

Yes, even when DRDOS is forced to load into the HMA, it still uses UMB space for some system components, if it is available. Their philosophy is somewhat different than ours - they will minimize the amount of low memory used, at the expense of using more UMB space, while we only use the UMB space when the user requests. I compared my system running MSDOS with a system in the lab running DRDOS, with similar configurations. MSDOS took 25Kb total space, all from low memory. DRDOS took 12Kb low space and 33Kb of UMB space, for a total of 45Kb of conventional memory used. In both cases, the system was also using the HMA.

Some of what DRDOS puts in UMBs, e.g. disk buffers, we will put into the HMA, if we can.

The advantage of the DRDOS approach is that you maximize the really useful low memory, which delivers the most benefits to users who make no attempt to optimize their system, or load things into UMBs. The disadvantage is that, because you don't allow the user to control where certain system components go, you reduce the options to those who will make the effort to optimize their system. And, of course, since DRDOS is overall larger in conventional memory, there is less memory for the system optimizer to play with.

Bruce Neiminen

From: mikedr
To: bradc
Subject: DRDOS XMS driver
Date: Sunday, July 28, 1991 4:47PM

Date: Thu, 25 Jul 91 18:13:37 PDT

Another thing I've noticed, for 286 users: the DRDOS XMS driver is pretty huge, around 25Kb low memory resident size. The MSDOS XMS driver loads into the HMA, leaving just over 1Kb of low memory used. This is a pretty substantial difference.

Bruce Neiminen

From: richf
To: bradc; bradst; davidcol; mikedr; philba; richab; richt; russ; tomie
Cc: richf
Subject: Novell/DRI summary
Date: Thursday, August 08, 1991 5:29PM

Date: Thu Jul 25 19:49:55 PDT 1991

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Plaintiff's Exhibit

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Here's my cut at a summary of our discussions (assume from brads). Pts email me any changes. thanks

Over the last several days I've been meeting with DOS/Win product management, program management and development to discuss the Novell takeover of DRI, and this mail summarizes our current thinking. We will meet later this week to brainstorm on strategy and tactics going forward.

SUMMARY

There are two basic scenarios to explain Novell's takeover of DRI: it was either fundamentally a defensive move, or an offensive move. The defensive scenario is less interesting: it supposes Novell took over DRI to squash Lantastic, and to pre-empt some mindshare from Win Peer and Win NT. The offensive scenario presumes Novell is actively developing products to compete with Win Peer and NT, and ultimately plans to enter the standalone OEM DOS business. It is this worst-case scenario we're focusing on.

OFFENSIVE SCENARIO

This scenario assumes Novell aims to own the desktop, both server and workstation, and assumes they'll attempt to do this first by integrating Netware and DR DOS, and then, having legitimized DR DOS, by going after standalone OEM DOS business. IBM licensing DR DOS is a major X factor in this scenario.

Objectives

- *****
- * Tighten grip on net OS market with pre-emptive strike at Win Peer and Win NT
- * Establish standalone OEM DOS business

Basic Strategy

- *****
- * Simplify installation and increase functionality by integrating client and server OS
- * Legitimize DR DOS by widening its installed base
- * Pursue OEM DOS business as MS-DOS contracts expire

Possible Tactics

- *****
- * Bundle DR DOS free with Netware so customer can buy naked PCs
- * Site license DR DOS for free to provide Netware sockets
- * Give DR DOS to IBM to legitimize and provide Netware sockets
- * Give DR DOS to OEMs to provide Netware sockets (assumes OEM DOS business not an objective)

Possible Combined Product Features

- *****
- * Next Netware shell release: offer option to install DR DOS over MS-DOS

- * integrate Novell high-speed file system into DR DOS 6
- * Following Netware shell release: High-end version that requires DR DOS, and stripped version that runs on MS-DOS
- * Installation over the net similar to the MS-DOS 5 Upgrade
- * Remote installation: allow DOS + Netware shell upgrade from the server
- * Remote distribution: support installation of applications from the server
- * Use password features in DR DOS file system to provide workstation security

MICROSOFT VULNERABILITIES

Product

- * DR DOS 6 due in the fall at least a year ahead of MS-DOS 6
- * Novell could withhold redirector so Win NT can't talk to Netware servers
- * DOS a fixed standard; allows Novell to make compatibility a non-issue over time

Distribution

- * IBM licenses DR DOS
- * Novell VARs provide turnkey solutions at grassroots level. They could install Netware + DR DOS without the customer ever knowing the difference from MS-DOS, and make product differentiation nearly impossible

Customer Perceptions

- * Novell perceived as a very strategic partner in large corporate accounts
- * MS perceived as a networking failure on server and as network hostile on client (Windows, MS-DOS 5)

Bruce Nelminen

From: justinw
 To: brad; russ
 Cc: heidiw; scottj
 Subject: FW: Intelligence on Novell-DR DOS deal
 Date: Friday, July 26, 1991 5:05PM

Date: Fri Jul 26 16:23:06 PDT 1991

Hi -

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