

**Platforms
Group
-
Desktop**

**Three-Year
Outlook**

February 1998

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Platforms Group - Desktop

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*Platforms - Desktop
3 Year Business Outlook*

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Agenda

- Vision/Strategy/Risks
- Business Update
- Market Overview
- Product Plans
- Base Case
- Stretch & Low Growth Cases
- Summary

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Overall Vision

	Infrastructure	Applications
Desktop - <i>User Productivity</i>	<ul style="list-style-type: none">•Windows 98•Windows NTW 5.0	<ul style="list-style-type: none">•Office (with Outlook)•Visual Studio
Network Ops - <i>Network Infrastructure</i>	<ul style="list-style-type: none">•Embedded NTS•SNA Server•Proxy Server/Edge Server•SMS	
Data Center Ops - <i>Business productivity</i>	<ul style="list-style-type: none">•Windows NTS•Windows NTS/E•SNA Server•SMS	<ul style="list-style-type: none">•SQL Server•Exchange Server•Site Server•Visual Studio

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Desktop Vision

*Make Windows simple, compelling, and connected,
for all audiences.*

- Simplify development and reclaim developer focus & loyalty
 - Consolidate on NT code base w/ standard process for releases
 - Unify APIs from IE component, Win+, etc. (leveraging COM+)
 - Create compelling platform for web developers
 - Win the Java mindshare battle
- Make deployment & management easy
 - Ensure IntelliMirror technology is easy & comprehensive
 - Deliver tools that minimize migration hassles
 - Work side by side with RDP customers until we have it right
- Simplify & enhance the end user experience.
 - Develop easier to use UI & shell enhancements
 - Ensure first time users are not intimidated

W64
NTFS only?

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Objectives/Strategies

- ◆ Grow overall business from \$5.2B to \$7.9B (base case).
- ◆ Increase Web-viewing share from 45% to 65%.
- ◆ Reduce PSS support burden for NTW:
 - ◆ Reduce #incidents/unit from .22 to .1
 - ◆ Reduce #minutes/unit from 67 to 40

Key Business Driver	Strategies
OEM CAGR	<ul style="list-style-type: none"> • Near term, exploit sub \$1k opportunities for growth. • Longer term, design products that simplify and increase relevance to new users. • Continue supporting new HW innovations with OS updates. • Base Case assumption: 13.2% CAGR.
Pricing & product mix	<ul style="list-style-type: none"> • Increase revenue per license by evangelizing NT benefits to broad market. Aggressively drive NT in business & OEM. • Targeting NTW Mix for Business: 40% OEM & 59% FG.
FG/Upgrades	<ul style="list-style-type: none"> • Increase revenue per installed base PC with EA and generate exciting "must'have" upgrades with end-users. • Introduce infrastructure for consumer annuity business. • Targeting EA 31% in LORG; no rev. for Home annuity included.

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Risks to Strategy

- **Sub \$1000 PC:** Try to hold off OEM pressures at low end. Drive increased demand in households
- **Java.** Use DHTML for down-level clients. Promote object model interoperability and appropriate cross platform support.
- **Thin clients.** Deliver on benefits of Full client while reducing the costs of deployment. Ensure customers deploy Hydra when thinking of thin clients/"shared logic" solutions.
- **Netscape wildcard.** Drive web client share to critical mass by delivering a compelling product to customers, vesting industry partners in our success and establishing Windows as the de facto web development platform
- **Annual releases.** Planning for appropriate level of parallel efforts to keep minor-major-minor schedule

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Business Update

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Business Update

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FY 98 Financial

Revenue \$ Millions

	FY98 H1				H1 vs Year Ago			FY98 Total Year			
	Actual	Original Plan	Variance	%	FY97 H1	Growth	%	Mid Year Forecast	Original Plan	Var	%
OEM											
Win9x	\$ 1,456	\$ 1,342	\$ 114	9%	\$ 1,042	\$ 414	40%	\$ 3,083	\$ 2,761	\$ 321	12%
NTW	\$ 291	\$ 277	\$ 14	5%	\$ 57	\$ 234	411%	\$ 700	\$ 649	\$ 50	8%
Win16, DOS	\$ 81	\$ 90	\$ (9)	-10%	\$ 242	\$ (161)	-67%	\$ 101	\$ 170	\$ (69)	-41%
Other	\$ 14	\$ 7	\$ 8	112%	\$ 10	\$ 4	42%	\$ 24	\$ 12	\$ 12	107%
Total OEM	\$ 1,842	\$ 1,716	\$ 126	7%	\$ 1,351	\$ 491	36%	\$ 3,807	\$ 3,592	\$ 315	9%
FG											
Windows 95	\$ 279	\$ 175	\$ 104	60%	\$ 249	\$ 30	12%	\$ 512	\$ 268	\$ 244	91%
Windows 98	\$ -	\$ 0	\$ (0)	-100%	\$ 0	\$ (0)	-100%	\$ -	\$ 152	\$ (152)	-100%
Windows 9x	\$ 279	\$ 175	\$ 104	59%	\$ 249	\$ 30	12%	\$ 512	\$ 420	\$ 92	22%
NTW	\$ 229	\$ 153	\$ 76	49%	\$ 216	\$ 13	6%	\$ 496	\$ 285	\$ 211	74%
Win16, DOS & Other	\$ 32	\$ 29	\$ 2	8%	\$ 77	\$ (45)	-59%	\$ 55	\$ 50	\$ 5	10%
Maintenance	\$ 122	\$ 106	\$ 16	16%	\$ 89	\$ 33	37%	\$ 177	\$ 227	\$ (50)	-22%
Enterprise Agreements	\$ 30	\$ 43	\$ (13)	-31%	\$ -	\$ 30	100%	\$ 98	\$ 134	\$ (36)	-27%
Total FG	\$ 692	\$ 507	\$ 185	37%	\$ 631	\$ 61	10%	\$ 1,338	\$ 1,116	\$ 222	20%
Total PSD	\$ 2,534	\$ 2,222	\$ 312	14%	\$ 1,982	\$ 552	28%	\$ 5,244	\$ 4,708	\$ 537	11%

- H1 FY98 ahead of plan \$312M (14%) due to stronger PC unit sales and Win32 FG licensing. On target to hit \$5.2B for fiscal year, exceeding original plan by 11%.
- No Windows 98 revenue included in FY98 MYR forecast but we anticipate sell-in of approx \$140M
- Revenue growth of \$552M vs. 1H FY97 primarily from PC shipment growth (\$334M) & mix shift to NTW in OEM (\$157M). Win16 Finished Goods business shifting to Win32 annuity business (\$63M).

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Source: MS-Sales, OEM Forecast & Prelim Yellow Book

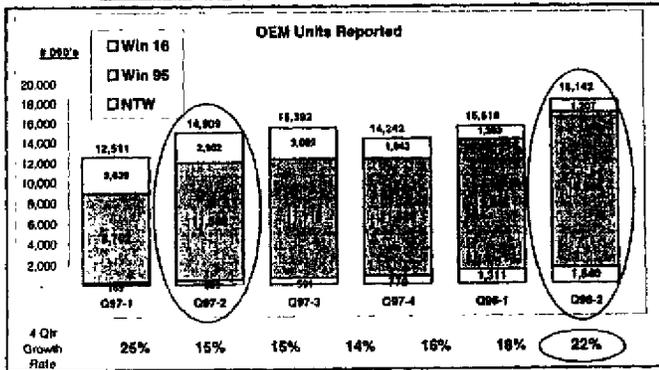
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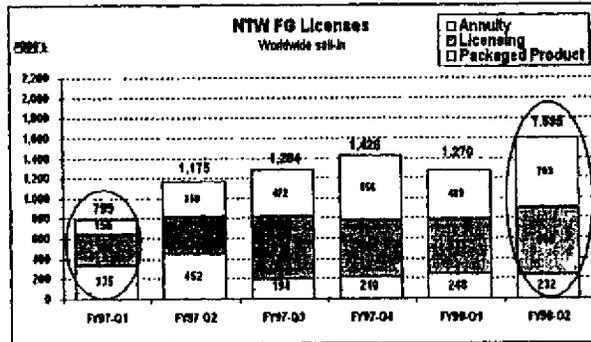
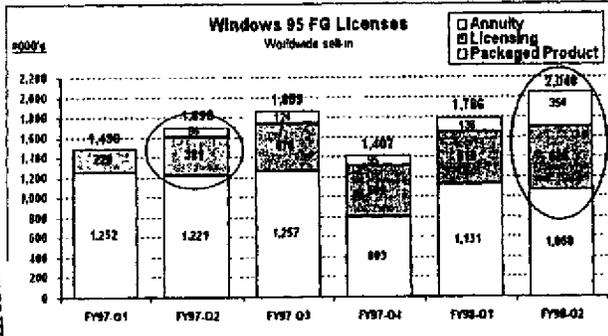
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Units & Licensing



- Rolling 4Q growth rate of 22% in OEM shipments.
- Q2 97 to Q2 98 OEM comparison:
 - Win95 increased from 77% to 85% in last year.
 - NTW increased from 2.4% to 8.4% in last year.
 - Win16 dropped from 20% to 7% in last year.
- Win95 PP sales have reduced 72% to 52% in last year. Win95 license/annuity sales have increased 28% to 48% in last year.
- NTW FG sales have doubled since the launch of NTW 4.0. Mix predominantly license/annuity (85%).



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Legend: Annuity = EA+Main, Packaged Product = FPP+Academic, Licensing = Select, OPEN, MLP, etc.
(Source: MS-Sales)

IE Component Metrics

As of 1/98	US		IE	AOL	IE/AOL	NSCP
Overall Usage share			25%	22%	45%	50%
Win32 share			30%	20%	48%	47%
Win16 share (Dec 1997)			19%	17%	34%	64%
Mac share			12%	18%	28%	68%
Share of Hits to Top Web sites (Dec 1997)			39%			55%
Work share			28%	8%	35%	59%
Home share			27%	27%	51%	41%
Share of new users(www last 6 mos)			62%			38%
Base on Version 4.0			40%			35%
					(*90% of AOL on IE)	
International(24 languages v. NS -12)						
UK, Sweden, Spain, Norway, Italy			> 60%			
Germany, Japan, Canada, Finland			< 50%			

- Win 32 share will grow as market shifts away from Win16
- Mac share is low but Mac is only 12% of market; going forward IE will be default with OS/hw shipments
- Home share is ahead due large number of AOL users
- Work share is affected by:
 - Delay in X-platform availability affecting large accounts
 - Lag between standardization and deployment in LORG & MORG
 - Lower share in MORG/SORG segment

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Source: Random digit dial to web surfers for US data; Hits to top sites for International from Subs and 4.0 version share %s

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FY98 Highlights

- **Helped control NC growth.** ^{#9?}
 - ZAK & Net PC shipped, Hydra in beta; Established new GG TCO numbers.
 - Not a single PC OEM has moved to the NC platform, except IBM.
 - Press have caught on "NC is dead".
- **IE winning**
 - Grew US share from 19% to 44% over last 12 months (over 94% of AOL on IE),
 - Won all IE reviews in trade and business press
 - Across the board partner support from ISPs/OEMs/many ISVs
- **Finally communicated the shift to NT.**
 - NT = Business; 98 = Consumer
- **Well executed PDC**

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FY98 Lowlights

- **Developers**

- **JAVA** -- stealing platform mindshare
 - No clear response to Java
 - Lack developer excitement and vision COM + not yet filling hole
- Cross-platform stumbles (e.g., IE Unix, COM, etc.)

- **Business**

- Migration slower to NTW 4.0 than hoped, only 8.4% of current OEM run-rate
- Confusion over Windows 98 value *May*
 - Common impression = Windows 95 with IE 4 - OEMs, Press, Analysts
- Still need to improve relationship with Intel (confusion over management, NC, etc.)

- **Product**

- Quality issues
 - Products continue to be too complicated (e.g., DLL hell)
 - Residual impact of low quality in NT SP2
 - IE 4.0 quality
- Uncoordinated OS component distribution

- **Branding**

- Confusion over thin client strategy
- Branding proliferation (e.g. Net PC, Direct X, Active Platform...)

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Other Key Feedback-Windows

- **Top analysts biggest issues:**
 - Stop shipping OSRs or other types of dribbleware,
 - Ship NT 5.0 as early as possible to avoid negative Y2K impact,
 - MS is now forcing NTW 5.0 down customers throats, W98 still has very good corporate features. Must do a ZAK (or equiv) for 98.
- **Key press biggest issues:**
 - Stop shipping OSRs or other types of dribbleware.
 - Win98 is a solid upgrade but may not be worth the usual \$89
 - Need to do a better job explaining desktop strategy.
 - Seen as too aggressive and arrogant (against Netscape and toward DOJ)
- **Key customer feedback:**
 - Y2K may delay OS deployment in CY99.
 - Upgrades are way too hard; need better to tools to automate.
 - Products too complicated. Quality over features.
 - NT 5.0 has very high expectations as a silver bullet OS.
- **Key developer feedback:**
 - Interop w/ Corba and Unix
 - Clarity on Java
 - Migration to NT5, Ironwood, COM+, Win+ etc

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Other Key Feedback - IE

- **Top analysts and key press feedback:**
 - We've taken a technical/innovation leadership role in the browser space
 - We're perceived to be faster and full of unique solutions(Explorer bars)
 - True web integration is a good first step
 - Need to improve download size, working set and quality
 - Too complicated to install
- **Key customer feedback:**
 - Sim-shipment of IE on all platforms (including admin tools)
 - Too complex and expensive to support
 - Many customers see MS and NS as parity products; no strong reason to switch
 - Improve performance / working set
 - ISP/OEMs and Corps like the customization abilities in the IE Administration Kit
 - Synch deployment / management story with Windows (IEAK, ZAW, MMC)
- **Key developer feedback:**
 - We're starting to get credit for strong standards support
 - Consistent cross-platform development support (Mac IE to Win IE to Unix IE)
 - Write once; run on both Navigator and IE
 - Lag of development tools hurts our IE and standards initiatives

Text Text?

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Market Overview

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Market Overview

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IT → NIS → 32M

PC Shipments & Installed Base

PC Shipments 000's						
	FY98		FY01		Growth	CAGR
Home						
RAM <32mb	9,534	36%	400	1%	(9,233)	-65.4%
RAM 32-63mb	11,557	43%	24,052	61%	12,495	27.7%
RAM 64mb+	5,505	21%	15,201	38%	9,695	40.3%
Total Home	26,606	100%	39,653	100%	12,957	14.1%
Business						
RAM <32mb	16,759	31%	770	1%	(15,989)	-64.2%
RAM 32-63mb	25,455	47%	44,738	56%	19,284	20.7%
RAM 64mb+	11,555	22%	31,540	41%	19,976	39.7%
Total Business	53,778	100%	77,049	100%	23,270	12.7%
Total						
RAM <32mb	26,392	33%	1,170	1%	(25,222)	-64.6%
RAM 32-63mb	37,012	46%	68,790	69%	31,778	23.0%
RAM 64mb+	17,070	21%	46,741	40%	29,671	39.9%
Total Worldwide	60,474	100%	116,701	100%	36,227	13.2%

Worldwide PC Installed Base 000's						
	FY98		FY01		Growth	CAGR
Home						
RAM <32mb	77,897	71%	43,741	27%	(34,155)	-17.5%
RAM 32-63mb	21,961	20%	73,729	45%	51,767	49.7%
RAM 64mb+	9,504	9%	47,027	29%	37,524	70.4%
Total Home	109,362	100%	164,497	100%	55,135	14.6%
Business						
RAM <32mb	123,802	65%	54,014	20%	(69,788)	-24.2%
RAM 32-63mb	47,228	25%	129,474	47%	82,245	40.0%
RAM 64mb+	19,626	10%	90,883	33%	70,857	66.0%
Total Business	190,657	100%	274,171	100%	83,314	12.8%
Total						
RAM <32mb	201,699	67%	97,755	22%	(103,944)	-21.5%
RAM 32-63mb	69,190	23%	203,202	46%	134,013	43.2%
RAM 64mb+	29,330	10%	137,711	31%	108,381	67.5%
Total Worldwide	300,219	100%	438,668	100%	138,450	13.5%

- FY98 to FY01 CAGR of 13.2% anticipates slower shipment growth despite sub \$1K PC phenomenon.
 - (note: FY95-FY98 CAGR = 18%)
- 64% of home PCs ship with 32mb+ in FY98. Only 22% of business machines are shipping with 64mb.
 - 64mb will still not be the primary configuration in FY01.
- Lower RAM in the installed base may reduce upgrade potential
 - Only 29% of WW Home IB has >32mb and only 10% of business IB has 64MB in FY98
- Only 1/3 of worldwide IB in FY01 will have 64mb. Same for business.
 - Less than 5% of LORG B&B customers willing to add RAM to PCs due to cost (Prefer to know what to buy now to avoid upgrading hardware.)

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Source: OEM PC forecast

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US Revenue by Segment

FY98	USFG Revenue	PC Installed Base	USFG Revenue \$/PC	Annuity Coverage %	Upgrade Rate	NTW FG Mix
LORG	\$319,272	18,224	\$ 18	16%	10%	46%
MORG	\$ 93,994	14,847	\$ 6	2%	6%	39%
SORG	\$141,331	22,529	\$ 6	0%	6%	25%
Academic	\$ 17,608	7,513	\$ 2	0%	2%	20%
Business	\$572,204	63,112	\$ 9	2%	7%	36%
Home	\$ 90,832	47,294	\$ 2	0%	2%	2%
Total U.S.	\$663,037	110,407	\$ 6	3%	5%	30%

- Higher NTW mix & EA coverage drives LORG significantly higher than other segments in dollars and growth
- Rev \$/PC is very low in Home segment due to infrequency of upgrades

Note: Annuity = EA + Maint
 NTW FG mix excludes EA/Maint.
 Upgrade rate = # of FG sell-thru licenses/PC IB (excluding Maint. and EA)

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Source: OEM Forecast, MS-Sales

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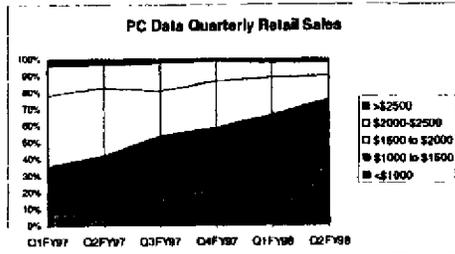
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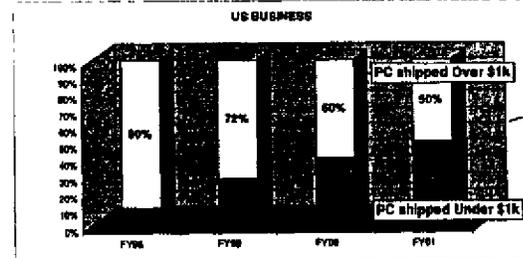
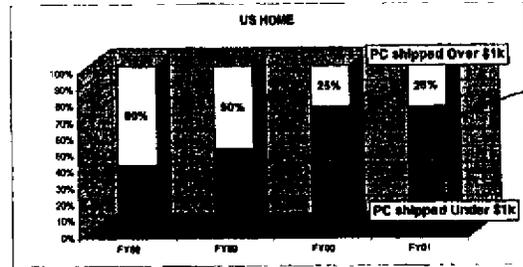
The Sub \$1000 PC

Growth of sub \$1k PC market



- The sub \$1k PC market has grown from 8% to 35% in 5 quarters.
- The retail ASP in US retail went down 28%, from \$1765 to \$1270.

Projected mix of Sub \$1k market



- Cross over point of high price OS on a low price PC by FY01:
 - 25% in home. 50% in biz

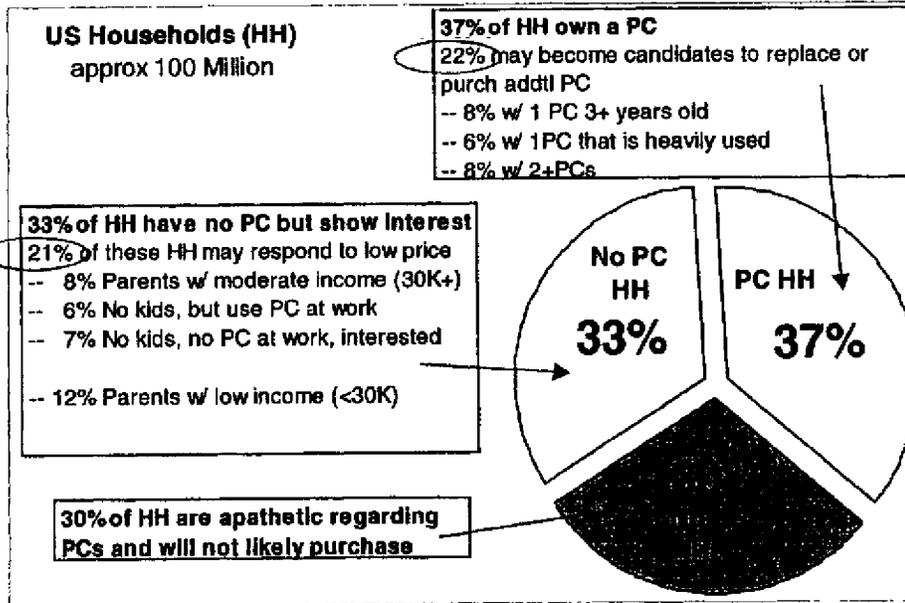
Source: PC Data

Home FY98 projected from PC Data trend. Assumes \$1500 today is \$1000 in FY0001
Business FY98/99 based on Compaq projections.

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Note: Over 90% of cheap PCs are priced without monitor. If monitor is added, ASP decline would not be as steep.

Sub \$1k PCs may grow the home market



- 43M US households are potential candidates to respond to sub \$1000 PC.

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Source: Roper/Starch. N=16,000 US HHs profiled in CV97

"Thin Client" Threat

- NC Competitive threat is waning somewhat
 - Accounts like our TCO/manageability story, are beta testing Hydra, and have seen NC flaws.
 - We know of 24 accounts turned around, as well as 4 losses (IBM Netstation terminals, heavily courted by NC camp).
 - We know of 35 current NC threats, being tracked in MSNA, Europe & ICON (we have plans in place to address appropriately).
- NC Market Forecasts
 - Dataquest believes their 1997 forecast of 400k NCs is too high, actual data available mid-Feb
 - Even based on projections made at the peak of the NC hype, the NC represents only 1-3% market share.
- Hydra Server competitors slow in coming to market
 - New Moon on Beta 8 with 30 accounts, RTM targeted for April/May
 - Corel Remagen still in alpha state
 - Epicon selling as Win32 applications deployment tool
- MS Competitive Response for Thin Clients (shared logic) solutions
 - Position Windows-based Terminal as "thin client/shared logic" alternative
 - Make Hydra Functionality part of NTS
 - Require NTW Licenses for any multi-user NT Server access (MS or 3rd Party)

CITPA message

Q2
NTW licenses?

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Product Plan

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Desktop Product Plan

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Windows Desktop Development Goals

- Increase revenue per unit
 - Drive NT (higher revenue OS) mix by adding most compelling features
 - Sub \$1000 PC => value/usage segmentation (details next)
 - Ensure Hydra is default choice when customers choose "Thin Client"
 - Price at same level as NTW desktop
- Reduce platform delivery complexity and increase quality
 - Move to NT code base after Win98 RTM
 - Move OS releases to 12-month cycle
 - Deliver regular Service Pack releases
 - Central distribution of all OS components
- Deliver more compelling development platform
 - API advancement: COM+, WIN+, integrated storage
 - UI advancement: ease of use enhancements
- Create process for solving key technology challenges such as:
 - Cache/replication, integrated storage, programming model, forms

Loging

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Desktop Product Segmentation in FY00

What
NT's

Strategy	Packaging	Pros	Cons
No change	<ul style="list-style-type: none"> ◆ Single NT product @ ~\$100 ◆ Win98 continues low-priced OS, with no new development 	<ul style="list-style-type: none"> ◆ Development can focus on single NT ◆ Keep NT price point/value above Windows 98 	<ul style="list-style-type: none"> ◆ Encourages 3rd parties to hack Win98; might force us to do Win98 enhancements ◆ Customers and OEMs may still buy Win98 because of lower price; slows NT migration ◆ OEM price pressure could force NT price lower; little recourse to create differentiated, higher-priced products
One NT for everyone	<ul style="list-style-type: none"> ◆ Single product @ ~\$70 for all systems 	<ul style="list-style-type: none"> ◆ Simplest customer messaging - one-size-fits-all ◆ Development can focus on single NT 	<ul style="list-style-type: none"> ◆ May encourage naked OEM systems ◆ Potentially same issues as Option #1 ◆ OEM price pressure likely makes this strategy not viable
Usage/Value segmentation	<ul style="list-style-type: none"> ◆ <u>NT "Standard" @ ~\$100</u> <ul style="list-style-type: none"> ◆ Fully-featured system ◆ Compelling to most users ◆ <u>NT "Entry-Level" @ ~\$50</u> <ul style="list-style-type: none"> ◆ Common API ◆ Subset of Standard: Aimed at basic home users, new PC users, and 2nd lower-cost PCs ◆ Networking limits e.g., no "LAN" or sharing ◆ Capacity limits e.g., memory 	<ul style="list-style-type: none"> ◆ Best strategy against competitive attack on low-end ◆ Aggressively moves run-rate to NT 	<ul style="list-style-type: none"> ◆ Complexity in creating feature mix that drives volume to Standard package ◆ Encourages 3rd parties to feature hack Basic to add key functionality ◆ Negative perceptions over capacity limits

Why??

NOT TAILORED TO CONSUMERS

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Windows Desktop Release Strategy

- Move to annual OS releases beginning in FY00
 - Minor-major-minor release cycle
 - All releases date-driven: Q4FYxx (holiday cycle)
 - Enable some parallel engineering efforts for releases
 - All releases available through OEM and FG (no more OSRs)
- Deliver scheduled Service Packs starting with Win98 and NT5
 - Build separate team to deliver regular NT Service Packs
 - Service Packs will be kept small to avoid impact on annual releases
 - Includes all NT variants (NTW, NTS, NTS/EE)
 - Slipstreamed CD for OEMs to preinstall
 - Service Pack updates available through all channels
 - Corporate customers can "overlay" Service Pack files for clean installs (no upgrades)
- Centralize distribution of all OS components starting with Win98 and NT5
 - Delivery vehicle (including release to web) is always annual OS release or Service Pack; assuring appropriate integration testing.
 - One key component in addressing "DLL hell" issues

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Windows Desktop Release Plan

- Focus on Win98 and NT5 in CY98
- Very limited Win98 Service Pack
 - No additional development except bug fixes, IE component updates, and very small number of features
- NT "Asteroid" in Q4FY99 - Minor release
 - Businesses: Point release to accelerate NT5 deployment (fixes, deployment tools)
 - Consumer: Remove barriers for NT on high-end consumer systems
 - Available through OEM and FG
- NT "NepTune" in Q4FY00 - Major release
 - Developers: Major programming infrastructure innovation/simplified API
 - Win+, COM+, integrated storage infrastructure
 - Drive to sync Tools and Office releases
 - Businesses: NT5 enhancements (ZAW 2.0, DS 2.0)
 - High-End: targeted at workstation users, 64bit support (NT64 may ship sooner based on Merced timing)
 - Consumers: Significantly simplified end user experience
- NT "Triton" in Q4FY01 - Minor release
 - New hardware support for CY01 holiday

Q4 2000

→ UNIX ←

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Windows Desktop Product Roadmap

	1998	1999	2000	2001
High-End (\$2500+) PCs Business and Consumer	NT5	NT Asteroid	NepTune High-End	Triton High-End
			NT NepTune Standard	NT Triton Standard
Mid-range (\$1000-\$2500) PCs, Business and Consumer	Win98	Win98	NT NepTune Entry-Level	NT Triton Entry-Level
Low-end (\$500- \$1000) PCs Business and Consumer				
	First clear direction for businesses to NT	Business migration to NT in progress; date-driven Service Pack for NT; NT64 dependent on Merced	Introduce new value-based segmentation; all products NT-based	Add minor release to NepTune user base; continue refining products based on PC capability

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IE Component Development Priorities

- Make Windows the leading Web development platform
 - Developers use Windows as target platform for HTTP and HTML content
- Continue making the Web an integral part of Windows
 - Improve Windows Web-client integration in four areas: ease of use, upgrade/deployment, administration and developer platform
- Deliver the universal information viewer
 - Enable users to view applications, publications, and personal information from any client, viewed best in Windows web client
- Continue delivering leading-edge Web solutions
 - Support for industry standards, response to Netscape/Sun/others

One step

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Java Competitive Priorities

- **Status:**
 - Cross-platform client Java threat not materializing, but client is still vulnerable
 - Java losing to HTML+script as low cost development solution
 - Fewer than 1% of all web sites use Java (thin HTML clients have much lower switching costs than Win32)
 - Java developers are not pure; ~50% using native APIs (but Java API set growing)
 - Major competitive threat is on the server with Enterprise Java Beans
 - Trying to become the middle-tier API for developers to target; 45% of developers plan to develop with Enterprise Java Beans within next 12 months¹
 - Promise is to unify legacy investments and bring them into new world
 - IBM, Oracle, Sun all strongly aligned around Enterprise Java Beans
- **Product responses:**
 - Use(D)HTML+script for down-level clients and promote Hydra as cross platform Windows solution
 - Continue to make Java a first-tier language for building Windows applications
 - Combat Enterprise Java Beans by selling NT middle-tier services
 - COM+ services and run time
 - Evangelism of the major tool providers to target our middle-tier offerings
 - Determine level of cross-platform API support
 - First step: COM support for other platforms directly from Microsoft
 - Promote object model interoperability
 - Let ORB vendors write COM/CORBA bridges

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¹Developer Metrics (US), November 1997

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Basel/Stretch/
Low Growth Cases

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Base Case FY99-01

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How We Grow - Base Case

Key Assumptions

OEM

- PC Shipment growth slows to 13.2% CAGR
- OEM Win9x royalty \$/unit drops to \$47 in FY00 and to \$42 in FY01 from low-price PC
- OEM NTW mix increases to 29% of total shipments (approx 40% of business by FY01)
- Continued improvement in OEM piracy is achieved (14% to 10% unlicensed in FY01)

FG

- Enterprise Agreements reach 31% coverage in LORG by FY01
- FG Licensing shift toward NTW reaches 59% (in Business) of mix by FY01

> Other = The additional revenue growth attributable to changing all assumptions simultaneously vs individually (compounding effect)

Revenue Growth FY98 to FY01

\$ Millions

FY98 Revenue	\$ 5,244
PC Shipment growth (CAGR = 13.2%)	2,023
OEM Price Erosion (\$54 to \$42 in FY01)	(774)
OEM Mix Shift to NTW (10% to 29% in FY01)	730
OEM Piracy Reduction (14% to 10% in FY01)	257
Enterprise Agreements (5% to 31% in FY01)	239
Bus. NTW FG Mix (40% to 59% in FY01)	52
Other	103
Total Revenue Growth	2,830
FY01 Revenue	\$ 7,874

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Summary of Base Case Revenue

\$ Millions												FY98-01	
	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	CAGR	Growth
OEM													
Win16, DOS & Other	\$ 1,050	\$ 441	\$ 125	\$ 36	\$ 8	\$ -	-58%	-72%	-71%	-76%	-100%	-100%	\$ (125)
Windows 9x	\$ 1,013	\$ 2,247	\$ 3,083	\$ 3,388	\$ 2,595	\$ 309	122%	37%	9%	-23%	-88%	-54%	\$ (2,773)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 733	\$ 2,784	0%	0%	0%	0%	280%	0%	\$ 2,784
NTW, NT-Standard	\$ 24	\$ 219	\$ 700	\$ 1,245	\$ 1,904	\$ 2,658	808%	218%	78%	53%	40%	56%	\$ 1,968
Unix Add-On	\$ -	\$ -	\$ -	\$ 7	\$ 12	\$ -	0%	0%	0%	64%	-100%	0%	\$ -
Total OEM	\$ 2,087	\$ 2,908	\$ 3,907	\$ 4,657	\$ 5,253	\$ 5,761	39%	34%	19%	13%	10%	14%	\$ 1,854
FG													
Win16, DOS & Other	\$ 189	\$ 91	\$ 39	\$ 25	\$ 9	\$ 0	-46%	-57%	-37%	-63%	-85%	-77%	\$ (39)
Windows 9x	\$ 675	\$ 489	\$ 512	\$ 651	\$ 458	\$ 113	-28%	5%	27%	-30%	-75%	-40%	\$ (399)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 141	\$ 454	0%	0%	0%	0%	223%	0%	\$ 454
NTW, NT-Standard	\$ 170	\$ 420	\$ 496	\$ 687	\$ 793	\$ 908	147%	18%	35%	19%	14%	22%	\$ 412
Unix Add-On	\$ -	\$ -	\$ -	\$ 5	\$ 23	\$ -	0%	0%	0%	319%	-100%	0%	\$ -
Plus! & Add-ons	\$ 78	\$ 34	\$ 16	\$ 28	\$ 16	\$ 11	-56%	-53%	72%	-44%	-27%	-11%	\$ (5)
Maintenance	\$ 107	\$ 212	\$ 177	\$ 108	\$ 100	\$ 72	98%	-16%	-38%	-8%	-28%	-28%	\$ (106)
Enterprise Agreements	\$ -	\$ 19	\$ 98	\$ 250	\$ 407	\$ 554	0%	418%	157%	82%	36%	78%	\$ 457
Total FG	\$ 1,189	\$ 1,266	\$ 1,338	\$ 1,735	\$ 1,944	\$ 2,113	8%	6%	30%	12%	9%	16%	\$ 775
Total Desktop OS	\$ 3,286	\$ 4,174	\$ 5,244	\$ 6,391	\$ 7,197	\$ 7,874	27%	28%	22%	13%	9%	14.5%	\$ 2,628

- Win9x revenue stream gradually replaced by NT by FY01, same as 95 & Win 3.x.
- Slower shipment growth and lower royalty \$/pc drive down OEM growth rate
- Windows 98 & NTW 5 launches drive FY99 FG revenue growth

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Summary of Base Case Units

Licensee 000's												FY98-01		% Total Units						
	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	CAGR	Growth	FY96	FY97	FY98	FY99	FY00	FY01	
OEM																				
Win16, DOS & Other	27,166	10,303	2,856	924	212		-82%	-72%	-68%	-77%	-100%	-100%	(2,856)	56%	18%	4%	1%	0%	0%	
Windows 9x	21,131	43,519	58,821	84,778	55,208	7,388	108%	31%	14%	-15%	-87%	-48%	(49,462)	44%	78%	88%	81%	60%	7%	
NT-Entry Level	-	-	-	-	15,985	86,288	0%	0%	0%	0%	325%	0%	68,288	0%	0%	0%	0%	17%	64%	
NTW, NT-Standard	243	1,878	6,789	13,835	21,158	29,842	672%	260%	105%	53%	40%	64%	22,863	1%	3%	10%	17%	23%	29%	
Unix Add-On	-	-	-	87	168	-	0%	0%	-	-	-	-	-	0%	0%	0%	0%	0%	0%	
Total OEM	48,640	55,700	68,436	79,625	82,329	103,287	15%	19%	20%	16%	12%	18%	36,851	100%	100%	100%	100%	100%	100%	
FG																				
Win16, DOS & Other	3,939	2,188	903	570	209	18	-45%	-58%	-37%	-83%	-92%	-74%	(887)	22%	13%	6%	3%	1%	0%	
Windows 9x	7,059	6,220	5,897	7,374	5,246	1,335	-12%	-4%	23%	-28%	-75%	-39%	(4,861)	40%	38%	39%	37%	24%	0%	
NT-Entry Level	-	-	-	-	1,871	5,368	0%	0%	0%	0%	221%	0%	5,368	0%	0%	0%	0%	6%	23%	
NTW, NT-Standard	1,143	3,092	3,500	4,505	5,721	6,923	163%	17%	29%	27%	21%	26%	3,423	6%	18%	23%	23%	27%	28%	
Unix Add-On	-	-	-	38	152	-	0%	0%	0%	319%	-100%	0%	-	0%	0%	0%	0%	1%	0%	
Add-ons	2,354	1,044	494	887	862	417	-58%	-53%	80%	-25%	-37%	-5%	(77)	13%	6%	3%	5%	3%	2%	
Maintenance	3,385	3,689	2,491	2,042	1,233	896	10%	-32%	-18%	-40%	-24%	-28%	(1,555)	19%	22%	18%	10%	8%	4%	
Enterprise Agreements	-	380	1,889	4,257	8,538	8,730	0%	382%	128%	54%	34%	87%	6,860	0%	2%	12%	22%	31%	37%	
Total FG	17,880	16,501	15,254	19,671	21,429	23,726	-8%	-8%	28%	8%	11%	18%	8,472	100%	100%	100%	100%	100%	100%	
Total Desktop OS	66,400	72,201	81,689	99,295	113,758	127,012	8%	13%	22%	15%	12%	18%	45,323							

- Corresponding shift in unit volume from Win9x to NT.
- OEM Unit growth expected to slow during FY00 & FY01
- FG units surge in FY99 from Win98 & NTW5 launches, EA

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Summary of Base Case Rev \$/Units

3YO Revenue \$/Unit Summary												FY98-01	
	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	CAGR	Growth
OEM													
Win16, DOS & Other	\$ 38.64	\$ 42.83	\$ 43.69	\$ 38.50	\$ 40.00	\$ -	11%	2%	-12%	4%	-100%	-100%	\$ (43.69)
Windows 9x	\$ 47.94	\$ 51.64	\$ 54.25	\$ 52.00	\$ 47.00	\$ 42.00	8%	5%	-4%	-10%	-11%	-8%	\$ (12.25)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 47.00	\$ 42.00	0%	0%	0%	0%	-11%	0%	\$ 42.00
NTW, NT-Standard	\$ 99.32	\$ 116.86	\$ 103.50	\$ 90.00	\$ 90.00	\$ 90.00	18%	-11%	-13%	0%	0%	-5%	\$ (13.50)
Unix Add-On	\$ -	\$ -	\$ -	\$ 85.25	\$ 78.30	\$ -	0%	0%	0%	-8%	-100%	0%	\$ -
Total OEM	\$ 43.00	\$ 52.21	\$ 58.81	\$ 58.48	\$ 56.89	\$ 55.78	21%	13%	-1%	-3%	-2%	-2%	\$ (3.03)
FG													
Win16, DOS & Other	\$ 42.84	\$ 42.17	\$ 43.20	\$ 43.09	\$ 42.99	\$ 30.26	-2%	2%	-8%	0%	-30%	-11%	\$ (12.94)
Windows 9x	\$ 95.68	\$ 78.59	\$ 85.35	\$ 88.30	\$ 87.22	\$ 84.82	-18%	9%	3%	-1%	-3%	0%	\$ (3.53)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 84.23	\$ 84.58	0%	0%	0%	0%	0%	0%	\$ 84.58
NTW, NT-Standard	\$ 149.08	\$ 139.98	\$ 141.63	\$ 148.16	\$ 138.59	\$ 131.10	-6%	1%	5%	-6%	-5%	-3%	\$ (10.54)
Unix Add-On	\$ -	\$ -	\$ -	\$ 149.00	\$ 149.00	\$ -	0%	0%	0%	0%	-100%	0%	\$ -
Add ons	\$ 33.01	\$ 32.84	\$ 32.46	\$ 31.08	\$ 23.51	\$ 27.16	-1%	-1%	-4%	-2%	16%	-6%	\$ (5.29)
Maintenance	\$ 31.74	\$ 57.57	\$ 71.22	\$ 52.97	\$ 80.76	\$ 76.77	81%	24%	-26%	52%	-5%	3%	\$ 5.55
Enterprise Agreements	\$ -	\$ 49.63	\$ 52.22	\$ 58.82	\$ 62.21	\$ 63.49	0%	5%	13%	5%	2%	7%	\$ 11.27
Total FG	\$ 67.14	\$ 76.71	\$ 87.69	\$ 88.18	\$ 90.74	\$ 89.05	14%	14%	1%	3%	-2%	1%	\$ 1.36
Total Desktop OS	\$ 49.49	\$ 57.81	\$ 64.20	\$ 64.37	\$ 63.27	\$ 61.99	17%	11%	0%	-2%	-2%	-1.2%	\$ (2.21)

- Plan includes drop in OEM royalties which drives down \$/unit (CAGR -2%) FY98 to FY01.
 - 9x drops from \$54 to \$42. NTW drops from \$104 to \$90.
- FG rev \$/license no growth despite shift to NTW:
 - Heavier mix towards Enterprise Agreements
 - NTW: larger mix of VUPs as NTW installed base grows

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Major Levers for Stretch and Low-Growth

Key Assumption	FY01 Assumption for Scenario			+/- Sensitivity	FY01 Impact
	Base	Stretch	Low Growth		
PC Shipment Growth	13.2%	13.2%	10.3%	1%	\$150M
OEM NT-Entry Rev \$/PC	\$42	\$52	\$42	\$1.00	\$75M
OEM NT-Standard Mix %	29%	50%	20%	1%	\$50M
EA LORG Penetration	31%	40%	31%	1%	\$10M
FG NTW Mix (Business)	59%	90%	40%	1%	\$3M
FY01 Revenue	\$7.9B	\$9.7B	\$6.9B		
Change from Base Case		+\$1.8B	(\$1.0B)		

- Stretch case shows how we can increase Base by \$1.8B *without* CAGR increase.

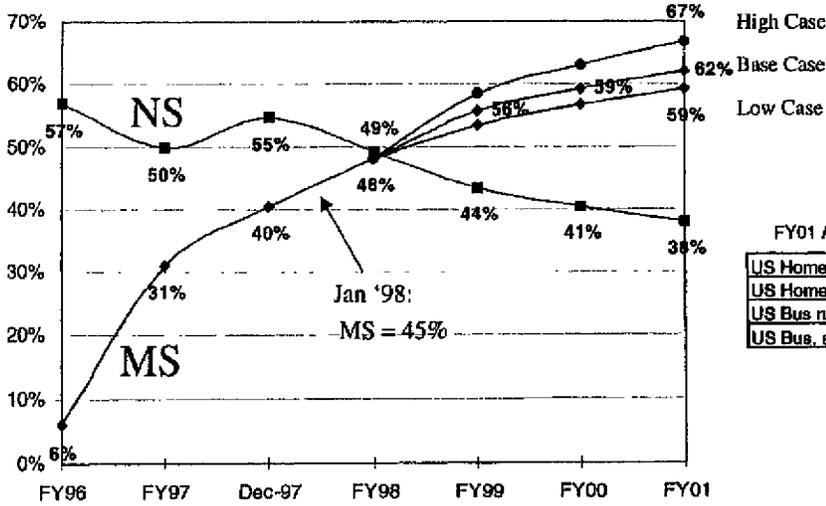
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Web-Viewing Share Model

U.S.



FY01 Assumptions	Low Case	Base Case	High Case
US Home run rate	70%	70%	75%
US Home switch delta	3%	5%	10%
US Bus run rate	50%	60%	85%
US Bus. switch delta	3%	5%	10%

- MS run rate on new internet connections: 70% in US Home: growing from 41-60% in Businesses
- Switching rate from NS to MS is 5%-points higher than MS to NS, slightly less than today
- Web growth assumed to be approx. 1 million new internet users per month
- Critical success factors: ISP, OEM, corp deployment, customer retention

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- Data from random digit dial call-downs; accuracy within +/- 3%

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Platforms Headcount

- Platforms requests 166 additional heads in FY98
- Total Open headcount at 2/1/98 is 312.
- P&L assumes hiring only 239 heads hired before 6/30/98
- Marketing ends 10 heads below approved and stays flat through FY01.
- DRG assumes flat FY98 through FY01.

	Growth 93 vs 87		Growth 99 vs 90	
	No.	%age	No.	%age
Operating Systems	390	28.3%	439	24.6%
Core OS	81	28.7%		
Test	157	28.3%		
India (Solar Coaster)			35	nm
Israel (Edge, Imbedded NT)			20	nm
Mainframe Readiness			45	nm
Service Pack Team			38	nm
Distributed Services Infra.			44	nm
Contractor Conversion			64	nm
Internet Explorer	140	21.1%	114	14.2%
Server infrastructure	88	35.1%	38	11.2%
MCIS	13		20	153.8%
Server App UA	34	37.4%	6	4.8%
SQL	240	51.5%	80	11.3%
Unified Storage	52	247.6%	19	35.2%
COM+	47	34.6%	16	8.7%
SQL Server	40	26.8%	29	15.3%
Weblica	25	nm		
Penumbra	21	nm		
Other	88	20.5%	30	7.5%
Total Platforms	926	30.0%	701	17.5%

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3 Year Headcount Outlook - Base Case

Platforms Consolidated Ending Headcount	Budgets/His			Three Year Outlook				% Var. vs Prior Year - Inter (Decl)				CAUR	
	FY97	FY98	FY98	FY98	FY99	FY00	FY01	'98 Est	'99 Est	00	01	'98 Est	
	June Act	Dec Act	June Rev A	June Est	June Est	June Est	June Est	'98 Act	'98 Est	00 '99	00 '01	'98 Act	
Regular Headcount (A)													
Operating Systems	1,378	1,516	1,768	1,768	2,207	2,426	2,677	28.3%	24.8%	9.9%	10.3%	14.8%	
Internet Explorer	665	681	763	805	919	977	1,039	21.1%	14.2%	6.3%	6.3%	8.9%	
Server Infrastructure	251	285	319	339	377	400	418	35.1%	11.2%	6.1%	4.5%	7.2%	
SQL	466	550	592	706	786	828	875	51.5%	11.3%	5.3%	5.7%	7.4%	
DRG	110	113	121	121	121	121	121	10.0%	0.0%	0.0%	0.0%	0.0%	
Platforms Marketing	215	234	274	264	264	264	264	22.8%	0.0%	0.0%	0.0%	0.0%	
Platforms Management	6	4	14	14	44	44	44	133.3%	214.3%	0.0%	0.0%	46.5%	
Total Platforms	3,091	3,383	3,851	4,017	4,718	5,060	5,438	30.0%	17.5%	7.2%	7.5%	10.6%	
Other Employees (B)	290	120	151	132	132	132	132	(54.5%)	0.0%	0.0%	0.0%	0.0%	
Contingent Staffing (C)	1,224	1,395	1,372	1,579	1,566	1,582	1,600	29.0%	(0.8%)	1.0%	1.1%	0.4%	

Comments:	Delta June Est/Dec Act	Additional Request	Included in FY98 P&L	P&L Reduction		FY98 Forecast Headcount per P&L
Operating Systems	252	0	140	112	7.4%	3,768
Internet Explorer	124	42	67	57	8.4%	239
Server Infrastructure	54	20	40	14	4.9%	10
SQL	156	114	100	56	10.2%	4,017
DRG	8	0	8	0	0.0%	
Platforms Marketing	30	(10)	30	0	0.0%	
Platforms Management	10	0	10	0	0.0%	
	634	166	395	239	7.1%	

(A) Each Division selects desired level of detail, Org_BU or Org_P11
 (B) Other Employees include Coops/Interns, Visiting Researcher, Project Based Employee, Fixed Term Contract
 (C) Contingent Staffing includes Agency Temps, IndCont (OnSite), Sub Non-MS Resource

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3YR P&L Outlook (%) - Base Case

(For BEC presentation)

	Benchmarks			Three Year Outlook				% Var. vs. Peer Yr. - Total Indus ^(a)				CAGR ^(a) '98 Est '01
	FY97 Actual	FY98 Dec YTD Act	FY98 Plan	FY98 Est	FY99 Est	FY00 Est	FY01 Est	'98 est vs '97 Act	'99 vs '98 Est	'00 vs '99	'01 vs '00	
Gross Revenue \$M	4,127	2,566	4,737	5,181	6,263	7,025	7,662	25.5%	20.9%	12.1%	9.1%	13.9%
Revenue Adjustments % Grs Rev	(0.1%)	(4.6%)	(3.7%)	(5.5%)	(5.4%)	(4.7%)	(4.0%)	(5.4%)	0.0%	0.7%	0.7%	1.5%
Net Revenue \$M	4,123	2,390	4,561	4,897	5,922	6,693	7,351	18.8%	20.9%	13.0%	9.9%	14.5%
% Net Revenue												
Cost of Revenue	2.1%	1.7%	2.7%	1.8%	2.0%	1.8%	1.7%	(0.4%)	0.2%	(0.2%)	(0.1%)	(0.1%)
<i>Direct Controllable OpEx</i>												
People	3.3%	3.6%	4.3%	3.8%	4.0%	4.3%	4.5%	0.5%	0.2%	0.3%	0.2%	0.7%
Infrastructure	1.6%	1.8%	2.0%	1.8%	1.8%	1.8%	1.7%	0.3%	(0.0%)	0.0%	(0.0%)	(0.1%)
Contingent Staff	1.3%	1.5%	1.2%	1.4%	1.3%	1.3%	1.2%	0.1%	(0.1%)	(0.1%)	(0.0%)	(0.2%)
Product Development	2.5%	1.0%	0.4%	0.9%	0.7%	0.3%	0.3%	(1.6%)	(0.1%)	(0.5%)	(0.0%)	(0.6%)
External Localization	0.3%	0.5%	0.4%	0.3%	0.3%	0.2%	0.2%	0.0%	(0.0%)	(0.0%)	(0.0%)	(0.1%)
Product Marketing	2.1%	1.9%	2.7%	2.6%	2.3%	2.2%	2.1%	0.5%	(0.2%)	(0.1%)	(0.1%)	(0.5%)
Other	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Direct Controllable OpEx</i>	11.0%	10.3%	10.9%	10.7%	10.4%	10.0%	10.0%	(0.2%)	(0.3%)	(0.4%)	(0.0%)	(0.7%)
<i>Product-Related OpEx</i>												
Channel Marketing	3.8%	3.1%	4.0%	3.7%	3.4%	3.2%	2.9%	(0.1%)	(0.3%)	(0.2%)	(0.2%)	(0.7%)
Product Support Services	2.7%	2.1%	2.5%	2.0%	1.8%	1.8%	1.8%	(0.7%)	(0.2%)	(0.0%)	(0.0%)	(0.2%)
Taxes, Insur, Bond Debt	2.0%	2.0%	1.2%	2.0%	0.7%	0.7%	0.7%	(0.0%)	(1.3%)	0.6%	0.0%	(1.3%)
R&D Shared Resources	(0.5%)	(0.4%)	(0.2%)	(0.4%)	0.0%	0.1%	0.1%	0.1%	0.4%	0.1%	0.0%	0.5%
<i>Product-Related OpEx</i>	8.0%	6.8%	7.4%	7.3%	5.9%	5.8%	5.3%	(0.7%)	(1.4%)	(0.1%)	(0.2%)	(1.0%)
Total Operating Expenses	19.0%	17.1%	18.3%	18.1%	16.3%	15.8%	15.6%	(0.9%)	(1.0%)	(0.5%)	(0.3%)	(1.5%)
Responsibility Margin	79.9%	81.2%	79.0%	80.1%	81.0%	82.4%	82.7%	1.3%	1.6%	0.6%	0.3%	1.6%
Responsibility Margin \$M	3,252	1,940	3,605	3,924	4,842	5,516	6,084	20.7%	23.4%	13.9%	10.3%	15.7%

Comments:

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(a) For the line items shown as a % of Revenue (vs CoGS), these columns are the variance between the two %s

3 Year Business Outlook

Platforms Desktop

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Other Issues

- Windows Update

- First goal is to make it work (technically)
- BEC review 3/5

- Piracy

- Continued OEM reductions considered in plan.
 - 14% to 10% of PC Shipments by FY01 = +\$257M
- Windows product solution in Neptune period (end of FY00/FY01)

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Desktop Summary

- The Windows business is fundamentally unchanged.
 - 3 major drivers: CAGR, Price/Mix, Upgrading the installed base.
- Our strategy remains the same: encourage the market to shift to NT with compelling features.
 - Upside potential by leveraging NT is \$2B+ from FY98 to FY01.
- We still have serious risks ahead to monitor carefully and adjust our product & marketing plans as necessary.
 - Maintaining annual release schedule.
 - Responding to JAVA momentum.
 - Ensuring the sub \$1000 PC doesn't erode OEM prices.
 - Establishing Hydra as default thin client.
 - Tracking Netscape.

Per-Phone
Phone
"The Big Bet"
64Bit
Spec
Parallel
xmc

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Appx: Finance

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Finance - Appendix

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OEM Units Drilldown

OEM Reported Units Worldwide	# Lic				Lic Mix %		
	FY96 H2	FY97 H2	Growth	%	FY96 H2	FY97 H2	Change
	+ FY97 H1	+ FY98 H1			+ FY97 H1	+ FY98 H1	
Win16	14,990	7,562	(7,428)	-50%	29%	12%	-17%
Windows 95	35,947	51,477	15,530	43%	70%	81%	12%
NTW	721	4,188	3,475	482%	1%	7%	6%
Total OEM Units	51,658	63,235	11,577	22%	100%	100%	0%

PC Shipments	FY97				Mix		
	FY97	FY98	Growth	%	FY97	FY98	Change
US Home	9,498	11,154	1,656	17%	13%	14%	0.4%
US LORG	5,258	8,035	2,778	53%	7%	7%	0.0%
US MORG	4,281	4,964	683	16%	8%	6%	0.0%
US SCORG	5,775	8,744	2,969	51%	8%	8%	0.2%
US Academic	1,778	2,062	284	16%	3%	3%	0.0%
US Business	17,200	19,815	2,615	15%	24%	25%	0.2%
US	26,898	30,988	4,090	15%	38%	38%	0.0%
Canada Home	653	677	24	4%	1%	1%	-0.1%
Canada Business	1,280	1,518	232	18%	2%	2%	0.1%
Canada	1,933	2,195	265	13%	3%	3%	0.0%
NAM Home	10,151	11,831	1,680	17%	14%	15%	0.3%
NAM Business	18,486	21,333	2,847	15%	28%	27%	0.3%
NAM	28,637	33,164	4,527	16%	41%	41%	0.0%
Europe Home	6,880	7,737	857	12%	9%	10%	0.2%
Europe Business	13,580	15,394	1,814	13%	19%	19%	-0.1%
Europe	20,240	23,131	2,891	14%	28%	29%	0.0%
FE Home	4,016	4,289	273	7%	6%	6%	-0.4%
FE Business	8,532	9,256	724	8%	12%	12%	-0.6%
FE	12,548	13,545	997	8%	18%	17%	-1.0%
ICON Home	2,348	2,839	491	21%	3%	4%	0.2%
ICON Business	6,679	7,798	1,117	17%	9%	10%	0.2%
ICON	9,027	10,635	1,608	18%	13%	13%	0.4%
Intl Home	13,677	15,642	1,965	14%	19%	19%	-0.1%
Intl Business	30,077	33,964	3,887	13%	43%	42%	-0.6%
Intl	43,754	49,606	5,852	13%	62%	62%	-0.6%
WW Home	23,175	26,606	3,431	15%	33%	33%	0.3%
WW Business	47,277	53,779	6,502	14%	67%	67%	-0.3%
WW	70,452	80,385	9,933	14%	100%	100%	0.0%

● Source: MS-Sales & OEM PC Forecast

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Microsoft OEM NTW Shipments by Segment/Area (in k units)

	Q3 97	Q4 97	Q1 98	Q2 98
Multi-national	366	576	1,074	1,211
Named	115	82	102	141
SB	76	92	106	143
Total	557	750	1,282	1,495

Multi-national	366	576	1,074	1,211
North America	62	56	71	104
Europe	97	87	105	140
FE/ICON	32	31	32	40
Total	557	750	1,282	1,495
Penetration %	3.9	5.5	7	8.2

- Mix of NTW in OEM channel has gone from approx. 1% of shipments in Q1 97 to over 8% Q2 98
- Over 80% of NTW shipments are from Multi-nationals - with most of this volume coming from Compaq, HP, SNI, Digital, Dell, IBM, Gateway

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Windows 95 Units x Price Level

Product Family2	Win95
Channel	FG

● Source: MS-Sales

MS Sales Licenses		Fiscal Quarter					
Pricing Level3	Pricing Level2	FY97-Q1	FY97-Q2	FY97-Q3	FY97-Q4	FY98-Q1	FY98-Q2
Packaged Product	Full Pkg Product	1,007	1,007	894	641	914	854
	Academic	245	214	263	162	217	214
Packaged Product Sum		1,252	1,221	1,257	803	1,131	1,068
Licensing	Select	73	136	213	196	238	292
	Open	77	168	205	216	216	261
	MLP	77	51	48	66	66	56
	Other	2	27	13	31	(1)	17
Licensing Sum		229	381	478	509	519	626
Annuity	Maint	9	96	124	78	111	189
	Enterprise Agreement	0	0	0	17	25	155
Annuity Sum		9	96	124	95	136	354
Grand Total		1,490	1,698	1,859	1,407	1,786	2,048

MS Sales Licenses % Mix		Fiscal Quarter					
Pricing Level3	Pricing Level2	FY97-Q1	FY97-Q2	FY97-Q3	FY97-Q4	FY98-Q1	FY98-Q2
Packaged Product	Full Pkg Product	68%	59%	53%	46%	51%	42%
	Academic	16%	13%	14%	11%	12%	10%
Packaged Product Sum		84%	72%	68%	57%	63%	52%
Licensing	Select	5%	8%	11%	14%	13%	14%
	Open	5%	10%	11%	15%	12%	13%
	MLP	5%	3%	3%	5%	4%	3%
	Other	0%	2%	1%	2%	0%	1%
Licensing Sum		15%	22%	26%	36%	29%	31%
Annuity	Maint	1%	6%	7%	6%	6%	10%
	Enterprise Agreement	0%	0%	0%	1%	1%	8%
Annuity Sum		1%	6%	7%	7%	8%	17%
Grand Total		100%	100%	100%	100%	100%	100%

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NTW Units x Price Level

Product Family2	NTW
Channel	FG

● Source: MS-Sales

MS Sales Licenses		Fiscal Quarter					
Pricing Level3	Pricing Level2	FY97-Q1	FY97-Q2	FY97-Q3	FY97-Q4	FY98-Q1	FY98-Q2
Packaged Product	Full Pkg Product	254	295	107	99	109	109
	Academic	80	157	87	110	139	123
Packaged Product Sum		335	452	194	210	248	232
Licensing	Select	208	251	403	378	337	444
	Open	36	61	93	88	127	114
	MLP	48	43	59	58	55	58
	Other	15	10	83	40	13	45
Licensing Sum		308	365	618	560	533	660
Annuity	Maint	156	358	371	350	326	285
	Enterprise Agreement	0	0	101	285	163	418
Annuity Sum		156	358	472	635	489	703
Grand Total		799	1,175	1,284	1,426	1,270	1,595

MS Sales Licenses mix %		Fiscal Quarter					
Pricing Level3	Pricing Level2	FY97-Q1	FY97-Q2	FY97-Q3	FY97-Q4	FY98-Q1	FY98-Q2
Packaged Product	Full Pkg Product	32%	25%	8%	7%	9%	7%
	Academic	10%	13%	7%	8%	11%	8%
Packaged Product Sum		42%	38%	15%	15%	20%	15%
Licensing	Select	26%	21%	31%	26%	27%	28%
	Open	5%	5%	7%	8%	10%	7%
	MLP	6%	4%	5%	4%	4%	4%
	Other	2%	1%	5%	3%	1%	3%
Licensing Sum		39%	31%	48%	38%	42%	41%
Annuity	Maint	20%	30%	29%	27%	26%	18%
	Enterprise Agreement	0%	0%	8%	19%	13%	26%
Annuity Sum		20%	30%	37%	46%	38%	44%
Grand Total		100%	100%	100%	100%	100%	100%

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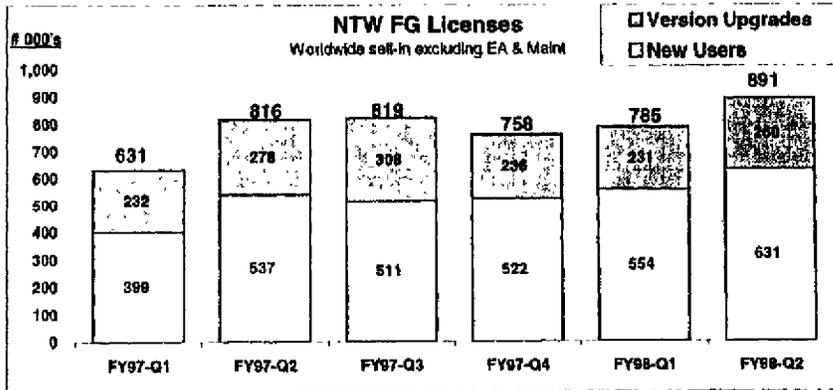
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NTW VUPs vs New Users

Rev Sum Division	Personal Systems
Product Family2	NTW
Pricing Level2	(All)

MS Sales Licenses	Fiscal Quarter					
	FY97-Q1	FY97-Q2	FY97-Q3	FY97-Q4	FY98-Q1	FY98-Q2
New Users	399	537	511	522	554	631
Version Upgrades	232	278	308	236	231	260
Grand Total	631	816	819	758	785	891

New Users	63%	68%	62%	69%	71%	71%
Version Upgrades	37%	34%	38%	31%	29%	29%
Grand Total	100%	100%	100%	100%	100%	100%



● Source: MS-Sales

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USFG License Mix x Customer Segment

FY98 H1

Lic					Lic % Mix					
End Cust	Cust Sub	Pricing Level	FY98 H1		Grand Total	End Cust	C Pricing Le	FY98 H1		Grand Total
			Win16	Windows 95				Win16	Windows 95	
Strategic	FPP		1,503	25,480	13,871	40,854				
	Select		31,393	112,958	132,584	276,933				
	Open		1,770	8,938	4,058	11,884				
	MLP		240	4,082	2,103	6,405				
	Academic		8,461	23,460	10,840	42,761				
	Other		149	8,924	27,531	31,604				
Strategic Total			43,516	160,720	185,885	410,221				
Named	FPP		2,533	13,228	5,082	20,821				
	Select		8,589	59,517	92,324	161,430				
	Open		10,636	5,870	5,305	21,720				
	MLP		963	2,248	2,845	6,056				
	Academic		1,708	14,328	3,122	19,154				
	Other		23	-	7	30				
Named Total			25,350	95,196	108,665	228,211				
Breadth	FPP		2,418	28,239	8,251	38,908				
	Select		5,197	32,578	37,246	76,021				
	Open		2,542	29,552	11,004	39,998				
	MLP		544	1,337	2,722	4,603				
	Academic		855	3,407	1,551	5,813				
	Other		391	-	-	391				
Breadth Total			11,947	81,113	58,774	161,834				
SMORG	FPP		46,468	320,675	55,981	442,134				
	Select		2,066	12,471	19,281	33,798				
	Open		9,249	94,078	35,488	138,795				
	MLP		10,492	25,308	25,846	61,646				
	Academic		18,575	130,983	94,574	244,132				
	Other		-	414	13,464	13,878				
SMORG Total			86,850	602,825	244,604	934,383				
End User	FPP		12,344	561,897	15,127	589,168				
	MLP		311	464	1,195	1,990				
	Academic		79	78	224	381				
End User Total			12,734	562,259	16,546	591,539				
Grand Total			180,397	1,532,217	814,574	2,327,188				

End Cust	C Pricing Le	FY98 H1		Grand Total
		Win16	Windows 95	
Strategic	FPP	4%	92%	34%
	Select	11%	41%	48%
	Open	16%	60%	36%
	MLP	4%	63%	33%
	Academic	20%	55%	26%
	Other	0%	28%	71%
Strategic Total		11%	44%	45%
Named	FPP	12%	64%	24%
	Select	6%	37%	57%
	Open	49%	27%	24%
	MLP	16%	37%	47%
	Academic	9%	75%	16%
	Other	77%	0%	23%
Named Total		11%	42%	47%
Breadth	FPP	7%	77%	17%
	Select	7%	43%	50%
	Open	7%	65%	28%
	MLP	12%	29%	58%
	Academic	15%	59%	27%
	Other	100%	0%	0%
Breadth Total		7%	58%	36%
SMORG	FPP	11%	77%	13%
	Select	8%	37%	57%
	Open	7%	88%	26%
	MLP	17%	41%	42%
	Academic	8%	54%	39%
	Other	0%	3%	97%
SMORG Total		8%	65%	26%
End User	FPP	2%	95%	3%
	MLP	18%	24%	60%
	Academic	21%	80%	59%
End User Total		2%	95%	3%
Grand Total		8%	68%	28%

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- Source: MS-Sales; FG = Sell-thru licenses
- Excludes EA & Maint.

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PC Shipments FY96 - FY01

	CAGR											
	FY96	FY97	FY98	FY99	FY00	FY01	FY96-97	FY97-98	FY98-99	FY99-00	FY00-01	FY96-01
LOGG Strategic	1,784	1,988	2,263	2,500	2,712	2,902	12.6%	13.9%	10.5%	8.6%	7.0%	8.6%
LOGG Named	1,418	1,597	1,814	2,067	2,288	2,468	12.6%	16.1%	12.6%	9.6%	7.9%	10.0%
LOGG Broadth	1,510	1,673	1,818	2,190	2,434	2,660	10.8%	14.6%	14.2%	11.2%	8.3%	11.5%
LOGG	4,692	5,266	6,036	6,776	7,434	8,030	12.0%	14.8%	12.3%	9.7%	8.0%	10.0%
MORG	3,690	4,391	4,984	5,639	6,298	6,906	12.9%	13.6%	13.1%	11.7%	9.7%	11.6%
SORG	5,096	5,776	6,744	7,798	8,794	9,892	14.0%	16.8%	15.2%	12.6%	10.3%	12.6%
Academic	1,348	1,778	2,052	2,249	2,447	2,630	31.8%	15.4%	9.6%	8.6%	7.4%	8.6%
Business	14,096	17,200	19,816	22,431	24,913	27,197	14.7%	15.2%	13.2%	11.1%	9.2%	11.1%
Home	7,857	9,408	11,164	12,689	14,634	16,293	20.9%	17.4%	15.4%	13.7%	11.3%	13.6%
Total US	22,853	26,899	30,980	35,300	39,647	43,490	16.8%	16.0%	14.0%	12.0%	10.0%	12.0%
Canada Business	999	1,176	1,368	1,483	1,622	1,764	17.7%	16.1%	8.6%	9.3%	8.7%	8.6%
Canada Academic	120	110	152	164	178	194	-8.3%	38.7%	7.6%	8.6%	9.0%	8.4%
Canada Home	526	653	677	750	822	899	24.2%	3.6%	10.8%	9.6%	8.4%	9.9%
Total Canada	1,645	1,939	2,194	2,397	2,621	2,856	17.9%	13.2%	9.2%	9.4%	9.0%	9.2%
Europe Business	10,728	12,207	13,831	15,817	17,154	18,659	13.8%	13.3%	12.9%	9.8%	8.8%	10.5%
Europe Academic	1,188	1,373	1,563	1,767	1,938	2,111	15.6%	13.9%	13.1%	9.7%	8.9%	10.5%
Europe Home	5,634	6,080	7,737	8,877	9,909	11,008	18.2%	16.2%	14.7%	11.1%	11.1%	12.5%
Total Europe	17,548	20,240	23,131	26,262	29,002	31,776	15.3%	14.3%	13.5%	10.4%	9.6%	11.2%
Far East Business	8,349	7,637	8,176	9,213	10,850	12,853	20.3%	7.1%	12.7%	17.8%	16.8%	15.7%
Far East Academic	820	885	1,080	1,306	1,624	1,939	42.9%	20.7%	20.9%	24.4%	19.4%	21.6%
Far East Home	3,174	4,018	4,289	4,801	5,692	6,620	26.6%	6.8%	11.9%	18.8%	18.5%	16.8%
Total Far East	10,149	12,548	13,545	15,319	18,165	21,221	23.6%	7.9%	13.1%	18.6%	18.6%	16.1%
Icon Business	5,125	6,098	7,056	8,108	9,542	11,225	19.0%	16.7%	14.8%	17.7%	17.6%	18.7%
Icon Academic	467	581	741	900	1,067	1,307	24.4%	27.6%	21.5%	26.7%	20.3%	20.8%
Icon Home	1,708	2,348	2,839	3,338	4,005	4,825	37.6%	20.9%	17.8%	20.0%	20.6%	19.3%
Total Icon	7,298	9,027	10,635	12,346	14,834	17,357	23.7%	17.6%	16.1%	18.6%	18.6%	17.7%
Business	36,847	42,541	48,190	54,609	61,534	68,868	15.6%	13.3%	13.3%	12.9%	11.7%	12.6%
Academic	3,749	4,738	5,588	6,397	7,274	8,181	26.3%	18.0%	14.3%	13.9%	12.9%	13.6%
Home	18,898	23,175	26,995	30,534	35,082	39,653	22.6%	15.2%	14.8%	14.5%	13.1%	14.1%
Total Worldwide	59,494	70,458	80,474	91,824	103,970	116,701	18.4%	14.2%	13.9%	13.5%	12.2%	13.2%

3 Year Business Outlook

Source: OEM PC forecast

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PC Shipments OS Mix FY97 - FY01

	FY97	FY98	FY99	FY00	FY01
OS Mix % PC Shipments					
Win16, DOS & Other	14.6%	3.5%	1.0%	0.2%	0.0%
Windows 95,98	61.6%	70.6%	70.7%	59.1%	6.9%
NT-Basic	0.0%	0.0%	0.0%	15.0%	56.6%
NTW, NT-Standard	2.7%	8.4%	15.1%	20.4%	25.4%
Other (non-MSFT)	3.9%	3.4%	1.2%	1.3%	1.3%
Unlicensed	17.0%	14.0%	12.0%	10.0%	10.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
OS Mix % PC Shipments (MSFT)					
Win16, DOS & Other	18.5%	4.3%	1.2%	0.2%	0.0%
Windows 95,98	78.1%	85.9%	81.4%	59.8%	7.1%
NT-Basic	0.0%	0.0%	0.0%	18.8%	64.2%
NTW, NT-Standard	3.4%	10.2%	17.4%	23.0%	28.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
OS Mix PC Shipments					
Win16, DOS & Other	10,303	2,856	924	212	-
Windows 95,98	43,519	56,821	64,778	55,208	7,358
NT-Basic	-	-	-	15,595	66,288
NTW, NT-Standard	1,878	8,759	13,835	21,158	29,642
Other (non-MSFT)	2,748	2,736	1,099	1,352	1,517
Unlicensed	11,977	11,268	10,895	10,397	11,904
Total	70,425	80,436	81,832	103,922	118,707
OS Mix PC Shipments (MSFT)					
Win16, DOS & Other	10,303	2,856	924	212	-
Windows 95,98	43,519	56,821	64,778	55,208	7,358
NT-Basic	-	-	-	15,595	66,288
NTW, NT-Standard	1,878	8,759	13,835	21,158	29,642
Total	55,700	68,436	79,537	92,173	103,287

3 Year Business Outlook

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Source: OEM PC forecast

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PC Installed Base FY96-FY01

	CAGR											
	FY96	FY97	FY98	FY99	FY00	FY01	FY96-97	FY97-98	FY98-99	FY99-00	FY00-01	FY96-01
LORG Strategic	5,701	8,312	8,908	7,476	8,014	8,498	10.7%	9.4%	8.3%	7.2%	8.0%	7.2%
LORG Named	4,437	4,861	5,488	5,995	6,484	6,932	11.8%	10.6%	9.3%	8.2%	6.9%	8.1%
LORG Breadth	4,683	5,242	5,832	6,403	6,939	7,439	12.4%	11.2%	9.8%	8.4%	7.2%	8.4%
LORG	14,801	18,515	18,224	19,874	21,438	22,887	11.6%	10.3%	9.1%	7.9%	6.7%	7.9%
MORG	11,678	13,262	14,847	16,410	17,851	19,184	13.6%	11.9%	10.5%	8.8%	7.5%	8.9%
SORG	18,209	20,337	22,529	24,781	26,989	28,823	11.7%	10.8%	9.9%	8.9%	7.2%	8.7%
Academic	5,429	8,401	7,513	8,602	9,868	10,952	17.8%	17.4%	14.5%	12.4%	10.2%	12.3%
Business	50,114	58,515	53,112	69,646	75,924	81,627	12.8%	11.7%	10.4%	9.0%	7.5%	9.0%
Home	38,617	41,785	47,284	53,137	58,948	64,580	14.1%	13.2%	12.4%	10.9%	9.6%	10.8%
Total U.S.	66,731	98,279	110,407	122,784	134,873	148,207	13.3%	12.3%	11.2%	9.8%	8.4%	9.8%
Canada: Business	3,729	4,321	4,854	5,461	6,008	6,505	15.9%	12.3%	12.5%	10.0%	8.3%	10.2%
Canada: Academic	554	687	732	788	881	938	23.9%	6.6%	7.4%	9.8%	8.7%	8.5%
Canada: Home	2,462	3,116	3,415	3,518	4,099	4,362	26.8%	9.5%	6.0%	10.8%	9.6%	8.5%
Total Canada	6,745	8,124	9,001	9,968	10,878	11,833	20.5%	10.8%	9.6%	10.3%	8.8%	9.5%
Europe: Business	37,377	42,861	48,891	55,033	61,074	67,092	14.9%	13.8%	12.6%	11.0%	9.9%	11.1%
Europe: Academic	4,558	5,274	6,039	6,848	7,657	8,461	15.7%	14.5%	13.4%	11.8%	10.5%	11.9%
Europe: Home	20,495	24,688	29,240	34,201	39,381	44,789	20.4%	18.5%	17.0%	15.1%	13.7%	15.3%
Total Europe	62,429	72,822	84,169	96,082	108,112	120,321	16.6%	15.5%	14.2%	12.6%	11.3%	12.8%
Far East: Business	18,703	24,695	29,688	34,987	41,031	47,848	25.3%	20.2%	17.2%	17.3%	16.8%	17.2%
Far East: Academic	1,857	2,636	3,442	4,391	5,558	6,939	34.7%	30.8%	27.6%	26.6%	24.8%	26.3%
Far East: Home	11,135	14,304	17,578	21,148	25,254	29,959	28.5%	22.9%	20.3%	19.4%	18.6%	19.5%
Total Far East	32,795	41,636	50,706	60,524	71,842	84,745	27.0%	21.8%	19.4%	18.7%	18.0%	18.7%
Icon: Business	21,883	26,155	30,975	36,264	42,298	49,186	19.6%	18.4%	17.1%	16.6%	16.3%	16.7%
Icon: Academic	2,088	2,548	3,124	3,811	4,824	5,578	22.0%	22.9%	22.0%	21.3%	20.0%	21.3%
Icon: Home	7,722	9,607	11,837	14,417	17,392	20,738	24.4%	23.2%	21.8%	20.8%	19.8%	20.7%
Total Icon	31,673	38,310	45,938	54,492	64,504	75,563	21.0%	19.8%	18.8%	18.0%	17.5%	18.0%
Business	127,357	148,237	170,007	192,780	218,880	241,805	16.4%	14.7%	13.4%	12.4%	11.5%	12.4%
Academic	14,585	17,845	20,850	24,438	28,368	32,588	20.3%	18.8%	17.2%	16.1%	14.8%	16.0%
Home	78,431	93,480	109,382	128,520	144,983	164,497	19.2%	17.0%	15.7%	14.6%	13.5%	14.6%
Total Worldwide	220,373	259,242	300,219	343,748	390,009	438,888	17.8%	15.8%	14.5%	13.5%	12.5%	13.5%

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● Source: OEM PC Forecast

Win 95 FG: Where do people buy and why

	# Lic				Lic Mix %		
	FY97	FY98	Growth	%	FY97	FY98	Change
	H1	H1			H1	H1	
Worldwide							
US	1,841,813	1,706,290	(135,523)	-7%	60%	51%	-9%
Canada	123,373	122,873	(500)	0%	4%	4%	0%
NAM	1,966,186	1,829,163	(136,023)	-7%	64%	55%	-9%
Europe	489,129	613,175	324,046	88%	18%	24%	8%
FE	388,150	334,491	(51,659)	-13%	13%	10%	-3%
COG	295,043	367,020	131,977	58%	8%	11%	3%
WW	3,075,508	3,343,849	268,341	9%	100%	100%	0%
FPP							
Select	2,013,937	1,767,842	(246,095)	-12%	65%	53%	-13%
Open	208,082	630,480	321,498	154%	7%	16%	9%
MLP	244,168	477,255	233,089	95%	8%	14%	6%
Academic	127,368	121,998	(5,370)	-4%	4%	4%	0%
Other	451,628	430,963	(20,663)	-5%	15%	13%	-2%
	29,409	15,311	(14,098)	-48%	1%	0%	0%
	3,075,508	3,343,849	268,341	9%	100%	100%	0%
VUP							
Standard	2,707,335	2,947,789	240,454	9%	88%	88%	0%
	388,173	396,060	27,887	8%	12%	12%	0%
	3,075,508	3,343,849	268,341	9%	100%	100%	0%

- Win 95 FG License volume has shifted slightly from US FPP to Intl licensing compared to FY97 H1
- In the US, vs yr ago....
 - LORG is growing
 - SMORG is flat
 - EU is down
 - Channel mix shift away from Retail toward Outbound, VAP & DMR

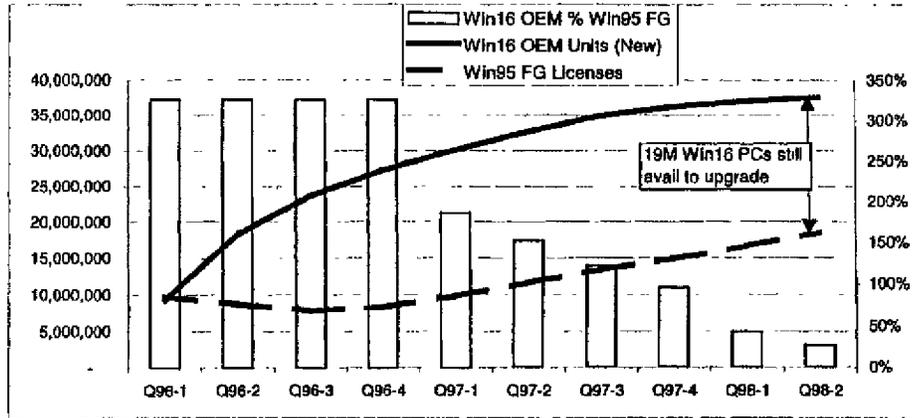
	# Lic				Lic Mix %		
	FY97	FY98	Growth	%	FY97	FY98	Change
	H1	H1			H1	H1	
U.S. Only							
LORG Strategic	122,767	190,720	57,953	47%	6%	12%	4%
LORG Named	59,792	85,198	35,404	59%	4%	6%	2%
LORG Broadh	39,414	91,113	51,699	131%	3%	5%	3%
LORG	221,973	367,029	145,056	65%	14%	24%	9%
SMORG	596,102	602,929	4,827	1%	39%	39%	0%
EU	710,943	582,269	(148,684)	-21%	46%	37%	-10%
	1,531,018	1,532,217	1,199	0%	100%	100%	0%
Retail							
Outbound	1,053,081	875,338	(377,743)	-36%	69%	44%	-25%
VAP	235,142	448,027	212,885	91%	15%	29%	14%
DMR	45,610	91,610	45,000	101%	3%	6%	3%
Unsegmented	65,899	125,029	59,130	90%	4%	8%	4%
Other	123,126	183,111	59,985	48%	6%	12%	4%
	8,160	8,102	(58)	-1%	1%	1%	0%
	1,531,018	1,532,217	1,199	0%	100%	100%	0%

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Win95 FG licenses vs Win16 OEM

	Q96-1	Q96-2	Q96-3	Q96-4	Q97-1	Q97-2	Q97-3	Q97-4	Q98-1	Q98-2
Win16 OEM Units (New)	9,368,484	18,385,758	23,746,885	27,368,822	30,146,087	32,736,599	35,003,282	36,360,238	37,114,677	37,664,111
Win95 FG Licenses	9,804,123	8,780,944	7,824,557	8,390,872	9,881,358	11,579,135	13,438,189	14,846,305	16,631,203	18,679,266
Win16 Available to Upgrade		9,624,814	15,822,128	18,972,550	20,264,711	21,157,464	21,565,073	21,604,933	20,483,474	18,984,845
Win16 OEM % Win95 FG	98%	210%	300%	326%	305%	283%	260%	245%	223%	202%



Source: MS-Sales, OEM Forecast & Prelim Yellow Book

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NTW Pricing Discussion

- **Current Situation:**

- NTW-NTW Upgrade is relatively inexpensive (\$149-114)
- Win9x to NTW is expensive (\$319-181)
 - High price to try and shift installed base, attract Hydra customers
 - Majority of customers are MORGs who are price sensitive at \$149
- Customers aren't purchasing Upgrade Advantage (~5% of NTW revenue)
 - Don't see the value in paying MS annuity with long OS release cycles
 - Using new PCs as maintenance since difficult/expensive to upgrade existing PCs

- **Recommendation for discussion:**

- Simplify to 3 SKUs
 - Standard (FPP)-\$319-181
 - Win9x Upgrade- \$239-177
 - NTW Upgrade (VUP)-\$149-114
- Phase out Upgrade Advantage
 - Focus customers on purchasing Eas, Require pre-installation of NTW on new machines with EA

- **Implications:**

- SKU Proliferation
 - Pros: More shelf space in retail, addressing needs of installed base
 - Cons: Need to clearly define Win9x vs. NTW Upgrade SKUs to customers, SKU Mgmt

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NTW Pricing Discussion

- Pricing plan being discussed attempts to make the move from Win95 to NTW 5 easier while not hurting the value of EA.

- It reduces Win95 to NTW price/unit and rev./unit by approx. 25%. Retail and corp examples below-

Win95 to NTW (Disti prices)	Current	Potential	Difference
Retail	\$255	\$191	-25%
Select A (2k)	\$191	\$146	-24%

- Conservative base case USFG units (excluding UA and EA) for NTW5 in the first 12 months is approx. 2mm units.
 - Assume 20% of units are from Win95 = 400k unit
 - To be revenue neutral, Win95 to NTW 5 would need to increase by 100k for the first 12 months to 500k USFG units.
- Next steps:
 - Full modeling and feedback from channel and customers
 - Is price the barrier? Is this enough of a reduction?
 - Close on NTW 5 pricing before Hydra pricing goes to channel (March 15)

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Potential NTW5 Pricing

● Standard Pricing (Retail)	<u>ERP</u> <u>Dist</u>	● Open Pricing (>10-1K)	<u>ERP</u> <u>Dist</u>
FPP CD	\$319 \$255	Version Upgrade	\$120 \$102
FPP MLP	\$269 \$217	Win9x Upgrade	\$196 \$168
Win9x Upgrade CD	\$239 \$191	Competitive Upgrade	
Win9x Upgrade MLP	\$209 \$167	Open A (20)	\$238 \$202
VUP CD	\$149 \$120	Open B (200)	\$230 \$196
VUP MLP	\$129 \$102	Open C (1K)	\$216 \$184
● Academic Pricing (Education)		Upgrade Advantage	\$180 \$153
FPP CD	\$139 \$97	● Select Pricing (>1K desktops)	
Competitive Upgrade		Version Upgrade	\$114 \$94
(Win3x, WFW, OS2, Mac, Unix)		Win9x Upgrade	\$177 \$146
Open A (20)	\$54 \$44	Competitive Upgrade	
Open B (200)	\$50 \$41	Select A (2K)	\$232 \$191
Select (2K)	\$46 \$38	Select B (8K)	\$213 \$175
Upgrade Advantage		Select C (20K)	\$195 \$161
(2yr. Get current, stay current)		Select D (50K)	\$181 \$149
Open	\$62 \$50	Upgrade Advantage	\$157 \$129
Select	\$53 \$44		

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Current NTW4 Pricing

● Standard Pricing (Retail)	<u>ERP</u>	<u>Disti</u>	● Open Pricing (>10-1K)	<u>ERP</u>	<u>Disti</u>
FPP CD	\$319	\$255	Version Upgrade	\$120	\$102
FPP MLP	\$269	\$217	Competitive Upgrade		
VUP CD	\$149	\$120	Open A (20)	\$238	\$202
VUP MLP	\$129	\$102	Open B (200)	\$230	\$196
● Academic Pricing (Education)			Open C (1K)	\$216	\$184
FPP CD	\$139	\$97	Upgrade Advantage	\$180	\$153
FPP MLP	\$69.95	\$48	● Select Pricing (>1K desktops)		
Competitive Upgrade			Version Upgrade	\$114	\$94
<small>(Win3x, WFW, Win95, OS/2)</small>			Competitive Upgrade		
Open A (20)	\$54	\$44	Select A (2K)	\$232	\$191
Open B (200)	\$50	\$41	Select B (8K)	\$213	\$175
Select (2K)	\$46	\$38	Select C (20K)	\$195	\$161
Upgrade Advantage			Select D (50K)	\$181	\$149
<small>(2yr. Get current, stay current)</small>			Upgrade Advantage	\$157	\$129
Open	\$62	\$50			
Select	\$53	\$44			

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Stretch Case - Revenue

3YO Revenue Summary

\$ Millions

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01	
												CAGR	Growth
OEM													
Win16, DOS & Other	\$ 1,050	\$ 441	\$ 125	\$ 36	\$ 8	\$ -	-58%	-72%	-71%	-76%	-100%	-100%	\$ (125)
Windows 9x	\$ 1,013	\$ 2,247	\$ 3,083	\$ 3,037	\$ 2,763	\$ 383	122%	37%	-1%	-9%	-86%	-50%	\$ (2,700)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 238	\$ 2,318	0%	0%	0%	0%	874%	0%	\$ 2,318
NTW, NT-Standard	\$ 24	\$ 219	\$ 700	\$ 1,814	\$ 3,088	\$ 4,621	808%	219%	159%	70%	50%	88%	\$ 3,922
Unix Add-On	\$ -	\$ -	\$ -	\$ 9	\$ 17	\$ -	0%	0%	0%	81%	-100%	0%	\$ -
Total OEM	\$ 2,087	\$ 2,908	\$ 3,907	\$ 4,897	\$ 6,114	\$ 7,322	39%	34%	25%	25%	20%	23%	\$ 3,415
FG													
Win16, DOS & Other	\$ 169	\$ 91	\$ 39	\$ 25	\$ 9	\$ 0	-46%	-57%	-37%	-64%	-95%	-77%	\$ (39)
Windows 9x	\$ 675	489	\$ 512	\$ 651	\$ 361	\$ 42	-28%	5%	27%	-45%	-88%	-57%	\$ (470)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 117	\$ 322	0%	0%	0%	0%	178%	0%	\$ 322
NTW, NT-Standard	\$ 170	\$ 420	\$ 496	\$ 667	\$ 1,009	\$ 1,245	147%	18%	34%	51%	23%	36%	\$ 749
Unix Add-On	\$ -	\$ -	\$ -	\$ 5	\$ 25	\$ -	0%	0%	0%	368%	-100%	0%	\$ -
Plus' & Add ons	\$ 78	\$ 34	\$ 16	\$ 28	\$ 15	\$ 10	-56%	-53%	72%	-45%	-31%	-13%	\$ (6)
Maintenance	\$ 107	\$ 212	\$ 177	\$ 108	\$ 100	\$ 72	99%	-16%	-39%	-8%	-28%	-26%	\$ (106)
Enterprise Agreements	\$ -	\$ 19	\$ 98	\$ 250	\$ 462	\$ 695	0%	418%	157%	84%	50%	92%	\$ 598
Total FG	\$ 1,189	\$ 1,266	\$ 1,338	\$ 1,734	\$ 2,098	\$ 2,386	6%	6%	30%	21%	14%	21%	\$ 1,049
Total Desktop OS	\$ 3,286	\$ 4,174	\$ 5,244	\$ 6,631	\$ 8,212	9,709	27%	26%	26%	24%	18%	22.8%	\$ 4,464

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Stretch Case - Units

3YO Unit Summary

Licenses 000's

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01		% Total Units					
												CAGR	Growth	FY96	FY97	FY98	FY99	FY00	FY01
OEM																			
Win16, DOS & Other	27,188	10,303	2,858	924	212	-	-62%	-72%	-68%	-77%	-100%	-100%	(2,856)	56%	18%	4%	1%	0%	0%
Windows 9x	21,131	43,519	56,821	58,413	53,129	7,358	108%	31%	3%	-9%	-86%	-49%	(49,462)	44%	78%	88%	73%	57%	7%
NT-Entry Level	-	-	-	-	4,576	44,580	0%	0%	0%	0%	874%	0%	44,580	0%	0%	0%	0%	5%	43%
NTW, NT-Standard	243	1,878	8,759	20,157	34,310	51,349	672%	280%	188%	70%	50%	97%	44,590	1%	3%	10%	25%	37%	50%
Unix Add-On	-	-	-	127	253	-	0%	0%	-	-	-	-	-	0%	0%	0%	0%	0%	0%
Total OEM	48,540	55,700	66,435	79,621	92,478	103,287	15%	19%	20%	16%	12%	16%	38,851	100%	100%	100%	100%	100%	100%
FG																			
Win16, DOS & Other	3,939	2,168	903	570	208	18	-45%	-56%	-37%	-63%	-92%	-74%	(887)	22%	13%	6%	3%	1%	0%
Windows 9x	7,059	6,220	5,997	7,377	4,090	529	-12%	-4%	23%	-45%	-87%	-55%	(5,467)	40%	38%	33%	38%	18%	2%
NT-Entry Level	-	-	-	-	1,374	3,695	0%	0%	0%	0%	169%	0%	3,695	0%	0%	0%	0%	6%	14%
NTW, NT-Standard	1,143	3,002	3,500	4,502	7,106	9,186	163%	17%	29%	58%	29%	38%	5,686	6%	18%	23%	23%	32%	36%
Unix Add-On	-	-	-	38	189	-	0%	0%	0%	366%	-100%	0%	-	0%	0%	0%	0%	1%	0%
Add-ons	2,354	1,044	494	887	876	401	-56%	-53%	80%	-24%	-41%	-7%	(93)	13%	6%	3%	5%	3%	2%
Maintenance	3,365	3,688	2,491	2,042	1,233	938	10%	-32%	-18%	-40%	-24%	-28%	(1,555)	19%	22%	16%	10%	8%	4%
Enterprise Agreements	-	380	1,859	4,257	7,381	11,016	0%	332%	128%	73%	49%	81%	9,147	0%	2%	12%	22%	33%	43%
Total FG	17,860	18,501	15,254	18,671	22,230	25,780	-8%	-6%	29%	13%	16%	19%	10,526	100%	100%	100%	100%	100%	100%
Total Desktop OS	66,400	72,201	81,689	98,293	114,716	129,067	9%	13%	22%	16%	13%	16%	47,377						

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Stretch Case - Rev \$/unit

3YO Revenue \$/Unit Summary

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01	
												CAGR	Growth
OEM													
Win16, DOS & Other	\$ 38.84	\$ 42.83	\$ 43.69	\$ 38.50	\$ 40.00	\$ -	11%	2%	-12%	4%	-100%	-100%	\$ (43.69)
Windows 9x	\$ 47.94	\$ 51.64	\$ 54.25	\$ 52.00	\$ 52.00	\$ 52.00	6%	5%	-4%	0%	0%	-1%	\$ (2.25)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 52.00	\$ 52.00	0%	0%	0%	0%	0%	0%	\$ 52.00
NTW, NT-Standard	\$ 99.32	\$ 116.85	\$ 103.50	\$ 90.00	\$ 90.00	\$ 90.00	18%	-11%	-13%	0%	0%	-5%	\$ (13.50)
Unix Add-On	\$ -	\$ -	\$ -	\$ 73.88	\$ 67.07	\$ -	0%	0%	0%	-9%	-100%	0%	\$ -
Total OEM	\$ 43.00	\$ 52.21	\$ 58.91	\$ 61.50	\$ 66.11	\$ 70.89	21%	13%	5%	8%	7%	6%	\$ 12.08
FG													
Win16, DOS & Other	\$ 42.84	\$ 42.17	\$ 43.20	\$ 43.09	\$ 43.00	\$ 30.26	-2%	2%	-95%	0%	-30%	-11%	\$ (12.94)
Windows 9x	\$ 95.68	\$ 78.59	\$ 85.35	\$ 88.31	\$ 88.27	\$ 78.68	-18%	9%	3%	0%	-11%	-3%	\$ (6.70)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 84.86	\$ 87.19	0%	0%	0%	0%	3%	0%	\$ 87.19
NTW, NT-Standard	\$ 149.08	\$ 139.98	\$ 141.63	\$ 148.11	\$ 142.04	\$ 135.49	-8%	1%	5%	-4%	-5%	-1%	\$ (8.14)
Unix Add-On	\$ -	\$ -	\$ -	\$ 149.00	\$ 149.00	\$ -	0%	0%	0%	0%	-100%	0%	\$ -
Add ons	\$ 33.01	\$ 32.84	\$ 32.46	\$ 31.06	\$ 22.51	\$ 26.15	-1%	-1%	-4%	-28%	16%	-7%	\$ (6.30)
Maintenance	\$ 31.74	\$ 57.57	\$ 71.22	\$ 52.97	\$ 80.76	\$ 76.77	81%	24%	-26%	52%	-5%	3%	\$ 5.55
Enterprise Agreements	\$ -	\$ 49.63	\$ 52.22	\$ 58.82	\$ 62.59	\$ 63.10	0%	5%	13%	6%	1%	7%	\$ 10.88
Total FG	\$ 67.14	\$ 76.71	\$ 87.69	\$ 88.18	\$ 94.34	\$ 92.57	14%	14%	1%	7%	-2%	2%	\$ 4.88
Total Desktop OS	\$ 49.49	\$ 57.81	\$ 64.20	\$ 66.78	\$ 71.56	\$ 75.22	17%	11%	4%	7%	5%	5.4%	\$ 11.02

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Low Growth Case - Revenue

3YO Revenue Summary

\$ Millions

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01	
												CAGR	Growth
OEM													
Win16, DOS & Other	\$ 1,050	\$ 441	\$ 125	\$ 36	\$ 8	\$ -	-58%	-72%	-71%	-77%	-100%	-100%	\$ (125)
Windows 9x	\$ 1,013	\$ 2,247	\$ 3,083	\$ 3,564	\$ 2,650	\$ 288	122%	37%	18%	-26%	-89%	-55%	\$ (2,797)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 797	\$ 2,910	0%	0%	0%	0%	265%	0%	\$ 2,910
NTW, NT-Standard	\$ 24	\$ 219	\$ 700	\$ 907	\$ 1,347	\$ 1,749	808%	219%	30%	49%	30%	36%	\$ 1,049
Unix Add-On	\$ -	\$ -	\$ -	\$ 6	\$ 10	\$ -	0%	0%	0%	59%	-100%	0%	\$ -
Total OEM	\$ 2,087	\$ 2,908	\$ 3,907	\$ 4,513	\$ 4,812	\$ 4,945	38%	34%	16%	7%	3%	8%	\$ 1,038
FG													
Win16, DOS & Other	\$ 169	\$ 91	\$ 39	\$ 26	\$ 9	\$ 0	-46%	-57%	-34%	-66%	-95%	-77%	\$ (39)
Windows 9x	\$ 675	\$ 489	\$ 512	\$ 652	\$ 492	\$ 107	-28%	5%	27%	-24%	-78%	-41%	\$ (405)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 132	\$ 509	0%	0%	0%	0%	284%	0%	\$ 509
NTW, NT-Standard	\$ 170	\$ 420	\$ 496	\$ 661	\$ 727	\$ 763	147%	18%	33%	10%	5%	15%	\$ 268
Unix Add-On	\$ -	\$ -	\$ -	\$ 5	\$ 19	\$ -	0%	0%	0%	257%	-100%	0%	\$ -
Plus! & Add ons	\$ 78	\$ 34	\$ 16	\$ 28	\$ 16	\$ 10	-56%	-53%	72%	-42%	-35%	-14%	\$ (8)
Maintenance	\$ 107	\$ 212	\$ 177	\$ 108	\$ 99	\$ 72	99%	-16%	-39%	-8%	-28%	-26%	\$ (106)
Enterprise Agreements	\$ -	\$ 19	\$ 98	\$ 250	\$ 401	\$ 534	0%	418%	157%	80%	33%	76%	\$ 437
Total FG	\$ 1,199	\$ 1,266	\$ 1,338	\$ 1,730	\$ 1,896	\$ 1,996	6%	6%	29%	10%	5%	14%	\$ 659
Total Desktop OS	\$ 3,286	\$ 4,174	\$ 5,244	\$ 6,243	\$ 6,708	\$ 6,941	27%	26%	19%	7%	3%	9.8%	\$ 1,697

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Low Growth Case - Units

3YO Unit Summary

Licenses 000's

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01		% Total Units					
												CAGR	Growth	FY96	FY97	FY98	FY99	FY00	FY01
OEM																			
Win16, DOS & Other	27,166	10,303	2,856	824	203	-	-62%	-72%	-68%	-78%	-100%	-100%	(2,856)	56%	18%	4%	1%	0%	0%
Windows 9x	21,131	43,519	56,821	68,535	58,376	6,806	106%	31%	21%	-18%	-86%	-51%	(50,015)	44%	78%	86%	86%	64%	7%
NT-Entry Level	-	-	-	-	16,883	68,286	0%	0%	0%	0%	306%	0%	89,296	0%	0%	0%	0%	19%	73%
NTW, NT-Standard	243	1,878	6,759	10,079	14,987	19,429	672%	260%	49%	49%	30%	42%	12,670	1%	3%	10%	13%	17%	20%
Unix Add-On	-	-	-	64	110	-	0%	0%	-	-	-	-	-	0%	0%	0%	0%	0%	0%
Total OEM	48,540	55,700	66,435	79,601	88,820	95,530	15%	19%	20%	11%	8%	13%	29,085	100%	100%	100%	100%	100%	100%
FG																			
Win16, DOS & Other	3,930	2,168	803	600	207	15	-45%	-58%	-34%	-68%	-93%	-74%	(888)	22%	13%	6%	3%	1%	0%
Windows 9x	7,059	6,220	5,997	7,388	5,839	1,288	-12%	-4%	29%	-24%	-77%	-40%	(4,709)	40%	98%	99%	98%	27%	8%
NT-Entry Level	-	-	-	-	1,579	6,018	0%	0%	0%	0%	281%	0%	6,018	0%	0%	0%	0%	7%	26%
NTW, NT-Standard	1,143	3,002	3,500	4,463	5,270	5,889	163%	17%	28%	18%	12%	19%	2,389	6%	18%	23%	23%	25%	26%
Unix Add-On	-	-	-	38	127	-	0%	0%	0%	257%	-100%	0%	-	0%	0%	0%	0%	1%	0%
Add ons	2,354	1,044	404	887	640	386	-66%	-63%	80%	-28%	-40%	-8%	(108)	13%	6%	3%	5%	3%	2%
Maintenance	3,365	3,689	2,491	2,042	1,230	933	10%	-32%	-19%	-40%	-24%	-28%	(1,558)	19%	22%	16%	10%	6%	4%
Enterprise Agreements	-	390	1,869	4,257	6,442	8,392	0%	392%	128%	51%	30%	63%	6,523	0%	2%	12%	22%	30%	37%
Total FG	17,860	18,501	15,254	19,870	21,134	22,919	-8%	-8%	29%	7%	8%	15%	7,666	100%	100%	100%	100%	100%	100%
Total Desktop OS	66,400	72,201	81,689	99,271	109,754	118,450	9%	13%	22%	11%	8%	13%	36,751						

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Low Growth Case - Rev \$/unit

3YO Revenue \$/Unit Summary

	FY96	FY97	FY98	FY99	FY00	FY01	FY97	FY98	FY99	FY00	FY01	FY98-01	
												CAGR	Growth
OEM													
Win16, DOS & Other	\$ 38.64	\$ 42.83	\$ 43.69	\$ 38.50	\$ 40.00	\$ -	11%	2%	-12%	4%	-100%	-100%	\$ (43.88)
Windows 9x	\$ 47.94	\$ 51.64	\$ 54.25	\$ 52.00	\$ 47.00	\$ 42.00	8%	5%	-4%	-10%	-11%	-8%	\$ (12.25)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 47.00	\$ 42.00	0%	0%	0%	0%	-11%	0%	\$ 42.00
NTW, NT-Standard	\$ 99.32	\$ 116.85	\$ 103.50	\$ 90.00	\$ 90.00	\$ 90.00	18%	-11%	-13%	0%	0%	-5%	\$ (13.50)
Unix Add-On	\$ -	\$ -	\$ -	\$ 98.76	\$ 90.41	\$ -	0%	0%	0%	-8%	-100%	0%	\$ -
Total OEM	\$ 43.00	\$ 52.21	\$ 58.81	\$ 56.69	\$ 54.30	\$ 51.76	21%	13%	-4%	-4%	-5%	-4%	\$ (7.04)
FG													
Win16, DOS & Other	\$ 42.84	\$ 42.17	\$ 43.20	\$ 43.12	\$ 42.99	\$ 30.26	-2%	2%	-95%	0%	-30%	-11%	\$ (12.94)
Windows 9x	\$ 95.68	\$ 78.59	\$ 85.35	\$ 88.30	\$ 87.33	\$ 83.01	-18%	0%	3%	-1%	-5%	-1%	\$ (2.34)
NT-Entry Level	\$ -	\$ -	\$ -	\$ -	\$ 83.90	\$ 84.62	0%	0%	0%	0%	1%	0%	\$ 84.62
NTW, NT-Standard	\$ 149.08	\$ 139.98	\$ 141.83	\$ 148.05	\$ 137.92	\$ 129.64	-6%	1%	5%	-7%	-6%	-3%	\$ (12.00)
Unix Add-On	\$ -	\$ -	\$ -	\$ 149.00	\$ 149.00	\$ -	0%	0%	0%	0%	-100%	0%	\$ -
Add ons	\$ 33.01	\$ 32.84	\$ 32.46	\$ 31.10	\$ 24.76	\$ 26.63	-1%	-1%	-4%	-20%	8%	-5%	\$ (5.82)
Maintenance	\$ 31.74	\$ 57.57	\$ 71.22	\$ 52.97	\$ 80.82	\$ 76.84	81%	24%	-26%	53%	-5%	3%	\$ 5.62
Enterprise Agreements	\$ -	\$ 49.63	\$ 52.22	\$ 58.82	\$ 62.26	\$ 63.58	0%	5%	13%	6%	2%	7%	\$ 11.47
Total FG	\$ 67.14	\$ 76.71	\$ 87.69	\$ 87.98	\$ 89.71	\$ 87.10	14%	14%	0%	2%	-3%	0%	\$ (0.59)
Total Desktop OS	\$ 49.49	\$ 57.81	\$ 64.20	\$ 62.89	\$ 61.12	\$ 58.60	17%	11%	-2%	-3%	-4%	-3.0%	\$ (5.60)

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Appx: Product

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Product - Appendix

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CY00: Entry-Level -vs.- Standard

- All API, DDI, current driver support identical in both products
- Standard contains fullest feature set, compelling to most customers
- Entry-Level is a sub-set of Standard, differentiate on:
 - Capacity
 - Features: Compromises flexibility and richness for simplicity (e.g. reduce menu options); no corporate deployment, administration infrastructure and tools
 - Connectivity: limited to internet connection
 - Compatibility: focus on newer applications to reduce complexity
- OEM Pricing:
 - Standard ~\$100, Entry-Level ~\$50

			Entry-Level	Standard
Capacity	Memory Processors	RAM	64 MB	Architectural
	Devices	Architectures MP Support Hard Drives CD-Rom/DVD Multi-Monitor	x86 No 1 internal & 1 removable 1 No	x86/alpha Yes Multiple Multiple Yes
Features	Manageability	Corporate deployment tools	No	Yes
	App/Service Bundles	Corporate management tools	No	Yes
		Mail Client	Outlook Express	Outlook Pro
		URS	No	Yes
		Teles	No	Yes
		Phone Dialer/VF	No	Yes
		Checker/Boarder	Yes	Yes
		Defrag	No	Yes
		Partition	No	Yes
		NAT	No	Yes
		Games	Limited	Extensive
		Network Client	No	Yes
		Chrome	No	Yes
		SMB 3.0	No	Yes
		FWB (HTTP)	No	Yes
	Language	Multilingual UI support	No	Yes
Connectivity	DSYS Client Support	Domain support	No	Yes
		PK security	Yes	Yes
	Net Protocols	NTLM, Kerberos Security	No	Yes
		TCP/IP	Yes	Yes
		IPX/SPX, NetBEUI, DLC	No	Yes
		DHCP	Yes	Yes
Compatibility	Subsystems	Win32, Win16	Yes	Yes
	File systems	DOS, OS/2, POSIX	No	Yes
		NTFS	Yes	Yes
		FAT	Yes	Yes

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Windows Desktop Product Timeline

	FY98	FY99	FY00	FY01
Q1	July-Sept	July-Sept IE 5 components Windows CE (Jupiter) Office 9*	July-Sept Unix Services for post 5.0	July-Sept
Q2	Oct-Dec	Oct-Dec NT WORKSTATION 5.0 Plus! for Windows NT 5.0 (Unix Services for NT4 (SolarCoster)	Oct-Dec NT 64-bit	Oct-Dec
Q3	Jan-Mar	Jan-Mar Unix Services for NT5 (SolarCoster)	Jan-Mar	Jan-Mar
Q4	Apr-Jun WINDOWS 98 Plus! for Windows 98 Internet Explorer "Chrome"	Apr-Jun NT "ASTEROID" Windows CE 3.0	Apr-Jun NT "NEPTUNE" Office 10* IE 6 components	Apr-Jun NT "TRITON"

* Internal RTM

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Localization Schedules

Windows 98			NT5			PLUS! For Win98			
	Delta	Tier		Delta	NTS/NTW?	Tier		Delta	Tier
German	14	1	German	14	NTS/NTW	1	German	0	1
Spanish	14	1	Spanish	14	NTS/NTW	1	Japanese	0	1
French	21	1	French	21	NTS/NTW	1			
Italian	21	1	Italian	35	NTS/NTW	2			
Brazilian	25	1	Swedish	45	NTS/NTW	2			
Swedish	25	1	Dutch	50	NTS/NTW	2			
Dutch	25	1	Japanese	60	NTS/NTW	1			
Japanese	30	1	Simp. Chinese	70	NTS/NTW	2			
Danish	40	2	Brazilian	75	NTS/NTW	2			
Norwegian	45	2	Danish	80	NTW	3			
Hebrew	45	3	Norwegian	80	NTW	3			
Arabic	45	3	Finnish	80	NTW	3			
Finnish	50	2	Trad Chinese	80	NTS/NTW	2			
Portuguese	50	2	Korean	90	NTS/NTW	2			
Korean	80	2	Czech	100	NTS/NTW	3			
Trad Chinese	80	2	Polish	110	NTS/NTW	3			
Simp. Chinese	80	2	Russian	120	NTS/NTW	3			
Czech	90	3	Hungarian	120	NTS/NTW	3			
Polish	90	3	Portuguese	130	NTS/NTW	3			
Russian	100	3	Turkish	130	NTW	4			
Hungarian	100	3	Greek	130	NTW	4			
Turkish	110	3	Hebrew	180	NTW	4			
Greek	110	3	Arabic	180	NTW	4			
Slovenian	120	3							
Slovak	120	3							
Thai	120	4							
Catalan	130	4							
Basque	130	4							

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NT/Win95 Service Pack Timeline

Windows 98

- Hot fixes and a very small number of critical features
 - WS2 provider for ATM, PPP over ATM, DSS, IE component integration, DX6 integration

- Release timing: SP1 - Q1FY99; SP2 - TBD

Window NT5 and beyond

- Only release vehicle for QFEs and components
- Service Pack releases for two years after RTM
 - SP1 = bug fixes only (RTM + 2 months)
 - SP2 = fixes + critical layered features that need delivery mechanism + small core system changes to support features (SP1 + 4 months)
 - SP3 = bug fixes only (SP2 + 4 months)
 - SP4 = bug fixes only (SP3 + 6 months)
 - SP5 = bug fixes + any features that need to be backported from next version's SP2 (SP4 + 8 months)

- Hot fix support for 3.5 years after product release: 1st 2.5 years - free QFE support; next 1 year - QFE support for fee

Internet Explorer 4.0 components: Released quarterly for one-year after RTM: QFEs, competitive

- 4.0 SP1: Released with Win98
- 4.0 SP2: Release Q1FY99

Internet Explorer 5.0 components: For pre-NT5/Win98 systems and all other platforms

- 5.0 SP1: IE5 RTM + 90

CY 1998

	May	June	July	Aug	Sep	Oct	Nov	Dec
W98	RTM							
NT4		SP4				SP5		
NT5					RTM		SP1	
IE4*	SP1			SP2				
IE5*			RTM				SP1	

CY 1999

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
NT5				Asteroid (SP2)					SP3			
IE5				SP2					SP3			

CY 2000

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
NT5				SP4								SP5
NetTune			RTM		SP1				SP2			
IE5*			RTM		SP1				SP2			

CY 2001

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
NT5												
NetTune	SP3						SP4					
Triton			RTM		SP1				SP2			
IE5	SP3											

CY 2002

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
NetTune			SP5									
Triton	SP3						SP4					

*Cross platform SPs. Latest IE components integrated into Windows Service Packs

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Windows 98

<p>Overview</p> <ul style="list-style-type: none">● Exciting upgrade for consumers and incremental upgrade for businesses that cannot deploy NTW.● Provides compelling ease-of-use and reliability capabilities for consumers, as well as support for the latest hardware. New manageability and deployment tools make it an incremental upgrade for businesses that cannot go to NTW. <p>Market</p> <ul style="list-style-type: none">● Consumers, especially those purchasing recent hardware● Businesses with barriers to deploying NTW <p>Propositions:</p> <ul style="list-style-type: none">● Consumers: Works better, plays better● Corporations: Works better, supports better● ISVs: Take advantage of new generation hardware● IHVs: Sells better, supports better <p>External Dates</p> <ul style="list-style-type: none">● RTM - Q4FY98	<p>Features</p> <p><i>Simplification</i></p> <ul style="list-style-type: none">◆ Advanced plug and play◆ Advanced power management◆ Multi-monitor◆ FAT32 enhancements and converter◆ IE4 component integration◆ Code download manager <p><i>Manageability</i></p> <ul style="list-style-type: none">◆ Maintenance Wizard◆ Batch◆ System Information Utility◆ System File Checker <p><i>Compatibility and Infrastructure</i></p> <ul style="list-style-type: none">◆ I394◆ BPC◆ DVD◆ USB◆ WDM
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Windows NT Workstation 5.0

<p>Overview</p> <ul style="list-style-type: none">● Combines the best of distributed computing with a tightly managed. Low TCO environment.● Premier desktop OS for businesses and organizations. Superset of key Win98 features; enhanced reliability, security, and performance; and industry-leading manageability with IntelliMirror technology.<ul style="list-style-type: none">- Tightly integrated with NT5.0- First true optimized client-server operating environment <p>Market</p> <ul style="list-style-type: none">- All businesses, especially L.ORGs and MORGs <p>Propositions:</p> <ul style="list-style-type: none">● Consumers: Not key audience● Corporations: Better reliability, manageability, security performance● ISVs: Best way into corporate customers● IHVs: Premier business desktop <p>External Dates</p> <ul style="list-style-type: none">● RTM: 2QFY99● RC: (Beta2+90days)● Beta 2: 4QFY98	<p>Features</p> <p><i>Simplification</i></p> <ul style="list-style-type: none">● Advanced plug and play● Advanced power management● Simplified networking and printing UI <p><i>Manageability</i></p> <ul style="list-style-type: none">● NTFS 5.0● Directory services client<ul style="list-style-type: none">- DPS● Kerberos 5● IntelliMirror/ZAW<ul style="list-style-type: none">- Client-side caching- Microsoft Installation Services- Remote boot/SIS- Roaming profiles <p><i>Compatibility and Infrastructure</i></p> <ul style="list-style-type: none">● Broader driver support● TAPI 3.0● ACPI● DirectX6 - first NT version● Hydra client● ATM● IrDA● USB
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Windows NT "Asteroid"

<p>Overview</p> <ul style="list-style-type: none">◆ Date-driven Service Pack for NT5<ul style="list-style-type: none">◆ ".1" release that accelerates upgrade to NT5◆ Selective HW features that encourage OEMs to pre-install NT◆ Closer driver parity with Win98◆ Avoid significant Windows 98 Service Pack (OSR) <p>Market</p> <ul style="list-style-type: none">◆ All businesses, especially LORGs and MORGs; increasing appeal to consumers <p>External Dates</p> <ul style="list-style-type: none">◆ Q4FY99 <p>Packaging:</p> <ul style="list-style-type: none">◆ OEM: Slipstream; supports clean install on new machines (via OPK)◆ FG: One CD with chained installation of OS and SP; one additional unattended reboot required when upgrading non-NTW5 systems◆ Corporate: Overlay Service Pack files over released OS files for clean installs.	<p>Features</p> <ul style="list-style-type: none">◆ Hot fixes for key NT5 deployment issues◆ Add new hardware support and features as ready<ul style="list-style-type: none">◆ Reach parity with Win98◆ Low-risk fall CY99 hardware<ul style="list-style-type: none">◆ Intel Camino chip-set◆ Minimal impact to NT NetTune schedule◆ Latest IE components
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Windows NT "NepTune"

<p>Overview</p> <ul style="list-style-type: none">● Major shift in programming infrastructure● NT5 enhancements (ZAW, DS, 64-bit support)● First NT release compelling for consumers● New packaging segmentation based on value<ul style="list-style-type: none">- Standard is the most compelling platform for all businesses and most consumers while Entry-Level provides subset of Standard capabilities aimed at new and basic PC users, and for 2nd PCs. <p>Market</p> <ul style="list-style-type: none">● Standard: General business, consumers and work at homes● Entry-Level: Basic consumers only, new PC users● High-End: Technical workstation users <p>Propositions:</p> <ul style="list-style-type: none">● Consumers: Simplified experience; power of NT; choice● Corporations: Continuing manageability innovations● ISVs: Powerful, easier new programming model● IHVs: Latest hardware support; easier deployment <p>External Dates</p> <ul style="list-style-type: none">● RTM: 4QFY00 (All)	<p>Features - Standard</p> <p><i>Simplification</i></p> <ul style="list-style-type: none">● Simplified Out of Box Experience● Consumer and business personalities● Integrated help, error messages and troubleshooting● Enhanced home networking● Enhanced imaging support for digital photography <p><i>Manageability</i></p> <ul style="list-style-type: none">● IntelliMirror enhancements/ZAW 2.0 <p><i>Compatibility & Infrastructure</i></p> <ul style="list-style-type: none">● New hw support (partial list; not included in Asteroid)<ul style="list-style-type: none">- USB/1394 communication- 1394 boot- Other OEM/IHV requests● Programming model improvements/simplification<ul style="list-style-type: none">- Win+: new window mgmt & form creation- Enhanced COM+- Integrated storage infrastructure- New graphics APIs based on Fahrenheit work● Directory Service Client v 2.0● Investigate soft-devices● Anti-piracy features● IPv6
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Windows NT "NepTune"

	<p>Features - Entry-Level</p> <ul style="list-style-type: none">◆ Identical driver, API, DDI support as Standard◆ Subset of Standard in the following areas:<ul style="list-style-type: none">◆ Capacity<ul style="list-style-type: none">◆ Memory, processors, devices◆ Features and services<ul style="list-style-type: none">◆ No corporate deployment & admin infrastructure and tools◆ No ZAW features◆ Limited security services (no Kerberos 5)◆ Connectivity<ul style="list-style-type: none">◆ Subscriber-based networking only◆ Designed for non LAN environment◆ Compatibility<ul style="list-style-type: none">◆ Limited subsystems such as Win32 and Win16-only <p>Features - High-End</p> <ul style="list-style-type: none">◆ 64-bit version of NT◆ True 64-bit VLM◆ Unlimited multiprocessor◆ Advanced volume management◆ Integrated UNIX integration services
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Windows NT "Triton"

<p>Overview</p> <ul style="list-style-type: none">● Minor release/update to NT NepTune● Date-driven to support new hardware <p>Market</p> <ul style="list-style-type: none">● Standard: General business, consumers and work at homes● Entry-Level: Basic consumers only, new PC users● High-End: Technical workstation users <p>External Dates</p> <ul style="list-style-type: none">● RTM: 4QFY01 (All)	<p>Features - Standard</p> <p><i>Simplification</i></p> <ul style="list-style-type: none">● Incremental shell improvements, particularly for consumers (new generation UI not delivered until next major NT release) <p><i>Manageability</i></p> <ul style="list-style-type: none">● IntelliMirror/ZAW 2.0 enhancements <p><i>Compatibility and Infrastructure</i></p> <ul style="list-style-type: none">● Integrated storage enhancements● Support for new hardware <p>Features - Entry-Level</p> <ul style="list-style-type: none">● Subset of Standard <p>Features - High-End</p> <ul style="list-style-type: none">● Enhanced NT64 capabilities
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"Solar Coaster" (Unix Services for NT)

Overview

- Makes it easier to deploy NT desktops into a UNIX environment.
 - Add-on product for integrating into existing UNIX networks.
 - Goal is to accelerate momentum for NT desktops by removing deployment barriers.
 - Microsoft value add is to do tight integration and easy upgrade path

Market

- Technical workstation users with Unix interoperability needs.

Dates

- Phase I - NT4 Add-on: 2QFY99
- Phase II - NT5 Add-on: +30-60 days NT5 RTM
- Phase III - Post NT5 Service Pack Add-on: Q4FY99
- NepTune: Integrated into High-End Edition

Proposed pricing:

- FG: \$149
- OEM: \$49

Features

● Phase I

- NFS Client
- NFS Server
- Telnet Server
- Telnet Client
- NT to UNIX password sync
- UNIX bins (Script conversion from UNIX)
- WSH PERL engine
- WSH Korn Shell Scripts

● Phase II

- QFEs only

● Phase III

- SVR5 compatible print server
- C Shell and WSH engine for scripts
- 101 Windows NT Scripts
- ISP Provisioning tool
- RSH Server
- R utilities (REXEC, RLOGIN, and so forth)
- Remailer
- Console dial-up session (dial-up telnet)
- SSH support incorporated into Telnet
- UNIX to NT Migration tool for Users/Groups
- UNIX to NT Migration tool for NFS to NTFS
- Two-way password/user account sync.

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PLUS!

<p>Overview</p> <ul style="list-style-type: none">● More fun and features from your new OS.<ul style="list-style-type: none">- PLUS! 98: Add-on "attach" product to Windows 98. Goal is to maximize revenue with low amount of work. Mixture of rational and fun features. \$39.95 product at retail.- PLUS! for NTW 5.0: Port of PLUS! 98 to NTW 5.0 <p>Market</p> <ul style="list-style-type: none">● Primarily end-users buying in the retail channel <p>External Dates</p> <ul style="list-style-type: none">● RTM:<ul style="list-style-type: none">- PLUS 98! Sim ship with Windows 98- PLUS! for NTW 5.0. Sim ship with NTW 5.0	<p>Features for Windows98</p> <ul style="list-style-type: none">● McAfee Viruscan and Webscanx with 6 months of engine and signature file updates.● Enhancements to Windows Maintenance Wizard● Zip Folders● 10-15 Active Themes● Picture It Express● Deluxe CD Player● Golf 4.0 (9 holes) - tbd● Lose Your Marbles - Segasoft● Spider Solitaire <p>Features for Windows NTW 5</p> <ul style="list-style-type: none">● Same feature set at PLUS! 98 is planned
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Internet Explorer 5 Components

<p>Overview</p> <ul style="list-style-type: none">● Improved performance. Enhanced end user publishing via Office 9. <p>Market</p> <ul style="list-style-type: none">● Primarily Internet and Intranet end-users in businesses and homes <p>External Dates</p> <ul style="list-style-type: none">● RTM - Q1FY99	<p>Features</p> <ul style="list-style-type: none">● Web Platform<ul style="list-style-type: none">- Robustness, performance, fit and finish- TCO<ul style="list-style-type: none">- IE lite (6MB download), JIT install of components- Great client with Office 9<ul style="list-style-type: none">- Office-style toolbars/menus; HTTP/DAV- Platform for line of business applications<ul style="list-style-type: none">- XML, X-tags● Universal Viewer<ul style="list-style-type: none">- Publishing<ul style="list-style-type: none">- J and hi-fi, editing UI- Home page integration<ul style="list-style-type: none">- Still exploring options● Windows/Web<ul style="list-style-type: none">- Leverage OS services
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Internet Explorer 6 Components

<p>Overview</p> <ul style="list-style-type: none">● Look for synergistic unification with Windows● Stay competitive with other technologies● Strive to meet NepTune release <p>Market</p> <ul style="list-style-type: none">● Primarily Internet and Intranet end-users in businesses and homes <p>External Dates</p> <ul style="list-style-type: none">● RTM - Q4FY00	<p>Features</p> <ul style="list-style-type: none">● Web Platform<ul style="list-style-type: none">- True integration of DAV- Offline support, XML store- Partial updates to data- Auto-degrade to HTML 3.2 (leverage server, tools)● Universal Viewer<ul style="list-style-type: none">- Last 10% of publishing<ul style="list-style-type: none">- Printing, CSS attributes- Mega-server roaming<ul style="list-style-type: none">- Roaming favorites and cookies- Secure kiosk access- Auto corporate roaming● Windows/Web<ul style="list-style-type: none">- Leverage OS services
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"Chrome"

<p>Overview:</p> <ul style="list-style-type: none">● High-end browser add-on to Windows. Exploits high-end PCs Exploits DirectX architecture. <p>Market:</p> <ul style="list-style-type: none">● Home enthusiasts with high-end PCs (PII353, 64MB, DVD) <p>Dates:</p> <ul style="list-style-type: none">● 4QFY98	<p>Features</p> <ul style="list-style-type: none">● Cheats bandwidth with local caching<ul style="list-style-type: none">- Persistent data - textures, plug-ins, effects, video● Integrates media players<ul style="list-style-type: none">- ASF, ASX, VOD, RAM, RA- AVI, MPEG, WAV, SND, AU, Midi, QuickTime● XML support● DVD support
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Embedded NT

<p>Impala - NT4-based</p> <p>Overview</p> <ul style="list-style-type: none">● Enables use of NTS as the embedded OS for hardware vendors in Communications (routers and switches) and Office Automation (printers, FAX, copiers). <p>Dates:</p> <ul style="list-style-type: none">● 2QFY99 <p>Key Features</p> <ul style="list-style-type: none">● System configuration tool to generate target systems based on required functionality● Application profiling tools for component dependency and resource utilization analysis● Headless operation - runs without keyboard, mouse or display)● Diskless operation<ul style="list-style-type: none">- Read-Only media bootstrap- Accelerated boot process- Automatic crash recovery	<p>Post NT5-based</p> <p>Overview</p> <ul style="list-style-type: none">● This release will broaden market segment focus to telecommunications, retail point of sale systems and manufacturing solutions <p>Dates:</p> <ul style="list-style-type: none">● 2QFY00 <p>Key Features</p> <ul style="list-style-type: none">● Hard run-time enforcement of target OS/App configuration<ul style="list-style-type: none">- To allow additional factoring of features, licensing and price- Target systems are to be "certified" by channel to be compliant with licensing terms- Advanced remote administration and configuration management of deeply embedded systems- Improved factoring of the OS for minimal footprint systems
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System Requirements (with Apps)

	General Ship Date	Packaging	Minimum		Optimal	
			CPU	RAM	CPU	RAM
Windows 95	1995		386DX	4	486	16
Windows 98	1998		486-66	16	Pentium	32
NTW4	1996		486-25	16	Pentium	64
NTW5*	1998		Pentium	32	PII	64
Asteroid*	1999		Same as NTW5 (plus Fall 99 hardware)			
NepTune	2000	Entry-Level*	Pentium	32	PII	64
		Standard*	Pentium	64	PII	128
		High-End*	PII	64	PII	128
		Running NT64*	Merced Alpha	128?	Merced Alpha	256?
Trilon	2001	Entry-Level*	PII	32	IA-32	64
		Standard*	PII	64	IA-32	128
		High-End*	PII	64	IA-32	128
		Running NT64*	Merced Alpha	128?	Merced Alpha	256?

* Expected system requirements. Not known until later in development process and hardware availability.

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Desktop Product Release Plan

Key Products and Street Dates	FY98				FY99				FY00				FY01			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Windows 98/Entry-Level	W98															
Windows NT Workstation/Standard					NT5				ASTR							
Windows NT High-End*									NT64				Nep-High			
Internet Explorer	CHRM				IES								Nep-Std			
Windows Terminal Client & Server 4 (Hydra)	WTS4												IB6			
Unix Services for NTx (SolarCoaster)									UX4				UX5			
Plus! Pack	PL98				PLS				UXP5							

Product / Version	#	Year/Qt	Key New Features
Windows 98	W98	FY98-4	New HW Support, DVD, BPC, improved reliability and manageability
Plus! Pack for Windows98	PL98	FY98-4	Add-on SKU with utility enhancements, anti-virus, games, themes for Windows98
IE Chrome	CHRM	FY98-4	Locally caches textures, plug-ins, effects, video; integrates media players, XML and DVD support
Windows Terminal Client & Server 4 (Hydra)	WTS4	FY98-4	NTS4-based terminal server/client
Internet Explorer 5 components	IES	FY99-1	IE4 completion, Office 9 integration, XML, X-tags, J and bi-di, editing UI
NT Workstation 5	NT5	FY99-2	Plug & Play, IntelliMirror, Active Directory Client, Driver and Application support
Unix Services for NT4 (SolarCoaster)	UX4	FY99-2	NTS Client & Server, Telet Client & Server
Plus! Pack for WindowsNT 5	PL5	FY99-2	Add-on SKU with utility enhancements, anti-virus, games, themes for WindowsNT Workstation 5
Unix Services for NT5 (SolarCoaster)	UX5	FY99-3	NT5 compatibility, QPES, no new features
NT Workstation Asteroid	ASTR	FY99-4	Schedule driven, NTS SP, select Fall 99 HW support as ready
Unix Services for post NTS 0 (SolarCoaster)	UXP5	FY00-1	C shell/scripting, RSH server, R utilities, migration tools for admin and NFS to NTFS, 2-way password sync
NT 64-bit*	NT64	FY00-2	64-bit NT, support for Merced based on NTS (timing contingent on Intel Merced release)
NT NepTune Entry-Level	Nep-Ent	FY00-4	Subset of NepTune Entry-Level identical driver API, DDI support; limited subsystem support and networking
NT NepTune Standard	Nep-Std	FY00-4	Significant programming model changes, ZAW/DS enhancements, simplification for consumers
NT NepTune High-End	Nep-High	FY00-4	NT64
IE 6 components	IE6	FY00-4	DAV integration, offline support, full XML, mega-server roaming
NT Triton Entry-Level	Trit-Entry	FY01-4	Subset of Triton Standard
NT Triton Standard	Trit-Std	FY01-4	Minor release/update to NT NepTune
NT Triton High-End	Trit-High	FY01-4	Minor release/update to NT NepTune

Comments:
 All dates are external street dates
 *Windows NT64 ship date assumes Merced ship in FY00 Q1 otherwise NT64 will be shipped with NT5
 Windows Terminal (Hydra) is integrated into the NT5 release

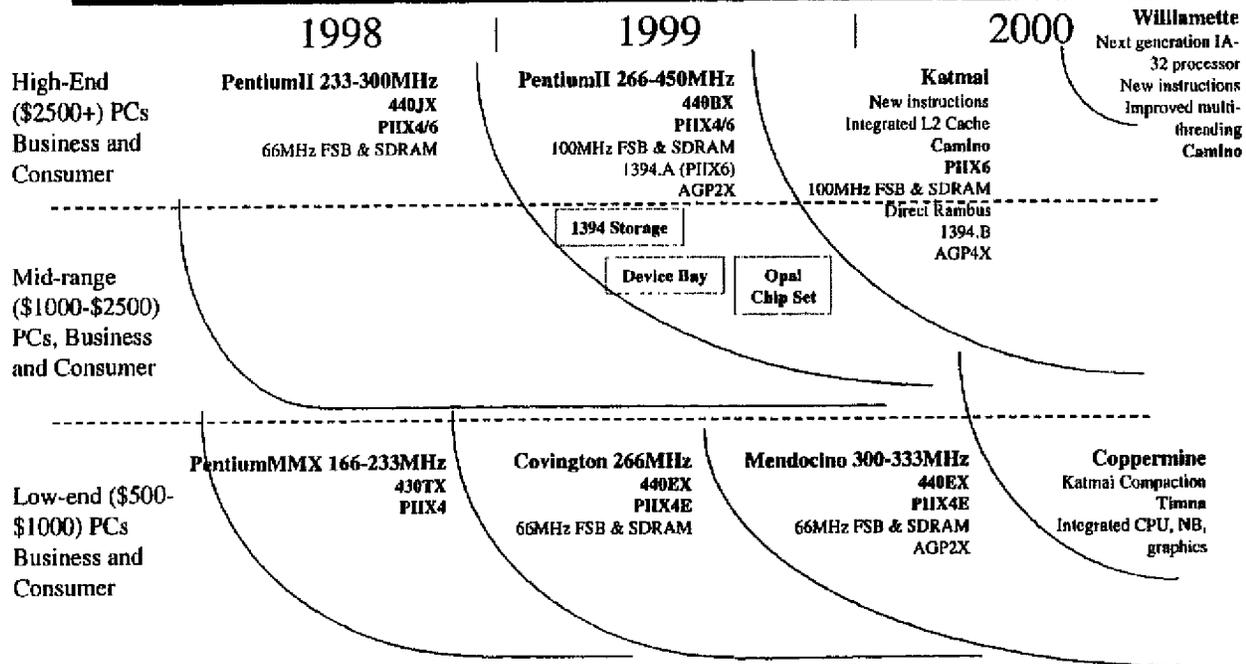
Strategies:
 All NT Releases assumes shipment of Windows NT Desktop, Windows NT Server and Windows NT Server Enterprise Edition
 This chart assumes 12 month OS release cycle with a Q2 street date

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 Personal & Business Systems

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Intel & OEM Technology Roadmap



Non-Intel Technologies

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Desktop OS Y2K Product Status

- Y2K compliance definition completed:
 - Stores and calculates dates consistent with a 4-digit format throughout its operational range.
 - Allows the user to enter a 2-digit short cut for the year, the product recognizes the year consistent with a 4-digit format.
 - Allows the user to enter a 2-digit short cut for the year, the user can override a 2-digit short cut by entering all 4 digits of the year.
 - Properly executes leap year calculations.
 - Does not use special values for dates within its operational range for data.
 - The product will internally recognize dates more than 35 years beyond the year 2000.
- Currently determining compliance of key Windows products
 - Products being tested (completed late February)
 - MS-DOS: V3.31 and higher
 - Windows 3.1 and higher
 - Windows NT 3.51 and higher
 - Make support decision based on engineering and strategic requirements
- Establishing programs to help customers make transition
 - Proactively targeting customers to replace dated infrastructure with Microsoft solutions
 - EBC briefings, Microsoft Product Compliance Guide, Web-based Year 2000 Resource Center, software patches as necessary (based on testing)

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Java Market Overview

- Win32 penetration in the developer segment increased to 90% from 81% compared to last year
- Only 8% of application developers believe that they will use Java during the next 12 months compared to 15% six months before
- Java usage by web developers is slowly increasing from 8% to 13%
- 86% of all Java developers are developing on Win32 compared to 23% on Unix
- Perception is that OLE/ActiveX/Com is losing ground to Java and Java Enterprise Beans in the future

Technology used for developing Executable Objects

	nov-96	mar-97	aug-97	nov-97
ActiveX	52%	59%	50%	52%
Java	76%	73%	77%	76%
Other	n/a	28%	21%	24%

Source: Developer Metrics (US) November, 1997

Win32 Penetration

	dec-96	nov-96	nov-97
Win32 Developers	61%	81%	90%
Total No of Developers	1452	1925	2238

No in 000's - Source: Developer Metrics (US) November, 1997

Usage of Java by application developers

	mar-97	aug-97	nov-97
Currently using	6%	7%	5%
Use within 12 months	15%	17%	8%

Source: Developer Metrics (US) November, 1997

Usage of Java by web developers

	mar-97	aug-97	nov-97
Java	8%	9%	13%
HTML	46%	50%	43%

Source: Developer Metrics (US) November, 1997

Developer Planned Object Model Usage

Within 12 months	nov-96	mar-97	aug-97	nov-97
OLE/ActiveX/COM Net	41%	48%	44%	35%
OLE	34%	33%	29%	37%
ActiveX	38%	43%	39%	39%
COM	24%	22%	27%	33%
Java	52%	54%	48%	49%
Enterprise Java Beans	n/a	n/a	52%	45%
CORBA	18%	31%	39%	34%

Source: Developer Metrics (US) November, 1997

Developer Object Model Usage

	nov-96	mar-97	aug-97	nov-97
OLE/ActiveX/COM Net	26%	35%	30%	33%
OLE	24%	30%	26%	27%
ActiveX	9%	16%	15%	16%
COM	6%	7%	6%	9%
Java	10%	13%	14%	15%
Enterprise Java Beans	n/a	n/a	3%	4%
CORBA	2%	2%	2%	2%

Source: Developer Metrics (US) November, 1997

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Appx: Marketing

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Marketing - Appendix

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Windows 98 Launch

- Upgrade 5% of the Win98 capable WW installed base within 12 months
 - Get 30%+ attach with new generation peripherals
 - Must RTM by end of May to ensure W98 is on 80% of the fall consumer PC lines WW
- Position Win98 as an exciting upgrade for consumers, and a smart upgrade for businesses that cannot go to NT.
 - Move creative emphasis for Win98 to CONSUMER, as NTW moves over even stronger emphasis on BUSINESS.
- Prepare the market and customers for a late June launch and a major fall promotion by educating 250K IEUs on the benefits of upgrading to Win 98.
 - Consumer Preview (n=100k); PC User Group Tour/MS Extreme (15-20k); Reviewers Tours, channel training.
 - Drive a March "Win98 Marketing Day" for 500 OEMs, IHVs, ISVs, & Resellers
- Launch event linked with roll-out of Microsoft Technology Train/Truck convoy (if funded)
 - Universal Studios and Rosie O'Donnell fallback options

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Windows 98

Consumer Messaging

“Works better, Plays better”

Works better

Plays better

‘Tune in’

Internet

Entertainment

‘Time out’

‘Tune up’

Quality

Accessories

‘Plug in’

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Works better, Plays better: Benefits map

	<u>Works better</u>	<u>Plays better</u>	
Internet	<p>Easier to use and connect</p> <p>Complete Internet Integration w/cable access</p> <p>Dynamic, more comprehensive help&support</p>	<p>High-performance graphics for games</p> <p>Full-length movies with surround sound on DVD</p> <p>Immersive sound and video</p>	Entertainment
Quality	<p>Faster and more capacity</p> <p>More reliable with fewer support calls</p> <p>Increased productivity w/multiple monitors</p>	<p>Easier to add and remove add-on devices (USB, 1394)</p> <p>Easier to find out what is playing on TV</p> <p>Interactive Shows enriched with on-screen graphics and videos</p>	Accessories

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NTW 5.0 Pre-Launch

- Lay the foundation to grow NTW to a \$2B business.
 - Ensure top 20 OEMs ship NTW5 as default OS on their business line w/in 90 days of launch
 - Drive aggressive pricing and licensing programs to shift the platform to NTW 5.0
- Prepare our Field and Channel to drive customers thru the evaluation process
 - "Why" Move to NTW5 (Apr-May) and "How" to Evaluate and Deploy NTW5 (June) Technical Solutions Briefings and District Tours
 - Partner and VAP Technical Briefings, Tech-Fusion, Tech-Ed (Beta 1, 2, RTM)
 - ATEC 2-day NTW5 "Train the Trainer" class (Beta 2-RTM)
 - SE/MCS Swap, Airlift, Tech Briefings, Global Summit, Service Readiness Champs
- Prepare our Customers to evaluate and deploy prior to launch
 - Wide-scale (1M) Corporate Preview Program (Beta 2)
 - Corporate-based Windows NT 5.0 Migration Team (Beta 2)
 - Windows Technical Workshops Series (June)
 - Windows NT 5.0 Deployment Conferences (March, June, Feb)
 - Aggressive Upgrade Advantage promotion to lock Win9x customers into NTW 5.0
- Develop a complete and effective set of deployment guidelines and tools
 - "Get Ready for NT5" Verification Tools (H/W and S/W) (Beta 2)
 - Rapid Deployment Program (20 accounts and 12 partners)
 - Structured Evaluation Guide (shipping with the CPP)
 - Deployment Guide and Migration Tools (Beta 2-RTM)
 - TCO and Business Justification Tools/Analyst Studies (Beta 2-RTM)

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Desktop Press

- **NC**
 - "1998 will be the year that sees the death of the notion that a NC can replace a PC." - *Network World*, 1/19/98
 - "Is Microsoft putting NC's in terminal condition?" - *Investors Business Daily*, 12/16/97
- **Windows 98**
 - "The bottom line is if NT is not on your road map, then Windows 98 certainly should be." - *Window Sources*, 1/98
 - "Microsoft Corp.'s Windows 98 is shaping up as a good upgrade." - *PC Week*, 1/98
- **Windows NTW 4.0/5.0**
 - "One West Coast-based telecommunications company has made the decision to jump a huge base of Windows 3.1 desktop users directly to Windows NT 4.0 by mid-1998." - *InfoWorld*, 1/5/98
 - "You'll have to take stock of your own work environment, but unless you require backward compatibility for DOS and Windows 3.x applications, you owe it to yourself to give NT 5.0 serious consideration." - *Windows Magazine*, 1/1/98
 - "Windows 98 will also serve as a prelude to features coming in Microsoft's Windows NT 5.0 operating system, giving both users and hardware vendors an opportunity to iron out compatibility issues and get used to the interface." - *Information Week Labs*, 1/12/98

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Appx: NC

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NC/"Thin Client" - Appendix

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NC Attack Strategy S2, FY98

- **Win the PR battle. Expose the NC as Dead.**
 - In March, conduct press & analyst "*NC is Dead*" Tour to coincide with I-World, LA
 - From February-June deliver monthly Windows TCO stories for PR and case studies for field use. Deliver to customers through online delivery channels and microsoft.com
 - Proactively go after and promote TCO wins with 'big name' customers, key industry influencing bodies & ISV's
 - Leverage OEM & Partner successes.
- **Continue to arm the WW field to compete effectively**
 - Frequent refresh of competitive NC content on winmarketing/nc
 - Expand NC Champs Program to International subs (February)
 - Starting February, provide NC Competitive Tools on IBM NetStation & Sun JavaStation including Technical Reviews, Market Bulletins, Competitive Updates, and Presentations
 - Maintain NC SQUAD as primary field response mechanism
- **Continue to monitor, track and combat the NC threat world-wide**
 - Field Tours to South East Asia (April) and Europe (May) to visit threatened accounts, educate subs & generate PR
 - Maintain direct focus on tier 1 & ECU Strategic customer threats
 - Implement monthly conference call series with NC Champs for intelligence gathering & update
 - Continue to Track/Attend meetings of NC related standards groups

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Gartner Group TCO Numbers

- A well-managed PC has the lowest overall TCO.

Scenario 1: Terminal Replacement		
Win95	JavaStation	NetPC/ZAK-E
Base	34%	35%

Scenario 2: Productivity PC running 8 applications

Win95	Win NT	Windows- based terminal	NetPC/ZAK-A	NetPC & NT5
Base	1%	22%	21%	25%

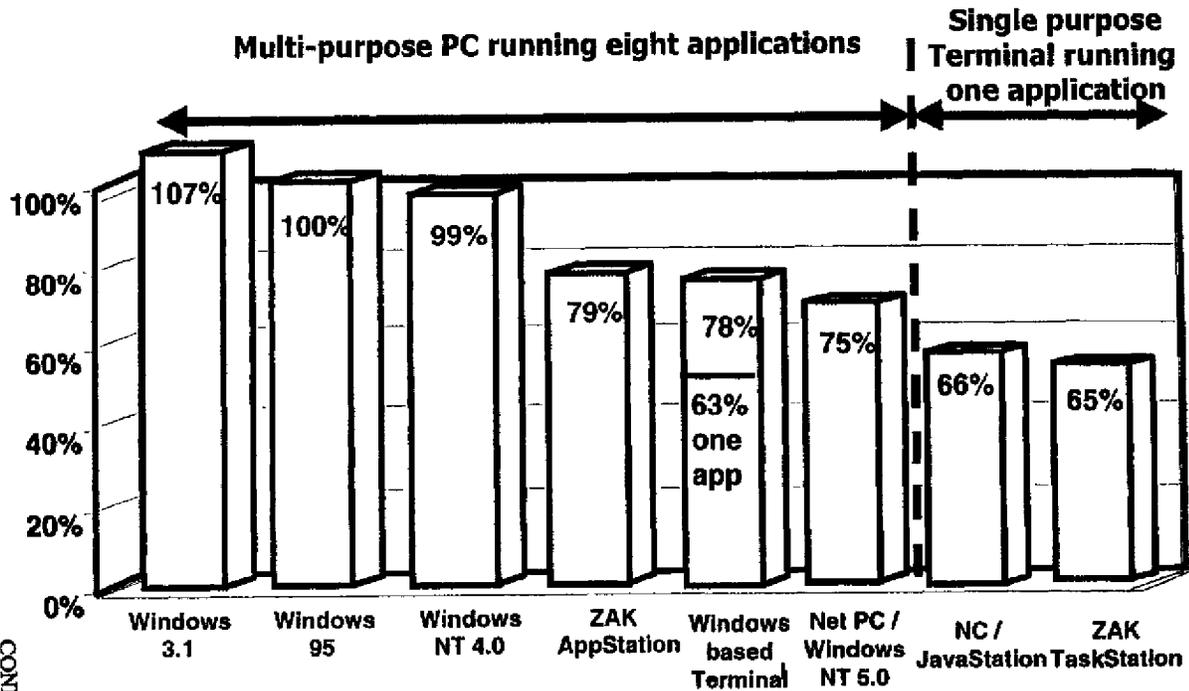
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Source: Gartner Group, "TCO: New Technologies, New Benchmarks", Bill Kirwin 12/97
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PC v NC: Overall TCO



Source: Gartner

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New Gartner Group TCO Model

Annual Costs by Category	WIN 3.1	WIN 95	WIN NT	NC-S	NetPC/NTS.0	NetPC/ZAK A	NC-C	NetPC/ZAK E
Desktop Capital	\$2,076	\$2,376	\$2,376	\$1,877	\$2,111	\$2,122	\$1,490	\$1,465
Technical Support	\$1,183	\$1,089	\$1,086	\$808	\$837	\$989	\$793	\$877
Administration	\$969	\$954	\$954	\$412	\$436	\$448	\$434	\$436
End user operations	\$4,166	\$3,453	\$3,173	\$2,262	\$2,108	\$2,262	\$1,561	\$1,564
Desktop annual costs	\$8,394	\$7,872	\$7,589	\$5,359	\$5,492	\$5,821	\$4,279	\$4,342
Network Capital	\$573	\$585	\$585	\$868	\$624	\$606	\$686	\$617
Network Technical Support	\$663	\$544	\$671	\$687	\$635	\$642	\$694	\$628
Network Administration	\$308	\$301	\$315	\$301	\$298	\$318	\$311	\$307
Network End User	\$848	\$680	\$708	\$576	\$484	\$484	\$576	\$576
Network annual costs	\$2,393	\$2,111	\$2,280	\$2,433	\$2,041	\$2,049	\$2,268	\$2,128
Total Costs	\$10,786	\$9,983	\$9,869	\$7,792	\$7,533	\$7,870	\$6,547	\$6,469
% Change (W95 Base)	7%	Base	-1%	-22%	-25%	-21%	-34%	-35%

Total Costs is total cost of ownership per user per year. Lower is better.

% Reductions (W95 Base) is the % reduction in TCO from Win95, loosely managed - the base. Higher is better

Win NT and **Win 95** are NTW version 4.0 and Win95 respectively, both loosely managed.

NetPC ZAK A is NTW 4.0 or Win95 running on a NetPC in ZAK "AppStation mode"

NC-S is "Multi-user NT" a.k.a. "Hydra" running with 8 applications.

NetPC/NT 5.0 is Windows NTW5.0 running on a NetPC in a well managed environment.

NC-C is an NC/JavaStation running a single line of business application.

NetPC/ZAK E is NTW 4.0 or Windows 95 running on a NetPC in ZAK "TaskStation mode"

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Old Gartner Group TCO Analysis

Annual Costs by Category	Win95	WinNT	NC	Citrix	NetPC/ NT5
Desktop Capital	\$1,850	\$1,959	\$980	\$1,015	\$1,733
Technical Support	\$1,066	\$982	\$870	\$859	\$970
Administration	\$945	\$945	\$440	\$460	\$422
End user operations	\$3,483	\$3,184	\$1,799	\$2,219	\$2,073
Desktop Annual Costs	\$7,344	\$7,070	\$4,089	\$4,553	\$5,198
Network Capital	\$682	\$682	\$689	\$882	\$664
Network Technical Support	\$638	\$925	\$611	\$638	\$567
Network Administration	\$552	\$578	\$230	\$310	\$406
Network End User	\$568	\$476	\$392	\$392	\$434
Network Annual Costs	\$2,440	\$2,661	\$1,922	\$2,222	\$2,071
Total Annual Costs	\$9,784	\$9,731	\$6,010	\$6,775	\$7,269
% Reductions (Win95 Base)		1%	39%	31%	26%

- Comparing worst case "loosely managed" Windows to, by definition, tightly managed NC
- Burdens all cases with costs of 100 MB bandwidth to desktop
- Assumes a high user to server ratio and low cost server for NCs (200 to 1 @ \$24K)
- Assumes Citrix scalability higher than reality (80 to 1)
- Doesn't include all data for NetPC/NT 5

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NC Press Audit, Feb 98

- The press is looking for something to report
 - Any thin client win is an NC win
 - "Wins" are often recycled, and are usually vague commitments to buy, not actual implementations
- Few stories cite measurable savings results
- Sun frequently dinged for shipping delays
- Oracle's commitment is being questioned
- IBM receives the bulk of the positive coverage
 - Many wins are actually "WBT" wins - ie. General Accident
 - Although they usually replace terminals, the articles rarely highlight that fact

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Account Status

- We've identified 24 accounts where we've successfully defeated an NC push, using field & corp resources
 - Accounts like our TCO/manageability story
 - WBT/Hydra is a more realistic thin client solution
- We know of 4 losses, all terminals, all heavily courted NC poster children.
 - IBM claims to have sold 50k to 300 US accounts, up to 100k worldwide
- We know of above 35 current NC threats, being tracked in MSNA, Europe & ICON (we have plans in place to address appropriately).
 - In almost all cases, the NC is being looked at as a terminal replacement, not a PC replacement.
- Market Forecasts
 - Dataquest believes their 1997 forecast of 400k NCs is too high, actual data available mid-Feb
 - Even based on projections made at the peak of the NC hype, the NC represents only 1-3% market share

IDC Forecast	1997	1998	1999	2000	2001
Terminals (not-Windows app capable)	N/A	585	465	367	274
WBT and Winapp capable NC	N/A	713	1,354	2,210	3,343
Dataquest Forecast	1997	1998	1999	2000	2001
NC	400	858	2,046	2,376	N/A
Terminal (including Winterm)	2,600	3,432	2,867	2,953	N/A
WBT and Winapp capable NC	713	1,354	2,210	3,343	N/A
PC Forecast (MS Internal Data)	1997	1998	1999	2000	2001
	48,221	54,618	62,064	70,622	78,791
NC Market Share	1%	1-2%	1-3%	1-3%	1-4%

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Update on Shipping NC's

Vendor	Model	Shipping	Estimated Ship Volumes	Price	OS	JDK Support
IBM	Netstation 100	Discontinued	100k Worldwide across all models	\$ 723	NCD Ware	No
	Netstation 300	Yes		\$ 749	NCD Ware	1.0.2
	Netstation 1000	Yes		\$ 899	NCD Ware	1.0.2
Oracle	NC in a box (2 NCs + 1 server)	Yes	>10K (not incl RCA TV NC's)	\$ 4,295	NCOS	1.1.2
Sun	JavaStation	Delayed to Q2 CY98	>10k (incl. Betas)	\$ 799	JavaOS	TBD
Neoware	@Work Series	Yes	40k across all models	\$ 649-2200	netOS	Not Specified
	Neostation 540	Yes		\$ 700-900	netOS	Not Specified
NCD	Explora Series	Yes	63K across all models	\$895-1700	NCD Ware	Not Specified
	HMX	Discontinued		Not Available	NCD Ware	Not Specified
Aranex	ICS	Yes	>5k	\$ 700.00	UNIX based	JDK 1.1
Tektronix	NC200	Yes	70k	\$ 1,400.00	UNIX based	Not Specified
Affinity	Visera 211	Yes	>5k	\$ 898.00	netOS	Not Specified

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NC/Java Productivity Suites

Vendor	Status	Notes
Corel Office for Java	Abandoned development of product.	Shifting to server based Java apps. Focus on Java and NC's was reflected in Q4 financials - loss of \$66.9M.
Oracle HatTrick	Abandoned development of product.	After spending \$30M on development, they dropped the project in favor of licensing StarOffice.
Cooper & Peters EyeOpener	Product never shipped.	Company acquired by Microsoft.
IBM/Lotus eSuite	Begins shipping in Mid-Feb for IBM Netstation.	Although app claims to be 100% Pure Java, they are developing versions for the Oracle/NCI NC and the Sun JavaStation.
Applix Anywhere	Has been shipping for almost a year, no significant deployments.	Browser based app supplies a word processor, spreadsheet with business graphics, e-mail, HTML author and data access tool. All processing done at server, UI displayed at client. \$295/client, \$4995/server. Requires 10mb per user on server, 8mb on client.
StarOffice	NC version started shipping w/ Oracle NC software in the fall.	Also will be bundling with Sun Ultra Workstations. It includes WP, spreadsheet, e-mail, presentation graphics, news, charting and graphics apps that follow a distributed architecture and are divided between the client and server. Requires only 300kb at client.
Inergy WebDesk2000	Currently downloadable off the web.	Allows machines without a hard disk that is connected to the Internet to use their applications. It contains a word processor, Web-site development tool, and e-mail client. Subscription is \$4.95/month/service and you also get storage space on their servers. Will be bundled with Sony's Internet TV box. http://www.inergy.com/

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Competitor Mktg Activities

- Oracle
 - \$1.3M 'Revolution' ad during Super Bowl rated in bottom 10 of all Super Bowl ads
 - Plan to continue 'Revolution' campaign thru 1HCY98 to build awareness of Oracle as the enabler of network computing
- IBM
 - In Mid-Atlantic district they have a regional VP whose charter is to work directly with CIO's to start NC pilots
 - Offering free, unsupported eval units
 - Reports of deep discounts on NC devices internationally
 - Potential is there for NC + ICA license to still be cheaper than WBT because they will make the money up on the server & services
- Sun
 - No recent ads, but expect big push at JavaOne when we believe they will begin shipping JavaStations in volume.

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Why IBM will lead the NC market

- They are the only vendor to date to ship an NC in volume.
- There are ~8M 3270 and 5250 terminals to replace.
- Strong account relationships.
- Have the money to invest in OS, tools, applications, and marketing.
- NC's are a potential loss leader for their server & services business.
- Taking leadership role in setting NC standards
- Lack of execution by Sun and Oracle
- Recommendations
 - Supported Hydra betas to all IBM NC threats
 - Wooing accounts willing to do NC negative PR
 - Focus on competing against the Netstation
 - Terminal Replacement solutions whitepaper - combined effort of Hydra, SNA, Proxy, and Windows teams
 - Internal technical review paper & customer ready mkt bulletin

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Account Status - Losses

- We are not losing based on technology.
- We are losing to politics, terminal replacements, and large resource investments by our competitors

Sample of Losses

Account	Loss	Reason for Loss
CSX	15k terminals at CSX 30k at CSX customers 1M in transportation industry.	There were significant resources invested in the account by Sun to develop Java based solution called TWSNet. John Andrews, CSX CIO, has spurned numerous MS attempts, including calls with Steveb, to become more involved.
American Eagle	1500 potential terminal replacements (20 -100 replaced to date)	Existing investment in IBM technology and negative politics due to AMR's feelings about Expedia. Case study at http://www.pc.ibm.com/networkstation/case/eagle.html
General Accident (UK)	4000 terminal replacements in CY98	IBM owns the datacenter/IT Operations for GA as the outsource agent. These devices are replacing terminals.
Safeway (UK)	2000 terminals	Have a long-standing and very solid IBM relationship, which excludes MS from just about everywhere. This resulted in IBM solely being considered to replace these terminals.

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Account Status - Top Ongoing Threats

Account	Threat/Opportunity	Owner/Contact	Notes	Next Action
1 1-800-FLOWERS	Opportunity to win back key NC poster child.	Perry Cantor	Finally started evaluation of Oracle NC's in the fall, it is not going well. The account is very pro-Hydra and we can get their call center solution to be 100% MS, but they are making PR the primary decision point on what technology is implemented. They are looking to be highlighted in MS TV commercials. They are making proposals from IBM, Oracle, and MS.	Their acceptance of our PR plan
2 Financial Industry Consortiums	Ability to influence key decision-makers at many banks.	NC Attack	Two bank consortiums, the FSTC and the CNCC, are defining purchasing standards for NC's. More positive to the NC than MS. Bank members include CIBC, BofA, NatWest, Royal Bank of Canada, ABMA of Holland.	Presentation by NC Attack during first week of March to FSTC
3 Bank of America Retail Branches	40k seats	Amy Worth, Mike Drennan	Member of CNCC, driving their own eval of NC's as the future solution in their branches.	Field is working with account to set up a Hydra briefing within two weeks.
4 Allstate	40k seats	Chris Smith	This is the biggest threat in MSNA Midwest district. IBM is pushing hard on a NC & AS/400 solution for their sales agents. Threat represents 40k NCs being sold to Allstate from IBM. Specific products include IBM AS/400 - NTAP Hydra, Citrix, NCDI IBM - NC, NetStation 300 & 1000	Eval in progress, Hydra is included. Potential NC Attack visit during the first week of March.
5 Sears	10k terminal replacement	Donna Maczek and Scott Clark ADCU	IBM announced at Lotusphere that Sears will be purchasing 700 - 1000 Netstations to run delivery and customer service applications. This is a sharp contrast to an MCS project at Sears to begin replacing 10k 3270 terminals. For that project, Sears eval'd NetPC, WBT, and NC and NC came in third. Sears will deploy 2400 Boundless WBT's for POS systems in new Sears Auto mall stores and National Battery stores.	Account team is currently developing plan to assess what happened and proceed accordingly.
6 Worldcom	2k seats in customer service	Rita Robbins, Keith Shetterly	Competing with IBM and Tektronix for 2k seats in the customer service center. Looking to start an evaluation of Hydra if they can get Beta 2. The real need is for x-station emulation and ICA support, and potential for Java based applications, but they are actually on the fence about that subject and need some immediate attention.	Get customer Beta 2 of Hydra. Account team meeting with CIO first week of Feb.
7 U.S. Veteran's Administration	150k terminal replacement	George Hou	They are in the midst of replacing 150K dumb terminals (VT320s). Currently, the VA is choosing to use PCs. However, they also are looking at IBM Netstations, Win Terminals (Citrix/Hydra) and NetPCs.	Starting Hydra eval during Beta 2.
8 Home Depot	Sun/Oracle taking over the account	SE - Brannon Manning	Sun is really pouring it on apparently as part of trying to get a big name reference account. That's why we keep seeing THD in print saying positive things about JavaStations and JavaPOS. It is part of a gentleman's agreement between them and Sun for all of the equipment and manpower Home Depot is getting for free. Account is very infatuated with Java, Corba, and the NC.	Account team currently developing overall account plan.
9 Future Shop (Canada)	POS solution based on Sun & Oracle products	SE, Brad Sevenko.	Looking to implement a 100% Java POS solution. Currently have 3 NC's in house and are developing for Oracle 2000. Some interest in WBT, NetPC, Hydra, MS. They are using NC's, but are having difficulties communicating to peripheral devices connected to the NC's. They are currently in the early stages of development and piloting with NC's. They are interested in moving the application to Hydra if they can solve the device communication problem.	EBC in late Feb

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Appx: Hydra

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Hydra - Appendix

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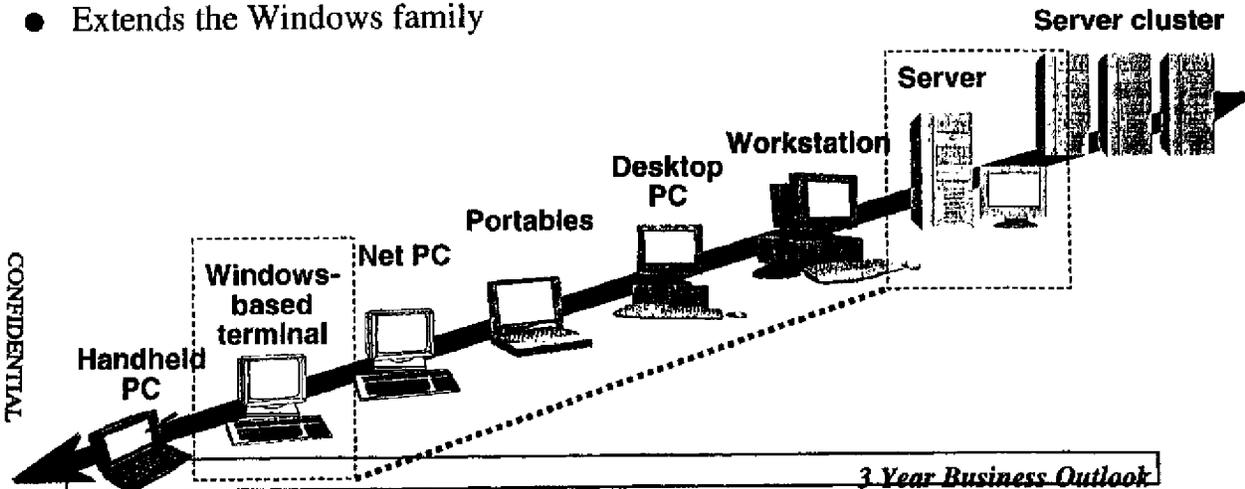
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Windows-based Terminal Server

Brings the Windows experience to desktops that can't run Windows

- Low cost, easy to use, flexible terminal upgrade solution
- Easy access to 32-bit Windows applications for legacy desktops
- Extends the Windows family



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Key Hydra Usage Scenarios

- Terminal Replacement (Fastenal)
 - At most 10-15% of total market
 - Primarily Retail POS (MOLP/Select Deals)
- Non-Windows Platforms (Mac/UNIX) (Boeing)
 - 2-3 year problem
- Win16 (Woolworth)
 - 2-3 year problem
- Win32 (Texaco Star)
 - Centralized LOB access may go away with increased bandwidth and migration to DNA
- Win32 N to N-1 Opportunity

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Hydra Pricing Discussion

- Hydra Clients

- Desktops require NTW License & NTS F&P CAL
 - Licenses acquired through normal channels
 - Issue: No Select NTW for Mac/Unix/WBTs

- Hydra Server

- Hydra Server for NTS 4.0 packaged as special version of NTS 4.0
- Hydra Server for NTS 5.0 delivered as part of NTS 5.0

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Hydra Client Pricing Proposal

Hydra Client Pricing Desktop	NTW Price		NTS F&P Price		Total	
	FPP	MVLP D	FPP	MVLP D	FPP	Select
NTW 4	\$ -	\$ -	\$ 40	\$ 22	\$ 40	\$ 22
NTW 3.51	\$ 149	\$ 114	\$ 40	\$ 22	\$ 189	\$ 136
Win 95/Win3.X/WBT	\$ 319	\$ 181	\$ 40	\$ 22	\$ 359	\$ 203
Mac/Unix/NC	\$ 319	\$ 181	\$ 40	\$ 22	\$ 359	\$ 203

- Assumes Win95/Win3.x/WBT clients pay FPP Retail NTW and Select NTW CUP
- Assumes MAC/UNIX clients qualify for Select NTW CUP
- Server (NTS) pricing not included

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Dumb Terminal Research

- 50% of MORGs have Dumb Terminals
 - Avg of 85 Dumb Terminals per org.
- Most common Terminal apps include:
 - Accounting/finance 67%
 - Data/order entry 59%
 - Database 42%
 - Search & Query 33%
 - Human Resources 22%
 - Word Processing 17%
- **63% of MORG IT managers are considering replacing Dumb Terminals with new technology within the next year**
 - Two thirds would consider replacing terminals with pentium based PCs
 - One third would consider replacing with NCs
 - One in ten would consider replacing with recycled 286/386/486s
 - 2% would consider replacing with intranet web based terminals
 - Only 16% of MORGs are testing, building or deploying Java applications

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Source: OS Tracker/OCU, December '97.

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Appx: IE Component

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IE Component - Appendix

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IE Component Short Term Objectives

● Objectives & tactics through June

- IE "Need for Speed" Campaign to end users
 - 1 million switchers in top 80 ISP accounts
 - 500k new users and switchers in 5 targeted OEM accounts
 - 500k web-based orders and downloads; possible direct print campaign
- Corporate Deployment push - 400k New & 270K switch in S2
 - IE Strike Team - deployment planning & implementation in IE standardized accounts - 370
 - MORG/SORG switchers 200K ISP program
 - MORG - Intranet Now seminars - value focused TSBs with OCU-100k
- OE Share - Achieve 15% of dialup market(excluding AOL)
 - 40% attach rate to switcher program
 - ISP incentives, On-line ads to IE4 users, and ICP mail partnerships
- Maintain the position of leadership
 - Influence reviews/news through Communicator 5.0 Launch
 - Position Communicator as playing catch-up - poor attempt to copy IE4

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Netscape Competitive

Communicator

Get enhanced functionality without having a costly upgrade to Windows

- Diminish need for OS upgrades
 - Aurora - better organization and searching than Windows
- Maintain dominant share via free massive distribution
 - Revenue from upsell servers and service
 - Win ISPs/OEM thru liberal branding /licensing policies maximize potential for NetCenter
- Minimize Microsoft influence on Internet standards
 - Free source code, Gemini
 - Win support of ISV/Dev community
 - Componentization for ISVs & corps

Windows

Upgrades to Windows gives users the best internet experience

- Internet is an integral part of Windows
 - Deliver highest quality product in terms of performance, ease of use
- Drive for leadership in share
 - Maintain 70% of run rate with ISP/OEM; market to switchers
 - Remove barriers to adoption
 - X-platform
 - May need to liberalize branding policies
 - Provide best support, technical & marketing
- Evangelize Windows as internet development platform
 - Trident, DHTML, Scripting
 - Better tools & support

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Netscape Competitive

Communicator 5 (Q1 beta, Q2 final)

- Performance, Stability, Security and Privacy
- Development Platform
 - componentization targeted at ISVs and corps.
 - Gemini HTML rendering and editing control to compete with Trident.
- Improved searching (hd, intranet, internet) and ability to organize information, via Aurora.
- TCO (roaming user, Mission Control, etc.)
- Integration with server products (content mgmt, performance, security, application mgmt, development environment)

Internet Explorer 4 Component

- MSFT leader of the industry
 - Announce 50% share
 - Technically superior
- Communicator 5 a copy of IE4 component
 - Explorer bars
- IE4 offers the key technologies today
 - Componentization etc. delivered in IE4 today
 - NSCP is too late, industry momentum is towards IE

Internet Explorer 5 Component

- Superior performance, speed & stability, searching, integration

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Appx: Additional
Market Data

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*Additional Research/Market Data -
Appendix*

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Home Market CAGR Drivers Opportunity Pool Analysis

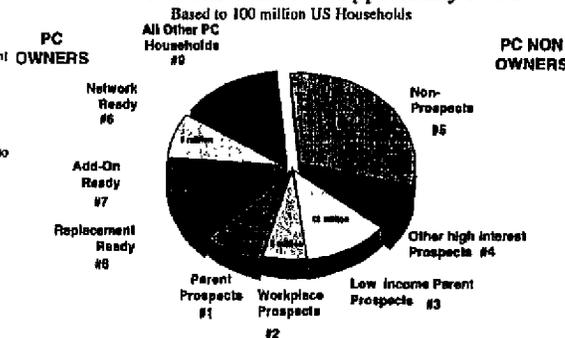
Non-PC Owners

- #1: **Parent prospects**, HHH over \$30K, and have kids under 11 living at home (many use a PC at work as well)
 - affluent, high school educated blue collar worker
 - reasons to buy are to educate children, & simplify routine tasks
- #2: **Workplace prospects**, Use PC at work, but are not Parent Prospects
 - young, college educated, middle income professional
 - reasons to buy are to simplify routine tasks, & because it's a necessity
- #3: **Low income parent prospects**, HHH under \$30K, have kids at home under 18 (few use a PC @ work)
 - young, low income, high school educated, blue collar worker
 - only reason to buy is to educate children
- #4: **Other high interest prospects**, Not a Parent prospect, workplace prospects or low income parent prospect, but are "very interested" in owning PC
 - young, college educated, low income blue collar worker
 - extremely interested in everything PC
- #5: **Non-prospects**, No PC at home, does not fit into above groups
 - older, low income individual (many retired)
 - totally PC apathetic

PC Owners

- #6: **Network Ready**: Own 2 or more PCs
 - affluent, college educated professionals
 - enthusiastic and heavy PC and internet users
- #7: **Add-on Ready**: Own only 1 PC, use PC at home 7 or more hours a week by 2 or more members of household
 - middle income, college educated professionals
 - enthusiastic, heavy PC / internet users, especially games
- #8: **Replacement Ready**: Own only 1 PC, newest PC is 3 or more years old, not part of Add-on Ready group
 - middle income, college educated professionals
 - aging PC is becoming a barrier to use
- #9: **Other PC Owners**: Own 1 PC, not a member of Add-on Ready or Replacement Ready groups
 - own a recently purchased PC

Home PC Market Growth Opportunity Pools



Source: P899 Analysis of Retail Receipts data; Profile data of n=16,000 HHs, CY 97

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Sub \$1000 PC - OEM Findings

- Sub \$1000 consumer segment is here to stay
 - OEMs believe further market segmentation will occur with sub \$799 and \$599 categories
 - Warranty and support costs become key cost inhibitor for success in category
- Expect higher % of sub \$1000 business PCs to appear in CY98
 - Compaq expected to take leadership position
 - Expect 10-15% of business PCs to be sub \$1000 soon
- Key Microsoft implications
 - Expect further pressure from OEMs on royalties
 - Support and warranty costs become greater issues
 - OEMs demanding a more controlled, less complicated OS to remove or radically reduce support calls

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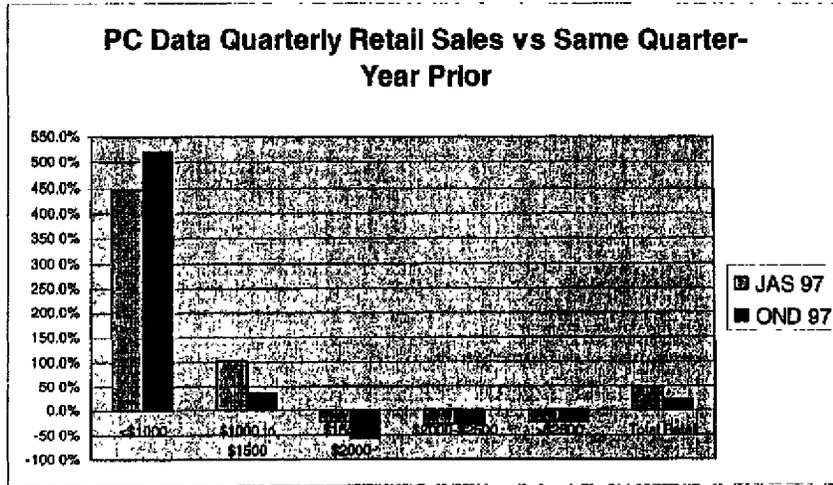
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PC Retail Growth by Pricepoint



- Overall US retail market was healthy in July-Dec 97 compared to year prior.
- Largest growth by far is in the cheap PCs

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