of this as super Mars, but the UI would totally invade Windows in everyway and not be some isolated client. Access is included with this, although like Mars using anybody's access for evaluation purposes is ok. I would leave vertical properties like money central, expedia as separate content entities that are easily accessed and integrated into this app, but not managed by a central group.

This client/middleware/service layer would be available on all versions of 32bit Windows.

What is good about this? Could achieve total client/services integration. Combo of this app and Windows would be Windows as a service. The UI and services could be repurposed for all kinds of devices, and distributed in the home network, projecting UI to viewpads or whatever. perhaps the functionality could be delivered faster like this instead as part of Windows.

What is bad about this: Windows runs the risk of stagnating. Dependencies will continue as say the photo activity center needs windows to do a good job on camera integration and device drivers. The platform that ISVs/web sites will to might not be Windows.

I admit that either one of these approaches would provide for exciting jobs. Turning CCG into an organization that could deliver on this would not be a fun job, it would need to be funded with an "A" group of people from around the company and just displace people who are not on board.

Home networking

I have less to say about this, but we do need some consolidation of efforts to make better progress than we are today.

The 2 big infrastructure pieces should continue to be funded by the related technology groups. UPNP out of jawad's group, and SODK out of osh's group in paulma area.

Everything else should be unified into a single group to get critical mass, the consolidation would include:

- the home networking effort in CWD; focused on user experience for PC-PC networking, interfacing with UPNP devices, residential gateway strategy, etc. Home network marketing is also in CWD today.

- Mike Paul/Suzew group. They are doing home automation plumbing, the MS life app (whatever that really is), helping with Millennium network UI, and doing whitegoods evangelism. They bring to the table the thinking on monitoring, security, x10, etc.

They should primarily be considered a Windows technology team to deliver key technologies

and UI into Windows releases. Their secondary purpose is to get 3rd parties to build products that help the network vision we have.

As I said in email yesterday, I have started a cross group effort to try and sort out our broader home strategy. I am certain other aspects of the network will surface that we have to figure out, but having a critical mass central group that is closely connected to the product team is super critical at this point.

One other comment, if we believe option b above for the windows services offering is the one we want, then the MS life app thing is just part of that. There should not be a separate group. If option a is the one, then I would consolidate as above here.

Living Room

This is probably the biggest of all messes in my view. There is vast disagreement on whether to take the PC centric approach to things like xbox, a high end settop, or media platform / web tuner like triton (which you haven't heard of yet), or to take a WinCE/WebTC centric approach. just yesterday, jonde sent mail saying how we should change xbox to the WinCE diskless model. His approach is valid, but it says leveraging the PC is bad which feels wrong. I can't say I am confident enough in my view to say he is absolutely wrong. anyway.....

At this point, I would recommend letting the team continue running in parallel and cooperating. Xbox to continue the focus on games, WebTV to focus on TV tuning, and let the Triton guys continue to think about whether there is a PC like platform play to have in the living room. The critical thing at this point is to create a clear strategy around the AV network and the media formats we want to push. These will be critical things to make progress on in the home strategy, and should be driven by the home networking group as they have been.

Other

We need to merge together Mariner and Eldorado (Windows lite) in the windows team. these are flavors of the windows platform in the end and should be managed as such.

I hope this email was somewhat understandable. I am happy to discuss in person. These are just my initial thoughts, there is of course lots of room for refinement. Moving quickly is paramount.

David