MEMORANDUM

DATE: November 23, 1982

TO: Distribution

FROM: Gary S. Moskovitz

SUBJECT: PROJECT RAINDROP/AMRIGNON

Amrigon personnel will be here at 8:30 AM on Wednesday, November 24th to present their analysis of the Raindrop project.

The meeting will be held in the Financial conference room and should last about 2 hours.

Richard Chang, his selected staff and I will be in attendance. Please feel free to attend or to send any selected staff individuals.

GSM:pg

cc: R. Chang
    J. Linn
    P. Allen
    J. Makhinson
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY

TRANS-STRATEGIC INVESTIGATION

PRESENTATION BOOKLET

Prepared For:
MATTEL ELECTRONICS

NOVEMBER, 1982
1. TRANS-STRATEGIC INVESTIGATION

A. MARKETING DRIVEN BUT WITH FINANCIAL AND TECHNICAL PERSPECTIVES AS WELL.

B. STRATEGIC IN FOCUS BUT WITH SOME TACTICAL ASPECTS COVERED.

STRATEGIC YET TACTICAL FOCUSES

A GOOD BUSINESS PLAN MUST BE ABLE TO CORRECTLY SEE SOME OF THE MORE IMPORTANT "TREES" WHILE ESTIMATING THE SIZE AND SCOPE OF THE "FOREST."

- SECTION I. ............... MARKETING
- SECTION II ............... TECHNICAL
- SECTION III ............... FINANCIAL
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

SECTION I. . . MARKETING

3 SUB-PERSPECTIVES

MARKET-COMPETITIVE OVERVIEW

MARKETING IMPLICATIONS

MARKETING DEMAND/POTENTIAL

MARKET-COMPETITIVE OVERVIEW. . . STRATEGIC TRENDS

MARKED DEMAND/POTENTIAL. . . . AMRIGON QUANTITATIVE STUDY

AMRIGON QUALITATIVE STUDY

MARKETING IMPLICATIONS . . . . AMRIGON QUALITATIVE RTS MONITOR DATA-BASE

PREVIOUS MATTEL STUDIES

AMRIGON
NOVEMBER, 1982.
MEGATRENDS

THERE IS INCREASING CONSUMER ACCEPTANCE OF A VARIETY OF NEW ENTERTAINMENT/INFORMATIONAL MEDIA.

- HOME VIDEO GAMES. ... 7.5 MILLION UNITS - 1982
  14 MILLION UNITS - INSTALLED BASE

- PERSONAL COMPUTERS. ... 500,000-700,000 UNITS - 1982
  2 MILLION UNITS - INSTALLED BASE

- BASIC CABLE ... 28 MILLION HOUSEHOLDS - GROWING AT A RATE OF 250,000 HOUSEHOLDS PER MONTH

- PAY CABLE ... HAS PENETRATED INTO OVER HALF OF CABLE HOUSEHOLDS. ... 15 MILLION

PREVIEW: QUALITATIVE STUDY

WE FOUND NO RESISTANCE TO THE TELEPHONE AS A MEDIA SOURCE.

AMRIGON
NOVEMBER, 1982.
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKET COMPETITIVE OVERVIEW

INERTIA AND PRODUCT ADOPTION*

RAINDROP DOES NOT HAVE THE

CONVERGENCE PROBLEM.

 Most innovative products are "held-up" because lack of convergence impedes inherent product strengths.

*Reference: Connections, James Burke
PBS Television Series/Book
CONVERGENCE AND DEMAND FOR OTHER
NEW INDUSTRY PRODUCTS... CASE EXAMPLES

- COLOR TELEVISION. Need Price/Value Improvement
  - co-op supply entities
  - price
  - Price drop somewhat and software gamble by NBC paved way for takeoff.

- QUAD SOUND. Differentiation not strong enough to stimulate demand.
  - consumer demand
  - price

- VIDEOTEX/TELETEXT. Slower progress because need large infrastructure.
  - infrastructure

- POLAVISION. Competitive technology surpassed product.
  - technology
  - etc.

AMRIGON
NOVEMBER, 1982.
ENTERTAINMENT PERSPECTIVE

SOME NEW PRODUCTS/SERVICES ARE DOING BETTER THAN OTHERS IN THE CONSUMER MARKET.

THOSE DOING WELL HAVE A STRONG ENTERTAINMENT DIMENSION. THOSE EXPERIENCING PROBLEMS ARE INFORMATION ORIENTED.

INFORMATION ORIENTED... PROBLEMATICAL

The Source... Executive Turnover... Not Even the Resources of Reader’s Digest have turned it around. Losing $5 - $7 Million per year. Small Terminal Base, only 20,000 Subscribers... High Access Charges.
## AMRIGON QUALITATIVE STUDY

- **3 Sessions**
  - 4th, 5th and 6th Graders

- **Attitudinal Exploration**
  - Best Video Games
  - Cost
  - New Game Testing

- **Reaction to Concept of Renting Games**

- **Introduction of Games-by-Phone Concept**
  - Discussion of Pros/Cons...
  - Rating

- **Discussion of Advantages/Disadvantages of Specific Execution**
  - Discussion... Other Advantages/Disadvantages... Rating

- **Specific Execution and Cost**
  - Discussion... Rating

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*AMRIGON*

*November, 1982.*
MARKETING STUDIES BACKGROUND

AMRIGON QUANTITATIVE STUDY

- TELEPHONE INTERVIEWS
  - HEAD OF HOUSEHOLD
  - VIDEO GAME IN HOME

- REACTION TO GENERIC CONCEPT
  - LEVEL OF INTEREST... 5 POINT SCALE

- INTRODUCE "GOOD"/"BAD" POINTS

<table>
<thead>
<tr>
<th>&quot;GOOD&quot;</th>
<th>&quot;BAD&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREVIEW OF GAME</td>
<td>HOUR INCREMENTS</td>
</tr>
<tr>
<td>VARIETY</td>
<td>EXTRA COST ATTACHMENT</td>
</tr>
<tr>
<td>UNIVERSALITY</td>
<td>SOME GAMES NOT AVAILABLE IN CARTRIDGE FORMAT</td>
</tr>
<tr>
<td>CUSTOMIZE GAME FACTORS</td>
<td>THREE MINUTE LOAD TIME</td>
</tr>
</tbody>
</table>

- REACTION TO "APPOINTMENT" CONSTRAINT
  - LEVEL OF INTEREST... 5 POINT SCALE

- USAGE QUESTION... SPECIFIC EXECUTION WITH PRICE

AMRIGON
NOVEMBER, 1982.
**RAINDROP**

**MATTEL ELECTRONICS**
**NEW VENTURE ACTIVITY**

TRANS-STRATEGIC INVESTIGATION

**MARKET DEMAND/POTENTIAL**

**BASIC CONSUMER INTEREST**

RAINDROP CONCEPT IS SUCCESSFUL WITH CONSUMERS

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**AMRIGON QUANTITATIVE STUDY**

Percent Extremely/Very Interested by Knowledge Level.

<table>
<thead>
<tr>
<th>Percent</th>
<th>After Explanation of Generic Concept</th>
<th>After &quot;Good&quot; and &quot;Bad&quot; Points</th>
<th>With &quot;Appointment&quot; Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
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</tbody>
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- GENERIC CONCEPT DRAWS HIGH* LEVEL OF CONSUMER ACCEPTANCE.
- SOME DROP IN ACCEPTANCE AFTER FULL KNOWLEDGE,**
- THE "APPOINTMENT" CONSTRAINT HAS ONLY MARGINAL INFLUENCE ON CONSUMER ACCEPTANCE.

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*AMRIGON NOMINAL DATA: Moderately Strong Products... 15%-20%.
**ADULT PERSPECTIVE

AMRIGON
NOVEMBER, 1982.
PRICE/REVENUE ISSUE

STRONGEST APPEAL POINTS TO PRICE FOCAL POINT
OF $1.00 PER HOUR.

AMRIGON QUANTITATIVE STUDY
Price Sensitive Analysis

CUMULATIVE:
N/A 78% 51% 30% 17% 12%

MARGINAL EFFICIENCY:
22 27 21 13 5

OPTIMUM PRICE
.50 < $ < 1.00

AMRIGON
NOVEMBER, 1982.
MARKETING IMPLICATIONS

1A SOFTWARE AVAILABILITY WILL MAKE/BREAK CONCEPT

1B NOVELTY OF TECHNOLOGY/EASE OF DISTRIBUTION

NOT MAJOR SELLING POINTS

2 PRICING SENSITIVITY IMPORTANT

50¢ SUPER... $1.00 GOOD TO VERY GOOD...

$2.00 FAIR TO POOR.

ASSUMING HARD CARTRIDGE AVAILABILITY
STILL EXISTS... WANT TO AVOID "ARCADE
COST TRAP"

3 EXECUTION PROBLEMS

Consumer Concerns: Does it Tie Up my Phone?

Convenience Issues...

How do I Request my Game?
FIRST TIER INVESTIGATION POINTS TO POTENTIAL

1. RAINDROP IS ON THE SPECTRUM OF ACCEPTABLE MEDIA

2. MOMENTUM NOT BLOCKED BY LACK OF CONVERGENCE

3. MARKET/DEMAND ACCEPTANCE IS READY AND MODERATELY STRONG

4. $1.00 PER HOUR PRICE FOCAL POINT
DISTRIBUTION

NETWORK ALTERNATIVES,
AT&T LONGLINES
TOLL-FREE/800
CUSTOMER FLAT FEE
LOCAL TELCO’s/BOC’s
NON BELL NETWORKS

TRANSMISSION CAPACITIES
NETWORK LOAD POINTS.
DISTRIBUTION ALTERNATIVES

TOLL FREE 800 TYPE SERVICE

NATIONAL OR REGIONAL TOLL FREE SERVICE Puts unacceptable cost penalty on Mattel

- Preview 
  - Phone toll free increase on software rent
    - Case A: 160%
    - Case B: 220%

- Implies
  - A: Network fees shared with Mattel
  - B: Customer shared burden
  - C: Local office

AMRI GON
NOVEMBER, 1982.
DISTRIBUTION ALTERNATIVES

NETWORK FEES SHARED WITH MATTEL

POSSIBILITY SLIGHTLY ABOVE ZERO FROM TECHNICAL OR COOPERATIVE PERSPECTIVE

**AT&T LONGLINES AND AT&T INTEREXCHANGE**
- CONCEPTUALLY UNABLE TO HANDLE JOINT VENTURE
- SPECIAL REGULATED TARIFF NECESSARY
  18 - 24 MONTH TIME FRAME
- COURT CHALLENGE POSSIBLE

**NON BELL NETWORKS**
- ATTITUDE VERY POSITIVE
- INBOUND NETWORKS - 12 MONTHS AWAY
- REGULATED TARIFF STILL NECESSARY
  18 - 24 MONTHS

AMRIGON
NOVEMBER, 1982.
CUSTOMER SHARED BURDEN

HAS MOST VARIATIONS, HOWEVER ALL TECHNICALLY UNACCEPTABLE AND/OR IMPACT CONSUMER DEMAND NEGATIVELY.

<table>
<thead>
<tr>
<th>VARIATION</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CUSTOMER CALLS LONG DISTANCE</td>
<td>80% REDUCTION IN DEMAND.</td>
</tr>
<tr>
<td>2. 900 SERVICE</td>
<td>DESIGNED FOR 1 MINUTE OR LESS 50¢/35¢ PER MINUTE... EVERY 5th CALL PASS THROUGH FOR CUSTOMER INPUT.</td>
</tr>
<tr>
<td>3. 976 SERVICE</td>
<td>SIMILAR TO 900 BUT REGIONAL.</td>
</tr>
<tr>
<td>4. 520 SERVICE</td>
<td>RESTRICTIVE - LETS 1 IN 100 PASS THROUGH.</td>
</tr>
<tr>
<td>5. ANNOUNCEMENT PROVIDER</td>
<td>NEW REBILL SERVICE - 18 MONTHS TO TARIFF - LOCAL TELCO ONLY.</td>
</tr>
</tbody>
</table>

AMRIGON
NOVEMBER, 1982.
DISTRIBUTION ALTERNATIVES

LOCAL OFFICE

PREVIOUS CONSIDERATIONS POINT TO LOCAL BASED - BASE COMPUTER CENTER.

$25,000+ HOUSEHOLDS

- 40 METRO MARKETS, 64% OF POTENTIAL
- 50 METRO MARKETS, 80%

LOCAL AND NEAR ZONE CALLS TO BE CHARGED TO CUSTOMER MAY/MAY NOT BE ITEMIZED.
MAXIMUM LOAD POINTS

"MAXIMUM" DEPENDS ON MULTIPLEXING. NATIONAL/REGIONAL COULD EASILY OVERLOAD NETWORK WITH MASTER PHONE NUMBER.

EXAMPLE

L.A. WIRECENTER COULD HANDLE UP TO 6,000 CALLS PER HOUR BUT REQUIRES 6 DIFFERENT PHONE NUMBERS.
FIRST TIER INVESTIGATION POINTS TO LOCAL BASE
COMPUTER CENTER

1) PHONE EXPENSE BURDEN POINTS TO LOCAL DISTRIBUTION
   - UNABLE TO SHARE TELEPHONE REVENUE WITH NETWORK PROVIDER
   - CUSTOMER SHARED BURDEN NON FEASIBLE/REDUCED DEMAND

2) CAPACITY POINTS TO LOCAL DISTRIBUTION
   - EASY TO OVERLOAD NATIONAL/REGIONAL WIRECENTER
   - LOCAL TRANSMISSION AT 1200 BAUD SHOULD HAVE 97+% QUALITY

AMRIGON
NOVEMBER, 1982.
SECTION III... FINANCIAL

- OPERATIONAL ECONOMICS, A. MARKET ESTIMATES
- CAPITAL/OPERATIONAL REQUIREMENTS, NETWORK ECONOMICS LOCAL VS. REGIONAL OR NATIONAL

AMRIGON
NOVEMBER, 1982.
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKET ESTIMATES

**METHOD A. . . MARKET DEMAND/BUDGET BASED**

<table>
<thead>
<tr>
<th>PART I: 14 MILLION GAME UNITS</th>
<th>25% VERY/EXTREMELY INTERESTED</th>
<th>3.5 MILLION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x 30% INTEREST/PURCHASE TRANS-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LATION*</td>
<td>$225</td>
</tr>
</tbody>
</table>

1.05 MILLION CUSTOMER BASE

<table>
<thead>
<tr>
<th>PART II: .75 CARTRIDGE PER MONTH PER HOUSEHOLD</th>
<th>12 MONTHS</th>
<th>$25 ESTIMATE RETAIL SALE OF CARTRIDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>$225 ANNUAL FAMILY VIDEO GAME EXPENDITURE</td>
</tr>
</tbody>
</table>

$ 50 ESTIMATE RAINDROP DIVERSION PER FAMILY PER YEAR (1 HR. PER WEEK)

1.05 MILLION HOUSEHOLDS x $50 APPROX. $50 MILLION ANNUAL REVENUE

Source: *Previous AMRIGON/MATTEL ELECTRONICS STUDIES

* AMRIGON
NOVEMBER, 1982.
## Market Estimates

### Method B... Market Demand/Usage Based

**Part I:**
- 14 million game units
- \( \times 25\% \text{ very/extremely interested} \)
- 3.5 million
- \( \times 30\% \text{ interest/purchase translation} \)
- 1.05 million customer base

### Part II:
- 6 hours of play per week (6-8 hrs.)
- \( \times 50 \text{ weeks} \)
- 300 million hours of videogame play
- \( \times 33\% \text{ est. of cartridge/raindrop} \)
- 100 million hours of play

100 million \( \times 50\% \text{ willing to pay} \$1.00/\text{hr.} \)

\( \approx \) $50 million annual revenue

Source: *Previous AMRIGON/MATTEL ELECTRONICS STUDIES*
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

OPERATIONAL PARAMETERS

NETWORK DEMAND LOAD

$50 MILLION IMPLIES 50 MILLION CALLS

50%/50%

WEEKENDS & HOLIDAYS
8 AM/EST..... 9 PM/PST
16 HOURS PER DAY

25 MILLION + (32 HRS. x 52 CALLS)

15,000 CALLS PER HOUR

1000 PORTS
ON BASE COMPUTER
1 PORT @ 4 MINS. = 15 CALLS PER HOUR

WEEKDAY EVENINGS
4 PM/EST..... 9 PM/PST
8 HOURS PER DAY

25 MILLION + (40 HRS. x 52 CALLS)

12,000 CALLS PER HOUR

AMRIGATION
NOVEMBER, 1982.
OPERATIONAL PARAMETERS

**BASE COMPUTER REQUIREMENTS**

15,000 CALLS + 15 PER HOUR = 1000

\[ \sqrt{2000 \text{ PORTS FOR PEAK TIMES}} \]

8 - 10 BASE COMPUTERS

256 PORT CAPACITY

*Consider PDP 11/23.

AMRIGON
NOVEMBER, 1982.
**LOCAL OPERATION CENTER**

**SINGLE MACHINE INSTALLATION**

<table>
<thead>
<tr>
<th><strong>CAPITAL REQUIREMENTS (4 Yr. Amortization)</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>PDP11/34</td>
<td>$100,000</td>
</tr>
<tr>
<td>PROCESSOR, DISC, MUX, OPER., SOFTWARE</td>
<td></td>
</tr>
<tr>
<td>PBX-ACD.</td>
<td>$50,000</td>
</tr>
<tr>
<td>MISC.</td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$200,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>OPERATIONS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>STAFF - 1 MANAGER</td>
<td>$25,000</td>
</tr>
<tr>
<td>1 OPERATOR</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td><strong>$45,000</strong></td>
</tr>
<tr>
<td>FACILITY OVERHEAD</td>
<td>25,000</td>
</tr>
<tr>
<td>PHONE TRUNKS.</td>
<td>30,000</td>
</tr>
<tr>
<td></td>
<td><strong>$100,000</strong></td>
</tr>
</tbody>
</table>

*AMRIGON*

*NOVEMBER, 1982.*
## Network Alternatives

### Economic Comparison

#### Local - Distribution

- **A** 40 - 50 Markets*
- **B** 1 Machine per Market
- **C** Capital Costs = $200,000 per Unit

- **Annual Operations** $100,000
- **Capital Amortization** $50,000

\[
\text{Annual Amortization} = \frac{150,000 \times 50}{7.5 \text{ million}}
\]

- **Toll Free**
- Phone Expense 30.0 Million

#### National/Regional Centralized

- **A** 1 to 10 Locations
- **B** Cluster of Machines
- **C** Capital Costs = $200,000 per Unit

- **Annual Operations** $100,000
- **Capital Amortization** $50,000

\[
\text{Annual Amortization} = \frac{150,000 \times 50}{7.5 \text{ million}}
\]

- **Toll Free**
- Phone Expense 30.0 Million

\[
\text{Total} = 37.5 \text{ Million}
\]

---

*80% of Household over $25,000.

**50 Million Calls x 60¢ Each.

---

AMRIGON

NOVEMBER, 1982.
FIRST TIER INVESTIGATION POINTS TO POTENTIAL

1. $50 million market demand potential

2. Local base computer centers feasible from technical and financial perspective

3. Operational costs approximately 15% of revenue
On November 24, the Amrigon team presented the enclosed Raindrop presentation to selected Mattel Electronics personnel.

The highlights of the presentation are summarized as follows:

1) The Raindrop concept is not constrained by either:
   - consumer resistance to new entertainment/informational media (or telephonic/downloading distribution)
   - technology limitations
   - infrastructure requirements
   - price economics
   - supply item details

   Amrigon initiated the following consumer research activities:
   - 3 Qualitative Focus groups with children in the 4th, 5th and 6th grades
   - telephone interviews with adult heads of households that currently own a videogame

   Both the qualitative and quantitative studies were held to get reactions to the generic concept as well as some usage and price data.

   The consumer research findings led Amrigon to state that the "Raindrop concept is successful with consumers." This was based on Amrigon's past data that when 15-20% of respondents indicate an extremely/very interested purchase intention in a new product, that this signifies a moderately strong product concept. The Raindrop concept scored as follows:
   - 25% - after first explanation of generic concept
   - 18% - after additional discussion of "Good" and "Bad" points
• 15% - after knowledge of having to schedule an "appointment" to receive games (this appointment concept is not necessarily a basic tenet of the concept. It was used to qualify a lower range to the responses).

• The Amrigon research also showed that the strongest appeal pointed to a price point of $1.00 per hour (other pricing schemes will be tested in the next phase of the Raindrop evaluation, pending Senior management approval).

II) Amrigon next reviewed the various technical possibilities relating to distribution and transmission.

1. Distribution

The following distribution methods were reviewed and judged unacceptable:

• Toll Free 800 service
• Shared Fee arrangements with:
  • AT&T Longlines
  • AT&T Interexchange
  • Non-Bell Networks
  • Customer Shared Burdens
  • Long Distance
  • 900 Service
  • 976 Service
  • 520 Service
  • Announcement Provider Rebill Service

• Amrigon suggested that the "local office-based center" alternative was the highest-rated distribution alternative.

• If we look at $25,000+ households, 65% are situated in the top 40 metropolitan markets and 80% are in the top 50.

• In these areas, in addition, local/"near zone" calls charged to customers are sometimes not itemized on a consumer's monthly bill.

2. Capacity

• Based on overloading of national/regional networks, Amrigon suggested that a local distribution center (@ 1200 Boud) would be the optimal alternative.
III) Amrigon lastly reviewed several financial aspects of the market and network demands and local "center" operating expense.

1. Amrigon utilized two methods to show market demands at, say, the end of 1982:

   a. **Budget Based**

      | Parameter                                      | Value       |
      |-----------------------------------------------|-------------|
      | Total U.S. Game Unit Population                | 14 million units |
      | Research output of 25% very/ extremely interested | 3.5 million |
      | Amrigon ratio of 30% translation of interest into purchase | 1.05 million customer base |

      Annual Cartridge Expenditure per household
      (9 cartridges per year X $25 retail) = $255

      Raindrop Diversion of annual expenditure per year @ 1 hour per week and $1 per year = $50

      Annual Raindrop Revenue
      (1.05 million households X $50) = $50 million

   b. **Usage Based**

      - 1.05 million customer base
      - Annual gameplay per year @ 6 hours/week = 300 million hours
      - Percentage of gameplay utilizing Raindrop @ 33% = 100 million hours
      - 50% percentage willing to pay at least $1/hour X 100 million hours X $1/hour = $50 million revenue

**NOTE:** These were Amrigon's data points. I believe the 1 hour per week usage was extremely low, the 9 cartridges/year purchase too high, and the 14 million customer base too unclear. These items, and others will be clarified in the upcoming Mattel business analyses.
2. Network Demand

• The $50 million annual revenue from the above indicates 50 million calls at $1 hour/call.
• Amrigon translated this to a frequency of 15,000 calls/hour, split between weekdays and weekend/holidays.
• These 15,000 calls/hour could be accommodated by a group of computers with 1000 ports: with each port handling 15 calls per hour (the average connection/download/disconnection time was estimated to be 4 minutes, or 15 per hour).
• These 1000 computer ports should be doubled to accommodate peak times, necessitating a requirement for 2000 ports to handle the 50 million calls.
• Computers for each local "center" would be selected accordingly. Amrigon recommended either a DEC PDP 11/34 or PDP 11/23.

3. Operational Expense - Local Center

• Capital $200,000 investment
  • Computer/PBX/Misc.
  • Operations $100,000 yearly
  • 2 Staff/Overhead/Phones

• With 1 computer in each of the, say, 50 local centers and a 4 year hardware depreciation, the total local distribution/operating center expense was estimated at $7.5 million compared to the revenue of $50 million.
• Of course, not included in Amrigon's analysis were other areas of:
  • operational expense of marketing the service, etc.
  • revenues due to hardware sales, etc.

• Suggested next steps are as follows:
  • G. Moskovitz/R. Chang to put together 3 year plan, for review with Executive committee. Based on this review, decisions would be made on next steps for:
    • hardware implementations
    • field research
    • possible venture requirements review with corporate management.
This Executive Committee Raindrop presentation is targeted for completion by December 17th.

- As a side issue, the hardware requirements for Raindrop may have some common electronic circuitry with both the Pronto/Videotex and PlayCable peripherals. Richard Chang and Dave Chandler will meet and review this subject and include in the Raindrop assessment.

GSM: pg
(attachment)
RAINDROP

MATTEL ELECTRONICS
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AMRIGON
NOVEMBER, 1982.
MARKET-Demand/Potential Proposal Exhibit 2

SECTION I. MARKETING

MARKET-Demand/Potential Proposal Exhibit 2

3 SUB-PERSPECTIVES

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MARKETING IMPLICATIONS

MARKET-Demand/POTENTIAL

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- PERSONAL COMPUTERS, . . . 500,000-700,000 UNITS - 1982
  2 MILLION UNITS - INSTALLED BASE

- BASIC CABLE . . . . . . . 28 MILLION HOUSEHOLDS - GROWING AT A RATE OF 250,000 HOUSEHOLDS PER MONTH

- PAY CABLE . . . . . . . Has penetrated into over half of cable households...
  15 MILLION

PREVIEW: QUALITATIVE STUDY

WE FOUND NO RESISTANCE TO THE TELEPHONE AS A MEDIA SOURCE.

AMRI GON
NOVEMBER, 1982.
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKET COMPETITIVE OVERVIEW

INERTIA AND PRODUCT ADOPTION*

RAINDROP DOES NOT HAVE THE...

0 CONVERGENCE PROBLEM.

TECHNOLOGY

CONSUMER DEMAND

INFRASTRUCTURE

MANUFACTURER

DELIVERY

SOFTWARE SOURCE

CO-OP SUPPLY ENTITIES

PRICE ECONOMICS

MOST INNOVATIVE PRODUCTS ARE "HELD-UP"
BECAUSE LACK OF CONVERGENCE IMPEDES
INHERENT PRODUCT STRENGTHS.

*Reference: Connections, James Burke
PBS Television Series/Book

AMRIGON
NOVEMBER, 1982.
MARKET COMPETITIVE OVERVIEW

CONVERGENCE AND DEMAND FOR OTHER
NEW INDUSTRY PRODUCTS . . . . . . CASE EXAMPLES

- COLOR TELEVISION. . . . Need Price/Value Improvement
  -coop supply entities
  -price
  ...price drop somewhat and
  software gamble by NBC paved
  way for takeoff.

- QUAD SOUND. . . . . . . Differentiation not strong
  -consumer demand
  -price
  enough to stimulate demand.

- VIDEOTEX/TELETEXT . . . Slower progress because
  -infrastructure
  need large infrastructure.

- POLAVISION . . . . . . Competitive technology
  -technology
  surpassed product.

-ETC. . . . .

AMRIGON
NOVEMBER, 1982.
MARKET/COMPETITIVE OVERVIEW

ENTERTAINMENT PERSPECTIVE

SOME NEW PRODUCTS/SERVICES ARE DOING BETTER THAN OTHERS IN THE CONSUMER MARKET.

THOSE DOING WELL HAVE A STRONG ENTERTAINMENT DIMENSION, THOSE EXPERIENCING PROBLEMS ARE INFORMATION ORIENTED.

INFORMATION ORIENTED. . . . . . PROBLEMATICAL

The Source... Executive Turnover... Not even the Resources of Reader's Digest have Turned it Around. Losing $5 - $7 Million per Year. Small Terminal Base, only 20,000 Subscribers... High Access Charges.
MATTTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKETING STUDIES

AMRIGON QUALITATIVE STUDY

- 3 SESSIONS
  - 4TH, 5TH AND 6TH GRADERS

- ATTITUDINAL EXPLORATION
  - BEST VIDEO GAMES
  - COST
  - NEW GAME TESTING

- REACTION TO CONCEPT OF RENTING GAMES

- INTRODUCTION OF GAMES-BY-PHONE CONCEPT
  - DISCUSSION OF PROS/CONS...
  - RATING

- DISCUSSION OF ADVANTAGES/DISADVANTAGES
  - OF SPECIFIC EXECUTION
  - DISCUSSION... OTHER ADVANTAGES/
    DISADVANTAGES... RATING

- SPECIFIC EXECUTION AND COST
  - DISCUSSION... RATING

AMRIGON
NOVEMBER, 1982.
RAINDROP
MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKETING STUDIES BACKGROUND

AMRIGON QUANTITATIVE STUDY

- HEAD OF HOUSEHOLD
- VIDEO GAME IN HOME

A REACTION TO GENERIC CONCEPT
- LEVEL OF INTEREST... 5 POINT SCALE

B INTRODUCE "GOOD"/"BAD" POINTS

<table>
<thead>
<tr>
<th>&quot;GOOD&quot;</th>
<th>&quot;BAD&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREVIEW OF GAME</td>
<td>HOUR INCREMENTS</td>
</tr>
<tr>
<td>VARIETY</td>
<td>EXTRA COST ATTACHMENT</td>
</tr>
<tr>
<td>UNIVERSALITY</td>
<td>SOME GAMES NOT AVAILABLE IN CARTRIDGE FORMAT</td>
</tr>
<tr>
<td>CUSTOMIZE GAME FACTORS</td>
<td>THREE MINUTE LOAD TIME</td>
</tr>
</tbody>
</table>

C REACTION TO "APPOINTMENT" CONSTRAINT
- LEVEL OF INTEREST... 5 POINT SCALE

D USAGE QUESTION... SPECIFIC EXECUTION WITH PRICE

AMRIGON
NOVEMBER, 1982.
RAINDROP

MATTEL ELECTRONICS
NEW VENTURE ACTIVITY
TRANS-STRATEGIC INVESTIGATION

MARKET DEMAND/POTENTIAL

BASIC CONSUMER INTEREST

RAINDROP CONCEPT IS SUCCESSFUL WITH CONSUMERS

AMRIGON QUANTITATIVE STUDY

Percent Extremely/Very Interested by Knowledge Level.

<table>
<thead>
<tr>
<th>Percent</th>
<th>After Explanation of Generic Concept</th>
<th>After &quot;Good&quot; and &quot;Bad&quot; Points</th>
<th>With &quot;Appointment&quot; Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td></td>
<td>25%*</td>
<td>18%</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
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<td></td>
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<tr>
<td>18</td>
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<td></td>
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<tr>
<td>16</td>
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<td></td>
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<tr>
<td>14</td>
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<td></td>
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<tr>
<td>12</td>
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<tr>
<td>10</td>
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<tr>
<td>8</td>
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<td>6</td>
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<tr>
<td>4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GENERIC CONCEPT DRAWS HIGH* LEVEL OF CONSUMER ACCEPTANCE.

SOME DROP IN ACCEPTANCE AFTER FULL KNOWLEDGE. **

THE "APPOINTMENT" CONSTRAINT HAS ONLY MARGINAL INFLUENCE ON CONSUMER ACCEPTANCE.

*AMRIGON NOMINAL DATA:
Moderately Strong Products... 15%-20%.

**ADULT PERSPECTIVE

AMRIGON
NOVEMBER, 1982.
MARKET DEMAND/POTENTIAL

**PRICE/REVENUE ISSUE**

**STRONGEST APPEAL POINTS TO PRICE FOCAL POINT**

OF $1.00 PER HOUR.

**AMRIGON QUANTITATIVE STUDY**

Price Sensitive Analysis

<table>
<thead>
<tr>
<th>COST PER HOUR</th>
<th>$0.50</th>
<th>$0.50</th>
<th>$1.00</th>
<th>$1.50</th>
<th>$2.00</th>
<th>$2.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent:</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>CUMULATIVE:</td>
<td>N/A</td>
<td>78%</td>
<td>51%</td>
<td>30%</td>
<td>17%</td>
<td>12%</td>
</tr>
</tbody>
</table>

**MARGINAL EFFICIENCY:**

- 22%
- 27%
- 21%
- 13%
- 5%

**OPTIMUM PRICE**

$.50 < $ < 1.00

AMRIGON

NOVEMBER, 1982.
MARKETING IMPLICATIONS

1A. SOFTWARE AVAILABILITY WILL MAKE/BREAK CONCEPT

1B. NOVELTY OF TECHNOLOGY/EASE OF DISTRIBUTION
   NOT MAJOR SELLING POINTS

2. PRICING SENSITIVITY IMPORTANT

   50¢ SUPER... $1.00 GOOD TO VERY GOOD...
   $2.00 FAIR TO POOR.

   ASSUMING HARD CARTRIDGE AVAILABILITY
   STILL EXISTS... WANT TO AVOID "ARCADE
   COST TRAP"

3. EXECUTION PROBLEMS

   CONSUMER CONCERNS:  Does it Tie Up my Phone?
   Convenience Issues...
   How do I Request my Game?

AMRIGON
NOVEMBER, 1982.
MARKETING SUMMARY

FIRST TIER INVESTIGATION POINTS TO POTENTIAL

1. RAINDROP IS ON THE SPECTRUM OF ACCEPTABLE MEDIA

2. MOMENTUM NOT BLOCKED BY LACK OF CONVERGENCE

3. MARKET/DEMAND ACCEPTANCE IS READY AND MODERATELY STRONG

4. $1.00 PER HOUR PRICE FOCAL POINT
SECTION II. TECHNICAL

2 SUB-PERSPECTIVES

DISTRIBUTION  TECHNICAL  TRANSMISSION

- DISTRIBUTION . . . . . . NETWORK ALTERNATIVES.
  AT&T LONGLINES
  TOLL-FREE/800
  CUSTOMER FLAT FEE
  LOCAL TELCO's/BOC's
  NON BELL NETWORKS

- TRANSMISSION CAPACITIES . . NETWORK LOAD POINTS.

AMRIGON
NOVEMBER, 1982.
DISTRIBUTION ALTERNATIVES

TOLL FREE 800 TYPE SERVICE

NATIONAL OR REGIONAL TOLL FREE SERVICE
PUTS UNACCEPTABLE COST PENALTY ON MATTEL

- PREVIEW 
  PHONE TOLL FREE 
  INCREASE ON SOFTWARE RENT
  Case A . . . 160%
  Case B . . . 220%

- IMPLIES
  A . . . NETWORK FEES SHARED WITH MATTEL
  B . . . CUSTOMER SHARED BURDEN
  C . . . LOCAL OFFICE
DISTRIBUTION ALTERNATIVES

NETWORK FEES SHARED WITH MATTEL

POSSIBILITY SLIGHTLY ABOVE ZERO FROM TECHNICAL OR COOPERATIVE PERSPECTIVE

- AT&T LONGLINES AND AT&T INTEREXCHANGE
  - CONCEPTUALLY UNABLE TO HANDLE JOINT VENTURE
  - SPECIAL REGULATED TARIFF NECESSARY
    18 - 24 MONTH TIME FRAME
    COURT CHALLENGE POSSIBLE

- NON BELL NETWORKS
  - ATTITUDE VERY POSITIVE
  - INBOUND NETWORKS - 12 MONTHS AWAY
  - REGULATED TARIFF STILL NECESSARY
    18 - 24 MONTHS
### DISTRIBUTION ALTERNATIVES

#### CUSTOMER SHARED BURDEN

Has most variations, however all technically unacceptable and/or impact consumer demand negatively.

<table>
<thead>
<tr>
<th>VARIATION</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CUSTOMER CALLS LONG DISTANCE</td>
<td>80% reduction in demand.</td>
</tr>
<tr>
<td>2. 900 SERVICE</td>
<td>Designed for 1 minute or less 50¢/35¢ per minute... every 5th call pass through for customer input.</td>
</tr>
<tr>
<td>3. 976 SERVICE</td>
<td>Similar to 900 but regional.</td>
</tr>
<tr>
<td>4. 520 SERVICE</td>
<td>Restrictive - lets 1 in 100 pass through.</td>
</tr>
<tr>
<td>5. ANNOUNCEMENT PROVIDER</td>
<td>New rebill service - 18 months to tariff - local telco only.</td>
</tr>
</tbody>
</table>

AMRIGON
NOVEMBER, 1982.
DISTRIBUTION ALTERNATIVES

LOCAL OFFICE

PREVIOUS CONSIDERATIONS POINT TO LOCAL BASED - BASE COMPUTER CENTER.

$25,000+ HOUSEHOLDS

- 40 METRO MARKETS, . . 64% OF POTENTIAL
- 50 METRO MARKETS, . . 80%

LOCAL AND NEAR ZONE CALLS TO BE CHARGED TO CUSTOMER MAY/MAY NOT BE ITEMIZED.
NETWORK CAPACITIES

MAXIMUM LOAD POINTS

"MAXIMUM" depends on multiplexing. National/Regional could easily overload network with master phone number.

EXAMPLE

L.A. wirecenter could handle up to 6,000 calls per hour but requires 6 different phone numbers.
FIRST TIER INVESTIGATION POINTS TO LOCAL BASE COMPUTER CENTER

1. PHONE EXPENSE BURDEN POINTS TO LOCAL DISTRIBUTION
   - UNABLE TO SHARE TELEPHONE REVENUE WITH NETWORK PROVIDER
   - CUSTOMER SHARED BURDEN NON FEASIBLE/REDUCED DEMAND

2. CAPACITY POINTS TO LOCAL DISTRIBUTION
   - EASY TO OVERLOAD NATIONAL/REGIONAL WIRECENTER
   - LOCAL TRANSMISSION AT 1200 BAUD SHOULD HAVE 97%+ QUALITY

AMRIGON
NOVEMBER, 1982.
SECTION III. FINANCIAL

FINANCIAL

PROPOSAL EXHIBIT 4

2 SUB-PERSPECTIVES

OPERATIONAL PARAMETERS
ECONOMICS

FINANCIAL

CAPITAL/OPERATIONAL REQUIREMENTS

- MONEY
- PEOPLE

OPERATIONAL ECONOMICS

A. MARKET ESTIMATES

CAPITAL/OPERATIONAL REQUIREMENTS

NETWORK ECONOMICS
LOCAL VS. REGIONAL OR NATIONAL

AMRIGON
NOVEMBER, 1982.
### Market Estimates

**Method A. Market Demand/Budget Based**

**Part I:** 14 million game units
- $\times 25\%$ very/extremely interested

- 3.5 million
  - $\times 30\%$ interest/purchase translation *

- 1.05 million customer base

**Part II:**
- 0.75 cartridge per month per household
  - $\times 12$ months
  - $\times $25 estimate retail sale of cartridge

- $\$225$ annual family video game expenditure

- $\$50$ estimate raindrop diversion per family per year (1 hr. per week)

- 1.05 million households $\times $50 approx. $\$50$ million annual revenue

Source: *Previous AMRIGON/MATTEL ELECTRONICS STUDIES*

AMRIGON
November, 1982.
### Market Estimates

**Method B. Market Demand/Usage Based**

**Part I:**
- 14 million game units
- $x 25\%$ very/extremely interested
- $3.5$ million
- $x 30\%$ interest/purchase translation

$1.05$ million customer base

**Part II:**
- 6 hours of play per week (6-8 hrs.)
- $x 50$ weeks
- $300$ million hours of videogame play
- $x 33\%$ est. of cartridge/RAINDROP

$100$ million hours of play

$100$ million hours $x 50\%$ willing to pay $\$1.00$/hr.

Approx. $\$50$ million annual revenue

Source: *Previous AMRIGON/MATTEL ELECTRONICS STUDIES*
OPERATIONAL PARAMETERS

NETWORK DEMAND LOAD

$50 MILLION IMPLIES 50 MILLION CALLS

50%/50%

WEEKENDS & HOLIDAYS
8 AM/EST..... 9 PM/PST
16 Hours per Day

25 MILLION + (32 Hrs, x 52 Calls
WEEKS)

15,000 CALLS PER HOUR

1000 PORTS
On BASE COMPUTER
1 PORT a 4 MINS.=15 CALLS
PER HOUR

WEEKDAY EVENINGS
4 PM/EST..... 9 PM/PST
8 Hours per Day

25 MILLION + (40 Hrs, x 52 Calls
WEEKS)

12,000 CALLS PER HOUR

AMRIGON
NOVEMBER, 1982.
BASE COMPUTER REQUIREMENTS

15,000 CALLS ÷ 15 PER HOUR = 1000

2000 PORTS FOR PEAK TIMES

8 - 10 BASE COMPUTERS

256 PORT CAPACITY

*Consider PDP 11/23.

AMRIGON
NOVEMBER, 1982.
LOCAL OPERATION CENTER

SINGLE MACHINE INSTALLATION

- CAPITAL REQUIREMENTS (4 Yr. Amortization)

  - PDP 11/34: $100,000
  - Processor, Disc., MUX, OPER. SOFTWARE
  - PBX-ACD: $50,000
  - MISC: $50,000

  TOTAL: $200,000

- OPERATIONS

  - STAFF - 1 MANAGER: $25,000
    - 1 OPERATOR: $20,000

  - FACILITY OVERHEAD: $25,000
  - PHONE TRUNKS: $30,000

  TOTAL: $100,000

AMRIGON
NOVEMBER, 1982.
## Economic Comparison

<table>
<thead>
<tr>
<th>Local - Distribution</th>
<th>National/Regional Centralized</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> 40 - 50 Markets*</td>
<td><strong>A</strong> 1 to 10 Locations</td>
</tr>
<tr>
<td><strong>B</strong> 1 Machine per Market</td>
<td><strong>B</strong> Cluster of Machines</td>
</tr>
<tr>
<td><strong>C</strong> Capital Costs = $200,000 per unit</td>
<td><strong>C</strong> Capital Costs = $200,000 per unit</td>
</tr>
</tbody>
</table>

- **Annual Operations** - $100,000
- **Capital Amortization** - $50,000

\[
\frac{\text{Capital Amortization}}{\text{Annual Operations}} = \frac{\$50,000}{\$100,000} = 0.5 \times 50 = 7.5 \text{ Million}
\]

- **Toll Free**
  - Phone Expense $30.0 Million
  - Total $37.5 Million

*80% of Household over $25,000.

**50 Million Calls x 60¢ Each.
FIRST TIER INVESTIGATION POINTS TO POTENTIAL

1. $50 MILLION MARKET DEMAND POTENTIAL

2. LOCAL BASE COMPUTER CENTERS FEASIBLE FROM TECHNICAL AND FINANCIAL PERSPECTIVE

3. OPERATIONAL COSTS APPROXIMATELY 15% OF REVENUE

AMRIGON
NOVEMBER, 1982.
DATE: December 10, 1982

TO: Distribution

FROM: Gary Moskovitz

SUBJECT: MEETING WITH CVC/GAMELINE PERSONNEL

The following personnel from Control Video Corporation visited Mattel on December 7th:

- William F. von Meister - President
- John. A Kerr - Senior Vice President, Marketing

Mattel representatives included:

- Peter Pirner
- Stav Prodromou
- Richard Chang
- Gary Moskovitz

CVC had contacted Mattel (see attached correspondence) regarding their "Game-Line" service and any possible Mattel interest in adding our M Network software to the "Game-Line" Library. Present Game-Line service will be for Atari VCS game units.

Attached to this memo are the following materials relevant to the discussions that followed:

- 10/22 letter to Josh Denham from John Kerr
- 11/18 letter to Josh Denham from John Kerr
- Game-Line Brochure
- CVC-proposed Agreement Form for formalization of supplier relationship
- CVC Question/Answer brochure for organizations interested in becoming CVC "Network Affiliates"

Meeting Highlights

I. Background

- The CVC/Game-Line organization has been financed by Citi Corp, Imagic, Hambrecht and Quist, Kleiner, Perkins, Caulfield & Byers and Sears.
• Initial capitalization was $450,000 and $5 million additional is required until positive cash flow occurs.
• Present agreements with software suppliers include:
  • Imagic
  • Data Age
• Activision and Atari both declined in the past but supposedly are re-opening discussions
• The basic operation of "Game-Line is as follows:
  • Consumer purchases $49.95 "Command Module" from retail
  • Consumer calls 800 number and registers on phone at $10.00 registration fee
  • This entitles consumer to receive:
    • Master Catalog
    • Starter Kit of current game instructions
    • 1 year subscription to "Game-Liner" Magazine
  • Consumer then pays $1.00 per session per game selection. Each session to last about 30 minutes for the average player.
    • A "fast" game, like Activision's "Dragster" might be 80 plays for the $1.00 session.
    • A "slow" game, like "Chess" might give 2 plays for the $1.00 session.
  • Consumer will also be able to choose to compete in weekly and monthly contests for an additional fee, but with a variety of awards available.
  • Consumer selection is done via a series of menu screens on the television. Alpha-numeric information on the screen is selected via joystick movement of a cursor and "fire" button selection of individual elements (see the enclosed brochure and Question/Answer Pamphlet for further details).

II. Hardware

• In Consumer's Home

The $49.95 Command Module has the following features:

• 8K NMOS STATIC RAM
• 4K ROM (Control Program)
• 2K CMOS RAM/with battery back-up (contains owner/player profiles)
• 32 bytes of EPROM (contains unit serial number)
Information stored in RAM memory includes:

- downloaded game
- player's best score per session
- player's credit card number
- player's identification number
- player's credit limit
- player's name
- player's age

- Built-in 900-1800 baud modem, utilizing packet switching in a half duplex iso-synchronous mode. Eight bit characters are utilized with 210 characters/second capacity. A normal 4K game cartridge would then require 20 seconds to download, ranging to 40 seconds for a "bad line". The modem utilizes the AMD 7910 modem IC chip.

- Auto-dialer, operating for touch-tone or rotary dial telephones.

- CVC estimated their cost for the production of the "Command Module" to be $27.00.

"Head End/Network"

- A master computer, headquartered in McLean, Virginia will administer the system, utilizing both a national INWATS (800) Service and a number of local "Network Affiliate's", operating multiplexors. This main computer is a Stratos unit, utilizing 4 hard disc units, with full redundancy and power loss protection.

- The CVC Network affiliates will have a multiplexor (computer/PABX combination) tailored to its local calling area, with communications back to the central computer in Virginia.

III. Schedule

- CVC is currently demonstrating a breadboard Command Module interfaced to an Apple Computer.

- Plans call for a first production run of 10,000 Command Module units commencing in April, 1983. Initial marketing will be via direct response using Electronic Games magazine. Game-Line will supposedly be featured on the June "Summer CES" issues of Electronic Games Magazine.

- CVC has not committed the production to any vendor as yet.

- July is scheduled to begin quantity deliveries at 15,000 units per month, ramping up to 50,000 units per month. CVC targets to have 600,000 units in their pipeline (installed/at retail/in storage) by early to mid 1984.

- CVC is using a suite at the Tropicana, during WCES, in an attempt to sign up 200-300 distributors.

- Supposedly Sears, an investor in CVC, will not only sell the Command Module at retail, but will also allow CVC 800-line operators to take credit card applications for a Sears charge card, while consumers sign up for Game-Line.
IV. Financial/Marketing Elements

• CVC is targeting a 20% penetration into the installed base of Atari VCS units within 3 years. They believe they will penetrate on a straight line basis of 6½%/year.

• CVC believes each Game-Line user will play 5-6 times per month.

• CVC has established the following revenue distribution criteria:
  
  • To the Games Software Supplier:
    15% of adjusted gross revenues from game sessions involving the suppliers games (adjusted for credits due to defective/incomplete transmissions, contest entry fees and uncollectibles). Mr. Kerr and Mr. von Meister stated that additional elements were negotiable with each Games Supplier such as: featured position in contests, covers on Game Liner Magazine, mailing lists, bill stuffer placement, research information (usage; demographics, etc.)

  • To the Network Affiliate:
    1) $0.10 for every game selection made by related subscriber; 2) New Subscriber Bonus for each new Command Module registered in the related territory; 3) payment for future CVC service (non-Game Line) at $.10 for first minute and $.05 for each additional minute (or fraction).

  • To the Retailer:
    $0.025 for every game selection made on every related Command Module sold.

Summary

The preceding highlights the discussion items of the meeting. There was additional discussion concerning CVC/Game-Line's plans for an Intellivision Command Module and they expressed willingness to work with Mattel in some different arrangement.

The meeting ended with two action items:

1) Mr. Kerr/Mr. von Meister would call Gary Moskovitz on December 16/17 to receive a status report on Mattel's thoughts to our adding M Network to Game-Line.

2) Mattel requested an on-premises demonstration and the CVC personnel agreed to coordinate.
After this meeting, several internal Mattel meetings were held to review the Game-Line information in light of Raindrop and information highlighted by Amrigon.

Concerns raised are as follows:

1) Legal constraints of CVC agreement - William Catron to review;
2) Reality of traffic loads on local multiplexor of Game-Line proposal versus traffic loads cited in Amrigon analysis;
3) Reality of local network affiliation method of Game-Line providing sufficient service versus Mattel owned/operated local centers.

These and other issues will be highlighted in the upcoming Raindrop Business Analysis.

[Signature]

GSM:pg
October 22, 1982

Mr. Joshua W. Denham  
President, MATTEL Electronics  
5150 Rosecrans Ave.  
Hawthorne, CA 90250

Dear Mr. Denham:

Control Video Corporation has developed an exciting new technology to deliver a variety of games, videotext and other software directly to Atari VCS systems via the telephone. The system uses a RAM cartridge, complete with high-speed modem and autodialer, (the COMMAND MODULE) which plugs into the VCS and connects to the telephone via a modular jack. It will retail for $39.95 plus a one-time registration fee of $10.00.

Our first service is GAME-LINE™, a computer based library of Atari compatible games available on a "pay-per-play" basis. GAME-LINE will feature real-time computer managed local, regional and national contests with prizes ranging from patches and T-shirts to full college scholarships.

We have completed our initial financing with Citicorp Venture Capital, Hambrecht & Quist, IMAGIC, and Kleiner, Perkins, Caulfield & Byers. A COMMAND MODULE™ prototype has been completed and production prototypes will be operational before year-end. Initial production deliveries are scheduled for April of next year.

We believe the GAME-LINE system offers a number of valuable opportunities for you as a developer/manufacturer of VCS compatible software, and we would like to arrange an appointment to present our system and these exciting opportunities for your consideration. Bill von Meister, the founder and president of GAME-LINE, and I will be in California the week of November 1 through 4. I'll call you next week to see if we can set a date to get together.

Sincerely yours,

John A. Kerr  
Senior Vice President  
Marketing

JAK/hs
November 8, 1982

Mr. Joshua W. Denham  
President  
Mattel Electronics  
5150 Rosecrans Avenue  
Hawthorne, CA 90266  

Dear Mr. Denham:

Recently I wrote to you about GameLine our new system for delivering a variety of games, videotex, and other software directly to Atari VCS systems via the phone. I was unable to reach you to schedule an appointment to discuss GameLine on our recent trip to the West Coast but I wanted you to have the enclosed brochure for further information.

Everything is proceeding on or ahead of schedule. In addition to IMAGIC, we have reached preliminary agreements with Sears and Data Age to participate in GameLine. We definitely would like to have you join us.

To that end, I'll be calling you shortly to schedule an appointment on our next trip West, presently scheduled for the beginning of December, to discuss the many advantages GameLine offers you. If, in the interim, you will be in the East, or require further information, please call me.

Sincerely,

[Signature]

John A. Kerr  
Vice President

JAK:b  
Enclosure
IT'S ARRIVED!

IT'S GameLine

It answers a powerful consumer demand: in an explosive market—
the home-video game industry:

By adding GameLine to your present Atari® Video Computer System® or
Sears Video Arcade®, your TV screen comes alive with a vast selection of
top selling video games! Play them to your brain's delight: They're all there
for you in your own home!

Imagine!

- Using a GameLine Command Module™ to play any number of
games in the GameLine library!
- Competing with GameLiners everywhere (GameLining) to find out
  how good you really are!
- Selecting the game you plan to conquer next!
- Winning super prizes as you prove yourself against nationally rated
  players!
- Becoming a master at a game just appearing on the market!
- And even communicating with fellow GameLiners and game creators
  through GameLine's exclusive electronic mail system—"MailLine!™"

GameLine thrusts you through the barriers of arcades and cartridges, out
into a new world of choice, elite competition, and fingertip control.

The hottest technology is here for the hottest market!

We know you're good, but GameLine makes you better!

The most creative application of today's entertainment technology.
Here's How You Take Command

Get a **GameLine Command Module** at your nearest video games dealer.

Following the simple, speedy hook-up instructions, you link your telephone and Atari® VCS™ or Sears Video Arcade™ together. That brings in **GameLine**. Powerful **GameLine** computers are ready to energize your system. Hit the select switch on your terminal.

Your television screen says ‘**ZAP! HERE'S GAMELINE!**’

You're on.

**POW!** Here comes a line-up of games for your review and selection, all controlled by your **GameLine Command Module**. Make your choice and just hit your blaster button!

Now, you can really go for it: up to an hour's worth of play for a one-dollar tab posted automatically to your credit card. All when you want, without a cartridge, right at home!

Your highest score can be stored automatically by **GameLine**. Get your local and regional rankings instantaneously—even your national ranking—with winningest players awarded game credits, spiffy prizes, and invitations to national play-offs! Repeated demonstrations of superior play will earn T-shirts, game jackets, shoulder patches (so your friends will know) and the respected title, **GameLine: “VideoMaster”**.

If you want to practice up before entering **GameLine** contests, you can buy the cartridge at a discount from any participating **GameLine** dealer.

**ANOTHER GAMELINE EXCLUSIVE!**

Either way, it's super fun! Reach out and play someone!
Justifying all the Fun

Simply having fun is reason enough! But there's even more:

Take the practically unlimited selection of GameLine games, for example. You can't get that kind of variety at any arcade in town.
—And GameLine's right in your home!

Look at the practical side too: GameLine offers valuable prizes. Try games out on GameLine; then buy the cartridges at your local store. Become an expert!

And there's the competition: who hasn't wanted to take on the world when the action starts! GameLine electronically projects you into the world of GameLiners everywhere. There's always a challenger waiting to be trounced!

Remember: while you're fighting your battles, you can earn such premiums as game credits, T-shirts, home computers, trips to GameLine's big-time play-offs, even a college scholarship!

And, finally, it's all kept up to date by the monthly GameLiner magazine: pages of action-packed previews. New games, new champions, tips on reaching new GameLine highs!

ZAP! THAT'S IT!
THAT'S GAMELINE.
AGREEMENT

Control Video Corporation (hereinafter referred to as "CVC") and Games Software Developer (hereinafter referred to as "GSD"), for itself and its subsidiaries, have agreed as follows:

1. GSD shall furnish CVC with a list of all video games presently or in the future owned or controlled by GSD, as well as copies of the games themselves in a machine readable medium with annotated listings, and an exclusive license, excepting any system developed and operated by GSD, to distribute such games electronically via telephone lines, cable television systems, low power television, and similar electronic distribution systems, to subscribers worldwide for their personal, non-commercial use. GSD will provide CVC with any available marketing/promotion materials including camera ready artwork enabling CVC to promote GSD's games in connection with the GameLine System. CVC may offer new game releases via the GameLine System simultaneously with the release of the games to distributors, wholesalers or retail stores. All other releases may be distributed by CVC via GameLine at any time.

2. This Agreement shall continue in effect for five (5) years from the commencement of the GameLine service and thereafter from year to year, unless at any time after the initial five year period the parties agree to renegotiate the Agreement, in good faith.

3. CVC shall have the right to make limited copies of each game provided by GSD pursuant to this Agreement for CVC's internal use in putting the game on the GameLine System only. CVC shall have the right to make modifications to each game provided by GSD pursuant to this Agreement in order to put the game on the GameLine System. Any changes shall not affect the presentation or playability of the game.

4. CVC will transmit games over the GameLine network which a subscriber must pay a per-session fee to play. CVC will pay to GSD a license fee equal to 15% of adjusted gross revenues derived from game sessions involving GSD's games. A game session shall consist of a number of plays of a selected game, with GSD providing estimates of the number of plays per session such that the average player will receive about one half-hour's playing time. Adjusted gross revenues shall mean total game session billings less credits allowed subscribers for defective or incomplete transmissions and adjustments for contest entry fees and uncollectable accounts.

5. CVC reserves the sole right to set the prices at which it sells game sessions to its customers, and to adjust such prices from time to time. However, it is CVC's present intent to charge $1.00 per session sold.

6. GSD agrees to grant to CVC the reasonable and limited right to provide "free" game sessions for promotional efforts. Such promotional efforts may include "free" or "bonus" transmissions of game sessions selected by CVC from among GSD's games for promotional and contest award purposes as are in CVC's judgment necessary or desirable to attract new subscribers or increase subscriber utilization of GameLine.

7. Once each month, CVC will report to GSD the total number of game sessions played during the preceding month involving games supplied by GSD and remit the sum due in accordance with paragraph 4. and 6. above. The reports accompanying such payment will include, at a minimum, the number of sessions played of each of GSD's games accompanied by demographic data relative to those game sessions.

8. The terms of this Agreement are confidential and neither CVC nor GSD shall disclose such terms to any third party without the prior written consent of the other.

9. GSD and CVC may enter into a more detailed agreement embodying the terms and conditions hereof, and such additional provisions as the parties may agree. Until such time this Agreement shall be binding on the parties.

ACCEPTED AND AGREED

BY: ________________________
TITLE: ______________________
DATE: ______________________

ACCEPTED AND AGREED

CONTROL VIDEO CORPORATION

BY: ________________________
TITLE: ______________________
DATE: ______________________
Gameline is the first service of CVC, animating through technology today the home entertainment center of tomorrow.

What exactly will it do as a CVC Network Affiliate?

You will own and operate one or more CVC Multiplexors, as well as your own CVC Control Terminal.

What is a CVC Multiplexor?

It is an electronic device that combines a number of local telephone lines into one long distance telephone line that is connected to GameLine host computers, thereby reducing the cost per long distance call from as much as $0.50 to as little as $0.03 (average $0.10) per minute. In effect, by spending capital dollars for equipment, on-going (expense) dollars are substantially reduced.

Why not use INWATS (800) service?

INWATS (800) service costs $0.18 to $0.35 per minute, depending on the caller's location and the time of day the call is placed. CVC will, of course, use INWATS for appropriate applications such as customer service calls, and in our national back-up system to provide uninterrupted service to your subscribers in the event of a CVC Multiplexor failure.

What is a CVC Control Terminal?

It is a communications device that allows you to send and receive messages to or from CVC headquarters or to your subscribers.
You need no previous training or experience to own and operate a CVC Multiplexor. Once the unit is installed and operating, it can be left unattended, except for repair calls.

*How will CVC's support time in managing my territory?*

CVC will be in constant contact with you via your CVC Control Terminal and our exclusive "MailLine" electronic message system. You will receive frequent status and usage reports, as well as system failure notifications, and you will be able to make your own on-line inquiries concerning revenues and sales trends, etc. CVC's professional telecommunications staff will be at your disposal virtually 24 hours per day to assist you in maximizing the return on your investment.

*What type of orientation does CVC provide?*

CVC provides you with two days of free training (including travel and lodging expenses) at our headquarters location in McLean, Virginia or at CVC's Regional Training Centers. During that time, you will be taught how to operate your CVC Control Terminal and how to communicate with CVC using "MailLine". In addition, you will learn how to diagnose and replace faulty CVC Multiplexor modules, guided remotely by our troubleshooting professionals.

*How do I make money?*

You make money in three ways:

1. You will receive $.10 for every game selection made by your subscribers, the players in your telephone area.
2. You will be paid a New Subscriber Bonus for each GameLine Command Module™ registered in your exclusive territory.
3. As future CVC services (such as news, sports scores and home banking) extend the amount of time your subscribers use your CVC Multiplexor, you will continue to receive $.10 for the first minute of usage, plus $.05 for each additional minute or fraction thereof on all calls made through your equipment.

*How does GameLine make money?*

GameLine makes money by charging subscribers for the right to try out new video games before purchasing them in cartridge form, as well as for the opportunity to test their skills in local, state, and national contests (for prizes) against fellow GameLiners down the street, across the country, or around the world.
Why doesn’t CVC install and operate local multiplexors itself?

CVC will install and operate some multiplexors of its own, but we need CVC Network Affiliates to secure the broadest possible market coverage in the shortest possible time. In addition, by living and working within their territories, CVC Network Affiliates provide the monitoring and feedback of local conditions that allow us to maximize market potential in those localities.

How will my territory be determined?

Your territory is determined by your local telephone calling area.

How are subscribers in my territory added to the system?

Subscribers are added when they purchase a GameLine Command Module in response to advertising and retail promotion. Subscribers must also register the Command Module via a toll free call to our customer service center. The Module is then automatically programmed to dial your CVC Multiplexor. All billing is computed directly by CVC and posted to subscribers’ credit cards; non-credit card subscribers will be required to pay a modest deposit as well as a $5 minimum monthly fee.

What investment will I have to make to become a CVC Network Affiliate?

Your investment will be determined by the size of the CVC Multiplexor required for your exclusive territory. A modest amount of working capital will also be required to fund local telephone line costs and network access charges until you achieve break-even cash flow. Only applications for territories where the local calling area exceeds 100,000 homes will be considered.

For example, a territory of 200,000 homes would require a single CVC Multiplexor with 12 Ports. The costs are:

- $5,500 per Port (in four Port increments)
- $45 per Port for Network Access Equipment rental
- Approximately $25 per month for each local telephone line (4 lines @ $25)
- Space rental, insurance and applicable taxes.

Costs:

- $66,000 one time charge
- 540/month
- 100/month
- 250/month

Do I have to pay for 12 local lines from the day I start?

No. You purchase the required amount of CVC Multiplexor equipment and rent the Network Access equipment, but you need only pay for four local lines from the time that there are at least 500 GameLine Command Modules registered in your area . . . until your call volume grows to where additional lines are required. GameLine will inform you of such requirements on a monthly basis or you may examine your usage statistics at any time using your CVC Control Terminal.
All of these numbers are determined by a process called “Telecommunication Traffic Engineering” (TTE) that is also used by every local telephone company and AT&T Long Lines. TTE takes into consideration the percentage of the total day’s traffic that occurs in the busiest hour, the average length of each call (call holding time), the size of each group of lines available to accept calls, and the probability of the subscriber getting a busy signal when calling GameLine. CVC’s TTE is based on reaching 4% of the households in your territory within three years, and on the assumption that the average household will call GameLine five times each month with each call averaging 60 seconds in duration. All TTE factors will be periodically reviewed by CVC’s staff of professional traffic engineers. Written reports and recommendations will be provided to you.

If GameLine’s penetration of your territory exceeds 4%, and/or if the average number of calls per household exceeds 5 per month, you will be required to add additional Ports.

As a CVC Network Affiliate, you will own your CVC Multiplexor and may use the ITC and depreciation expense associated with that ownership in preparing your Federal and State Income Tax returns. Your accountant will be able to advise you how best to apply your ITC and depreciation privileges.

You will be required to provide up to 100 square feet (10' x 10') of temperature and humidity controlled (air conditioned) space for your CVC Multiplexor. This space must be located so as to serve your local calling area properly and must have access to telephone facilities sufficient to handle the call volume projected for your subscriber population. The location must be approved by CVC’s Field Engineering department and, due to the number of telephone lines required, should probably be in the basement or utility section of a commercial office building.

Total Multiplexor system failures are extremely rare, and power outages of up to one hour are accommodated by the Uninterruptible Power System (UPS) provided with your unit. Single line module or modem failures are automatically detected by CVC’s Network
Control Center (NCC), and the affected telephone line is made to “look busy” so that incoming calls automatically skip over to the next available line. The NCC will be staffed 24 hours a day and will notify you of the failure virtually as it occurs. Ninety percent of such failures can be cured by replacing the faulty module from the “spares kit” furnished with your CVC Multiplexor, under the guidance of our NCC engineers. The NCC’s remote diagnostic capability will often be able to diagnose a fault even before it results in a service interruption.

Finally, should a total failure actually occur, our planned field engineering support group will normally be able to help you correct the problem within less than eight hours. (Surprisingly perhaps, your subscribers will remain virtually unaffected; their GameLine Command Modules will be automatically switched to dial our back-up INWATS network until your CVC Multiplexor is back on-line.)

Will I have to stock and maintain inventory?

Other than a modest complement of spare parts (the Spares Kit) provided with your CVC Multiplexor, no other inventory is required.

How long will it take to get my territory operating?

It will normally take approximately 90-120 days from execution of a Network Affiliate Agreement with CVC until your CVC Multiplexor is installed and operating. However, during this time CVC will immediately begin to build your subscriber base using our INWATS network.

Who will be my competition?

CVC currently knows of no similar (i.e., telephone based) service in any stage of development, and considers its GameLine Command Module technology to be protectable under U.S. Patent Law. There are, however, at least two cable television based services that offer games on a monthly subscription basis (Mattel Electronics’ PLAYCABLE and the GAMES NETWORK from International Cablecasting of Salt Lake City.) Because of the lack of two-way cable facilities, these services are unable to hold and score contests, a major attraction of GameLine, or to offer games on a “pay-per-play” basis.

How can I undertake a financial evaluation of your offer?

Supply us with a description of your local calling area (available from the introductory pages of your local telephone directory). Unless prohibited by your state law, we will prepare “high-medium-low” revenue projections and a return-on-investment analysis of your proposed territory. Should these projected results meet with your investment objectives, we will arrange a mutually convenient appointment to hold further discussions.
How will GameLine work?

**Technology.** The explosive growth of the video game industry will result in 1982 sales of nearly $10 billion; $7 billion in arcade revenues and $3 billion in home game playing equipment, of which the Atari® and Sears Video Arcade™ share is nearly 80%. GameLine is designed to distribute games and information to the huge installed base of Atari® Video Computer Systems™ and Sears Video Arcades™ (game terminals).

The GameLine system consists of powerful host computers, a toll free communications network, and the GameLine Command Module which plugs into the subscriber’s game terminal and telephone. The Command Module, consisting of a modem, digital interface and memory bank, will retail for less than $50.

Using the GameLine system is extremely simple: the subscriber plugs the Command Module into the game terminal and the connecting cable into a modular jack on the telephone. Through your Multiplexor’s telephone line(s), dialed automatically, the television screen displays a complete line-up of games for selection from the huge GameLine library. The subscriber now has the ability to select any game desired, simply by using the “joystick” connected to the game terminal. Since the host computer has already identified the subscriber by “reading” the serial number in the Command Module, a charge (say, 10 plays for $1) is automatically posted to the credit card of that subscriber.

After the final play, the television screen thanks the user and, in the spirit of positive market relations, directs him to the nearest video dealer selling that particular game cartridge.

During play, the GameLine Command Module stores the name of the game selected and identifies the user and his or her highest score achieved! Each week the highest score entered can earn such premiums as game credits, T-shirts, home computers, trips to GameLine’s big-time play-offs, even college scholarships! THAT’S thorough, streamlined, practical technology!

Beyond GameLine, the potential of CVC is staggering. In the near future, a long list of activities will be directed from the home. Not only will we continue to play video games, but we will make bank deposits, pay our bills, even send and receive mail—all through the TV.

The developer of CVC technology and the founder of this corporation is William F. von Meister; repeated technological success is woven throughout his corporate leadership background, chiefly with TDX Systems, Western Union Electronic Mail, and THE SOURCE.

**Promotion.** A revolutionary product is not enough. It must be marketed creatively to gain exceptional public awareness. CVC has retained TYL Associates Public Relations & Advertising of McLean, Virginia, specialists in the promotion of technological projects, to promote GameLine. This campaign will bolster your revenues as the sales of Command Modules dramatically expand GameLine in your calling area.

**REACH OUT AND PLAY SOMEONE!**

Atari, Atari VCS, and Atari Video Computer System are all trademarks of Atari, Inc.

Video Arcade is a trademark of Sears Roebuck & Co.

GameLine, MailLine, and Command Module are trademarks of Control Video Corporation.