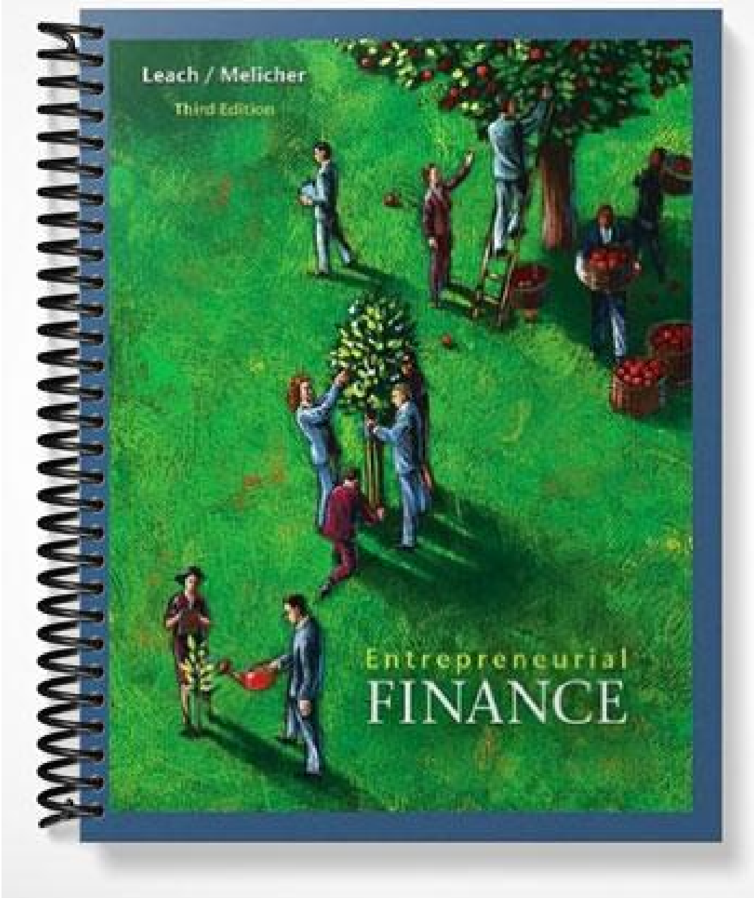
SOLUTIONS MANUAL



CAPSTONE CASE 1: CORAL SYSTEMS, INC.

Suggested Case Discussions and Analyses

A. *Describe Coral Systems' "business model" in terms of revenues, profits, and cash flows.*

Coral Systems' business model was to develop and license software products for the telecommunications industry. More specifically, Coral Systems focused on fraud prevention or reduction products and customer retention products. Revenues, profits, and cash flows would be generated primarily through software licensing arrangements.

There are three current products.

1. The venture's main product, FraudBuster, is a fraud profiling system that was first offered in June 1993. FraudBuster also is the only product currently on the market that can support both digital and analog standards.
2. Coral also introduced a Home Location Register (HLR) in June 1993. An HLR is a permanent database used to identify a subscriber and contains subscriber data related to features and services. However, the HLR has produced only limited software license revenue for Coral.
3. Coral's second major project, ChurnAlert, was introduced in September 1995. ChurnAlert works using the same software interface into the call detail records as the FraudBuster product. However, ChurnAlert had achieved only limited success (two major customers) through the end of 1996.

Revenues are generated from software licenses (the most important source), services (and related activities), and hardware sales. The first revenues were from services provided in 1992. Software licenses began at $215,200 in 1993 and increased to $5,828,700 for the first 9 months of 1996.

Revenues to date were as follows:

Year	**Revenues**	**Net Loss**	**(Net L/Rev) Loss Margin**
1991	$0	-$125,000	Undefined
1992	$699,000	-$502,000	-71.8%
1993	$504,100	-$1,049,800	-208.3%
1994	$1,416,900	-$1,227,800	-86.7%
1995	$3,889,800	-$3,390,900	-87.2%
1996 (9mths)	$6,852,400	-$741,700	-10.8%

Revenues generally followed the rapid growth "hockey stick" pattern. Net losses also grew rapidly with possibly a peak in 1995 as Coral Systems moved closer to profitability in 1996. Positive cash flows, if any, would be in the future.

B. *What intellectual property, if any, does Coral Systems possess?*

FraudBuster, the venture's main product, is a registered trademark of Coral Systems.

A fraud profiler tracks the customers calling patterns through nearly real time call detail records by interfacing with the cellular switch. FraudBuster looks at many possible characteristics such as:

a) Changes in call patterns inside or outside the subscribers calling area
b) Call patterns that typically indicate some form of fraudulent activity
c) Simultaneous calls on one account.

Using sophisticated patterning software, the profiler would recognize these unusual patterns, and it could notify the carrier to contact the subscriber, or even disconnect service immediately. FraudBuster supports all standards of the wireless telecommunication industry. Johnson designed the product to be usable with any standard. The GSM standard is widely used in Europe but is hardly used in North America.

Intellectual property can be protected by: patents, trade secrets, trademarks, and copyrights (see Chapter 3 for a more detailed discussion). It is not clear whether Coral has obtained or has applied for any patents associated with either the FraudBuster or ChurnAlert products. While computer software can be patented, most software products developed and sold to the general public are copyrighted. Coral Systems chose to protect the FraudBuster product via a trademark that was registered with the U.S. Patent and Trademark Office. Products with federally registered trademarks show the trademark accompanied by "a capital R enclosed within a circle."

ChurnAlert works using the same software interface into the call detail records as the FraudBuster product. It tracks customer calling habits in near real-time—analyzing factors such as price plans, air time, feature usage, and dropped and blocked calls. A red flag is raised when customer profiles match known churn drivers. Once the at-risk subscribers are identified, a strategy can be developed to retain the customer. Coral Systems probably also protected the ChurnAlert product via a registered trademark.

Coral Systems may also have protected its intellectual property through the use of "confidential disclosure agreements" and "employee contracts."

C. *Describe the experience and expertise characteristics of the management team.*

Eric Johnson
He served as Chief Executive Officer and a Director of the Company since July 1991, President from July 1991 to May 1997, and as Chairman of the Board since March 1995. Prior to founding the Company, he served as Director of Marketing and Strategic Planning for ACI Telecom, a wholly-owned subsidiary of US West, from January 1991 to July 1991. From 1989 to 1991, he served in several positions at AirTouch Communications, Inc. (formerly PacTel Cellular), a wireless telecommunications company, most recently as Director of Business Development. During the 1980s Johnson was a genetic technician for the Salk Institute. He left the research field and founded a company called NCAS, which conducted legal investigations, courier services, process serving, and computer work for lawyers.

Kyle Hubbart
He served as Chief Financial Officer of the Company since February 1993 and as Treasurer since October 1993. From February 1993 until March 1995, he also served as Controller of the Company. From 1985 to 1993, he served as Treasurer and Chief Financial Officer of Round the Corner Restaurants, Inc. and Good Times Restaurants, Inc., a national restaurant chain headquartered in Denver, Colorado. He has been a Certified Public Accountant since 1980.

Howard Kaushansky
He served as Vice President of Strategic Planning and General Counsel of the Company since March 1992 and as Secretary since October 1993. From 1990 to 1992, he was an attorney with the law firm of Caplan & Earnest and, prior thereto, he was an attorney with the law firms of Gray, Cary, Ames & Frye and Gendel, Raskoff, Shapiro and Quittner.

John Fraser
He served as the President of the Company since May 1997. Prior to Coral, he was with Sybase, Inc. Fraser arrived in Colorado's front range in 1994 when Sybase acquired MicroDecision Ware, a Boulder-based middleware software firm. He left Sybase as one of two VPs of Sales and Operations for North America.

Thomas Prosia
He served as the Company's Vice President of marketing since February 1996. From October 1990 to January 1996, Mr. Prosia served in various marketing and sales positions at Covia Technologies, a software and services company and a division of Galileo International, including Vice President of Sales from July 1994 to January 1996.

D. *Describe Coral Systems' pricing model and its current marketing strategy.*

One of the principal goals of the company was to establish a "recurring revenue stream." If Coral sells a software product, then each period the company's sales start at zero and the hope is that the sales staff can beat the prior period's sales.

A recurring revenue stream, e.g., charging a licensing fee each month the product is used, is much steadier revenue flow than outright sales. Unfortunately for Coral Systems, the customers wanted to buy the application and the control their own destiny. There, for the pricing model Coral developed to solve this potential problem was a hybrid of the recurring revenue model and the per-product licensing fee. Coral would sell a one-time license per subscriber, based on the number of subscribers at the time of license. If the subscriber base grows over time, the carrier would pay a license fee to Coral for the added number of subscribers. That way as long as the customer base grows, Coral gets some recurring revenue.

With the addition of Tom Prosia, Coral shifted its marketing focus from an "engineering, drive, get the product out the door focus," to a customer-oriented focus. The key is business development, including focusing on existing product evolution and new product analysis. This includes looking at other potential partners or strategic relationships. Another key function of the current market strategy is to pave the way in the marketplace of their salespeople. If Coral can establish their engineers as experts on the subject matter of fraud or other telecommunication customer retention products, when the press writes articles on those subjects they will refer to Coral Systems as subject experts. Finally, it is important for the marketing team to obtain information about the marketplace even before the sales team approaches a customer.

E. *Discuss the competition faced by Coral Systems in conjunction with its current product FraudBuster and expected competition for its second major product ChurnAlert.*

The market for Coral Systems' FraudBuster product is intensely competitive. Coral not only has to compete with other fraud profiling systems for the carriers' business, but with the numerous other fraud prevention devious makers as well. These include authentication chips, PIN numbers, voice recognition, and other methods used to combat fraud. Coral's primary competition was:

1. GTE-TSI: FraudForce service line that includes several services that allow a carrier to block, restrict and reinstate roamers in selected high-fraud markets.
2. IBM FMS: IBM purchased the I-NET profiler, which was originally developed for AT&T, with its primary customer being AT&T Wireless.
3. Digital Equipment Corporation (DEC): Fraud Management System is a profiling system that detects and analyzes fraud and recommends fraud counteractions.
4. SystemsLink: FraudTec is a small operation with limited product support but which costs less than Coral's FraudBuster.

The market for ChurnAlert, while relatively new, has two major competitors in the churn space. "Churn" is a user who drops telecommunications service or switches to another carrier. Carriers are very concerned if customers start leaving. ChurnAlert's primary features are the fact that it is a near real-time profiler, with information taken directly from the switch. This is beneficial to Coral because it's the same interface that FraudBuster uses. It allows Coral to leverage its experience and technological knowledge into a brand new area.

There are two major competitors in the churn space. They each have unique approaches.

1. Lightbridge: Churn Prophet uses predictive modeling—includes data mining tools that result in correlations and trends being gleaned from massive amounts of data.
2. GTE-TSI: ChurnManager uses a customer care approach—if a customer calls in, the operator may get an indicator on their screen warning them that this person is liable to churn.

F. *Describe the four successful rounds of financing achieved by Coral Systems in terms of sources and amounts.*

Round One

Early in 1991, Eric Johnson applied for support and occupancy in the Boulder Technology Incubator (BTI). Colorado Venture Management (CVM) offered $300,000 of seed money (two stages, $120,000 and $180,000) with the $120,000 received immediately. These dollars were invested without a written business plan.

In order to continue developing Coral after the first round of venture capital money, a creative method of financing was pursued involving a strategic relationship with Computer Sciences Corporation (CSC), Stratus Computer, and Sun Microsystems (Sun). CSC funded the development stage software in exchange for distribution rights. Sun donated roughly two million dollars in equipment and some cash in exchange for Coral Systems to develop the FraudBuster software solution on the Sun platform.

Through the development stage of the company, Coral had received roughly six million in cash and equipment, and only gave away approximately 20% of the equity.

Round Two

Kyle Hubbart estimated Coral's value to be $10 to $12 million prior to the second round of financing in 1993. A group of investors who had spun off of Alex Brown put together a $2 million dollar private placement of 40 to 50 private individuals for Coral's second major round of financing.

Round Three
In 1994, Coral embarked on its third round of financing. This followed a successful year in 1993 when a product was placed on the shelf and Coral was actively making sales. Coral put together a $4.5 million deal with four VC firms which included Bessemer Venture Partners of Boston, Vertex Management Inc. of San Francisco, the P/A Fund L.P., and the investment banking firm Unterberg Harris of New York.

Round Four
The fourth round of financing brought a real endorsement from within the telecommunications industry. Cincinnati Bell Information Systems (CBIS) contributed $4.2 million in equity financing.

G. *Conduct a ratio analysis of Coral Systems' past income statements and balance sheets. Note any performance strengths and weaknesses and discuss any ratio trends.*

Income Statements
The available financial statements are shown below. Only development expenses were incurred in 1991. The first revenues were generated from services in 1992 at $699,000. Software licenses revenues, which started in 1993 at $215,200, are the firm's primary source of revenue growth and exceeded $5.8 million for the first 9 months of 1996. Revenue growth over the 1992-1996 time period resembles the classic "hockey stick" growth pattern.

Balance Sheets
From the perspective of the balance sheet, total assets were $35,000 with $25,000 held in the form of cash and cash equivalents at the end of 1991. Total assets grew to nearly $7.5 million by the end of the third quarter of 1996. Most of the growth was in the form of current assets. Stockholders' equity began at $2,000 at the end of 1991 and went negative due to operating losses in 1992 and 1993. The influx of additional paid-in capital causes the stockholders' equity deficit to shrink in 1994 and then turn positive in 1995 and 1996.

Common Size Statements
Common size financial statements are shown below. Each item on each income statement was expressed as a percent of revenues. Revenue from software licenses accounted for 85% of total revenues for the first nine months of 1996. The total cost of producing revenue improved dramatically in 1996 down to 21.5% (compared with over 49% in 1995) resulting in a gross profit margin of 78.5%. Total operating expenses also declined dramatically as a percent of revenues—the decline was from well over 100% down to 92.41% in 1996. The resulting annual net losses also declined dramatically (e.g., from -87.17% in 1995 to -10.82% in 1996).

Each item on each balance sheet was expressed as a percent of total assets. Cash and cash equivalents increased rapidly as a percent of total assets from 7.59% in 1994 to 45.26% in 1996. Accounts receivable exhibited a declining trend as a percent of total assets. The result was that current assets as a percent of total assets remained roughly the same over the 1994-1996 time period. Total current liabilities declined rapidly as a percent of total assets. This was offset by an increase in total stockholders' equity from a deficit of 69.04% of total assets in 1994 to a positive 46.13% of total assets in 1996.

Financial Ratios

The results of a financial ratio analyses is shown below. Because of the limited amount of financial statement data, yearend (rather than average) amounts for balance sheet items were used for ratio calculation purposes. More data observations were chosen over averages for analysis purposes.

1. Liquidity Ratios

The current ratio improved from a situation whereby current liabilities exceeded current assets in 1994 to a condition where current assets were nearly twice (1.85:1) current liabilities in 1996. Coral Systems is primarily a software licensing firm and sells limited amounts of hardware. Thus, in a traditional sense does not have money tied up in inventory. As a consequence, the current and quick ratios will be the same.

2. Conversion Period Ratios

As previously recognized, the nature of Coral Systems' business does not require it to carry inventory. Thus, there is no inventory-to-sale period that must be financed. In contrast, the sale-to-cash period was quite long ranging from nearly 191 days in 1994 down to 105 days in 1995 and 130.5 days for the 9-month period for 1996. The purchase-to-payment worked very favorably to the benefit of the firm. Increases in accounts payable and accrued liabilities produced a purchase-to-payment period of nearly 274 days in 1994, about 180 days in 1995, and 361 days in 1996. As a result the cash conversion cycle was becoming increasingly more negative (and thus in Coral Systems' favor) from -83 days in 1994, to nearly -231 days in 1996. Thus, interest free financing from payables and accruals was much greater than the amount of funds needed to finance credit sales in the form of accounts receivable.

3. Leverage Ratios

Total-debt-to-total-assets improved substantially from 1994 when total debt exceeded total assets (169%) due to a large deficit in total stockholders' equity, to a ratio of 95% in 1995, and finally a more reasonable ratio of 54% in 1996. Interest expenses were not broken out as a separate line item in the firm's income statements. As a result, an interest coverage ratio could not be calculated. However, the firm's large "losses from operations" suggests negative interest coverage ratios which could result in a severe financial problem. This potential problem was offset by the large amount of cash and cash equivalents the firm maintained, as well as it was able to attract substantial amounts of additional paid-in capital.

4. Profitability/Efficiency Ratios
The gross profit margin improved dramatically to over 78% of total revenues in 1996 over the 1994 and 1995 levels. The operating profit margin while still a -13.92% for the first nine months of 1996 showed a marked improvement since the beginning of operations (e.g., the operating profit margin was -84.34% in 1994 and -87.40% in 1995). The net profit margin, while also still negative in 1996 at -10.82%, improved dramatically from the -86.65% for 1994 and the -87.17% for 1995. The sales-to-total assets ratio actually declined in 1996 (0.919) relative to earlier years such that total revenues and total assets were about equal. However, this "deterioration" was actually due to a large increase in the cash and cash equivalents account, as well as the accounts receivable account, at the end of the third quarter of 1996. The return on total assets improved markedly during the firm's operations although the return was still about a -10% in 1996. Likewise, the return on equity was about -22% in 1996 but this was a substantial improvement over the very large negative return in 1995.

H. *Use the cash flow statements for Coral Systems to determine whether the venture has been building or burning cash, as well as possible trends in building or burning cash.*

Year	**Cash Burn from Operations and Investing**
1993	-$952,100 + -$95,200 = -$1,046,300
1994	-$1,298,900 + -$195,400 = -$1,494,300
1995	-$3,010,600 + -$315,700 = -$3,326,300
1996 (9mths)	-$727,300 + $336,500 = -$1,063,800

Note: cash burn is taken from the Statement of Cash Flows and is the sum of "net cash used in operations" and "net cash used in investing." Net cash burn/build estimated from the Statement of Cash Flows was discussed in Chapter 4 (pp. 116-118) and more broadly in Chapter 6 (pp. 138-139). Cash burn exceeded the $1 million annual rate in 1993 and 1994 with the burn exceeding $3 million in 1995 before improving during the first 9 months of 1996.

I. *Discuss possible reasons why the plan by Coral Systems for an initial public offering (IPO) of common stock at the end of 1996 was withdrawn.*

At the end of 1996 Coral Systems had planned on issuing 2.7 million additional shares to the public, with an estimated price at $11 per share, equating to $26,800,000 (after deducting underwriting expenses). However, the planned IPO was postponed indefinitely. Several factors were cited this action.

1. With the advent of the PCS technology, many new carriers were emerging in the market. Coral was poised to grab a huge market share of this new market and Coral anticipated closing several deals prior to going public.

Unfortunately, some of the PCS carriers held off on closing the deals with Coral resulting in a poor performance prior to the planned IPO.

2. The comparable companies of Coral Systems, selected by the underwriters, were not doing as well as anticipated in the public market. Theses comparable firms were grouped into two separate categories: telecommunications service companies and client/server applications companies.
3. One of the problems Coral had to deal with in going public was to align their revenue recognition standards with that of the SEC. A problem existed in terms of when to recognize revenue on a sale of software involving a product upgrade. For example, should a sale be recorded when the product is initially sold or when the upgrade of the product is delivered in the future.
4. While the pricing structure did not directly impact the decision to withdraw the public offer, the time of the offering may have indirectly influenced the decision because the predictability in the revenue stream was not to the point the management had envisioned.

J. *Describe how you might prepare a discounted cash flow (DCF) model to determine whether the proposed IPO price of $11 per share was reasonable?*

A complete discounted cash flow analysis, either using the equity or enterprise method, would require the forecast of detailed income statements and balance sheets annually for a period of years (e.g., five years through 2001) of continued rapid growth plus the first year (e.g., 2002) when the sales growth rate is expected to become a constant perpetuity growth rate. If the DCF equity method is used, annual operating free cash flows (FCF) would be estimated as: Net Income + Depreciation – Increase in Required Net Working Capital – Increase in CAPEX + Increase in New Debt Proceeds. A terminal or horizon value (TV) would be estimated as of the last year of rapid growth (e.g., 2001, the year prior to the start of the perpetuity growth rate). TV would be calculated as: (FCF to equity for first year of constant growth period)/(equity discount rate – constant growth rate). The resulting cash flows to equity investors (both operating cash flows and terminal value cash flows) would then be discounted back to the present at the appropriate discount rate (for a firm in its survival stage or its early rapid growth stage) to determine the current or present value of the cash flows.

The calculated DCF equity value would be divided by the number of shares outstanding to get a per share DCF equity value which, in turn, would be compared to the proposed $11 per share IPO price. Coral Systems had planned on issuing 2,700,000 shares at $11 per share for total proceeds of $29,700,000. Net proceeds were estimated to be $26,800,000 after underwriting expenses of about $2,900,000. Since the 2.7 million shares was to represent 21% of the firm's total common stock, there would be approximately 13 million shares of stock outstanding after the IPO (i.e., 2.7 million shares divided by .21 equals about 12.9 million shares and 2.7 million divided by .207 equals about 13 million shares).

Thus, the shares of common stock outstanding prior to the planned IPO were approximately 10.2 million (12.9 million – 2.7 million) to 10.3 million (13.0 million – 2.7 million). This means that the pre-IPO DCF value would have to be in the range of $112 to $113 million to justify a $11 per share IPO price (i.e., 10.2 x $11 = $112.2 and 10.3 x $11 = $113.30). This value is prior to the receipt of the additional $26.8 million from the IPO. As a check, $112.2 million + $29.7 million = $141.90, and dividing $141.90 million by the post-IPO number of shares of 12.9 million = $11 per share.

K. *Discuss how you would evaluate the proposed $11 IPO price using comparable firms and a multiples analysis. What multiples would you propose using?*

One or more publicly-traded comparable firms would have to be identified. For each comparable firm, its relationships between selected income statement items such as sales, operating profit (EBIT), and net income and that firm's stock price (or market value measured as price per share times the number of shares outstanding) would be established at the end of 1996. Multiples that are often used are price to sales, price to EBIT, and price to net income (often called the price-earnings multiple). Multiples of "bottom line" measures that are closer to free cash flow multiples generally are preferred. Thus, price-earning multiples are often used by analysts.

Since Coral Systems still has not turned a profit (or a positive cash flow) by the end of the third quarter of 1996, the value of the firm's equity would be estimated at some future date. In this case, the analyst would forecast out the firm's income statement to capture both rapid sales growth and net profit (e.g., for five years through 2001). Coral Systems' 2001 net profit would be multiplied by the 1996 price-earnings multiple estimated from comparable firms under the assumption that the multiple would be at the same level in 2001. This future value then would be discounted back to the present at the appropriate discount rate that reflects the riskiness of Coral Systems which in 1996 is trying to survive and achieve rapid revenue growth. The resulting pre-IPO value would be discounted by the pre-IPO number of shares of stock outstanding to determine a per share value as was illustrated in question J. The resulting value would be compared against the proposed IPO price when judging the appropriateness of expecting investors to pay $11 per share. A present value of the future price-earnings based value would have to be in the $112-$113 million range to support an IPO price of $11 per share (see the calculations in question J above).

L. *Optional: Attempt to value Coral Systems by first identifying several comparable firms. Find various price to income statement or balance sheet item multiples for these firms. Then, use these multiples to value Coral Systems. [Note: this exercise requires the use of information external to the case.]*

Because Coral Systems' competitors are also early-stage, small firms it is very difficult to find financial statement and financial market information on them.

Figure 4 in the case lists potential sources of possible comparable firms in the telecommunications services and client/server applications industries. While these firms were publicly traded in 1996 and in 1997, many have disappeared due to either ceasing operations or having merged with other firms. As a result, it is a difficult task in trying to conduct an actual comparable firms multiples analysis. Thus, we often illustrate the process with approximate multiples for price to sales (e.g., 1 to 2 times), price to EBIT (5 to 10 times), and price to net income (10 to 20 times). Next, Coral Systems' income statement would have to be forecasted in the future such as 2001. Comparable firm multiples would have to be applied to various items on Coral Systems' income statement to determine the firm's equity value at the end of 2001. These value then would have to be discounted back to the present (1996) at an appropriate discount rate (possibly 30%) to establish a range of present values. See question K above for an illustration of this valuation process.

M. What strategic and financial options are available to Coral Systems at this time that would help ensure a viable future for the venture? What should Coral Systems do?

Coral Systems could revisit the possibility of an IPO near the end of 1997. However, since the firm had anticipated raising nearly $30 million near the end of 1996 presumably to finance continued rapid growth, waiting for the uncertainty of another possible IPO could inhibit the firm from achieving its growth objectives, as well as for founders and venture investors from harvesting their investments. Growth and harvesting objectives also might be met by selling the firm to its managers in the form of a MBO/LBO. However, there is no indication that the management has the desire, or capability, to complete an LBO. Coral Systems could be put itself up for sale to outsiders. An investment banking firm could be hired and an auction process initiated for selling the firm. However, selling the firm at auction may produces uncertainty as to the continuity of management, possible cultural changes, and whether existing corporate strategies will be maintained.

The founders, venture investors, and managers may prefer merging Coral Systems into a larger firm with adequate financial resources to fund Coral Systems growth. Such a merger may also achieve both operating and financial synergies and thus be beneficial to the acquiring firm's shareholders and Coral Systems' equity investors. Merger negotiations allow the opportunity to assess the potential for synergistic benefits, whether strategic objectives are consistent, and whether corporate cultures are compatible. In the end, Coral Systems merged into a larger, compatible firm.

CORAL SYSTEMS, INC.						**9 Months**
Income Statements	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Revenue:						
Software licenses			215200	1036400	2484600	5828700
Services and other		699000	178700	239700	624700	408400
Hardware			110200	140800	780500	615300
Total Revenue		699000	504100	1416900	3889800	6852400
Cost of Revenue:						
Software licenses			57600	122000	526000	419100
Services and other		140000	74500	258000	644700	584800
Hardware			111800	128300	738300	469600
Total Cost of Revenue		140000	243900	508300	1909000	1473500
Gross Profit		559000	260200	908600	1980800	5378900
Operating Expenses:						
Research and development	37000	514000	414000	572700	2159700	1953100
Sales and marketing	2000	133000	158300	645300	1869700	2614000
General and administrative	86000	417000	677100	885600	1351000	1765400
Total Operating Expenses	125000	1064000	1249400	2103600	5380400	6332500
Loss from Operations	-125000	-505000	-989200	-1195000	-3399600	-953600
Other income (expense), net		3000	-60600	-32800	8700	-31400
Loss before Extraordinary Item	-125000	-502000	-1049800	-1227800	-3390900	-985000
EI: Extinguishment of Debt						243300
Net Loss	-125000	-502000	-1049800	-1227800	-3390900	-741700

CORAL SYSTEMS, INC.						**9 Months**
Balance Sheets	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Current assets:						
Cash and cash equivalents	25000	215000	62000	82900	1022500	3373500
Accounts receivable				740800	1119300	2449200
Other current assets				2800	149300	328000
Total current assets				826500	2291100	6150700
Property and equipment				398500	914000	1827000
Accumulated depreciation				-143100	-288,200	-562700
Property and equipment, net				255400	625800	1264300
Other assets (Plug)				10000	41100	39100
Total assets	35000	312000	355000	1091900	2958000	7454100
Current liabilities:						
Accounts payable				291500	412900	446800
Accrued liabilities				90000	526100	1010800
Current portion of LT debt				666700	796700	380100
Deferred revenue				300300	463700	1479600
Total current liabilities				1348500	2199400	3317300
Deferred revenue & other (plug)				475200	475200	385000
Long-term debt	0	167000	500000	22000	145800	313400
Total liabilities				1845700	2820400	4015700
Stockholders' equity:						
Series A preferred stock				2000	2000	2000
Series B preferred stock					2083	2083
Series C preferred stock						1825
Preferred stock						
Common stock				4124	4265	3235
Additional paid-in capital				2163176	6449252	10467157
Accumulated deficit				-2905100	-6296000	-7037700
Less: Treasury stock				-18000	-24000	-200
Total Stockholders' equity	2000	-450000	-1518000	-753800	137600	3438400
Total liabilities & equity				1091900	2958000	7454100

CORAL SYSTEMS, INC.		**<-------Percent of Revenues------->**				**9 Mths**
Income Statements	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Revenue:						
Software licenses			42.69	73.15	63.87	85.06
Services and other		100.00	35.45	16.92	16.06	5.96
Hardware			21.86	9.94	20.07	8.98
Total Revenue		100.00	100.00	100.00	100.00	100.00
Cost of Revenue:						
Software licenses			11.43	8.61	13.52	6.12
Services and other		20.03	14.78	18.21	16.57	8.53
Hardware			22.18	9.05	18.98	6.85
Total Cost of Revenue		20.03	48.38	35.87	49.08	21.50
Gross Profit		79.97	51.62	64.13	50.92	78.50
Operating Expenses:						
Research and development		73.53	82.13	40.42	55.52	28.50
Sales and marketing		19.03	31.40	45.54	48.07	38.15
General and administrative		59.66	134.32	62.50	34.73	25.76
Total Operating Expenses		152.22	247.85	148.46	138.32	92.41
Loss from Operations		-72.25	-196.23	-84.34	-87.40	-13.92
Other income (expense), net		0.43	-12.02	-2.31	0.22	-0.46
Loss before Extraordinary Item		-71.82	-208.25	-86.65	-87.17	-14.37
EI: Extinguishment of Debt						3.55
Net Loss		-71.82	-208.25	-86.65	-87.17	-10.82

CORAL SYSTEMS, INC.		**<-------Percent of Total Assets------->**				**9 Mths**
Balance Sheets	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Current assets:						
Cash and cash equivalents	71.43	68.91	17.46	7.59	34.57	45.26
Accounts receivable				67.85	37.84	32.86
Other current assets				0.26	5.05	4.40
Total current assets				75.69	77.45	82.51
Property and equipment				36.50	30.90	24.51
Accumulated depreciation				-13.11	-9.74	-7.55
Property and equipment, net				23.39	21.16	16.96
Other assets (Plug)				0.92	1.39	0.52
Total assets	100.00	100.00	100.00	100.00	100.00	100.00
Current liabilities:						
Accounts payable				26.70	13.96	5.99
Accrued liabilities				8.24	17.79	13.56
Current portion of LT debt				61.06	26.93	5.10
Deferred revenue				27.50	15.68	19.85
Total current liabilities				123.50	74.35	44.50
Deferred revenue & other (plug)				43.52	16.06	5.16
Long-term debt				2.01	4.93	4.20
Total liabilities				169.04	95.35	53.87
Stockholders' equity:						
Series A preferred stock				0.18	0.07	0.03
Series B preferred stock				0.00	0.07	0.03
Series C preferred stock				0.00	0.00	0.02
Preferred stock				0.00	0.00	0.00
Common stock				0.38	0.14	0.04
Additional paid-in capital				198.11	218.03	140.42
Accumulated deficit				-266.06	-212.85	-94.41
Less: Treasury stock				-1.65	-0.81	0.00
Total Stockholders' equity				-69.04	4.65	46.13
Total liabilities & equity				100.00	100.00	100.00

CORAL SYSTEMS, INC. **Statements of Cash Flows**	**1991**	**1992**	**1993**	**1994**	**1995**	**9 Months** **1996**
Cash Flows from Operations:						
Net Loss			-1049800	-1227800	-3390900	-741700
Depreciation			38100	90100	198700	296100
Provision for doubtful accounts						75000
Write-offs of uncollectible rec.						26900
Gain on disposal of equipment					-2600	-5300
Extraordinary gain						-243300
Change in:						
Accounts receivable			-136800	-604000	-378500	-1553200
Other assets			-2000	-7000	-177600	-310800
Accounts payable & accruals			198400	158600	576900	719000
Deferred revenue				291200	163400	1010000
Net cash used in operations			-952100	-1298900	-3010600	-727300
Cash Flows from Investing:						
Proceeds: sale of property					198300	206400
Property & equip. additions			-95200	-195400	-514000	-542900
Net cash used in investing			-95200	-195400	-315700	-336500
Cash Flows from Financing:						
Proceeds:sale of preferred stk.				1580300	3874500	4193100
Proceeds:sale of common stk.				1500	13900	14000
Purchase of treasury stock					-6000	-164600
Proceeds: issuance of loans			921500	205200	760000	250000
Payments on borrowings			-27000	-271900	-376500	-877700
Net cash used in financing			894500	1515100	4265900	3414800
Net cash increase (decrease)			-152800	20800	939600	2351000
Beginning cash			214900	62100	82900	1022500
Ending cash			62100	82900	1022500	3373500
Cash build (burn)			-1047300	-1494300	-3326300	-1063800

CORAL SYSTEMS, INC.						**9 Mths**
Financial Ratios	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Liquidity Ratios						
Current Ratio				0.61	1.04	1.85
Quick Ratio (no inventory)				0.61	1.04	1.85
Conversion Period Ratios						
Inventory-to-sale						
Sale-to-cash				190.8	105.0	130.5
Purchase-to-payment				273.9	179.5	361.1
Cash conversion cycle				-83.1	-74.5	-230.6
Leverage Ratios						
Total-debt-to-total assets				169.04%	95.35%	53.87%
Interest coverage (no int. listed)						
Profitability/Efficiency Ratios						
Gross Profit Margin		79.97%	51.62%	64.13%	50.92%	78.50%
Operating profit margin		-72.25%	-196.23%	-84.34%	-87.40%	-13.92%
Net profit margin		-71.82%	-208.25%	-86.65%	-87.17%	-10.82%
Sales-to-total assets		2.240	1.420	1.298	1.315	0.919
Return on total assets		-160.90%	-295.72%	-112.45%	-114.63%	-9.95%
Return on equity		111.56%	69.16%	162.88%	-2464.3%	-21.57%

Note: due to limited data, yearend balance sheet items are used in ratio calculations.