From:

Jim Allchin

Sent:

Tuesday, September 27, 1994 12:09 PM Windows NT Group MS Employees Only

Subject:

on to Cairo (long)

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Now that Daytona has shipped and most of the team has had a chance to decompress a little, it's time to focus on what we're doing next. There are also several organizational change which affect our plan that I'd like to outline.

Customer satisfaction is extremely high with NT. Even though the rest of this message talks about new features I want to ask everyone's continued help regarding QFE as required to ensure that our high customer satisfaction remains this way.

Our short-term mission is to release an updated system which supports the Power PC. Regardless of what you may have heard in the press about IBM delaying the hardware availability of these machines, we're going to move ahead and get NT running on this platform. This may be the first time in history where the software is ready before the hardware! It's also important to realize that IBM is not holding this hardware for their Workplace OS - that product isn't even in beta so they have a long way to go before it's ready. There are probably many factors, but I believe that what is happening here is that the existing machines they've built - based on the 601 chip, aren't any faster than Pentium. So IBM is waiting until they have 604-based systems which will show a performance boost. This is planned for late Q1 95.

While early support for the Power PC is important for us, this platform won't generate revenue for a long time. Therefore it's important that we get this done as quickly as possible so that we can move on to our next major objective - Cairo. While we will be adding a few new features as a part of the Power PC release, we need to keep this list short and contained. We're targeting to get the Power PC release done in December, it is important that this not slip out into 95.

As I said in the mid-year update mail I sent in July, our heart and soul needs to be on building great server products. While most of Microsoft focuses on desktop products, BSD alone carries the server business. Our success as a division is driven by our ability to make inroads against Novell in the file/print business and our ability to capitalize with our server applications on the adoption of client/server for business systems. We have serious competitors in messaging and database. We need to focus to win.

This is an enormous opportunity for us. Novell has built a business of over \$1B on server revenue alone — There are billions more to be made from server apps - database, mail, systems management, SNA. We want our fair share of this and with the combination of the Windows NT Server and BackOffice, we're in a great position to get it.

Having just returned from Networld/Interop and Windows World/Dallas, I can tell you that Daytona is making a huge splash. While Novell is talking about shipping a "SuperNOS" in 1996, Daytona delivers that today. The press, industry analysts, solution providers, and most importantly, network customers are taking notice. They want both file/print and great server apps. While some companies are just talking about the future, Daytona delivers. We've been fighting the network battle for years but we've never had the portfolio of great products we have today. We offer customers new opportunities to get business value.

But we can't rest on our past accomplishments. Daytona is a great product and as a general purpose OS it is years beyond anything Novell can deliver. However, in the area of distributed systems we are behind what customers are asking for. The advantages of Windows NT allow us to make major inroads, but we can't win unless we have a better server from every perspective. That means we need more advanced distributed services. Delivering on these is our #1 goal. Our product plans will be driven by getting the distributed services shipped. These services include things like routing, distributed directory, file, security, and time support.

To help focus on this, all people working on networking and distributed services functionality have been combined together in Daveth's organization. In particular, Prady's group now works in Dave's organization. (The test group already had this general networking organization in place.) This allows additional synergy between all the networking parts of the system.

The other key area we need to move ahead in concerns storage access and management. In particular, features like quotas, query on properties and content, efficient storage of OLE objects, tracking of moved OLE objects, hierarchical storage management (HSM) are important customer features. In some cases, Novell already has these features (quotas, and HSM); in other cases, we have an opportunity to add facilities that customers want that provide new end-user value and be first in the industry. And of course, performance and scalability cannot be sacrificed as these features are added.

A key building block for the distributed services is OLE. OLE is also a critical component for Microsoft and ISV applications. Great progress has been with OLE for Daytona by moving it to 32-bit, making it robust, getting 16/32 interop working, and supporting the applications. We need to continue that same focus for Chicago and also put even more

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EXHIBIT KH EX. 14 Gates 3/4/09 emphasis into performance. It is also critical that we complete the work to support the distributed function in OLE as several of the distributed services rely on this. There is competitive pressure here to also add some new features (e.g., non-rectangular windows) and our applications group would like these features for their 96 products.

On the workstation side, Daytona is also making a splash. Major customers are recognizing the benefits they can get from a system which provides the security, stability, compatibility, and performance which Daytona delivers. One industry where we're making the great progress is financial - because security and reliability are key here. We've done particularly well on Wall Street with several major brokerages committing to NT on the desktop - including 10,000+ workstations at Bankers Trust and 20,000+ at Merrill Lynch. A very positive piece of news for us is that Frank Artale, an Architectural engineer from our field sales force who was personally involved in many of these wins is joining Bobmu's team bringing his field experience into the product group.

Bill recently made a decision to move the Cairo shell effort to Office. He made this decision because he wanted the Office group chartered with taking-on Lotus Notes UI and because he felt it was very important that Office take advantage of any new shell features first. (Clearly, the backend services continue to come from Exchange.) With the previous plan of building this as a part of NT for Cairo, Office wasn't able to take advantage of these capabilities because they need to target both NT and Chicago. By transferring this technology to Office, they can build the features directly into their applications and thus support them on both platforms. Office is now explictly planning on building shell features such as their own Explorer and targeting NT server capabilities in their 96 product. Over time, bill's plan is to pull some of these features and code back from the Office team into post-96 versions of NT and Chicago. The result of Bill's decision is that the Cairo shell team will thus be moving to Chris Peter's Office organization.

Given the above decision, we have decided to use the Chicago shell codebase for the NT Workstation. Leif has done some initial estimates of this effort and has begun doing detailed planning on how to best accomplish this. From those efforts, his team will decide whether to fork the code from Chicago or work in a single tree. Leif must also figure out how to most effectively expose the Cairo distributed functionality in the shell (both Chicago and Cairo). A positive benefit from this is that the NT workstation shell will be the same as Chicago. This gives ISVs one set of APIs to target and minimizes user training issues. It also makes it more straightforward to expose the new capabilities we're building into the Cairo server on Chicago clients. This is key because even with the strength NT is gaining in the workstation market, we believe that Chicago will be the principal desktop for our servers. It is thus very important that the features of the NT server are accessible from Chicago desktops.

An outcome of this decision is that we will not be targeting the shipment of an updated shell on Daytona in 95. The idea of a "Corona" add-on was attractive but the amount of work required to move the Chicago shell code onto NT, make it robust, use Unicode, and get it to production quality is not consistent with shipping this early in 95. Instead, we will put all our focus on getting the next release of NT done. This will also help the whole team by having one consistent goal. We are going to deliver FPNW separately, but in general I want do not want us to get sidetracked with separate ship deliveries.

On a different note, the Developer Division has decided to base their future forms work on the Cairo component forms technology developed by Chrisz. They will use component forms for the 95 release of VB and will integrate this into VBA and thus create a single forms solution for our applications group. They will also base some advanced forms work they are doing called data documents on component forms. Data documents are a more sophisticated version of Access reports. To support the completion of this objective, Chrisz and the forms team will move into the Developer Division, reporting to Adamb.

In summary, there are always changes that come when you ship a major product. With Daytona behind us, our next step is to get the Power PC release done and complete the contents and bottoms-up schedules for Cairo. We want to make sure that we are very realistic when we build those schedules and we take into account all the experience we have gained from shipping NT 3.1 and Daytona. The Cairo schedules need to be realistic - that means we need to plan sufficient time for performance tuning and stabilization. Cairo will be a major release but we need this product to be in the market in H1 96. We had originally wanted to deliver it in late 95, but this is probably not possible. Since quality, performance, and compatibility cannot be compromised, that means we will have to tradeoff some features. It's more important to do a high quality product which meets the key requirements, sooner. There will always be another release.

I'm also aware that this team has worked very hard during the last two summers. I want to make sure that doesn't happen next year, so as we're doing the planning for Cairo we aren't going to set any external milestones during the summer months. We want to maintain a healthy work pace that enables people to meet their personal goals as well as our ciritcal product goals.

In summary, our overall product focus will be

- + distributed services,
- comprehensive storage facilities,
- great client connections to the above functionality,
 Chicago compatibility,

+ continued focus on quality,
+ performance and scalability
(this includes such things as smaller memory footprint, higher network file performance, continued SMP performance, and clustering for availability)

One last point that I wanted to mention is that we expect about 50% of our business to come internationally. We would like Cairo to be as "World Ready" as possible. I'm really not positive we will totally attain this goal, but the closer we can

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come to this the less costly our translations will be and the faster we can deliver products internationally.

When someone asked you about Daytona, you said it was about about performance and size. If someone asks you about Cairo you should say it's about making NT be a great distributed information server platform and a smaller/faster workstation compatible with Chicago.

Daytona has launched BSD onto a great trajectory. As we move forward into the future, we're going to focus on the places where we have the most impact for the company: the server primarily and of course high-end business desktops. Our path has never been more clear; our future has never been brighter.

Let's go for it!

jim

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