Background Attd
file - PDP-11

I n t e r o f f i c e M e m o r a n d u m

To: WIN HINDLE*

Memo: 5347872776COR10
Date: Tue 2 Jun 1987 4:12 PM EDT
From: KOCHAN
Dept:
Tel:
Adr:

Subject: Pdp-11 Announcement

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INTEROFFICE MEMORANDUM

TO: Win Hindle

DATE: 2 June 87
FROM: Matt Kochan
DEPT: MSD Program Office
MS: ML05-5/E71
DTN: 223-6450
ENET: Kryptn::Kochan

SUBJECT: PDP-11 Announcement

Win,

Thank you very much for your sponsorship and help. We really appreciate your support. Your article (per your revision) will appear in the 29 June 87 Sales Update.

Regards,

Matt

I n t e r o f f i c e M e m o r a n d u m

To: MATT KOCHAN

Memo: 5347375521COR51
Date: Thu 28 May 1987 5:01 PM EDT
From: WIN HINDLE*
Dept: CORP OPERATIONS
Tel: 223-2338
Adr: MLO12-1/A53*

Subject: PDP-11 ANNOUNCEMENT - YOUR DECMAIL DTD 5/27/87

The following is my revision of your draft.

WH/sb

****

INTRODUCTION

The PDP-11 business continues to be a strong contributor to Digital's success, as it has for almost two decades. Our customers support this product line with their purchasing power--making PDP-11's a highly profitable computer system. It is this combination of profitability and customer satisfaction that will keep Digital in the PDP-11 business for a very long time.

The Digital customers that are buying PDP-11 systems are OEMs, Distributors and Government and End-User accounts with large installed bases of PDP-11 systems. These customers have found that the PDP-11 family continues to be a cost-effective solution to their current needs, especially in process control, shop floor control, and other realtime applications.

It is important that your customers are continually made aware of Digital's commitment to the PDP-11 family. The enhancements announced today present an excellent opportunity to convey this important message.

All of the enhancements announced in this article contribute to the satisfaction of our customers by increasing design flexibility, by improving price performance, or by simplifying the upgrade path from older PDP-11 systems to newer PDP-11 systems--or to the VAX family.

We can continue to win the business of our PDP-11 customers by focusing on the same issues that have contributed to Digital's success--Investment Protection, Quality, Service, Networking, and Compatibility. These are all important features that can separate Digital from the competition and be used to keep our PDP-11 customers within the Digital family.

The PDP-11 Business is GOOD BUSINESS FOR DIGITAL! With your help, it will be a good business for "a very long time".

COR:5.87.1728

I n t e r o f f i c e M e m o r a n d u m

S-please do a DRAFT of page 2

To: WIN HINDLE*

Memo: 5347257378COR84
Date: Wed 27 May 1987 11:56 AM EDT
From: KOCHAN
Dept:
Tel:
Adr:

Subject: PDP-11 Announcement Request

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| d | i | g | i | t | a | l |
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TO: Win Hindle

DATE: 27 May 1987
FROM: Matt Kochan
DEPT: MSD Program Office
MS: ML05-5/E71
DTN: 223-6450
ENET: Kryptn::Kochan

SUBJECT: PDP-11 Announcement

Win,

As an avid PDP-11 supporter, and in your new role working more closely with customers, I request you sponsor the lead article in the 29 June 87 issue of Sales Update, which is distributed to all Sales Representatives.

I have attached a draft copy of the article, which describes the PDP-11 Strategy. Please feel free to change as you wish. Would you be willing to allow us to use your name on this article?

Thank you and regards,

Matt

Attachment

<FF>
DRAFT INTRODUCTORY SALES UPDATE ARTICLE - JUNE ANNOUNCEMENT 1987

MAY 12, 1987

ANNOUNCING ENHANCEMENTS TO THE PDP-11 FAMILY

****
* o New Opportunities to Upgrade Installed Base *
* of PDP-11's *
* o Increased Design Flexibility *
* o Improved Price Performance *
* o The Commitment Continues! *
****

DRAFT

Double space

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GOOD SELLING!

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GOOD SELLING!

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* d i g i t a l *
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Mike says this is 1.5 yrs. away when we have J-11 based systems (11/30 capability). Call Mike Gutman PDP-11

TO: MIKE GUTMAN

cc: see "CC" DISTRIBUTION

DATE: SAT 9 OCT 1982 8:41 PM EDT
FROM: GORDON BELL
DEPT: ENG STAFF
EXT: 223-2236
LOC/MAIL STOP: ML12-1/A51

LCP?

MESSAGE ID: 5178123176

SUBJECT: SHARED LPC (F AND J VERSIONS) VS PC'S

Having just about gotten a great, personal computer in the 730 as our (Mary Jane and mine... and a few other folks), I would like to advocate a type of sharing that we pioneered and I fear we're about to give up.

The personal folks are telling us that they are going to really sell a lot of systems (eg. 1.5B in 84 for the 350) and I believe them. The Decmate II and Rainbow have great projections too. I'm looking forward to new computers here at home (have 2 DECmate I's) that can do graphics and have better editors and let us do some real computing, and the VAX at work will be great because it has no limits in terms of anything I can think of relative to what I am able to find time to program it to do..

Let me urge you to push what is I think is our most underrated system, the LPC with Aztec before others get there from all other directions.

The shared 11 with 50 megabytes is an incredible machine, providing over 1, 4 drawer file cabinet's worth of data and allowing a group of say 8 to 16 have an 11/70 all to themselves. This is like an 11/70 with an RM03 (or 2 RK07's)! The response should be 6eat the hell out of any PC for say 16 users.

The cost say for 8 users appears to be about (6.5K + 8 x 0.4) / 8 or 1.21K per user. If you put 8 more terminals on it, then this comes out to .8K. Both of these beat our lowest cost PC's by quite a lot. Let me describe the virtues of shared systems. Not every user has to deal with his own files and systems, thus not everyone becomes a system's programmer. You can share files, printers, modems, servicepeople, and this lets you move work around the system easily and communicate with one another.

We've sold a pile of systems like this (eg. RSTS) and the company really grew to its present 4B size selling systems like this eventhough the systems you have are much smaller in cost.

Furthermore, WANG sells shared systems like this and has also grown to 1B on large systems, not the PC's or standalone systems.

Somehow, we all have to find someone and someway to get this lovely, low cost 11/70 out to the world along with the PC's because it seems that many of the PC folks are making shared

systems now too. Also, it would seem that the shared system would be attractive to many of the people who sell and resell and otherwise handle our systems because there's more margin.

During the up and coming budget pass I hope you'll be able to fire people up with the inherently lower cost, higher performance and greater advantages of this type of computer. We need to figure out how to sell them too!

"CC" DISTRIBUTION:

ROGER CADY	BARRY CIOFFI	JIM CUDMORE
BILL KIESEWETTER	OPERATIONS COMMITTEE:	PEG:
HARVEY WEISS	JIM WILLIS	

PDP-11

PDP-11'S
O.C.
8/30/82

1. STATUS

2. THE PROBLEM
   - o PRODUCT
   - o NON-PRODUCT

3. ACTIONS
   - o SALES/SERVICE
   - o PRODUCT GROUPS
   - o ADVERTISING/PROMOTION
   - o ENGRG/MFG

M.S.G.

FY82 SHIPMENTS

	PLAN		ACTUAL		
	UNITS	DOLLARS	UNITS	DOLLARS	
VOLUME					
11/23+	1000	$18M	410	$9M	(-9M)
11/24	4240	136M	2848	86M	(-50M)
11/44	5545	337M	4677	263M	(-74M)
TRANSITION					
11/34	6400	$147M	5783	$126M	
END OF LIFE					
11/70	1044	$205M	998	$195M	
11/03	3700	28M	3444	24M	
11/23	7800	119M	6462	113M	
11/04	1253	10M	1336	11M	
	30982	$1000M	25958	$827M	

DOWN 17%

- 75% OF THE PROBLEM IN THE VOLUME PRODUCTS

FY83 SHIPMENTS

	PLAN (LRP)		ESTIMATE (SHIP FORECAST +)		
	UNITS	DOLLARS	UNITS	DOLLARS	
VOLUME					
11/23+	8000	$135M	4200	$59M	(-76M)
11/24	7100	221M	5400	153M	(-68M)
11/44	6600	407M	3556	207M	(-200M)
TRANSITION					
11/34	4000	$85M	2800	$52M	
END OF LIFE					
11/70	521	$100M	521	$104M	
11/03	1000	7M	1705	11M	
11/23	4500	58M	2643	47M	
11/04	755	6M	439	3M	
	32476	$1019M	25652	$636M	

DOWN 38%

- 90% OF THE PROBLEM IN THE VOLUME PRODUCTS

NOVEMBER 1981 LRP

FY83 (AVERAGE OF FY82 AND FY84)

TVG	$457M	45%	62% = $624M
COEM	$169M	17%	
MDC	$83M	8%	
TIG	$71M	7%	
GSG	$54M	5%	
LDP	$43M	4%	
MSG	$38M	4%	38% = $384M
CSI	$33M	3%	
TPL	$26M	3%	
ESG	$19M	2%	
PBI	$14M	1%	
ECS	$12M	1%	
	$1019M	100%	

11/44

- PROBLEMS

  1. LARGE PHYSICAL SIZE
  2. LARGER SYSTEMS APPROX. 30% ABOVE COMPETITION
  3. LAYERED SOFTWARE PRICES VERY HIGH VS. COMPETITION
  4. SOFTWARE SUPPORT PRICES HIGH
  5. BOXES MAY BE UP TO 30% ABOVE COMPETITION

- ACTIONS - TODAY

  1. o LOOK AT "MAGNUM 44", "PLESSEY" PACKAGES TO SEE WHAT WE CAN DO.
     o PROMOTE SINGLE CAB SYSTEM - RA80/RL02.
     o TAKE OUT THE TU58.

  2. COMPLETE A THOROUGH COMPETITIVE ANALYSIS AND RECOMMEND PRICE CHANGES (SYSTEMS AND BOXES).

  3. BRING FORWARD A NEW PRICE STRUCTURE FOR ALL LAYERED SOFTWARE (FOR ALL PDP-11'S).

  4. TAKE A HARD LOOK AT SOFTWARE SUPPORT ISSUE.

- ACTIONS - NEAR FUTURE

  1. PROMOTE/PRICE AZTEC SYSTEMS AGGRESSIVELY.

11/24

- PROBLEMS

  1. BOX PRICING AGAINST INTEGRATORS HIGH.
  2. LAYERED SOFTWARE PRICING PROBLEM.

- ACTUALS - TODAY

  1. EXAMINE LOSS TO INTEGRATORS, BRING FORWARD PROPOSAL.
  2. ANNOUNCE/SUPPORT 64K MEMORY (MS11-P) PACKAGES ASAP.
  3. PRICE THE BOARDS AGGRESSIVELY.
  4. LAYERED SOFTWARE - SEE 11/44.

- ACTIONS - NEAR FUTURE

  1. PROMOTE/PRICE AZTEC SYSTEMS AGGRESSIVELY.

11/23+

o PROBLEMS

1. OVERPRICED
   - LAYERED SOFTWARE
   - SOFTWARE SUPPORT
   - TERMINALS

2. ONLY ONE BASE PACKAGE (DUAL RL02) - (REFUSING SALES BECAUSE WE WON'T INTEGRATE NON-COMPLIANT OPTIONS).

3. NOBODY KNOWS ABOUT THE PRODUCT.

4. SYSTEMS 25% ABOVE COMPETITION.

o FIXES - TODAY

1. o BRING FORWARD A NEW PRICE STRUCTURE FOR ALL LAYERED SOFTWARE (FOR ALL PDP-11'S)
   - o TAKE A HARD LOOK AT SOFTWARE SUPPORT ISSUE.
   - o MOVE FROM VT100 TO VT101.

2. BRING FORWARD NEW SYSTEM PRICING PROPOSAL.

3. BREAK THE FCC LOG JAM
   - A. LACK OF COMPLIANT OPTIONS
   - B. ADD COMPLIANT BASE PACKAGES (RX02)

4. ADVERTISE AND SELL

PROBLEM AREAS ACROSS ALL PDP-11'S

- LACK OF SALES AND PRODUCT GROUP FOCUS, ENTHUSIASM AND COMMITMENT.
- LACK OF TRAINED PEOPLE = "ACTIVE DESKILLING".
- INEFFECTIVE ADVERTISING AND PROMOTION PLAN.
- TOP LEVEL COMMITMENT.

ACTIONS - SALES/SERVICE

1. COMMIT TO SELL 11'S IN FY83 (DO THE PLAN)

   - o $135M IN 11/23+ (9000 AT $15K EACH)
   - o $225M IN 11/24 (7500 AT $30K EACH)
   - o $420M IN 11/44 (7000 AT $60K EACH)

2. TRAIN YOUR PEOPLE

   - o TOTAL REWRITE OF NEW DEC SALES TRAINING COURSE - LAST DONE IN 1978. MAKE IT A QUALITY COURSE.
   - o MAKE 11'S A SIGNIFICANT PART OF THE Q2 "SUCCESS TRAIN".

3. HELP ENGRG GET THE MESSAGE OUT IN THE PROPER FORMS.

   - o "WINNING WITH 11'S"
   - o COMMUNICATE THE FUTURES (J11/ORION) WITHOUT ANNOUNCING PRODUCTS

4. HELP ENGRG

   - o WORK THE SOFTWARE SUPPORT PRICE ISSUE
   - o BMC ISSUES

5. INSTALL/IDENTIFY PDP-11 REGIONAL SPECIALISTS IN THE FIELD - MAY BE APPROPRIATE DOWN TO THE DISTRICT LEVEL IN SOME DISTRICTS.

6. SUPPORT FOR 11'S FROM THE TOP

   - o SHIELDS
   - o KRAMER
   - o OTHERS

7. CAUTION: OUR COMMUNICATION IS AWKWARD/TENUOUS WITH EUROPE.

ACTIONS - PRODUCT GROUPS

1. GET A FOCUS WITHIN YOUR GROUP FOR PDP-11 SALES AND FIELD SUPPORT.

2. STIMULATE/CULTIVATE YOUR PDP-11 INSTALLED BASE.

   - o CPU, DISK, MEMORY UPGRADES
   - o PROMOTION (DIRECT MAIL) - UPDATE MATERIALS
   - o SPECIALTY SALES TRAINING
   - o MEASURABLE SUCCESS CRITERIA - DO THE PLAN

3. HELP ENGRG UNDERSTAND WHAT NEW PACKAGES/PRICES ARE NEEDED.

4. WHERE IS THE HIGH VOLUME END USER BUSINESS (A LA IBM SERIES 1, ALTOS AT CDC, ETC.)

5. HOW CAN YOU LEVERAGE VAX AND PC SALES WITH 11'S? (FRONT ENDS, SERVERS .....)

6. CAN YOU DO VERTICAL MARKET PROMOTION/ADVERTISING FOR 11'S?

   EXAMPLES:

   - BANKING
   - FORTUNE 500 INDUSTRIALS
   - ACCOUNTING/SMALL BUSINESS
   - PROFESSIONS (DENTISTS, LAWYERS, ETC.)
   - ELECTRICAL DISTRIBUTORS
   - INSURANCE AGENTS AND BROKERS
   - PURCHASING AGENTS

7. SIGNFICANT PDP-11 PRESENCE AT TRADE SHOWS.

o EUROPEAN DECUS	SEPT.
o TIG ROAD SHOW	OCT.
o COEM EXECUTIVE SEMINAR, COMDEX	NOV.
o DECUS	DEC.
o	JAN.
o	FEB.
o INTERFACE 83	MARCH
o	APRIL
o DECUS	MAY
o NCC, COMDEX	JUNE

FILL IN THE BLANKS

8. SUPPORT FOR 11'S FROM THE TOP

- o WARD
- o ANDY
- o JULIUS
- o WIN
- o ALL PRODUCT GROUP MANAGERS

9. SIGNIFICANT SPACE IN YOUR INTERNAL NEWSLETTERS IN EVERY ISSUE.

10. EXECUTIVE SELLING?

ACTIONS - ADVERTISING/PROMOTION

1. NO IMAGE ADVERTISING IN BIG BOOKS.

2. ADVERTISE PRODUCTS/APPLICATIONS IN BOOKS THAT WILL PRODUCE LEADS.
   - o 11/23+
   - o 11/24
   - o 11/44
   - o MICRO/PDP-11
   - o SOFTWARE TOO!

3. UPDATE ALL HANDBOOKS/PRODUCT SUMMARIES

o MICROCOMPUTERS & MEMORIES	Q4 FY83
MICROCOMPUTERS & INTERFACE	Q2 FY83
PDP-11 ARCHITECTURE	Q2 FY83
PDP-11 PROCESSORS	Q3 FY83
TERMINALS & COMMUNICATIONS	Q3 FY83
SYSTEMS & OPTION SUMMARY *	QUARTERLY
PDP-11 SOFTWARE	Q1 FY84
MICRO/PDP-11	Q2 FY83

* MAKE SOS INTO A SALES TOOL AND CATALOG.

- o PRINT SIGNIFICANT QUANTITIES
- o DISTRIBUTE:
  - o ALL TRADE SHOWS
  - o SEND TO COMPUTER WORLD LIST
  - o DATA PROCESSOR MANAGERS ASSN.
  - o INSIGHT MAILING LIST
  - o OTHER VERTICAL MARKETS

4. INTERNAL PUBLICATIONS

   - o EVERY ISSUE OF SALES UPDATE
   - o DTW - QUARTERLY
   - o DECWORLD (SCHEDULED FOR NOV.)
   - o ALL INTERNAL PRODUCT GROUP NEWSLETTERS - REGULARLY
   - o CUSTOMER/PRODUCT BULLETINS (A LA IBM)

5. CREATE A CORPORATE PDP-11 APPLICATIONS SOFTWARE CATALOG

ACTIONS - ENGRG/MANUFACT.

1. BRING FORWARD A COMPREHENSIVE LAYERED SOFTWARE PRICING PROPOSAL.

2. BRING FORWARD A COMPREHENSIVE SOFTWARE SUPPORT PRICING PROPOAL.

3. WORK/PROPOSE ALL THE "PRODUCT PROBLEMS".

4. BRING FORWARD SPECIFIC PRODUCT REPRICING PROPOSALS.

5. FORM A (FLYING) TIGER TEAM TO:

   - o OPEN/CLOSE SALES IN THE FIELD
   - o TEACH/ASSIST PRODUCT GROUPS

6. MAKE THE FCC ISSUE INTO AN ASSET = CREATE FCC KITS

7. COORDINATE EVERYTHING PRESENTED IN PREVIOUS PAGES

8. COMMITMENT AT THE TOP

   - o JACK
   - o GORDON
   - o EMC

WHEN?

NOW!

- WEEKLY AT PRODUCT GROUP MANAGER COMMITTEE STARTING NEXT WEEK

- PERIODICALLY AT O.C.

9 DMS MISSION & OBJECTIVES

MISSION (refer to Business Definition, Section 1)

Over the next decade, the mission of DEC's DMS business is to be a leading worldwide supplier of microprocessor based solutions and components to targeted markets. DMS' offerings will leverage DEC's strengths in distributed computing environments and in communications, and will be supportive of DEC's overall business strategy. The result will be a believable commitment to new and existing DEC customers and channels to offer an integrated product line that is:

- Clearly positioned individually and collectively.
- Well-differentiated.
- Richly supported (S/W, peripherals, service).
- Carefully introduced.
- Competitively & simply priced.
- Possessing an understandable sense of direction.
- Easy for customers to combine and migrate to or from.

PRIMARY OBJECTIVES

- Grow DMS NOR at an average at least 25% (CARG) over the next five years.
- Return at least 17% PBT and 18% ROA by 1988.
- Achieve a rank within the top two (in $ revenues) in each selected targeted market within two years of entry.
- Achieve by 1988, a total product cost for each usable element that does not exceed 115% of IBM's cost.

10 PROPOSED STRATEGIES & ACTION PLANS

I. Increase DEC's market share for existing products and services in those market segments where DEC is already participating, and expand the market for these products and services into selected high-volume market segments where DEC is not now a significant competitor.

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1. To develop the market mapping data needed to identify possible target markets and applications, collect and integrate the market information being presented by AIC Marketing Groups for Executive Committee review. — [RH] Prelim. 10/31/85; Final 12/15/85
2. From an analysis of the data collected in Task 1, nominate potential short-term solutions for target market/applications using existing LEST/CMP/OEM products and review proposals with AIC Marketing Groups. — [RH] BPM Groups 12/15/85
3. Select and submit for approval, a final list of proposed projects for implementation based on criterion of a high return to be realized in FY 87 revenues. Each proposal should include a nomination for a designated responsible individual (DRI) to assume the responsibility for coordination and follow-through on implementation. — [RH] 12/15/85
4. Review and approve proposed projects and DRIs from Task I-3. — [JK] LEST Staff 1/15/86
5. Establish formal organization within LEST to support the implementation of this market penetration strategy on a continuing basis by the AIC and Base Product Marketing groups. Define the charter for the LEST support organization, define goals & set up funding. — [JK] AIC & BPM Groups 12/31/85
6. Design and implement a plan to communicate systematically and coherently to the Field Sales organization & to customers, selected elements of the DMS Strategy I to improve perceptions of DEC as a serious, credible vendor of microsystems products. — [PM] BPM Groups; Plan Q3 86; Implement FY 87
7. Establish an ongoing process (including a forum for developing consensus) for targeting new markets with new products (H/W & S/W) involving LEST and the relevant marketing groups. — [PM] Initial Forum Q2 FY 86
8. Design and implement a plan to communicate systematically and coherently to the Field Sales organization and to customers, selected elements of the DMS Strategy II to improve perceptions of DEC as a serious, credible vendor of micro-systems products. — [PM] BPM Groups; Plan Q3 86; Implement FY 87
9. Develop and implement a plan for exposing, on a systematic basis, senior LEST PBU engineers to customers in the selected targeted markets in order to sensitize them more fully to customer needs, concerns and priorities. — [DL,JR,ST] Plan Q2 86; Implement Start Q3 86

II. Develop new products and services for those market segments where DEC is already participating, and for selected high-volume market segments where DEC is not now a significant competitor.

1. Develop a comprehensive map of markets/applications and products (H/W and S/W, existing and planned) aimed at these market/applications by DEC's various PBUs. — [PM] Prelim. 10/31/85; Final 1/31/85
   - Build on market/applications data developed in Strategy I, Task 1
   - Analyze AIC Marketing Groups and PBU charters; identify overlaps, gaps
   - Recommend PBU focus on selected applications, industries & channels
2. Approve PBU focus on selected applications, industries & channels. — [JK] LEST Staff 1/31/85
3. To facilitate assessment of strategic options, build a living LEST business model that will permit quantitative testing of various "what-if" options. This model should focus on "complete products," reflect LEST's relationship to other relevant DEC groups and incorporate such elements as: market/applications size, growth rates, and requirements; product investments and other elements of cost; DEC strengths; channels of distribution; strategic options; etc. — [PM] SB; Design: Q2 FY 86
4. Determine and get agreement on criteria for selecting new products for new market/applications targets (e.g., size, growth, potential, profit potential, competitive constraints, etc.). — [PM] PBU & AIC Mgrs. 12/31/85
5. To aid in the selection of targeted new markets for new products, translate the map developed in Task 1 into a data base of customers, applications, markets, competitors, orders, etc. To enhance the formulation of more unified/integrated plans, this data base should be made readily accessible to all functions (e.g., H/W & S/W PBUs & AIC Marketing Groups) relevant to the DMS business. — [PM] ML, DVL Q3 FY 86
6. Establish a process to increase PBU sensitivities to end users & OEMs in planning new products. Institute such actions as: forming Customer Advisory Boards; testing new product (H/W & S/W) prototypes with representative users; & requiring customer/user inputs at the earlies & subsequent subsequent steps in the phase review process. — [LK] PBU Mgrs. 12/31/85

III. Reduce total costs so as to become a low-cost producer by improving operating effectiveness within and among the functions of marketing, engineering, manufacturing, distribution, sales and service.

Manufacturing/Engineering

1. Establish a formal process to get agreement on new products specs (WW, with change controls), ensuring involvement and buy-in from AIC Marketing Groups, Manufacturing, CSSE and Sales during phases 0 & 1. — [FF] Appropriate Functional Mgrs.
   - A. Describe what happens today and recommend outline of a more formal approach — Q2 FY 86
   - B. Get support from JK — Q2 FY 86
   - C. Develop more formal approach — Q3 FY 86
   - D. Get buy-in and approval — Q3 FY 86
   - E. Implement — Q4 FY 86
2. To improve time-to-market (WW) get agreement and commitment within LEST/SSM to a single, disciplined, decision-focused new product introduction/development process. (Integrate/differentiate design reviews, readiness reviews, 5 X 5's, program reviews, phase reviews, project reviews.) — [LK] FF, BP, HA
   - A. Describe current processes (purposes, who involved, what actually happens, meeting times) — Q2 FY 86
   - B. Get support from JK to invest in redesign effort — Q2 FY 86
   - C. Develop redesigned process — Q3 FY 86
   - D. Get buy-in and approval — Q3 FY 86
   - E. Implement — Q4 FY 86
3. Ensure that emerging CAD strategy satisfies objectives of improving time-to-market and customer satisfaction, and is articulated, sold and implemented in Engineering groups; develop and integrate related manufacturing tools. — [BP] FF, JR; Q2 FY 86; Ongoing
4. Increase standardization of components, materials and system configurations. — [BP] DH; Ongoing
5. Define a competitive cost benchmark for MicroVAX II and for cost per order (c/o) and time per order on a total PBU basis. Test SSM performance vs. this benchmark; establish SSM targets to reduce c/o by 25% (short-term) and implement. — [FF] Preliminary Q2 FY 86
6. To reduce hardware and software obsolescence charges, establish an Eng./Mfg./Field forum that tracks phase in/out and current status of new and current products. — [FF] ST, DC, DL, JR, RS; Q2 FY 86
7. Create a process to evaluate WW sourcing strategies that will achieve new product business targets (ROA) and a startup strategy. — [FF] ST, DL, JR, SB; Q3 FY 86
8. Develop and implement a "cost dynamics awareness" training session (½ day?) for key project, product and engineering managers and key marketing and sales managers. — [FF] SB; Q2 FY 86
9. Increase focus on value engineering utilizing worldwide resources; develop and implement strategy. — [FF] JR; Q3 FY 86
10. Implement relevant portions of corporate materials architecture plan: reduce inventories; accelerate MRP II program; reduce number of stocking points; vertical integration efforts; time to communicate demand signal changes; and "just in time." — [FF] Q1 FY 87
11. Develop WW flexibility guidelines to accommodate volume fluctuations at minimal cost. — [FF] Q3 FY 86

Field

12. In conjunction with AIC Marketing Groups, explore options for reducing cost of sales by increasing sales yields (e.g., improving lead quality by using telemarketing, using seed units, initially providing more technical expertise, using project end-user price quotes, using customer product presentations, etc.); test and implement more promising options. — [PM] Field Sales & Service; Ongoing

Warranty

13. Develop process to account for and report warranty cost by system PBU.
    - Define process — [HA/GF] Q2 FY 86
    - Get approval
      - FSMC
      - SSMC
      - JK
    - Implement (financial reporting) — [GF/SB] 1/1/86
14. Develop serviceability strategy which supports the future DMS systems (ex. site service vs. point-product). — [HA] PBU Mgrs.
    - CSSE participants in DMS product strategy — Q3 FY 86
    - Develop common service tools to be incorporated across DMS products — Q4 FY 86
    - Develop service delivery mechanisms to to support strategy — Q4 FY 86
15. Reevaluate, and if necessary, refine the warranty & service income offering for the low end. — [HA/DS]
    - Evaluate current offerings by product — Q2 FY 85
    - Determine potential offerings by market/industry — RH, GB, MM; Q3 FY 85
    - Implement on selected product(s) — Q4 FY 85

Metrics

16. Unbundle, reallocate and reduce CMC and other corporate "pool" charges to PBUs.
    - Identify sources of major charges in "pools"
    - Develop proposal to Corporate Financial Management suggesting a revised approach to corporate charges so that allocated charges to PBUs will be more accurate representations of reality — [SB] Q3 FY 86

IV. Improve DEC's organizational arrangements to support the achievement of Strategies I, II & III.

1. Define linkages and mechanism to connect on an ongoing basis LEST BPM groups to AIC Marketing Groups. — [PM] Started 8/85; Ongoing
2. Establish ongoing forum within LEST to review & validate collectively all PBU programs so as to develop consensus on market mapping and target definition, products, positioning, timing, etc. — [JK] Q2 FY 86
3. Define and prioritize intersections of significance to LEST between PBUs, AIC Marketing Groups and Field Areas. Build and maintain responsibility R/S chart. — [PM] 10/31/85
4. To improve LEST's understanding and ability to be more responsive to customers' wants and needs, explore ways to strengthen coupling between LEST and all groups in the Field (e.g., Sales, Service, Software Services, International, etc.). — [PM] JK; Ongoing
5. Improve linkages and integrate strategies and plans between LEST PBUs and manufacturing. — [FF] PBU Mgrs.; Ongoing
6. Develop and implement jointly long-range LEST product strategies/plans with Networks & Comm group. — [BP] Ongoing
7. Develop and implement jointly long-range LEST product strategies/plans with Storage group. — [DL] Ongoing
8. Develop and implement jointly long-range LEST product strategies/plans with SSG (including layered products). — [ST] DA, DL, GW; Ongoing
9. Clarify PBU definition, roles & responsibilities; coordinate with J. Cudmore & communicate to LEST staff. — [SB] LEST Staff Q2 FY 86
10. Propose ways to improve operational reporting & timeliness to support LEST management business decision making (including: Field bookings, ships, etc.; manufacturing [inventory, etc.]); present to corporate F&A (Osterhoff, et al). — [SB] Q2 FY 86
11. Develop a process to improve financial modeling for effective strategy choices and business decision making (exclude variations caused by loading). — [SB] Q3 FY 86
12. Assess congruency of all metrics relevant to the DMS business; compare metrics being used by groups outside LEST with LEST's metrics; identify any conflicts & inconsistencies, and develop proposal with a plan to achieve greater congruency. — [SB] Plan: Q3 FY86; Implement: Q4 FY 86
13. Assess need for and if appropriate establish mechanism for taking short-term tactical countermeasures to competitors' actions in a timely and responsive way. — [JK] MSSC, DL, JR, ST, PM, SB; Plan Q4 86; Decision Q1 87

11 IMPLEMENTATION & MONITORING PLAN

Phase I

1. Communicate DMS strategy & Plan: — [PM] LEST Staff
   - within LEST — Q2 FY 86
   - DEC groups outside LEST — Q2 FY 86
2. Incorporate strategy into LEST LRPs. — [PM] LEST Staff Q3 FY 86
3. Incorporate strategy into relevant DEC groups outside LEST. — [PM] LEST Staff Q3 FY 86

Phase II

1. Monitoring of Action Plans. — [PM] Ongoing Monthly
2. Monitoring accomplishment of mission and objectives. — [LEST Staff] Ongoing Quarterly

Phase III

1. Quarterly reviews. — [PM] LEST Staff Start Q3 FY 86
2. Review & reformulate DMS strategy. — [PM] LEST Staff Consider FY 87

KEY

People

HA	Henry Adelman
SB	Steve Behrens
GB	Geoff Burr
DC	Dave Chase
GF	George Ferry
FF	Fred Forsyth
RH	Ron Ham
DH	Dan Hamel
JK	Jeff Kalb
LK	Les Koch
DL	Dom LaCava
ML	Margaret Ledger
DVL	Dave Lewis
PM	Peter Masucci
MM	Max Mayer
BP	Bill Picott
JR	John Rose
DS	Dave Sawin
RS	Rod Schmidt
ST	Steve Teicher
GW	Gayne Winter

Other

AI	Artificial Intelligence
AIC	Application, Industry & Channel
BPM	Base Product Marketing
CAD/CAM	Computer Aided Design/Computer Aided Manufacturing
CMC	Corporate Manufacturing Charge
CMP	Cooperative Marketing Partners
CSSE	Customer Service Systems Engineering
DRI	Designated Responsible Individual
FSMC	Field Service Management Committee
H/W	Hardware
IBU	Independent Business Unit (IBM)
IC	Integrated Circuit
LANS	Local Area Network System
LE	Low End
LEST	Low End Systems & Technology Group
LSI	Large Scale Integration (ICs)
MIS	Management Information System
MPU	Microprocessor
MSSC	Marketing/Sales Strategy Committee
OEM	Original Equipment Manufacturing
OS	Operating System
PBU	Product Business Units
PC	Personal Computer
PCM	Plug Compatible Manufacturer
R/S	Responsibility/Support
S/C	Semiconductor
SSG	Systems Software Group
SSM	Small Systems Manufacturing Group
SSMC	Small Systems Manufacturing Committee
S/W	Software
SWS	Software Services
VAR	Value-Added Reseller
WP	Word Processing
WS	Worksystems
WW	Worldwide

BUSINESS STRATEGY SUMMARY

CONFIDENTIAL

DISTRIBUTED MICROSYSTEMS

GRAY • JUDSON

DIGITAL EQUIPMENT CORPORATION

VERSION 1.0 OCTOBER, 1985

PREAMBLE

The strategic plan described below is for DEC's thrust into the low end segments of business and technical computing. We have called this business Distributed Microsystems (DMS). Ownership of DMS and this plan extends to many DEC organizations. LEST has led the process of formulating this plan with active participation by representatives of other relevant DEC functional groups. LEST intends to lead the implementation of this plan, with the cooperation of the other DEC functions.

1 BUSINESS DEFINITION & SCOPE

DEC's DMS business* consists of several segments. These involve the marketing, design, development, manufacture, supply and service of computing solutions and tools comprised of usable elements, each typically priced less than $50K. The focus is to sell these elements in interconnected system configurations that integrate individual and organizational computing. These products are used:

- Interactively by individuals and groups for technical and business purposes at their workplaces, both in integrated and standalone configurations;
- Within equipment for real-time data acquisition and control; and
- In or with other DEC products to form larger system aggregates.

*Distributed Microsystems (DMS) is the name proposed for DEC's low end business (LE). Most organizational units in DEC are involved. LEST is responsible for developing and integrating hardware products (PBU Engineering, BPM, etc.) along with segments of Storage, Software Engineering, Networks & Comm. SSM is responsible for Systems Manufacturing, including manufacturing in Europe and GIA. Service provides pre and after sales support and services. LEST cooperates and depends on many other DEC functions to deliver solutions to customers.

In total, the DMS business (FY 86) accounts for about $1.8 billion of DEC's systems and add-ons revenues (about 24% of the total) and about $1.4 billion of DEC's assets (20% of the total).

2 INDUSTRY* & MARKET** DESCRIPTION

*Entire computing tools and solutions industry worldwide
**Focuses on low end

INDUSTRY SIZE

- Currently > $100 billion worldwide.
- S/W & services $\approx$ 1/3 of total, and growing.
- Third largest manufacturing industry in U.S.: largest by year 2000.
- Available data by industry category vary widely with definitions not necessarily consistent with DMS' business definition. See Strategies I & II (Section 10) for steps to remedy this.

INDUSTRY GROWTH

- Overall rapid growth rate ($\approx$2 X GNP growth).
- Most rapid growth in low end segments & S/W.

INDUSTRY STRUCTURE & COMPETITORS

- Proliferation of number of competitors over past decade.
- U.S. companies significant players in world markets (only IBM in Japan).
- Limited foreign penetration of U.S. markets except through joint ventures with U.S. firms & in components or commodity segments (e.g., dot matrix printers).
- U.S. companies expected to be challenged for leadership for the foreseeable future.
- Ten largest U.S. computer companies: 1984

	Company	Computer Revenues (Worldwide)
1	IBM	$45.9 Billion
2	DEC	5.6 "
3	Burroughs	4.8 "
4	Control Data	3.8 "
5	NCR	3.5 "
6	Sperry	3.3 "
7	HP	3.2 "
8	Honeywell	2.3 "
9	Wang	2.2 "
10	Apple	1.5

- Largest foreign computer companies: 1983

	Company	Computer Revenues (Worldwide)
1	Fujitsu	$ 3.0 Billion
2	Hitachi	1.8 "
3	Olivetti	1.8 "
4	NEC	1.5 "

- IBM the major player in overall industry; strong to dominant in most segments:
  - IBM share of computer industry segments: 1984 (International Technical Group).

Segment	Rank	Share (by % of revenues)
Mainframes	1	72%
Mid Range/Mini	1	29%
PCs & Workstations	1	35%
S/W	1	30%

- No other company strong in more than one or two segments.
- Three or fewer companies account for 50%+ of each segment except minis.
- Shares of low end market segments (by % of revenues):

Products \ Suppliers	IBM	DEC	Apple	Commodore	HP	Tandy	Apollo	Sun	Wang	Phillips	Xerox	Lanier	DG	Mass Comp	Honeywell	TI	Other
PCs: 1983 (IDC)	28%	-	14%	8%	6%	6%	-	-	-	-	-	-	-	-	-	-	38%
Office PCs: 1983 (Future Computing)	30%	3%	19%	-	6%	10%	-	-	-	-	-	-	-	-	-	-	32%
Word Processor: 1982 (Gartner)	25%	6%	-	-	-	-	-	-	23%	7%	7%	6%	-	-	-	-	26%
Technical Workstations: 1984 (Prudential Bache)	-	-	-	-	11%	-	52%	13%	-	-	-	-	7%	5%	-	-	12%
Small Scale Minis ($10-60K) 1983 (IDC)	22%	14%	-	-	7%	-	-	-	4%	-	-	-	3%	-	6%	4%	40%
Medium Scale Minis ($60-1 mil) 1983 (IDC)	12%	17%	-	-	7%	-	-	-	-	-	-	-	4%	-	6%	-	54%

INDUSTRY & MARKET DESCRIPTION (continued)

FORCES DRIVING INDUSTRY GROWTH

- Demand by large, complex organizations for productivity improvement through use of computing and communications for information management.
- Industry growth driven by rapidly improving price-performance curve of ICs plus mass storage, & by S/W & new form factors:
  - increasing affordability of old applications broadens market
  - new applications proliferate → niche markets
  - no end in sight
- Computer literacy increasing.
- Merchant ICs becoming increasingly affordable at ever increasing performance levels.
- Proliferation of easier-to-use productivity-enhancing S/W packages and systems.

TECHNOLOGY

- Computers = the universal machine (open-ended possibilities):
  - hard to segment markets
  - hard to set industry boundaries
  - hard to estimate future growth
- Good applications are necessary for new H/W to have major impact (Lotus on the IBM PC).
- S/W is a critical competitive issue because of imbalance between very rapid H/W & base system S/W price-performance advance & slower applications development.
- Rapid pace of change & multiplying niches (some very small) makes it extremely hard for suppliers to be good at everything. Must cooperate with third party H/W & S/W suppliers.
- High performance merchant ICs & emerging standards in S/W & storage:
  - enable small computer firms to enter the business easily.
  - turns H/W into an easily substitutable product.
- Merging technology of computers, communications & office machines combines separate industries into one "information industry"; competitive struggle to survive by leaders of old industries.

CYCLICALITY

- Continuing sensitivity to business cycle in maturing segments (minicomputers, PCs).
- For innovative products in high growth segments, the product cycle is more important than the business cycle.
- Product cycles becoming shorter & less predictable.

SEGMENTS

- LE fragmented into multiple niches, proliferating rapidly.
- Bases of segmentation changing as technology and applications drive new definitions. Historical data based primarily on H/W are no longer relevant. See Strategies I & II (Section 10) for steps to remedy this.
- Products becoming more tailored to specific applications, primarily by S/W.
- "Hot" segments offer growth & profitability (e.g., technical workstations) but may mature quickly into commodity-like businesses (e.g., PCs).

CUSTOMERS

- Installed base customers tied to vendors by heavy investment in applications & training.
- Multiplying points of purchase; multivendor environments in most large organizations.
- Buyers in large commercial accounts may be changing from MIS director to middle manager/purchasing department, especially at LE.
- Significant differences between commercial & technical customers in what is valued, and in who makes/influences purchasing decisions.
  - commercial customers buy at a higher level of integration and place less emphasis on latest features or state-of-the-art technology.
- Buying decisions made on: cost effective applications; competitive price; ease of use & training; compatibility of applications & data; quick response; interconnectability of equipment from different vendors in order to intergrate their organization and service.
- Small business (vertical markets) selling requires significant understanding of the business plus support before & after sale in training, application selection & maintenance.

CHANNELS

- Channels include: direct sales; OEMs; value-added/system integrators; distributors; dealers (includes retail); and brokers.
- Different sets of channels appropriate for different market segments.
- Customers want to buy from someone who understands their problems. Large direct salesforce & support staff is a major strategic advantage for big firms like IBM and DEC:
  - includes catalog sales, telemarketing & joint sales with third parties.
  - control over company image & message to market.
  - personal selling.
  - focus on targeted markets & projects.
  - account control.
  - source of early market intelligence/feedback.
- Industry entrants typically start out with OEMs, then grow their own salesforce.

ENTRY BARRIERS

- Until recently, entry into the business seemed extremely attractive:
  - powerful & cheap ICs & storage readily available.
  - engineers trained in computer design.
  - CAD design centers & foundry services enable small firms to develop semi-custom circuits.
  - venture capital has been attracted to sexy "high tech" industry.
  - standard operating systems enable startups to offer application S/W.
  - multiple distribution channels available.
- Rapid changes & growing S/W emphasis keep Japanese at bay except in commodity-like segments.
- Breadth of compatible product offerings.
- Worldwide service capability.
- Existing brand/vendor loyalty/dependence.

CONSTRAINTS

- Export licenses to other countries.
- Foreign governments inhibit imports.
- High value of dollar inhibits exports by U.S.-based manufacturing.

CAPACITY

- Current excess capacity.
- Excess capacity in more mature segments liquidated in frequent shakeouts.
- Capacity can be brought on-line faster than in most industries, and more rapidly than historic norms in the computer industry.

COST STRUCTURE (of Vendors)

- Component prices falling rapidly.
- High volume can reduce S/W as well as H/W costs.
- S/W an increasing percentage of development cost and system value.
- Rising capital requirements.
- High R&D investments.
- Significant advantages to large computer companies in:
  - Direct marketing
  - Maintenance
  - Customer support
    - Training
    - Technical assistance
  - Manufacturing
  - Advertising
  - Third party support
  - Wide product spectrum
  - Vendor/brand loyalty

PRICING

- Industry competitiveness drives prices down the same curves as falling component costs.
- Price-performance improving rapidly.
- Decreasing margins in easily substitutable segments; fatter margins in newer value-added markets.
- S/W an increasing fraction of system price.
- IBM increasingly price competitive & aggressive.
  - willing to buy share with lower margin.
  - keep out Japanese.
- New customers much more price sensitive than installed base.

FIXED CAPITAL INTENSITY

- Below U.S. manufacturing average.
- But growing rapidly, driven by investments for lower costs (large, established companies) & new technologies in LSI & storage. New plant/equipment spending per employee doubled (in real dollars) between 1972 & 1981.

FINANCIAL & OPERATING CHARACTERISTICS

- Pressure to meet revenue & profit growth targets to fund growth.
- Short uncertain product life cycles & strong competition put emphasis on quick design cycle & production ramp up.
- Low debt to equity ratio.
- Trend of H/W toward easily substitutable status increases emphasis on decreasing manufacturing costs: automated flexible manufacturing; inventory control; volume production; and sourcing. Must be on industry cost curve.
- In commodity markets vendors with lowest total costs win.
- IBM & "Japan, Inc." are the low-cost producers; key IBM strategy: minimize total costs and fill all viable channels with IBM products.

1984 FINANCIAL PERFORMANCE

Company	Revenues/Employee	Net Income (% of Sales)	ROI
Apple	$281,000	5.5%	13.8%
Apollo	71,500	11.1%	13.9%
DEC*	75,000	6.7%	N/A
IBM	116,300	14.3%	21.8%
Wang	71,300	9.5%	12.9%

*FY 1985

STANDARDS

- Competition between proprietary & public standards.
- Growing customer pressure toward public standards: applications portability & data interchange in mixed environments; and customer desire to mix & match.
- Mature markets accept no more than two de facto standards (to prevent capture by IBM).
- Standards are as seen by users (MS DOS is not PC DOS).
- Large market share critical to becoming an accepted standard.

UNIX

- UNIX market share is growing vs. VMS.
- UNIX has strengths in technical workstation markets:
  - H/W independent
  - portability between workstations & superminis
  - good applications development
  - supported by ATT & merchant MPU firms
  - popular with OEMs & new industry entrants
- UNIX has weaknesses in commercial markets:
  - not user friendly
  - few commercial applications
  - IBM pushing PC DOS & VM-370 in office
  - perceived data management weaknesses
  - not succeeding in PCs.
- UNIX becoming more important:
  - user interfaces important
  - applications interfaces becoming more important
  - OS less important than applications base & applications portability
  - customers perceive as open system
- Setting standards incompatible with proprietary OS.

OVERALL INDUSTRY TRENDS

- Rapid maturing of growth segments.
- Highly focused niche companies that have uniqueness succeed as segments mature (Cray, Tandem, Cullinet).
- Industry changing from technology-driven to market-driven in maturing segments, especially at LE.
- Complexity of product offerings & customer options increases value of vendors who can clearly explain where they are going.
- Rapidly rising installed base in multivendor environments increases emphasis on standards & interconnections.
- Increasing fraction of industry will consist of high-volume, low-margin segments, but many new high growth & margin segments will appear in foreseeable future.

③ COMPETITIVE ANALYSIS (LE FOCUSED)

▶ COMPETITION

- INCREASINGLY COMPETITIVE & VOLATILE: HUNDREDS OF FIRMS ENTERED OVER PAST SEVERAL YEARS; MANY HAVE LEFT.
- VARIED CLASSES OF COMPETITORS: GARAGE SHOPS; VENTURE CAPITAL FINANCED STARTUPS; AND WORLD CLASS COMPETITORS - IBM, ATT, "JAPAN, INC."
- IBM CLEARLY #1 IN INDUSTRY; SOME PERCEPTION THAT ATT MAY EMERGE AS #2.
- NEWLY AGGRESSIVE IBM PUTTING PRESSURE ON ALL SIGNIFICANT INDUSTRY SEGMENTS.
- GENERAL PERCEPTION THAT DEC IS FOCUSED ON TECHNICAL MARKETS (& MAYBE THE OFFICE).
- COMPETITION SHIFTS TO AREAS WHERE VENDOR DIFFERENTIATION IS STRONGER (E.G., APPLICATIONS; SOFTWARE; INTERCONNECTIONS/NETWORKING; SALES; MAINTENANCE; AND CUSTOMER SUPPORT) WHEN H/W BECOMES MORE COMMODITY-LIKE.
- AVAILABILITY OF APPLICATION S/W A KEY DETERMINANT OF H/W SALES.
- MAINTAINING GOOD CUSTOMER RELATIONS IS CRITICAL.

▶ TYPES OF COMPETITIVE "GAMES" (not mutually exclusive - IBM does all but the last)

- NICHE: DEVELOP CLEVER APPLICATIONS FOR EVER-CHEAPER H/W. SHIP VOLUME BEFORE COMPETITION RESPONDS & SET INDUSTRY EXPECTATIONS, ATTRACT APPLICATIONS S/W, AND BE FIRST DOWN THE COST CURVE (E.G., APOLLO).
- PRICE/VOLUME: HEAVILY PROMOTE TO ACHIEVE VOLUME SALES THROUGH MASS OUTLETS. SCALE ECONOMIES ALLOW LOW PRICE (E.G., APPLE, IBM PCS).
- INSTALLED BASE: TRADITIONAL METHOD OF LOCKING IN CUSTOMER WITH PROPRIETARY OPERATING SYSTEMS & H/W TO MINIMIZE SENSITIVITY TO ANY PRICE, PERFORMANCE & FEATURE ADVANTAGES OF THE COMPETITION.
- LOCK IN DISTRIBUTION CHANNELS.
- ESTABLISH LONG-TERM BUSINESS RELATIONSHIP.
- PROVIDE COMPLETE DP SERVICES SOLUTION (EDS, ADP).

▶ LEADING WORLDWIDE DMS COMPETITORS

COMPANY	COMPUTER REVENUES (1984)	STRATEGIES	STRENGTHS	WEAKNESSES
IBM	$45.9 BIL.	• BE COMPETITIVE ACROSS THE INFO INDUSTRY & IN ALL ASPECTS • ENTREPRENEURIAL IBUS FOR NEW GROWTH SEGMENTS • USE SCALE ECONOMIES TO BE PRICE/PROFITABILITY LEADER • DEVELOP LINKS BETWEEN STRENGTHS IN MAINFRAMES & PCS • QUALITY • MIGRATE PC USERS TO IBM ARCHITECTURES • ACCOUNT CONTROL • USE THIRD PARTIES TO EXPLOIT NEW MARKETS	• FINANCIAL • MARKET POWER • STANDARD SETTER • LOW-COST PRODUCER • PRODUCT QUALITY • MARKET-DRIVEN • ADAPTABLE CULTURE • SALES & SERVICE • MANAGEMENT • WORKFORCE	• MULTIPLE ARCHITECTURES CAN'T EASILY BE INTEGRATED • LATE IN LANS • PRODUCTS FOR TECHNICAL MARKET
NCR	$3.5 BIL. ($4.1 BIL. CORPORATE TOTAL REVENUES)	• PRODUCE COMPETITIVE PRODUCTS FOR KEY SPECIALTY MARKETS • USE STANDARD INDUSTRY COMPONENTS - MOTOROLA 68000 • PRODUCT COMMUNICABILITY WITH IBM & INDUSTRY STANDARDS (UNIX) • DECENTRALIZED STRATEGIC BUSINESS UNITS	• COHERENT STRATEGY • BASE IN RETAIL, FINANCIAL SERVICES • TIGHT FINANCIAL CONTROLS	• MAIN STRENGTH IN SLOW GROWTH MARKETS • LITTLE CORPORATE PENETRATION • NETWORKING AND COMMUNICATIONS
HEWLETT PACKARD	$3.2 BIL. ($6.0 BIL. CORPORATE TOTAL REVENUES)	• SEEKS RAPID GROWTH • MINIS IN THE FACTORY • PCS IN THE OFFICE • TIE TO INSTRUMENT BUSINESS	• MANAGEMENT & FINANCIAL CONTROLS • INSTRUMENT BUSINESS • HIGH PROFITABILITY • FOCUSED MARKETING • QUALITY IMAGE • DISCIPLINED SALES	• INCOMPATIBLE ARCHITECTURES • OLD PRODUCTS • LACK CONSISTENT STRATEGY • LATE IN 32-BIT PRODUCTS
FUJITSU	$3.0 BIL.	• ATTACK IBM IN PLUG-COMPATIBLE MAINFRAME MARKET • 48% SHARE IN AMDAHL, LEADING U.S. PCM • ATTACK OFFICE AUTOMATION MARKET	• TECHNICALLY INNOVATIVE HARDWARE • FINANCIAL RESOURCES • BASE TECHNOLOGY • MARKET LEADER IN IN JAPAN (EXCEPT LE)	• UNSUCCESSFUL IN GAINING FOOTHOLD IN SMALL COMPUTER SYSTEMS • SOFTWARE • NOT REACHING SMALL USERS IN JAPAN
WANG	$2.2 BIL.	• BE LEADING EDGE IN OFFICE AUTOMATION • SELL INTEGRATED OFFICE • SELL DIRECT TO END-USERS • COMMUNICATE WITH IBM PRODUCTS • FOCUS ON USER INTERFACE	• INNOVATIVE PRODUCT IMAGE • MARKETING • CLEAR MESSAGES • SALESFORCE	• MAINTENANCE & CUSTOMER SERVICE • FINANCIAL MANAGEMENT • PRODUCT DELIVERY • TIED TO WP • WEAK PRODUCTS
OLIVETTI	$1.8 BIL. ($2.5 BIL. CORPORATE TOTAL REVENUES)	• BECOME A "GLOBAL COMPETITOR" IN OFFICE AUTOMATION & INFORMATION SYSTEMS • SPECIAL EMPHASIS ON WORKSTATIONS • ESTABLISH STRATEGIC & MARKETING & TECHNOLOGICAL LINKAGE WITH AT&T • GET AN IBM COMPATIBLE COMPUTER INTO EUROPEAN MARKET	• TECHNOLOGY & EXPERIENCE IN OFFICE EQUIPMENT • DEEP EUROPEAN BASE & STRONG DISTRIBUTION NETWORK	• POOR PERFORMANCE TO DATE BY DOCUTEL/OLIVETTI IN U.S. MARKET • INCOMPLETE OFFERING
APPLE	$1.5 BIL.	• PENETRATE HOME & SMALL BUSINESS MARKET WITH APPLE II • PENETRATE OFFICE WITH NETWORKED MACINTOSH, LASER PRINTER, ETC. • COMMUNICATE WITH IBM PRODUCTS • PROPRIETARY SYSTEM S/W	• ADVERTISING AND PROMOTION • EDUCATION MARKETS • USER FRIENDLY INTERFACE • LOW-COST • MARKET-DRIVEN • THIRD PARTY S/W DEVELOPMENT • PRODUCT INNOVATOR	• DIRECT SALES • LIMITED MACINTOSH PERFORMANCE • INCOMPATIBLE WITH OTHER PCS • NARROW PRODUCT RANGE • WEAKNESS IN FORTUNE 1000
NEC	$1.5 BIL. ($4.8 BIL. CORPORATE TOTAL REVENUES)	• PENETRATE U.S. MARKET • SELLS MAINFRAMES IN U.S. THROUGH HONEYWELL • BUILD OFF JAPANESE BASE	• FINANCIAL RESOURCES • TECHNICALLY STRONG • BROAD PRODUCT LINE • STRONG MANAGEMENT • LEADING PC SUPPLIER IN JAPAN	• HISTORY OF POOR CUSTOMER SUPPORT & SERVICE • LACK OF UNDERSTANDING OF U.S. COMPUTER MARKET • SLOW IN RESPONDING TO MARKET DEMANDS • SOFTWARE
DATA GENERAL	$1.1 BIL	• TARGET NICHES: OFFICE AUTOMATION, SMALL BUSINESS, FACTORY AUTOMATION, MEDICAL, SCIENTIFIC & GOVERNMENT MARKETS • MOVE FROM H/W COMPANY TO END-USER COMPANY FOCUSED ON S/W, SERVICE & SOLUTIONS • TRANSFORMATION FROM CENTRALIZED AND AUTOCRATIC MANAGEMENT TO DECENTRALIZED	• IMAGINATIVE HIGH-QUALITY H/W (DATA GENERAL/ONE, MV 10000)	• MANAGEMENT UPHEAVAL AND UNCERTAINTY • TOO SMALL TO BE A GENERALIST IN AN ERA OF SPECIALIZATION • TRADITIONAL OEM PRICE-PERFORMANCE ORIENTATION

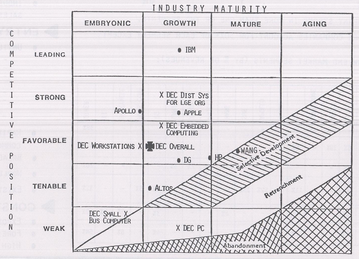
COMPANY	COMPUTER REVENUES (1984)	STRATEGIES	STRENGTHS	WEAKNESSES
AT&T	$1.0 BIL. ($33.1 BIL. CORPORATE TOTAL REVENUES)	• MAINTAIN DOMINANCE IN COMMUNICATIONS • BECOME END-TO-END INFORMATION PRODUCT/SERVICE PROVIDER • LEVERAGE NETWORKING/SYSTEMS INTEGRATION STRENGTHS • BUILD ON TECHNICAL, VOICE & UNIX STRENGTHS • DEVELOP MARKETING CAPABILITY • FOCUS ON PROJECT SALES	• FINANCIAL • SIZE & REPUTATION • BELL LABS (RESEARCH) • OLIVETTI RELATIONSHIP	• HIGH COSTS • NOT MARKET-DRIVEN • WEAK ABROAD • ENGINEERING • WEAK COMPUTER PRODUCTS • MARKETING
PRIME	$.6 BIL.	• DEVELOP INTERNAL MANAGEMENT CAPABILITY/SYSTEMS • EXPAND SALESFORCE, VAR NETWORK • DEVELOP CAD/CAM, WORKSTATION BUSINESSES	• INSTALLED BASE • 9955 SHIPPED BEFORE 8600 • SALESFORCE • PRODUCTS COMMUNICATE WITH IBM & OTHER INDUSTRY STANDARDS	• TOO SMALL TO BE A GENERALIST AND HAS NO NICHE LEADERSHIP • TRADITIONAL MINICOMPUTER MARKET MATURING
MOTOROLA	$.6 BIL. ($4.1 BIL. CORPORATE TOTAL REVENUES)	• LEVERAGE BROAD S/C LINE & 68000 STRENGTH • ESTABLISH OEM CUSTOMER BASE	• USER FLEXIBILITY (VME/10 MICROSYSTEM CAN DOUBLE AS HARDWARE OR SOFTWARE DEVELOPMENT STATION AS STANDALONE) • ESTABLISHED SALES NETWORK • DIVERSIFIED BUSINESS MIX • STRONG FINANCES	• COMPETE WITH ITS S/C CUSTOMERS • LITTLE EXPERIENCE/KNOW HOW IN SYSTEMS MARKETING
CONVERGENT TECHNOLOGIES	$.4 BIL.	• CONCENTRATION ON OEM MARKET • NO SALES ORGANIZATION, NO SERVICE, NO MAINTENANCE • LEVERAGE COMMERCIALLY AVAILABLE MICROPROCESSORS IN PRODUCTS FROM PCS TO SUPERMINIS TO INTELLIGENT WORKSTATIONS • IMPROVE INTERNAL MANAGEMENT	• LOW COST, INNOVATIVE WORKSTATIONS • GOOD PRICE-PERFORMANCE • INNOVATIVE MULTI-PROCESSOR 32-BIT SUPERMINI • AT&T ALLIANCE (UNIX PC)	• TOTAL DEPENDENCE ON OEMS • LACK OF MANAGERIAL DEPTH AND CONTROLS
APOLLO	$.2 BIL.	• ESTABLISH NICHE LEADERSHIP BEFORE DEC/IBM ENTER - APPLICATIONS - INSTALLED BASE • RAPID PRICE-PERFORMANCE IMPROVEMENT • GROW DIRECT SALESFORCE • IMPROVE SERVICE/MAINTENANCE	• MULTIPLE PRICE BANDS IN NICHE • NETWORKING CAPABILITY • PRICE PERFORMANCE LEADER • TIME-TO-MARKET • WELL-SEEDED BASE	• SALES & MAINTENANCE • OEM DEPENDENT (70%) • 3 OEMS = 50% OF SALES - CALMA - AUTOTROL - MENTOR • HURDLE OF SECOND PRODUCT
ALTOS	$.1 BIL.	• EMBRACE INDUSTRY STANDARDS (MPUS, S/W NETWORKING) • USE VARS TO SELL TO SMALL BUSINESS • TARGET FORTUNE 1000 MARKET WITH NEW EMPHASIS ON OEM SALES • PENETRATE DEC OEMS • STRENGTHEN MAINTENANCE	• EARLY SUPERMICRO VENDOR • VERY PRICE-COMPETITIVE • SYSTEMS RUN ALL POPULAR S/W • SUPPORT SEVERAL NETWORKING STANDARDS	• MUCH SMALLER THAN COMPETITION
SUN	$.1 BIL.	• MAINTAIN STRONG POSITION IN RAPID GROWTH SEGMENT • ADOPT INDUSTRY STANDARDS: - UNIX/ETHERNET • CUT PRICES RAPIDLY	• HIGHLY FOCUSED • INNOVATIVE, COST-EFFECTIVE PRODUCTS • DISTRIBUTED PROCESSING • TIME-TO-MARKET	• SMALL STARTUP • SUBJECT TO COMPETITION FROM PC-BASED SYSTEMS • STANDARD SYSTEMS MAY BE DUPLICATED AT LOWER COST BY VOLUME PRODUCERS AS MARKET SLOWS
INTEL	?? ($1.6 BIL. CORPORATE TOTAL REVENUES)	• TARGET HIGH-PERFORMANCE, MICROCONTROLLERS • MICROCOMPUTER & EXPORT FOOTHOLD IN SMALL COMPUTER MARKETS • TRYING TO MAKE MULTIBUS THE STANDARD • ESTABLISHED CUSTOMER BASE	• LEADERSHIP IN 8-BIT MICROCONTROLLERS • IBM CONNECTION	• COMPETES WITH ITS S/C CUSTOMERS

▶ COMPETITIVE ANALYSIS

PRIORITY	1	2	3	4
BASIS OF COMPETITION	PRODUCTS & SERVICES THAT MEET CUSTOMER NEEDS	QUALITY PERFORMANCE & RELIABILITY (MEETS EXPECTATIONS)	PRICE (ABILITY TO MANAGE FOR COMPETITIVE ADVANTAGE)	SERVICE (DELIVERY, EDUCATION & MAINTENANCE & S/W & POST SALES ADMINISTRATION)
IBM	0→+	+	+	++
APOLLO	+	–	0	–
APPLE	+	+	+	0
WANG	–	– –	0	–
DG	–	0	0	–
HP	–	+	–	0
MOTOROLA (EMBEDDED SYSTEMS)	+	–	+	–
ALTOS	–	–	+	–

KEY: + COMPETITOR BETTER THAN DEC
0 COMPETITOR ABOUT EQUAL TO DEC
– COMPETITOR NOT AS GOOD AS DEC

▶ DEC's COMPETITIVE POSITION (LE only)



④ BUSINESS UNIT DESCRIPTION

▶ SCOPE

- DEC'S DMS ACTIVITIES EVOLVED OVER ≈20 YEARS THROUGH MANY INDEPENDENT PRODUCT DEVELOPMENT EFFORTS.
- CURRENT CONSOLIDATION OF MOST H/W ENGINEERING AND SOME S/W DEVELOPMENT WITHIN THE DMS SYSTEMS AND TECHNOLOGY GROUP (LEST)...INCLUDES PCS (RAINBOW, PRO AND DECMATE), WS'S (MICROVAX BASED AND HIGH END WS'S), AND TEAM COMPUTING (PDP-11 AND MICROVAX SYSTEMS).
- THE FOLLOWING OPERATING UNITS WITHIN LEST REPRESENT PART OF THE ORGANIZATION RESPONSIBLE FOR DEC'S DMS BUSINESS:

	7/85 STAFFING (APPROX.)
PBUs	
- PCSG GROUP (PERSONAL COMPUTING)	161
- WORK SYSTEMS GROUP	239
- MSD GROUP (TEAM COMPUTING)	330
FUNCTIONAL SUPPORT GROUPS	
- SEG	426
- LEDAPE	186
- ADMINISTRATION	137

- OUTSIDE LEST (BUT ALSO IMPORTANT PARTICIPANTS IN THE DMS BUSINESS) ARE: PORTIONS OF S/W DEVELOPMENT, NETWORKS AND COMMUNICATIONS, STORAGE SYSTEMS, P&DS, SALES & SERVICE, MANUFACTURING, PRODUCT/APPLICATION MARKETING, INDUSTRY MARKETING AND CHANNELS MARKETING.

▶ CHARACTERISTICS

- DEC HAS BEEN LOSING DMS BUSINESS AND MISSING EMERGING MARKET OPPORTUNITIES.
- DEC CURRENTLY HAS AT LEAST 12 PRODUCTS IN THE DMS SPACE; THESE PRODUCTS DO NOT PLAY WELL TOGETHER AND OFTEN OVERLAP.
- CURRENT HOLES IN THE DMS PRODUCT LINE: VERY LOW-COST DMS WS; TRUE AI WS; UNIVERSAL "WINDOWING" S/W; HIGH-END COLOR TERMINAL; LOW-COST MULTIUSER SYSTEM, SERVER OR DUMB TERMINAL; INADEQUATE APPLICATIONS S/W IN SOME AREAS.
- PROLIFERATION OF OVERLAPPING PRODUCTS HAS CONFUSED DEC'S CUSTOMERS AND SALESFORCE, MADE THE SALES TASK MORE DIFFICULT, AND INCREASED COSTS OF S/W DEVELOPMENT AND FIELD SUPPORT.
- ENGINEERING-DRIVEN PRODUCT AND MARKET DEFINITIONS AND IN SOME CASES PRESENTATIONS (E.G., ETHERNET WS'S) ARE MISSING THE MARK. PRODUCT STRATEGIES HAVE HAD A H/W FOCUS AND HAVE BEEN FORMULATED WITH INSUFFICIENT INFORMATION ABOUT THE MARKET. TO DATE, NO DMS PRODUCT CAN TRULY BE SAID TO BE AN UNQUALIFIED SUCCESS.
- DMS ENGINEERING AND MARKETING ACTIVITIES HAVE BEEN FRAGMENTED & UNCOORDINATED (MULTIPLE ENGINEERING AND MARKETING GROUPS OPERATE WITH DIFFERENT CONCEPTS AND ASSUMPTIONS ABOUT MARKETS, CUSTOMERS, PRODUCT REQUIREMENTS AND PRIORITIES).
- THERE HAS BEEN NO CLEAR CONSENSUS OR STATEMENT OF WHAT DMS' ROLE SHOULD BE AS A STRATEGIC PART OF DEC'S OVERALL BUSINESS.
- DEC'S SENIOR MANAGEMENT IS AMBIVALENT ON THE QUESTION OF THE IMPORTANCE OF MANY OF DMS' PRODUCTS TO DEC'S FUTURE.
- DEC'S SENIOR MANAGEMENT IS UNCERTAIN OF THE SPECIFIC MARKETS, GOALS AND APPROACHES THAT DMS SHOULD PURSUE.
- DEC'S EXPERIENCE WITH COMPUTER STORES, ADVERTISING AND MASS DISTRIBUTION HAS INFLUENCED MANAGEMENT'S VIEW ADVERSELY IN THESE AREAS.

⑤ DEC's CULTURE & BELIEFS (relevant to DMS)

OVERALL, DEC EXECUTIVES, MANAGERS, SUPERVISORS & PROFESSIONAL STAFF BEHAVE AS THOUGH THEY BELIEVE THAT:

- BUSINESS STRATEGY = PRODUCT STRATEGY.
- COMMON GOALS AND UNIFIED LEADERSHIP FOR RELATED FUNCTIONAL GROUPS ARE NOT ESSENTIAL FOR BUSINESS SUCCESS.
- DEC'S SUCCESS HAS BEEN, AND WILL CONTINUE TO BE, BASED FIRST & FOREMOST ON ITS H/W. DEC CAN ENGINEER ITS WAY TO SUCCESS IN THE LE MARKET.
- CONSENSUS IS EXTREMELY IMPORTANT BUT DIFFICULT TO OBTAIN.
- MOST MARKETING INPUT IS VIEWED A PRIORI AS OF QUESTIONABLE VALUE.
- IT'S MORE FUN TO CREATE NEW PRODUCTS THAN TO FIX/IMPROVE OLD ONES; IF YOU LAUNCH ENOUGH NEW PRODUCTS, SOME WILL BE SUCCESSFUL.
- DEC IS A VALID MODEL FOR THE COMPUTER MARKET IN GENERAL; PRODUCTS THAT ARE VALUED BY DEC ENGINEERS WILL BE SUCCESSFUL IN THE OUTSIDE WORLD.
- ALL DEC PRODUCTS ARE EXPECTED TO YIELD THE SAME PERCENT PROFIT MARGINS.
- DEC CAN'T MAKE MONEY IN THE LE.
- INTERNAL COMPETITION AMONG ENGINEERING AND MARKETING GROUPS IS HEALTHY.

⑥ DMS STRENGTHS & WEAKNESSES

▶ STRENGTHS

- DEC'S GENERAL IMAGE AS A MANUFACTURER OF WELL ENGINEERED HARDWARE.
- TECHNICAL EXPERTISE AND RESOURCES.
- LARGE OEM BASE.
- LARGE INSTALLED BASE.
- ACCESS TO LARGE AMOUNTS OF CAPITAL.
- DEC'S EDGE IN THE NETWORKING AND COMMUNICATIONS AREA (INTERCONNECTABILITY) NOW BEING APPLIED TO THE LE.
- FLEXIBLE ORGANIZATION THAT SUPPORTS INNOVATION, INITIATIVE AND ENTREPRENEURIAL BEHAVIOR.
- LARGE INTERNATIONAL SALES AND SERVICE ORGANIZATION.
- INTERNATIONAL PRODUCT DELIVERY.
- AFTER SALES SERVICE (REPAIR, TRAINING, S/W SERVICES, ETC.).

▶ WEAKNESSES

- LACK OF COORDINATED BUSINESS FOCUS & CONTROL.
- ORGANIZATION-DRIVEN STRATEGIES; ENGINEERING-DRIVEN CULTURE.
- LACK OF GOALS AND STRATEGIES WHICH ARE WIDELY UNDERSTOOD AND COMMITTED TO, AND LACK OF DISCIPLINED FOLLOW-THROUGH ON THEIR IMPLEMENTATION.
- UNDERDEVELOPED & FRAGMENTED MARKETING FUNCTION; UNFOCUSED MARKET STRATEGY.
- DIFFICULTIES IN COORDINATING AND FOCUSING EFFORTS ACROSS FUNCTIONS.
- HIGH COSTS.
  - LACK OF DISCIPLINE IN ACHIEVING LOW-COST OPERATION.
  - WEAK FINANCIAL CONTROLS; TRUE REVENUES AND COSTS BY PRODUCT ARE UNKNOWN.
- TOO MANY PRODUCTS, POORLY DIFFERENTIATED.
- MARKETS PERCEIVE DEC AS POOR REGARDING TIME-TO-MARKET (BRINGING PRODUCTS TO MARKET WHEN PROMISED).
- INWARD-LOOKING ENVIRONMENT AND BEHAVIOR.
- DEC IS PERCEIVED AS NOT A LEADING EDGE VENDOR AND NOT STRONGLY COMMITTED TO THE LE.
- INSUFFICIENTLY TRAINED SALESFORCE.
- HARD TO DO BUSINESS WITH.
- LACK OF EFFECTIVE RESPONSE TO COMPETITORS' ACTIONS; SLOW RESPONSE TO COMPETITORS' PRODUCT ADJUSTMENTS.

⑦ PAST STRATEGIES & CRITIQUE

GO AFTER MARKET SHARE AGGRESSIVELY IN PC/WS SPACE WITH EXPECTATIONS OF IMMEDIATE HIGH RETURNS; TRY MULTIPLE PRODUCTS SIMULTANEOUSLY AND HOPE THAT MOST OR ALL WOULD BE WINNERS.

▶ REASONS FOR FAILURE

- NO INTEGRATED PLAN; NO WIDESPREAD BUY-IN TO PLAN; NO SUBSEQUENT MODIFICATION TO PLAN AS EXPERIENCE ACCUMULATED.
- ENGINEERING GROUPS WERE MAKING KEY BUSINESS DECISIONS.
- INSUFFICIENT UNDERSTANDING OF MARKETS.
- COMPETITION AMONG HIGHLY FRAGMENTED ENGINEERING & MARKETING GROUPS.
- PRODUCTS OVERLAPPED, WERE CONFUSING, WERE LATE, WERE INCOMPLETE, & WERE OVERPRICED.
- NO ONE GROUP OWNED/CONTROLLED THE RESOURCES FOR IMPLEMENTATION.
- ASSUMED MAJOR BEHAVIORAL CHANGES IN DEC (SALES, ORDER, ETC.), WHICH DIDN'T OCCUR.
- BYPASSED OEM BASE.

⑧ PAST FINANCIAL PERFORMANCE

▶ LEST METRIC SUMMARY

	GROSS MARGIN	OPERATING PROFIT MARGIN	ROA
LEST* MODEL	48%	20%	22%
LEST** HISTORY:			
FY 85	26%	(12%)	(8%)
FY 84	30%	(25%)	(8%)
FY 83	41%	4%	3%
FY 82	61%	24%	24%
FY 81	60%	28%	28%
COMPETITIVE MODELS:			
IBM	59%	24%	20%
APPLE	49%	13%	20%
APOLLO	60%	17%	16%
ALTOS	38%	14%	29%

*BASED ON FY 84 NES.
**INCLUDES: MICROVAX, PDP-11, PRO, WORKSTATIONS, RAINBOW, DECMATE AND CHIPS/BOARDS.

SECTIONS 9-11 (SEE PAGE 4)

⑫ KEY PREMISES/ASSUMPTIONS

PROPOSED STRATEGIES AND ACTION PLANS ARE BASED ON THE FOLLOWING PREMISES:

- A FUNDAMENTAL BASIS FOR DEC's BUSINESS STRATEGY IS TO TRY TO NEUTRALIZE COST AS A COMPETITIVE ISSUE. DEC CAN COMPETE WITH PRICES 10-15% ABOVE THE LOWEST PRICED VENDOR BY PROVIDING VALUE-ADDED THROUGH MARKET FOCUS, SERVICE AND PRODUCT FUNCTIONALITY OR PERFORMANCE.
- DEC WILL BECOME A LOW-COST PRODUCER (BUT NOT LOWEST COST).
- BECAUSE LARGER ORGANIZATIONS NEED & WILL COME TO WANT AND UNDERSTAND THE VALUE OF INTERCONNECTABILITY AND/OR A COMMON ARCHITECTURE, THIS FEATURE MUST BE A FUNDAMENTAL ELEMENT OF DEC'S OVERALL STRATEGY.
- IN DEC'S LARGER ACCOUNTS, DEC PRODUCTS MUST BE ABLE TO CO-EXIST WITH THOSE OF OTHER VENDORS, TYPICALLY IBM.
- THERE ARE SIGNIFICANT DIFFERENCES BETWEEN THE NEEDS AND CONCERNS OF SMALL AND LARGE ORGANIZATIONS WITH REGARD TO PURCHASING COMPUTING SOLUTIONS AND TOOLS.
- DEC IS IN THE PROCESS OF MOVING TOWARDS SELLING MARKET/CUSTOMER FOCUSED SOLUTIONS (E.G., "COMPLETE PRODUCTS," ROADMAPS, ETC.).
- IN MOST CASES, VALUE-ADDED WILL BE REQUIRED TO TRANSFORM DEC'S OFFERINGS INTO TRULY COMPLETE SOLUTIONS (BY OEMS, CMPS, CUSTOMERS' IN-HOUSE INTEGRATORS, ETC.).
- DEC NEEDS TO OFFER PRODUCTS AT MULTIPLE LEVELS OF INTEGRATION.
- THE RELATIVE IMPORTANCE OF H/W (BOTH AS AN ELEMENT OF THE SOLUTION AND AS A SOURCE OF REVENUE) WILL CONTINUE TO SHRINK OVER TIME AS A PROPORTION OF THE TOTAL SOLUTION FOR CUSTOMERS.
- DEC'S OVERALL STRATEGY IS TRENDING TOWARDS AN AGGRESSIVE PURSUIT OF A SELECTED SET OF MARKETS USING DIRECT SALES AND OEM/CHANNELS MARKETING FOR THE REST.
- BECAUSE DEC'S SALES EFFORTS ARE GEARED TO & AIMED AT HIGH DOLLAR VOLUME ACCOUNTS, DMS SYSTEMS AND SOLUTIONS MUST BE DESIGNED, "PACKAGED" AND MARKETED ACCORDINGLY.

⑬ KEY ISSUES

- HOW CAN BETTER INTEGRATION BE ACHIEVED BETWEEN SWS & FIELD SALES WHEN IMPORTANCE OF SYSTEM SELL IS INCREASING?
- HOW TO GET NEEDED RESOURCES (ESPECIALLY PEOPLE) ALLOCATED TO STRATEGY I & II PROJECTS (SEE SECTION 10) BY RELEVANT GROUPS OUTSIDE LEST?
- HOW TO ACHIEVE MORE OF THE SALESPERSON'S "SHARE OF MIND" WITH REGARD TO DMS' OFFERINGS?
- HOW TO GET DEC GROUPS OUTSIDE LEST TO BUY IN TO THE DMS STRATEGY?
- HOW TO DEVELOP AN INTEGRATED STRATEGY FOR THE SMALL BUSINESS MARKET (PRODUCTS, CHANNELS, BUSINESS MODELS, ETC.).
- HOW TO BE EFFECTIVE IN SMALL, STANDALONE SALES AS WELL AS IN INTEGRATED SALES TO BOTH LARGE AND SMALL ORGANIZATIONS?

⑭ RISK ASSESSMENT

▶ SOURCES OF RISK OF FAILURE TO IMPLEMENT STRATEGIES SUCCESSFULLY

- TRADITIONAL CULTURAL/BEHAVIORAL NORMS IN DEC MAY BE TOO STRONG AND DEEPLY ROOTED TO CHANGE IN THE NEXT 2-4 YEARS.
- KEY FUNCTIONS IN DEC OUTSIDE LEST MAY BE INSUFFICIENTLY RESPONSIVE TO THE REQUIREMENTS OF THE STRATEGY.
- ORGANIZATIONAL CHANGES (STRUCTURE AND STAFF) IN DEC.
- PREEMPTION BY OTHER PRIORITIES.
- TOO FEW MANAGERS HAVE A GOOD, COMPREHENSIVE UNDERSTANDING OF THE DYNAMICS OF THE MICROCOMPUTER SEGMENT OF THE COMPUTER BUSINESS.
- MANY DEC MANAGERS LACK CONFIDENCE THAT WE CAN WIN IN THE LE.

▶ RISK ASSESSMENT

RISK FACTORS	LEVEL OF RISK: LOW	MEDIUM	HIGH
PROBABILITY OF ASSUMPTIONS BEING CORRECT	X		
*AMBITIOUSNESS OF OBJECTIVES & STRATEGY			X
MANAGEMENT TRACK RECORD		X	
GENERAL MANAGEMENT COMPETENCE		X	
THINNESS OF MANAGEMENT STRUCTURE		X	
ORGANIZATION'S RESPONSIVENESS		X	
*UNFAMILIARITY OF STRATEGIES			X
*CONSISTENCY OF STRATEGY WITH DEC CULTURE			X
OVERALL RISK			X

*HEAVILY WEIGHTED.

PDP-11 6

PDP-11 STUDY

OBJECTIVES:

- DIAGNOSE THE REASONS FOR THE SIGNIFICANT DECLINE IN PDP-11 PROFIT
- PROPOSE A BUSINESS PLAN TO INCREASE PROFIT AND REVENUE WITHOUT:
  - + JEOPARDIZING THE INSTALLED BASE
  - + AN INCREMENTAL CORPORATE INVESTMENT
  - + CONFLICTING WITH THE VAX STRATEGY
- PROPOSE AN ORGANIZATIONAL APPROACH TO ENSURE ACHIEVEMENT OF BUSINESS PLAN

9/25/85

PDP-11 STUDY

MAJOR FINANCIAL CONCLUSIONS

- FY85 PERFORMANCE:

	SYSTEMS	AFTER MARKET	TOTAL
NOR	491	861	1332
% OF TOTAL	35	65	100
OPERATING PROFIT (%)	< 8>	21	10.6

- SYSTEM BUSINESS:

	FY81	FY85
SYSTEMS SOLD (QTY)	30K	27K
NOR ($M)	957	471
PROFIT (%)	18	< 8>

- SIGNIFICANT MIX SHIFT FROM UBUS (HIGH END) TO QBUS (LOW END)
- MANUFACTURING COST FLAT EXCEPT FOR CMC WHICH IS "4x" MORE (3% TO 11%)
- ENGINEERING AND MARKETING COSTS STILL AT A HIGH LEVEL
- SALES EFFORT/COST:
  - YIELDS UNDER GOALS (33% OEM)
  - FIELD COST = $4000/SYSTEM vs $7000 PRODUCT COST
  - SELLING TO/MAINTAINING ACTIVE BASE
- PRICING:
  - EMPHASIS ON MARK UP vs PROFIT
  - NOT GEARED TOWARDS "CAPTIVE", WHAT MARKET WILL BEAR
  - HAVE NOT PRICED FOR END OF LIFE/MIGRATION
- EUROPE BUSINESS 16 POINTS MORE PROFITABLE THAN U.S.
  (PRICING, ALLOWANCES, FIELD COST + MARKETING)

9/25/85

PDP-11 MARKETING OPPORTUNITY

- VAX VOIDS ($100 MILLION)

  FOCUS ON PDP-11 NICHES THAT COMPLEMENT VAX (WHILE NICHES EXIST)

  - + SMALL BUSINESS
  - + UNIX
  - + FACTORY WORKSTATION
  - + PROCESS CONTROL
  - + REAL TIME
  - + COMMUNICATIONS

- EUROPE/GIA ($100 MILLION)

  - + EUROPE BOOKING SAME NUMBER OF SYSTEMS AS U.S.
  - + PROACTIVELY MARKETING PDP-11's

- MEV OPPORTUNITY ($120 MILLION)

  - + MEV BUYS BOARD & SELLS MICRO-11 SYSTEM AT MUCH LOWER PRICE
  - + DEC OBTAINS $2K BOARD SALE AND LOSES $20K SYSTEM SALE

- INSTALLED BASE ($200 MILLION)

9/25/85

PDP-11 STUDY

PROPOSED ORGANIZATION APPROACH

- FORM A PDP-11 BUSINESS MANAGEMENT TEAM
  - FOCUSED ON THE STRATEGIC MANAGEMENT OF BUSINESS
  - GOALED TO ACHIEVE A 20% OPERATING PROFIT
  - ENABLED THROUGH STRONGLY SUPPORTED CROSS-FUNCTIONAL RELATIONSHIPS
  - LED BY MSD PBU MANAGEMENT

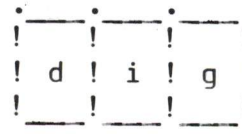
- FUNCTIONALITY ON THE TEAM

EXISTING	ADD NEAR TERM	ADD-FUTURE
PBU MANAGEMENT ✓	SALES/CHANNEL MANAGEMENT ✓	F.S.
H/W ENGINEERING ✓	MANUFACTURING ✓	S.W.S.
S/W ENGINEERING ✓	A.U.G. ✓	T.P.L.
PRODUCT MARKETING ✓	"VAX VOID" MARKETING ✓	
S/W APPLICATIONS ✓		

- FUNCTIONAL RELATIONSHIPS
  - DEDICATED TO PDP-11 EFFORT
  - GOALED/MEASURED BY PBU MANAGEMENT
  - MATRIX REPORTING RELATIONSHIP TO PBU MANAGEMENT

9/25/85

PDP-11



Interoffice Memo

TO: OPERATIONS COMMITTEE:

cc: MIKE GUTMAN

DATE: THU 3 FEB 1983 9:12 AM EST
FROM: JULIUS MARCUS
DEPT: BOSE MGMT & OPERAT
EXT: 264-5362
LOC/MAIL STOP: MK01-2/B06

MESSAGE ID: 5189809441

SUBJECT: -11 TASK FORCE

We now have a full set of 11-based software which is available for Aztec and Wini-based systems. Applications include:

Menu control to make system user-friendly

TAP - Tailorable Accounting Package

WPS - DECmate-like word processing

WPS electronic file cabinet

Mail

Desk functions:
- Calendar
- To-do lists
- Phone directory
- Tickler

DECalc - spread sheet calculator

Computerized instruction for:
- DECword (WPS)
- Datatrieve query language
- BASIC +
- ADE - very simple Query language (high-touch)

Networking

Graphics support for VT125-like sub-systems

This is all RSTS-based today. We are looking at moving much of it to RSX to encourage European use of the system.

Our lowest cost per terminal systems are achieved on the Micro-11's.

JM:DW

3-FEB-83 11:58:33 S 02035 MKEM
MKEM MESSAGE ID: 5189880262

digital

Interoffice Memo

TO: BOB PUFFER

DATE: WED 29 DEC 1982 4:04 PM EST
FROM: WIN HINDLE
DEPT: CORPORATE OPERATIONS
EXT: 223-2338
LOC/MAIL STOP: ML10-2/A53

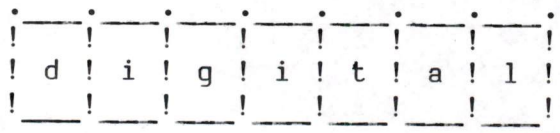
MESSAGE ID: 5186252176

SUBJECT: PDP-11 TASK FORCE

You may want to see the report.

WH:dw

ATTACHED: MEMO;129



Interoffice Memo

TO: WIN HINDLE

cc: KEN OLSEN

DATE: WED 29 DEC 1982 10:54 AM EDT
FROM: ANDY KNOWLES
DEPT: SMALL SYSTEMS GROUP
EXT: 278-4567
LOC/MAIL STOP: UP2-4/UP2-4

MESSAGE ID: 5186251636

SUBJECT: PDP-11 TASK FORCE

Last spring when the Boston Consulting Group studied our COEM problem they pretty much told us why the PDP-11 sales had dropped off. A copy of their report is available.

/sc

****
* d i g i t a l *
****

TO: see "TO" DISTRIBUTION

cc: OPERATIONS COMMITTEE:
RON SMART

DATE: TUE 28 DEC 1982 1:40 PM EST
FROM: WIN HINDLE
DEPT: CORPORATE OPERATIONS
EXT: 223-2338
LOC/MAIL STOP: ML10-2/A53

MESSAGE ID: 5186117248

SUBJECT: PDP-11 TASK FORCE

We need to understand why the PDP-11 has not done well in sales in the past 18 months. I would like you six to be a Task Force to investigate this and report back to the Operations Committee. Would Bob Puffer please be Chairman of the group.

This should be done rapidly and I suggest you plan to make your report at the Operations Committee Meeting on January 25th. Ken Olsen's memo on the subject is attached.

WH:dw

d i g i t a l

Interoffice Memo

TO: WIN HINDLE

cc: OPERATIONS COMMITTEE:
RON SMART

DATE: MON 20 DEC 1982 1:05 PM EDT
FROM: KEN OLSEN
DEPT: ADMINISTRATION
EXT: 223-2301
LOC/MAIL STOP: ML10-2/A50

MESSAGE ID: 5185339525

SUBJECT: PDP-11 TASK FORCE

We have had very good results from the various task forces we have initiated. I think our managers enjoy taking this responsibility and pursuing the question in detail. The amount of work they put into it and their objectivity makes me very proud of the managers we have.

Our PDP-11 has dropped off drastically in sales since this last year, and I think we owe it to the company to find out why. I would like you to pick a committee to research this question and report to us fairly soon.

There are a number of reasons why sales might drop off, and here are a few sample questions to start the thinking.

1) Did the CT drain away all the finances and the good people from the 11 engineering?

2) Did the cancelling of the 11/70 present a message to the Sales Department that the 11 was dead?

3) Did the Product Lines steer the Field away from the 11 into the VAX but before the VAX was ready to take it, either with software or with equipment?

4) Did the Sales Training group stop teaching the 11 and therefore give a message to the Sales Department that the 11 was obsolete?

5) Was the packaging of the 11 too dull and too old-fashioned?

6) Did we suffer because we did not call the 11 a microcomputer, or a personal computer?

7) Did our marketers and our salesmen not understand the advantages over chips, even 32-bit chips, and therefore just passively allowed the business to disappear to chips?

8) Did we not understand the enormous advantages of RT software, and the other software we have on the 11?

9) Did our marketers fight Unix instead of selling the 11 as the

original Unix machine?

10) Did our salesmen and our marketers not understand all the software, all the aids, all the experience, and all the options?

11) Did we knock comprehensive selling literature that told all the features, all the aids, and all the software we have to offer on the 11?

KHO:ep
KO2.S3.45

28-DEC-82 15:19:43 S 02401 CORE
CORE MESSAGE ID: 5186150087

"TO" DISTRIBUTION:

ROGER CADY	MIKE GUTMAN	BILL LEWIS
JACK MACKEEN	MIKE MARSHALL	BOB PUFFER

29-DEC-82 12:15:28 S 01613 MLCG
MLCG MESSAGE ID: 5186217929

2. Micro-VAX-II

digital

Interoffice Memo

TO: *WIN HINDLE
KEN OLSEN
JIM OSTERHOFF
JACK SHIELDS
JOHN SIMS

DATE: WED 17 APR 1985 2:58 PM EST
FROM: JACK SMITH
DEPT: ENG & MFG ADMIN.
EXT: 223-2231
LOC/MAIL STOP: ML01-4/A54

MESSAGE ID: 5270264665

SUBJECT: UVAX II DISCOUNT - TYPE 2

With our decision to move uVAX II discount to Type 2 we have some work to do, monitoring to put it in place and system solutions to develop internally.

What I think I heard yesterday:

o The next forecast from the Field will outline 22K uVAX II units for FY86 broken down by AMC and further segmented by End User and OEM.

A Jack Shields action item.

o A process is required to carefully monitor our OEM's for changes in attitude relative to DEC as a sole source supplier. The key element is not necessarily changes in revenue demand (orders placed on DEC). I suspect the revenue, at least in the short term, will continue to follow traditional trend lines. I would suggest the two most significant elements indicating changes in attitude toward DEC are as follows:

- Next generation design-ins. Stayed with DEC. Went dual source. Switched to another vendor.

- Conversion to a UNIX approach versus a proprietary operating system approach. An indication they want to be vendor independent.

A Jack Shields action item.

o Regardless of our intentions, OEM's will feel we have taken X dollars out of their pockets and put it into ours. "You didn't give us time to plan our Business". This will be compounded if we blind-side them, i.e., if their first exposure is via a discount schedule. We did a fairly good job of personal pre-notification with our Jupiter customers. We have less than one month to assure this same process is initiated.

A Ward MacKenzie (working with Jack Shields) action item.

o Last but not least -- with our move to a more End User orientation, we will require additional DEC developed or procurred and supported system applications to assure we can provide the "total customer solution". In addition, we should identify the key selling expertise and training required to approach customers previously left to an OEM solution.

A Jack Shields action item.

I would suggest we schedule periodic reviews of our progress in the above areas.

17-APR-85 16:02:52 S 03317 CLEM
CLEM MESSAGE ID: 5270261465

MicroVAX-II

d i g i t a l

Interoffice Memo

TO: see "TO" DISTRIBUTION

cc: JEFF KALB

DATE: FRI 29 MAR 1985 6:11 AM EST
FROM: STEVE TEICHER
DEPT: WORKSYSTEMS PROG OFF
EXT: 225-4900
LOC/MAIL STOP: HL2-2/N07

MESSAGE ID: 5268347836

SUBJECT: MICROVAX II AND FIELD PROFITS

I am very worried about the concept of using MicroVAX II to be the vehicle for raising field profits.

MicroVAX II is part of the change from time-sharing to distributed computing.

MicroVAX II and VAXstation II are not systems in the sense that we have sold systems in the past.

MicroVAX II is a component. VAXstation II is a component.

Your customers are moving to distributed computing systems. Mentor said it clearly yesterday, i.e. they did not buy Apollo for the hardware of the workstations..they knew that there were better choices. They bought Apollo because of the distributed system architecture.

Mentor also said to us, that distributed systems must be not popular at Digital. This is also what Boeing said, and what GM is saying.

Customers do not believe that we understand distributed systems, or will want to sell them. Boeing people said that VAX's are time-sharing machines and time-sharing is antique..They may buy a few more, but not for long. Same thing is true at Berkeley.

Since IBM was never into time-sharing, they are perceptually better off in the market then us.

Now, we have the MicroVAX II being introduced and we are falling into the trap of thinking it is a system. We are focusing our energy on it, feeling we can make up our margins on it...The problem is that it is very vunerable. If we try to make big bucks on it, people will buy a few, but they will use them as file servers. Even though we try to make it unattractive to add big disks to them, if they are going to be used as file servers people will buy a few, regardless of the price, because they only need a few of them.

The result will be, that at whatever price we pick, we will sell a bunch of them in the beginning. Next few quarters will be fine, but the way that they are used will be critical. If MicroVAX's are used in time-sharing mode, or as servers, and do not get used as workstations, or as distributed computers on some interconnect either ETHERNET or TOKEN RING...then we are in big trouble.

The problem is, that during all of the forecasting process, the focus has been on the individual product, i.e. various configurations of microVAXen. I tried to point out that you should be forecasting distributed systems and the components of them, and not the MicroVAX II in particular.

It is terribly important that we stop focusing our energy on components of systems and on systems.

I think that we are headed to a place where we may miss the opportunity to convert from time-sharing to distributed systems...and the results will be the biggest disaster in the company history. The Q1 earnings problem a while back will look like a pimple compared to the decline that we will see if we don't change our headsets from a system being a cpu to a system being a collection of cpu's connected by nets.

This doesn't answer how we get field margins back up...but it is certainly a disaster to focus on MicroVAXII as the vehicle. MVAXII is a component..it is a help because it allows us to move to distributed systems in an orderly manner, but trying to get our margins back on it, will be a perfect way for IBM and others to kill us. In fact, I'll bet IBM can't wait for us to introduce MVAX II as a time-sharing system. I can see their adds now... boasting how IBM never got hooked into time-sharing because they knew all along that it was evil...bad...

I surely wish Gordon Bell was here for this round, because he would understand this...and never let us fall into the trap of holding onto trees that are past their prime.

/steve teicher

In the next note, I will send you a few paragraphs from the Worksystem plan. In it I say something about profits. I believe that there is evidence that if we move to selling distributed systems, as Ken Olsen has been suggesting, that our revenues and profits could increase tremendously, as I said to Jack Smith's staff yesterday.

It is difficult to get this inserted into the forecast cycle, for a variety of reasons, including the fact that we do not seem to forecast software or nets, which are critical elements of the profit picture. We only forecast things that we 'manufacture' and since software is an afterthought to our revenue picture, no need to forecast it...

Sorry to be so critical, but I don't know any other way to say...watch out we are going to create disaster out of potential victory..

"TO" DISTRIBUTION:

DAVE GRAINGER	*WIN HINDLE	ELI LIPCON
WARD MACKENZIE	JACK MACKEEN	JIM OSTERHOFF
BILL STEUL		

2 Micro VAX-II Pricing

digital

Interoffice Memo

TO: see "TO" DISTRIBUTION

cc: *WIN HINDLE
JIM OSTERHOFF

DATE: SUN 31 MAR 1985 5:38 PM EST
FROM: STEVE TEICHER
DEPT: WORKSYSTEMS PROG OFF
EXT: 225-4900
LOC/MAIL STOP: HL2-2/N07

MESSAGE ID: 5268549289

SUBJECT: PRICING INPUTS FROM BILL

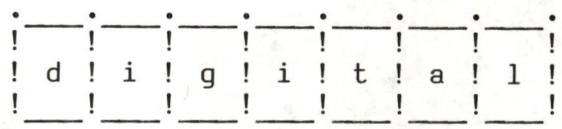
I have been working with Bill Steul to try and help think of how we get volume where we want it..

/steve

"TO" DISTRIBUTION:

DICK ANGEL	RON HAM	DON JENKINS
JEFF KALB	CATHY LEAROYD	BARRY REYNOLDS

ATTACHED: MEMO;26



Interoffice Memo

TO: STEVE TEICHER

DATE: SAT 30 MAR 1985 10:47 AM EST
FROM: BILL STEUL
DEPT: ENGINEERING SYS GRP
EXT: 231-5469
LOC/MAIL STOP: MRO/MRO3-1 Q17

MESSAGE ID: 5268449128

SUBJECT: RE: MICROVAX II AND FIELD PROFITS

Steve, I agree with you. We should price our entry level workstation products aggressively and charge more for high functionality multi-user systems. Will spend some time with Peter Smith and Peter Graham in Europe next week revisiting and sorting out the CAEM pricing strategy for uVAX II. Keep pushing us -- you are on the right track. Sometimes I forget how valuable our Components Group experience was; I am glad you keep reminding me!
Have a nice (restful) weekend.
Regards.

2- MicroVAX-II

APR 01 1985

****
* digital *
****

INTEROFFICE MEMORANDUM

TO: DISTRIBUTION

DATE: 29 MAR 85
FROM: Ken Swanton
DEPT: Corporate Planning
EXT: 223-3038
LOC/MAIL STOP: MLO10-1/U49

SUBJECT: MINUTES OF KEN OLSEN MICROVAX REVIEW MEETING

This memo describes the items reviewed and decisions made at yesterday's (3/28) MicroVAX/VAXstation review meeting.

ATTENDEES:

Dick Angel, Ed Barron, Steve Behrens, Dick Berube, Dick Clinton, George Evans, John Forde, Bob Fowkes, Dave Grainger, Ron Ham, Jeff Kalb, Matt Kochan, Dom LaCava, Cathy Learoyd, Jessie Lipcon, Dick Loveland, Ward MacKenzie, Ken Olsen, Jim Osterhoff, Laura Persily, Bruce Ryan, Grant Saviers, Mary Ann Serra, Jack Smith, Bill Steul, Ken Swanton, Steve Teicher, Dick Wright.

MINUTES:

1. Announcement Date

   The announcement date was not discussed as there was no contention that the announcement date will be May 14.

2. Announcement Events

   Matt Kochan described the "internal" announcement events that are planned, whereby on May 14 all salesrep's and approximately 25,000 customers will attend announcements at 129 field locations (see exhibit 1).

   Matt Kochan and Dick Berube then proposed that a single large press event not be scheduled for May 14. Instead, a series of private one-on-one announcements will be made with selected magazines, newspapers and consultants (see exhibit 2). Prior to the one-on-ones a white paper will be developed containing the announcement day message. The white paper will be developed by Base Product Marketing and Corporate Communications with input from the Marketing V.P.'s. The message should be bold and exciting rather than something more bland and homogenous that all Digital people can be "comfortable with". Following the private one-on-one announcements, a press release will be made on May 14. Matt and Dick's proposal was approved.

3. Pricing/Discounts/Margins

Dave Grainger reviewed the current status of pricing. All prices are approved by PAC (Pricing & Announcement Committee), supported by all areas and SMU's, and are scheduled for MSSC on April 8 for final approval (see exhibit 3). The five standard MicroVAX systems are stable at the 95%+ level.

Dave then reviewed the FY86 margin analysis which compares expected FY86 MicroVAX/VAXstation margins to current 750 and 780 margins (see exhibit 4). The margins appeared to be attractive. Additional analysis was requested to show how the margin comparison breaks down by channel (OEM vs. End User) and to show the fixed and variable costs and breakevens for MicroVAX/VAXstation in FY86.

Dave then reviewed the current status of the discount discussions (see exhibit 5). It was decided that the discount question is a major Corporate decision requiring the Board of Directors' approval. Ward MacKenzie got the action item to prepare the discount proposal for presentation to the Executive Committee on April 9 at 1:00. After Executive Committee review and approval, the discount proposal will go to the April 22 Board of Directors for final review and approval. It was noted that an April 22 final decision would be likely to make it difficult to identify the discount schedule for each MicroVAX line item in the May 14 announcement material. It was suggested that to fix this problem a letter could be used temporarily, as is done by the post office when it changes stamp prices.

4. VAXstation Emphasis

Cathy Learoyd and Steve Teicher proposed that the VAXstation announcement be strengthened to include: two configurations (adding an RD53 configuration), mentioning a compatible color VAXstation is coming (but not pricing it or taking orders for it), and mentioning that "of course, as with any serious workstation competitor", the family will be extended with additional compatible workstations above and below the announced set (see exhibit 6). Their proposal was approved.

Cathy also reviewed the additional steps that have been initiated in the last week to strengthen the VAXstation launch and marketing and sales efforts (see exhibit 7).

5. RD53 & MAYA

Dave Grainger asked if problems with the RD53 and MAYA would cause any of the expected system configurations that will be announced in May to be delayed. Jack Smith and Grant Saviers indicated that this was not a problem.

6. Status Reports not Presented

Two additional status reports were prepared for the meeting but were not presented for two reasons: the meeting ran out of time and there were no significant problems to be discussed on them. These were:

a. John Forde's status report on the current Q4 monthly build and ship plan (see exhibit 8).

b. Ken Swanton's status report on the marketing roadmaps and salesguide. The roadmaps for announcement day distribution to salesrep's are now almost complete and look good for this point in time. The SMU's are now running benchmarks and preparing the announcement day salesguide for sales managers (which will contain a catalog of all MicroVAX/VAXstation marketing programs, a list of all announcable applications software availability dates, and suggested local target accounts).

NOTE: Due to confidentiality, Exhibits 4 & 8 are only attached to copies of this memo that go to Executive Committee members, Dave Grainger, Jeff Kalb, and the Mktg V.P.'s.

/mmp
Attachments

DISTRIBUTION:

Dick Angel
Ed Barron
Steve Behrens
Dick Berube
George Chamberlain
Dick Clinton
Jim Cudmore
Cecil Dye
George Evans
John Forde
Bob Fowkes
Dave Grainger
Ron Ham
Win Hindle
Bob Hughes
Jeff Kalb
Matt Kochan
Ed Kramer
Dom LaCava
Cathy Learoyd
Jessie Lipcon
Dick Loveland
Ward MacKenzie
Ken Olsen
Jim Osterhoff
Laura Persily
Bruce Ryan
Grant Saviers
Ken Senior
Mary Ann Serra
Jack Shields
John Sims
Jack Smith
Pete Smith
Bill Steul
Ken Swanton
Steve Teicher
Dick Wright

INTERNAL ANNOUNCEMENT PLAN

I. BEFORE MAY 14TH:

A. TRAIN SALES REPS

- U.S.: SUCCESS TRAIN, 9 CITIES, 4/15 TO 5/9
- EUROPE/GIA: EACH COUNTRY TRAINS

B. TRAIN PRESENTORS FOR ANNOUNCEMENT DAY

- TRAINING HELD IN 7 CITIES:

  (BOSTON, ATLANTA, LA, PARIS, SYDNEY, TOKYO, HONG KONG)

II. MAY 14TH AT 129 FIELD OFFICES:

- SALES/SERVICE
- EXECUTIVE LUNCHEON
- OTHER CUSTOMERS
- DEMOs

MATT KOCHAN
3/28/85

Exhibit 2

EXTERNAL ANNOUNCEMENT PLAN

I. DEVELOP MESSAGE

A. CONTENT

- DIGITAL'S INTEGRATED COMPUTING STRATEGY
- DIGITAL'S COMPETITIVE ADVANTAGE
- HOW MVAXII SIGNIFICANTLY ADVANCES STRATEGY

B. PROCESS

- CORPORATE COMMUNICATIONS/BASE PRODUCT MARKETING
- PRODUCE "WHITE PAPER"

II. COMMUNICATE MESSAGE

A. HOW: METHOD OF DELIVERY

- ONE ON ONE'S

B. WHO: AUDIENCE

- INDUSTRY CONSULTANTS
- BUSINESS PRESS
- TECHNICAL PRESS
- FINANCIAL ANALYSTS

C. WHEN: MAY 1 --> MAY 22

MATT KOCHAN
3/28/85

PRICING

- THE PRICING OF THE 5 STANDARD SYSTEMS IS APPROVED BY PAC AND SUPPORTED BY ALL SMU's AND AREAS.

- THE CONFIGURATIONS OF THE 5 STANDARD SYSTEMS IS 95% STABLE.

- FINAL APPROVAL EXPECTED AT MSSC ON 8 APRIL.

	86 uVAX (SYSTEMS, W/S, BOARDS)	(1ST HALF 85) 780	750
#700m NOR	100%	100%	100%
EXP: MFG/WTY	43	43	46
GROSS MARGIN	57%	57%	54%
FIELD COST	19	27	27
FIELD MARGIN	38%	30%	27%

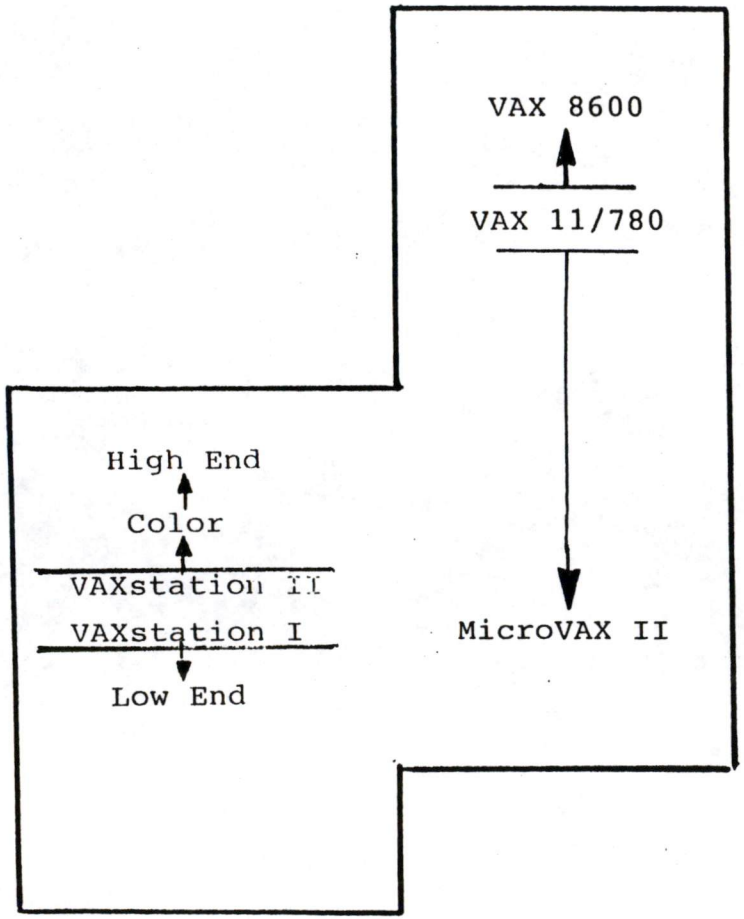
DISCOUNT

THE ISSUE IS CAPTURED IN THREE KEY AREAS:

1) MARGIN: THE FIELD CLEARLY HAS MARGIN PROBLEMS AND VIEWS MICROVAX AS A VEHICLE TO CONTRIBUTE TO IMPROVING MARGIN.
2) PRODUCT OPPORTUNITY: IT SEEMS CLEAR THAT WE DO BEST BY COUPLING CHANGES IN PRICE AND/OR DISCOUNT PHILOSOPHY TO THE INTRODUCTION OF A MAJOR NEW PRODUCT, SUCH AS MICROVAX.
3) MICROVAX PERFORMANCE RANGE: MICROVAX FROM BOTH A PERFORMANCE RANGE AND PRICE RANGE SPANS PRODUCTS WHICH ARE OFFERED TODAY ON BOTH TYPE 1 AND TYPE 2 CURVES.

- SEVERAL MEETINGS WITH JACK MACKEEN, PETE SMITH AND OTHERS HAVE IDENTIFIED SEVERAL OPTIONS. A SMALL WORKING GROUP IS LOOKING AT THESE OPTIONS.
- GOAL IS TO HAVE A RECOMMENDATION FOR MSSC ON 8 APRIL.

VAXstation II Announcement :



TWO-TIERED FAMILY MESSAGE:

- FAMILY OF WORKSTATIONS
- FAMILY WITHIN THE VAX FAMILY

PROPOSED SPECIFICS FOR ANNOUNCEMENT:

- ANNOUNCE MONOCHROME VAXSTATION II AVAILABLE NOW - PRICE X (WITH 2 STD CONFIG. I, AND III)
- ANNOUNCE COLOR, ULTRIX, AND DISTRIBUTED SYSTEMS COMMITMENT
- INDICATE UPWARD AND DOWNWARD EXPANSION OF A VAXSTATION FAMILY IS PLANNED. (JUST AS WAS DONE FOR ORIGINAL VAX II/780 ANNOUNCEMENT)

CURRENT SPECIFICS FOR ANNOUNCEMENT

- ANNOUNCE MONOCHROME VAXSTATION II AVAILABLE NOW - PRICE X (1 STANDARD CONFIGURATION)
- NO FAMILY, NO FUTURE PLAN MESSAGE

Exhibit 6

VAXstation II Launch

- Turn around our MicroVAX II/VAXstation II launch emphasis:
  95%/5% 60%/40%
- Target 50 accounts on an ongoing basis
  (≈1/2 our FY86 opportunity)

Corporate

- ✓ SMU's/BPM's (underway): Application roadmaps, and Messages, Applications, Market programs
- ✓ Target W/S OEM's (Underway by Pete Smith and Jack MacKeen)
- Strengthen May 14 announcement with
  - program (incl. color) message,
  - VAXstation II units announcement with in sales offices (0-->120)
- Create focused competitive data, tactics and strategies
- Applications
- VAXstation SWAT team of applications, product, networking experts to assist Districts upon request with follow-through
- Understand Sales Issues on VAXstation I

District

- ✓ Identify account targets resources needed to close (agreed by US area)
- ✓ Provide monthly feedback on wins and losses (agreed by US area)
- ✓ RM & DM district launch briefing (already agreed by US area)
- Keep ongoing VAXstation demo unit and support in each office. (Already agreed by US areas)
- Commitment to specialized sales training and s/w support training to form district SWAT Teams
- Customer seminars

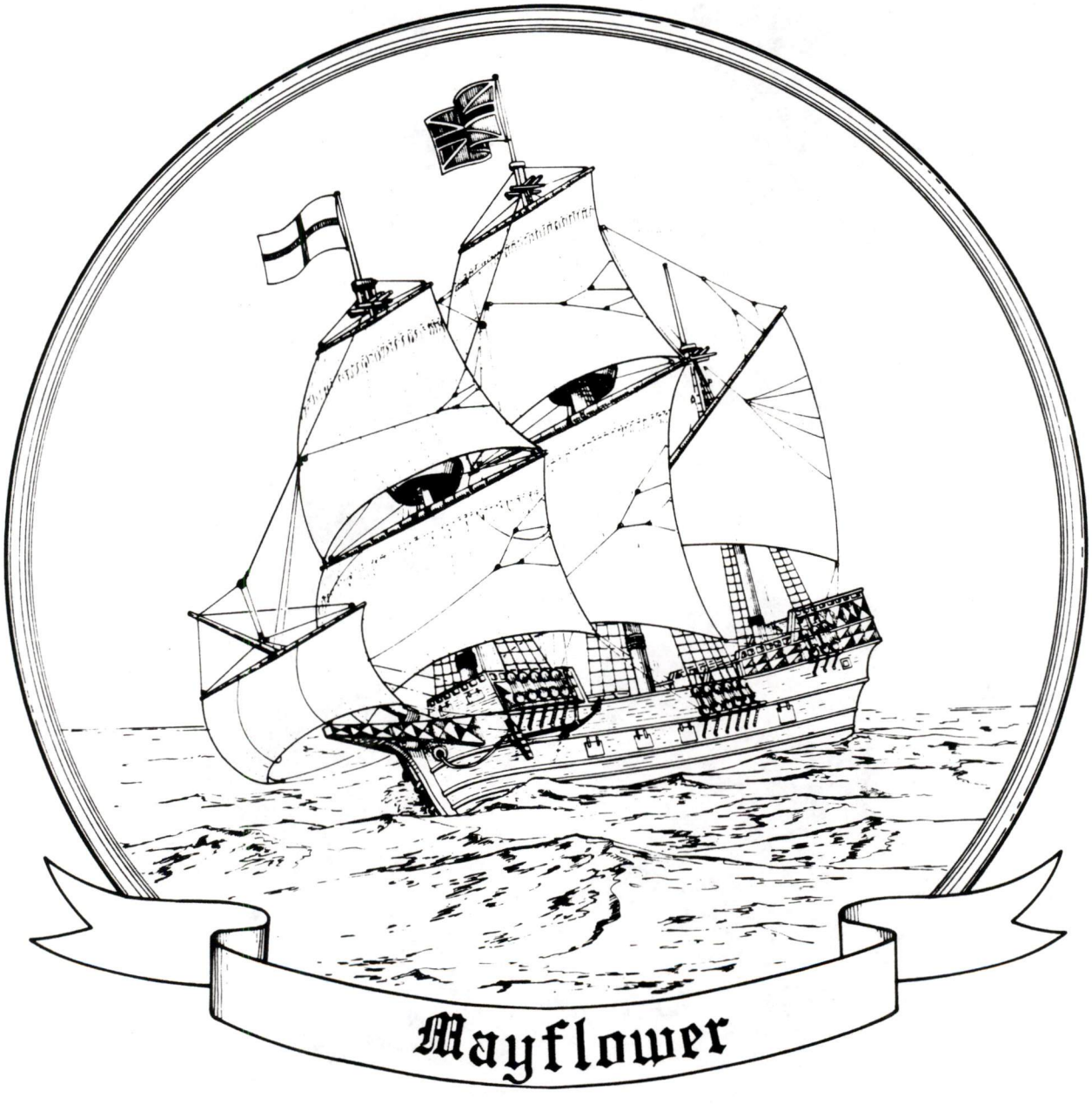
SUMMARY OF BUILD & SHIP PLAN (UNITS)

		Q4 FY85		
	MARCH	APRIL	MAY	JUNE
COMMITTED REVENUE PLAN				
MICROVAX II SYSTEMS:				
I				500
II				0
III				0
IV				0
V				0
OTHER				0
SUBTOTAL				500
VAXSTATION II'S				0
BOARDS				0
TOTAL				500
TOTAL PROD. BUILD PLAN				
		PLYMOUTH ROCK, SMU,ETC		PRODUCTION
MICROVAX SYSTEMS				
I		25		525
II		0		
III		200*		550**
IV		0		0
V		0		0
OTHER		0		0
		* 2 RD52		**RD53
		TK50		TK50
		BA123		BA123
VAXSTATION II'S		25		150
BOARDS				400
TOTAL		250		1625
SHIP PLAN (SYS & W/S'S)				
FIELD TEST 30	3	8	6	
TO SMU'S	2	30		
TO EUROPE	1	12		
"PLYMOUTH ROCK" (FIELD DEMOS)		162		

NOTE: MFG'G BUILDING AT A RATE OF 50 SYSTEMS/WEEK.

MARCH 28, 1985

MicroVAX II



MICROVAX II PRESENTATION

PURPOSE -- STATUS OF MICROVAX II

TOPICS:

- PRODUCT GOALS
- PRODUCT HIGHLIGHTS
- MARKETS
- COMPETITION
- FINANCIAL INFORMATION
- SUMMARY

DOM LACAVA
MARCH 25, 1985

MICROVAX II PRODUCT GOALS

- BE THE PRICE/PERFORMANCE LEADER IN THE EMERGING SUPER MICRO MARKET ($20K TO $70K PRICE RANGE)

- ACHIEVE STRONG MARKET POSITION BEFORE OTHER COMPETITIVE ENTRIES

- EXPAND THE VAX FAMILY ARCHITECTURE

- BE RECOGNIZED AS THE BROADEST COMPATIBLE 32-BIT SYSTEM VENDOR IN THE INDUSTRY
  - COMMON ARCHITECTURE
  - INTEGRATED HARDWARE, SOFTWARE, COMMUNICATIONS
  - CHIP TO CLUSTER

DOM LACAVA
MARCH 25, 1985

PRODUCT HIGHLIGHTS

- FIRST SYSTEMS IMPLEMENTATION OF DIGITAL'S MICROVAX CHIP

- RANGE OF OFFERINGS:

    - MULTIUSER GENERAL PURPOSE SYSTEMS: $20K TO $70K
    - WORKSTATIONS: $26K TO $50K
    - LOCAL AREA NETWORKS
    - BOARDS

- COMPREHENSIVE AND FLEXIBLE SYSTEMS OFFERING

    - SEVERAL PACKAGING ALTERNATIVES
    - WIDE RANGE OF STORAGE

- ANNOUNCEMENT AND SHIP MID-MAY

Dom LaCava
March 25, 1985

MARKETS

CATEGORY	TYPICAL APPLICATIONS
ENGINEERING	CAD/CAM SOFTWARE DEVELOPMENT
MANUFACTURING AUTOMATION	PROCESS CONTROL FACTORY FLOOR SYSTEMS
OFFICE AUTOMATION	OFFICE/WORD PROCESSING GENERAL BUSINESS
LABORATORY	DATA ACQUISITION SCIENTIFIC TEAM COMPUTING
EDUCATION	DEPARTMENT TIME SHARING ADMINISTRATIVE COMPUTING
OTHER	PETROLEUM EXPLORATION MEDICAL IMAGING TELECOMMUNICATIONS GOVERNMENT

DOM LACAVA
MARCH 25, 1985

MICROVAX II VS. IBM.....AND OTHERS

- 100% APPLICATION COMPATIBILITY FROM $20K TO $1,000K SYSTEMS

- FAMILYNESS, NOT POINT PRODUCTS

  IBM SYSTEM 36, IBM 9000, SERIES 1

- MORE COMPUTING CAPABILITY AND FUNCTIONALITY PER $

- FLEXIBILITY IN RANGE AND SIZE OF SOLUTION

- LEADERSHIP POSITION IN THE ABILITY TO INTERCONNECT WITH OTHER VENDORS' SYSTEMS

NO OTHER COMPUTER VENDOR CAN MAKE ANY OF THESE STATEMENTS!

DOM LACAVA
MARCH 25, 1985

MARKETING MESSAGES

- 6 TO 12 MONTHS AHEAD OF COMPETITION

- A PERSONAL VAX ON A DESK

- OEMS CAN EXPAND THEIR MARKET BY PROVIDING LARGE SYSTEM APPLICATIONS TO CUSTOMERS WHO COULDN'T AFFORD THEM

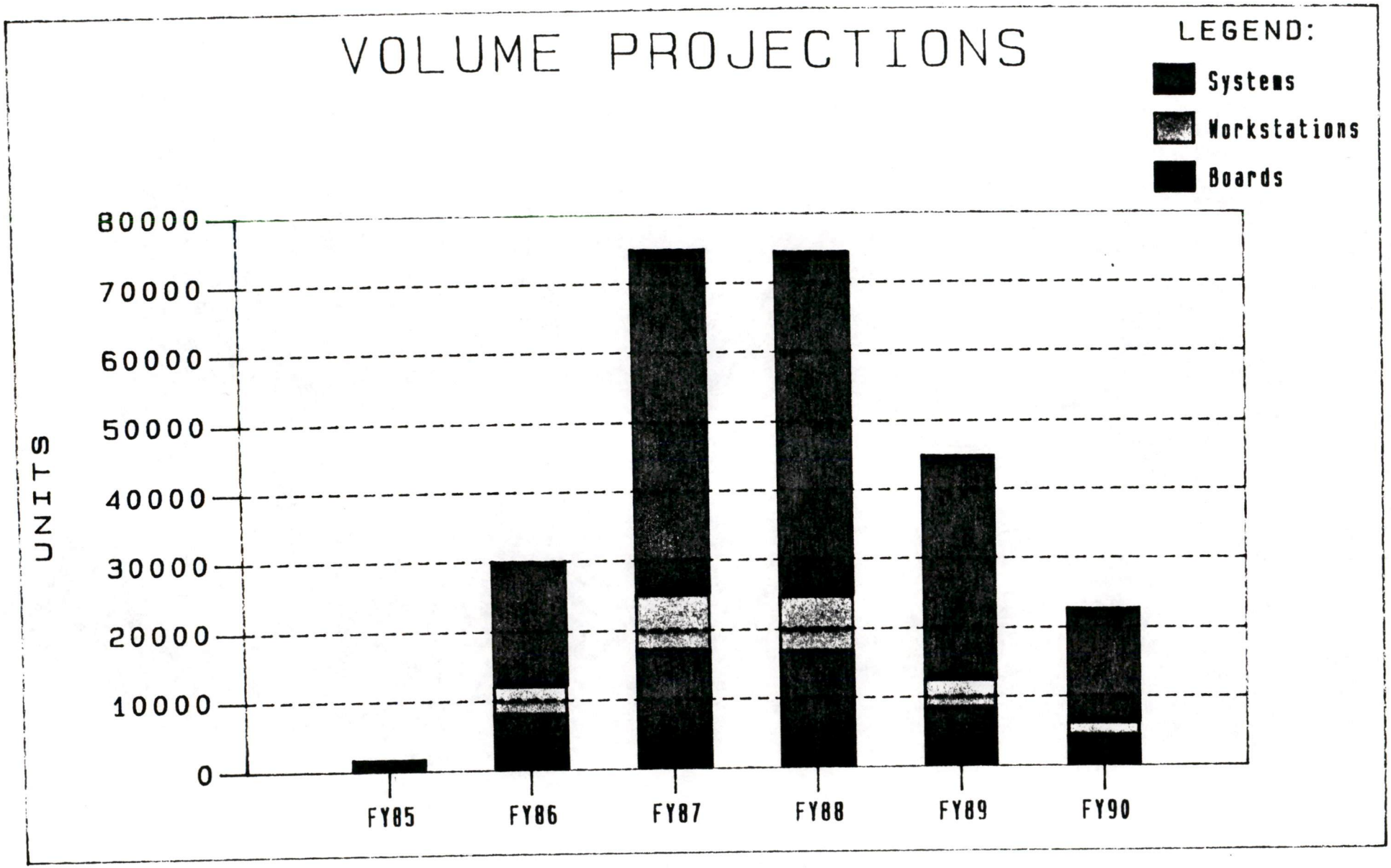
- NOW, EVEN SMALL BUSINESS CAN AFFORD WHAT ONLY LARGER, WEALTHIER BUSINESSES COULD OWN

DOM LACAVA
MARCH 25, 1985

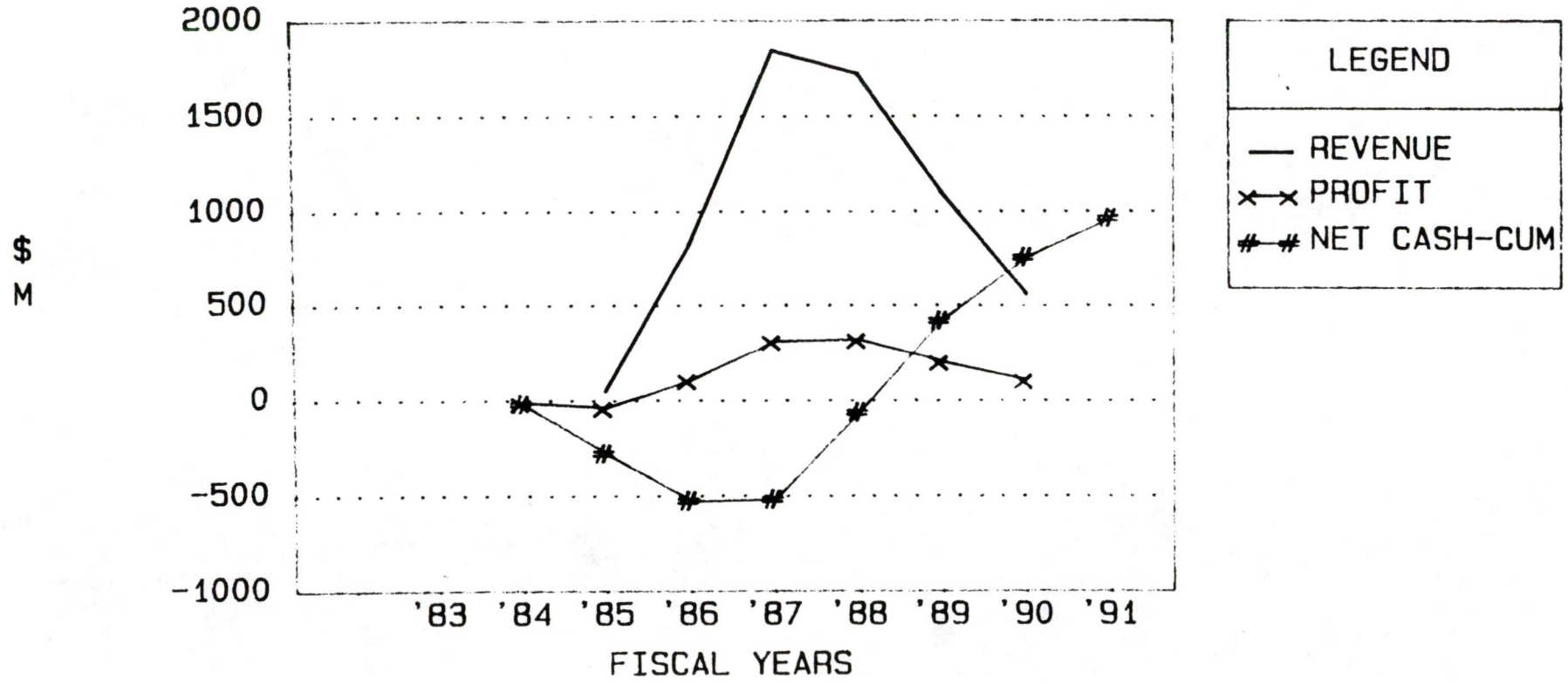
FINANCIAL PERFORMANCE

	FY86	FY84-FY90
UNITS	30,000	248,700
REVENUE	$816M	$6,081M
PROFIT	$98M	$959M
	12%	16%
RETURN ON ASSETS	19%	17% (AVG)
INTERNAL RATE OF RETURN		33%
ENGINEERING COST		$222M

DOM LACAVA
MARCH 25, 1985


VOLUME PROJECTIONS
LEGEND:
Systems
Workstations
Boards
UNITS
80000
70000
60000
50000
40000
30000
20000
10000
0
FY85
FY86
FY87
FY88
FY89
FY90

MICROVAX II FINANCIAL PERFORMANCE



OUR CUSTOMERS SAY.....

"BEATS ALL COMPETITIVE WORKSTATION
ENGINES EXCEPT APOLLO DN660"

BERKLEY CAD/CAM

"MAKES POSSIBLE NEW MARKETS, LITTLE HOSPITALS"

SHARED MEDICAL SYSTEMS

"UNQUALIFIED SUCCESS. EXCEED EXPECTATIONS"

APPLICON

"BEST THING SINCE SLIDED BREAD"

CARNEGIE MELLON

Dom LaCava
March 25, 1985

SUMMARY

- FIRST 32 BIT SUPER MICRO PRICE/PERFORMANCE LEADER

- OPENS NEW MARKET OPPORTUNITIES
  VAX WHERE IT'S NEVER BEEN BEFORE

- SIGNIFICANT PROFIT GENERATOR

- ONE ARCHITECTURE -- CHIPS TO CLUSTERS,
  DESKTOP TO DATA CENTER...

NO OTHER COMPUTER VENDOR HAS THIS CAPABILITY

Dom LaCava
March 25, 1985

Micro-VAX

d i g i t a l

Interoffice Memo

TO: see "TO" DISTRIBUTION

cc: see "CC" DISTRIBUTION

DATE: FRI 22 MAR 1985 2:55 PM EST
FROM: PETER MASUCCI
DEPT: MICRO'S MARKETING
EXT: 225-6436
LOC/MAIL STOP: HL02-1/N10

MESSAGE ID: 5267641484

SUBJECT: MARKETING OF MICROVAX CHIPS

Dick Heaton suggested I write to you and describe some recent MVAX chip sales activities. I trust this information will be useful to you. If I can be of any assistance, please call.

--- --- --- --- --- --- --- --- --- --- --- --- ---

APPLICON two weeks ago placed an order for $6 million dollars worth of 785 systems. The customer states unequivocally that our efforts to help them design MVAX chips into their products led directly to this system order.

APPLICON'S strategy is to offer a total design environment to its customers. Thus the workstation, and the servers, must exist as a total system. Their alternative was to design-in the 32032 from NATIONAL, and begin the migration of their software from VMS to UNIX. We intervened, and offered the MVAX chip. Provided technical support. And SOLD them on the notion that DIGITAL, VAX, and VMS, would provide them with a more comprehensive environment upon which to base their entire company's business. After months of evaluation, they chose to stay with us. The 785 order was their signal that we'd won.

A similar situation now exists with TEKTRONIX. A company with whom we have done business with for many years. Within TEK a faction had gained strength and had designed-in the 32016 (16 bit) chip into some of their graphics products. But when they began thinking about migrating to the 32032 (32 bit version), the question of total computing environment was raised. Did they really want to move away from DIGITAL and VAX? Could the 32032, and UNIX, and GOULD mini's running UNIX, really support their long term corporate mission?

Once again, we intervened. Offered the MVAX chip as a viable engine for their low-end needs, AND large VAX systems for the rest of their plans. The answer was evident in a recent visit I made to TEK;...YES! DIGITAL's VAX strategy, chips through systems made more sense. The results are not completely in, but according to the Portand sales group manager, we may very well have helped secure a short range order for $10 million in 785 and 8600 systems.

--- --- --- --- --- --- --- --- --- --- --- --- ---

A key hypothesis concerning the sale of the MVAX chips, is that they will enhance and strengthen our VAX systems sales efforts. Last summer I developed a model which attempted to relate low-end sales to high-end systems sales. The model postulated that an accounts decision to use one architecture over another in a low-end product, would significantly effect its choice of high-end systems. This phenomenon should come as no surprise to us at DIGITAL since we've been promoting systemness and networking interconnects for many years now.

Low-end products such as CAD workstations, machine controllers, certain communications equipment, medical instruments, etc., are becoming more and more sophisticated. As a result, many manufacturers of these products are beginning to increase the computing element of their products from 8 bit, to 16 bit, and now 32 bit architectures. And the choices for 32 bit architectures are beginning to increase. Over the past year or so, NATIONAL SEMICONDUCTOR (32032), MOTOROLA (68020), AT&T/ WESTERN ELECTRIC (WE32100), INTEL (i80386), and ZILOG (Z80000), have all announced 32 bit microprocessors. All have interesting features, and all have certain performance capabilities that place them in the same general ballpark as our 750 and 780 class machines. As a matter of fact, they compare themselves to 780's, as do all other vendors.

The glue that these vendors are trying to offer to low-end systems and equipment manufacturers, is UNIX. The so called "portable" O/S is really beginning to take hold in many segments. Why?

I believe very strongly that most sophisticated users recognize that UNIX has many limitations, and that the VMS environment (with UNIX (ULTRIX) on occasion), is far superior and offers significant systems advantages over UNIX. So why haven't they come charging to our door?

This is where the decision to sell MVAX chips comes in. The ready availability at the chip level of 32 bit engines, that run UNIX, from MOTOROLA, NATIONAL, etc., offers many companies (especially start-ups) a fast way to jump aboard the 32 bit bandwagon. And as more and more companies utilize these chips and UNIX, more and more third parties produce application software and supporting hardware products. The result is that the ultimate end-user has many choices from which to make a selection. This activity is no different from what happened to many companies, DIGITAL included, with their PC offerings.

Now to the real issue. Just about every account I've ever dealt with has recognized that no product truly stands alone. They need to be interconnected. Information needs to be shared. People need to communicate. This is our message, AND one of our strongest selling points.

But what if the end nodes of the network are based on some other CPU architecture, and the software is UNIX? Do I really need VAX systems at the other end? Why shouldn't I shop around for the lowest priced minicomputer that runs UNIX and put them into

my network as file servers, and compute servers, etc? After all, they run UNIX and its portable, right?

These are tough questions to answer. Very few companies could even contemplate answering them. But we've done one better; we HAVE a solution. The only company that can offer architectural compatibility from a single chip to a cluster of 8600s...DIGITAL.

By selling chips to low-end, complementary applications, WE WILL influence systems sales. WE ALREADY HAVE.

In this age of systems and networks, I no longer have any doubts that a decision to use a particular microprocessor in a product, or machine, or instrument, or robot, WILL influence what it connects to. I want that connection to be DIGITAL.

Our MVAX chip marketing strategy continues to emphasize controlled selling into selected, complementary applications areas. We are excited about the prospects of locking-in the VAX architecture at the low-end, and thereby helping to sell many more VAX systems. Our immediate plans include expanding the target list to provide better market coverage.

Your continued support of our MVAX chip marketing strategy will be greatly appreciated. We will continue to keep you informed of our progress in this critical business.

Thank you!!

Regards,
Peter Masucci

22-MAR-85 15:06:20 S 04165 MLCG
MLCG MESSAGE ID: 5267412658

"TO" DISTRIBUTION:

*WIN HINDLE KEN OLSEN JACK SHIELDS
JACK SMITH

"CC" DISTRIBUTION:

DICK HEATON JEFF KALB WARD MACKENZIE
JACK MACKEEN

Micro VAX 2

MAYFLOWER PRESENTATION

To

MARKETING AND SALES STRATEGY COMMITTEE

FEBRUARY 11, 1985

DAVE GRAINGER
JOHN FORDE
JESSE LIPCON
MATT KOCHAN
CECIL DYE

MICRO VAX II MSSC PRESENTATION

- INTRODUCTION -- 5 MINUTES -- DAVE GRAINGER
- PRODUCT POSITIONING/COMPETITION -- 20 MINUTES -- JOHN FORDE
- PRICING STRATEGY -- 20 MINUTES -- JESSE LIPCON
- ANNOUNCEMENT STRATEGY -- 20 MINUTES -- MATT KOCHAN
- SALES PLAN -- 20 MINUTES -- CECIL DYE
- WRAP-UP -- 5 MINUTES -- DAVE GRAINGER

AGENDA

- o Mayflower Highlights
- o Strategic Program Goals
- o Deliverables, Forecast
- o Internal Positioning
- o External Positioning

MAYFLOWER HIGHLIGHTS

- First Implementation of the MicroVAX Chip
- Single Quad CPU Module with 256KB or 1MB on Board Memory
- Performance at .8-.9 of 11/780 - First to Market
- Floating Point Processor Chip - Industry Leader in Performance
- 9MB of High Speed Tightly Coupled Local Memory via 256K Dynamic RAM Chips - Complements System Performance
- Q22 Bus Implementation - Standard Q Bus Options/Peripherals
- 5 1/4" Storage Products or 14" DSA Disks (with QDA) - Large System Configurations

MicroVAX II (MAYFLOWER)

Strategic Program Goals

- Be the Price/Performance Leader in the Emerging Super Micro Market with a Clear Family Focus
- Attain the Maximum Market Share Among $10,000 to $40,000 32-Bit Small Virtual Systems, before our Traditional Competitors (IBM/D.G./HP/Wang, etc.) and the newer Systems Integrators like Apollo, Sun, Altos, etc., can Achieve a Superior Market Position.

  "Today there is no clear Winner"

- Be Recognized as the Broadest 32-Bit System Vendor in the Industry with a Common Architecture and a Family Message in Hardware, Software and Full Network Communications extending from the Microprocessor up to the Larger Super Minis

MAYFLOWER

BASIS FOR:

- o BOARD LEVEL MICROCOMPUTERS:
  - BOARD AND BOX MICROCOMPONENTS MARKET "SINGLE BOARD VAX"
- o WORKSTATIONS:
  - QVSS/QDSS HIGH RESOLUTION GRAPHIC SUBSYSTEMS
  - 3RD PARTY GRAPHIC PROCESSORS I.E. TEKTRONIX, SYNERCOM
- o MULTIUSER GENERAL PURPOSE MACHINES:
  - SMALL BUSINESS COMPUTER
  - TRADITIONAL TECHNICAL AND OEM APPLICATIONS
- o LOCAL AREA SYSTEM SERVERS
  - FILE
  - PRINT
  - DISK
  - COMMUNICATIONS

MAYFLOWER DELIVERABLES

- **CPU Boards**

KA630-AA	1MB CPU & FPU
KA630-AB	1MB CPU
KA630-AC	256KB CPU & FPU
KA630-AD	256KB CPU

- **Memory Boards**

MS630-AA	1MB Dual Expansion
MS630-BA	2MB Quad Expansion
MS630-BB	4MB Quad Expansion

- System Building Block

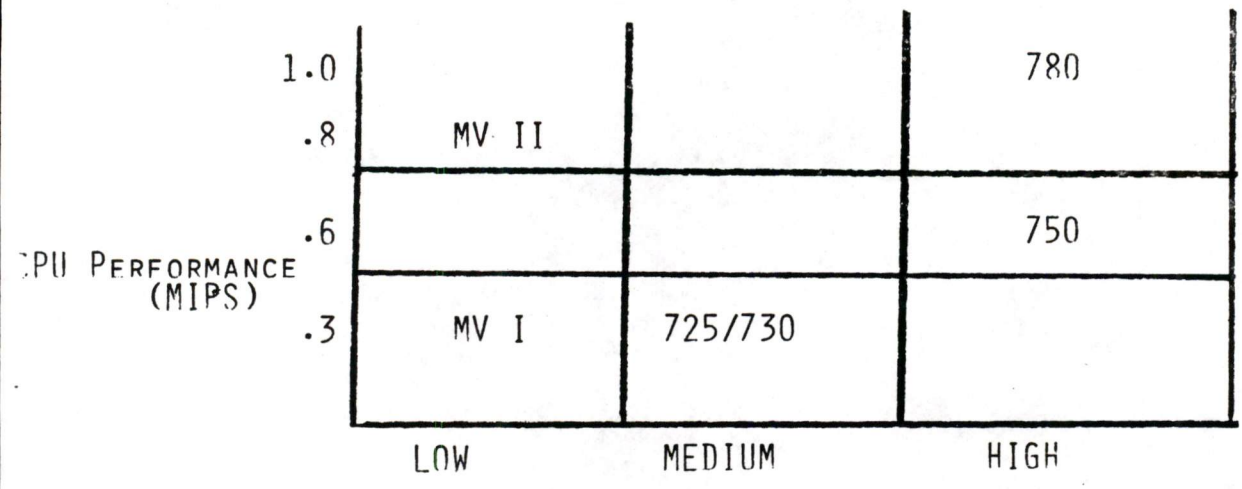
630QY-A2/3	Micro PDP-11 Pedestal CPU, 1MB, FPU
630QZ-A2/3	Micro PDP-11 Rack, CPU, 1MB, FPU
630QB-A2/3	World Box, CPU, 1MB, FPU
* 630QC-A2/3	H9642 Cabinet, CPU, 1MB, FPU

- Upgrade Kit

630UP-AA	1MB CPU & FPU, RQDX2 Controller, Patch Panel Insert, Documentation

* KDA/RA81 System

VAX POSITIONING



FUNCTIONALITY

ARCHITECTURE	MICROVAX/ MICROVMS	VAX/VMS	VAX/VMS
COMPATIBILITY MODE	NO	YES	YES
BUS	Q	U	U, MASS, CI
CLUSTERS	NO	NO	YES
TAPES & PRINTERS	SLOW/LOW CAPACITY	FAST/HIGH CAPACITY	FAST/HIGH CAPACITY
MEMORY	PARITY	ECC	ECC
BATTERY BACKUP	NO	YES	YES
SYNCH LINE	56KBIT	1MBIT	1MBIT
HIGH SPEED I/O	NO	NO	DR 750/780

IBM AT /SYS 36

1-3 User PC/AT	4 User System 36
CPU with FPU	5362 CPU
2MB Memory	256KB Memory
40MB Fixed Disk	90MB Fixed Disk
1.2MB Floppy	Floppy Magazine
1 Line	6 Lines
Xenix	SSP O/S
$12,374	$35,570

MicroVAX II

System I	System II
$20,840	$23,340

Expectations:

- PC/AT+ with Intel 386 Chip (similar performance to MVII Chip) ≅$15K
- Micro 4300 (4301) ≅$40K
- RISC 1-2MIP Single User CAD Station $30-$50K

WANG

VS 15	VS 65	VS 85-S
CPU (32 Bit) 1MB Memory	CPU (32 Bit) 3MB Memory	CPU (32 Bit) 5MB Memory
76MB Fixed 360KB Floppy	147MB Fixed 76MB Removable 360 KB Floppy	2 x 147MB Disk Tape Cartridge
2x4230 16 Lines VS/OS	4x4230 Vs Work Stations 16 Line VS/OS	4x4230 ($3400 ea) 16 Lines VS/OS
$21.0K	$63.3K	$98.0K
$10.5K/User	$15.8K/User	$24.5K/User

MicroVAX II

System II	System III	System V
+ RX50 vs TK50 + 2X VT240 - 1MB Memory	+ 2nd RD53 + 4X VT240	+ 4X VT240
$23.8K	$45.0K	$74.9K
$11.9K/User	$11.3K/User	$18.7K/User

AT & T

3B2/300

WE 32000 CPU
2MB Memory ($2,200/MB)

32MB Fixed Disk
720 KB Floppy

6 Lines

UNIX System V

$17,710

3B5/100

WE 32000
3MB Memory ($4,900/MB)

48MB F & R Disk

8 Lines

UNIX System V

$66,800

MicroVAX II

System I

+DZQ11
-DFQNA

$20,440

System III

$31,190

DATA GENERAL

MV 4000 SC	MV 4000
2MB Memory	3MB
38MB Fixed Disk	147MB Disk
15MB Cartridge Tape	9/1600 BPI Tape
737KB Floppy	8 Lines
AOS/VS or DG/UX	AOS/VS
$38,400	$73,350

MicroVAX II

System II	System III
	+ 2nd RD53
$27.3K	$38,790

General Purpose (System Integrators)

	Digital MicroVAX II	Altos ACS 986-40	Convergent Technology	NCR Tower 1632
Design Center Systems				
CPU	KA630-AA/RA23	M68000	M68010	M68000
Memory	1MB	1MB	1MB	1MB
Disk	70MB	64MB	50MB-200MB	53MB
Back-up	100MB Tape	17MB Tape	5MB Disk	20MB Tape
Comm	DHV11 8 Line	10 Line	8 Line	8 Line
Software	M VMS	Xenix/Unix	Unix(CTIX)	Unix Sys 3
Price	$20,940	$17,800	$20,000	$31,500

WORKSTATION MARKET

BLACK & WHITE

	DIGITAL	APOLLO	SUN MICROSYSTEMS
MODEL	VS II	DN 3XX	2/120
ARCHITECTURE (PERF.)	MICROVAX CHIP (.9 x 780)	68010 (.6 x 780)	68010 (.6 x 780)
MEMORY	2MB	2MB	2MB
DISK	31MB	34MB	34MB
BACKUP	100MB TAPE + RX50	1.2MB FLOPPY	17MB TAPE
MONITOR	19" B/W(960x864)	17" (1024x800)	19" (1152x900)
SOFTWARE	MICROVMS/ ULTRIX-32M	AEGIS	BERKELEY UNIX
PRICE	$25,090	$24,400	$29,100
	$25,840 (FPU)	$28,900 (FPU)	$32,600 (FPU)
DATE*	5/85	1/85	3/84

*LAST PRICE POINT OR FRS

WORKSTATION MARKET

BLACK & WHITE

	DIGITAL	SUN MICROSYSTEMS	TEKTRONIX
MODEL	VS II	2/50	6210
ARCHITECTURE (PERF.)	MICROVAX CHIP (.9x780)	68010 (.6x780)	32032 (.9x780)
MEMORY	2MB	2MB	2MB
DISK	31MB	34MB	32MB
BACKUP	100MB TAPE + RX50	17MB	FLOPPY
MONITOR	19" B/W(960x864)	19"(1152x900)	19"(1024x768)
SOFTWARE	MICROVMS/ ULTRIX-32M	BERKELEY UNIX	UNIX
PRICE	$25,090 $25,840 (FPU)	$22,300 $25,800 (FPU)	$24,300 ---
DATE*	5/85	1/85	2/85

*FRS

Base Case Pricing

I. 2MByte, FP, RD52, RX50, QNA, Micro PDP-11 Box
(Entry Ethernet Node) ~ $20K

II. 2MByte, FP, RD53, TK50, DZQ, Micro PDP-11 Box
(Entry 4-user Standalone System) ~ $22.5K

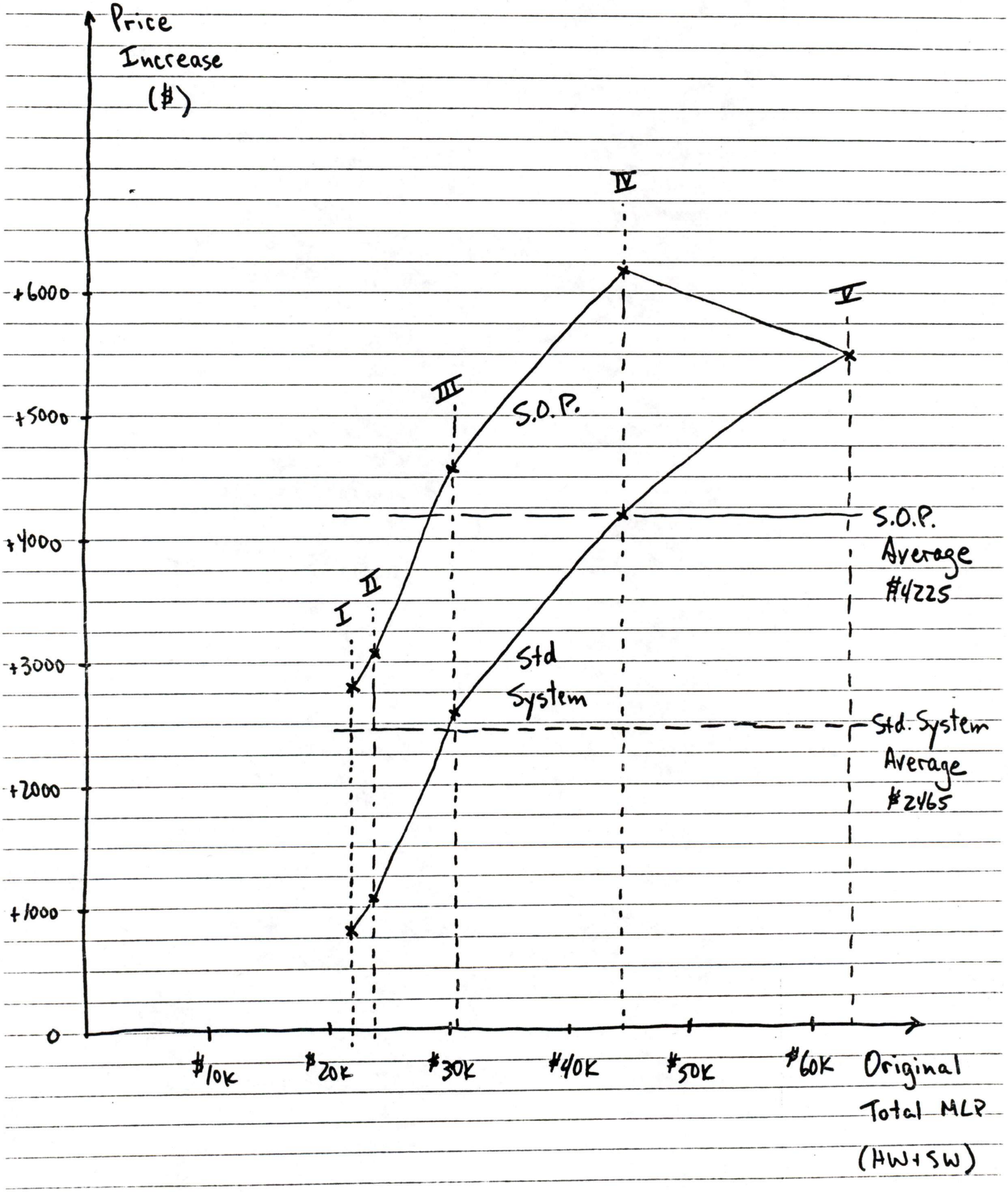
III. 3MByte, FP, RD53, TK50, RX50, DHV, World Box
(Design Center 8-user System) ~ $29K

IV. 5MByte, FP, 3-RD53, TK50, RX50, 2-DHV, World Box
("High-End" 16-user System) ~ $43K

V. 5MByte, FP, RA81, TK50, RX50, 2-DHV, QNA, Cab
("Stretch" 16-user System) ~ $60K

STANDARD SYSTEMS

System	I	II	III	IV	V	Composite
%	14%	28%	34%	12%	12%	
Hardware Pricing						
Original MLP	19,840	22,340	28,690	43,040	61,590	31,330
Increases						
World Box			1,000	1,000		460
CPU/1MB	500	500	500	500	500	500
Exp. Memory	500	500	1,000	2,000	2,000	1,030
	1,000	1,000	2,500	3,500	2,500	1,990
New S.O.P. MLP	20,840	23,340	31,190	46,540	64,090	33,320
-Std. System Discount	-2,000	-2,000	-2,000	-2,000	0	-1,760
Std Syst MLP	18,840	21,340	29,190	44,540	64,090	31,560
Net Std System HW Increase	-1,000	-1,000	+500	+1,500	+2,500	+230
U.S. Software Pricing						
+1500 % Base VMS	90	80	80	60	50	75.4
+4500 % Full VMS	10	20	20	40	50	24.6
Increase	+1,800	+2,100	+2,100	+2,700	+3,000	+2,235
Total Increases						
S.O.P HW + VMS	+2,800	+3,100	+4,600	+6,200	+5,500	+4,225
Std Syst + VMS	+800	+1,100	+2,600	+4,200	+5,500	+2,465
90% Std Sys + 10% S.O.P. (effective Inc.)	+1,000	+1,300	+2,800	+4,400	+5,500	+2,640
VMS Std Sys Prices						
Base	20,840	23,340	31,190	46,540	66,090	
Full	24,840	27,340	35,190	50,540	70,090	


Price Increase ($)
+6000
+5000
+4000
+3000
+2000
+1000
0
I
II
III
IV
V
S.O.P.
Std System
S.O.P. Average $4225
Std. System Average $2465
$10K
$20K
$30K
$40K
$50K
$60K
Original Total MLP (HW+SW)

"Piece" Prices

KA630-AA 1MB CPU with FP		$8,650
MS630 Expansion Memory		$3,500/MByte
RA123 "World Box"		$5,400
MicroVMS Base License		$2,000
	Full License	$6,000
Ultrix-32M	1-2 User	$1,000
	1-8 User	$2,000
	1-16 User	$4,000
ELN Run-time License		$ 400
MicroVMS Layered Software		60% tier
RD53		$3,600 *
TK50		$3,000 *
KDA50		$5,500 *

* Currently Proposed Storage System Product Management Prices

Standard System Pricing Benefits

- o Provides incentive to buy Standard Systems, providing Business Model Improvements which offset the Discount
  - Lower selling costs (easier to sell, configure, order)
  - Lower manufacturing costs
    - o Learning curve economies of scale
    - o Level load on plant, due to "build to stock"
  - Lower inventories
    - o Reduced CMC
    - o Improved ROA
  - Quicker delivery (ship from stock)
  - Lower accounts receivable - no short ships
- o Provides incentive to buy more DEC content
  - Systems vs. Boxes (our disks vs. third party)
  - Memory, Comm. etc.

  (third party hardware must overcome $2,000 hurdle)
- o Allows minimum number of configurations

(Options not needed in some markets are "covered" by discount)

AVERAGE SYSTEM

HW MLP
- 90% STD SYST @ 31,560
- 10% S.O.P. SYST @ 33,320

} $31,736

OS SW MLP

VMS 80%
- 75% BASE @ 2,000
- 25% FULL @ 6,000

} $3,000 AVG

ULTRIX 20%
- 35% 1-2 USER @ 1,000
- 55% 1-8 USER @ 2,000
- 10% 1-16 USER @ 4,000

} $1,850 AVG

} $2,770

HW + SW TOTAL $34,506

LAYERED SW (BASED ON Q1/Q2 FY'85 750 ORDERS)

OEM $5,140/750	x	56% OEM	= 2,880
END-USER 15,550/750	x	44% END-USER	= 6,840
			$9,720

MICROVAX II FORECAST %

80% PENETRATION MICROVAX II VS. 750	$7,770
80% VMS PENETRATION	$6,210
60% PRICE TIER	$3,725 *
LESS 25% DISCOUNT	$2,790 (8.1% MLP)

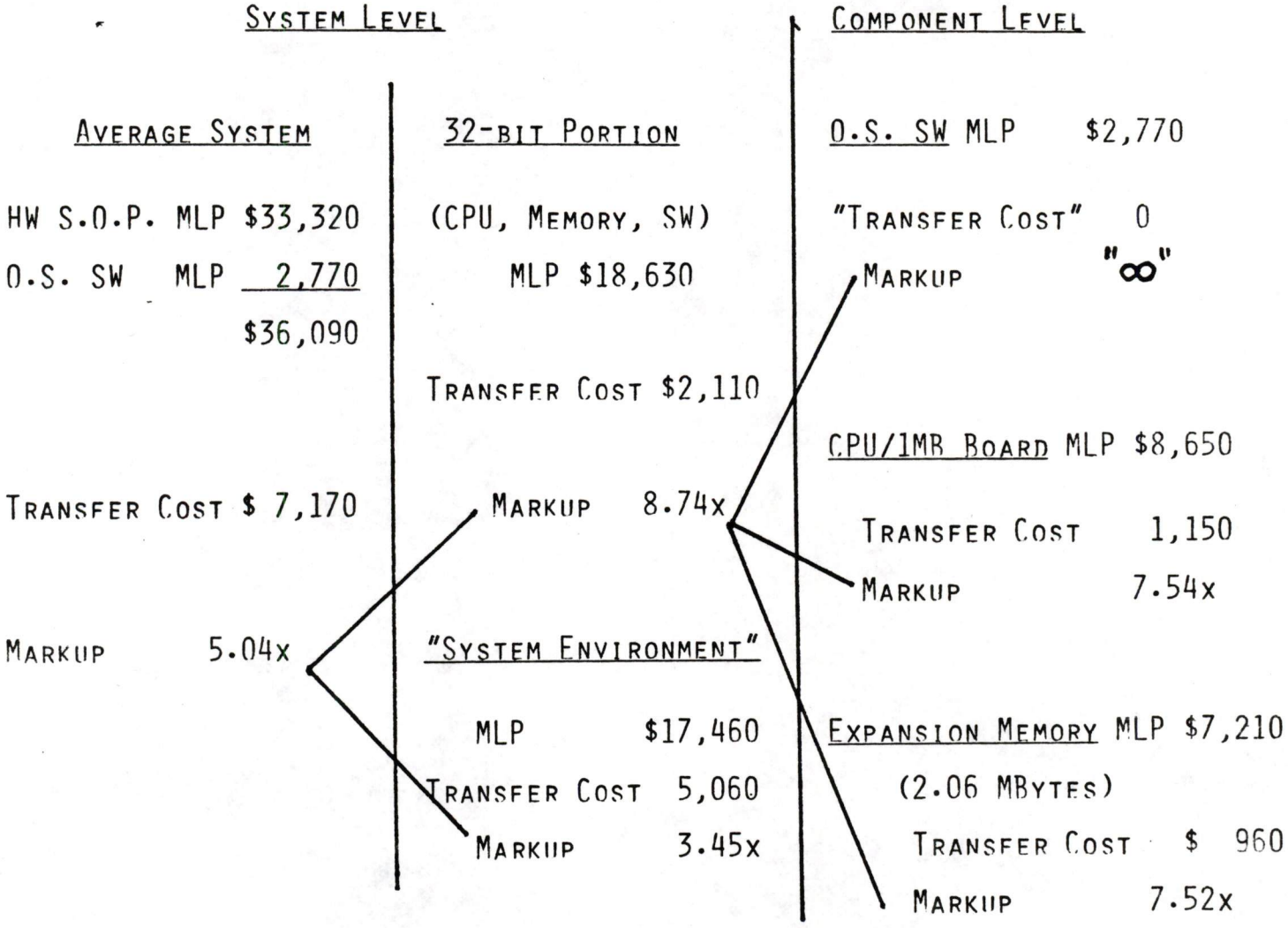
* REPRESENTS $2,480 PRICE INCREASE @ MLP RELATIVE TO 20% TIER

MicroVAX II FY'86 Systems P & L

Average System HW MLP	$31,736			
OS SW MLP	2,770			
	$34,506	100% MLP		
"Service Income"				
Layered Product SW	2,790	+8.1% MLP		
I & W Buyback Income		+1 % MLP		
Uplift		+5 % MLP		
Discounts		-25 % MLP		
Allowances		-2 % MLP		
NOR		87.1% MLP		
Transfer Cost	7,170	20.8% MLP *		
FA & T Business Center		1.5% MLP		
Warranty Expense		5 % MLP		
Other Costs		3 % MLP		
		30.3% MLP =	34.8% NOR	
Product Margin			65.2% NOR	65.2%
CMC		6 % MLP =	6.9% NOR	
Gross Margin			58.3% NOR	65.2%
Field Costs			21 % NOR	21 %
Field Margin			37.3% NOR	44.2%
CMC		6 % MLP =		6.9%
Corporate Margin			37.3% NOR	37.3%

* Average Markup to (HW+SW) MLP = 4.81

Average Markup to (HW+SW) S.O.P. MLP = 5.04


System Level
Component Level
Average System
HW S.O.P. MLP $33,320
O.S. SW MLP 2,770
$36,090
Transfer Cost $ 7,170
Markup 5.04x
32-bit Portion
(CPU, Memory, SW)
MLP $18,630
Transfer Cost $2,110
Markup 8.74x
"System Environment"
MLP $17,460
Transfer Cost 5,060
Markup 3.45x
O.S. SW MLP $2,770
"Transfer Cost" 0
Markup "∞"
CPU/1MB Board MLP $8,650
Transfer Cost 1,150
Markup 7.54x
Expansion Memory MLP $7,210
(2.06 MBytes)
Transfer Cost $ 960
Markup 7.52x

MICRO VAX II

INTRODUCTION AND ANNOUNCEMENT

- PROCESS
- PRODUCTS
- PRESS EVENT
- FIELD EVENT
- SUPPORTING PROGRAMS

PROCESS

- MAYFLOWER MARKETING FORUM (STARTED 4/84)

- INTRODUCTION TASK FORCE (STARTED 2/4/85)
  - MEMBERSHIP
    - + BASE PRODUCT MARKETING
    - + PRODUCT MANAGERS
    - + AREA MANAGEMENT CENTERS
    - + STRATEGIC MARKETING UNITS
    - + SALES PROGRAMS

- MICRO VAX II STRATEGIC COMMITTEE
  - + SALES PROGRAMS
  - + BASE PRODUCT MARKETING (SYSTEMS, WORKSTATIONS, CHIPS/BOARDS)
  - + CORPORATE COMMUNICATION

- GRAINGER TASK FORCE

PRODUCTS

- CHIP
- BOARDS
- MICRO VAX II SYSTEMS
- VAXSTATION II WORKSTATIONS
- UPGRADES (MVAX I TO II)
- OPERATING SYSTEM SOFTWARE
    - + MICRO VMS
    - + ULTRIX 32M
    - + VAX ELN
- RD53 (70 MB, 5 1/4" DISK)
- TK50 (100 MB, 5 1/4" TAPE)
- INTEGRATED APPLICATIONS
    - + A TO Z
    - + ALL-IN-1 ?

PRESS EVENT (BASE PRODUCT MARKETING)

WHEN: PROPOSE MAY 15, 1985

WHERE: NEW YORK CITY

WHO: 200 PEOPLE:

+ TECHNICAL PRESS
+ BUSINESS PRESS
+ FINANCIAL ANALYSTS
+ INDUSTRY CONSULTANTS

HOW:

- FILM
- INTRODUCTION -- KEN OLSEN
- TECHNICAL MESSAGE -- ?
- MARKETING MESSAGE -- ?
- UNVEILING
- QUESTION & ANSWER PANEL
- DEMO

NOTE: BURSON-MARSTELLER AGENCY

FIELD EVENT (CORPORATE SALES PROGRAMS)

WHEN: PROPOSE MAY 15, 1985

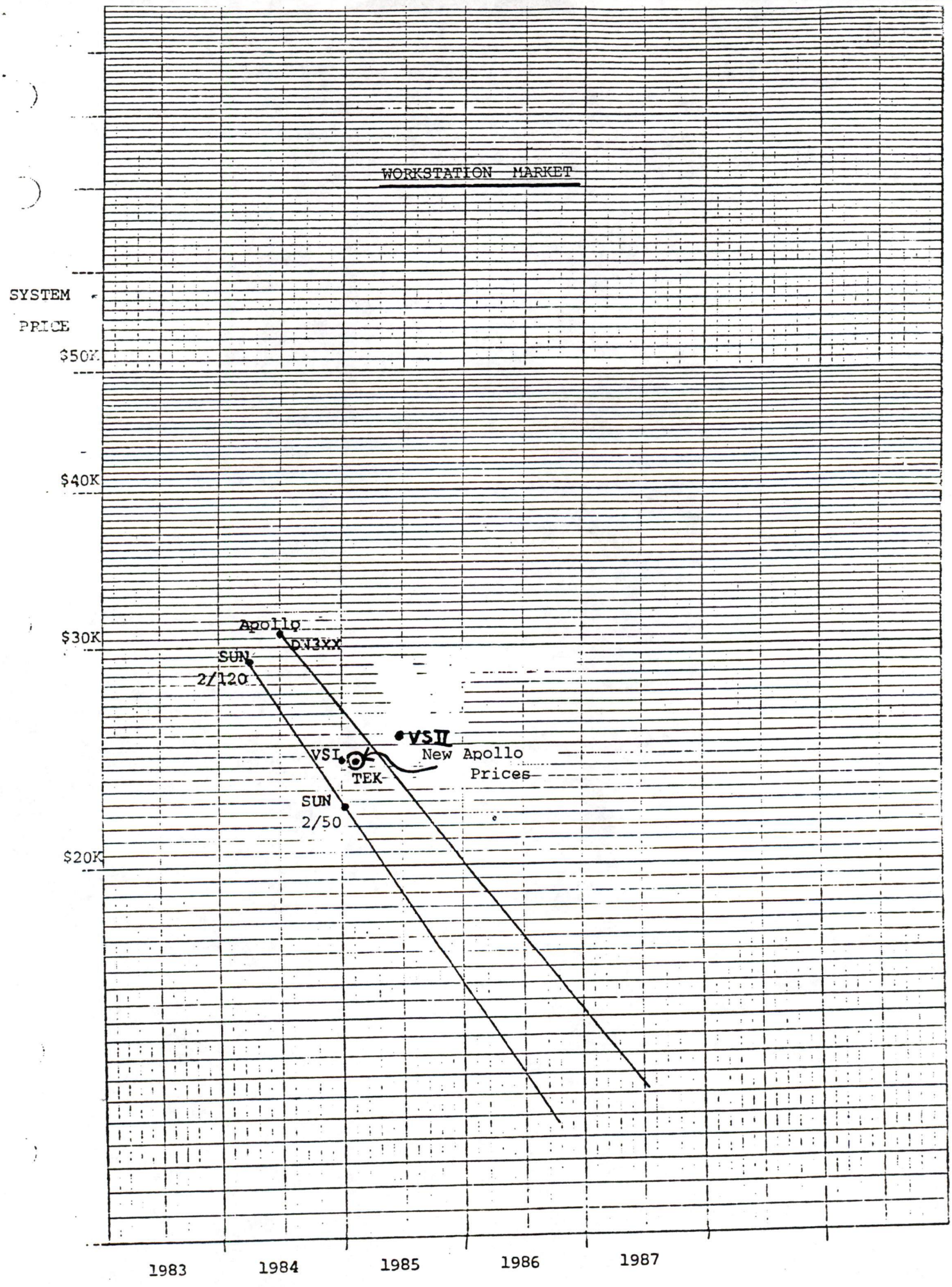
WHERE: 120 FIELD SITES WORLDWIDE

WHO:
- SALES AND SERVICE PERSONNEL
- EXECUTIVE PREVIEW
- CUSTOMERS AND PROSPECTS

HOW:
- TRAIN SALES/SERVICES TRAINERS
  - + 3 IN US
  - + 1 EUROPE
  - + 1 GIA
- ANNOUNCEMENT DAY
  - + FIELD MANAGEMENT WELCOME
  - + FILM
  - + PRODUCT PRESENTATION
  - + MARKETING MESSAGES
  - + UNVEILING
  - + QUESTION & ANSWER SESSION
  - + DEMO

SUPPORT PROGRAMS

- LITERATURE
  - + SALES GUIDE
  - + HANDBOOK
  - + INFORMATION SHEET
- SALES COMMUNICATION
  - + SALES AND PRODUCT JOURNALS
  - + SALES UPDATE
  - + COMPETITIVE UPDATE
  - + SALES KIT
- TRAINING
  - + Q4 SUCCESS TRAIN
  - + HOT LINE PERSONNEL
  - + AMC SESSION
  - + SMU SESSION
- ADVERTISING AND PUBLIC RELATIONS
- LOCAL PRESS KIT


WORKSTATION MARKET
SYSTEM PRICE
$50K
$40K
$30K
$20K
Apollo DN3XX
SUN 2/120
VSII
VSI
TEK
New Apollo Prices
SUN 2/50
1983
1984
1985
1986
1987

SYSTEM BREAKOUT

	TECH	CAFM	ROS	TOFM	COFM	TOTAL
I	945	60	0	1530	0	2535
II	1260	582	455	2290	800	5387
III	1350	1908	931	1560	565	6314
IV	495	0	398	490	790	2173
V	450	328	90	150	1550	2568
SRB	--	--	--	1600	800	2400
TOTAL	4500	2878	1874	7620	4505	21,377
		(2781)		(7065)		20,725

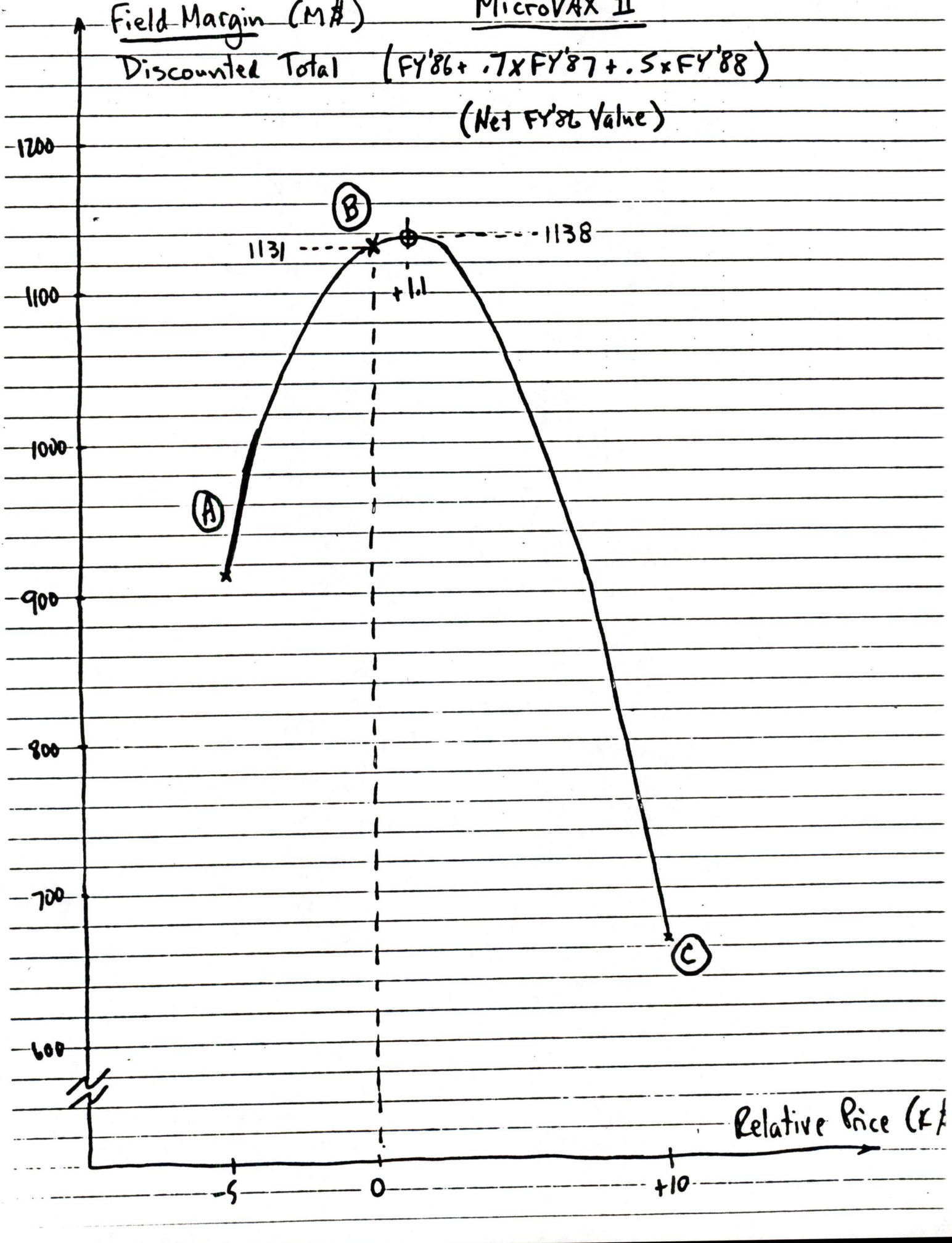
CHANNEL SPLIT

	OEM	END USER	TOTAL
TOEM	7620	TECH - 4500	
COEM	4505	CAEM - 2878	
		BOS - 1874	
	12,125	9252	21,377
	57%	43%	

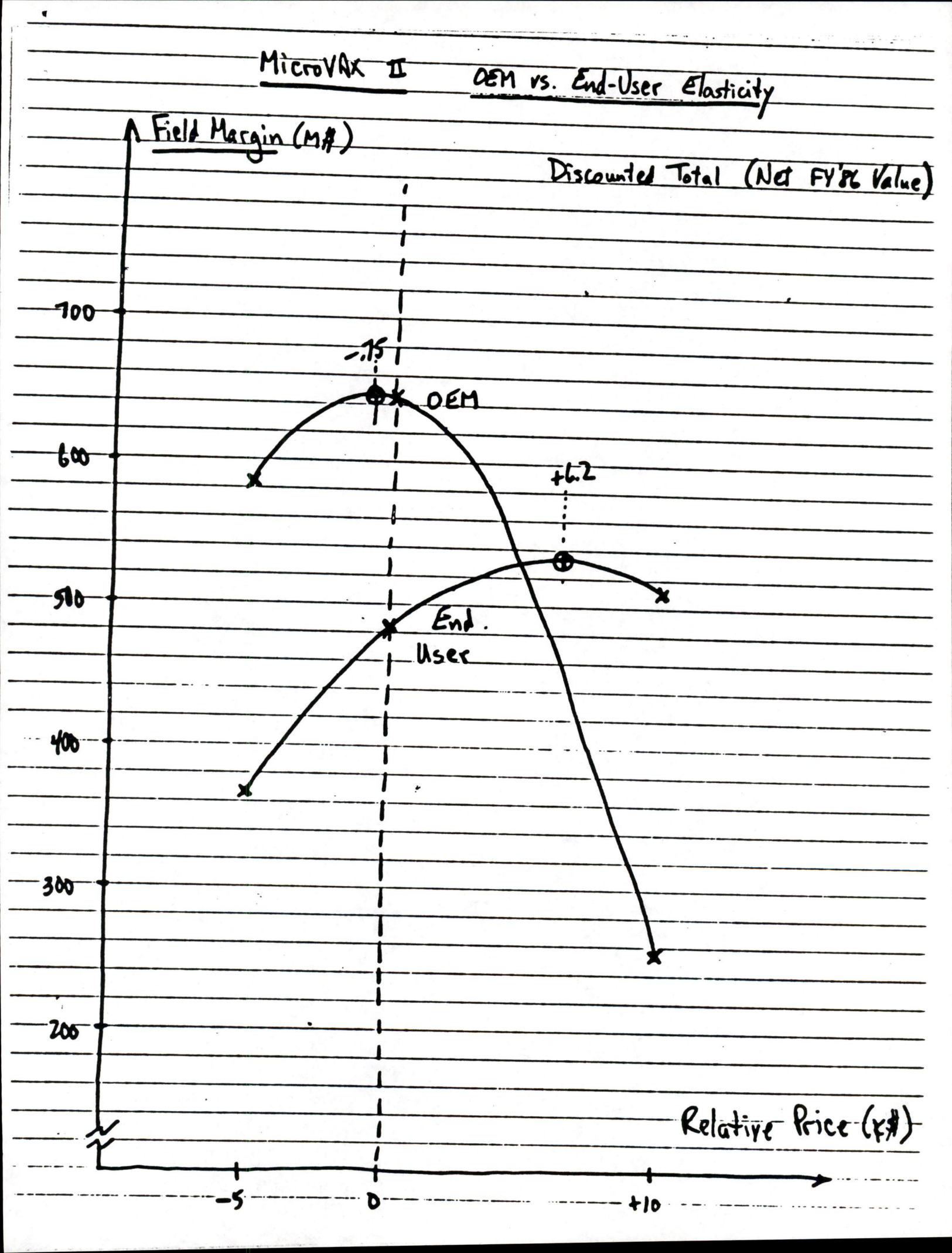
Goals and Objectives

- Squeeze as much revenue out of MicroVAX II systems as possible, consistent with results of elasticity study (up to $2K "across-the-board" increase maintains total margin)
- Aim increases at larger systems instead of "across-the-board" so as to attain <u>more than</u> the above $2K average increase
  - Larger systems can support the higher price
  - Smaller systems have higher elasticity
  - Smaller system prices establish aggressive entry point into "broadest range of compatible computing" strategy
  - Price premiums where the <u>value</u> is (e.g. VMS vs. VAX)
- Aim Increases at End-user vs. OEM (Full vs. Base License, Layered SW)
- Encourage the right <u>buying</u> and <u>selling</u> habits
  - Systems vs. boxes/boards - maximize DEC content
  - Within systems, standard systems vs. ala carte SBB-based
  - Quantity buying/selling

  Address selling cost and business model issues
- Price consistently - avoid non-SOP distortions


Field Margin (M$)
MicroVAX II
Discounted Total (FY'86 + .7xFY'87 + .5xFY'88)
(Net FY'86 Value)
1200
1100
1000
900
800
700
600
B
1131
1138
+1.1
A
C
Relative Price (x
-5
0
+10

MicroVAX II — OEM vs. End-User Elasticity

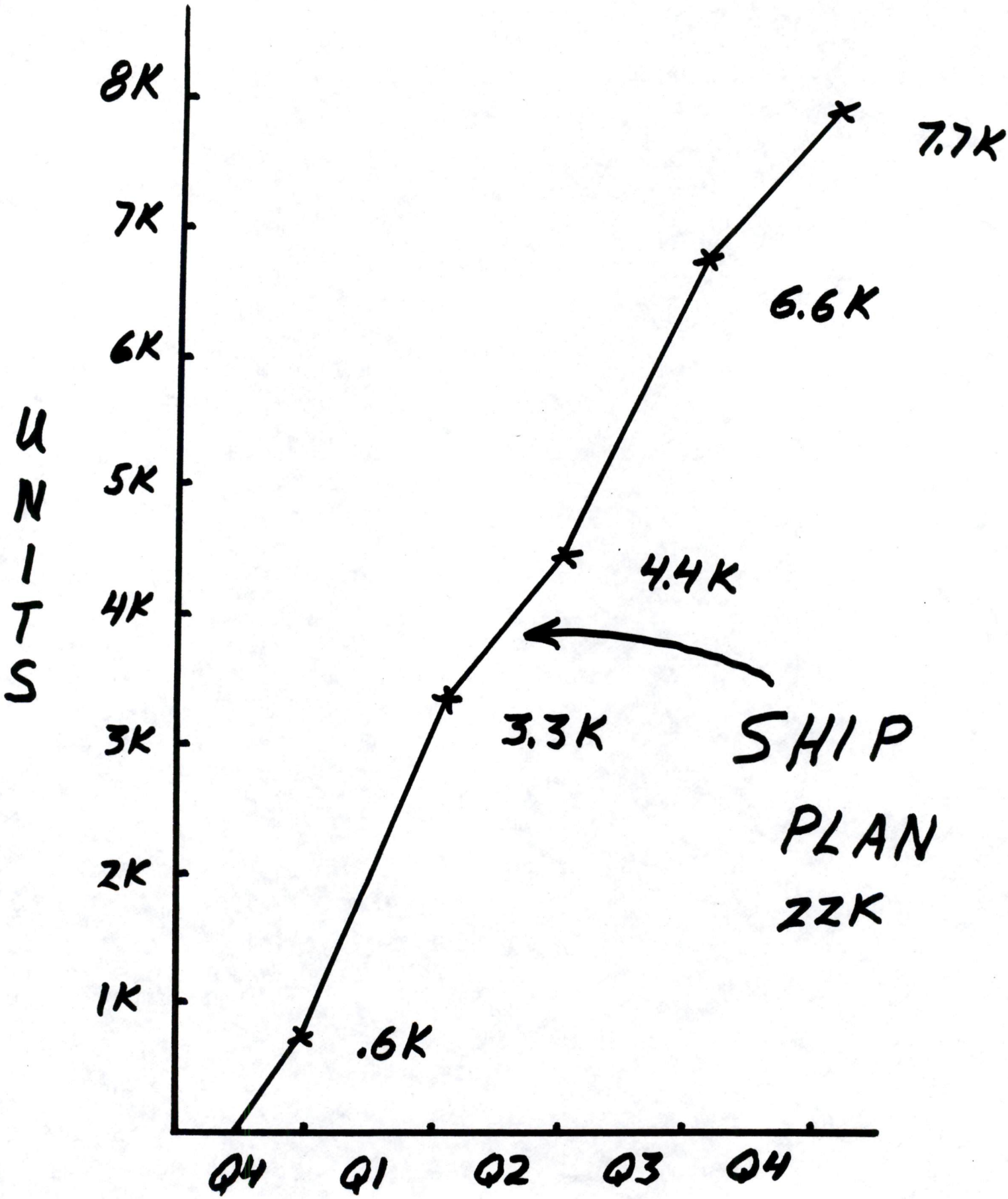


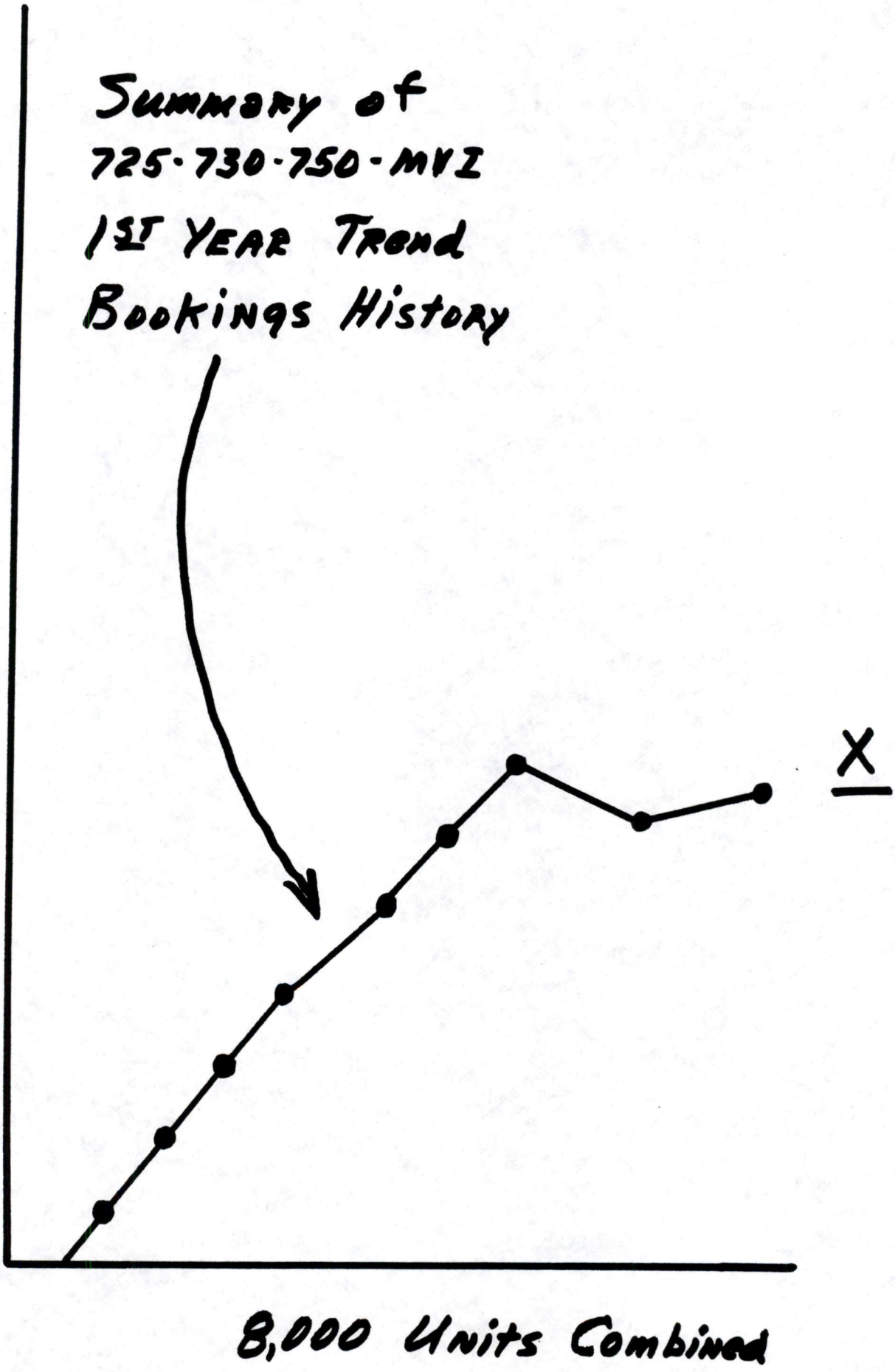
MSSC AGENDA

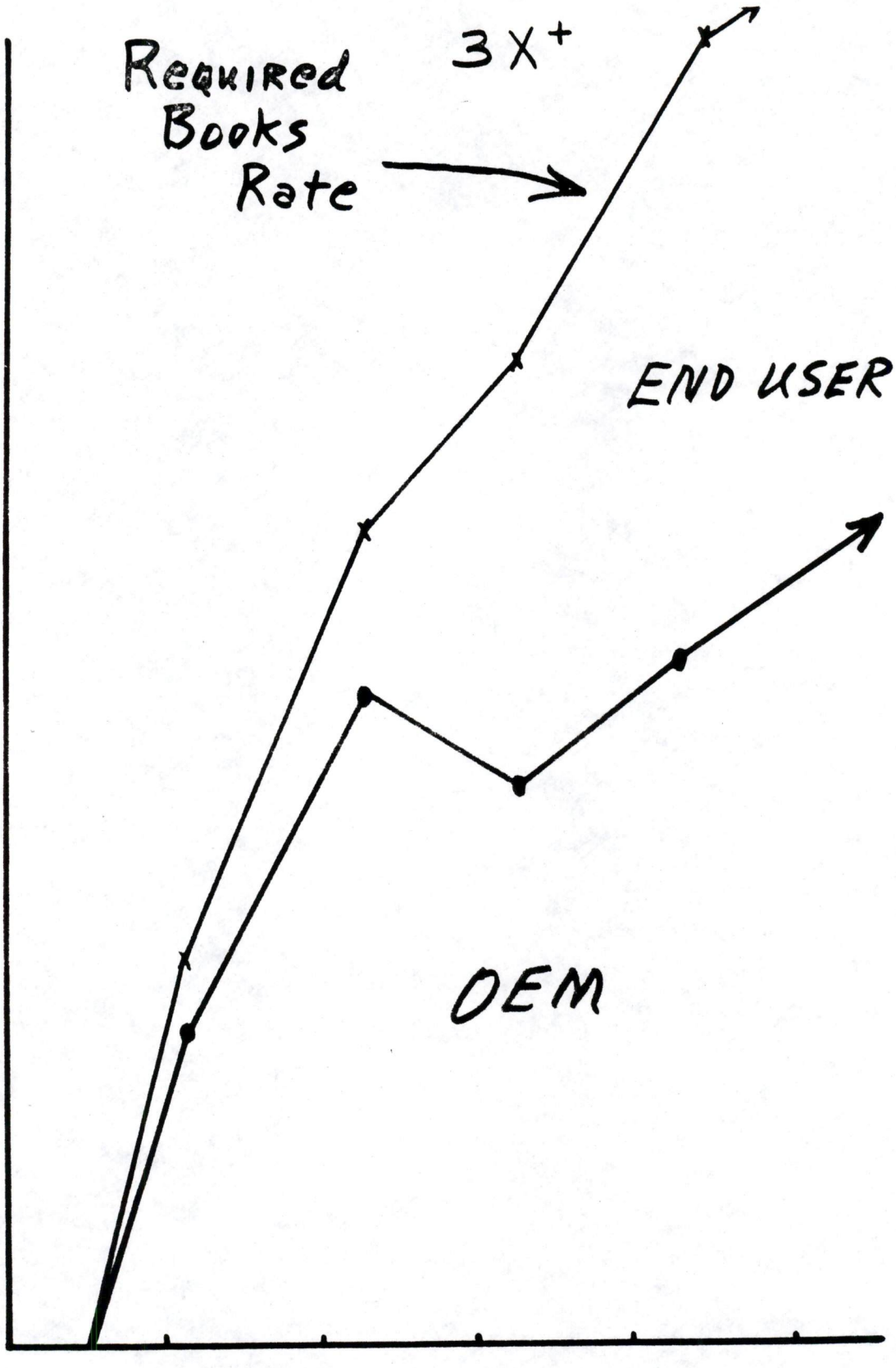
I. REVIEW THE CHALLENGES FOR SALES

II. REVIEW THE SALES PLAN STATUS

III. REVIEW THE NECESSARY SUPPORT


8K
7K
6K
5K
4K
3K
2K
1K
UNITS
7.7K
6.6K
4.4K
3.3K
.6K
SHIP
PLAN
22K
Q4
Q1
Q2
Q3
Q4


Summary of
725-730-750-MVI
1st Year Trend
Bookings History
X
8,000 Units Combined



30,000 UNITS 1ST YEAR

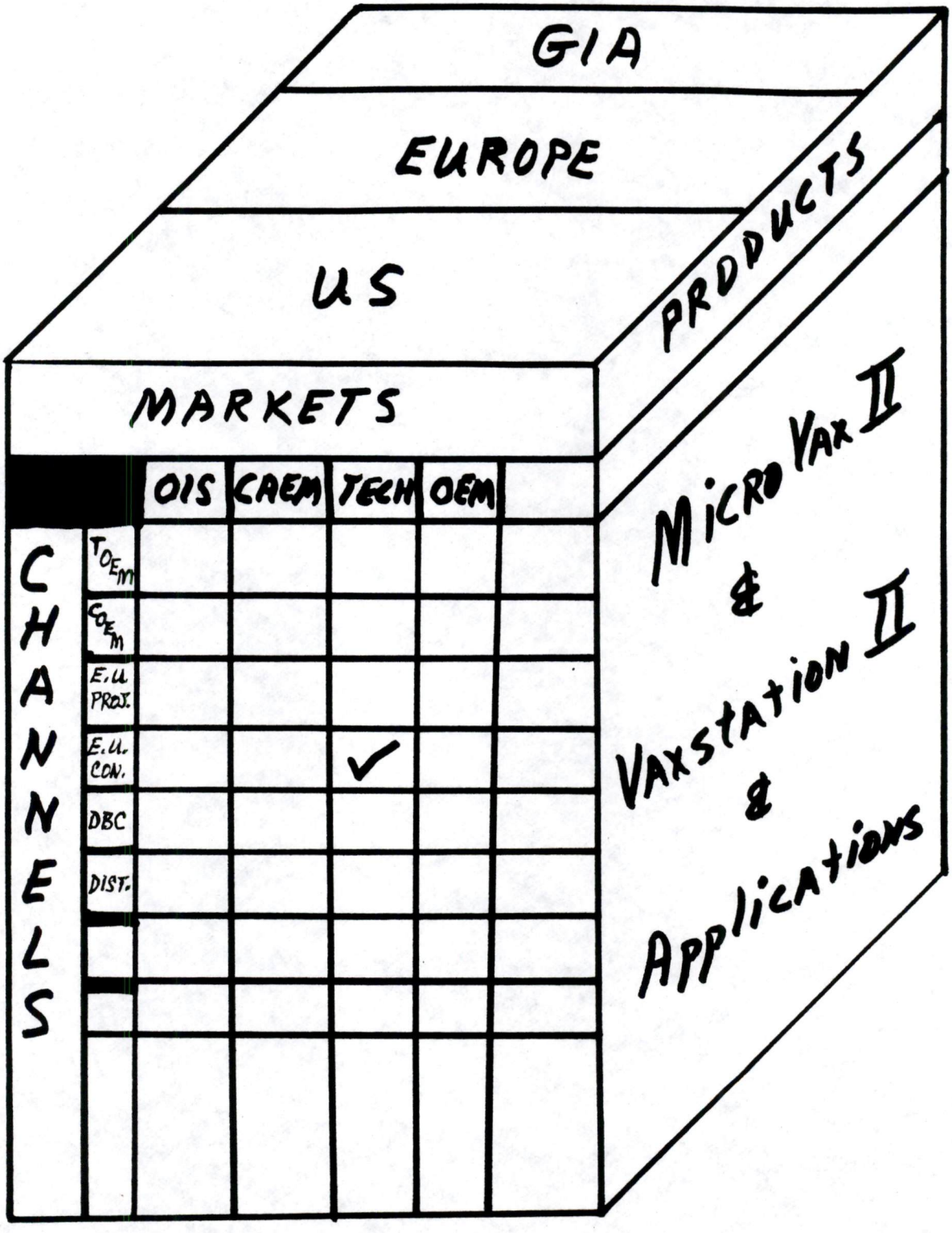
THE CHALLENGES FOR SALES

I. BUILD AN EARLY CERTS RAMP IN Q4-Q1.

II. CERTIFY 30,000 MVII AND VSII SYSTEMS TO MEET THE FY'86 SHIP PLAN.

III. PROFITABLY SELL LARGE VOLUMES OF LOW PRICED SYSTEMS.

PRODUCE AN INTEGRATED PLAN TO SELL LARGE VOLUMES OF LOW PRICED SYSTEMS PROFITABLY.



✓ A Sales Plan
By Market and Channel

KEYS TO SUCCESS

- TECHNOLOGY LEADERSHIP WITH MICROVAX II AND FOLLOW-ON PRODUCTS

- WE MUST ACHIEVE APPLICATION SYSTEMS LEADERSHIP IN THE FIRST YEAR

SALES PLAN

BASED ON ASSUMPTIONS:

- PRODUCT AVAILABILITY ASSUMPTIONS

  Q4-Q1

  5 BASIC MVII CONFIGURATIONS

  1 BASIC VSII SYSTEM

  MICRO VMS - ULTRIX - VAX ELN

  MOST LAYERED PRODUCTS

  Q1-Q2

  MORE LAYERED PRODUCTS

  LARGE DISKS: RA60 - RA81

  SOME CMP AND 3RD PARTY APPLICATIONS

- NEED TO TARGET ACCOUNTS TO BUILD VOLUME
  - TOEM, COEM
  - PRIME CONTRACTORS
  - LARGE PROJECT END USERS

  TO DEVELOP/CONVERT/MIGRATE STRATEGIC APPLICATIONS
  - CMP'S
  - 3RD PARTY SOFTWARE HOUSES
  - OEM'S

SALES PLAN

BASED ON:

- F-1000 CONSUMER NEEDS DEMONSTRABLE

  APPLICATIONS SYSTEMS

  - TECHNICAL SALES PLANS
  - CAEM SALES PLANS
  - BOS SALES PLANS

- F-10,000: WE NEED A CHANNELS (BCG) SALES PLAN

THESE ASSUMPTIONS

AND CUSTOMER NEEDS

HAVE LEAD US TO

A MULTI-PHASED

SALES PLAN

SALES PLAN

PHASE "0"	Q3	FILM
0 POSITION MVII VS. 750 FOR SALES MANAGEMENT		
0 DRAFT SCRIPT PRODUCT MANAGERS BPM CSP		FEBRUARY 12
0 GRAINGER'S TASK FORCE - REVIEW SCRIPT		FEBRUARY 14
0 SALES TRAINING		PRODUCE FILM
0 FILM AVAILABLE TO DISTRICTS		EARLY MARCH

SALES PLAN

PHASE I Q4-Q1

- ANNOUNCEMENT
- ALLOCATE Q4 AND INITIAL Q1 SHIPS TO KEY TARGETED ACCOUNTS
  - VOLUME DESIGN-WIN (OEM AND END USER)
  - COOPERATIVE MARKETING PARTNERS
  - APPLICATION SOFTWARE HOUSES
  - SALES AND MARKETING SELECTION
  - NON-DISCLOSURE PROCESS
  - TRAINED FIELD DESIGNATES
  - ORDER ADMINISTRATION PROCESS
  - UTILIZE MICROVAX I AND WORKSTATION I APPROPRIATELY
- SALES TRAINING
- INCORPORATE FINAL MARKETING/APPLICATION PROGRAMS INTO FY'86 SALES PLAN BY MARKET, CHANNEL, AREA

PROGRAM

- ANNOUNCEMENT EVENTS (Q4)
- DEVELOPMENT ALLOCATION PROGRAM (DAP)
- VOLUME & STRATEGIC ACCOUNTS LIST APPROVAL

  AMC'S AND SMU'S
- PROGRAMS
- DISTRICT SALES GUIDE PROGRAMS
  - ROADMAPS
  - COMMON SELLING GOALS

SALES PLAN

PHASE II Q1-Q2	PROGRAM
0 GROW TARGETED DEVELOPMENT ACCOUNTS - VOLUME & STRATEGIC	0 DAP
0 LAUNCH APPLICATION SYSTEMS TO FORTUNE-1000 ACCOUNTS TARGET APPLICATIONS BY: - MARKET - INDUSTRY - ACCOUNT	0 CORPORATE APPLICATIONS ANNOUNCEMENT PROGRAM 0 SMU SUPPORT PROGRAMS 0 APPLICATIONS ROADMAPS
0 APPLICATIONS SUPPORT - DEMOS - APPLICATION CENTERS: CAEM, TECH, BOS - FIELD APPLICATION SPECIALIST TRAINING	0 ACT'S DBC'S TELEMARKETING 0 SALES TRAINING SMU'S
0 F-10,000 SELLING PLAN - OEM/ADD REFERRAL - DBC'S	0 PROVEN/NEW TECHNIQUES AND PROGRAMS
0 AGGRESSIVE NEW ACCOUNT DEVELOPMENT PROGRAMS	0 LEAD GENERATION TELEMARKETING

DAP

- IS A DEVELOPMENT ALLOCATION PROGRAM TO SELL THE PRODUCTS AVAILABLE IN Q4-Q1 TO THOSE VOLUME AND STRATEGIC ACCOUNTS WHOSE BUYING CRITERIA MATCH WHAT WE CAN DELIVER.

- TOEM'S, COEM'S, PRIME CONTRACTORS, LARGE PROJECT END USERS, CMP'S, AND THIRD PARTY SOFTWARE HOUSES.

- PRE-ANNOUNCEMENT ORDERS FOR INITIAL SHIP ALLOCATION

NECESSARY SUPPORT

I. DEVELOPMENT ALLOCATION PROGRAM - DAP

COMMITMENT OF RESOURCES BY AMC & SMU

- O DEVELOP THESE ACCOUNT LISTS
- O IMPLEMENT THE PROGRAM
- O NAME OF A CONTACT

II. APPLICATION ROADMAPS

SMU SUPPORT TO GET THESE COMPLETED AS TOP PRIORITY AND SUBMITTED TO CHRIS REED

III. PRODUCT AVAILABILITY

ENGINEERING MUST PLACE TOP PRIORITY ON PRODUCTS, SYSTEMS, OPTIONS (LARGE DISK), MICRO VMS, AND LAYERED PRODUCTS AVAILABILITY.

IV. CORPORATE SALES COMPLETE DEVELOPMENT OF THE SMALL SYSTEMS SALES PLAN

- O NAME OF A RESOURCE

V. WE ALL MUST WORK TOGETHER TO SOLVE OUR CORPORATE CHALLENGE - "HOW TO PROFITABLY SELL VOLUMES OF LOW PRICED SYSTEMS"

SAMPLE SALES PLAN

LDP WORKSTATIONS

ANNOUNCEMENT

SALES UPDATE - TRADE JOURNALS ADS - DIRECT MAIL LDP'S

SCIENTIFIC SOLUTIONS MAGAZINE - SALES MEETINGS - TRADE SHOWS -

PITTSBURGH CONFERENCE

TRAINING

MEP - MARKETING EFFECTIVENESS PROGRAM

(TRAIN FIELD LDP EXPERTS)

SUPPORT RESOURCES

STRAP - STRATEGIC ACCOUNT PROGRAM BY AREA

LIP - LEADING INDIVIDUALS PROGRAM

MEP - MARKETING EFFECTIVENESS PROGRAM
(DEMOS - TECHNICAL SUPPORT - SALES TOOLS)

WISE - WORKSTATIONS IN SCIENTIFIC ENVIRONMENTS

PDL - PUBLIC DOMAIN LIBRARY
(DIAL-UP LIBRARY OF FREE SCIENTIFIC SOFTWARE)

LDP - DEMO EQUIPMENT FOR ACT'S LDP FIELD EXPORTS TO SUPPORT CENTERS

DISTRICT LDP EXPERT - FOCUS CONTACT WITH EACH DISTRICT

WGP - WORKSTATION GRANT PROGRAM

SDE - SELECTED SYSTEM DEVELOPMENT EXPERTS

SAMPLE SALES PLAN LDP (CONTINUED)

ROADMAPS

- DESCRIPTION OF APPLICATION
- FUNCTIONAL NEEDS SERVED
- APPLICATION STRENGTHS OF MVII
- APPLICATION STRENGTHS OF VWSII
- PRIMARY COMPETITION
- REFERENCE ACCOUNTS
- MARKETING CONTACTS

COMMON SELLING GOALS

- CUSTOMER DECISION CRITERIA
- TOP 3 SELLING MESSAGES
- TOP 3 BUSINESS BENEFITS FOR CUSTOMER
- DIGITAL'S COMPETITIVE ADVANTAGES/DISADVANTAGES
- MAJOR COMPETITORS' ADVANTAGES/DISADVANTAGES

DISTRICT SELLING MODEL

- KEY BUYERS BY CHANNEL-MARKET-INDUSTRY
- PLANNED YIELD IN EACH FOR MVII AND VWSII
- INVESTMENT ACCOUNTS
- SELLING METHODS
  1. DEDICATED SALES SPECIALIST - PRODUCT/APPLICATION
  2. DEDICATED PRESALES SPECIALIST
  3. NEW ACCOUNT DEVELOPMENT SPECIALIST
  4. USE OF ACT'S, DBC'S
  5. ELECTRONIC STORE, CORPORATE STORE PROGRAM
  6. MARKETING AND TELEMARKETING SPECIALIST

SAMPLE SALES PLAN LDP (CONTINUED)

KEY APPLICATIONS FY'86-87

1. SAMPLE TESTING AND INTERNATIONAL MANAGEMENT

2. BIOGENETICS WORKSTATION

3. MOLECULAR MODELING

4. DISTRIBUTED EDUCATION AND RESEARCH SYSTEMS

5. HIGH MIP MODELING & SIMULATION

6. REALTIME DATA ACQUISITION, ANALYSIS, AND CONTROL

WINNING-SELLING TECHNIQUES

FOR F-1000 CUSTOMERS

	TECHNIQUE	WHERE TO USE
0	OEM REFERRAL PROGRAM	ALL DISTRICTS
0	SELL THROUGH ACT'S	ACT LOCALES
0	DBC'S SELL SOLUTIONS	DBC LOCATIONS
0	DISTRICT MARKETING BY APPLICATIONS - INDUSTRY	MOST DISTRICTS
0	NEW ACCOUNT SALES SPECIALIST	ALL DISTRICTS
0	APPLICATIONS SPECIFIC SALES SPECIALIST	SPECIFIC BY GEOGRAPHY
0	PRESALES APPLICATIONS - INDUSTRY SPECIALIST	MOST DISTRICTS
0	INDUSTRY SALES TEAMS	SPECIFIC BY INDUSTRY CITY
0	SIMPLIFY THE SELLING CYCLE BY LEAD GENERATION - TELEMARKETING	SMU'S FOR ALL DISTRICTS
0	UTILIZE ELECTRONIC STORE	MAJOR ACCOUNTS
0	CORPORATE STORE PROGRAM	MOST DISTRICTS
0	UTILIZE DISTRIBUTORS	ALL DISTRICTS
0	PROFILE OF SUCCESSFUL SALESMAN (MINC)	ALL DISTRICTS
0	COST OF SALES MODEL	ALL DISTRICTS

PROVEN HIGH VOLUME

SELLING TECHNIQUES

TECHNIQUE	WHERE TO USE
O DESIGN WIN TOEM	MOST DISTRICTS
O APPLICATIONS DESIGN WIN TEAMS END USER PROJECT - F-1000	ALL DISTRICTS
O INDUSTRY HOOKS - COEM	MOST DISTRICTS

ROADMAP CONTENT

APPLICATION: APPLICATION X

DESCRIPTION OF APPLICATION

FUNCTIONAL NEEDS:

- COMPUTING STYLE
- COMPUTING RESOURCES
- I/O RESOURCES
- APPLICATION SOFTWARE PACKAGED
- HARDWARE NEEDS

APPLICATION STRENGTHS OF MICROVAX II

APPLICATION STRENGTHS OF VAXSTATION II

APPLICATION FUNCTIONALITY VIA SUGGESTED SOLUTION

PRIMARY COMPETITION

REFERENCE ACCOUNTS

MARKETING CONTACTS

DRAFT 10/29/84

BOB MAGUIRE

SELLING INFORMATION FOR MICROVAX II
SOLD AS CHIP/BOARD/SYSTEM/WORKSTATION
BUYER: OEM PRODUCT/PROJECT MGR

HP9000 Series 500

CUSTOMER DECISION CRITERIA	TOP 3 SELLING MESSAGES	TOP 3 BUSINESS BENEFITS TO OUR CUSTOMER	OUR COMPETITIVE ADVANTAGES/ DISADVANTAGES	OUR COMPETITOR'S DISADVANTAGES/ ADVANTAGES
BASE PRODUCT TECHNOLOGY	o VLSI VAX on chip o 32 bit internal/external arch o Q22 System Bus o Full Vax & VMS Environment	o Price performance & form factor open up new markets & app o VAX/VMS Programmer Productivity on Micro o Flexibility in choice of peripherals o Protected VAX/VMS Investment	A - BROAD Archit. Base A - Networking technology D - Not State of the art chip A - Lot of s/w A - True Virtual Memory	A - UNIX Transportability A - NMOSIII faster / Higher Density chip A - Finestrate substrate D - Not much s/w D - Not Virtual A - INTERNAL application HP-IB Bus Real-time
BASE PRODUCT FEATURE	o Fast FP co-processor chip o 9 MB Mem Max o Approx 780 performance o Can buy on chip/board/system/workstation o Microporcessor size o Runs VMS Ultrix & ELN	o Higher return on your compute $ o Flexibility in buying \board\system & WS environment	A - 9MB Mem. A - BROADER RANGE of LANGUAGES D - Extremely limited disk offering A - Smaller footprint	A - Multiple CPU's up to three - Add as you need more CPU A - Desk-top, FLOOR or Rack Mount systems available D - ONLY 3 LANGUAGES D - 2.5 MB MEM. D - NO FP Accel. A - Claim 3MIP performance A - BROAD RANGE of Disks
APPLICATIONS	o Runs the applic. you have on VAX today o Can Use/Make a wealth of applic. on VMS, ULTRIX, & ELN o Wide range of hardware 3rd party options available on Q22	o No Conversion costs o Increased competitiveness - higher make/buy buy flexibility	A - Lots of s/w A - Migration upward w/no conversion	D - Not much s/w D - No upward path beyond 540

Buyer: OEM Product/Project Mgr

BOB MAGUIRE

CUSTOMER DECISION CRITERIA	TOP 3 SELLING MESSAGES	TOP 3 BUSINESS BENEFITS TO OUR CUSTOMER	OUR COMPETITIVE ADVANTAGES/ DISADVANTAGES	OUR COMPETITOR'S DISADVANTAGES/ ADVANTAGES
INDUSTRY	o VAX is proven leader in almost every industry o Industry leaders in F500 are large VAX purchaser o MVII suitable for all industries	o Few constraints o Lower cost of sales	A- Name Co. Recognition A- Product NAME Recog. better than H.P.	A- HP not widely Accepted Among F500 as Name D- HP9000 not widely Accepted in technical departments of F500
CHANNEL	o Std OEM T's C's o OEM type 1 o Direct EU Sales o DEC Dealer?	o Same business relationship o Know & understand bus. relationship o No new risk	Equal ← →	
SERVICE/ SUPPORT	o Std Digital WW Service o 1 yr warranty on processor o Customer installable at system level o Superior diagnostic capability	o Compet edge for you o Lower cost of service o No install cost on system	A- DEC Service Rated #1 by ??	A- HP Cust. Satisfaction rated overall #1 by Stuart Kirkland users survey July 1989
REFERENCE USERS	o 30 reference user sites at announcement o Diverse applications among users o F500 companies, Universities, OEM's, Hosptials, etc	o Higher confidence o Low risk	A- Strong base	D- Offering 50% discounts for Key Reference Accounts IN F500 D- Much fewer sites to Reference
DEMOS	o Available at - Dist Office -Soltn Ctrs o Demos meaningful to you	o Higher confidence o Low risk	A- Demo Centers	A- Has demo centers to bring customers

Buyer: OEM Product / Project Mgr

BOB MAGUIRE

CUSTOMER DECISION CRITERIA	TOP 3 SELLING MESSAGES	TOP 3 BUSINESS BENEFITS TO OUR CUSTOMER	OUR COMPETITIVE ADVANTAGES/ DISADVANTAGES	OUR COMPETITOR'S DISADVANTAGES/ ADVANTAGES
PRICE AND FINANCIAL JUSTIFICATION	o Full VAX/VMS 780 performance @$10-$20K o Entry level system below $20K o Systems can range approx. $20-$100K o Entry level board below $10K o 3 x price performance over 780/750 o VAX DDP at lower cost increments	o More mrkts/ applic can be attacked o Lower capital costs in inventory o Lower selling costs & shorter selling cycle due to lower price	← A →	D 75% the CPU Power D- $30K entry level D up to $100K A- CAN ADD Additional CPU's IN SAME CAB. up to 3 total.
VENDOR'S REPUTATION	o 2nd largest Computer Co. o Largest and world leader with OEM's o Largest base of OEM customers o Worldwide quality service	o low risk	Equal ← →	High quality company A- Extremely Reliable products
PRODUCT DELIVERY AVAILABILITY	Volume planned available at announcemeant o Systems available through DEC 24 o Systems available through Digital Electronic Store	o time to market	A - Quick delivery	D- 12 week delivery

NEED FROM MSSC

- APPROVAL OF PRICING STRATEGY
- APPROVAL OF PROPOSED ANNOUNCEMENT DATE OF MAY 15TH
- SUPPORT FOR DEVELOPMENT APPLICATION PROGRAM
- HELP OBTAINING MARKETING PLANS

MicroVAX

digital

Interoffice Memo

TO: *WIN HINDLE

DATE: TUE 8 JAN 1985 11:14 AM EST
FROM: JACK MACKEEN
DEPT: OEM GROUP
EXT: 278-4500
LOC/MAIL STOP: UPO2-4/-L13

MESSAGE ID: 5260358115

SUBJECT: MICROVAX CHIP MARKETING STATUS REPORT - Q2,FY85

FOR YOUR INFORMATION . . .

d i g i t a l Interoffice Memo

TO: AMUS:
MKTG/SLS STRAT COM:
cc: DICK HEATON
JACK MACKEEN
MVAX CHIP:

DATE: THU 3 JAN 1985 4:05 PM EST
FROM: PETER MASUCCI
DEPT: MICRO'S MARKETING
EXT: 225-6436
LOC/MAIL STOP: HL02-1/N10

MESSAGE ID: 5259849767

SUBJECT: MVAX CHIP MARKETING STATUS REPORT FOR Q2 FY'85

This report is intended to update you on the key events and activities that have occurred during Q2 concerning the MVAX chip. I will be happy to provide additional detail if required.

NON-DISCLOSURE PRESENTATION (NDP) - PROCESS AND STATUS REPORT

The process that the MSSC approved last year for giving non-disclosure presentations, is being implemented. This process is monitored by the MVAX chip subsommittee set up by MSSC. The MVAX chip subcommittee that the MSSC chartered is made up of representatives from the SMU's and AMC's, as well as LEGAL. This subcommittee serves as the forum for reviewing and deciding on requests for MVAX chip information within the approved fields of use restrictions.

During Q2, nine (9) additional accounts were approved for NDP, with only five (5) actually given the NDP. Two (2) requests were rejected, and two (2) others are still pending. This brings our totals-to-date to 75 approved for NDP, 27 presentations given, two (2) rejected, and two (2) pending.

30-AUGUST-1984 INFORMAL MEETING OF THE MSSC

At the MSSC meeting on 30-August, we reviewed the MVAX chip strategy. The purpose of the meeting was to quantify the impact on systems sales if we sold the MVAX chip openly. Also, at the meeting, engineering (Kalb) reviewed the technology trends for the semiconductor industry.

The MSSC reviewed our criteria for selling MVAX chips, and it was pointed out that we (MICRO's) were being too restrictive in only talking to existing DEC accounts, and should expand our prospect base to include non-DEC accounts that fit within the fields of use definitions approved by MSSC and managed by the MVAX chip subcommittee formed last year. We are now operating under this expanded definition.

OTHER SIGNIFICANT EVENTS

By discussing our MVAX chip offering to targeted accounts, we are seeing increased interest in our VAX systems products. Some

specific recent examples include the following:

1. GE-Huntsville selected VAX, chips through 8600's, as part of a comprehensive automatic test equipment bid to the Navy.

2. ITT Brussells is now considering a total VAX based telephone switching system now that the actual switching controller can be build out of MVAX chips.

3. Schlumberger-Well Services Division (Houston), Stromberg-Carlson (Orlando), and Intergraph (Huntsville), all conducted serious evaluations of our MVAX chip vs Motorola 68020's and National 32032's, and selected the MVAX 78032. All three however have since upgraded to board-level designs thereby providing even higher NOR.

4. Raytheon (Wayland) was faced with developing alternatives to VAX for a radar system because multiple 8600's couldn't physically fit. By offering a compatible MVAX chip, they are now able to repartition the job, and will stay with the 8600 and multiple MVAX sub-systems.

5. General Motors/Delco (assorted locations) are now working the issue of next generation automotive control systems, and once again, the availability of a compatible chip, has put DEC in a strong position for the actual car controller AND for their large factory automation needs.

Finally, the first working chip samples were delivered to Applicon in October, and are now running in their prototype CAD system.

THE NEXT STEPS

Key events planned for Q3 include the following:

1. Return to MSSC to review our program and strategy

2. Develop a pricing and announcement strategy that fits into the overall corporate MVAX-II systems strategy

3. Presenting to MSSC for approval, the special MVAX chip contract for managing to the fields of use charter

Happy New Year !!!

3-JAN-85 16:33:14 S 04309 MREM
MREM MESSAGE ID: 5259853114

8-JAN-85 12:09:44 S 02884 MR16
MR16 MESSAGE ID: 5260352490

MicroVAX

d i g i t a l

Interoffice Memo

TO: see "TO" DISTRIBUTION

cc: see "CC" DISTRIBUTION

DATE: FRI 4 JAN 1985 4:37 PM EST
FROM: PETER MASUCCI
DEPT: MICRO'S MARKETING
EXT: 225-6436
LOC/MAIL STOP: HL02-1/N10

MESSAGE ID: 5259955101

SUBJECT: GENERAL MOTORS AND MVAX CHIPS

Dave/Mark/MVAX CHIP:, I have discussed this application in depth with Daryl Rice and fully support this non-disclosure request.

The GM team has already evaluated, and rejected the WE32000 chip from AT&T. I believe we have an excellent opportunity to seed some long range, ultra-high volume chip buisness, AND assist the account team in re-inforcing our corporate systems message. This point can help them close short term systems business at GM and DELCO should they select the VAX architecture for their 1990+ autos. This application falls directly into the approved fields of use for the MVAX chip family that MSSC has chartered.

Over the next weeks, my group, and the semiconductor engineering team, will develop an appropriate futures presentation for GM. I have already discussed this opportunity with Duane Dickhut of SEG, and he has offered his personal support.

Please let me know if I can be of further assistance in your consideration of this non-disclosure request.

Regards,
Peter.

digital Interoffice Memo

TO: JEANNIE KOUSHOURIS

cc: see "CC" DISTRIBUTION

DATE: THU 3 JAN 1985 4:13 PM EST
FROM: STEVE KOENIG
DEPT: GM CORPORATE ACCOUNTS
EXT: 444-2235
LOC/MAIL STOP: FHO/FHO

MESSAGE ID: 5259853219

SUBJECT: NON-DISCLOSURE/CHIP TECH. FUTURE TRENDS & DIRECTIONS

===> THIS EMS IS FROM DARYL RICE <===

I NEED TO HAVE A NON-DISCLOSURE EXECUTED FOR A TECHNICAL EXCHANGE WITH GENERAL MOTORS CENTERED AROUND OUR CURRENT AND FUTURE MICRO-VAX CHIP PRODUCTS. WE ALSO NEED TO DISCUSS FUTURE TREND AND DIRECTIONS THROUGH THE 1990'S WITH REGARDS TO CHIP TECHNOLOGY IN GENERAL.

WE CURRENTLY HAVE A NON-DISCLOSURE FORM INCLUDED IN THE G.M. MASTER AGREEMENT AND I AM ENCLOSING A COPY FOR YOUR APPROVAL.

THE NECESSARY BACKGROUND INFORMATION FOLLOWS:

GENERAL MOTORS HAS ASKED DIGITAL IF WE WOULD BE INTERESTED IN EXPLORING THE POSSIBILITY OF UTILIZING OUR CHIP TECHNOLOGY FOR THEIR 1990 AUTOMOBILE ON-BOARD COMPUTERS. A FACT FINDING EXCHANGE CENTERED AROUND OUR CURRENT MICRO-VAX CHIP TECHNOLOGY/ FUTURE TRENDS WOULD BE BENEFICIAL FOR BOTH COMPANIES.

THEY HAVE SET UP A COMMITTEE TO EXPLORE G.M.'S NEEDS THROUGH THE 1990'S AND ARE EXTREMELY INTERESTED IN EXCHANGING INFORMATION. THEIR COMMITTEE CONSISTS OF 8 PEOPLE HEADED BY JOHN KASTURA, WHO IS HEAD OF THEIR ADVANCED CHIP TECHNOLOGY GROUP AT DELCO ELECTRONICS. THEY WOULD LIKE TO MEET WITH US IN KOKOMO, INDIANA AND HAVE OUTLINED THE FOLLOWING AREAS AS IMPORTANT AGENDA ITEMS.

1. CURRENT AND FUTURE TRENDS IN THROUGHPUT AND PERFORMANCE OF OUR CHIP SETS.

2. MULTI-PROCESSOR CONFIGURABILITY AND REAL TIME CONTROL. (WHAT HAPPENS WHEN THEY NEED MORE POWER??)

3. DIGITAL I/O AND COUNTER FUNCTIONS (USUALLY OVERLOOKED IN SINGLE CHIP CONTROLLERS).

4. NETWORKS AND COMMUNICATION ASPECTS

5. DEVELOPMENT OF TOOLS, I.E., HARDWARE EMULATORS.

G.M.'S COMMITTEE CONSISTS OF PEOPLE FROM DELCO SYSTEMS DIVISIONS IN CALIFORNIA, GM RESEARCH LABS AND ADVANCED PRODUCT MANUFACTUING

ENGINEERING SYSTEMS (APMES) IN DETROIT AND SEVERAL PEOPLE FROM DELCO ELECTRONICS IN KOKOMO, INDIANA.

THEY WILL EXCHANGE WITH US WHERE THEY FEEL THEIR NEEDS WILL BE IN THE 1990'S. THEY HAVE ASKED FOR A MEETING JAN. 16TH AT 9:00 A.M. IN KOKOMO.

IF THIS DATE CANNOT BE MET, WE WOULD HAVE TO DEFER TO EARLY FEBRUARY AS AN ALTERNATE TIMEFRAME.

I BELIEVE THIS IS AN EXCITING OPPORTUNITY FOR US AND SOLICIT YOUR SUPPORT WITH THE NON-DISCLOSURE REQUIREMENTS.

REGARDS,

DARYL RICE

3-JAN-85 16:53:29 S 04418 BURT
BURT MESSAGE ID: 5259853185

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4-JAN-85 18:47:24 S 05053 MREM
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