From: Don Bradford
Sent: Tuesday, January 27, 1998 1:22 PM
To: Hillel Cooperman
Subject: RE: Transition Plan - DRAFT (please comment :)

Good start.

Would like to see engineering estimates after each line item: man months/head count.

Also need a test team break down.

Don

—Original Message—
From: Hillel Cooperman
Sent: Tuesday, January 27, 1998 12:42 AM
To: Don Bradford
Subject: Transition Plan - DRAFT (please comment :)

Internet Explorer 5 for Macintosh

Cross Platform Strategy and Transition Plan

What is this document... ... and what isn't it?

For some time we have searched for increased cohesion and unity of purpose in delivering Internet Explorer across multiple non-win32 platforms. Not only is it time that we commit to a cross-platform story, but the reorg is affording us an opportunity to align our resources even more tightly with the plan. This document gives:

- clear business objectives for cross-platform 5.0 browsers
- the feature overview necessary to deliver consistent cross-platform browsers
- schedule for deliverables
- transition and staffing plan for IE Mac

Cross-Platform Business Objectives

Background

Microsoft has now put out several versions of Internet Explorer on several platforms. While the win32 version of IE has continued to make serious strides in terms of functionality, and major inroads in terms of market share, the cross-platform versions have not made the same market share gains. While the lack of cross-platform market share is troubling, the negative impact on win32 IE market share is unacceptable.

While the various cross-platform development teams continue to put out quality products, win reviews, and add win32 compatible functionality, there is still a perception in the press and among key corporate customers and potential customers that Microsoft does not deliver a credible cross-platform web browser (note: this is different than delivering a credible Macintosh or UNIX web browser). As we talk to more and more customers, it is becoming increasingly apparent that the cross-platform browsers directly affect overall IE market share exponentially. The question becomes - what do we need to do to combat the perception (and in some cases, the reality) that we don't have a consistent cross-platform story?

The key tenets of achieving wide market share for all platformsfor Internet Explorer 5:

1. Stability, Footprint, and Performance - This is not just an issue for the cross-platform browsers. In a market climate where customers have asked for fewer features that work better and faster, stability, footprint, and performance should be major priorities for all the browsers. The real challenge is not just improving this story for each browser, but being able to quantify these goals, and then communicate how we meet them to the outside world. Getting perceived customer value and impact from delivering on these asks will be a major challenge for our marketing team.

2. Sim-ship - Part of Netscape's success comes from the fact that they sim-ship their products (although key features are sometimes left out without any notice from press or customers). Each product benefits from being part of the overall launch effort. We could benefit as well from a combined (Win32, Win16, Mac, UNIX) launch, however

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marketing must be signed up for not only delivering marketing dollars and resources, but for helping us target the specialized customers on each of the platforms.

3. Focused, optimized messaging - Along with creating cross-platform browsers with a balance of core features versus platform specific features, we must have a marketing strategy and messaging that reflects that balance. As mentioned briefly above, only part of competing with Netscape means meeting them on their own ground (sim-shipping a product, evangelizing a core set of functionality). The other half means exploiting the weakness in their one browser/UI for every platform. This means that marketing must be highly educated about our different focuses beyond the core on each individual platform. This means our marcom must be sensitive to the different markets in which it is being presented. This is a huge challenge. This means that while win32 will be the most feature-rich, if we focus on win32 to the exclusion of other platforms/markets, then we have negated the potential gains we get from sim-shipping that core set of functionality. Sometimes we have a difficult time balancing any message with our win32 story. We need to also remember that driving people to adopting IE as their web browser will eventually drive win32 adoption.

4. Attach, attach, attach

Each cross-platform browser needs to be in the position to attach to as many delivery vehicles on their platform as possible. On MacOS we are finally in the enviable position of being the default browser on the OS. This is a huge advantage especially in the case of the large chunk of customers who use whatever browser comes with/is integrated with their operating system. There are other opportunities as well.

Two of the main pillars of the win32 IE5 team's efforts are around adding value to Office9 and NT5 as integrated parts of their products. On the Mac for example there are similar opportunities with future releases of Office for Macintosh and MacOS. There are also many opportunities for integrating with other 3rd party products on each platform. Many 3rd party software developers aren't even aware of the flexibility the IEAK offers them in terms of deploying a customer version of IE with their software. This is a huge opportunity especially if we focus on the consistent deployment story for ISPs, corps and education. Much of the functionality bleeds over into being useful for ISVs.

5. Painless deployment - In the enterprise (both business and academic) the cross-platform versions of IE have the potential to impact market share exponentially. Making deployment as consistent and interoperable as possible across platforms is of paramount importance. It's difficult enough for IS managers to maintain alternate platforms (Macs for example) in an overwhelmingly windows-based environment. We don't want them to have to make any extra effort in deploying IE on those "minority" platforms.

6. Core DHTML is <u>the</u> web app/content platform - While still in its early stages, DHTML certainly has the potential to mature into a robust, high performance, stable platform for deploying web applications and independent web content. For developers of LOB applications as well as content providers, a cross-platform story is a necessity. Some level of XML support needs to be given serious consideration as part of (not as an alternative to) our core cross-platform web runtime as well.

Open Issues and Concerns

There are a large number of challenges that this strategy presents as well as many many details yet to be worked out. Here are some challenges we face:

- As mentioned above, all the benefits we get from sim-shipping a core subset of functionality are negated if marketing isn't prepared to have a very flexible set of messaging, strategy, and partnerships. This means a coordinated effort preaching about IE5 to different markets with different emphases. In a traditionally win32 focused marketing organization this will be an enormous challenge, especially as it pertains to cross-platform content development (as we've seen with channels in the IE 4 browsers.)
- The reality is, the cross-platform teams have a fraction of the development, marketing, and program management resources of the win32 team. Given any re-architecture work that needs to be done for each browser, there will be very little time for new feature work. In the IE5 time frame, we need to leave room for making interface and other visible feature enhancements (things that will be most visible to the end user), versus focusing solely on content rendering.
- While sim-shipping the browsers is going to be difficult, I suspect that sim-shipping public betas will be near impossible. (On the Mac, for example, we made the decision not to ship Preview 2 so we could reach our 3-month delta date.) Will the lack of coordination of betas detract from the benefits we are trying to get from sim-shipping with a consistent core story, or will it enable us to synch up on the final versions and thus have more impact?
- If we choose IE4 DHTML as the core cross-platform runtime story, not only will we have a difficult time evangelizing it versus the new IE5 win32 DHTML support, but we will probably have some compatibility issues as well. If we follow this plan, the trident team will need to have some plan for backward compatibility.
- There are some separate deliverables for some of the platform teams that may affect overall ship dates. (For example, the Mac team needs to sync up with Apple's OS release schedule; we've also made commitments to Apple regarding features such as ColorSync support, etc. Right now, the next OS release appears to jibe with a potential sim-ship; however, if the schedule changes, we will have to reevaluate our situation.)
- We need to rationalize our cross-platform IE strategy with our OE strategy. I'm not familiar enough with the depth of issues presented by OE, but we will definitely need some clear coordination.

Feature Overview

Below are two potential feature lists. The first represents the bare minimum that must be implemented for the cross-platform IE5 clients. The second list contains a feature wish list that can be considered if the first list can be met on schedule. Note: some features have already been implemented on certain platforms and are listed as part of the cross-platform deliverables. While some features may have a particular platform listed as they are only applicable for that instance of the browser. (Note: this draft of the plan has yet to be reviewed by the Win16 and UNIX teams)

Minimum Bar Feature list

- **Runtime**
  - *Client Capabilities* - Although it is an IE5 DOM feature, the Client Capabilities OM is key to support in the cross-platform browsers as it enables content authors to get fine grain detail on what exactly the browser can and can't do.
  - *VB Script (Mac only)* - the UNIX and Win16 browsers already support VBS. Putting VBS in the Mac browser consists of two major chunks of work, including porting the VBS engine, as well as making the browser ready for the nuances of VBS (case insensitivity, variable storage differences, etc.)
  - *CSS 1* - consists mainly of cleanup work and testing against common test suites
  - *CSS Positioning* - consists mainly of cleanup work and testing against common test suites
  - *StyleSheet Object Model* - consists ~~mainly of cleanup work and testing against~~ common test suites
  - *HTML 4.0 (minus accessibility)* - accessibility is not a native Mac function. - consists mainly of cleanup work and testing against common test suites
  - *Scriptlets* - consists mainly of cleanup work and testing against common test suites
  - *Element Collection* - consists mainly of cleanup work and testing against common test suites
  - *Event Model* - consists mainly of cleanup work and testing against common test suites
  - *HTML Dialogs* - consists mainly of cleanup work and testing against common test suites
  - *Inner/Outer HTML* - consists mainly of cleanup work and testing against common test suites
  - *CDF* - consists mainly of cleanup work and testing against common test suites
- **UI**
  - *Channel Bar* - this will be merged into the favorites bar. As no active desktop exists on the cross-platform browser, no cleanup is necessary.
  - *Search Bar* - As there will definitely be further evolution and enhancements to the Search Bar the cross-platform teams need to engage with the win32 Search team to ensure that these enhancements can migrate to the non-win32 browsers
  - *Offline cleanup* - This involves some refinements of the offline feedback in IE developed by the win32 team.
  - *Save As...* - the ability to save standalone MHTML documents of web pages or web sites (Mac browser already has UI)
  - *ICW (mac only)* - Apple has requested a major overhaul of our ICW UI to look more like their OS. This is key in directing Mac customers to our referral server
  - 3 cool new end-user things (coming in separate document)
- **TCO**
  - *Auto-proxy* - the ability to set the proxy via JavaScript on a hard-coded start page
  - *Static PID* - MTS needs to have a PID to monitor and control the tech support in the product
- **Services**
  - *Native StuffIt Decompression (Mac only)* - incorporate licensed StuffIt decompression engine into IE
- **Architecture**
  - Factor rendering Engine (Mac only) - the HTML rendering engine is used by both IE and OE on the Macintosh. It is currently not factored so that IE and OE can share it as a single library. Both for footprint considerations and to provide hooks ~~for any future rendering engine to be~~ built into Mac IE, this is key work that needs to be done in the IE5 time-frame.

"Would be nice" Feature list

- **Runtime**
  - *CSS Transitions and Filters support or transparency* - the work on the actual filters is already done on the Mac, but they need to be hooked into the product. For each platform, filters need to degrade gracefully.
  - *DirectX Multimedia Controls (Mac only)* - a porting team has been working for several months porting DX3 as well as the multimedia controls to the Macintosh. This definitely is not part of a core cross-platform runtime, but a significant investment has already been made on the Mac.
  - *W3C DOM* - the Trident team still does not have a clear idea of exactly where MS stands in regards to the W3C DOM to come. While it is likely that the cross-platform teams will not have time to work on any W3C DOM compatibility, we should know where we stand in regards to this.
  - *XML/XSL, XML OM* - The XML team is working on a win32 XML/XSL engine. They have also made it a top priority to engineer their engine with sensitivity to cross-platform issues. However, it is unclear that there are more clients than CDF and OSD for these services in the short term. The long-term goal is definitely for third parties to depend on these services in the browsers. However this may be an initiative to pursue in the IE6 timeframe. In the meantime, each of the cross-platform browsers already has basic support CDF (although each implementation needs to be tested against a common test suite).
- **UI**

- *History by site (Mac only)* - this is a key end user feature that the Mac doesn't currently support
- *Security Dialogs cleanup* - the win32 team has expressed interest in driving this. However it is unclear how much traction they will get against this priority. If they do succeed, the cross-platform teams should copy their efforts.
- *Kiosk Mode* - the key to this feature is that it is configurable through the IEAK

- **TCO**
  - *Drag Install (Mac only)* - MacOffice has its own version of Darwin. This is key to support if we can get in the Office folder slipstreamed onto their CD
  - *Dynamic PID* - MTS would really like the PID to be dynamic and different for each customer
  - *New Referral server* - the ICW needs to be integrated with the new referral server being worked on
- **Services**
  - *Save as MHTML* - in order to make the "Save As..." feature work, MHTML generation is essential.
  - *Personal Certificates (Mac only)* - do win16 and UNIX have this?
  - *S/MIME (Mac only)* - do win16 and UNIX have this?

Delivery Schedule

It is unclear as to whether a synchronized beta schedule is necessary in order to take full advantage of the simship message. More likely, Win32 IE's ties to the Office9 and NT5 betas make it extremely unlikely. Also, the diminished feature set in the cross-platform browsers may make 2 public betas unnecessary.

M0 - 3/1/98 - specs done, test teams coordinated
Beta - 6/1/98 - feature complete
Final - 8/15/98 - stability, performance tuning

Transition plan for IE5 Mac

Current Team

The current Mac IE team is focused on delivering IE 4.0a and IE 4.01. 4.0a is a QFE for Office and has very few fixes. 4.01 is a significant update and focuses almost exclusively on performance and stability. The one exception is the addition of ColorSync support in the 4.01 timeframe. This was promised by MS to Apple at the last Seybold conference. Additionally, IE 4.01 for Macintosh is tentatively scheduled to be the release bundled with Apple's summer 98 OS release codenamed Allegro. The current team should be done with IE 4.01 at the latest by the end of March 1998.

Transition Team

Once the current team has delivered 4.01, there is a core team that can be retained to focus on delivering IE5 for the Macintosh. The feature set is diminished enough that only a small focused team is necessary in order to meet the baseline feature set described above. Key in this team is covering all the different portions of the browser with limited resources. Specifically:

Lead Program Manager - Laura Tillet
Lead Development Engineer - Ed Tecot (Rendering Engine, International Support)
Software Development Engineer - Tantek Celik (CSS, DOM)
Software Development Engineer - Eric Soldan (TCO, ActiveX)
Software Development Engineer - Brad Pettit (UI, Imaging)
Software Development Engineer - Mark Young (Preferences, Plug-Ins)
Software Development Engineer - Marcus Jager (Java)

Organizational Structure

With MS-Bay moving to the IMG group, it is clear that the Mac IE charter cannot continue to reside there. While the tranistion team will be located in the Bay Area the group's focus will be elsewhere. Given that IE Mac needs focus and clarity as well as sponsorship to fully succeed it makes sense to transition ownership of the charter as well as the transition team as soon as IE 4.01 ships.

There are essentially two organizational options for migration of the IE Mac charter/team. Focus of the product and team need to be balanced between direction from the win32 IE team and the MacOffice team. MacIE plays key roles in both charters and needs input from both groups. These two groups should discuss from where they think that balance can be best achieved. The best situation would probably be where the MacOffice team owns the charter but is signed up to take into account the IE win32 and marketing teams' priorities (all of which should be documented in this plan).

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Internet Explorer for Macintosh Team

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