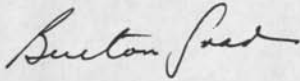


86

BURTON GRAD ASSOCIATES, INC.
101 POST ROAD EAST
WESTPORT, CONNECTICUT 06880
(203) 222-8718 FAX: (203) 222-8728
E-MAIL: BURTGRAD@AOL.COM

Date: September 8, 1999
To: Paul Baker
Copy: Lee McElrath
Logan Wray
From: Burton Grad 
Subject: Revised Interlink Valuation

As instructed by Sterling Software, Inc. (SSI), Burton Grad Associates, Inc. (BGAI) has revised the June 22, 1999 Valuation Report on the acquired intangible assets from Interlink to reflect a change in the projected tax rate:

- North America: was 34%, now 38%
- International: was 32%, now 30%

As a result of these changes, essentially all of the values have been affected. Therefore, we have enclosed a new cover letter and a complete report showing the September 8, 1999 valuation date and have also sent those appendices which were affected by the recalculation: Appendices F, H, I and J. The other appendices were not changed. I have sent revised copies to Lee McElrath and to Logan Wray (enclosed).

If you have any questions, please call me.

Subj: Tax rates
Date: 9/7/99 3:05:20 PM Eastern Daylight Time
From: paul.baker@sterling.com
To: Burtgrad@aol.com

Paul Baker

Burt

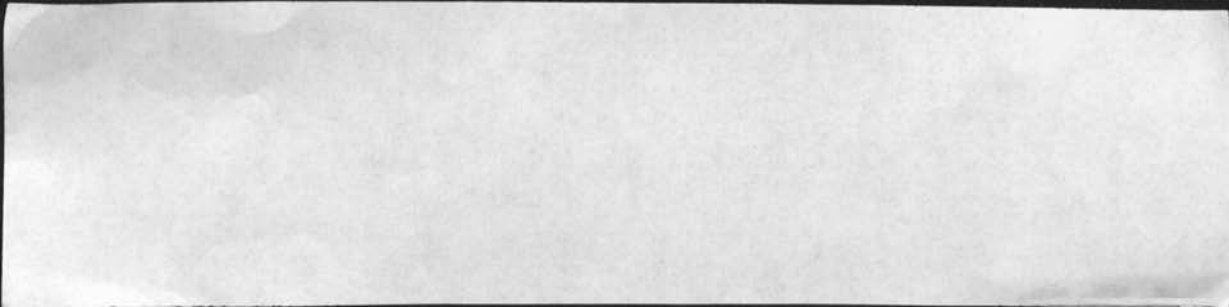
Discussed with Steve use 38% and 30%.

Regards

Paul

----- Headers -----

Return-Path: <paul.baker@sterling.com>
Received: from rly-yh02.mx.aol.com (rly-yh02.mail.aol.com [172.18.147.34]) by air-yh01.mail.aol.com (v60.28) with ESMTP; Tue, 07 Sep 1999 15:05:20 -0400
Received: from ns.corp.sterling.com (ns.corp.sterling.com [198.4.58.6]) by rly-yh02.mx.aol.com (v60.28) with ESMTP; Tue, 07 Sep 1999 15:05:13 -0400
Received: ns.corp.sterling.com
id AA25677; Tue, 7 Sep 1999 14:03:48 -0500
Message-Id: <9B2A26DBF9E4D111958100805FA79114D87F81@corp.sterling.com>
From: paul.baker@sterling.com
To: Burtgrad@aol.com
Subject: Tax rates
Date: Tue, 7 Sep 1999 14:05:07 -0500
Mime-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2448.0)
Content-Type: text/plain;
charset="iso-8859-1"



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September 8, 1999

Mr. Logan Wray
Sterling Software, Inc.
300 Crescent Court
Suite 1200
Dallas, Texas 75201-1000

Dear Logan:

At the request of Sterling Software, Inc. (SSI), Burton Grad Associates, Inc. (BGAI) has conducted a valuation study of the intangible assets acquired as part of SSI's purchase of Interlink Computer Science, Inc. (Interlink) as of the acquisition date of April 30, 1999, using the applicable SEC, AICPA and FASB valuation rules as of that date.

This study provides an assessment of the capitalizable values for the current Interlink products, each of which must be amortized over the expected economic life of the product.

The study also provides an assessment of the value of the acquired in-process research and development technologies as they are planned to be used in new Solve products. Based on FAS2 rules regarding in process research and development work, this technology value must be expensed (written off), as of the date of the acquisition, if the technologies cannot pass FAS86 technical feasibility or meet achievable market value tests at that date.

After adjusting the total cost of acquisition for the net tangible assets less liabilities, and for the product and technologies values, the remaining purchase and acquisition costs are considered as other intangibles. These have been individually valued and their life expectancy determined so that these other intangibles can be capitalized and amortized over their appropriate economic lives.

The enclosed report provides the information and logic used in valuing the products, technologies and other intangibles. The appendices provide detailed back-up materials as well as including the spreadsheets used in performing the various calculations.

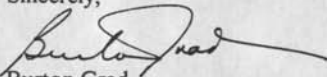
Mr. Logan Wray
Page 2
September 8, 1999

BURTON GRAD ASSOCIATES, INC.

Certain Network Management Division (NMD) managers and other personnel have contributed by describing the planned new products and analyzing NMD's plans for the use of the acquired Interlink technologies; they have also assisted BGAI in understanding the current and new NMD products and their market potential, along with NMD's strategic plans. However, all projections of revenues and costs are the sole responsibility of BGAI and do not necessarily correspond with NMD's own projections.

Contributing to this analysis for BGAI was Sid Dunayer.

Sincerely,



Burton Grad

Enclosure

5030

cc: Paul Baker
Doug Bertinshaw
Guy Daley
Lee McElrath

**Valuation Report on Intangible Assets of
Interlink Computer Sciences, Inc.
Acquired by Sterling Software, Inc.
Valued as of April 30, 1999**

Prepared for:

Sterling Software, Inc.
300 Crescent Court
Suite 1200
Dallas, Texas 75201-1000

Prepared by:

Burton Grad Associates, Inc.
101 Post Road East
Westport, Connecticut 06880

Burton Grad
Sidney J. Dunayer

Date:

September 8, 1999

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EXECUTIVE SUMMARY

At the request of Sterling Software, Inc. (SSI) and its Network Management Division (NMD), Burton Grad Associates, Inc. (BGAI) has conducted a valuation study of the intangible assets acquired as part of the purchase of the assets and liabilities of Interlink Computer Sciences, Inc. as of April 30, 1999 (the acquisition date), using the applicable SEC, AICPA and FASB valuation rules as of that date.

This study provides an assessment of the capitalizable values for the then current Interlink products. It also provides an assessment of the value of the in-process research and development technologies acquired from Interlink as they were planned to be used by SSI in NMD's future products. It also assesses the value of the other intangibles acquired from Interlink.

To perform the study, BGAI worked with the information requested from and provided by Interlink and NMD. A number of people at NMD were interviewed in order to gather additional information and to understand NMD's planned strategies and directions.

In allocating the total intangibles acquisition costs, BGAI has examined all of the products and technologies which Interlink was marketing or had under development as of the date of acquisition. BGAI then valued each of these intangible assets in terms of the strategic and tactical plans which NMD had formulated for future sales of the existing Interlink products and for incorporating the available and in-process Interlink technologies into new NMD products. BGAI also examined the nature and size of the other intangible assets obtained through the acquisition. The sum of these values must equal the total intangibles acquisition costs.

The current Interlink product have been valued. Product valuations are based on a projection of revenues and operating costs for each Interlink product which SSI will continue to market and support.

The assumptions for and results of these calculations for the Interlink products are shown in Section V. The results are summarized here:

Current Products	Capitalizable Value (\$000)	Amortization Life
TCPaccess	7,413	5 years
CPT	2,405	5 years
EPS	2,281	5 years
Total	12,100	

The value of these products is \$12,100,000; it should be capitalized and amortized over five years starting with the date of acquisition, on a straight line basis.

There were four products which were in the process of development by Interlink; they will become the basis for four corresponding Solve products, each of which will depend significantly on the core and in-process technologies acquired from Interlink. BGAI has determined the value of the total Interlink technology contributions by preparing revenue and operating cost projections for these new Solve products and has then allocated the NPV of the operating income proportionately to the contribution from the Interlink core technologies and the contribution of the new Interlink technologies (those in process). A further reduction in value was made to reflect the percent not yet completed of these new Solve products as of the acquisition date.

The assumptions for and results of the calculations for the value of the acquired Interlink in-process research and development technologies as incorporated into SSI's intended new products are shown in Section VI. The results are summarized here:

New Product (\$000)	Total Product Value	Core Technologies Value	% Non-Complete Value	Interlink In-Process Technology Value
Solve:Sentinel/IP	14,269	4,994	2,226	7,049
Solve:Turbo/API	3,503	2,259	162	1,082
Solve:Turbo/FTP	4,279	3,594	164	520
Solve:TCPaccess/GOS	9,465	7,288	784	1,393
Total	31,516	18,135	3,336	10,044

The in-process technology value of \$10,044,000 must be expensed per FAS2 rules on research and development expenses, as of the date of acquisition, since the products which will incorporate these technologies did not yet meet FAS86 qualifications for development capitalization as of the date of acquisition.

The total measured value from products and technologies is \$22,144,000. To determine the residual value to be capitalized as other intangibles, this figure was deducted from the net intangible asset purchase value; this was computed by adding the acquisition costs to the purchase price and then adjusting for the net tangible value (tangible assets less tangible liabilities). SSI has determined the total value is \$83,352,000 after computing the total acquisition costs on a preliminary basis. The intangibles value is \$67,023,000 after deducting \$16,329,000 for the net tangible value. The residual value of the other intangibles is \$44,879,000 consisting primarily of avoided employee costs, customer relations, core technologies and going concern/goodwill.

Other Intangibles	Value of Intangibles (\$000)	Amortization Period
Retained Employees	1,298	8 years
Customer Base Value for other Solve Products	6,564	10 years
Other Technologies	18,135	10 years
Going Concern/Goodwill	18,882	10 years
Total	44,879	

The total value of other intangibles is \$44,879,000. We recommend that these individual values be amortized on a straight line basis over the periods noted above.

These values and amortization periods represent BGAI recommendations to SSI for its allocation of the Interlink intangible asset purchase value among products, in-process R&D technologies and other intangibles.

SECTION I. Objectives and Work Process

As requested, Burton Grad Associates, Inc. (BGAI) performed a valuation of the intangible assets obtained by Sterling Software, Inc. (SSI) and the Network Management Division (NMD) in its acquisition of Interlink Computer Sciences, Inc. (Interlink), a California-based provider of software products and related services used for high performance solutions for enterprise systems networking.

The Interlink intangible assets consist of software products and in-process R&D technologies related to networking systems and of other intangibles like an assembled work force, an active customer base, etc.

The technologies incorporated in the existing Interlink products and the other technologies under development by Interlink will be of significant value to SSI/NMD in its future technical product plans for worldwide markets. This is in addition to the value of the current Interlink software products.

BGAI has been requested to determine the value of the products, technologies and other intangibles acquired by SSI/NMD from Interlink. These assets may then be capitalized or written off as of the acquisition date according to appropriate SEC, FASB and other relevant accounting rules for the allocation of acquired intangible assets.

SSI retained BGAI because of BGAI's extensive experience over the last 18 years in valuing software companies and their assets. BGAI will perform this independent valuation using generally accepted valuation techniques. These valuations may be used by SSI to support financial (book) capitalization/amortization for software products, in-process technology write-offs and for capitalization/amortization of other intangibles.

The work was performed by Burton Grad, president of BGAI, and Sidney Dunayer, a BGAI Associate. Their profiles are enclosed as Appendices A-1 and A-2.

Work Plan

BGAI performed the valuation study following these steps:

1. SSI/NMD collected materials related to Interlink and NMD as specified by BGAI which provided the basis for the valuation study. The list of materials requested and provided is shown in Appendix B-1.
2. BGAI examined these materials and conducted telephone interviews with selected NMD personnel (Appendix B-2) to obtain information not available from the source materials or to amplify or clarify these materials.
3. BGAI used selected valuation methodologies (principally net present value of projected cash flow; replacement costs of work force, etc.) and analyzed materials and interview notes so as to construct the valuation models needed.

4. For these models, key valuation factors were determined including historic customer revenues, operating costs, maintenance renewal rates, NPV factors, projected tax rates, etc. Using these factors, the recommended product and technology values were determined.
5. For the other intangibles, appropriate models were constructed using information on personnel, customers, etc. These provided the means for valuing these other intangible assets.
6. A valuation report was first delivered in draft form to ensure that all information was accurate and complete and that the logic and calculations used were clear. Then the final report was prepared and submitted, including appropriate appendices.

SECTION II. Description of the Acquired Interlink Business

Interlink Computer Sciences, Inc. (Interlink) was a software products and services company, headquartered in Fremont, California, which specialized in providing software products and related services to assist customers in obtaining and using high performance enterprise networking capabilities.

A. Products

As of the acquisition date, Interlink had the following principal products:

- **TCPaccess** – Native MVS mainframe-based TCP/IP protocols and applications stack that enables IBM mainframe to become enterprise servers in TCP/IP centric distributed, heterogeneous client/server network environments
- **e-Control** – Comprehensive software product for management and control of super-server networks that use TCP/IP clients to access MVS mainframe data and applications
- **CPT** – Set of development tools and API's for applications programmers to write TCP/IP socket programs into their CICS transaction-based systems
- **EPS** – Integrated print services package that functions as a print gateway between TCP/IP and SNA networks, enabling bi-directional printing support for enterprise server applications to network printers and OS/390 printers
- **DECnet** – Provide networking protocols that allow MVS and VM mainframes to communicate with devices using the DECnet protocol
- **X.25 for S/390** – Software package that enables legacy MVS applications that rely on the X.25 protocol to communicate in a TCP/IP environment, without the need for the front-end processor for access to NPSI based non-SNA applications

Appendix C-1 provides a more detailed description of the current Interlink products.

B. Technologies

Interlink had four principal new products in active development prior to the acquisition date:

- **Sentinel/IP**– Provides policy based management of TCP/IP connections using access control mechanisms available on the mainframe including RACF, TopSecret and ACF2. Interlink has now bundled this into the e-Control product
- **Turbo/API** – Standalone solutions for IBM OS/390 TCP/IP stack customers. Offers IBM customers the ability to install enabling technology based on Interlink/s TCPaccess product to enhance the IBM TCP/IP system without having to replace the TCP/IP stack.

- **Turbo/FTP** – Offers IBM customers the ability to install enabling technology based on Interlink/s TCPaccess product to enhance the IBM TCP/IP system without having to replace the TCP/IP stack
- **TCPaccess for other operating systems** – Provides TCPaccess functions for other than IBM OS/390 mainframes

Appendix C-2 provides a more detailed description of the in-process technologies and products which Interlink was developing prior to the acquisition.

C. Customer Base

As of the acquisition date, Interlink had approximately 1,500 customers of whom 800 were active users of currently marketed Interlink software products.

D. Operations

Interlink had its principal headquarters in Fremont, California with sales, services and support operations throughout the world, primarily using representatives outside North America. Organization charts are shown in Appendix C-3.

E. Financials

Interlink had been a growing profitable organization, but FY99 brought significant reversals. Appendix D provides the financial results from Interlink for fiscal years 1997, 1998 and for the first three quarters of fiscal year 1999.

SECTION III. SSI Strategic Plans for Use of Acquired Interlink Assets

A. NMD Products and Services

The Solve family of products help customers manage their operated enterprise from a business-service perspective. Solve:Netmaster automates network management operations across large-scale enterprises. The Solve:Netmaster products provide for centralized command and control, diagnostics, performance management and alert and status monitoring for TCP/IP (Transmission Control Protocol/Internet Protocol), SNA (Systems Network Architecture) and SNMP (Simple Network Management Protocol) network events.

The Solve: Operations products provide and participate in enterprise-wide systems automation solutions, addressing both mainframe and distributed systems from a single point. Solve: Operations products are available as standalone products within the OS/390 environment and as plug-in components for three enterprise management platforms: Hewlett-Packard's "OpenView" and "OpenView IT/Operations" and Tivoli's "Tivoli/TME 10 NetView." Solve:Diplomat allows multiple customer information applications to share information with multiple help desk applications without modifying the applications themselves. This allows enterprises to synchronize their business support applications and maximize customer service, while at the same time preserving the investment in these applications.

Solve:Central is an integrated suite of products for running the enterprise IT service desk and is comprised of: Solve:Problem for problem tracking and resolution; Solve:Change for managing the systems change process; Solve:Configuration for tracking software and hardware configuration changes and Solve:Asset for business management of computer assets and the services they delivery.

B. NMD Strategies for Current Interlink Products

NMD reviewed the list of Interlink products and had determined, as of the acquisition date, its strategic plan for each of these products:

- TCPaccess will continue to be supported through adding must-have features and by active marketing to the OS/390 and MVS environments.
- e-Control will only be sold to currently active prospects. NMD intends to integrate key e-Control features into Solve:Netmaster for TCP/IP and sell this integrated product to future e-control prospects.
- NMD will continue to support CPT customers and market CPT to new customers, but will discontinue direct consulting services. In addition, NMD will integrate certain CPT functions into Solve:Netmaster for TCP/IP and Solve: Operations for CICS.
- EPS will be actively marketed both directly and possibly through third-party channels as remote printing becomes even more widely accepted.

- DECnet will continue to be maintained, but no new development is planned nor any marketing effort.
- X.25 for S/390 will only be marketed in Europe and will have only limited technical support.

Interlink had also been selling certain hardware to enable a network to channel connection. This will be discontinued and hardware maintenance renewals will be turned over to Bustech which produces the hardware.

C. NMD Strategies for In-Process Interlink Research and Development Products

As of the acquisition date, NMD planned to exploit four major development efforts underway at Interlink:

- Sentinel/IP will become a major thrust by NMD to provide the access control needed by various TCP/IP users. This product is currently viewed as an independent offering from Solve:Netmaster for TCP/IP in order to gain maximum market penetration. NMD will proceed with this development work.
- While most TCP/IP customers want full-function capability, many also need simple-to-use specialized capabilities for particular usage segments. Interlink had under development two such specialized products: Turbo/API and Turbo/FTP. NMD intends to proceed with these development activities.
- Interlink has been actively developing a product which will support TCP/IP stacks for MVS-like operating systems other than those supplied by IBM. This product is being developed initially for the FAA with its NAS operating system. The product will then be tested for the Fujitsu MSP and Hitachi VOS3 operating systems and actively marketed, particularly in Japan.

D. NMD Strategies for Interlink Customers

- The Interlink customer base of 800 active customers should be an excellent source of active prospects for NMD's closely related products particularly for Solve:Netmaster for TCP/IP and for Solve:Netmaster for SNA. These Interlink customers will be actively pursued. Significant Interlink technologies will be added to the S:NIP and S:NSNA products to make them more attractive to the Interlink customers.
- In addition, NMD plans to add significant Interlink technologies to its own Solve products in order to fill functional gaps and to broaden market opportunities. However, the present SEC rules preclude NMD from assigning any IPR&D value to the inclusion of these technologies in current or planned NMD products.

SECTION IV. Valuation Methodologies

The general asset valuation process for acquired intangible assets (after deducting the value of the tangible assets less liabilities) is:

1. Determine valuation of those specific intangible assets (current products, non-compete agreements) to be capitalized and amortized over their economic life
2. Determine the proper value of in-process research and development projects which are to be written off at acquisition
3. Subtract the sum of the results contained in steps 1 and 2 from the total intangible asset value and allocate the remainder over the other intangible assets to be capitalized and amortized over their appropriate economic life.

There are three principal valuation techniques which can be used for valuing the intangible assets (products and technologies) of computer software and services companies:

- **Valuation of Projected Operating Profit Stream**

What would an independent buyer pay for the projected profit stream from the assets to produce a fair rate of return on the investment, considering the risk involved? Valuation is based on revenue, cost and profit projections using revenue history, competitive position, market opportunities and realistic profitability expectations.

- **Resale Value of the Assets**

What would an independent buyer pay for similar products and other assets based on current market values and recent acquisitions? Valuation is based on: comparable private and public asset acquisitions; price/earnings and price/revenue ratios of public companies in comparable businesses. These values need to have appropriate adjustments for special circumstances and balance sheet tangible values.

- **Reconstruction Costs**

What would a third-party have to pay to reconstruct equivalent products or technologies given reasonable technical skills and market knowledge? Valuation is based on design concept, number and size of programs, complexity of programs, languages and operating systems used. The actual costs incurred to acquire or develop the products and technologies is considered along with estimated reconstruction costs. Other implied costs due to market timing, product quality, etc. are also considered.

Each of these methods has to be used with appropriate consideration of business history, future risk, market direction, product and service quality and balance sheet elements. In each case, there are specific procedures to be followed so as to produce consistent valuations.

Recent statements regarding SEC rules (late 1998 and 1999) have significantly revised the intangible asset valuation procedures. Below is listed a summary of the current SEC rules as analyzed by BGAI with concurrence from SSI's auditors:

- **Product Valuation**

- ▶ All currently available products or products which have passed FAS86 tests at seller should be capitalized unless they are not going to be supported after acquisition.
- ▶ No future planned enhancements to capitalizable products can be included in the product valuation.
- ▶ Any enhancement work in process can be used for R&D writeoff as for other IPR&D technologies.
- ▶ Product life, without enhancements, must be determined for amortization purposes

- **In-Process R&D Valuation**

- ▶ Only current IPR&D projects at seller, which have not yet passed FAS86, may be considered for technology writeoff.
- ▶ Must assign percentage of value to core technologies used in these IPR&D projects (i.e., reuse of previously delivered technologies, beyond use of their functional specifications).
- ▶ Can only allocate percentage of project completed (per % of development) as in-process technology suitable for writeoff.
 - Percentage completion relates to whether the project is still qualified as in-process R&D. Therefore, the ability to pass FAS86 (technical feasibility and sufficient market value) is considered the completion point.
 - All expected development costs after FAS86 qualification until completion should be explicitly charged as part of the product cost projections. These development costs after FAS86 will be treated as cash flow operating costs until delivery, even though they will be capitalized and must be explicitly deducted from the projected revenues.
- ▶ Must explicitly consider various development and marketing risk factors (complexity, schedule, resources, etc.) in projecting revenues and costs and in selecting the discount rate.
- ▶ Discount rate should consider company and industry historic rate of return on capital and cost of obtaining capital, and must reflect the risk of not achieving projecting operating income.

- ▶ Should show completion percentage reduction explicitly in NPV calculations on a year-by-year basis.
- ▶ The life of each product qualified for technology writeoff must be determined, without consideration of future enhancements.
- **Other Intangible Assets**
 - ▶ Must be explicitly valued where possible
 - ▶ Include customer relations, assembled work force, developed technologies
 - ▶ Infrastructure, trade names, patents, copyrights, etc. should also be valued
 - ▶ The economic life needs to be projected for each of these other intangibles to determine its amortization period.
 - ▶ All valuations need to be on a fair value basis: would any qualified, competent buyer put a similar value on the acquired intangibles? This means that any price paid by the buyer beyond that which would have been paid by any other qualified, competent buyer may have to be capitalized as goodwill.

The specific valuation procedures used in this project are described in the following subsections.

A. Software Products Valuation

Usually, neither reconstruction cost nor comparable company market value provides an appropriate valuation methodology for the value of the current products acquired.

Therefore, for software products, BGAI computes the net present value of the projected operating income stream over the expected economic life of the specific products which the seller was marketing as of the acquisition date and which the buyer expects to continue to market and support.

There are four primary steps in determining the net present value of the projected profit to be earned by sales and recurring revenues from the current products to be marketed.

1. Establish the Available Market Opportunity

Information is collected regarding the market opportunities for these types of products with consideration of prospective growth and competition on different platforms for various functions and markets. Competitive and technology factors are also considered.

2. Prepare Product Unit Forecasts and Estimate Revenue

Using management information and financial records as a basis, the sales history for the available products is examined. From this work, a profile of each product is built and used as a basis for BGAI forecasting. To produce realistic future sales projections, this is overlaid with the data derived from the market opportunity analysis and specific Buyer marketing plans.

3. Project Operating Costs and Pre-Tax Operating Profits

Seller, buyer and industry historic operating costs are analyzed to project future costs. This yields a projected operating profit stream.

4. Determine Economic Life and Compute Net Present Value

The NPV calculations are based on the use of a selected discount rate, adjusted to the investment being made at the midpoint of each year. The figure selected is based on the level of risk in the BGAI forecasts; it considers, but does not necessarily match, the company's historic/projected rate of return on investment.

The marketable economic life for each product is determined, based on the market opportunity, sales history and experience, product currency, competition, expected technological developments and buyer strategy. We believe that a five-year life is realistic for the principal acquired Interlink product, as shown in Section V.

The effective tax rates for North American profits (Federal and state) and for international profits have been projected by the Buyer's financial management.

The NPV calculations are made based on projected cash flow after tax adjustment over the economic life of the products. A straight line (or revenue-ratio) amortization method can be used for each product, based on its marketable economic life and its operating income pattern. Section V and its related Appendices shows this product valuation process in detail.

B. Acquired Technologies Valuation

Whether particular acquired technologies which are included in the new products can be expensed as in-process research and development depends on the intended use by the acquirer and whether technological feasibility has already been demonstrated for the future products which will incorporate these technologies per FAS86 rules. The technology values are not limited to the actual cost of development to date, but should reflect the value to the acquirer for the acquirer's intended uses.

BGAI analyzed each of the planned future NMD products to determine if they already met the FAS86 technology feasibility rules for capitalization. If not, the value, adjusted for percent completed as of the acquisition date and for any reuse of previous core technologies, must be written off at the acquisition date because of FAS2 rules on not capitalizing in-process research and development costs.

The primary method used for valuing acquired technologies intended for future use is a projected cash flow-based valuation using the projected operating income for the new products. Comparable market value is not particularly useful in this situation. Reconstruction costs can be considered by examining the money spent on the technologies, as of the acquisition date to determine if this is a reasonable amount compared to the work performed and market timeliness.

The projected operating income stream approach requires analyzing the specific future product to be produced and marketed using the acquired technologies; a projection is then made of the revenues, costs and operating income from this future product. The net present value of the resulting operating income stream is calculated over a realistic economic life to produce the valuation figures.

There are four primary steps in determining the net present value of the projected operating income to be earned by sales and recurring revenues from the new products to be completely marketed.

1. **Establish the Available Market Opportunity**

Information is collected regarding the market opportunities for these new products with consideration of prospective growth and competition on different platforms for various functions and markets. Competitive and technology factors are also considered.

2. **Prepare Product Forecasts and Estimate Revenue**

Using management and market studies and market knowledge, a profile of each product is built and used as a basis for BGAI forecasting. To produce realistic future sales projections, this is overlaid with the data derived from the market opportunity analysis and specific acquirer marketing plans.

3. **Project Operating Costs and Pre-Tax Operating Income**

Seller, Buyer and industry historic operating costs are analyzed to project future costs. This yields a projected operating income stream.

4. **Determine Economic Life and Compute Net Present Value**

The NPV calculations are based on the use of a selected discount rate, adjusted to the investment being made at the midpoint of each year. The figure selected is based on the level of risk in the BGAI forecasts; it considers, but does not necessarily match, the company's historic/projected rate of return on investment.

The figures for the NPV discount rate are determined for the technologies, considering in each case the special business risks. The effective tax rates are provided by the acquiring company. We have used ten years as the marketable economic life for the planned new products using the acquired technologies, including the sunset maintenance period.

Section VI and its associated appendices show the process and calculations for the new products which will use the acquired Interlink IPR&D technologies.

C. Risk Levels in BGAI Forecasts for Acquired Products and Technologies

BGAI's practice is to prepare its own revenue forecasts and cost projections for each qualified in-process and planned product, rather than use the assumptions and projections prepared by the acquirer of the assets (buyer).

In general, BGAI sets a blended discount rate considering the cost of borrowing money for the acquirer, the historic and planned rate of return on investment for the acquiring company and for similar companies in this marketplace and the anticipated technical and market risk.

The BGAI forecasted revenue and operations costs were consistent with the identified level of risk, using conservative business assumptions. In preparing its revenue forecast and projected operating costs, BGAI has carefully considered, for each in-process product, its stage of completion, complexity of work completed, difficulty of completing the work in a timely fashion, technological uncertainties, and any other relevant factors which would increase the risk to timely, successful technical completion and market success.

D. Core Technologies and Percent Completion Adjustments

The SEC states that the value of core technologies is reflected in those products which currently contain those technologies. If a new product will directly reuse previously released programs and there are no significant technical risks in this reuse, then the value of the contributions of this core technology has to be excluded from the value of the acquired technologies.

If a new product just uses similar functionality to that in an existing released product, but it has to be rearchitected, restructured, redesigned, reprogrammed and retested, then this does not constitute reuse of core technology, but rather should be considered part of in-process R&D work and treated accordingly for valuation and FAS2 write off.

In this situation, Interlink had significant predecessor products and, hence, substantial core technologies. These have to be taken into consideration.

The new products which were under development at Interlink as of the date of acquisition contain IPR&D technologies which Interlink had designed and was implementing. The SEC rules require that the only value which can be assigned to these IPR&D technologies must be based on the percent of the work completed as of the acquisition date. BGAI examined the cost to the acquisition date incurred by Interlink for each new product and the remaining cost to SSI to complete detailed design or operational prototypes to an acceptable FAS86 technical level. The ratio of costs to the acquisition date versus the total projected costs to the FAS86 date was used to compute the adjusted NPV for the new product. The further development costs required to prepare the new products for general release were considered in the cost projections.

E. Other Intangible Assets

The principal other intangible assets acquired from Interlink are:

- trained personnel
- established customer base as a source for future NMD product revenue
- other technologies as a source for future NMD product revenue, including the value of core technologies for future products
- effective infrastructure and operational procedures (going concern and goodwill)

The elements of infrastructure, name recognition, channel relationships, business procedures, etc. are of only limited value to SSI, since SSI already has these capabilities in most locations and will integrate the remaining Interlink organizations into the existing NMD business.

The valuation procedures used for the other intangible assets are described in detail in Section VII.

SECTION V. Valuation of Acquired Interlink Products

The valuation methodologies and principles as described in Section IV A are applied in this section to the products acquired from Interlink.

A. SSI Plans for Acquired Interlink Products

As described in Section III, NMD only intends to actively market three of the current Interlink products: TCPaccess, CPT and EPS. These software products will be valued in this section.

The other software products will only be supported or marketed in a limited fashion: e-Control, DECnet and X.25. BGAI will not value these other acquired products.

B. Valuation Procedure

The valuation for the Interlink products (we have continued to use the old names) follows the methodology described in Section IV A:

- Market Opportunity
- Revenue Forecasts
- Cost and Operating Income Projections
- NPV over Economic Life

C. General Assumptions Used in the Valuation

In producing the revenue forecasts, operating cost estimates, operating income and net present values, a number of business assumptions have been made by BGAI. The general assumptions are listed below:

1. The market for high performance, high security enterprise networking software products will grow to even more significant levels during the next few years, and NMD will keep and get a significant share of this marketplace.
2. International and North America will grow in a somewhat different fashion because of Interlink's different installed positions.
3. Professional Services will be a limited revenue source for some of these products and will tend to be used principally when the products are originally installed.
4. BGAI has used a five-year projection starting April 1, 1999.
5. Operating income ratios will increase substantially for the products over the first few years of the five-year planning horizon, reaching and holding levels well above industry averages. This is because NMD has a high margin business and will not spend an unusual amount of money on marketing or development of these products.

6. No inflation or deflation factors will be used for costs or for product or service prices.
7. The product users will be charged for maintenance and support; since most customers will continue to use these offerings for the forecast years, the maintenance revenue will be significant.
8. A tax rate of 38% will be applied against all North American operating income and 30% against International operating income.
9. A discount rate of 15% will be used and applied to the after-tax operating income to compute the net present value. We consider the product forecasts to be relatively low risk.

D. Market Opportunities for Interlink Products

Virtually all large companies in North America and internationally need to integrate the communications between their mainframe operations and client/server configurations throughout their organizations. To do this, most companies have adopted TCP/IP as their communications protocol for network services. Interlink has provided software products to help companies use their S/390 systems as high performance enterprise servers for their distributed networks.

All market forecasts predict continued rapid growth in this TCP/IP marketplace, and the Interlink technologies are essential to the effective management of these facilities. IBM is the most significant competitor but, properly positioned, Interlink's current products can continue to serve their market's needs.

E. Revenue Forecasts for Interlink Products

The revenue forecasts for the three Interlink products are shown in Appendix F in Tables 11-16. Based on historic financial information provided by Interlink (see Appendix D), BGAI established fiscal year 1998 and 1999 revenues for Interlink's products.

New sales will remain flat and then drop; add-ons/upgrades will be a major factor for TCPAccess, but not of any consequence for CPT or EPS.

Services revenues will be at 10% of new sales revenues (lower than the FY99 experience) for TCPAccess and CPT, but there will be no services revenue for EPS. Maintenance/support revenues are computed using the following factors:

- Erosion -- from 10% in FY00 to 25% in FY04
- Maintenance/Support fees of 18% of the then current average selling price
- 100% maintenance acceptance rate for new sales

The results of these calculations for the Interlink products show revenues as follows:

(S000)	2HFY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1HFY 2004	Total
TCPAccess							
North America	5,300	6,808	7,577	7,128	5,709	1,816	34,338
International	2,050	2,879	3,059	2,656	1,864	468	10,927
Total	7,350	9,688	10,636	9,784	7,574	2,284	47,315
CPT							
North America	1,000	1,462	1,985	2,060	2,080	977	8,563
International	565	884	1,242	1,304	1,332	631	5,393
Total	1,565	2,346	3,227	3,364	3,411	1,608	15,522
EPS							
North America	800	1,158	1,387	1,427	1,426	662	6,060
International	800	1,158	1,564	1,627	1,643	769	6,761
Total	1,600	2,316	2,951	3,053	3,070	1,432	14,422

F. Costs and Operating Income Projections

Interlink's operating costs for 1997 and 1998 do not provide a useful guide as to the costs which SSI/NMD will incur in marketing and supporting Interlink products. NMD's own experience provides a better starting point. BGAI has used NMD as a model for both North America and International cost projections.

In projecting the operating income for Interlink products, BGAI has used the following cost to revenue ratios (see Appendix F, Tables 21, 22 and 23).

	2HFY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1HFY 2004
Cost of Revenues	.10	.10	.10	.10	.10	.10
Sales, Marketing & Support	.30	.30	.30	.25	.25	.25
R & D	.15	.15	.15	.10	.10	.10
G & A	.15	.15	.15	.15	.15	.16
Total Operating Costs	.70	.70	.70	.60	.60	.60
Operating Income Margin	.30	.30	.30	.40	.40	.40

The results of using these ratios are summarized in Tables 21, 22 and 23 of Appendix F.

G. Net Present Value Calculations – Interlink Products

The above figures have been used in Appendix F, Tables 31, 32 and 33 to calculate the net present value of each of the Interlink products. A tax rate of 38% has been used for the North American operating income and 30% for the International operating income. An after-tax discount rate of 15% has been used to recognize cost of money and rate of return for SSI and the relatively low expected risk in this forecast of revenues and costs.

TCPaccess (\$000)	North America	International	Total
Revenues	34,338	12,977	47,315
Operating Income Pre Tax	11,767	4,392	16,159
Operating Income After Tax	7,766	2,987	10,753
Net Present Value	5,189	2,224	7,413

The value of \$7,413,000 should be capitalized and then amortized over five years on a straight line basis for TCPaccess.

CPT (\$000)	North America	International	Total
Revenues	9,563	5,958	15,522
Operating Income Pre Tax	3,381	2,114	5,495
Operating Income After Tax	2,231	1,438	3,669
Net Present Value	1,414	991	2,405

The value of \$2,405,000 should be capitalized and then amortized over five years on a straight line basis for CPT.

EPS (\$000)	North America	International	Total
Revenues	6,860	7,561	14,422
Operating Income Pre Tax	2,410	2,672	5,082
Operating Income After Tax	1,590	1,817	3,408
Net Present Value	1,019	1,262	2,281

The value of \$2,281,000 should be capitalized and then amortized over five years on a straight line basis for EPS.

The total net present value of the three current Interlink products which will be actively marketed by NMD is \$12,100,000.

SECTION VI. Valuation of Interlink Technologies

The technologies valuation methodology and principles as described in Section IV B, C and D are applied in this section to the value of the new products which were being constructed by Interlink using technologies which are still considered in-process research and development.

A. Technologies Assessment Principles

Interlink was developing certain new technologies which are of substantial value; they will enable NMD to complete and deliver key new enterprise networking products in a much more timely fashion than if NMD had to specify, design, build and test the comparable technologies needed to construct these new products.

SSI determined the price it was willing to pay for the Interlink assets not just by considering the value of the current product business, and the trained employees and customer base, but also by what it believed would be the value of the in-process Interlink technologies, giving significant weight to the new enterprise networking technologies which Interlink had under development.

Therefore, to assist in the allocation of the acquisition purchase price, BGAI has assessed the value of the in-process technologies based on NMD's specific plans, as of the acquisition date, for development and marketing of new products and related services using the acquired Interlink technologies. BGAI has projected the revenues, costs and operating income for the new products and related services to determine the net present value for the IPR&D.

Based on the rules of FAS2, any acquired in-process research and development work which cannot yet meet appropriate technical and market tests (as stated in FAS86) must be expensed on a current basis. Since the new NMD products using the acquired new Interlink technologies have not yet been detail designed or prototyped, they cannot meet the FAS86 technical tests at this time and, therefore, the acquired technology values must be expensed (written off) as of the date of acquisition. However, these NPV assessments must be reduced to reflect the percentage of work not yet completed for the products as of the date of acquisition and the degree to which they incorporate core technologies from predecessor Interlink and NMD products.

B. Specific Interlink Technologies Assessment

There are four new in-process Interlink products which will be produced, marketed and supported by NMD. These new products will use the acquired Interlink technologies; they will not use any predecessor NMD technologies.

The total value of the acquired Interlink technologies is determined by calculating the net present value of each new product and then reducing this value for the percent not yet completed by Interlink as of the date of acquisition and further reducing it for the core technologies contributions.

BGAI worked with materials provided by NMD as well as communicating extensively with representatives from NMD to understand the use of the in-process Interlink technologies for the new NMD product.

C. NMD Information Supplied

Information on market opportunities was obtained from Interlink materials and from NMD for the new products. Consideration of these and other technical, market, competitive and business factors were used by BGAI in setting its own assumptions to determine the BGAI projected operating income for the new product and related services. NMD provided:

1. Schedules for when the new products will be able to pass FAS86 tests and when they will be generally released (available for delivery).
2. Pricing plans for new licenses, upgrades/add-ons, maintenance and related technical services.
3. Estimates of the number of new customers and license revenues during the first and subsequent years after release.
4. Projections of the ratio between upgrades/add-ons and the installed base.
5. Projections of the ratio of technical services revenue to new license revenues.
6. Projections of the initial acceptance rate of maintenance on both new licenses and on upgrades/add-ons and projections on maintenance erosion rates after the first license year.
7. Views on marketable product life for new customers and continued support of those customers.
8. Plans and projections for both North American and International markets for all of the above questions to identify any differences between the American markets and projections and international markets and projections.
9. Estimates of expected costs for North America and International. The classification of cost information is:
 - Cost of revenues (for new licenses, maintenance, services)
 - Marketing, sales and support
 - Research and development
 - General and administrative

All of the information supplied by NMD for the new product valuation in this Section has been carefully reviewed and used by BGAI as a reference for BGAI's own assumptions.

D. BGAI General Assumptions

In producing the revenue forecasts, operating cost estimates, operating income and net present values, a number of business assumptions have been made by BGAI. The general assumptions are listed below:

1. The market for networking software products and services will grow substantially, and NMD will get a reasonable share of this marketplace.
2. International and North America will be comparable in size in adopting networking products.
3. Installation, training and usage assistance services will be a limited revenue source for this market; these services will be used principally when the products are originally installed.
4. BGAI plans to use a ten-year projection starting 10/1/99: new customers for the new products will decline during the latter part of the period as the market becomes saturated and/or replacement technologies obsolete these products.
5. Operating income ratios will generally increase for the new products and services over the first few years of the ten-year planning horizon, reaching levels well above industry averages, but similar to the ratios for other NMD products.
6. No inflation or deflation factors will be used for costs or for product or service prices.
7. The new NMD products will be priced, at least partly, on a per-system and per-system size basis so that upgrades and add-ons will constitute significant additional revenues.
8. These products will charge for maintenance and support; since most customers will continue to use these offerings for many years, the maintenance revenue will be very significant.
9. A tax rate of 38% will be applied against all North American operating income and 30% against all International operating income.
10. A discount rate of 20% will be used and applied to the after-tax operating income to compute the net present value. BGAI has prepared all of the forecasts, and believes that this level of risk is consistent with these forecasts.

E. Market Opportunities

The market opportunities for each of the new products are described in more detail in Appendix C-2. Networking products will become an even more significant business opportunity over the next few years. By being timely to market with high security, high performance products, NMD should be able to obtain a reasonable share of the market, even against tough competition.

The following abbreviated market opportunity descriptions were provided by NMD and were part of the input used by BGAI:

◆ **Sentinel/IP**

Total Market: 9600 MVS and OS/390 sites

By 2002, 90% plus of all S/390 sites will exploit TCP/IP as their de facto communications protocol for application access to S/390 servers. One of the key issues with the adoption of TCP/IP is its recognized lack of security when compared to existing S/390 security methodologies.

Customer Profile: Any organization that has a requirement for high volume, high transaction frequency access through TCP/IP to applications on a S/390 server. Sites with 200 plus concurrent users/applications.

Market Opportunity: 50% of sites fall within the customer profile. At 4800 sites.

Size of Opportunity: 50% of the 4800 sites. Not all sites will be gained due to competitive pressures and changing technologies over the five-year span. The combination of the Solve and Interlink customer bases provide an immediate opportunity of 700 customers. Early year adoptions will be higher than outer years.

ASP: \$35k

◆ **Turbo/API**

Total Market: 9600 MVS and OS/390 sites

One of the key issues with the adoption of TCP/IP will be to ensure that network and application response times are adequate to meet customer SLA's. Turbo products reduce the number of API's, API calls and internal calls within the TCP/IP stack, in essence streamlining it for specific applications. The aim is to improve reliability and dramatically improve throughput.

Customer Profile: Any organization that has sensitive applications or service level agreements for response time within their organizations. Most large organizations are moving to some form of SLA measurement for their end users. Heavy on-line application dependent, ADSM, CICS and TELNET users requiring speed and reliability. Customers requiring high speed backup for data movement between UNIX/NT systems and the S/390 data server (SAP and Oracle users).

Market Opportunity: Subset of TCP/IP users

Size of Opportunity: 1000 S/390 sites. Not all sites will be gained due to competitive pressures from IBM offering improved performance through their own TCP/IP technologies

ASP: \$35k

◆ **Turbo/FTP**

Total Market: 9600 MVS and OS/390 sites

The key reason many sites adopted TCP/IP on S/390 servers was to provide for bulk data transfer between disparate operating systems. File transfers typically are time sensitive, driving other processes once the data has arrived on the host. Turbo/FTP improves the throughput and reliability of FTP's, enhancing recovery and audit tracking of critical transfers.

Customer Profile: Any organization exploiting TCP/IP for high volume, time sensitive bulk data transfer. Any organization that has business-to-business commitments where service level penalties exist. Any organization making the choice to move from proprietary data transfer products to the FTP defacto standard.

Market Opportunity: Subset of TCP/IP users. All in the Fortune 4000.

Size of Opportunity: 1000 S/390 sites. Not all sites will be gained due to competitive pressures from IBM offering improved performance through their own TCP/IP technologies.

ASP: \$35k

◆ **TCPaccess/GOS**

Fujitsu computer systems run MSP while Hitachi Systems run VOS3. IBM, Fujitsu and Hitachi provide mainframe-computing systems with MVS-like operating systems. TCP/IP forms the de facto communications protocol for interbusiness and intrabusiness communications in Japan.

Total Market: 1,800 MSP sites and 1,300 VOS3 sites; certain U. S. government sites (total 3,000).

Market Opportunity: Provide a high speed TCP/IP stack to Fujitsu and Hitachi customers to overcome deficiencies in the manufacturer-provided products (age, lack of programmable API's, low speed).

Size of Opportunity: 1000 sites. These sites represent organizations large enough to require time sensitive file transfers between business partners and business units. Support large volume TELNET access to S/390 applications. Support other mainframe operating systems for Fujitsu and Hitachi computers.

ASP: \$50k

F. Revenue Forecast

The revenue forecasts for the four new products are constructed in Appendix H, Tables 11, 13, 15 and 17 (North America) and Tables 12, 14, 16 and 18 (International). BGAI has assumed a relatively slow start for each product in FY00, primarily from customers who are already users of other NMD products. Growth in 2001-2004 will be quite strong, and then slow down and in 2005 and 2006. After 2006, there will be few new sales.

Services will stay at a 15% rate of new license revenue throughout the planning period for Sentinel/IP and 10% for the other three products.

Add-ons/upgrades will be significant for Sentinel/IP, accounting for 15% of the new license value of the installed base each year. This is computed as 83% of the remaining maintenance each year (10% divided by the 18% maintenance fee equals 83%). This will drop to 9% in 2007-2009.

Add-ons/upgrades for Turbo/API will be 9% of the installed base (calculated as 50% of the maintenance base). Turbo/FTP will be 12% for add-ons/upgrades (67% of the maintenance base). TCPaccess/GOS add-ons/upgrades will be zero for North America, but 9% for International (50% of the maintenance base).

Maintenance/support revenues will be very significant, particularly in the latter years of the forecast. BGAI has assumed similar values for all four new products:

- Retention rate of 90% (10% erosion) each year for six years and then dropping to 85%, 80%, 70% and 60% for the last four years.
- 18% maintenance/support fee based on the then current new license charge
- 100% acceptance of maintenance/support agreements by new customers.

The results of these revenue calculations are summarized below:

Sentinel/IP											
(\$000)	FY00	FY01	FY 02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	Total
North America	1,164	3,772	6,951	10,720	13,937	14,013	13,114	7,049	5,379	3,518	79,616
International	1,164	3,772	6,951	10,720	13,937	14,013	13,114	7,049	5,379	3,518	79,616
Total	2,328	7,544	13,901	21,440	27,873	28,026	26,228	14,099	10,757	7,035	159,232

The total revenues for Sentinel/IP are forecast by BGAI to be \$159,232,000.

Turbo/API											
(\$000)	FY00	FY01	FY 02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	Total
North America	480	897	1,856	2,653	3,381	3,365	2,984	1,714	1,308	856	19,492
International	480	897	1,856	2,653	3,381	3,365	2,984	1,714	1,308	856	19,492
Total	960	1,793	3,711	5,306	6,761	6,730	5,967	3,429	2,616	1,711	38,985

The total revenues for Turbo/API are forecast to be \$38,985,000.

Turbo/FTP											
(\$000)	FY00	FY01	FY 02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	Total
North America	800	1,781	2,625	3,421	3,494	3,463	3,195	2,197	1,723	1,159	23,859
International	800	1,781	2,625	3,421	3,494	3,463	3,195	2,197	1,723	1,159	23,859
Total	1,600	3,563	5,251	6,843	6,988	6,925	6,390	4,394	3,446	2,317	47,717

The total revenues for Turbo/FTP are forecast to be \$47,717,000.

TCPaccess/GOS											
(\$000)	FY00	FY01	FY 02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	Total
North America	640	1,361	1,515	1,013	417	375	319	255	179	107	6,182
International	1,248	3,579	7,572	12,222	16,685	17,036	16,445	8,573	6,541	4,278	94,180
Total	1,888	4,940	9,087	13,235	17,102	17,412	16,764	8,828	6,720	4,385	100,362

The total revenues for TCPaccess/GOS are forecast to be \$100,362,000.

G. Cost and Operating Income Projections

Appendix H, Tables 21, 22, 23 and 24 show the assumptions made in calculating the operating costs for the new products. The cost model used was based on NMD's experience with other networking management products. From relatively high cost ratios in FY00-FY02 (primarily because of small initial sales), BGAI believes that the cost ratios will drop to match the usual NMD levels and hold at these levels throughout the ten-year forecast period. For consistency, BGAI has used the same cost ratios for all four new products for both North America and International.

TCPaccess/GOS										
(\$000)	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Cost of Sales	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
Marketing and Sales	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25
Research and Development	.25	.20	.15	.15	.13	.10	.10	.10	.10	.10
General and Administration	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15

H. NPV Calculations

Appendix H, Tables 31, 32, 33 and 34, show the NPV calculations for the new products. Using a 38% tax rate for North America and a 30% tax rate for International and a 20% discount rate to reflect the cost of money, the return on investment plus an appropriate risk factor, the worldwide NPV prior to adjustments is:

	NPV
Sentinel/IP	\$14,269,000
Turbo/API	3,503,000
Turbo/FTP	4,279,000
TCPaccess/GOS	9,465,000
Total	\$31,516,000

I. Core Technologies Adjustment

In constructing these new products, NMD has planned to use substantial program materials from previously released Interlink products. This re-use varies from simply utilizing requirements or functional specifications to actually incorporating the design and, in some cases, the program source code. Section IV D spells out the criteria used for determining whether the use of previously released programs constitutes re-use of core technologies. The definition used is:

- If the new product only uses requirements and functional specifications, then it does not constitute re-use of core technologies.
- If the new product uses design or code from a previously released program, then it is considered to be using the appropriate percentage of core technologies.

In the case of these new products, there were two predecessor products to be considered: e-control and TCPaccess.

In conjunction with the NMD business development director and the NMD product development manager, BGAI reviewed all of the planned functional/technology elements of the new products and the corresponding elements for e-control and TCPaccess as appropriate. Appendix G-1, page 1, provides definitions for the factors used. NMD does not plan to incorporate any other Solve product functionality into the new Solve products. Therefore, there is no core technologies reduction for other Solve product contributions.

Appendix G-2 shows the factors determined through the technical and marketing discussions and constructs a model to compute the significance of the contributions of the core technologies versus the new technologies. The results are:

	Sentinel/IP	Turbo/API	Turbo/FTP	TCPaccess/GOS
% Core Technologies	35.0	64.5	84.0	77.0
% New Technologies	65.0	35.5	16.0	23.0
Total %	100.0	100.0	100.0	100.0

As shown in Tables 31, 32, 33 and 34 of Appendix H, the % core technologies factors are applied to the new product net present values to establish the values of the core technologies.

The value of the Interlink core technologies was determined to be \$18,135,000 and should be considered as part of other intangibles and has been included in Section VII.

J. Percent Completion Adjustment

In addition to the core technologies adjustment, it is also necessary to reduce the value of the acquired IPR&D technologies to reflect the degree to which the development work has not yet been completed.

The new products which were under development at Interlink as of the date of acquisition contain IPR&D technologies which Interlink had designed and was implementing. The SEC rules require that the only value which can be assigned to these IPR&D technologies must be based on the percent of the work completed as of the acquisition date. BGAI examined the research and development cost to the acquisition date incurred by Interlink for each new product and the remaining cost to NMD to complete detailed design or operational prototypes to an acceptable FAS86 technical validation level. The ratio of the costs to the acquisition date versus the total projected costs to the FAS86 date was used to determine the % completed and to compute the adjusted NPV for the new product. The further development cost required to prepare the new products for general release had been explicitly considered in preparing the cost projections. Appendix G-3 shows these development plan calculations for each of the new products.

Using these values, BGAI determined that the products were completed to the degree shown as of the acquisition date:

% Complete

Sentinel/IP	75%
Turbo/API	87%
Turbo/FTP	76%
TCPaccess/GOS	64%

These percentage factors were used in Appendix H, Tables 31, 32, 33 and 34 to determine the NPV for the products after deducting the percent not yet completed.

As a result of this analysis and calculation, BGAI recommends that SSI use the following values for the acquired Interlink technologies to be used in the four new Solve products:

(\$000)	Adjusted NPV North America	Adjusted NPV International	Adjusted NPV Total
Sentinel/IP	3,311	3,738	7,049
Turbo/API	508	574	1,082
Turbo/FTP	244	276	520
TCPaccess/GOS	83	1,311	1,393
Total	4,146	5,899	10,044

These values should be written off as of the date of acquisition as In-Process Research and Development under FAS2 rules.

SECTION VII. Valuation of Other Intangible Assets

In acquiring Interlink, SSI/NMD had six principal business goals:

1. Acquiring the current Interlink products to pick up their new sales and maintenance revenues
2. Acquiring the Interlink technologies specifically related to networking so that NMD could enhance its position as a major provider of networking software products.
5. Acquiring trained technical staff and sales/marketing people to enable NMD to extend its entry into this market more rapidly, effectively and efficiently
6. Acquiring the customer base which will provide buyers for current and future NMD product offerings
7. Acquiring other Interlink technical knowledge and experience from previous products which should assist in other NMD products (e.g., developed technologies)
8. Acquiring the going concern practices and procedures and goodwill

In valuing each of these primary intangible assets one must be especially careful to identify the value as of the acquisition date and to avoid double counting the same benefit:

- Item 1 refers to the value of the existing products as of the acquisition date. The Interlink products were valued in Section V.
- Item 2 (IPR&D Technologies) has been valued in Section VI; it only includes the percent already completed of the in-process R&D efforts and excludes the core technologies contributions.
- Item 3 (assembled work force) refers to the costs avoided by NMD by acquiring the trained staff. All retained employees will be considered. These cost savings do not overlap other benefits.
- Item 4 (Customer Base) has its principal value in providing increased potential for these customers to purchase other NMD products.
- Item 5 refers to all acquired technologies which were available, but have not been valued in a specific marketable future product. This principally includes the value of the other uses for the e-control and TCPaccess core technologies.
- Item 6 is a potpourri of all of the other intangible assets acquired by NMD from Interlink. This category includes name recognition, going concern practices and procedures, operational locations, channel and partnership relations, etc. The value of these will be the residual value from the purchase payments made and acquisition costs incurred less all other tangible and intangible assets.

A. Trained Personnel

Acquisition of trained personnel provides a direct benefit to the acquiring company since it avoids the costs of recruiting, training and bringing new employees to their full level of productivity.

NMD expected to retain 63 of Interlink's 165 employees. BGAI's determination of the value of these avoided employee costs is \$2,094,000. This saving occurs principally because NMD does not have to recruit and train personnel to maintain, develop, support and sell the old and new acquired products. The savings, after-tax adjustment, is \$1,298,000 which should be amortized over an eight-year period representing the useful life of the acquired staff. Appendix I-1 provides the details of these calculations.

B. Customer Base and Professional Services

The acquired Interlink customer base was expected to be of direct benefit to NMD. Acquiring a new customer is an expensive marketing and sales process, but once a company has served a customer, the customer is far more apt to buy additional products than a non-customer.

Appendix I-2 analyzes the acquired Interlink customer base and identifies the two NMD products which would benefit from having these companies as NMD customers: Solve:Netmaster for TCP/IP and Solve:Netmaster for SNA.

The analysis in Appendix I-2, page 1, shows the mix of the then current Interlink customers (large, medium and small) and estimates what percentage of each category would buy these other NMD products.

Prices, add-on/upgrade ratios, maintenance factors and operating margin assumptions are shown for these NMD products in Appendix I-2, page 2. Appendix J shows the calculations and the total NPV calculations for these products, the worldwide results are summarized below:

NMD Products	Net Present Value (\$000)
Solve:NIP	4,668
Solve:NSNA	1,896
Total	6,564

The estimates were made using a seven-year forecast. Based on NMD experience, many customers will continue to use the products and stay on maintenance beyond the seven-year forecast period, particularly those that license relatively late in the sales cycle. Therefore, BGAI recommends using a ten-year amortization period.

The value of the Interlink customer base in buying these other NMD products has been calculated at \$6,564,000 which should be amortized over a ten-year period.

C. Other Technologies

Interlink has been developing advanced technologies for its key products and markets for a number of years. However, at the time of the acquisition, NMD could not identify any technologies other than those used for the new Solve products.

Appendix I-3 identifies the value of these e-control and TCPaccess core technologies. The resulting valuation of the acquired Interlink core technologies is \$18,135,000 and should be amortized over a ten-year period, the same period as the new Solve products forecast. See Appendix I-3 for further information.

D. Going Concern and Goodwill Valuation

In addition to the other intangibles itemized in this Section, there are some other going concern and goodwill values which need to be considered in the total valuation process. These items cannot be valued individually so are only assessed as a group. Appendix I-4 provides the reasoning for the going concern and goodwill values. The result is a valuation of \$18,882,000 which should be amortized over a ten-year period.

E. Summary of Other Intangibles Valuation

These four elements constitute the whole of the value of the other intangibles. The life expectancy of each is shown below:

Other Intangibles	Value (\$000)	Amortizable Life
Retained Employees	1,298	8 Years
Customer Base for other NMD products	6,564	10 years
Core Technologies	18,135	10 years
Going Concern and Goodwill	18,882	10 years
Total	44,879	

BGAI believes that the other intangibles value of \$44,879,000 realistically represents the value of all of these acquired elements and that it should be allocated and amortized as shown above.

SECTION VIII. Summary of Valuations and Financial Recommendations

SSI has determined that the preliminary acquisition cost for all of the intangible assets obtained from Interlink is \$67,023,000 (see Appendix I-5).

In Section V, we determined that the net present value of the carryover Interlink products was \$12,100,000. This must be capitalized and should be amortized on a straight line basis over five years.

In Section VI, we determined that the net present value of the acquired Interlink technologies for the new Solve products was \$31,516,000. After deductions to recognize the percent not completed as of the acquisition date and the reuse of core technologies, BGA1 recommends that SSI use \$10,044,000 as the value of the acquired new technologies assets as of the date of the acquisition. This value should be written off as of the acquisition date under FAS2 IPR&D rules.

The following calculations were used to determine the total purchase price and the value remaining for the other intangible assets:

	(S000)
Asset Purchase Price	63,907
Acquisition Costs – Preliminary	19,445
Total Purchase Price	83,352
Less: Total Tangible Assets minus Liabilities	16,329
Total Value of Acquired Intangible Assets	67,023
Less: Products	12,100
Less: Technologies	10,044
Value of Other Intangibles	44,879

In Section VII the total valuation of the other Interlink intangible assets to be allocated was computed as \$44,879,000, principally comprised of trained personnel, customer base for other NMD products, other technologies and going concern/goodwill value. These other intangibles should be amortized as shown below:

Other Intangibles	Value (S000)	Amortizable Life
Retained Employees	1,298	8 Years
Customer Base	6,564	10 years
Core Technologies	18,135	10 years
Going Concern and Goodwill	18,882	10 years
Total	44,879	

The sum of all of these intangible assets matches the purchase price plus other acquisition costs less the net value of tangible assets and tangible liabilities.



Professional Summary

Burton Grad, President of Burton Grad Associates, Inc. (BGAI), has a long record of significant contributions to the computer software and services industry. He has experience both as a user and developer of application and systems products and as consultant, innovator, businessman and leader in the computer software and services industry.

Since 1978 he has been a consultant to companies providing software products, software professional services, processing services and other computer software and services offerings:

- ❖ Strategic planning, management and organizational consulting, and product analysis, evaluation and review
- ❖ Company and product acquisition studies including due diligence and valuation for financial capitalization and write-off purposes
- ❖ Planning, assessment and analysis of business operations including quality and productivity measurements

Work is performed personally or with the assistance of experienced specialists in market analysis, customer services, systems programs and industry applications on mainframe and departmental computers as well as on client/server and personal computer systems.

This is a partial list from the more than 175 BGAI clients:

Broadview Associates	i2 Technologies, Inc
Budgeting Technology, Inc.	Infosafe
CIBER, Inc.	Keane, Inc.
DA Consulting Group	Mediware, Inc.
Decision Consultants, Inc.	Platinum Technology
Discount Investment Corporation	SPSS, Inc.
Elron Software, Inc.	Sterling Commerce, Inc.
Geocapital Partners	Sterling Software, Inc.
Grace Consulting and Technologies	TSI International

Work Achievements**Burton Grad Associates, Inc. (1978 - Present)**

- * Strategic planning, management and organizational consulting, and product analysis, assessment and review
- * Company, product and technology valuation studies for financial, tax, capitalization and acquisition purposes
- * Due diligence studies on acquisitions of computer software/services companies
- * Business assessment studies and implementation projects for product strategy, development, quality management and customer service

Customer Care, Inc. (1992 - 1996)

- * Published *CustomerCare Newsletter* and *CustomerCare Survey* directed at software companies' customer services activities: support, documentation, training and product-related consulting
- * Provided consulting on customer service processes, and training for customer service personnel

Heights Information Technology Service (1979 - 1983)

- * Performed professional services for applications and systems development
- * Used professionals on a remote, work at home basis with effective project management

International Business Machines Corporation (1960 - 1978)

- * Definition, design and implementation of application development systems strategy resulting in release of IBM's development management systems
- * Development of application programs for every major industry
- * Establishment of joint planning and programming development with European operations
- * Announcement, development and initial support of CICS
- * Management of application development for small business and process control systems
- * Responsibility for the production, release and maintenance of almost 200 programs
- * Conception of approach to and programs for text processing and office automation systems
- * Development and expansion of computer based training systems
- * Development of management science and scientific programs
- * Participation in the structuring and unbundling of IBM program products
- * Creation of the Study Organization Plan for specifying and designing application systems

General Electric Company (1949 - 1960)

- * Programming of the first commercial computer (Univac I in Louisville)
- * Development of discrete simulation techniques for manufacturing planning and control
- * Invention of decision tables

- * Study of automated factory design and implementation
- * Initiation and use of advanced techniques for production, inventory and quality control

Other Professional Activities**1972-1996****ITAA**

- * Computer Software and Services Trade Association
- * President, Treasurer and Board member of American Software Association Division of ITAA
- * Member of ITAA Board
- * Chair and member of various committees (Industry Relations, Software Capitalization, Software Openness, Technology Information Services, Quality Management)
- * Executive Committee of Information Technology Foundation (Project Office)

1968 and 1979

Principal author of *Management Systems*, published by Holt, Rinehart and Winston. Used for colleges and businesses for computer application system methodology and design.

1950-Present

Speaker and chair at conferences and workshops and contributor to professional journals on various information technology subjects including decision tables, quality control, systems engineering and software capitalization.

Burton Grad Associates, Inc.

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EDUCATION

1949 Bachelor of Management Engineering
Rensselaer Polytechnic Institute
Troy, New York

POSITION HISTORY

1978-Present **Burton Grad Associates, Inc.,**
Founder and President
Consultants to computer software and services companies

1992-1996 **CustomerCare, Inc.**
Chairman
Publisher and Consultants for software company customer services

1978-1984 **Heights Information Technology Services, Inc.,**
Founder and President
Professional software services

1960-1978 **International Business Machines Corporation**
Consultant - IBM Research Lab
Director of Development - Data Processing Division (DPD)
Manager - Development Services and Scientific
Application Programs (DPD)
Manager - Technical and Scientific Development (DPD)

1949-1960 **General Electric Company**
Consultant - Advanced Application and Systems Development,
Production Control Services
Manager - Production Control Operation - Large Steam Turbine Division
Manufacturing Training Program

Professional Profile - Sid Dunayer

Communications and Network Related Projects

Major International Chemical Manufacturer

Requirements analysis and design of the global network connecting the various product design centers worldwide. The network is currently implemented using Token-Ring and Ethernet local area networks connected via private T1/T3 service, Fiber links, Asynchronous and Synchronous dial connections, X.25 packet connections and SAA connections to the mainframes. Through this network, the chemists worldwide can share data and work together on new creations. The actual mechanism used to route any given "transaction" is dependent on the required response time for that transaction. Those that are "urgent" or require a timely response are routed via an appropriate network connection. The lower priority data replication messages are batched and sent using a cheaper network route.

Software Products Company

As part of a strategic planning study, analyzed various current and proposed message/document interchange models to establish requirements for an integrated messaging system, including analysis of transport mechanisms and use of available communications software packages.

Major Software Products and Services Company

As part of a study to determine whether to centralize company development and processing services, prepared requirements statement for installing an integrated communications network to cover development, processing services and corporate administration as well as telephone and fax services.

Network Services Provider

As part of a technical due diligence for an acquisition, performed an analysis to determine possible methods for connecting the newly acquired customers to the client's VAN. Analysis included the possibility of connecting the VAN to the packet network used by these customers. In this way, the packet service could reroute the customer transactions to the VAN. As customers were migrated from the packet network to the VAN, service on the packet network would decrease and eventually would cease, at which time the connection to the packet network would no longer be required.

Major Financial Institution

Designed and implemented a corporate-wide customer service network including the use of small computers (replacing mainframes), leased lines, dial-in backup units and other interconnect facilities for regional processing centers.

**Information Required for Product,
Technologies and Other Intangibles Valuation**

1. List of principal Interlink customers for preceding three years and the revenues from each of these accounts for each year
2. Analysis of Interlink installed base including installation dates, maintenance status, platforms
3. Financial statements for Interlink and SSI/NMD for the preceding three years
4. Effective SSI tax rates (U.S. federal and state and international) for budget purposes as of the acquisition date
5. Organization chart for Interlink, with number of employees by function
6. Marketing materials for Interlink offerings and services
7. List, description, size and market share of principal competitors to Interlink and NMD
8. SSI/NMD acquisition analysis materials for Interlink
9. SSI/NMD business and strategic plans for Interlink products and technologies including planned products, types of services, pricing, development projects, etc.
10. SSI/NMD sales, marketing and support plan for acquired Interlink products and customers
11. Technical analysis of Interlink and relevant SSI/NMD products and Interlink in-process development activities in terms of platforms and system functionality
12. SSI/NMD technical plans for utilizing and incorporating acquired Interlink technologies in future or in enhanced SSI/NMD products and services

Additional Materials Received — Interlink

1. Various Press Releases
2. Interlink ink, November 1998 Newsletter
3. Education Services, 10/19/98
4. Professional Services, 10/19/98
5. Training and Education: NetLOCK
6. NetLOCK Technology licensing arrangements, IPsec and VPN Interoperability and Authorized Reseller Program
7. 3762 Network Controller Product Information
8. e-Access: Sentinel/IP Product Information
9. e-Access: SNAP/IP 4.2 Product Information
10. e-Access: CICS Programmers Toolkit 5.2 Product Information
11. e-Access: Software Product Information
12. e-Access: e-Control 5.2 Product Information
13. TCPAccess 5.2 Software Product Information
14. Interlink Market Review Presentation: The IP Experts, 2/5/99
15. North American Organization Presentation
16. Sterling Software Memorandum of Acquisition: Interlink Computer Sciences, 3/30/99
17. Organization Charts and Company Locations
18. Interlink & Sterling Software: Operations Review Guide, 4/5/99
19. April 9-15/99 Meeting Schedule for Columbia and Paris
20. Interlink and Subsidiaries Financials: 1998 and 1999
21. Consolidating Income Statements: Period ending 6/30/96
22. Interlink Actual vs. Budget Income Statements: 1998 and 1999
23. Interlink Accounts Receivable Aging: 3/31/99
24. Interlink Revenue Recognition Policy (effective 7/1/98)
25. Network Management Division Organization Charts: 2/17/99
26. NMD Product Snap Shot Presentation (4/30/99)

Interviews Conducted

Doug Bertinshaw

Guy Daley

Chris Markle

Lee McElrath

Appendix – Products Overview

The Company's core technologies are the basis for its enterprise data center transport and management and security products. These technologies allow for the expansion of existing products and addition of new products to Interlink's basic technology architecture in three areas:-

1. Network transport products
2. Systems management products

The products in each of the company's principal areas were developed within an application architecture consisting of key components which provide high-performance, efficient operation, rapid development, reusable code and improved maintainability.

Additionally, Interlink offer a set of supporting educational and consulting services.

Network Transport Products

The following products comprise the network transport product line:-

1. TCPAccess & IOS/390
2. X.25 for S/390
3. CPT.

TCPAccess and IOS/390 ("TCPAccess")

TCP/IP is the de facto standard protocol for network interoperability. TCPAccess and IOS/390 provide a high performance, standards-based TCP/IP capability for mainframe computers running the OS/390 operating system. It is scalable to thousands of concurrent terminal, data transfer, or API users, while easing system administration through compatibility with standard OS/390 security and accounting facilities. Current versions of TCPAccess are year 2000 compliant.

The efficiency of customers' enterprise systems depends on the efficiency of the network. TCPAccess is built to support more users concurrently with lower CPU demands than competitive products. TCPAccess uses even fewer CPU resources than products that offload protocols to improve CPU consumption. This results in increased productivity and a longer period of use before hardware upgrades are necessary.

TCPAccess is native to OS/390 and is entirely resident on the host. This simplifies the data path and speeds up client/server transactions. And because the architecture for TCPAccess is OS/390 based, interoperation with OS/390 is simple, direct, fast, and highly efficient.

TCPAccess includes Fault Tolerant, which significantly enhances system availability for business-critical production environments. TCPAccess-Fault Tolerant automatically and transparently reroutes user

sessions if a controller, network router, or router link fails. User sessions continue without interruption or delay.

TCPass offers efficient FTP implementation for file transfers to and from OS/390 systems. TCMAccess provides Application Program Interfaces ("APIs") that enable application-to-application communications, permitting new distributed applications to interface with TCP/IP.

X.25 for S/390 ("X.25")

X.25 is used for inter-enterprise communications in addition to more traditional terminal-to-application communications. X.25 permits X.25 support via TCP/IP routers in OS/390 super-server networks using XOT (X.25 over TCP/IP) directly to TCP/IP on OS/390 instead of the front-end processors (FEPs) required in the SNA environment. X.25 may also be used to attach native X.25 equipment to SNA host systems without a packet network. For client-based access to mainframe data, X.25 replaces IBM's X.25 Network Control Program Packet Switching Interface (NPSI) software.

CICS Programmers Toolkit ("CPT")

The CICS Programmers Toolkit implements a transparent interface between TCP/IP LANs and mainframes running OS/390 to allow the development of Customer Interface Control System ("CICS") to TCP/IP applications. This interface allows both new and existing CICS applications to interoperate with TCP/IP network applications. The most recent version of CPT is year 2000 compliant. Based on open network protocols, CPT includes a set of automated CICS transactions called CPT/Tools and a set of application program interface services called CPT/API.

CPT/Tools is prewritten CICS code that allows CICS programmers to send or receive data over TCP or UDP open-network protocols. CPT/API is a flexible programming environment that CICS programmers use to communicate with remote TCP or UDP applications. The CPT/API programming environment allows programmers to develop sophisticated applications that require bi-directional conversations or data transfers.

Systems Management Products

The following products comprise the systems management product line:

1. e-Control
2. EPS.

e-Control (announced March 98 – released Sept 98)

e-Control provides secure enterprise management for TCP/IP in the data center. It places management tools in the hands of the key network team: the network administrator, the help desk specialist and the capacity planning analyst. e-Control provides powerful assistants: tools to aid in everyday audit logging, problem determination and real-time situation monitoring. Current version is year 2000 compliant.

The e-Control product includes 3 assistants to help manage the challenges in a TCP/IP environment.

1. An Administration and Configuration assistant for TCP/IP setup and auditing
2. A Problem Diagnosis assistant for help-desk problem determination and reporting
3. A Performance and Capacity Planning assistant for isolating bottlenecks in the network, providing both a real-time and a historical analysis capability.

The Administration and Configuration assistant ("A&C assistant") provides support for product definition of TCPAccess and IBM's TCP/IP for MVS products as well as a detailed audit log of modifications should problems arise after updates are made. The A&C assistant maintains changes to the system and helps manage "who made what change when?" types of questions. Also included in the A&C assistant is the Sentinel/IP security facility, the basis for policy based management of TCP connection security. Sentinel/IP provides a secure, auditable solution for TCP/IP on MVS or OS/390 superservers, by empowering the existing System Authorization Facility package to become the TCP/IP access firewall.

The Problem Diagnosis Assistant ("PDA") provides tools that aid in problem determination in the TCP/IP protocol stack. These problems can range from a user's inability to access certain applications to interface problems across the channel or LAN. With the PDA, the Help Desk's challenges are minimized by providing IP address to LU name mapping, Userid to IP address or LU name mapping for any or all TCP connections. In addition, Telnet and FTP statistics can be measured in real-time and diagnosed to verify if a network problem or VTAM application problem exists. The PDA has the capability of gathering data from multiple sources (TCPAccess, TCP/IP for MVS, VTAM, network ping/traceroute) assembling and presenting this data in one common format from a single point of control. This point of control begins with the primary option menu in a TSO or NetView environment or at any telnet client. The powerful REXX interface allows for integration with automated operations package and other specific requirements.

The Performance and Capacity Planning Assistant ("PCPA") provides real-time monitoring and historical data analysis for TCP/IP activities. Using SMF data and current active connection data, the PCPA details connection status by time, port and/or application on the spot. In addition, a user-friendly front end assists the capacity planner with developing SMF statistics for historical data analysis of a TCP/IP environment.

Specific monitoring of critical devices, such as routers in the network, can be achieved by customizing parameters to obtain alerts and notification when bottlenecks occur in a network. The e-Control address space can interface with NetView, TSO/ISPF, and a telnet client. The architecture supports gathering information from the various sources noted and presenting them in a common place.

Enterprise Print Services ("EPS")

Enterprise computing environments are becoming increasingly complex, with a variety of printers distributed across a mixture of TCP/IP networks and mainframes. In these complex environments, users need the flexibility to access the right printer for the right task, whether it is a high-speed mainframe printer or a printer attached to a TCP/IP network and system administrators need the management tools to oversee and control print resources.

EPS provides efficient print management and distributions across the enterprise with bidirectional support of the lpr and lpd TCP/IP printing protocols. It resides on the same host as the TCP/IP implementation functions as a print gateway between TCP/IP and SNA networks, mapping print requests between the two environments and allowing TCP/IP and MVS users to send print output to remote or locally attached printers. The most recent version of EPS is year 2000 Compliant.

Sentinel/IP

Product Description

Sentinel/IP is an element of the e-Control product that can be sold as a complementary product to SOLVE:Netmaster for TCP/IP (S:NIP) or can be integrated into S:NIP as an added cost feature.

The product provides "access control" facilities for OS/390 TCP/IP customers. With Sentinel/IP, rules can be established to permit or deny incoming or outgoing TCP/IP connections based on criteria like time-of-day, remote (non-host) IP address, etc. These rules and the facilities that apply the rules control access to the OS/390 system through TCP/IP are referred to as "access control" facilities.

Market research has shown that security, including access control, is one of the key issues to be addressed before wide-scale adoption of OS/390 TCP/IP will occur.

In-Process R&D

The Sentinel/IP function was in the first e-Control prototypes sold and delivered to customers. Based on customer feedback, the Sentinel/IP function required additional R&D to complete the product and make it viable for the general customer. As such, further R&D is being expended in the some key areas:

- Dataspace restructure. The e-Control dataspace facility was completely restructured to improve performance, and to provide more granularity of Sentinel/IP resource definitions.
- Sentinel/IP exits for CS/390 TCP/IP 2.5 and 2.6 environments. Sentinel/IP relies on exits installed or "planted" into the IBM TCP/IP product to see session connection attempts for the purpose of applying the Sentinel/IP access control rules. The exits used in 2.5 and 2.6 environments are different from those used in the earlier TCP/IP 3.2 environment.
- User registration. e-Control today can only capture user information when the user is driven into the OS/390 environment through e-Control facilities. For a majority of customers, this is not possible due to their use of existing session management products and the like. User registration facilities are being developed in e-Control to permit the extension of these session management and other products so that user information can be captured for e-Control use.
- Netview definition of Sentinel/IP resources. The Netview interface in e-Control is valued by Netview customers. This R&D permits Sentinel/IP resources to be defined from within Netview.

The following table outlines the in-process R&D by feature, the significance of each feature, how much of that feature is new vs. core, and the development status of the feature.

Feature	Significance of Feature
Dataspace restructure	Major significance. Permits rules to be defined that span multiple stacks (common occurrence). Improves performance.
Sentinel/IP exits for CS/390 TCP/IP 2.5 & 2.6 environments	Major significance. IBM stack was rewritten in 2.5 and is being rapidly adopted by customers. 2.5+ support is absolutely required to even enter the market.
User registration	Major significance. User identification permits "drill-down" by userid in problem situations, which has large value to customers.
Netview definition of Sentinel/IP resources	Moderate significance. Netview is the predominate network management package on OS/390 and Netview support allows a single user interface for those customers.

Market Opportunity

The Sentinel/IP function can be sold as a standalone product to OS/390 TCP/IP customers. This includes customers of either of the two primary TCP/IP stacks - SOLVE:TCPaccess from Sterling Software and CS/390 TCP/IP from IBM. The product would likely only be purchased by customers who are running the host TCP/IP stack "in production".

For specific market projections within this segment, see the input from Doug Bertinshaw.

Sentinel/IP can also be sold as an extra-cost option to the Sterling Software S:NIP product. Today there are approximately 175 S:NIP customers. It should be assumed that virtually all of these 175 customers are contained in the set of current production TCP/IP customers noted above.

For specific market projections within this segment, see the input from Doug Bertinshaw.

It should also be noted that the customer base for SOLVE:Access, an SNA-based access control product, offers a rich place to take the Sentinel/IP product in the short-term. There are approximately 1,000 SOLVE:Access customers.

For specific market projections within this segment, see the input from Doug Bertinshaw.

Another possible indirect revenue benefit is that, with the access control solution available, more customers might purchase and install the SSW SOLVE:TCPaccess TCP/IP stack, with the attendant NSS and maintenance benefit of that product.

Turbo API

Product Description

Turbo API is a derivative work of the TCPaccess product. It can be sold as a standalone offering or can be integrated into third-party OS/390 TCP/IP applications in some sort of OEM or reseller relationship.

The product provides the highest speed, most efficient (in terms of OS/390 CPU cycles) product for supporting OS/390 applications that utilize TCP/IP API services. These applications are typically written to use one of the IBM or Interlink standard APIs. By providing compatible APIs, Turbo API is seamless to these applications, yet provides improved performance and efficiency. This performance and efficiency is due to product architecture, avoidance of use of slower facilities like OS/390 UNIX System Services, and leveraging of special channel program features created in conjunction with Cisco.

Since more and more ISV applications are now supporting OS/390 TCP/IP, a fast and efficient TCP/IP protocol stack with compatible APIs will be valuable to customers with API and stack-related performance issues.

In addition, these API enhancements are also applicable to the base TCPaccess product and will contribute materially to the preservation of that (TCPaccess) customer base since more ISV applications are supported over TCPaccess with this enhancement. Without this type of compatibility, TCPaccess customers would be forced to use IBM's OS/390 stack to get support for these applications.

In-Process R&D

As noted before, Turbo API is a derivative of the TCPaccess product. In order for the product to have commercial viability, the API facilities needed to be significantly enhanced to deliver complete compatibility with the API set being provided in the IBM OS/390 TCP/IP solution, specifically:

- HPNS API support. HPNS (High Performance Native Sockets) was introduced in the IBM TCP/IP V3.2 product and has become the prevalent API used by ISVs. This API is being implemented to ensure that Turbo API can support the full range of ISV applications.
- IBM C socket replacement library. More and more ISV applications are written in C using C sockets as their TCP/IP API. These C-based applications from ISVs are typically shipped in a form that requires link-editing on the customer site against an IBM library of socket functions. An equivalent and compatible C socket library is being implemented to ensure that these applications can be built and run with the Turbo API product.
- Tracing for IUCV/HPNS API applications. The Turbo API IUCV and HPNS interfaces will be key interfaces used by ISV applications. Trace support is being added to both interfaces to permit rapid problem diagnosis by customers and by Interlink service personnel.

The following table outlines the in-process R&D by feature, the significance of each feature, how much of that feature is new vs. core, and the development status of the feature.

Feature	Significance of Feature
HPNS API support	Major significance. HPNS is the most common TCP/IP API used by ISV applications. Without support for this, Turbo API is not a product.
IBM C socket replacement library	Major significance. C sockets is being used by more and more ISVs. Without support for this, Turbo API is not a product.
Tracing for IUCV/HPNS API applications	Moderate significance. Tracing for problem diagnosis is an important, but not critical, feature.

Market Opportunity

The Turbo API product can be sold as a standalone product to OS/390 TCP/IP customers. The specific target market would be customers running IBM OS/390 TCP/IP products, and running production or mission-critical API workloads over those IBM stacks. These workloads would typically be of one or more ISV applications, but they could also be customer-developed applications.

In forms like Turbo for "Application X" and Turbo for "Application Y", it should be possible to sell multiple Turbo API product to the same customers.

For specific market projections, see the input from Doug Bertinshaw.

Turbo FTP

Product Description

Turbo FTP is a derivative work of the TCPaccess product. It can be sold as a standalone offering or can be integrated into a higher-level file transfer management product such as the future "Managed FTP" product.

The product provides the highest speed, most efficient (in terms of OS/390 CPU cycles) product for moving bulk data to and from OS/390 systems using standard FTP (File Transfer Protocol). This performance and efficiency is due to product architecture, avoidance of use of slower facilities like OS/390 UNIX System Services, and leveraging of special channel program features created in conjunction with Cisco.

Since FTP is the most heavily used application in OS/390 TCP/IP environments, and since production applications are depending more and more on its use, a fast and efficient FTP will be valuable to customers with FTP performance issues.

In addition, these FTP enhancements are also applicable to the base TCPaccess product and will contribute materially to the preservation of that (TCPaccess) customer base since FTP must be kept current with IBM OS/390 files services and with the competitive IBM TCP/IP product. Without this type of compatibility, TCPaccess customers would be forced to use IBM's OS/390 stack to get support for these file services.

In-Process R&D

As noted before, Turbo FTP is a derivative of the TCPaccess product. In order for the product to have commercial viability, the FTP server needed to be significantly enhanced to deliver features contained in a competitive (but less performance-oriented) product, specifically:

- FTP server support for HFS files. OS/390 UNIX System Services supports a new kind of OS/390 file type called the Hierarchical File System (HFS). These files are very "UNIX-like". The FTP server is being enhanced to support the retrieval and storage of these types of files.
- FTP server support for JES spool files. The spooling component of OS/390 is referred to as the Job Entry Subsystem (JES). JES maintains output data in something called the "JES spool". The FTP server is being enhanced to support the retrieval of JES spooled output files.

The following table outlines the in-process R&D by feature, the significance of each feature, how much of that feature is new vs. core, and the development status of the feature.

Feature	Significance of Feature
FTP server support for HFS files	Major significance. Many new applications for OS/390 are UNIX-based and used the HFS file structures. Turbo FTP would not be a product without this feature.
FTP server support for JES spool files	Major significance. The competitive FTP server offering from IBM contains this capability. If Turbo FTP is to replace that server for these applications, it must support this feature.

Market Opportunity

The Turbo FTP product can be sold as a standalone product to OS/390 TCP/IP customers. The specific target market would be customers running IBM OS/390 TCP/IP products, and running production FTP workloads over those IBM stacks.

For specific market projections within this segment, see the input from Doug Bertinshaw. The Turbo FTP product can also be integrated into a higher-level file transfer management product such as the future "Managed FTP" product. Doug Bertinshaw may also be supplying market projections for this segment.

TCPAccess/Generalized Operating System

Product Description

TCPAccess/GOS (Generalized Operating System) is a set of TCP/IP stacks for various non-OS/390 operating systems that run on S/390 or "near-S/390" environments. "Near-S/390" means a computer system that is more or less compatible with the S/370 or S/390 architecture as defined in the Principles of Operations documentation. TCPAccess/GOS might replace a stack from some existing non-OS/390 operating system (e.g. TCP/IP in Fujitsu MSP or Hitachi VOS3) or might be additive to an operating system (e.g. the FAA NAS operating system). The first version of TCPAccess/GOS is planned for the Fujitsu MSP environment (MSP is Fujitsu's OS/390-like operating system). The MSP operating systems has its own TCP/IP stack, but it has weaknesses in terms of performance, CPU efficiency and session capacity. The same is true for Hitachi and NAS.

The intent of this development is to provide new or replacement TCP/IP stacks for alternative S/390 operating systems. This would be the TCP/IP "engine", meaning the stack from the APIs down through the transports (TCP, UDP), IP and device drivers. Sterling would be able to easily snap this replacement engine into the individual operating system's TCP/IP solutions to gain significant performance, efficiency and capacity improvements for their customers. The TCP/IP stack derives its performance, efficiency and capacity advantages because of product architecture, avoidance of use of slower facilities like UNIX services, and leveraging of special channel program features created in conjunction with Cisco.

As noted above, the first version of TCPAccess/GOS is being built for the Fujitsu MSP environment. There are two steps in this development. The first step in development of this product is to develop a portable (at least portable to the IBM S/390 architecture) TCP/IP engine for the FAA (Federal Aviation Administration) NAS (National Air Space) operating system. The second step is to develop, from the FAA work, a replacement TCP/IP engine for the MSP operating system.

In-Process R&D

As noted before, TCPAccess/GOS for MSP is a derivative of the TCPAccess product. The FAA-related step of the TCPAccess/GOS for MSP project was underway at the time of the acquisition and is expected to be completed shortly. This R&D work to date was primarily high-level design and porting, but is essential to providing a generalized TCP/IP stack replacement facility.

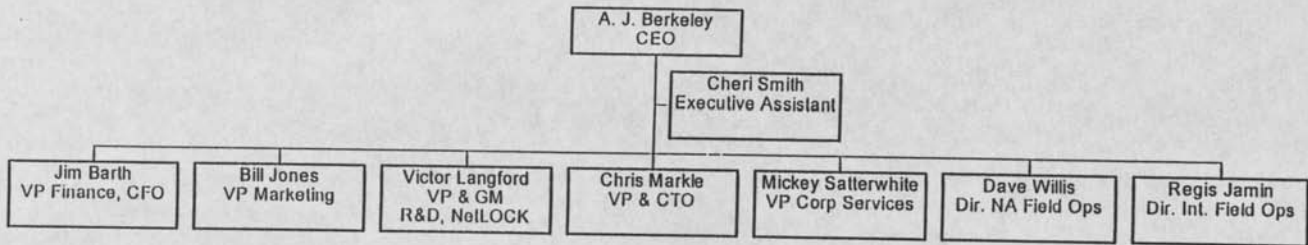
Market Opportunity

TCPAccess/GOS for MSP would be targeted at the subset of MSP customers with performance, efficiency or capacity problems with the stack shipped as part of MSP. Specifically this would be customers with large file transfer, terminal or application usage over TCP/IP, or customers with small workloads but with time-sensitive requirements for their mission-critical file transfers or application users.

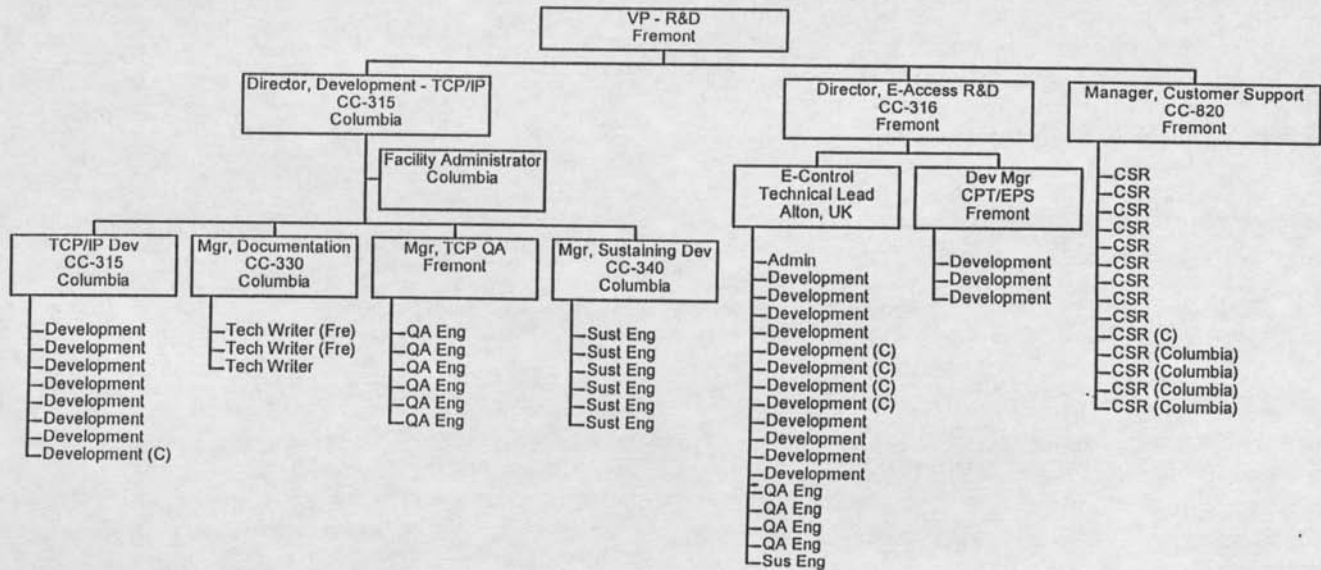
TCPAccess for MSP would be targeted at some subset of the approximately 1,800 users of the Fujitsu MSP operating system.

Similarly, later versions of the product would be targeted at the 1,500 users of the Hitachi VOS3 operating system and for the 900 NEC sites.

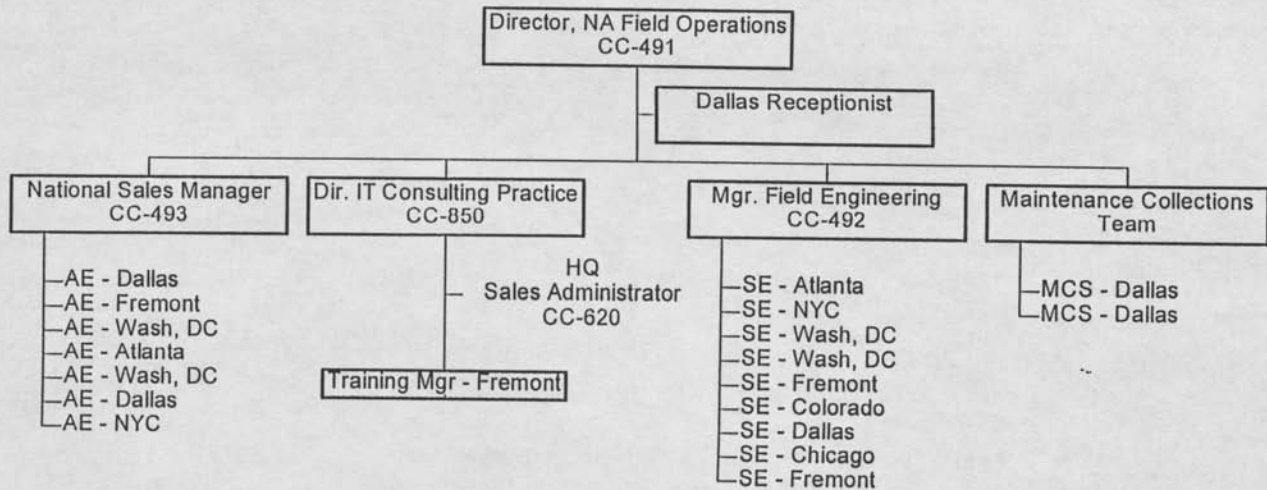
Executive Staff



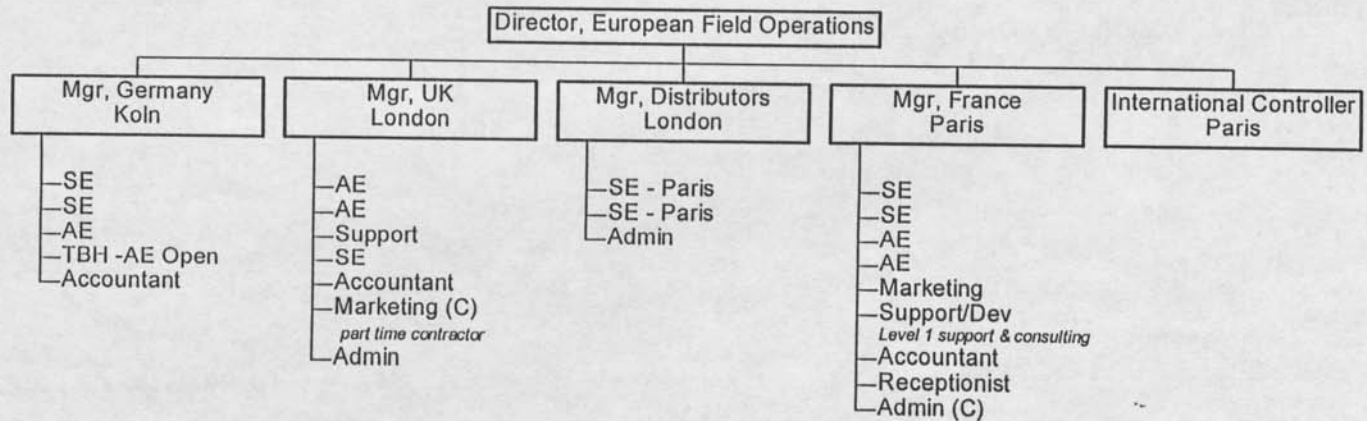
Research & Development Customer Support



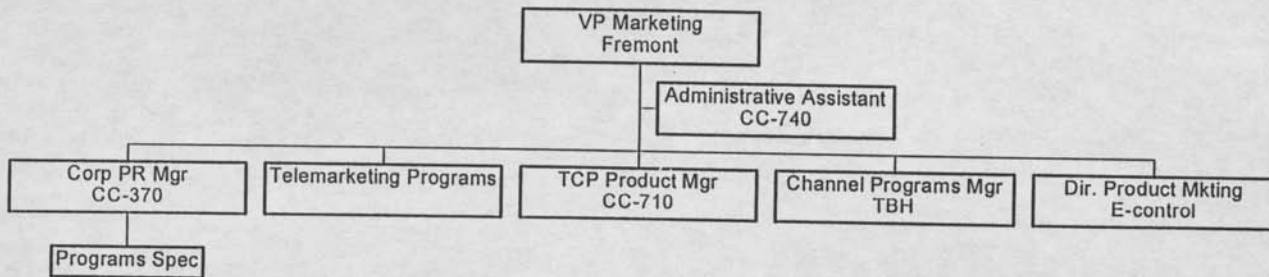
North American Sales Organization



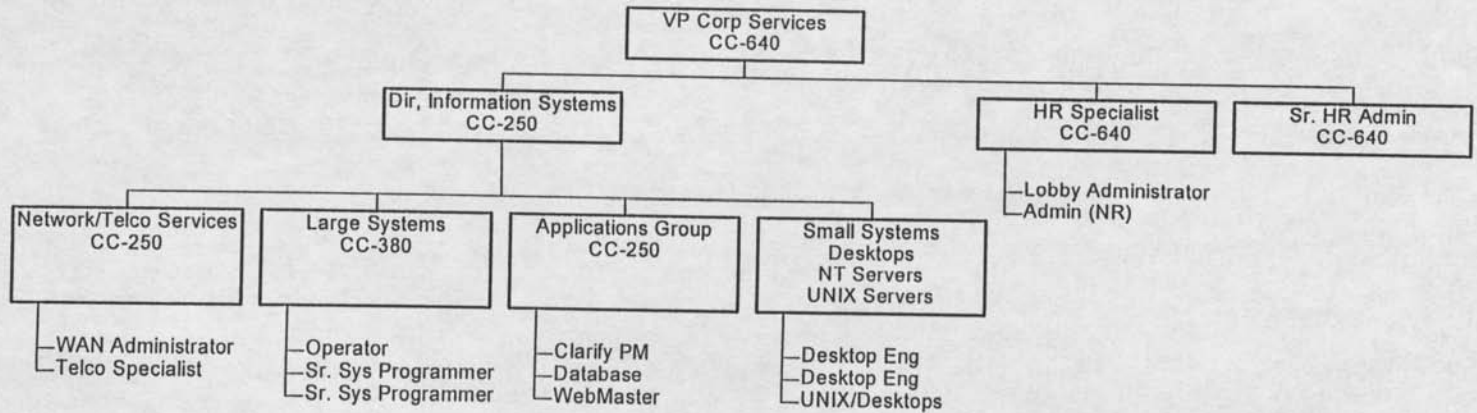
International Sales Organization



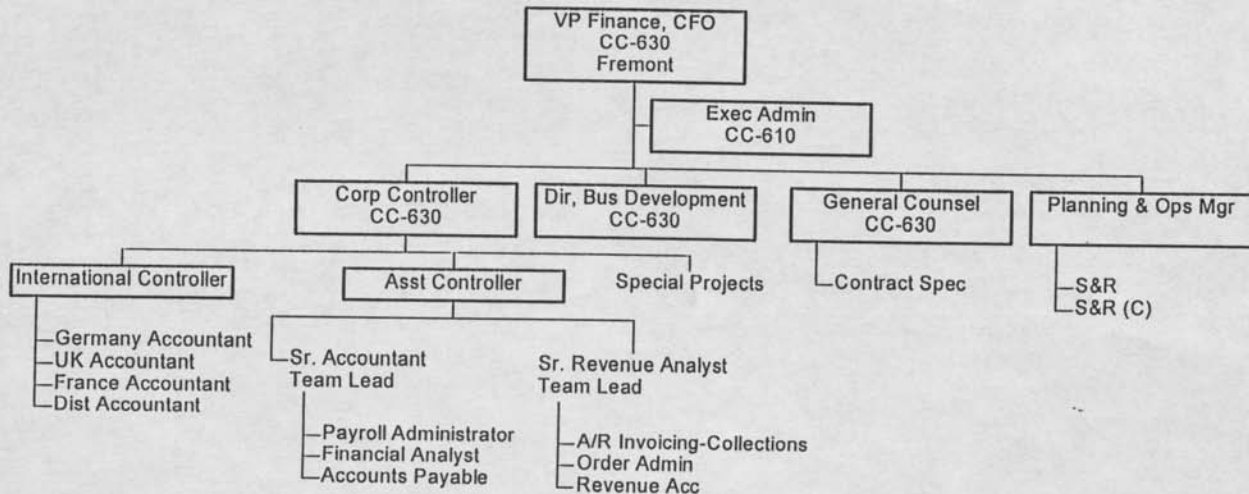
Marketing Organization



Corporate Services Organization



Finance Organization



Interlink Computer Sciences, Inc. and Subsidiaries
Consolidated Statements of Operations
(in thousands, except per share data)

	Three months ended		Nine months ended	
	March 31,		March 31,	
	1999	1998	1999	1998
Revenues:	(unaudited)		(unaudited)	
Product	\$ 4,534	\$ 4,806	\$ 12,473	\$ 11,027
Maintenance and consulting	4,399	3,194	11,962	10,036
Total revenues	<u>8,933</u>	<u>8,000</u>	<u>24,435</u>	<u>21,063</u>
Cost of revenues:				
Product	273	587	737	1,451
Maintenance and consulting	1,023	993	3,118	3,262
Total cost of revenues	<u>1,296</u>	<u>1,580</u>	<u>3,855</u>	<u>4,713</u>
Gross profit	<u>7,637</u>	<u>6,420</u>	<u>20,580</u>	<u>16,350</u>
Operating expenses:				
Product development	2,717	3,048	8,318	8,599
Sales and marketing	3,554	3,473	10,767	9,271
General and administrative	1,276	1,235	3,636	4,492
Purchased research and development and product amortization	17	2,664	51	6,527
Loss (recovery) on sale of HARBOR		-	(3,044)	2,171
NetLOCK restructuring charge		-	1,234	-
Total operating expenses	<u>7,564</u>	<u>10,420</u>	<u>20,962</u>	<u>31,060</u>
Operating income (loss)	73	(4,000)	(382)	(14,710)
Interest and other income, net	<u>183</u>	<u>184</u>	<u>472</u>	<u>704</u>
Income (loss) before provision for (benefit from) income taxes	256	(3,816)	90	(14,006)
Provision for (benefit from) income taxes	<u>100</u>	<u>(1,358)</u>	<u>53</u>	<u>(7,358)</u>
Net income (loss)	<u>\$ 156</u>	<u>\$ (2,458)</u>	<u>\$ 37</u>	<u>\$ (6,648)</u>
Net income (loss) per share				
Basic	\$ 0.02	\$ (0.31)	\$ 0.00	\$ (0.86)
Diluted	\$ 0.02	\$ (0.31)	\$ 0.00	\$ (0.86)
Shares used in per share calculation				
Basic	8,297	7,932	8,213	7,701
Diluted	8,506	7,932	8,354	7,701

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WORLDWIDE

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\$000s		P&L Trend				% growth		
		fy96 act	fy97 act	fy98 act	fy99 plan	fy97	fy98	fy99 plan
Revenue	Product	19,670	24,978	15,920	20,610	27%	-36%	29%
	Maintenance & Consulting	14,332	14,856	13,129	15,575	4%	-12%	19%
		34,002	39,834	29,049	36,185	17%	-27%	25%
Cost of Sales		8,007	7,737	5,999	7175	-3%	-22%	20%
Gross Profit		- \$ 25,995	32,097	23,050	29,010	23%	-28%	26%
		- % rev 76%	81%	79%	80%			
Op Expense	Prod Dev	5,241	7,742	11,226	9,925	48%	45%	-12%
	Sales & Marketing	13,316	14,348	13,496	14,245	8%	-6%	6%
	G&A	3,954	4,669	5,746	4,320	18%	23%	-25%
		22,511	26,759	30,468	28,490	19%	14%	-6%
Op Profit		- \$ 3,484	5,338	(7,418)	520	53%	-239%	-107%
		- % rev 10%	13%	-26%	1%			
Oth Inc(exp)	Interest	(507)	735	828	780			
	Disc. ops							
	Purch R&D	(10,479)	(575)	(6,564)		-95%	1042%	-100%
	Other 1-time			(2,047)	-158			-92%
		(10,986)	160	(7,783)	622	-101%	-4964%	-108%
EBT		(7,502)	5,498	(15,201)	1,142	-173%	-376%	-108%
		- % rev -22%	14%	-52%	3%			
Tax Provision		114	2,138	(7,794)	442	1775%	-465%	-106%
Net Income		(7,616)	3,360	(7,407)	700	-144%	-320%	-109%
		- % rev -22%	8%	-25%	2%			

WORLDWIDE

B

\$000s		P&L Trend				% growth		
		fy96 act	fy97 act	fy98 act	fy99 plan	fy97	fy98	fy99 plan
Software	TCPAccess	11,197	14,552	5,620	6,502	30%	-61%	16%
	IOS/390	0	0	3,124	3,965			27%
	Decnet	994	810	280	109	-19%	-65%	-61%
	CPT	565	972	1,413	806	72%	45%	-43%
	EPS	435	831	1,117	397	91%	34%	-64%
	FT				380			
	eControl				5,142			
	NetLock			169	867			
	Other	2945	4,236	1,612	1,800	44%	-62%	12%
			16,136	21,401	13,335	19,968	33%	-38%
Hardware		3,534	3,576	2,585	642	1%	-28%	-75%
Mtnc	TCPAccess	7,739	9,211	7,902		19%	-14%	-100%
	Decnet	6,449	4,902	3,915		-24%	-20%	-100%
	Harbor	144	744	593				
	Other			92				-100%
			14,332	14,857	12,502	12,898	4%	-16%
Services	Training			180	1,322			634%
	Consulting			447	1,355			203%
	Other			-				
		-	-	627	2,677			327%
Other				-				
		34,002	39,834	29,049	36,185	17%	-27%	25%

WORLDWIDE
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\$000s		FY99 Results of Operations											YTD								
		1q99 (Sep-30)				2q99 (Dec-31)				3q99 (Mar-30)			act	plan	var	py					
		act	plan	var	1q98	act	plan	var	2q98	act	plan	var					3q98				
Revenue	Software	4,523	4,328	195	2,833	3,416	6,727	(3,311)	3,388	4,534	4,688	(154)	4,806	\$	12,473	\$	15,743	\$	(3,270)	\$	11
	Mtnce	3,526	2,787	739	3,482	3,721	3,104	617	3,360	3,461	3,479	(18)	3,194	\$	10,708	\$	9,370	\$	1,338	\$	10
	Services	205	265	(60)	-	111	1,052	(941)	-	938	702	236	-	\$	1,254	\$	2,019	\$	(765)	\$	-
	Other	-	-	-	-	-	-	-	-	-	-	-	-								
		8,254	7,380	874	6,315	7,248	10,883	(3,635)	6,748	8,933	8,869	64	8,000	\$	24,435	\$	27,132	\$	(2,697)	\$	21
Cost of Sales		1,131	1,398	(267)	1,609	1,428	2,190	(762)	1,524	1,296	1,674	(378)	1,580	\$	3,855	\$	5,262	\$	(1,407)	\$	4
Gross Profit		7,123	5,982	1,141	4,706	5,820	8,693	(2,873)	5,224	7,637	7,195	442	6,420	\$	20,580	\$	21,870	\$	(1,290)	\$	16
	- % rev	86%	81%	131%	75%	80%	80%	79%	77%	85%	81%	691%	80%		84%		81%		48%		78%
Op Expense	Prod Dev	2,732	2,871	(139)	2,318	2,869	2,972	(103)	3,233	2,717	2,161	556	3,048	\$	8,318	\$	8,004	\$	314	\$	8
	- % rev	33%	39%	-16%	37%	40%	27%	3%	48%	30%	24%	869%	38%		34%		30%		-12%		41%
	Sales & Mrkt	3,693	3,903	(210)	2,778	3,520	3,973	(453)	3,020	3,554	3,210	344	3,473	\$	10,767	\$	11,086	\$	(319)	\$	9
	- % rev	45%	53%	-24%	44%	49%	37%	12%	45%	40%	36%	538%	43%		44%		41%		12%		44%
	G&A	1,100	1,152	(52)	1,324	1,260	1,133	127	1,933	1,276	1,062	214	1,235	\$	3,636	\$	3,347	\$	289	\$	4
	- % rev	13%	16%	-6%	21%	17%	10%	-3%	29%	14%	12%	334%	15%		15%		12%		-11%		21%
		7,525	7,926	(401)	6,420	7,649	8,078	(429)	8,186	7,547	6,433	1,114	7,756	\$	22,721	\$	22,437	\$	284	\$	22
Op Profit		(402)	(1,944)	1,542	(1,714)	(1,829)	615	(2,444)	(2,962)	90	762	(672)	(1,336)	\$	(2,141)	\$	(567)	\$	(1,574)	\$	(6
	- % rev	-5%	-26%	176%	-27%	-25%	6%	67%	-44%	1%	9%	-1050%	-17%		-9%		-2%		58%		-29%
Other Inc(exp)	Interest	136	195	(59)	265	153	159	(6)	255	183	148	35	184	\$	472	\$	502	\$	(30)	\$	-
	Restructuring	(17)	-	-	(3,746)	(1,234)	-	(1,234)	-	-	-	-	-	\$	(1,234)	\$	-	\$	(1,234)	\$	-
	Purch R&D	271	-36	307	-	(17)	(17)	(117)	-	(17)	(17)	(2,664)	-	\$	(51)	\$	-	\$	(34)	\$	(6
	Other 1-time	-	-	-	-	2,773	2,773	(2,171)	-	-	-	-	-	\$	3,044	\$	(36)	\$	3,080	\$	(2
		390	159	248	(3,481)	1,675	159	1,516	(2,033)	166	148	18	(2,480)	\$	2,231	\$	466	\$	1,782	\$	(7
EBT		(12)	(1,785)	1,790	(5,195)	(154)	774	(928)	(4,995)	256	910	(654)	(3,816)	\$	90	\$	(101)	\$	208	\$	(14
	- % rev	0%	-24%	205%	-82%	-2%	7%	26%	-74%	3%	10%	-1022%	-48%		0%		0%		-8%		-66%
Tax Provision		(4)	(702)	698	(1,454)	(43)	304	(347)	(4,546)	100	355	(255)	(1,358)	\$	53	\$	(43)	\$	96	\$	(7
Net Income		(8)	(1,083)	1,092	(3,741)	(111)	470	(581)	(449)	156	555	(399)	(2,458)	\$	37	\$	(58)	\$	112	\$	(6
	- % rev	0%	-15%	125%	-59%	-2%	4%	16%	-7%	2%	6%	-623%	-31%		0%		0%		-4%		-32%

Worldwide
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		FY99 Results of Operations											
		1q99 (Sep-30)				2q99 (Dec-31)				3q99 (Mar-30)			
\$000s		act	plan	var	1q98	act	plan	var	2q98	act	plan	var	3q98
Software	TCPAccess	1,685	967	718	1,003	1,725	1,317	408	1,522	2,417	1,283	1,134	1,390
	IOS/390	44	1,073	(1,029)	673	63	1,242	(1,179)	226	768	1,695	(927)	1,301
	Decnet	244	21	223	45	246	52	194	96	113	36	77	39
	CPT	289	180	109	163	357	376	(19)	190	379	201	178	352
	EPS	339	119	220	61	410	154	256	(26)	287	124	163	662
	FT	65	173	(108)		92	166	(74)			40	(40)	
	eControl	1,662	1,155	507		31	2,011	(1,980)		138	1,126	(988)	
	NetLock	26	302	(276)		39	565	(526)		(34)		(34)	63
	Other	22	273	(251)	462	251	608	(357)	577	117	20	97	262
			4,376	4,263	113	2,407	3,214	6,491	(3,277)	2,585	4,185	4,525	(340)
Hardware		147	65	82	426	203	238	(35)	803	349	163	186	737
MInce	TCPAccess	2,522	2,787	(265)	2,073	2,645	3,104	(459)	1,993	2,499	3,479	(980)	2,035
	Decnet	939		939	954	1,007		1,007	975	843		843	939
	Harbor	40		40	263	49		49	212	86		86	44
	Other	26		26		20		20	36	33		33	19
			3,527	2,787	740	3,290	3,721	3,104	617	3,216	3,461	3,479	(18)
Services	Training	32	265	(233)	83	32	502	(470)	43	79	297	(218)	54
	Consulting	173	-	173	108	79	550	(471)	101	859	405	454	102
	Other			-				-				-	
		205	265	(60)	191	111	1,052	(941)	144	938	702	236	156
Other				-				-				-	
		8,255	7,380	875	6,314	7,249	10,885	(3,636)	6,748	8,933	8,869	64	7,999

YTD			
act	plan	var	py
5,827	3,567	2,260	3,9
875	4,010	(3,135)	2,2
603	109	494	1
1,025	757	268	7
1,036	397	639	6
157	379	(222)	-
1,831	4,292	(2,461)	-
31	867	(836)	-
390	901	(511)	1,3
11,775	15,279	(3,504)	9,0
699	466	233	1,9
7,666	9,370	(1,704)	6,1
2,789	-	2,789	2,8
175	-	175	5
79	-	79	-
10,709	9,370	1,339	9,5
143	1,064	(921)	11
1,111	955	156	3
-	-	-	-
1,254	2,019	(765)	4
-	-	-	-
24,437	27,134	(2,697)	21,0

Worldwide

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\$000s		FY99 Results of Operations											FY99 Forecast				
		1q99 (Sep-30)			2q99 (Dec-31)			3q99 (Mar-30)			4q99 (Jun-30)		act	plan	var	py	
		act	plan	var	act	plan	var	act	plan	var	plan	4q98					
Software	TCPAccess	1,685	967	718	1,725	1,317	408	2,417	1,283	1,134		3,136	1,705	5,827	6,703	(876)	5,012
	IOS/390	44	1,073	(1,029)	63	1,242	(1,179)	768	1,695	(927)		321	924	875	4,331	(3,456)	3,112
	Decnet	244	21	223	246	52	194	113	36	77			100	603	109	494	241
	CPT	289	180	109	357	376	(19)	379	201	178		100	708	1,025	857	168	1,414
	EPS	339	119	220	410	154	256	287	124	163		50	420	1,036	447	589	1,111
	FT	65	173	(108)	92	166	(74)	0	40	(40)				157	379	(222)	-
	eControl	1,662	1,155	507	31	2,011	(1,980)	138	1,126	(988)		1,051	-	1,831	5,343	(3,512)	-
	NetLock	26	302	(276)	39	565	(526)	-34		(34)			106	31	867	(836)	16
	Other	22	273	(251)	251	608	(357)	117	20	97		34	311	390	935	(545)	1,011
		4,376	4,283	113	3,214	6,491	(3,277)	4,185	4,525	(340)	-	4,692	4,274	11,775	19,971	(8,196)	13,333
Hardware		147	65	82	203	238	(35)	349	163	186		175	619	699	641	58	2,581
Mince	Nwrk Trnsprt	2,522	2,787	(265)	2,645	3,104	(459)	2,499	3,479	(980)		3,529	1,952	7,668	12,899	(5,233)	7,900
	Decnet	939		939	1,007		1,007	843		843			927	2,789	-	2,789	3,911
	Harbor	40		40	49		49	86		86			45	175	-	175	55
	Other	26		26	20		20	33		33			33	79	-	79	5
		3,527	2,787	740	3,721	3,104	617	3,461	3,479	(18)	-	3,529	2,957	10,708	12,899	(2,190)	12,500
Services	Training	32	265	(233)	32	502	(470)	79	297	(218)		258	1	143	1,322	(1,179)	18
	Consulting	173	-	173	79	550	(471)	859	405	454		400	135	1,111	1,355	(244)	44
	Other																
		205	265	(60)	111	1,052	(941)	938	702	238	-	658	136	1,254	2,677	(1,423)	62
Other																	
		8,255	7,380	875	7,249	10,885	(3,636)	8,933	8,869	64	-	9,054	7,986	24,437	36,188	(11,751)	29,040

Worldwide

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\$000s		FY98 Expense					FY99 Expense				
		1q98 act	2q98 act	3q98 act	4q98 act	fy98 act	1q99 act	2q99 act	3q99 act	4q99 plan	fy99 act+plan
Cost of Sales	Products Maintenance & Consulting	280	348	378	293	1,299	208	256	273	300	1,037
		1,329	1,176	1,202	993	4,700	923	1,172	1,023	1,006	4,124
		1,609	1,524	1,580	1,286	5,999	1,131	1,428	1,296	1,306	5,161
Op Exp	Product Development										
	Gross	2003	2850	2,738	2,496	10,087	2,584	2,645	2,520	1,821	9,570
	Cap Dev Cost	0	0		(175)	(175)	(178)	(137)	(133)		(448)
	Cap Dev amort net	49	40	37	37	163	30	30	52		112
		2,052	2,890	2,775	2,358	10,075	2,436	2,538	2,439	1,821	9,234
Sales & Marketing		2,778	3,020	3,473	4,225	13,496	3,693	3,520	3,554	3,287	14,054
G&A		1,324	1,933	1,235	1,254	5,746	1,100	1,260	1,276	973	4,609
Dep'n & Amortz'n											
	Dep'n	268	333	293	289	1,183	296	331	278	218	1,123
	Purch SW Amort	144	127	17	17	305	17	17	17		51
	Other					-					-
		412	460	310	306	1,488	313	348	295	218	1,174
Other	Loss (recovery) sale Harbor		2,171		(124)	2,047	(271)	(2,773)	-	-	(3,044)
	NetLOCK purch.R&D	3,050				3,050					-
	Restructure Charges	550				550		1,234			1,234
	Networkers purch R&D			2,627		2,627					-
		3,600	2,171	2,627	(124)	8,274	(271)	(1,539)	-	-	(1,810)
	Total operating exp. + COS	11,775	11,998	12,000	9,305	45,078	8,402	7,555	8,860	7,605	32,422

Worldwide

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\$000s	FY98 Expense					FY99 Expense				
	1q98	2q98	3q98	4q98	fy98	1q99	2q99	3q99	4q99	fy99
	act	act	act	act	act	act	act	act	plan	fcst
Salaries	2,859	3,474	3,177	3,343	12,853	3,793	4,060	3,834	3,079	14,766
Commissions	410	345	577	824	2,156	427	349	791	424	1,991
Bonuses	176	294	221	274	965	482	48	439	153	1,122
Fringe Benefits	415	529	780	646	2,370	618	778	903	684	2,983
Training	30	59	24	33	146	67	28	34	39	168
Total Compensation	3,890	4,701	4,779	5,120	18,490	5,387	5,263	6,001	4,379	21,030
Travel	225	257	298	331	1,111	332	365	204	542	1,443
Auto	112	120	114	129	475	108	150	145	82	485
Lodging & Meals	89	123	116	128	456	87	127	85	-	299
Business Meetings	62	22	69	42	195	170	39	14	-	223
Presidents Club	64	63	71	76	274	83	24	(89)	-	18
Total Travel	552	585	668	706	2,511	780	705	359	624	2,468
Office Rentals	245	218	221	229	913	251	247	265	221	984
Other Facilities	127	154	137	189	607	118	43	(10)	96	247
Depreciation Expense	268	333	293	289	1,183	296	331	278	218	1,123
Total Occupancy	640	705	651	707	2,703	665	621	533	535	2,354
Telecommunications	323	266	255	182	1,026	331	283	253	267	1,134
Professional Fees	325	528	338	470	1,661	262	574	401	212	1,449
Contractor Fees	580	792	803	559	2,734	87	24	38	258	407
Recruiting Fees	78	258	109	65	510	73	167	99	24	363
Marketing Expenses	178	250	445	372	1,245	340	427	278	380	1,425
Data Center & IS	408	520	388	357	1,673	349	383	406	363	1,501
miscellaneous expenses	288	317	(42)	327	890	153	132	113	131	529
outside commissions	1	7	8	3	19	-	17	-	-	17
R&D in process	3,051	-	2,627	-	5,678	-	-	-	-	-
amortization expense	725	147	-	-	872	-	-	-	-	-
Capitalized software reclass	-	-	-	(174)	(174)	(178)	(137)	(133)	-	(448)
amortization cap s/w	49	40	37	37	163	31	47	52	-	130
Total other operating	6,006	3,125	4,968	2,198	16,297	1,448	1,900	1,524	1,635	6,507
Total Operating Expenses	11,088	9,116	11,066	8,731	40,001	8,280	8,489	8,417	7,173	32,359

CONSOLIDATING INCOME STATEMENTS (U.S. \$)

Year-End Ending June 30, 1996

	UK	UK-IHQ	Gmbh-dm	Distributors	Fr	Spain-Pta	Ch	Subtotal	Adjustments	Eur. Consol	Canada	Purchase Acct Adj's	Barbados	U.S.	Consol
Revenue															
Systems, net	1,581,233	0	1,158,947	244,065	3,166,388	116,118	1,247,178	7,513,929	(321,076)	7,192,853	752,748	0	0	10,127,576	18,073,177
Software maintenance	1,076,389	0	796,867	435,878	1,389,509	116,837	633,226	4,448,706	(3,305)	4,445,401	400,658	(229,444)	0	8,664,194	13,280,809
Other revenue	166,766	0	382,421	9,562	261,331	28,802	69,499	918,382	65,000	983,382	332,964	0	0	1,330,418	2,646,765
Total external revenue	2,824,387	0	2,338,236	689,505	4,817,229	281,757	1,949,903	12,881,017	(259,381)	12,621,636	1,486,370	(229,444)	0	20,122,188	34,000,760
Intercompany revenue	30,576	0	0	0	0	0	0	30,576	3,305	33,881	19,256	0	0	5,567,800	5,620,937
Total revenue	2,854,963	0	2,338,236	689,505	4,817,229	281,757	1,949,903	12,911,593	(256,076)	12,655,517	1,505,626	(229,444)	0	25,689,988	39,621,697
Cost of sales															
Product cost - Hardware	0	0	0	0	3,966	0	982	4,948	92,400	97,348	10,683	0	0	1,285,152	1,393,184
3rd Party Software Cost	13,122	0	238,804	0	31,952	0	5,544	293,423	425,842	719,265	0	0	0	412,625	1,311,890
Software maintenance costs	0	0	3,734	0	0	0	426,297	430,031	0	430,031	0	0	0	13,992	444,023
Hardware Cost of Maint. & Support	972	0	1,520	0	2,214	0	0	4,706	155,000	159,706	0	0	0	347,626	507,332
Cost of Sales - Harbor	0	0	117,582	0	0	0	0	117,582	(117,582)	0	0	0	0	0	0
Other cost of sales	104,743	385	114,321	1,663	40,799	6,747	213,658	482,316	7,843	482,316	0	0	0	378,065	868,223
Total external cost of sales	118,837	385	475,962	1,663	78,932	6,747	650,480	1,333,008	855,860	1,888,688	18,528	0	0	2,437,460	4,344,881
Intercompany cost of sales	1,331,225	0	763,869	386,508	2,161,568	133,418	839,943	5,618,531	0	5,618,531	(260,250)	0	0	262,779	5,621,060
Total cost of sales	1,450,062	385	1,239,830	388,170	2,242,500	140,165	1,490,423	8,951,837	855,860	7,507,197	(241,724)	0	0	2,700,239	9,965,711
Gross margin	1,404,901	(385)	1,098,406	301,335	2,574,729	121,592	459,480	5,960,056	(811,736)	5,148,320	1,747,350	(229,444)	0	22,989,748	29,655,976
Salaries & benefits															
Salaries	368,879	107,773	273,727	205,765	567,970	44,101	95,742	1,663,957	0	1,663,957	1,044,458	0	0	6,420,487	9,128,902
Commissions/Bonuses	386,064	21,492	290,932	25,424	614,400	37,278	160,990	1,536,580	(58,268)	1,478,312	0	0	0	2,508,193	3,986,505
Fringe benefits	141,970	27,344	105,754	11,994	528,151	13,847	53,154	882,215	0	882,215	147,355	0	0	1,167,409	2,197,159
Employee training	31,565	5,999	6,971	0	78,959	439	8,946	132,880	0	132,880	10,093	0	0	81,618	224,591
Total Salaries & Benefits	928,478	162,608	677,384	243,184	1,789,480	95,665	318,832	4,215,833	(58,268)	4,157,368	1,202,088	0	0	10,177,707	15,837,157
Business travel															
Travel	26,694	30,502	20,355	26,665	75,198	17,858	17,407	214,678	0	214,678	191,959	0	0	651,880	1,058,516
Rental car/Personal auto	22,617	3,577	75,533	6,706	42,636	60,436	0	211,505	0	211,505	0	0	0	155,980	367,485
Accommodations/Meals	17,454	29,188	15,531	8,005	16,472	0	0	86,650	0	86,650	0	0	0	245,646	332,296
Business meetings	14,050	248	2,128	2,519	11,041	0	643	30,630	0	30,630	0	0	0	167,539	198,168
Other travel expenses	11,186	3,741	0	6,139	(39,507)	0	5,464	(12,977)	0	(12,977)	41,361	0	0	25,409	53,793
Total Business Travel	92,002	67,258	113,647	50,034	105,840	78,294	23,514	530,488	0	530,488	233,321	0	0	1,246,453	2,010,289
Other operating expenses															
Rent	68,763	2,981	43,650	17,565	91,306	15,193	43,027	282,484	0	282,484	81,597	0	0	1,288,387	1,652,468
Other facilities expenses	44,345	1,106	51,553	4,232	141,832	2,174	(19,572)	225,670	0	225,670	27,757	0	0	1,109,830	1,363,257
Telecommunications	34,782	800	43,572	22,490	28,710	12,388	34,255	176,996	0	176,996	40,121	0	0	147,123	364,240
Contract consulting	16,804	10,864	77,932	0	46,750	4,421	13,475	160,219	0	160,219	24,700	0	15,599	404,890	615,408
Recruiting fees	18,153	9,613	3,306	0	30,877	93,443	3,639	149,530	0	149,530	108,552	0	0	348,074	606,155
Marketing programs	9,942	160,488	23,985	3,890	57,225	5,636	28,433	289,600	0	289,600	24,749	0	0	258,619	286,385
Equipment Rental	0	0	531	298	1,671	0	0	2,500	0	2,500	0	0	0	873,837	1,188,186
Depreciation/Amortization	51,034	0	21,161	2,696	32,315	5,725	14,364	127,295	0	127,295	87,054	10,478,064	0	985,143	987,644
Outside Commissions	0	0	100,047	0	0	0	0	100,047	0	100,047	11,712	0	0	267,870	10,960,283
Misc operating expense	73,310	(247,253)	143,270	38,125	131,921	49,298	48,656	237,378	0	237,378	46,295	0	0	(24,689)	87,070
Other operating Expenses	323,913	(59,841)	609,008	89,347	582,607	188,277	168,278	1,779,468	0	1,779,468	482,538	10,478,064	15,599	8,208,046	18,943,733
Total operating expenses	1,344,394	169,923	1,299,939	382,564	2,457,927	362,238	808,821	6,525,804	(58,268)	6,467,338	1,897,945	10,478,064	15,599	17,832,208	36,491,149
Interest expense	(12,146)	0	(3,241)	0	(15,177)	(2,931)	(1,317)	(34,811)	0	(34,811)	(10,369)	104,843	0	445,443	505,105
Exchange (gains)/losses	(5,873)	0	56,307	(10,698)	(30,552)	18,204	21,979	49,368	0	49,368	8,112	(9,993)	0	47,019	94,506
Other income and expense	(50,555)	0	(22,896)	1,539	91,410	(158,927)	22,597	(116,832)	(26)	(116,868)	1	0	0	169,215	52,347
Total expenses	1,276,820	169,923	1,330,110	373,406	2,503,607	218,581	551,801	6,423,328	(58,304)	6,365,024	1,895,888	10,572,914	15,599	18,293,863	37,145,108
INCOME (LOSS) BEFORE TAXES	129,081	(170,308)	(231,705)	(72,071)	71,122	(86,990)	(92,401)	(463,272)	(753,432)	(1,216,704)	(148,338)	(10,802,357)	(15,599)	4,695,866	(7,487,132)
Provision for income taxes	9,032	0	47	0	0	11,226	0	20,305	0	20,305	10,801	0	0	82,301	113,406
NET - (LOSS)	120,049	(170,308)	(231,751)	(72,071)	71,122	(108,216)	(92,401)	(483,577)	(753,432)	(1,237,009)	(159,139)	(10,802,357)	(15,599)	4,613,565	(7,600,538)

CONSOLIDATED INCOME STATEMENTS (U.S.)
Date as of June 30, 1997

	NL	UK	Gmbh-dm	Distributors	Fr	Spain-Pta	Ch	Europe Consol	Canada	Purch Acct	Barbados	Presentations Entries	New Era U.S.	U.S.	Consol	
Revenue																
Systems, net		\$0	\$2,688,773	\$1,515,063	\$643,680	\$2,693,128	\$146,785	\$1,358,528	\$9,045,958	\$741,983	\$0	\$0	\$0	\$14,140,515	\$23,928,457	
Software maintenance		\$0	\$1,270,385	\$831,162	\$463,051	\$1,422,170	\$111,552	\$546,948	\$4,645,268	\$296,905	\$0	\$0	\$0	\$8,977,186	\$14,004,320	
Other revenue		\$0	\$189,035	\$108,841	\$0	\$269,110	\$3,172	\$123,057	\$695,214	\$245,756	(\$239,600)	\$0	\$0	\$900	\$1,606,864	
Total external revenue		\$0	\$4,148,193	\$2,455,065	\$1,106,732	\$4,384,408	\$261,509	\$2,030,533	\$14,386,439	\$1,484,645	(\$239,600)	\$0	\$0	\$1,899,416	\$27,930,841	
Intercompany revenue		\$0	\$99,465	\$0	\$0	\$0	\$0	\$99,465	\$2,289,218	\$0	\$0	(\$13,961)	\$339,424	\$3,982,695	\$39,839,641	
Total revenue		\$0	\$4,247,657	\$2,455,065	\$1,106,732	\$4,384,408	\$261,509	\$2,030,533	\$14,684,924	\$3,873,862	(\$239,600)	\$0	\$603,900	\$2,220,470	\$45,550,535	
Cost of sales																
Product cost - Hardware		\$0	\$219,220	\$193,668	\$18,757	\$104,624	\$0	\$162,457	\$668,727	\$6,978	\$0	\$0	\$0	\$0	\$5,641	
Joint Party Software Cost		\$0	\$4,987	\$53,208	\$0	\$317,297	\$24,424	\$0	\$399,916	\$10,060	\$0	\$0	\$0	\$0	\$1,257,968	
Software maintenance costs		\$0	\$312,478	\$14,224	\$0	\$238,452	\$31,245	\$674,808	\$1,291,206	\$0	\$0	\$0	\$0	\$0	\$4,939,870	
Hardware Cost of Maint. & Support		\$0	\$0	\$12,200	\$3,300	\$111,034	\$0	\$33,200	\$161,733	\$0	\$0	\$0	\$0	\$0	\$1,322,456	
Cost of Sales - Harbor		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$4,358)	\$0	\$0	\$37,564	
Other cost of sales		\$0	\$156,157	\$60,698	\$12,677	\$179,458	\$25,274	\$279,104	\$713,367	\$21,819	\$0	\$0	\$0	\$0	\$1,073,330	
Total external cost of sales		\$0	\$692,841	\$333,999	\$36,734	\$970,864	\$80,943	\$1,149,569	\$3,264,950	\$146,186	\$0	\$0	\$0	\$1,508	\$227,645	
Intercompany cost of sales		\$0	\$1,996,391	\$978,937	\$371,474	\$1,591,908	\$111,756	\$647,810	\$5,898,276	(\$284,110)	\$0	(\$4,358)	\$1,508	\$1,061,241	\$4,469,526	
Total cost of sales		\$0	\$2,689,232	\$1,312,936	\$608,208	\$2,562,771	\$192,698	\$1,797,379	\$9,163,215	(\$137,924)	\$0	\$0	\$0	\$396,544	\$11,813,087	
Gross margin		\$0	\$1,558,425	\$1,142,129	\$498,524	\$1,821,636	\$68,811	\$233,154	\$5,322,679	\$4,011,786	(\$239,600)	\$0	\$603,900	\$123,926	\$25,545,658	\$35,267,449
Salaries & benefits																
Salaries		\$0	\$470,510	\$429,323	\$124,008	\$672,452	\$54,489	\$22,530	\$1,773,333	\$1,756,765	\$0	\$0	\$0	\$0	\$4,194,900	
Commissions/Bonuses		\$0	\$453,124	\$112,020	\$13,463	\$460,336	\$28,223	\$0	\$1,067,866	\$85,581	\$0	\$0	\$0	\$0	\$1,770,029	
Fringe benefits		\$0	\$220,601	\$83,756	\$0	\$494,198	\$14,046	\$17,995	\$830,596	\$281,068	\$0	\$0	\$0	\$0	\$1,324,186	
Employee training		\$0	\$8,317	\$693	\$0	\$0	\$0	\$0	\$9,012	\$13,055	\$0	\$0	\$0	\$0	\$80,133	
Total Salaries & Benefits		\$0	\$1,153,252	\$625,795	\$137,470	\$1,626,986	\$96,759	\$40,545	\$3,680,807	\$2,161,470	\$0	\$0	\$0	\$0	\$12,775,738	
Business travel																
Travel		\$0	\$39,929	\$31,479	\$20,823	\$78,732	\$19,058	(\$42)	\$189,979	\$179,151	\$0	\$0	\$0	\$0	\$1,218,004	
Rental car/Personal auto		\$0	\$50,392	\$86,793	\$5,683	\$39,592	\$0	(\$9)	\$182,460	\$0	\$0	\$0	\$0	\$0	\$151,929	
Accommodations/Meals		\$0	\$17,482	\$22,759	\$10,731	\$12,300	\$26,739	\$249	\$90,260	\$0	\$0	\$0	\$0	\$0	\$32,154	
Business meetings		\$0	\$17,220	\$3,494	\$1,296	\$8,254	\$0	\$756	\$31,020	\$0	\$0	\$0	\$0	\$0	\$354,765	
Other travel expenses		\$0	\$5,937	\$0	\$0	\$12,598	\$0	\$0	\$16,535	\$34,560	\$0	\$0	\$0	\$0	\$91,858	
Total Business Travel		\$0	\$128,961	\$144,526	\$38,532	\$151,476	\$45,797	\$962	\$510,254	\$213,711	\$0	\$0	\$0	\$0	\$1,771,879	
Other operating expenses																
Rent		\$0	\$81,588	\$40,238	\$12,345	\$38,365	\$14,139	\$20,565	\$207,241	\$117,544	\$0	\$0	\$0	\$0	\$425,295	
Other facilities expenses		\$0	\$73,732	\$40,735	\$1,029	\$26,705	\$1,243	\$0	\$11,336	\$131,108	\$173,529	\$0	\$0	\$0	\$492,216	
Telecommunications		\$0	\$36,360	\$40,570	\$15,071	\$29,719	\$14,870	\$20,891	\$157,481	\$33,905	\$0	\$0	\$0	\$0	\$518,435	
Professional fees		\$0	\$50,673	\$37,134	\$26,807	\$31,177	\$45,980	\$9,035	\$200,807	\$219,389	\$0	\$0	\$0	\$0	\$776,288	
Contract consulting		\$0	\$17,891	\$3,240	\$100,000	\$0	\$4,841	\$2,040	\$128,013	\$31,965	\$0	\$0	\$0	\$0	\$975,183	
Recruiting fees		\$0	\$21,191	\$1,676	\$0	\$0	\$0	\$0	\$22,867	\$0	\$0	\$0	\$0	\$0	\$229,591	
Marketing programs		\$0	\$109,864	\$41,945	\$0	\$0	\$0	\$0	\$217,319	\$0	\$0	\$0	\$0	\$0	\$447,022	
Equipment/Rental		\$0	\$7,332	\$10,185	\$108	\$92	\$0	\$0	\$17,717	\$113,087	\$0	\$0	\$0	\$0	\$1,340,693	
Depreciation/Amortization		\$0	\$69,897	\$21,175	\$2,096	\$0	\$0	\$0	\$118,761	\$108,751	\$0	\$0	\$0	\$0	\$649,269	
Outside Commissions		\$0	\$0	\$114,761	\$0	\$0	\$0	\$0	\$14,697	\$85,331	\$0	\$0	\$0	\$0	\$1,473,321	
Misc operating expense		\$0	(\$277,572)	\$46,098	(\$26,469)	(\$192,400)	(\$24,107)	\$59,752	(\$414,697)	\$85,331	\$0	\$0	\$0	\$0	\$46,743	
Other operating Expenses		\$0	\$189,957	\$401,798	\$130,988	\$102,712	\$63,864	\$146,529	\$1,035,489	\$950,919	\$572,946	\$3,701	\$0	\$802	\$732,637	
Total operating expenses		\$0	\$1,472,170	\$1,172,119	\$306,991	\$1,881,174	\$206,420	\$188,036	\$5,226,910	\$3,326,100	\$572,946	\$3,701	\$0	\$802	\$11,885,790	
Interest income		\$0	(\$9,319)	(\$10,603)	\$0	(\$9,855)	(\$1,010)	(\$3,378)	(\$34,166)	(\$89,746)	\$0	\$0	\$151,250	(\$11,409)	\$1,185,790	
Interest expense		\$0	\$1,596	\$0	\$0	\$210	\$42	\$0	\$1,847	\$77,130	\$145,982	\$0	\$0	\$0	\$241,864	
Exchange (gains)/losses		\$0	(\$50,648)	\$165,064	\$3,578	\$172,380	\$50,497	\$93,718	\$434,588	(\$18,412)	(\$4,216)	\$0	\$0	\$0	\$112,857	
Other income and expense		(\$81,829)	\$5,811	(\$14,678)	\$0	(\$4,558)	\$35	\$0	(\$95,217)	\$5,198	\$0	\$0	\$4,123	(\$112,857)	\$0	
Total expenses		(\$81,829)	\$1,419,609	\$1,311,901	\$310,569	\$2,039,351	\$255,984	\$278,376	\$5,533,961	\$3,300,261	\$714,712	\$3,701	\$151,250	(\$6,484)	\$10,174,739	
INCOME (LOSS) BEFORE TAXES		\$81,829	\$138,816	(\$169,772)	\$187,955	(\$217,715)	(\$187,173)	(\$45,222)	(\$211,282)	\$711,525	(\$954,312)	(\$3,701)	\$451,750	\$130,410	\$5,709,919	
Provision for income taxes		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
NET INCOME (LOSS)		\$81,829	\$138,816	(\$169,772)	\$187,955	(\$217,715)	(\$187,173)	(\$45,222)	(\$211,282)	\$711,525	(\$954,312)	(\$3,701)	\$451,750	\$130,410	\$5,709,919	

Interlink Computer Sciences, Inc.
Consolidating Income Statement
June 1998 ~~Year~~ To Date

	NRO	Networkers Engineering Ltd.	UK	Germany	Distributors	France	Switzerland	Spain	Canada	Purchase Acct	New Era US	US	Eliminations	Total ICS	Total Calc
REVENUE															
Product Revenue			1,587,730	990,303	352,836	1,477,481	146,680					11,363,361		15,918,390	15,918,390
Maintenance Revenue		41,850	1,294,180	812,392	478,279	1,443,285	580,940	70,682				7,787,367		12,501,605	12,501,605
Training Revenue										(7,370)		180,488		180,488	180,488
Consulting Revenue		59,933	4,133	42,065		64,657						194,174		447,125	447,125
External Revenue		101,783	2,886,043	1,844,760	831,114	2,985,423	727,620	70,682				19,525,389		29,047,611	29,047,611
Intercompany Sales		519,944										202,102		2,834,852	2,834,852
Total Revenue		621,727	2,886,043	1,844,760	831,114	2,985,423	727,620	70,682				22,360,241	(3,556,898)	29,047,611	29,047,611
COST OF SALES															
Product COS			239,228	124,703	7,204	134,538	237,354	0	27,170			529,366		1,299,563	1,299,563
Maintenance COS			123,563	41,113		287,278	395,947	0				135,516		983,416	983,416
Other COS			71,352	50,265	62,686	110,583		498	28,098			205,436		528,918	528,918
Total External Cost			434,143	216,081	69,890	532,399	633,301	498	55,268			894,022		2,835,602	2,835,602
Intercompany Sales/COS Diff												145,638	(40,615)	105,024	105,024
Intercompany Cost of Sales	7,980	1,053,140	753,430	352,766	1,184,730	126,073	38,164							(3,516,284)	0
Total Cost of Sales	7,980	1,487,283	969,511	422,656	1,717,129	759,374	38,663	55,268				1,039,660	(3,556,898)	2,940,625	2,940,625
Gross Margin		613,747	1,398,760	875,249	408,458	1,268,294	(31,754)	32,020	229,000	(7,370)		21,320,581		26,106,986	26,106,986
Salaries															
Salaries		43,715	582,306	424,848	64,412	739,216	21,945	48,118	730,801			10,197,655		12,853,016	12,853,016
Commissions			129,184	76,447	6,400	270,211						1,673,866		2,156,107	2,156,107
Bonuses			41,555	1,379	3,824	15,569	(1,725)		13,609			890,481		964,693	964,693
Fringe Benefits	0	1,268	184,660	85,169	0	499,437	2,200	2,098	43,254	0	0	1,551,694	0	2,369,781	2,369,781
Training			7,527	5,902					15,052			117,436		145,918	145,918
Total Compensation	0	44,983	945,333	593,745	74,636	1,524,434	22,420	50,216	802,717	0	0	14,431,132	0	18,489,515	18,489,515
Travel															
Travel		22,677	53,624	27,707	18,165	91,717	9,292	2,734	28,557			855,475		1,109,949	1,109,949
Auto	0	0	114,829	81,806	1,072	35,447	0	221	8,311			232,560	0	474,248	474,248
Lodging & Meals		8,456	25,583	22,099	5,142	26,692		2,893	19,525			346,496		456,886	456,886
Business Meetings			9,914	5,203	1,943	17,249			3,750			157,212		195,271	195,271
President's Club and Other Tr			9,553			(2,341)			1,560			265,429		274,201	274,201
Total Travel	0	31,134	213,502	136,815	26,322	168,765	9,292	5,848	61,704	0	0	1,857,172	0	2,510,555	2,510,555
Office Rentals															
Office Rentals			8,026	83,533	30,922	525	26,961	11,924	4,547			84,653		913,787	913,787
Other Facilities	0		3,887	36,921	(731)	89	35,898	(3,674)	0			8,760		550,926	607,378
Depreciation Expense			7,681	57,220	9,781							662,696		607,378	607,378
Total Occupancy	0	19,594	177,673	39,972	614	74,147	3,599	9,658	103,434	0	0	955,907		1,183,266	1,183,266
Telecommunications		8,977	34,057	42,029	4,203	21,987	11,850	14,206	196,848			2,169,528		2,704,431	2,704,431
Professional Fees		3,289	32,457	20,821	4,203	84,397	18,210	4,055	25,000			875,938		1,025,269	1,025,269
Contractor Fees		350,202	44,965	7,641		2,495	191		193,347			1,496,450		1,660,668	1,660,668
Total Recruiting			9,843									2,134,385		2,733,226	2,733,226
Marketing		675	64,637	63,322		69,990						499,160		509,002	509,002
Data Center & IS		11,253	19,448	12,389		583		876	44,572			1,000,967		1,245,039	1,245,039
Total Miscellaneous Expense		3,754	19,984	33,901	50,196	(136,479)	17,539	443	(6,167)			1,556,780		1,672,971	1,672,971
Outside Commission				17,985								906,907		890,077	890,077
R & D in Process												1,170		19,155	19,155
Amortization Expense	9,798		(693)	665								5,678,344		5,678,344	5,678,344
Capitalized Software Reclass										791,793		143,714		945,278	945,278
Amortization of Capitalized												(174,348)		(174,348)	(174,348)
Total Operating Expense	9,798	473,859	1,561,799	967,926	156,636	1,810,318	91,123	77,103	1,391,527	791,793		32,666,172		39,998,053	39,998,053
Operating Income	(9,798)	139,888	(163,039)	(92,677)	251,822	(542,024)	(122,877)	(45,083)	(1,162,526)	(799,162)		(11,345,591)	0	(13,891,067)	(13,891,067)
Total Interest Income															
Total Interest Income		1,155	8,771	6,289		(16)	7,643		1,759			1,087,844		1,113,462	1,113,462
Total Interest Expense			154	12,028								161,932		223,659	223,659
Total Interest (Expense)		(10,660,155)	(21,027)	(62,091)		14,409	0		(1,048,869)	8,966,268	(126,055)	820,559		(2,116,960)	(2,116,960)
Total Foreign Exchange Gain		4,788	131	(276)	6,915	210,870	(2,649)	(239)	53,542	118		(356,350)		(83,150)	(83,150)
Total Other Income and Ex	(10,660,155)	5,943	(12,278)	(68,105)	6,915	225,295	4,994	(239)	(993,567)	8,916,826	(126,055)	1,390,121		(1,310,306)	(1,310,306)
Net Income Before Tax	(10,669,953)	145,831	(175,317)	(160,783)	258,737	(316,729)	(117,883)	(45,322)	(2,156,093)	8,117,663	(126,055)	(9,955,470)	0	(15,201,373)	(15,201,373)
Total Income Tax															
Total Income Tax			4,862	(21,216)		4,158	4,657			(340,434)		(7,445,899)		(7,793,874)	(7,793,874)
Net Income	(10,669,953)	145,831	(180,178)	(139,566)	258,737	(320,887)	(122,540)	(45,322)	(2,156,093)	8,458,098	(126,055)	(2,509,520)	0	(7,407,499)	(7,407,499)

Interlink Computer Sciences, Inc.
Consolidating Income Statement
March 1999 Year To Date

	Networks Engineering Ltd.	UK	Germany	Distributors	France	Switzerland	Canada	US	Eliminations	Total ICS	Total Calc
REVENUE											
Product Revenue	0	1,522,740	523,716	1,144,749	1,374,327	0	0	7,906,861		12,472,392	12,472,392
Maintenance Revenue	66,330	1,265,375	629,233	807,745	1,089,469	292,128	0	6,557,708		10,707,987	10,707,987
Training Revenue	0	38,964	0	4,106	0	0	0	99,784		142,854	142,854
Consulting Revenue	39,136	11,372	72,341	0	35,902	0	0	952,514		1,111,265	1,111,265
External Revenue	105,466	2,838,450	1,235,290	1,956,600	2,499,697	292,128	0	15,316,866		24,434,497	24,434,497
Intercompany Sales	1,041,566							1,899,588	(2,941,154)	0	0
Total Revenue	1,147,032	2,838,450	1,235,290	1,956,600	2,499,697	292,128	0	17,416,455	(2,941,154)	24,434,497	24,434,497
COST OF SALES											
Product COS	0	41,814	78,625	5,012	129,431	22,617	0	121,450		398,949	398,949
Maintenance COS	0	12,442	60,553	3,088	215,165	74,676	0	224,999		590,923	590,923
Total Training & Consulting	0	19,473	11,885	0	0	0	0	187,180		218,537	218,537
Other COS	0	18,017	6,971	14,641	46,528	0	0	251,373		337,530	337,530
Total External Cost	0	91,746	158,034	22,741	391,124	97,293	0	785,002		1,545,939	1,545,939
Intercompany Sales/COS Diff									832	832	832
Intercompany Cost of Sales	0	754,707	511,768	516,733	1,143,535	15,242	0	0	(2,941,986)	0	0
Total Cost of Sales	0	846,453	669,802	539,474	1,534,659	112,535	0	785,002	(2,941,154)	1,546,771	1,546,771
Gross Margin	1,147,032	1,991,996	555,488	1,417,126	965,038	179,594	0	16,631,453	0	22,887,726	22,887,726
Salaries											
Salaries	651,347	343,314	304,804	192,152	635,269	5,504	0	9,554,402		11,686,792	11,686,792
Commissions	0	210,295	64,462	13,893	285,136	0	0	993,643		1,567,430	1,567,430
Bonuses	0	66,386	24,422	64,410	88,993	0	0	724,692		968,904	968,904
Fringe Benefits	31,569	106,835	43,627	85,275	499,422	(11,048)	0	1,543,151	0	2,298,832	2,298,832
Training	3,528	14,430	154	902	11,118	0	0	99,412		129,543	129,543
Total Compensation	686,444	741,260	437,469	356,632	1,519,938	(5,544)	0	12,915,301	0	16,651,500	16,651,500
Travel											
Travel	19,488	17,650	29,063	46,000	138,356	0	0	651,088		901,644	901,644
Auto	788	56,644	65,615	29,602	79,548	0	0	171,263	0	403,460	403,460
Lodging & Meals	9,424	6,412	15,081	7,742	12,264	0	0	247,510		298,434	298,434
Business Meetings	1,796	4,129	13,217	13,771	100,242	93	0	89,374		222,622	222,622
President's Club and Other Tr	0	(746)	0	618	7,951	0	0	8,963		16,787	16,787
Total Travel	31,496	84,089	122,977	97,732	338,362	93	0	1,168,199	0	1,842,948	1,842,948
Office Rentals											
Office Rentals	27,425	43,919	24,347	28,476	91,904	6,490	0	541,704		764,266	764,266
Other Facilities	25,339	29,607	4,703	550	14,017	478	0	75,879	0	150,573	150,573
Depreciation Expense	20,403	27,410	7,531	6,838	21,763	126	0	820,373		904,463	904,463
Total Occupancy	73,166	100,937	36,581	35,888	127,684	7,093	0	1,437,956	0	1,819,302	1,819,302
Telecommunications	27,134	18,192	25,964	14,091	29,455	4,641	0	177,739		237,163	237,163
Professional Fees	8,357	42,153	23,024	12,485	31,931	3,017	0	1,116,195		1,498,858	1,498,858
Contractor Fees	60,762	0	39,938	1,644	9,074	0	0	38,440		339,022	339,022
Total Recruiting	0	25,062	66,733	0	0	0	0	247,228		1,044,016	1,044,016
Marketing	(178)	119,602	79,776	2,049	13,821	0	0	828,947		1,044,016	1,044,016
Data Center & IS	39,340	18,685	11,814	256	618	0	0	1,067,941		1,138,656	1,138,656
Total Miscellaneous Expense	10,841	16,629	924	7,408	(72,625)	5,300	0	429,938		398,415	398,415
Amortization Expense			0	0	0	0	0	50,705		50,705	50,705
Capitalized Software Reclas								(447,480)		(447,480)	(447,480)
Amortization of Capitalized I								95,872		95,872	95,872
Total Operating Expense	937,364	1,166,608	845,200	528,182	1,998,258	14,601	0	19,696,980	0	25,187,193	25,187,193
Operating Income	209,669	825,388	(289,712)	888,944	(1,033,220)	164,993	0	(3,065,527)	0	(2,299,466)	(2,299,466)
Total Interest Income											
Total Interest Income	4,095	15,489	583	0	0	2,029	0	636,182		658,377	658,377
Total Interest Expense	0	0	0	0	234	0	0	170,295		170,529	170,529
Other Income (Expense)	1,270	(16,777)	(11,621)	0	6,096	0	1,069,439	746,637		1,795,045	1,795,045
Total Foreign Exchange Gain	(5,377)	0	(4,325)	346	(2,133)	(8,740)	0	7,910		106,115	106,115
Total Other Income and Ex	(12)	(1,288)	(15,363)	346	3,729	(6,711)	1,077,350	1,330,959		2,389,008	2,389,008
Net Income Before Tax	209,656	834,100	(305,075)	889,289	(1,029,491)	158,282	1,077,350	(1,734,569)	0	89,542	89,542
Total Income Tax	0	0	0	0	0	0	0	53,200	0	53,200	53,200
Net Income	209,656	834,100	(305,075)	889,289	(1,029,491)	158,282	1,077,350	(1,787,769)	0	36,342	36,342



Netmaster for TCP/IP

TCP/IP Performance Analysis and Proactive Management Solution

OVERVIEW

The responsiveness of your network determines the responsiveness of your business.

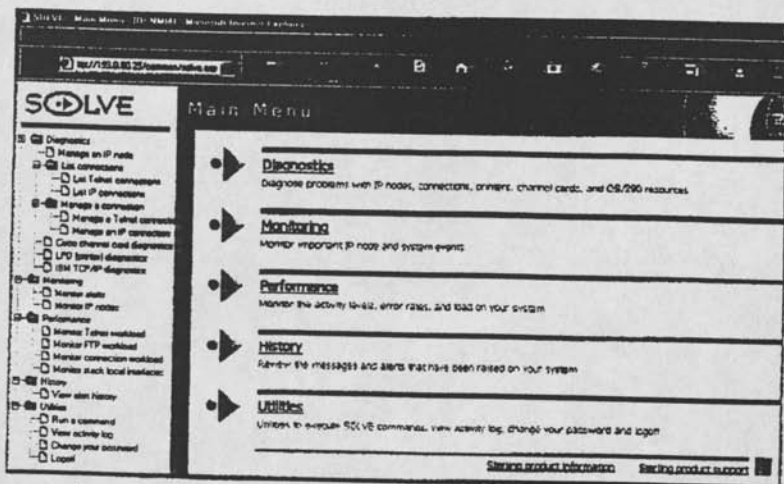
SOLVE:Netmaster for TCP/IP empowers organizations to proactively resolve problems involving TCP/IP access to OS/390 hosted applications. It pinpoints file transfer slow-downs, bad connections to CICS applications, TNS3270 response time issues, or problems with any other socket connections in your OS/390 enterprise server. So you can start responding to user problems before they become critical, ensuring that your service level goals are being met.

You can also leverage existing skills with minimal training by using a single product with access from either an easy-to-use 3270 or intuitive Web interface. That means help desk, system programmers, network analysts and managers alike can do their job easier.

SOLVE:Netmaster for TCP/IP also reduces your cost of ownership by being the only solution to merge information from multiple stacks and different vendors into a unified picture of SNA and TCP/IP—from desktop to application.

The more quickly and reliably you can share information, fulfill orders, respond to customer inquiries or deploy new products—the more successful your business will be.

SOLVE:Netmaster for TCP/IP
ensures reliable access to mission-critical applications through proactive monitoring, diagnosis, and performance management of OS/390-based TCP/IP network devices, events, and sessions.

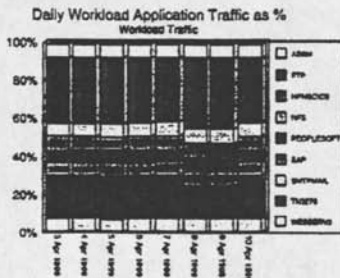
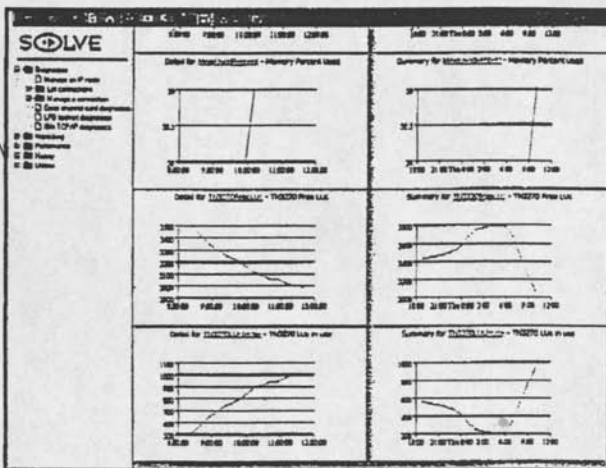


A comprehensive set of management capabilities is available from an intuitive, easy to understand Java interface.

HIGHLIGHTS

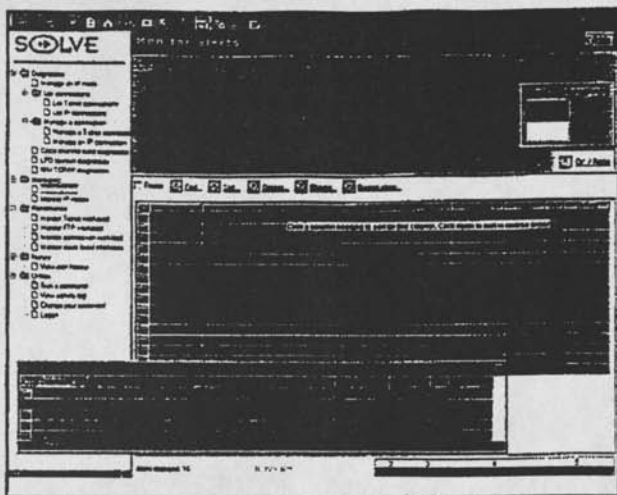
EASY VALIDATION OF TCP/IP AVAILABILITY AND PERFORMANCE: SNA network operators are familiar with monitoring network throughput and response time by device, line, application, and user. Unfortunately, these same capabilities have not been available when monitoring TCP/IP WANs and TCP/IP stacks on OS/390, leaving operators with no easy way to determine if the TCP/IP network is meeting predefined response times and service level objectives. That's where SOLVE:Netmaster for TCP/IP comes in. The performance of IP nodes, devices, sessions, and key channel-attached devices is collected in a historical database so that easy-to-understand summary and detail reports can be generated that provide a clear picture of the service being delivered to the end user. Real-time performance information is also easily accessible so that, at any time, operators know whether objectives are being met whether corrective action needs to be taken.

ACCURATE AND EASY-TO-USE CAPACITY PLANNING INFORMATION: Many organizations today reactively add bandwidth in response to end user capacity requirements because they lack solid information about combined SNA and IP network usage. The historical trend reports and statistical analyses provided by SOLVE:Netmaster allow network planners to easily review network loads, network usage trends, application usage, and session response time information. Because network planners are provided with a clear understanding of IP network resources as they relate to mainframe-based activity, they are able to make informed decisions that ensure that the IP network will be able to handle the traffic and usage requirements of the growing OS/390 environment.



Graphical presentations are provided for both real-time diagnostics (above) such as the performance of a channel-attached IP device, and historical (left) trending and capacity such as the breakdown of application usage of the system.

A SINGLE TOOL FOR DIAGNOSING AND RESOLVING OS/390-BASED IP PROBLEMS: Before SOLVE:Netmaster for TCP/IP, diagnosis of OS/390-based IP problems required operators to use a collection of tools and commands that run on different platforms with separate log-ons and different syntax. The operator was required to correlate information from a variety of sources in order to manage problems occurring in the SNA, TCP/IP, and IP environment. SOLVE:Netmaster removes the burden by allowing operators to use a single tool—with one log-on and one panel-driven interface—to collect and view information from SNA and TCP/IP and to diagnose and resolve problems that previously took senior staff hours of data collection and analysis.



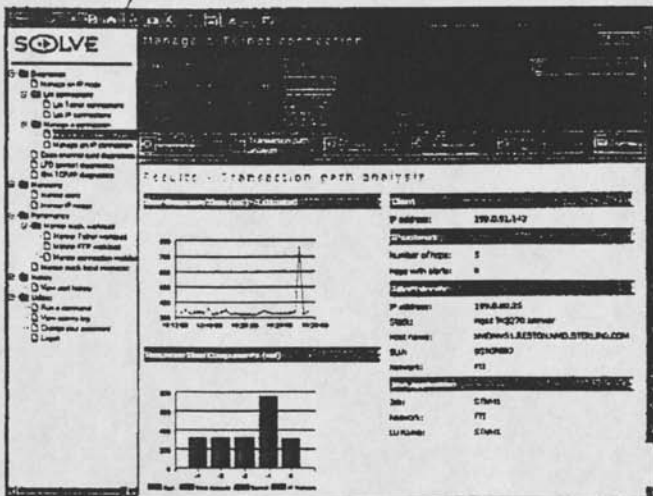
TCP/IP PROBLEM DETECTION AND RESOLUTION BEFORE NETWORK IMPACT: Due to the lack of inherent system notification, it's often difficult to detect TCP/IP problems before they're noticed by end users or begin to affect system performance. SOLVE:Netmaster for TCP/IP identifies network anomalies and notifies network operators before the problem affects end users or network availability or responsiveness. Scheduled polling of IP node response time combined with the ability to set performance objectives make it easy to proactively manage TCP/IP network performance.

EXTENDED ROUTER SUPPORT: In order to effectively perform network management from an OS/390-host perspective, operators must be informed when key network devices such as routers and servers are unavailable. Unfortunately, little information on router status is passed to the enterprise server, and for sites that are moving TN3270(e) traffic to the Cisco CIP or IBM 2216, visibility of traffic is extremely limited. In addition,

collecting information on SNMP devices has been difficult because SNMP requires a multiplicity of skills, from vendor-specific IP knowledge to familiarity with the enterprise management platform being run. All this has changed with SOLVE:Netmaster for TCP/IP. From one easy-to-use interface, operators now have visibility of network devices from Cisco, IBM, Bay, 3COM—and any other SNMP-compliant vendor—in order to perform proactive device management.

EASY PROBLEM DIAGNOSIS THROUGH AN INTUITIVE WEB BROWSER OR A STANDARD 3270 DISPLAY:

The complicated method of diagnosing OS/390-based TCP/IP problems and the lack of easy-to-use tools has meant that high-level system programming staff were required to perform first-level diagnosis. This is no longer the case. SOLVE:Netmaster for TCP/IP is a single, easy-to-use tool that allows Help Desk staff to understand what's gone wrong with TCP/IP access to OS/390 applications and to quickly diagnose the source of the failure. Using SOLVE:Netmaster's customer-tested, intuitive Web browser interface, Help Desk staff can view consolidated alert information, graphically display real-time performance data, and perform diagnostics on enterprise-wide IP connections. Second-level problem determination staff can either use the comprehensive 3270 interface or access SOLVE:Netmaster for TCP/IP from remote locations via the Web browser interface.



Full visibility and control of IP connection such as FTP, telnet or ADSM for the Help Desk environment.



Immediate, online reports provide focused access to all IP event information.

CONTACT STERLING SOFTWARE TO LEARN MORE

Sterling Software is a leading provider of software and services for the applications management, systems management and federal systems markets. Sterling Software, with its headquarters in Dallas, has a worldwide installed base of more than 20,000 customer sites and has 3,600 employees in 50 offices worldwide.

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ADDITIONAL FEATURES

- **ONLINE LOGGING AND REPORTING:** Logs all TCP/IP activity, providing an easy-to-understand audit trail from a single location. FTP transfer size can be tracked, as well as whether FTPs are in hung status. Planning reports show the largest FTPs, most commonly transferred datasets, and users generating the most FTP traffic.
- **IP PRINTER DIAGNOSIS:** Provides initial printer diagnostics to display the print queue for a particular IP printer, allow a test page to be sent to the printer, and enable items to be deleted from the queue.
- **IP CONNECTION MANAGEMENT:** In Java or 3270 format provides an integrated, scrollable and filterable selection list of connections from multiple systems and different vendor stack implementations. The list allows you to easily manage and diagnose problems with all types of TCP/IP connections.
- **ALERT MONITOR FILTERING AND PROFILING:** Advanced features such as multi-windowing techniques and click and drag screen modifications are provided to deliver a more graphical, intuitive, and granular presentation of alerts.
- **ACCESS AUTHORITY CHECKING:** Allows the administrator to define which users have authority to issue menu options or commands. Three sample user profiles are provided.
- **FULL SCREEN TELNET TO REMOTE HOSTS:** OS/390-based telnet into any connected device in the IP network to perform detailed diagnostics.
- **SOCKET PROGRAMMING INTERFACE:** A programmatic, 4GL interface allows you to write applications that communicate with other TCP/IP-based programs.
- **MXG SUPPORT:** MXG 16.10 now supports SOLVE/Netmaster for TCP/IP User SMF records for more comprehensive batch reporting.

TECHNICAL REQUIREMENTS

- The Graphical Performance Manager requires Windows 95/98 or Windows NT.
- The Real-Time Performance Monitor and Diagnostics Option require MVS/ESA v5.3 or above and are easily installed and maintained using SMP/E.
- The Web Browser User Interface is supported on Windows 95/98 or Windows NT and requires Netscape Navigator 4.5+ or Microsoft Internet Explorer 4.01 SP1 with Java Virtual Machine upgrade (5.00.3158), Internet Explorer 5.0 and Swing 1.02.

TCP/IP SOFTWARE SUPPORTED

- eNetwork Communications Server for OS/390 2.5+
- TCP/IP for MVS v3.1+
- IBM 2216 TN3270e server
- TCPaccess 3.1+
- Cisco's IOS for S/390 R1+
- Cisco's TN3270e server

SOLVE

Netmaster

INTEGRATED NETWORKED SYSTEMS MANAGER

SOLVE:Netmaster from Sterling Software is the premier SNA and TCP/IP networked systems management tool. It is a primary component of the integrated, highly automated SOLVE product family for managing information systems in terms of the services they deliver to the business.

OVERVIEW

SOLVE:Netmaster is an integrated product suite that lets you monitor network events; diagnose and react to network alerts; command and control assorted SNA and TCP/IP resources across multiple operating platforms, networks, and applications; and track session information from a single console. Access to all data points is provided through SAA-CUA compliant panels and ISPF-like navigation. And one familiar REXX-like language can be used for all programming requirements.

Because SOLVE:Netmaster provides one central point for monitoring, controlling, and proactively managing all the systems in your network, IS organizations can automatically correct network problems before they cause a service outage and maintain service levels using fewer resources. They can also ensure users have easy and timely access to applications and that the information carried on corporate networks is protected from unauthorized access.

HIGHLIGHTS

COMMAND AND CONTROL FROM A SINGLE CONSOLE: SOLVE:Netmaster provides comprehensive, end-to-end network management for IBM SNA and TCP/IP systems from one console. A sophisticated command and control engine, SOLVE:Netmaster can handle commands, messages, responses, and alarm information from multiple systems simultaneously. It can communicate with a wide range of management systems and applications, including both SNA and non-SNA devices.

SOLVE: Netmaster's centralized network management capabilities provide a cost-effective and efficient way to monitor and control your entire network operations, from users' terminals across communication lines and devices to the users' applications running on the mainframe computer.

COMPREHENSIVE SESSION TRACKING: SOLVE:Netmaster allows you to dynamically trace the activities of SNA and TCP/IP elements and displays session information for immediate analysis and corrective action. For longer term analysis, SOLVE:Netmaster maintains a database of session histories that allows you to extract usage pattern data in order to perform capacity planning and determine optimum network configuration.

The comprehensive session tracking information provided by SOLVE:Netmaster allows you to track actual usage and performance of your network so you can place resources where they are needed most.

IMPROVED SYSTEM AVAILABILITY: Unlike other network systems management systems, SOLVE:Netmaster allows you to perform customization and update operations dynamically without recycling the system. Requiring little or no downtime for maintenance operations or network changes, SOLVE:Netmaster helps ensure the availability of mission-critical services and limits maintenance costs.

ALL-POINTS DATA ACCESS: SAA-CUA compliant panels and ISPF-like navigation provide access to all data points in the SNA and TCP/IP systems being monitored and managed by SOLVE:Netmaster. Because all data is available from a single location, users are not required to log on and off separate components. All-points data access reduces training and implementation time and helps improve user productivity.



WITH SOLVE:NETMASTER, YOU CAN DYNAMICALLY TRACE THE ACTIVITIES OF SNA ELEMENTS AND DISPLAY SESSION INFORMATION FOR IMMEDIATE ANALYSIS AND ISSUE CORRECTIVE ACTIONS.

TECHNICAL DESCRIPTION

- SOLVE:Netmaster is designed to interact on a peer basis with other SOLVE:Netmaster systems, as well as with HP OpenView and IBM Netview systems and Tandem, Fujitsu, and Hitachi mainframes.
- The Network Error Warning System (NEWS) component allows you to filter network events and to store selected event records in a database for later analysis. It also allows you to initiate appropriate corrective actions.
- The NCPView component increases the visibility of communications controllers running NCP by enabling you to monitor Token-ring resources, buffer and CCU utilization, virtual routes and transmission groups, Internet protocol (IP) resource statistics, and SNI connections.
- The Network Control Services (NCS) component provides a summary of network resource types and graphic displays of individual resources and their subordinate nodes.
- The Network Tracking System (NTS) component obtains information about logical network connectivity from VTAM and other NTS systems and accumulates traffic statistics for sessions and resources to provide an integrated view of activity across multiple SNA domains and networks.

SYSTEM REQUIREMENTS

SOLVE:Netmaster can be installed on the following operating systems:

- MVS/SP, MVS/XA, and MVS/ESA
- VM/ESA
- Fujitsu (MSP, FSP, XSP)

CONTACT STERLING TO LEARN MORE

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	A	B	C	D	E	F	G	H
1	TCPaccess -- Revenues (North America) 11							
2								
3		Projected						Total
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
5								
6	<u>New Product Licenses</u>							
7	New license rate		1.50	1.00	.75	.50	0.00	
8	New license revenue	2000	3000	3000	2250	1125	0	11375
9								
10	<u>Add-ons/Upgrades</u>							
11	Add-on rate		.55	.55	.55	.55	.27	
12	Add-on revenue	1200	990	1247	1417	1424	617	6894
13								
14	<u>Services</u>							
15	Services rate		.10	.10	.10	.10	.10	
16	Services revenue	100	300	300	225	113	0	1038
17								
18	Maintenance Revenue	2000	2518	3031	3236	3048	1198	15031
19								
20	Total Revenue	5300	6808	7577	7128	5709	1816	34338
21								
22	<u>Maintenance Calculations</u>							
23	Previous year mainenance		2000	2518	3031	3236	3048	
24	Retention rate		.90	.90	.85	.80	.75	
25	Remaining maintenance		1800	2266	2576	2589	2286	11517
26	New + add-on license revenue		3990	4247	3667	2549	617	
27	Maint./license rate		.18	.18	.18	.18	.18	
28	Conversion rate		1.0	1.0	1.0	1.0	1.0	
29	New license maintenance revenue		718	764	660	459	111	2713
30	Total Maintenance	2000	2518	3031	3236	3048	1198	15031
31								
32								
33								
34								
35								
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	I	J	K	L	M	N	O	P
1	TCPAccess -- Revenues (International)							12
2								
3		Projected					Total	
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
5								
6	New Product Licenses							
7	New license rate		1.50	1.00	0.75	0.50	0.00	
8	New license revenue	1000	1500	1500	1125	563	0	4688
9								
10	Add-ons/Upgrades							
11	Add-on rate		.55	.55	.55	.55	.27	
12	Add-on revenue	600	330	182	100	55	15	681
13								
14	Services							
15	Services rate		0.10	0.10	0.10	0.10	0.10	
16	Services revenue	50	150	150	113	56	0	469
17								
18	Maintenance Revenue	1000	1229.4	1409	1418	1246	468	5771
19								
20	Total Revenue	2050	2879	3059	2656	1864	468	10927
21								
22	Maintenance Calculations							
23	Previous year mainenance		1000	1229.4	1409	1418	1246	
24	Retention rate		.90	.90	.85	.80	.75	
25	Remaining maintenance		900	1106.46	1198	1135	934	5273
26	New + add-on license revenue		1830	1682	1225	617	15	
27	Maintenance/license rate		.18	.18	.18	.18	.18	
28	Conversion rate		1.0	1.0	1.0	1.0	1.0	
29	New license maintenance revenue		329.4	303	220	111	3	966
30	Total Maintenance	1000	1229.4	1409	1418	1246	468	5771
31								
32								
33								
34								
35								
36								
37								
38								
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40								
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42								
43								
44								
45								
46								
47								
48								
49								
50								

	Q	R	S	T	U	V	W	X	
1	CPT -- Revenues (North America)								13
2									
3	Projected							Total	
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004	
5									
6	<u>New Product Licenses</u>								
7	New license rate		2.00	1.50	1.00	1.00	.50		
8	New license revenue	360	720	1080	1080	1080	540	4500	
9									
10	<u>Add-ons/Upgrades</u>								
11	Add-on rate		0	0	0	0	0		
12	Add-on revenue	0	0	0	0	0	0	0	
13									
14	<u>Services</u>								
15	Services rate		.10	.10	.10	.10	.10		
16	Services revenue	40	72	108	108	108	54	450	
17									
18	Maintenance Revenue	600	670	797	872	892	383	3613	
19									
20	Total Revenue	1000	1462	1985	2060	2080	977	8563	
21									
22	<u>Maintenance Calculations</u>								
23	Previous year maintenance		600	669.6	797	872	892		
24	Retention rate		.90	.90	.85	.80	.75		
25	Remaining maintenance		540	602.64	677	698	669	3187	
26	New license revenue		720	1080	1080	1080	540		
27	Maintenance/license rate		.18	.18	.18	.18	.18		
28	Conversion rate		1.0	1.0	1.0	1.0	1.0		
29	New license maintenance revenue		130	194	194	194	97	810	
30	Total Maintenance	600	670	797	872	892	383	3613	
31									
32									
33									
34									
35									
36									
37									
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50									

	Y	Z	AA	AB	AC	AD	AE	AF
1	CPT -- Revenues (International)							
2								
3	Projected							Total
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
5								
6	<u>New Product Licenses</u>							
7	New license rate		2.00	1.50	1.00	1.00	.50	
8	New license revenue	240	480	720	720	720	360	3000
9								
10	<u>Add-ons/Upgrades</u>							
11	Add-on rate		0	0	0	0	0	
12	Add-on revenue	0	0	0	0	0	0	0
13								
14	<u>Services</u>							
15	Services rate		.10	.10	.10	.10	.10	
16	Services revenue	25	48	72	72	72	36	300
17								
18	Maintenance Revenue	300	356	450	512	540	235	2093
19								
20	Total Revenue	565	884	1242	1304	1332	631	5393
21								
22	<u>Maintenance Calculations</u>							
23	Previous year maintenance		300	356.4	450	512	540	
24	Retention rate		.90	.90	.85	.80	.75	
25	Remaining maintenance		270	320.76	383	410	405	1788
26	New license revenue		480	720	720	720	360	
27	Maintenance/license rate		.18	.18	.18	.18	.18	
28	Conversion rate		1.0	1.0	1.0	1.0	1.0	
29	New license maintenance revenue		86	130	130	130	65	540
30	Total Maintenance	300	356	450	512	540	235	2093
31								
32								
33								
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	AG	AH	AI	AJ	AK	AL	AM	AN
1	EPS -- Revenues (North America)							15
2								
3	Projected						Total	
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
5								
6	New Product Licenses							
7	New license rate		2.00	1.25	1.00	1.00	.50	
8	New license revenue	300	600	750	750	750	375	3225
9								
10	Add-ons/Upgrades							
11	Add-on rate		0	0	0	0	0	
12	Add-on revenue	0	0	0	0	0	0	0
13								
14	Services							
15	Services rate		0	0	0	0	0	
16	Services revenue	0	0	0	0	0	0	0
17								
18	Maintenance Revenue	500	558	637	677	676	287	2835
19								
20	Total Revenue	800	1158	1387	1427	1426	662	6060
21								
22	Maintenance Calculations							
23	Previous year maintenance		500	558	637	677	676	
24	Retention rate		.90	.90	.85	.80	.75	
25	Remaining maintenance		450	502.2	542	541	507	2542
26	New license revenue		600	750	750	750	375	
27	Maintenance/license rate		.18	.18	.18	.18	.18	
28	Conversion rate		1.0	1.0	1.0	1.0	1.0	
29	New license maintenance revenue		108	135	135	135	68	581
30	Total Maintenance	500	558	637	677	676	287	2835
31								
32								
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	AO	AP	AQ	AR	AS	AT	AU	AV
1	EPS -- Revenues (International)							16
2								
3	Projected						Total	
4	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
5								
6	<u>New Product Licenses</u>							
7	New license rate		2.00	1.50	1.00	1.00	.50	
8	New license revenue	300	600	900	900	900	450	3750
9								
10	<u>Add-ons/Upgrades</u>							
11	Add-on rate		0	0	0	0	0	
12	Add-on revenue	0	0	0	0	0	0	0
13								
14	<u>Services</u>							
15	Services rate		0	0	0	0	0	
16	Services revenue	0	0	0	0	0	0	0
17								
18	Maintenance Revenue	500	558	664	727	743	319	3011
19								
20	Total Revenue	800	1158	1564	1627	1643	769	6761
21								
22	<u>Maintenance Calculations</u>							
23	Previous year maintenance		500	558	664	727	743	
24	Retention rate		.90	.90	.85	.80	.75	
25	Remaining maintenance		450	502.2	565	581	557	2655
26	New license revenue		600	900	900	900	450	
27	Maintenance/license rate		.18	.18	.18	.18	.18	
28	Conversion rate		1.0	1.0	1.0	1.0	1.0	
29	New license maintenance revenue		108	162	162	162	81	675
30	Total Maintenance	500	558	664	727	743	319	3011
31								
32								
33								
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	A	B	C	D	E	F	G	H	
51	Costs for TCPaccess -- Worldwide							21	
52									
53									
54		Projected						Total	
55 (\$000)		2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004	
56									
57	North America								
58	Revenues	5300	6808	7577	7128	5709	1816	34338	
59									
60	Cost of revenues rate	.10	.10	.10	.10	.10	.10		
61	cost	530	681	758	713	571	182	3434	
62	Marketing and sales rate	.30	.30	.30	.25	.25	.25		
63	cost	1590	2042	2273	1782	1427	454		
64	R and D rate	.15	.15	.15	.10	.10	.10		
65	cost	795	1021	1137	713	571	182	4418	
66	G and A rate	.15	.15	.15	.15	.15	.15		
67	cost	795	1021	1137	1069	856	272	5151	
68	Total Costs- North America	3710	4766	5304	4277	3425	1089	8476	
69	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60		
70									
71	International								
72	Revenues	2050	2879	3059	2656	1864	468	12977	
73									
74	Cost of revenues rate	.10	.10	.10	.10	.10	.10		
75	cost	205	288	306	266	186	47	1298	
76	Marketing and sales rate	.30	.30	.30	.25	.25	.25		
77	cost	615	864	918	664	466	117	3644	
78	R and D rate	.15	.15	.15	.10	.10	.10		
79	cost	308	432	459	266	186	47	1697	
80	G and A rate	.15	.15	.15	.15	.15	.15		
81	cost	308	432	459	398	280	70	1947	
82	Total Costs - International	1435	2016	2141	1593	1119	281	8585	
83									
84	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60		
85									
86	Total Costs - Worldwide	5145	6781	7445	5870	4544	1370	31157	
87									
88	Total Revenue - Worldwide	7350	9688	10636	9784	7574	2284	47315	
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
100									

	I	J	K	L	M	N	O	P	
51	Costs for CPT -- Worldwide							22	
52									
53									
54	Projected							Total	
55	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004	
56									
57	North America								
58	Revenues	1000	1462	1985	2060	2080	977	9563	
59									
60	Cost of revenues rate	.10	.10	.10	.10	.10	.10		
61	cost	100	146	199	206	208	98	956	
62	Marketing and sales rate	.30	.30	.30	.25	.25	.25		
63	cost	300	438	596	515	520	244		
64	R and D rate	.15	.15	.15	.10	.10	.10		
65	cost	150	219	298	206	208	98	1179	
66	G and A rate	.15	.15	.15	.15	.15	.15		
67	cost	150	219	298	309	312	147	1435	
68	Total Costs- North America	700	1023	1390	1236	1248	586	1723	
69	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60		
70									
71	International								
72	Revenues	565	884	1242	1304	1332	631	5958	
73									
74	Cost of revenues rate	.10	.10	.10	.10	.10	.10		
75	cost	57	88	124	130	133	63	596	
76	Marketing and sales rate	.30	.30	.30	.25	.25	.25		
77	cost	170	265	373	326	333	158	1624	
78	R and D rate	.15	.15	.15	.10	.10	.10		
79	cost	85	133	186	130	133	63	730	
80	G and A rate	.15	.15	.15	.15	.15	.15		
81	cost	85	133	186	196	200	95	894	
82	Total Costs - International	396	619	870	783	799	378	3844	
83									
84	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60		
85									
86	Total Costs - Worldwide	1096	1642	2259	2019	2047	965	10027	
87									
88	Total Revenue - Worldwide	1565	2346	3227	3364	3411	1608	15522	
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
100									

	Q	R	S	T	U	V	W	X
51	Costs for EPS -- Worldwide							23
52								
53								
54	Projected							Total
55	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
56								
57	North America							
58	Revenues	800	1158	1387	1427	1426	662	6860
59								
60	Cost of revenues rate	.10	.10	.10	.10	.10	.10	
61	cost	80	116	139	143	143	66	686
62	Marketing and sales rate	.30	.30	.30	.25	.25	.25	
63	cost	240	347	416	357	357	166	
64	R and D rate	.15	.15	.15	.10	.10	.10	
65	cost	120	174	208	143	143	66	853
66	G and A rate	.15	.15	.15	.15	.15	.15	
67	cost	120	174	208	214	214	99	1029
68	Total Costs - North America	560	811	971	856	856	397	1371
69	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60	
70								
71	International							
72	Revenues	800	1158	1564	1627	1643	769	7561
73								
74	Cost of revenues rate	.10	.10	.10	.10	.10	.10	
75	cost	80	116	156	163	164	77	756
76	Marketing and sales rate	.30	.30	.30	.25	.25	.25	
77	cost	240	347	469	407	411	192	2066
78	R and D rate	.15	.15	.15	.10	.10	.10	
79	cost	120	174	235	163	164	77	932
80	G and A rate	.15	.15	.15	.15	.15	.15	
81	cost	120	174	235	244	246	115	1134
82	Total Costs - International	560	811	1095	976	986	462	4889
83								
84	Cost/Revenue Ratio	.70	.70	.70	.60	.60	.60	
85								
86	Total Costs - Worldwide	1120	1621	2066	1832	1842	859	9340
87								
88	Total Revenue - Worldwide	1600	2316	2951	3053	3070	1432	14422
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								

	A	B	C	D	E	F	G	H
101	Net Present Value -- TCPAccess Worldwide							31
102								Total
103	(\$000)	2HFY99	FY00	FY01	FY02	FY03	1HFY04	1999-2004
104	TCPass--North America							
105	Revenue	5300	6808	7577	7128	5709	1816	34338
106	Operating Income Ratio	0.3	0.3	0.30	0.40	0.40	0.40	
107	Operating Income	1590	2042	2273	2851	2284	726	11767
108	Tax Rate	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	986	1266	1409	1768	1416	450	7295
110	NPV Factors	.967	.841	.731	.636	.553	.515	
111	NPV	954	1065	1031	1124	783	232	5189
112								
113	Discount Rate - Americas	0.15						
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124	TCPass--International							
125	Revenue	2050	2879	3059	2656	1864	468	12977
126	Operating Income Ratio	0.30	0.30	0.30	0.40	0.40	0.40	
127	Operating Income	615	864	918	1062	746	187	4392
128	Tax Rate	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	431	605	642	744	522	131	3074
130	NPV Factors	.967	.841	.731	.636	.553	.515	
131	NPV	416	509	470	473	289	67	2224
132								
133	Discount Rate - Int'l	0.15						
134								
135	Total Worldwide NPV	1370	1574	1501	1597	1072	299	7413
136								
137								
138								
139								
140	Worldwide Summary--TCPAccess							
141	Revenue	7350	9688	10636	9784	7574	2284	47315
142	Operating income	2205	2906	3191	3914	3029	914	16159
143	Operating Income after tax	1416	1871	2052	2511	1938	581	10370
144	NPV	1370	1574	1501	1597	1072	299	7413
145								
146	Grand Total--All Products							
147	Revenue	10515	14350	16815	16201	14055	5323	77259
148	Operating income	3155	4305	5045	6481	5622	2129	26736
149	Op. Income after tax	2038	2787	3268	4197	3640	1380	17310
150	NPV	1971	2345	2391	2669	2014	710	12100

	I	J	K	L	M	N	O	P
101	Net Present Value -- CPT Worldwide							32
102								Total
103	(\$000)	FY99	FY00	FY01	FY02	FY03	FY04	2000-2004
104	CPT--North America							
105	Revenue	1000	1462	1985	2060	2080	977	9563
106	Operating Income Ratio	.30	.30	.30	.40	.40	.40	
107	Operating Income	300	438	596	824	832	391	3381
108	Tax Rate	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	186	272	369	511	516	242	2096
110	NPV Factors	.967	.841	.731	.636	.553	.515	
111	NPV	180	229	270	325	285	125	1414
112								
113	Discount Rate - Americas	.15						
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124	CPT--International							
125	Revenue	565	884	1242	1304	1332	631	5958
126	Operating Income Ratio	.30	.30	.30	.40	.40	.40	
127	Operating Income	170	265	373	522	533	252	2114
128	Tax Rate	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	119	186	261	365	373	177	1480
130	NPV Factors	.967	.841	.731	.636	.553	.515	
131	NPV	115	156	191	232	206	91	991
132								
133	Discount Rate - International	.15						
134								
135	Total Worldwide NPV	295	385	461	557	492	216	2405
136								
137								
138								
139								
140	Worldwide Summary--CPT							
141	Revenue	1565	2346	3227	3364	3411	1608	15522
142	Operating income	470	704	968	1346	1365	643	5495
143	Operating Income after tax	305	458	630	876	889	419	3576
144	NPV	295	385	461	557	492	216	2405
145								
146								
147								
148								
149								
150								

	Q	R	S	T	U	V	W	X
101	Net Present Value -- EPS Worldwide							33
102								Total
103	(\$000)	FY99	FY00	FY01	FY02	FY03	FY04	2000-2004
104	EPS--North America							
105	Revenue	800	1158	1387	1427	1426	662	6860
106	Operating Income Ratio	.30	.30	.30	.40	.40	.40	
107	Operating Income	240	347	416	571	571	265	2410
108	Tax Rate	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	149	215	258	354	354	164	1494
110	NPV Factors	.967	.841	.731	.636	.553	.515	
111	NPV	144	181	189	225	196	85	1019
112								
113	Discount Rate - Americas	.15						
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124	EPS--International							
125	Revenue	800	1158	1564	1627	1643	769	7561
126	Operating Income Ratio	.30	.30	.30	.40	.40	.40	
127	Operating Income	240	347	469	651	657	308	2672
128	Tax Rate	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	168	243	328	455	460	215	1871
130	NPV Factors	.967	.841	.731	.636	.553	.515	
131	NPV	163	205	240	290	254	111	1262
132								
133	Discount Rate - International	.15						
134								
135	Total Worldwide NPV	306	386	429	515	450	195	2281
136								
137								
138								
139								
140	Worldwide Summary--EPS							
141	Revenue	1600	2316	2951	3053	3070	1432	14422
142	Operating income	480	695	885	1221	1228	573	5082
143	Operating Income after tax	317	459	587	809	814	380	3365
144	NPV	306	386	429	515	450	195	2281
145								
146								
147								
148								
149								
150								

Function and Technology Mapping Definitions

Market Value	
High	Critical to customer buying the product; would not buy without it
Medium	Valuable to customer buying the product, but lack of it would not, by itself, preclude the purchase, though in combination with other factors, could be a purchase stopper
Low	Limited significance to most prospects; nice to have, but would not pay extra for it
Function	
Full	Product feature is available in the specified release to the extent needed to satisfy market requirements for new product
Partial	Product feature is available but does not fully satisfy market requirements for new product
N/A	Product feature has essentially not been implemented
Reuse in New Product*	
None	Substantially no reuse of any existing technology
Requirements	Existing product provides a requirements definition of product features/functionality
Specifications	Existing product provides a functional specification for product usage
Design	Existing product's technical design is being used substantially in the future product
Code	Existing software source code is being used substantially in the future product

- * If none or only requirements or specifications are reused in new product, then core technologies contribution is considered to be zero. If design or code is reused, then core technologies contribution is considered to be an appropriate percentage for that function.

Sentinel/IP

Functions	Market Significance	e-Control Technology Contribution	Market Weighting Factor	Core Technology Contributing Value
Data gathering/enforcement for TCPaccess	H	50%	.22	.110
Data gathering/enforcement for IBM TCP/IP	H	25%	.22	.055
High-speed data store (dataspace) and access routines	H	50%	.22	.110
User registration facilities to tie to other products	M	0%	.04	0
S:NIP definition of Sentinel resources	H	0%	.15	0
Netview definition of Sentinel resources	H	50%	.15	.075
Subtotal			1.00	.350
New Technologies Value				.650
Total				1.000

Turbo/API

Functions	Market Significance	e-Control Technology Contribution	Market Weighting Factor	Core Technology Contributing Value
Base TCP/IP Protocols (TCP, UDP, IP, ICMP, ARP, etc.)	H	100%	.10	.10
Device drivers (CETI, CLAW, LCS, Hyperchannel, etc.)	H	100%	.10	.10
Text applications and tools (packet trace, discard/echo/chargen servers, ping, traceroute, etc.)	M	100%	.05	.05
Name services (DNS server, resolver, etc.)	H	100%	.10	.10
Operator interfaces	M	100%	.05	.05
SNMP agent	H	60%	.10	.06
API facilities:				
Assembler TLI interface	M	100%	.04	.04
MVS UNIX System Services (Open Edition) interface	H	100%	.10	.10
IBM compatible IUCV interface	L	100%	.02	.02
IBM compatible HPNS interface	H	25%	.10	.025
IBM compatible C socket replacement library	H	0%	.10	0
Trace facilities for IBM compatible IUCV and HPNS interfaces	M	0%	.04	0
SNMP DPI interface	H	0%	.10	0
Subtotal			1.00	.645
New Technologies Value				.355
Total				1.000

Turbo/FTP

Functions	Market Significance	e-Control Technology Contribution	Market Weighting Factor	Core Technology Contributing Value
Base TCP/IP Protocols (TCP, UDP, IP, ICMP, ARP, etc.)	H	100%	.13	.13
Device drivers (CETI, CLAW, LCS, Hyperchannel, etc.)	H	100%	.13	.13
Name services (DNS server, resolver, etc.)	H	100%	.14	.14
Operator interfaces	M	100%	.05	.05
SNMP agent	H	100%	.05	.05
FTP Facilities:				
FTP client	H	100%	.15	.15
FTP server support for legacy OS/390 files types	H	100%	.15	.15
FTP server support for HFS (UNIX) file types	H	20%	.15	.03
FTP server support for JES file types	M	20%	.05	.01
Subtotal			1.00	.84
New Technologies Value				.16
Total				1.000

TCPaccess/GOS

Functions	Market Significance	e-Control Technology Contribution	Market Weighting Factor	Core Technology Contributing Value
Base TCP/IP Protocols (TCP, UDP, IP, ICMP, ARP, etc.)	H	100%	.2	.200
Device drivers (CETI, CLAW, LCS, Hyperchannel, etc.)	H	75%	.2	.150
Name services (DNS server, resolver, etc.)	H	90%	.2	.180
API runtime and libraries	H	60%	.2	.120
Test applications and tools (packet trace, discard/echo/chargen servers, ping, traceroute, etc.)	M	50%	.05	.025
Operator interfaces	M	50%	.05	.025
SNMP agent	M	90%	.05	.045
Logging, tracing, statistical recording	M	50%	.05	.025
Subtotal			1.00	.770
New Technologies Value				.230
Total				1.000

Sentinel/IP - % Completion Analysis

Start to Acquisition Date (9/98 - 4/99)				
People	P-months	Cost/Month	Cost	% Complete
4 dev	18	\$10,000	\$180,000	
1 contract dev	6	15,000	90,000	
2 test	10	9,000	90,000	
2 doc	6	8,000	<u>48,000</u>	
Subtotal			\$408,000	76%
Acquisition Date to FAS86 Date (5/99 - 8/99)				
2 dev	6	\$10,000	\$60,000	
1 contract dev	1	15,000	15,000	
2 test	4	9,000	36,000	
1 doc	2	8,000	<u>16,000</u>	
Subtotal			\$127,000	24%
Total for Phases I and II			\$535,000	100%
General Release Date (9/99 - 10/99)				
2 dev	4	\$10,000	\$40,000	
2 test	4	9,000	36,000	
1 doc	2	8,000	<u>16,000</u>	
Subtotal			92,000	
Grand Total			\$627,000	

Turbo/API - % Completion Analysis

Start to Acquisition Date (9/98 - 4/99)				
People	P-months	Cost/Month	Cost	% Complete
5 dev	17	\$10,000	\$170,000	
2 test	8	9,000	72,000	
1 doc	2	8,000	<u>15,000</u>	
Subtotal			\$258,000	87%
Acquisition Date to FAS86 Date (5/99 - 8/99)				
1 dev	3	\$10,000	\$30,000	
1 test	1	9,000	9,000	
0 doc	0	8,000	--	
Subtotal			\$39,000	13%
Total for Phases I and II			\$297,000	100%
General Release Date (9/99 - 10/99)				
2 dev	3	\$10,000	\$30,000	
2 test	4	9,000	36,000	
1 doc	3	8,000	<u>24,000</u>	
Subtotal			90,000	
Grand Total			\$387,000	

Turbo/FTP - % Completion Analysis

Start to Acquisition Date (9/98 - 4/99)				
People	P-months	Cost/Month	Cost	% Complete
2 dev	11	\$10,000	\$110,000	
1 test	5	9,000	45,000	
1 doc	4	8,000	<u>32,000</u>	
Subtotal			\$187,000	76%
Acquisition Date to FAS86 Date (5/99 - 8/99)				
2 dev	4	\$10,000	\$40,000	
2 test	2	9,000	18,000	
0 doc	0	8,000	0	
Subtotal			\$58,000	24%
Total for Phases I and II			\$245,000	100%
General Release Date (8/99 - 10/99)				
2 dev	2.5	\$10,000	\$25,000	
2 test	4.5	9,000	40,500	
1 doc	3	8,000	<u>24,000</u>	
Subtotal			\$89,500	
Grand Total			\$334,500	

TCPassess/GOS – % Completion Analysis

Start to Acquisition Date (9/98 - 4/99)				
People	P-months	Cost/Month	Cost	% Complete
4 dev/test	27	\$19,000	\$270,000	
1 doc	4	8,000	<u>32,000</u>	
Subtotal			\$302,000	64%
Acquisition Date to FAS86 Date (5/99 - 8/99)				
3 devl	10	\$10,000	\$100,000	
2 test	8	9,000	72,000	
0 doc	0	8,000	0	
Subtotal			\$172,000	36%
Total for Phases I and II			\$474,000	100%
General Release Date (8/99 - 10/99)				
2 dev	8	\$10,000	\$80,000	
2 test	8	9,000	72,000	
1 doc	3	8,000	<u>24,000</u>	
Subtotal			\$176,000	
Grand Total			\$650,000	

	A	B	C	D	E	F	G	H	I	J	K	L
1	Revenues for Solve:Sentinel/IP (North America)											11
2	Projected Fiscal Year											
3												
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000- 2009
5												
6	New Customer Sales											
7	New Sales Units	25	75	125	175	200	150	100	0	0	0	850
8	Price/Unit	35	35	35	35	35	35	35	35	35	35	
9	New License Revenue	875	2625	4375	6125	7000	5250	3500	0	0	0	29750
10												
11	Add-on Sales											
12	Add-on Growth Rate	.83	.83	.83	.83	.83	.83	.83	.50	.50	.50	
13	Add-on Revenue	0	118	475	1079	1940	2948	3547	2217	1691	1106	15121
14												
15	Services											
16	Services Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	
17	Services Revenue	131	394	656	919	1050	788	525	0	0	0	4463
18												
19	Maintenance Revenue	158	635	1445	2597	3947	5028	5542	4833	3687	2411	30282
20												
21	Maintenance Calculations											
22	Previous Year Maintenance	0	158	635	1445	2597	3947	5028	5542	4833	3687	
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60	
24	Remaining Maintenance	0	142	572	1300	2337	3552	4273	4434	3383	2212	22205
25	New License + Add-on Revenue	875	2743	4850	7204	8940	8198	7047	2217	1691	1106	
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
28	New Maintenance Revenue	158	494	873	1297	1609	1476	1268	399	304	199	8077
29	Total Maintenance	158	635	1445	2597	3947	5028	5542	4833	3687	2411	30282
30												
31	Total Revenue	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												

	M	N	O	P	Q	R	S	T	U	V	W	X	
1	Revenues for Solve:Sentinel/IP (International)												12
2	Projected Fiscal Year												
3													
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009	
5													
6	New Customer Sales												
7	New Sales Units	25	75	125	175	200	150	100	0	0	0	850	
8	Price/Unit	35	35	35	35	35	35	35	35	35	35		
9	New License Revenue	875	2625	4375	6125	7000	5250	3500	0	0	0	29750	
10													
11	Add-on Sales												
12	Add-on Growth Rate	.83	.83	.83	.83	.83	.83	.83	.50	.50	.50		
13	Add-on Revenue	0	118	475	1079	1940	2948	3547	2217	1691	1106	15121	
14													
15	Services												
16	Services Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15		
17	Services Revenue	131	394	656	919	1050	788	525	0	0	0	4463	
18													
19	Maintenance Revenue	158	635	1445	2597	3947	5028	5542	4833	3687	2411	30282	
20													
21	Maintenance Calculations												
22	Previous Year Maintenance	0	158	635	1445	2597	3947	5028	5542	4833	3687		
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60		
24	Remaining Maintenance	0	142	572	1300	2337	3552	4273	4434	3383	2212	22205	
25	New License + Add-on Revenue	875	2743	4850	7204	8940	8198	7047	2217	1691	1106		
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18		
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
28	New Maintenance Revenue	158	494	873	1297	1609	1476	1268	399	304	199	8077	
29	Total Maintenance	158	635	1445	2597	3947	5028	5542	4833	3687	2411	30282	
30													
31	Total Revenue	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616	
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	Revenues for Solve:Turbo/API (North America)											13
2	Projected Fiscal Year											
3												
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
5												
6	New Customer Sales											
7	New Sales Units	15	25	50	65	75	60	40	0	0	0	330
8	Price/Unit	25	25	25	25	25	25	25	25	25	25	
9	New License Revenue	375	625	1250	1625	1875	1500	1000	0	0	0	8250
10												
11	Add-on Sales											
12	Add-on Growth Rate	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	
13	Add-on Revenue	0	30	80	180	308	454	536	539	411	269	2809
14												
15	Services											
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
17	Services Revenue	38	63	125	163	188	150	100	0	0	0	825
18												
19	Maintenance Revenue	68	179	400	685	1010	1261	1348	1175	897	586	7608
20												
21	Maintenance Calculations											
22	Previous Year Maintenance	0	68	179	400	685	1010	1261	1348	1175	897	
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60	
24	Remaining Maintenance	0	61	161	360	617	909	1071	1078	823	538	5616
25	New License + Add-on Revenue	375	655	1330	1805	2183	1954	1536	539	411	269	
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
28	New Maintenance Revenue	68	118	239	325	393	352	276	97	74	48	1991
29	Total Maintenance	68	179	400	685	1010	1261	1348	1175	897	586	7608
30												
31	Total Revenue	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
32												
33												
34												
35												
36												
37												
38												
39												
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43												
44												
45												
46												
47												
48												
49												
50												

	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1	Revenues for Solve:Turbo/API (International)											14
2	Projected Fiscal Year											
3												
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
5												
6	New Customer Sales											
7	New Sales Units	15	25	50	65	75	60	40	0	0	0	330
8	Price/Unit	25	25	25	25	25	25	25	25	25	25	
9	New License Revenue	375	625	1250	1625	1875	1500	1000	0	0	0	6250
10												
11	Add-on Sales											
12	Add-on Growth Rate	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	
13	Add-on Revenue	0	30	80	180	308	454	536	539	411	269	2809
14												
15	Services											
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
17	Services Revenue	38	63	125	163	188	150	100	0	0	0	825
18												
19	Maintenance Revenue	68	179	400	685	1010	1261	1348	1175	897	586	7608
20												
21	Maintenance Calculations											
22	Previous Year Maintenance	0	68	179	400	685	1010	1261	1348	1175	897	
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60	
24	Remaining Maintenance	0	61	161	360	617	909	1071	1078	823	538	5618
25	New License + Add-on Revenue	375	655	1330	1805	2183	1954	1536	539	411	269	
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
28	New Maintenance Revenue	68	118	239	325	393	352	276	97	74	48	1991
29	Total Maintenance	68	179	400	685	1010	1261	1348	1175	897	586	7608
30												
31	Total Revenue	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
32												
33												
34												
35												
36												
37												
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48												
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	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
1	Revenues for Solve:Turbo/FTP (North America)											15
2	Projected Fiscal Year											
3												
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
5												
6	New Customer Sales											
7	New Sales Units	25	50	65	75	60	45	30	0	0	0	350
8	Price/Unit	25	25	25	25	25	25	25	25	25	25	
9	New License Revenue	625	1250	1625	1875	1500	1125	750	0	0	0	8750
10												
11	Add-on Sales											
12	Add-on Growth Rate	.67	.67	.67	.67	.67	.67	.67	.67	.67	.67	
13	Add-on Revenue	0	68	204	382	589	757	836	822	645	434	4737
14												
15	Services											
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
17	Services Revenue	63	125	163	188	150	113	75	0	0	0	875
18												
19	Maintenance Revenue	113	338	634	977	1255	1468	1534	1375	1078	725	9497
20												
21	Maintenance Calculations											
22	Previous Year Maintenance	0	113	338	634	977	1255	1468	1534	1375	1078	
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60	
24	Remaining Maintenance	0	101	305	570	879	1130	1248	1227	962	647	7069
25	New License + Add-on Revenue	625	1318	1829	2257	2089	1882	1586	822	645	434	
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
28	New Maintenance Revenue	113	237	329	406	376	339	286	148	116	78	2428
29	Total Maintenance	113	338	634	977	1255	1468	1534	1375	1078	725	9497
30												
31	Total Revenue	800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859
32												
33												
34												
35												
36												
37												
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44												
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46												
47												
48												
49												
50												

	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	
1	Revenues for Solve:Turbo/FTP (International)												16
2	Projected Fiscal Year												
3													
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009	
5													
6	New Customer Sales												
7	New Sales Units	25	50	65	75	60	45	30	0	0	0	350	
8	Price/Unit	25	25	25	25	25	25	25	25	25	25		
9	New License Revenue	625	1250	1625	1875	1500	1125	750	0	0	0	8750	
10													
11	Add-on Sales												
12	Add-on Growth Rate	.67	.67	.67	.67	.67	.67	.67	.67	.67	.67		
13	Add-on Revenue	0	68	204	382	589	757	836	822	645	434	4737	
14													
15	Services												
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10		
17	Services Revenue	63	125	163	188	150	113	75	0	0	0	875	
18													
19	Maintenance Revenue	113	338	634	977	1255	1468	1534	1375	1078	725	9497	
20													
21	Maintenance Calculations												
22	Previous Year Maintenance	0	113	338	634	977	1255	1468	1534	1375	1078		
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60		
24	Remaining Maintenance	0	101	305	570	879	1130	1248	1227	962	647	7069	
25	New License + Add-on Revenue	625	1318	1829	2257	2089	1882	1586	822	645	434		
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18		
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
28	New Maintenance Revenue	113	237	329	406	376	339	286	148	116	78	2428	
29	Total Maintenance	113	338	634	977	1255	1468	1534	1375	1078	725	9497	
30													
31	Total Revenue	800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859	
32													
33													
34													
35													
36													
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	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	
1	Revenues for Solve:TCP Access/GOS (North America)												17
2	Projected Fiscal Year												
3													
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009	
5													
6	New Customer Sales												
7	New Sales Units	10	20	20	10	0	0	0	0	0	0	60	
8	Price/Unit	50	50	50	50	50	50	50	50	50	50		
9	New License Revenue	500	1000	1000	500	0	0	0	0	0	0	3000	
10													
11	Add-on Sales												
12	Add-on Growth Rate	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13	Add-on Revenue	0	0	0	0	0	0	0	0	0	0	0	
14													
15	Services												
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10		
17	Services Revenue	50	100	100	50	0	0	0	0	0	0	300	
18													
19	Maintenance Revenue	90	261	415	463	417	375	319	255	179	107	2882	
20													
21	Maintenance Calculations												
22	Previous Year Maintenance	0	90	261	415	463	417	375	319	255	179		
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60		
24	Remaining Maintenance	0	81	235	373	417	375	319	255	179	107	2342	
25	New License + Add-on Revenue	500	1000	1000	500	0	0	0	0	0	0		
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18		
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
28	New Maintenance Revenue	90	180	180	90	0	0	0	0	0	0	540	
29	Total Maintenance	90	261	415	463	417	375	319	255	179	107	2882	
30													
31	Total Revenue	640	1361	1515	1013	417	375	319	255	179	107	6182	
32													
33													
34													
35													
36													
37													
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48													
49													
50													

	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR
1	Revenues for Solve:TCP Access/GOS (International)											18
2	Projected Fiscal Year											
3												
4	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
5												
6	New Customer Sales											
7	New Sales Units	15	40	80	120	150	125	100	0	0	0	630
8	Price/Unit	65	65	65	65	65	65	65	65	65	65	
9	New License Revenue	975	2600	5200	7800	9750	8125	6500	0	0	0	40950
10												
11	Add-on Sales											
12	Add-on Growth Rate	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	
13	Add-on Revenue	0	79	288	704	1322	2087	2555	2696	2057	1345	13133
14												
15	Services											
16	Services Rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
17	Services Revenue	98	260	520	780	975	813	650	0	0	0	4095
18												
19	Maintenance Revenue	176	640	1564	2938	4637	6012	6740	5877	4484	2933	36002
20												
21	Maintenance Calculations											
22	Previous Year Maintenance	0	176	640	1564	2938	4637	6012	6740	5877	4484	
23	Retention Rate	.90	.90	.90	.90	.90	.90	.85	.80	.70	.60	
24	Remaining Maintenance	0	158	576	1408	2644	4174	5110	5392	4114	2691	26267
25	New License + Add-on Revenue	975	2679	5488	8504	11072	10212	9055	2696	2057	1345	
26	Maintenance License Rate	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	
27	Initial Conversion Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
28	New Maintenance Revenue	176	482	988	1531	1993	1838	1630	485	370	242	9735
29	Total Maintenance	176	640	1564	2938	4637	6012	6740	5877	4484	2933	36002
30												
31	Total Revenue	1248	3579	7572	12222	16685	17036	16445	8573	6541	4278	94180
32												
33												
34												
35												
36												
37												
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48												
49												
50												

	A	B	C	D	E	F	G	H	I	J	K	L
51	Costs for Solve: Sentinel/IP (Worldwide)											21
52												
53	Projected Fiscal Year											
54												
55	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
56												
57	North America											
58	Revenues	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616
59	Cost of revenues											
60	rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
61	cost	116	377	695	1072	1394	1401	1311	705	538	352	7962
62	Marketing and sales											
63	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25	
64	cost	407	1320	2433	3216	3763	3503	3278	1762	1345	879	21907
65	R and D											
66	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	.10	
67	cost	291	754	1043	1608	1812	1401	1311	705	538	352	9815
68	G and A											
69	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	
70	cost	175	566	1043	1608	2090	2102	1967	1057	807	528	11942
71	Total Costs-North America	989	3017	5213	7504	9059	8408	7868	4230	3227	2111	51626
72	Cost/Revenue Ratio - North America	.85	.80	.75	.70	.65	.60	.60	.60	.60	.60	
73	International											
74	Revenue	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616
75	Cost of revenues											
76	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25	
77	cost	116	377	695	1072	1394	1401	1311	705	538	352	7962
78	Marketing and sales											
79	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25	
80	cost	407	1320	2433	3216	3763	3503	3278	1762	1345	879	21907
81	R and D											
82	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	.10	
83	cost	291	754	1043	1608	1812	1401	1311	705	538	352	9815
84	G and A											
85	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	
86	cost	175	566	1043	1608	2090	2102	1967	1057	807	528	11942
87	Total Costs - International	989	3017	5213	7504	9059	8408	7868	4230	3227	2111	51626
88	Cost/Revenue Ratio - International	.85	.80	.75	.70	.65	.60	.60	.60	.60	.60	
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												

	M	N	O	P	Q	R	S	T	U	V	W	X
51	Costs for Solve:Turbo/API (Worldwide)											22
52												
53	Projected Fiscal Year											
54												
55	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
56												
57	North America											
58	Revenues	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
59	Cost of revenues	rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	
60		cost	48	90	186	265	338	336	298	171	131	86
61	Marketing and sales	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	1949
62		cost	168	314	650	796	913	841	746	429	327	214
63	R and D	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	5397
64		cost	120	179	278	398	439	336	298	171	131	86
65	G and A	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	2438
66		cost	72	134	278	398	507	505	448	257	196	128
67	Total Costs- North America		408	717	1392	1857	2197	2019	1790	1029	785	513
68												12707
69	Cost/Revenue Ratio - No. America		.85	.80	.75	.70	.65	.60	.60	.60	.60	
70												
71												
72	International											
73	Revenue	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
74	Cost of revenues	rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	
75		cost	48	90	186	265	338	336	298	171	131	86
76	Marketing and sales	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	1949
77		cost	168	314	650	796	913	841	746	429	327	214
78	R and D	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	5397
79		cost	120	179	278	398	439	336	298	171	131	86
80	G and A	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	2438
81		cost	72	134	278	398	507	505	448	257	196	128
82												2924
83												
84	Total Costs - International		408	717	1392	1857	2197	2019	1790	1029	785	513
85												12707
86	Cost/Revenue Ratio - International		.85	.80	.75	.70	.65	.60	.60	.60	.60	
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
51	Costs for Solve:Turbo/FTP (Worldwide)											23
52												
53	Projected Fiscal Year											
54												
55	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
56												
57	North America											
58	Revenues	800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859
59												
60	Cost of revenues rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
61	cost	80	178	263	342	349	346	319	220	172	116	2386
62	Marketing and sales rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25	
63	cost	280	623	919	1026	943	866	799	549	431	290	6726
64	R and D rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	.10	
65	cost	200	356	394	513	454	346	319	220	172	116	3091
66	G and A rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	
67	cost	120	267	394	513	524	519	479	330	258	174	3579
68	Total Costs- North America	680	1425	1969	2395	2271	2078	1917	1318	1034	695	15782
69												
70	Cost/Revenue Ratio - No. America	.85	.80	.75	.70	.65	.60	.60	.60	.60	.60	
71												
72	International											
73		800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859
74												
75	Cost of revenues rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
76	cost	80	178	263	342	349	346	319	220	172	116	2386
77	Marketing and sales rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	.25	
78	cost	280	623	919	1026	943	866	799	549	431	290	6726
79	R and D rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	.10	
80	cost	200	356	394	513	454	346	319	220	172	116	3091
81	G and A rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	0.25
82	cost	120	267	394	513	524	519	479	330	258	174	3579
83												
84	Total Costs - International	680	1425	1969	2395	2271	2078	1917	1318	1034	695	15782
85												
86	Cost/Revenue Ratio - International	.85	.80	.75	.70	.65	.60	.60	.60	.60	.60	
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												

	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
51	Costs for Solve:TCP Access/GOS (Worldwide)											24
52												
53	Projected Fiscal Year											
54												
55 (\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009	
56												
57	North America											
58	Revenues	640	1361	1515	1013	417	375	319	255	179	107	6182
59	Cost of revenues	rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	
60		cost	64	136	151	101	42	38	32	26	18	618
61	Marketing and sales	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	
62		cost	224	476	530	304	113	94	80	64	45	1956
63	R and D	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	
64		cost	160	272	227	152	54	38	32	26	18	989
65	G and A	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	
66		cost	96	204	227	152	63	56	48	38	27	927
67	Total Costs- North America		544	1089	1136	709	271	225	191	153	107	4491
68												
69	Cost/Revenue Ratio - No. America		.85	.80	.75	.70	.65	.60	.60	.60	.60	
70												
71												
72	International											
73	Revenues	1248	3579	7572	12222	16685	17036	16445	8573	6541	4278	94180
74	Cost of revenues	rate	.10	.10	.10	.10	.10	.10	.10	.10	.10	
75		cost	125	358	757	1222	1668	1704	1645	857	654	9418
76	Marketing and sales	rate	.35	.35	.35	.30	.27	.25	.25	.25	.25	
77		cost	437	1253	2650	3667	4505	4259	4111	2143	1635	25730
78	R and D	rate	.25	.20	.15	.15	.13	.10	.10	.10	.10	
79		cost	312	716	1136	1833	2169	1704	1645	857	654	11453
80	G and A	rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	
81		cost	187	537	1136	1833	2503	2555	2467	1286	981	14127
82	Total Costs - International		1061	2863	5679	8555	10845	10222	9867	5144	3925	60728
83												
84	Cost/Revenue Ratio - International		.85	.80	.75	.70	.65	.60	.60	.60	.60	
85												
86												
87												
88												
89												
90												
91												
92												
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96												
97												
98												
99												
100												

	A	B	C	D	E	F	G	H	I	J	K	L
101	Net Present Value -- Solve:Sentinel/IP											31
102	Projected Fiscal Year											
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
104	Solve:Sentinel/IP (North America)											
105	Revenue	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616
106	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
107	Operating Income	175	754	1738	3216	4878	5605	5246	2820	2151	1407	27990
108	Tax Rate	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	108	468	1077	1994	3024	3475	3252	1748	1334	872	17354
110	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
111	NPV	99	357	686	1058	1337	1280	998	447	284	155	6702
112												
113	Discount Rate - Americas	0.2										
114												
115	Core Technologies rate	350	350	350	350	350	350	350	350	350	350	
116	Core Technologies value	35	125	240	370	468	448	349	157	100	54	2346
117	Percent completion rate	.76	.76	.76	.76	.76	.76	.76	.76	.76	.76	
118	Percent not-completed value	15	56	107	165	209	200	156	70	44	24	1046
119	NPV after adjustment	49	176	339	523	660	632	493	221	140	77	3311
120												
121												
122												
123												
124	Solve:Sentinel/IP (International)											
125	Revenue	1164	3772	6951	10720	13937	14013	13114	7049	5379	3518	79616
126	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
127	Operating Income	175	754	1738	3216	4878	5605	5246	2820	2151	1407	27990
128	Tax Rate	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	122	528	1216	2251	3414	3924	3672	1974	1506	985	19593
130	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
131	NPV	112	403	774	1194	1509	1445	1127	505	321	175	7567
132												
133	Discount Rate - International	0.2										
134												
135	Core Technologies rate	350	350	350	350	350	350	350	350	350	350	
136	Core Technologies value	39	141	271	418	528	506	395	177	112	61	2648
137	Percent completion rate	.76	.76	.76	.76	.76	.76	.76	.76	.76	.76	
138	Percent not-completed value	17	63	121	186	235	225	176	79	50	27	1180
139	NPV after adjustment	55	199	383	590	746	714	557	249	159	86	3738
140												
141												
142												
143	Worldwide Summary											
144	Revenue	2328	7544	13901	21440	27873	28026	26228	14099	10757	7035	159232
145	Operating income	349	1509	3475	6432	9756	11211	10491	5639	4303	2814	55979
146	Operating Income after tax	230	996	2294	4245	6439	7399	6924	3722	2840	1857	36946
147	NPV	211	761	1460	2252	2846	2726	2126	952	605	330	14269
148	NPV after adjustment	104	376	721	1112	1406	1346	1050	470	299	163	7049
149												
150												

	M	N	O	P	Q	R	S	T	U	V	W	X
101	Net Present Value -- Solve:Turbo/API											32
102	Projected Fiscal Year											
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
104	Solve:Turbo/API (North America)											
105	Revenue	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
106	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
107	Operating Income	72	179	464	796	1183	1346	1193	686	523	342	6785
108	Tax Rate	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	45	111	288	493	734	834	740	425	324	212	4207
110	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
111	NPV	41	85	183	262	324	307	227	109	69	38	1645
112												
113	Discount Rate - Americas	0.2										
114												
115	Core Technologies rate	.645	.645	.645	.645	.645	.645	.645	.645	.645	.645	
116	Core Technologies value	26	55	118	169	209	198	147	70	45	24	1061
117	Percent completion rate	.87	.87	.87	.87	.87	.87	.87	.87	.87	.87	
118	Percent not-completed value	2	4	8	12	15	14	10	5	3	2	76
119	NPV after adjustment	13	26	57	81	100	95	70	34	21	12	508
120												
121												
122												
123												
124	Solve:Turbo/API (International)											
125	Revenue	480	897	1856	2653	3381	3365	2984	1714	1308	856	19492
126	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
127	Operating Income	72	179	464	796	1183	1346	1193	686	523	342	6785
128	Tax Rate	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	50	126	325	557	828	942	835	480	366	240	4749
130	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
131	NPV	46	96	207	296	366	347	256	123	78	43	1857
132												
133	Discount Rate - Int'l	0.2										
134												
135	Core Technologies rate	.645	.645	.645	.645	.645	.645	.645	.645	.645	.645	
136	Core Technologies value	30	62	133	191	236	224	165	79	50	27	1198
137	Percent completion rate	.87	.87	.87	.87	.87	.87	.87	.87	.87	.87	
138	Percent not-completed value	2	4	10	14	17	16	12	6	4	2	86
139	NPV after adjustment	14	30	64	91	113	107	79	38	24	13	574
140												
141												
142												
143	Worldwide Summary											
144	Revenue	960	1793	3711	5306	6761	6730	5967	3429	2616	1711	38985
145	Operating income	144	359	928	1592	2366	2692	2387	1372	1047	684	13570
146	Operating Income after tax	95	237	612	1051	1562	1777	1575	905	691	452	8956
147	NPV	87	181	390	557	690	654	484	232	147	80	3503
148	NPV after adjustment	27	56	120	172	213	202	149	72	45	25	1082
149												
150												

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
101	Net Present Value -- Solve:Turbo/FTP											33
102	Projected Fiscal Year											
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
104	Solve:Turbo/FTP (North America)											
105	Revenue	800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859
106	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
107	Operating Income	120	356	656	1026	1223	1385	1278	879	689	463	8076
108	Tax Rate	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	74	221	407	636	758	859	792	545	427	287	5007
110	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
111	NPV	68	169	259	338	335	316	243	139	91	51	2010
112												
113	Discount Rate - Americas	0.2										
114												
115	Core Technologies rate	.840	.840	.840	.840	.840	.840	.840	.840	.840	.840	
116	Core Technologies value	57	142	218	284	282	266	204	117	77	43	1688
117	Percent completion rate	.76	.76	.76	.76	.76	.76	.76	.76	.76	.76	
118	Percent not-completed value	3	6	10	13	13	12	9	5	3	2	77
119	NPV after adjustment	8	21	32	41	41	38	30	17	11	6	244
120												
121												
122												
123												
124	Solve:Turbo/FTP (International)											
125	Revenue	800	1781	2625	3421	3494	3463	3195	2197	1723	1159	23859
126	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
127	Operating Income	120	356	656	1026	1223	1385	1278	879	689	463	8076
128	Tax Rate	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	84	249	459	719	856	970	895	615	483	324	5654
130	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
131	NPV	77	190	292	381	378	357	275	157	103	58	2269
132												
133	Discount Rate - Int'l	0.2										
134												
135	Core Technologies rate	.840	.840	.840	.840	.840	.840	.840	.840	.840	.840	
136	Core Technologies value	65	160	246	320	318	300	231	132	86	48	1906
137	Percent completion rate	.76	.76	.76	.76	.76	.76	.76	.76	.76	.76	
138	Percent not-completed value	3	7	11	15	15	14	11	6	4	2	87
139	NPV after adjustment	9	23	36	46	46	43	33	19	13	7	276
140												
141												
142												
143	Worldwide Summary											
144	Revenue	1600	3563	5251	6843	6988	6925	6390	4394	3446	2317	47717
145	Operating income	240	713	1313	2053	2446	2770	2556	1757	1379	927	16153
146	Operating Income after tax	158	470	866	1355	1614	1828	1687	1160	910	612	10661
147	NPV	145	359	552	719	714	674	518	297	194	109	4279
148	NPV after adjustment	18	44	67	87	87	82	63	36	24	13	520
149												
150												

	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
101	Net Present Value -- Solve:TCP Access/GOS											34
102	Projected Fiscal Year											
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
104	Solve:TCP Access/GOS (North America)											
105	Revenue	640	1361	1515	1013	417	375	319	255	179	107	6182
106	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
107	Operating Income	96	272	379	304	146	150	128	102	71	43	1691
108	Tax Rate	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	
109	Operating Income After Tax	60	169	235	188	91	93	79	63	44	27	1049
110	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
111	NPV	55	129	149	100	40	34	24	16	9	5	562
112												
113	Discount Rate - Americas	0.2										
114												
115	Core Technologies rate	.770	.770	.770	.770	.770	.770	.770	.770	.770	.770	
116	Core Technologies value	42	99	115	77	31	26	19	12	7	4	433
117	Percent completion rate	.64	.64	.64	.64	.64	.64	.64	.64	.64	.64	
118	Percent not-completed value	5	11	12	8	3	3	2	1	1	0	47
119	NPV after adjustment	8	19	22	15	6	5	4	2	1	1	83
120												
121												
122												
123												
124	Solve:TCP Access/GOS (International)											
125	Revenue	1248	3579	7572	12222	16685	17036	16445	8573	6541	4278	94180
126	Operating Income Ratio	.15	.20	.25	.30	.35	.40	.40	.40	.40	.40	
127	Operating Income	187	716	1893	3667	5840	6814	6578	3429	2617	1711	33452
128	Tax Rate	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	
129	Operating Income After Tax	131	501	1325	2567	4088	4770	4605	2401	1832	1198	23416
130	NPV Factors	.917	.764	.637	.530	.442	.368	.307	.256	.213	.178	
131	NPV	120	383	844	1362	1807	1757	1414	614	390	213	8903
132												
133	Discount Rate - International	0.2										
134												
135	Core Technologies rate	.770	.770	.770	.770	.770	.770	.770	.770	.770	.770	
136	Core Technologies value	92	295	650	1048	1391	1353	1088	473	301	164	6855
137	Percent completion rate	.64	.64	.64	.64	.64	.64	.64	.64	.64	.64	
138	Percent not-completed value	10	32	70	113	150	146	117	51	32	18	737
139	NPV after adjustment	18	56	124	200	266	259	208	90	57	31	1311
140												
141												
142												
143	Worldwide Summary											
144	Revenue	1888	4940	9087	13235	17102	17412	16764	8828	6720	4385	100362
145	Operating Income	283	988	2272	3971	5986	6965	6706	3531	2688	1754	35143
146	Operating Income after tax	191	670	1560	2755	4178	4863	4684	2464	1876	1224	24465
147	NPV	175	512	993	1462	1847	1792	1438	630	400	218	9465
148	NPV after adjustment	26	75	146	215	272	264	212	93	59	32	1393
149												
150												

Assembled Work Force Valuation

Based on information provided by Interlink and SSI, BGAI has computed the cost savings from acquiring and retaining 63 Interlink employees who were on board as of the date of acquisition. The other 102 employees either voluntarily or involuntarily resigned as of April 30, 1999 or were retained temporarily for transition activities.

The table below summarizes the key factors for valuing the Assembled Work Force:

Employee Category	Number of Retained Employees	Average Monthly Salary	Learning Period (months)	Recruiting Cost (% of Annual Salary)	% Usage of Recruiting
Sales/Marketing	16	5794	4	20	50
Senior Technical	17	7383	4	20	75
Other Technical	25	6276	3	20	75
Services	1	6667	2	20	75
Finance and Administration	4	2220	1	20	25
Total	63				

The number of employees were those actually retained on the NMD payroll just after the acquisition date, grouped into logical categories.

The average monthly salaries exclude benefits, which will be calculated as an additional 30% of salary.

Learning time is based on NMD experience in training comparable new hires.

Recruiting cost (from third-party recruiters) is based on a percentage of salary; the calculations are adjusted to take into consideration that many employees are directly hired, not obtained through outside recruiting firms. The percentage of personnel recruited through third parties is shown in the fifth column.

Training cost takes into consideration the lost productivity from the employees who are needed to provide on-the-job training or formal classes for new employees. This is assumed to be 15% of an equivalent employee's time during the learning period.

Relocation expenses, in NMD experience, have been needed in 50% of the cases for sales and technical employees. Where required, the amount paid averages \$15,000 per technical engineer and sales/marketing person.

To determine the cost savings, BGAI followed these steps (all results are shown in the table below):

1. For each employee category, the productivity loss in training a new employee is calculated as the average monthly salary (plus benefits) times the number of employees in that category times 50% of the learning period (assuming a linear increase in productivity from start date through the end of the learning period).
2. For each employee category, the recruiting cost is calculated by multiplying the number of employees by the average recruiting cost percentage times the average annual salary by the percent of cases requiring use of recruiters.
3. For each employee category, the cost of having someone actually provide on-the-job training is determined by multiplying the number of employees in that category by the trainer cost, taken at equivalent salary plus benefits.
4. For each employee category, the relocation cost is determined by multiplying the number of employees in that category by the relocation cost times the percentage requiring relocation.

The following table summarizes the results from these key cost savings elements:

Employee Category	Productivity Loss (\$000)	Recruiting Cost (\$000)	Trainer Costs (\$000)	Relocation Costs (\$000)	Total (\$000)
Sales/Marketing	241	111	36	120	508
Senior Technical	326	226	52	127	731
Other Technical	306	282	46	187	821
Services	9	12	1	0	22
Finance & Administration	6	5	1	0	12
Total	888	636	136	434	2094

The total is \$2,094,000 for the costs avoided by IMG by acquiring a portion of the assembled work force from Information Advantage. This figure must be adjusted to recognize that these savings are before taxes. Using the North American tax rate of 38%, the value would be reduced to \$1,298,000.

While there is normally a fairly high employee turnover in the computer software and services industry, IMG has had good experience in retaining its employees, particularly the more senior and more highly skilled individuals. Therefore, we would recommend amortizing the assembled work force value over an eight-year period, at the end of which time there would be less than 20% of the acquired employees still on the IMG payroll.

**Interlink Customer Base and Crossover
NMD Product Purchases Valuation**

Based on historic customer base information provided by Interlink and strategic plans provided by NMD, BGAI has determined the net present value of the projected additional operating income which NMD can realistically expect to obtain from Interlink's existing customers because of their purchase of other NMD products (e.g., other products in the Solve family).

NMD has just two Solve products which would be of direct interest and value to many of the Interlink customers as of the date of acquisition: Solve:Netmaster for TCP/IP and Solve:Netmaster for SNA.

All of the acquired Interlink customers are potential buyers of these Solve products. The table below shows the number of Interlink customers as of the date of acquisition subdivided between large, medium and small accounts (based on Interlink revenues from the accounts) and the expected percentage of these customers who would buy each of the Solve products over the next five years:

Crossover Buyer Analysis

	Large	Medium	Small	Total
Number of Non-Overlapped Interlink Customers as of Acquisition date	64	128	448	640
Solve:NIP				
% who will buy	90	70	30	--
# who will buy	58	90	134	282
Solve:NSNA				
% who will buy	20	20	20	--
# who will buy	13	26	90	129

The Interlink customer base includes all customers both in North America and International and has been adjusted downward to reflect the approximate 20% overlap with NMD customers.

The reason for the high purchase percentages for Solve:NIP is the close relationship which this NMD product has with the Interlink TCPaccess product. As used in Appendix J, the percentages take into consideration the erosion of the Interlink customer base for all reasons.

The incremental Information Advantage customer figures have been used to determine the revenues calculated in Appendix J for Solve:NIP. The other assumptions for Solve:NIP are summarized below:

Solve:NIP			
Product Assumptions	Large	Medium	Small
Price/Unit (\$000)	70	42	28
Add-on/Upgrade (%)	20	15	10
Maintenance Retention Rate	90 → .85	90 → .75	85 → .65
Maintenance Rate	.18	.18	.18
Services \$/New Sale	5	5	5

All customers will take maintenance for the first year. The operating income margins will stay at 40% over the seven-year valuation period.

The following assumptions were used in determining the net present value of the operating income:

- North America tax rate – 38%; International tax rate – 30%
- Discount rate (after tax) – 15%

Appendix J, Tables 11, 12, 21, 22, 31 and 41, show these calculations for Solve:NIP.

The incremental Information Advantage customer figures have also been used to determine the revenues calculated in Appendix J for Solve:NSNA. The other assumptions for Solve:NSNA are summarized below:

Solve:NSNA			
Product Assumptions	Large	Medium	Small
Price/Unit (\$000)	80	50	25
Add-on/Upgrade (%)	20	15	10
Maintenance Retention Rate	95 → .85	90 → .75	85 → .65
Maintenance Rate	.18	.18	.18
Services	none	none	none

All customers will take maintenance for the first year. The operating income margins will stay at 40% over the seven-year valuation period.

The following assumptions were used in determining the net present value of the operating income:

- North America tax rate – 38%; International tax rate – 30%
- Discount rate (after tax) – 15%

Appendix J, Tables 13, 14, 23, 24, 32 and 41, show these calculations for Solve:NSNA.

The total values are shown below:

(S000)	Net Present Value
Solve:NIP	4,668
Solve:NSNA	1,896
Total	6,564

IMG should be able to receive sufficient revenue and operating income from the crossover sales projected for the current Information Advantage customer base to justify a \$6,564,000 valuation to be amortized over ten years. While only a seven year forecast has been used, there would still be residual income from the installed accounts for an additional three years.

Other Technologies Valuation

The valuation of other technologies is based upon the value of the core technologies incorporated in the new products which IMG intends to market that were under development as of the acquisition date. It may also include any other acquired technologies that may be used in future IMG products.

In this case, the value of the Information Advantage core technologies is quite large, \$18,135,000.

This is based upon using the information and the calculations in Appendix G-2 and Appendix H.

This figure does not need to be reduced for percent not completed, since core technologies are viewed as proven programs.

The life expectancy for realizing the values from the acquisition of all rights to these technologies would be over a ten-year period, the same time period as used for the new product forecasts.

Going Concern and Goodwill Valuation

The remainder of the acquired intangible assets from Information Advantage consists of items which are difficult to individually assess. These include name recognition, operational offices, partnership and channel relationships, going concern practices and procedures, etc.

The remaining unallocated acquisition cost is \$18,882,000 which is determined by deducting the retained work force, customer base/professional services and other technologies from the total value of other intangibles of \$44,879,000.

These are considered long life assets so using a ten-year projected life is a reasonable basis for amortization.

Analysis of Acquisition Costs

Acquisition Costs (\$000)	
Purchase Price	\$63,907,000
Restructuring, Transition and Other Acquisition Costs (preliminary)	19,445,000
Total Acquisition Costs	\$83,352,000
Tangible Assets/Liabilities	
Assets/Liabilities	\$27,930,000
Asset Writeoffs and Book Value Adjustments	(11,601,000)
Net Tangibles	\$16,329,000
Intangibles	
Value of Intangibles	\$67,023,000
Value of Products	12,100,000
Value of Technologies	<u>10,044,000</u>
Value of Intangibles less Products and Technologies	\$44,879,000
Other Intangibles	
Value of Other Intangibles	\$44,879,000
Value of Retained Personnel	1,298,000
Value of Customer Base	6,564,000
Value of Other Technologies	<u>18,135,000</u>
Remainder of Intangibles	\$18,882,000
Goodwill/Going Concern Value	\$18,882,000
Non-Allocated Acquisition Costs	-0-

	A	B	C	D	E	F	G	H	I
1	Revenue Worksheet - SOLVE:Netmaster for TCP/IP (North America)								11
2									
3	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
4									
5	New Licenses								
6	Large Unit License Fee	70	70	70	70	70	70	70	
7	Medium Unit License Fee	42	42	42	42	42	42	42	
8	Small Unit License Fee	28	28	28	28	28	28	28	
9									
10	Upgrades/Add-ons <ratio to maint base>								
11	Large	1.11	1.11	1.11	1.11	1.11	1.11	1.11	
12	Medium	.83	.83	.83	.83	.83	.83	.83	
13	Small	.55	.55	.55	.55	.55	.55	.55	
14									
15	Services <ratio to new licenses>								
16	Large	.07	.07	.07	.07	.07	.07	.07	
17	Medium	.10	.10	.10	.10	.10	.10	.10	
18	Small	.15	.15	.15	.15	.15	.15	.15	
19									
20	Maintenance Calculation: Large								
21	Previous Year Maintenance	0	63	135	242	349	428	449	
22	Retention Rate	.95	.95	.95	.90	.90	.85	.85	
23	Remaining Maintenance	0	60	128	218	314	363	381	1465
24	New Licenses and New Upgrades	350	416	632	732	629	473	423	
25	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
26	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
27	New License/Upgrade Maintenance	63	75	114	132	113	85	76	658
28	Total Maintenance: Large - Revenue	63	135	242	349	428	449	458	2123
29									
30	Maintenance Calculation: Medium								
31	Previous Year Maintenance	0	45	123	217	288	342	322	
32	Retention Rate	.90	.90	.90	.85	.85	.80	.75	
33	Remaining Maintenance	0	41	110	185	245	274	241	1096
34	New Licenses and New Upgrades	252	454	596	573	539	269	200	
35	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
36	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
37	New License/Upgrade Maintenance	45	82	107	103	97	48	36	519
38	Total Maintenance: Medium - Revenue	45	123	217	288	342	322	278	1615
39									
40	Maintenance Calculation: Small								
41	Previous Year Maintenance	0	40	108	182	240	249	206	
42	Retention Rate	.85	.85	.85	.80	.75	.70	.65	
43	Remaining Maintenance	0	34	92	145	180	174	134	760
44	New Licenses and New Upgrades	224	411	499	528	379	180	74	
45	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
46	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
47	New License/Upgrade Maintenance	40	74	90	95	68	32	13	413
48	Total Maintenance: Small - Revenue	40	108	182	240	249	206	147	1173
49									
50									

	J	K	L	M	N	O	P	Q	R
1	Revenue Worksheet - SOLVE:Netmaster for TCP/IP (International)								12
2									
3	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
4									
5	New Licenses								
6	Large Unit License Fee	70	70	70	70	70	70	70	
7	Medium Unit License Fee	42	42	42	42	42	42	42	
8	Small Unit License Fee	28	28	28	28	28	28	28	
9									
10	Upgrades/Add-ons <ratio to maint base>								
11	Large	1.11	1.11	1.11	1.11	1.11	1.11	1.11	
12	Medium	.83	.83	.83	.83	.83	.83	.83	
13	Small	.55	.55	.55	.55	.55	.55	.55	
14									
15	Services <ratio to new licenses>								
16	Large	.07	.07	.07	.07	.07	.07	.07	
17	Medium	.10	.10	.10	.10	.10	.10	.10	
18	Small	.15	.15	.15	.15	.15	.15	.15	
19									
20	Maintenance Calculation: Large								
21	Previous Year Maintenance	0	63	135	242	349	428	449	
22	Retention Rate	.95	.95	.95	.90	.90	.85	.85	
23	Remaining Maintenance	0	60	128	218	314	363	381	1465
24	New Licenses and New Upgrades	350	416	632	732	629	473	423	
25	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
26	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
27	New License/Upgrade Maintenance	63	75	114	132	113	85	76	658
28		63	135	242	349	428	449	458	2123
29									
30	Maintenance Calculation: Medium								
31	Previous Year Maintenance	0	45	123	217	288	327	308	
32	Retention Rate	.90	.90	.90	.85	.85	.80	.75	
33	Remaining Maintenance	0	41	110	185	245	261	231	1073
34	New Licenses and New Upgrades	252	454	596	573	455	259	192	
35	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
36	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
37	New License/Upgrade Maintenance	45	82	107	103	82	47	35	501
38	Total Maintenance: Medium - Revenue	45	123	217	288	327	308	266	1574
39									
40	Maintenance Calculation: Small								
41	Previous Year Maintenance	0	40	108	182	240	249	206	
42	Retention Rate	.85	.85	.85	.80	.75	.70	.65	
43	Remaining Maintenance	0	34	92	145	180	174	134	760
44	New Licenses and New Upgrades	224	411	499	528	379	180	74	
45	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
46	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
47	New License/Upgrade Maintenance	40	74	90	95	68	32	13	413
48	Total Maintenance: Small - Revenue	40	108	182	240	249	206	147	1173
49									
50									

	S	T	U	V	W	X	Y	Z	AA
1	Revenue Worksheet - SOLVE:Netmaster for SNA (North America)								
2									13
3	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
4									
5	New Licenses								
6	Large Unit License Fee	80	80	80	80	80	80	80	
7	Medium Unit License Fee	50	50	50	50	50	50	50	
8	Small Unit License Fee	25	25	25	25	25	25	25	
9									
10	Upgrades/Add-ons <ratio to maint base>								
11	Large	1.11	1.11	1.11	1.11	1.11	1.11	1.11	
12	Medium	.83	.83	.83	.83	.83	.83	.83	
13	Small	.55	.55	.55	.55	.55	.55	.55	
14									
15	Services <ratio to new licenses>								
16	Large	.00	.00	.00	.00	.00	.00	.00	
17	Medium	.00	.00	.00	.00	.00	.00	.00	
18	Small	.00	.00	.00	.00	.00	.00	.00	
19									
20	Maintenance Calculation - Large								
21	Previous Year Maintenance	0	43	78	103	112	121	123	
22	Retention Rate	.95	.95	.95	.90	.90	.85	.85	
23	Remaining Maintenance	0	41	74	93	100	102	104	516
24	New Licenses and New Upgrades	240	206	162	103	111	114	116	
25	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
26	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
27	New License/Upgrade Maintenance	43	37	29	19	20	20	21	189
28	Total Maintenance-Large - Revenue	43	78	103	112	121	123	125	705
29									
30	Maintenance Calculation - Medium								
31	Previous Year Maintenance	0	18	55	93	117	115	105	
32	Retention Rate	.90	.90	.90	.85	.85	.80	.75	
33	Remaining Maintenance	0	16	49	79	100	92	79	415
34	New Licenses and New Upgrades	100	213	241	215	83	76	66	
35	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
36	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
37	New License/Upgrade Maintenance	18	38	43	39	15	14	12	179
38	Total Maintenance: Medium - Revenue	18	55	93	117	115	105	91	594
39									
40	Maintenance Calculation - Small								
41	Previous Year Maintenance	0	23	66	116	156	155	119	
42	Retention Rate	.85	.85	.85	.80	.75	.70	.65	
43	Remaining Maintenance	0	19	56	93	117	109	78	471
44	New Licenses and New Upgrades	125	261	331	351	214	60	43	
45	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
46	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
47	New License/Upgrade Maintenance	23	47	60	63	39	11	8	249
48	Total Maintenance: Small - Revenue	23	66	116	156	155	119	85	720
49									
50									

	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	Revenue Worksheet - SOLVE:Netmaster for SNA (International)								
2									14
3	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
4									
5	New Licenses								
6	Large Unit License Fee	80	80	80	80	80	80	80	80
7	Medium Unit License Fee	50	50	50	50	50	50	50	50
8	Small Unit License Fee	25	25	25	25	25	25	25	25
9									
10	Upgrades/Add-ons <ratio to maint base>								
11	Large	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
12	Medium	.83	.83	.83	.83	.83	.83	.83	.83
13	Small	.55	.55	.55	.55	.55	.55	.55	.55
14									
15	Services <ratio to new licenses>								
16	Large	.00	.00	.00	.00	.00	.00	.00	.00
17	Medium	.00	.00	.00	.00	.00	.00	.00	.00
18	Small	.00	.00	.00	.00	.00	.00	.00	.00
19									
20	Maintenance Calculation: Large								
21	Previous Year Maintenance	0	29	76	115	125	135	137	
22	Retention Rate	.95	.95	.95	.90	.90	.85	.85	
23	Remaining Maintenance	0	27	72	104	112	114	117	547
24	New Licenses and New Upgrades	160	270	240	115	125	127	130	
25	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
26	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
27	New License/Upgrade Maintenance	29	49	43	21	22	23	23	210
28	Total Maintenance: Large - Revenue	29	76	115	125	135	137	140	757
29									
30	Maintenance Calculation: Medium								
31	Previous Year Maintenance	0	18	64	102	117	115	106	
32	Retention Rate	.90	.90	.90	.85	.85	.80	.75	
33	Remaining Maintenance	0	16	57	87	100	92	79	431
34	New Licenses and New Upgrades	100	263	248	172	83	76	66	
35	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
36	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
37	New License/Upgrade Maintenance	18	47	45	31	15	14	12	181
38	Total Maintenance: Medium - Revenue	18	64	102	117	115	106	91	612
39									
40	Maintenance Calculation: Small								
41	Previous Year Maintenance	0	23	66	116	156	155	119	
42	Retention Rate	.85	.85	.85	.80	.75	.70	.65	
43	Remaining Maintenance	0	19	56	93	117	109	78	471
44	New Licenses and New Upgrades	125	261	331	351	214	60	43	
45	Maintenance/License Price Ratio	.18	.18	.18	.18	.18	.18	.18	
46	Initial Maintenance Rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
47	New License/Upgrade Maintenance	23	47	60	63	39	11	8	249
48	Total Maintenance: Small - Revenue	23	66	116	156	155	119	85	720
49									
50									

	A	B	C	D	E	F	G	H	I
51	Projections for SOLVE:Netmaster for TCP/IP (North America)								21
52									
53	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
54									
55	New Product Licenses								
56	Large-Sized Customers								
57	# of New Customers	5	5	7	7	4	1	0	29
58	Revenue - Licenses	350	350	490	490	280	70	0	2030
59	Cumulative Revenue - Licenses	350	700	1190	1680	1960	2030	2030	
60	Medium-Sized Customers								
61	# of New Customers	6	10	12	10	6	1	0	45
62	Revenue - Licenses	252	420	504	420	252	42	0	1890
63	Cumulative Revenue - Licenses	252	672	1176	1596	1848	1890	1890	
64	Small-Sized Customers								
65	# of New Customers	8	14	16	16	10	3	0	67
66	Revenue - Licenses	224	392	448	448	280	84	0	1876
67	Cumulative Revenue - Licenses	224	616	1064	1512	1792	1876	1876	
68	Total - New License Revenue	826	1162	1442	1358	812	196	0	5796
69									
70	Upgrades/Add-ons - Revenue								
71	Large-Sized Customers	0	66	142	242	349	403	423	1626
72	Medium-Sized Customers	0	34	92	153	203	217	192	891
73	Small-Sized Customers	0	19	51	80	99	96	74	418
74	Total Upgrade Revenue	0	119	284	475	651	716	689	2935
75	Cumulative Total-Upgrade Revenues	0	119	403	878	1530	2246	2935	
76									
77	Services - Revenue								
78	Large-Sized Customers	25	25	34	34	20	5	0	142
79	Medium-Sized Customers	25	42	50	42	25	4	0	189
80	Small-Sized Customers	34	59	67	67	42	13	0	281
81	Total Services Revenue	83	125	152	144	87	22	0	613
82	Cumulative Total-Services Revenues	83	209	361	504	591	613	613	
83									
84									
85									
86	Maintenance								
87	Large-Sized Customers	63	135	242	349	428	449	458	2123
88	Medium-Sized Customers	45	123	217	288	327	308	266	1574
89	Small-Sized Customers	40	108	182	240	249	206	147	1173
90	Total Maintenance	149	366	641	878	1003	963	871	4870
91									
92	Total Revenues								
93	Large-Sized Customers	438	576	908	1115	1076	927	881	5921
94	Medium-Sized Customers	323	618	863	903	807	571	457	4544
95	Small-Sized Customers	298	578	748	836	670	399	221	3748
96									
97	Grand Total Revenue	1058	1772	2519	2854	2553	1897	1559	14213
98									
99									
100									

	J	K	L	M	N	O	P	Q	R
51	Projections for SOLVE:Netmaster for TCP/IP (International)								22
52									
53	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
54									
55	New Product Licenses								
56	Large-Sized Customers								
57	# of New Customers	5	5	7	7	4	1	0	29
58	Revenue - Licenses	350	350	490	490	280	70	0	2030
59	Cumulative Revenue - Licenses	350	700	1190	1680	1960	2030	2030	
60	Medium-Sized Customers								
61	# of New Customers	6	10	12	10	6	1	0	45
62	Revenue - Licenses	252	420	504	420	252	42	0	1890
63	Cumulative Revenue - Licenses	252	672	1176	1596	1848	1890	1890	
64	Small-Sized Customers								
65	# of New Customers	8	14	16	16	10	3	0	67
66	Revenue - Licenses	224	392	448	448	280	84	0	1876
67	Cumulative Revenue - Licenses	224	616	1064	1512	1792	1876	1876	
68	Total - New License Revenue	826	1162	1442	1358	812	196	0	5796
69									
70	Upgrades/Add-ons - Revenue								
71	Large-Sized Customers	0	66	142	242	349	403	423	1626
72	Medium-Sized Customers	0	34	92	153	203	217	192	891
73	Small-Sized Customers	0	19	51	80	99	96	74	418
74	Total Upgrade Revenue	0	119	284	475	651	716	689	2935
75	Cumulative Total-Upgrade Revenues	0	119	403	878	1530	2246	2935	
76									
77	Services - Revenue								
78	Large-Sized Customers	25	25	34	34	20	5	0	142
79	Medium-Sized Customers	25	42	50	42	25	4	0	189
80	Small-Sized Customers	34	59	67	67	42	13	0	281
81	Total Services Revenue	83	125	152	144	87	22	0	613
82	Cumulative Total-Services Revenues	83	209	361	504	591	613	613	
83									
84									
85									
86	Maintenance								
87	Large-Sized Customers	63	135	242	349	428	449	458	2123
88	Medium-Sized Customers	45	123	217	288	327	308	266	1574
89	Small-Sized Customers	40	108	182	240	249	206	147	1173
90	Total Maintenance	149	366	641	878	1003	963	871	4870
91									
92	Total Revenues								
93	Large-Sized Customers	438	576	908	1115	1076	927	881	5921
94	Medium-Sized Customers	323	618	863	903	807	571	457	4544
95	Small-Sized Customers	298	578	748	836	670	399	221	3748
96									
97	Grand Total Revenue	1058	1772	2519	2854	2553	1897	1559	14213
98									
99									
100									

	S	T	U	V	W	X	Y	Z	AA
51	Projections for SOLVE:Netmaster for SNA (North America)								
52									23
53	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
54									
55	<u>New Product Licenses</u>								
56	Large-Sized Customers								
57	# of New Customers	3	2	1	0	0	0	0	6
58	Revenue - Licenses	240	160	80	0	0	0	0	480
59	Cumulative Revenue - Licenses	240	400	480	480	480	480	480	
60	Medium-Sized Customers								
61	# of New Customers	2	4	4	3	0	0	0	13
62	Revenue - Licenses	100	200	200	150	0	0	0	650
63	Cumulative Revenue - Licenses	100	300	500	650	650	650	650	
64	Small-Sized Customers								
65	# of New Customers	5	10	12	12	6	0	0	45
66	Revenue - Licenses	125	250	300	300	150	0	0	1125
67	Cumulative Revenue - Licenses	125	375	675	975	1125	1125	1125	
68	Total - New License Revenue	465	610	580	450	150	0	0	2255
69									
70	<u>Upgrades/Add-ons - Revenue</u>								
71	Large-Sized Customers	0	46	82	103	111	114	116	572
72	Medium-Sized Customers	0	13	41	65	83	76	66	344
73	Small-Sized Customers	0	11	31	51	64	60	43	259
74	Total Upgrade Revenue	0	70	154	219	259	250	224	1175
75	Cumulative Total-Upgrade Revenues	0	70	223	443	701	951	1175	
76									
77	<u>Services - Revenue</u>								
78	Large-Sized Customers	0	0	0	0	0	0	0	0
79	Medium-Sized Customers	0	0	0	0	0	0	0	0
80	Small-Sized Customers	0	0	0	0	0	0	0	0
81	Total Services Revenue	0	0	0	0	0	0	0	0
82	Cumulative Total-Services Revenues	0	0	0	0	0	0	0	0
83									
84									
85									
86	<u>Maintenance</u>								
87	Large-Sized Customers	43	78	103	112	121	123	125	705
88	Medium-Sized Customers	18	55	93	117	115	105	91	594
89	Small-Sized Customers	23	66	116	156	155	119	85	720
90	Total Maintenance	84	199	312	385	391	348	302	2019
91									
92	<u>Total Revenues</u>								
93	Large-Sized Customers	283	284	266	215	232	237	241	1757
94	Medium-Sized Customers	118	268	333	333	197	182	157	1588
95	Small-Sized Customers	148	327	447	507	370	179	128	2104
96									
97	Grand Total Revenue	549	878	1045	1054	799	597	526	5449
98									
99									
100									

	AB	AC	AD	AE	AF	AG	AH	AI	AJ
51	Projections for SOLVE:Netmaster for SNA (International)								24
52									
53	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
54									
55	New Product Licenses								
56	Large-Sized Customers								
57	# of New Customers	2	3	2	0	0	0	0	7
58	Revenue - Licenses	160	240	160	0	0	0	0	560
59	Cumulative Revenue - Licenses	160	400	560	560	560	560	560	
60	Medium-Sized Customers								
61	# of New Customers	2	5	4	2	0	0	0	13
62	Revenue - Licenses	100	250	200	100	0	0	0	650
63	Cumulative Revenue - Licenses	100	350	550	650	650	650	650	
64	Small-Sized Customers								
65	# of New Customers	5	10	12	12	6	0	0	45
66	Revenue - Licenses	125	250	300	300	150	0	0	1125
67	Cumulative Revenue - Licenses	125	375	675	975	1125	1125	1125	
68	Total - New License Revenue	385	740	660	400	150	0	0	2335
69									
70	Upgrades/Add-ons - Revenue								
71	Large-Sized Customers	0	30	80	115	125	127	130	607
72	Medium-Sized Customers	0	13	48	72	83	76	66	358
73	Small-Sized Customers	0	11	31	51	64	60	43	259
74	Total Upgrade Revenue	0	54	159	238	272	263	238	1224
75	Cumulative Total-Upgrade Revenues	0	54	213	451	723	986	1224	
76									
77	Services - Revenue								
78	Large-Sized Customers	0	0	0	0	0	0	0	0
79	Medium-Sized Customers	0	0	0	0	0	0	0	0
80	Small-Sized Customers	0	0	0	0	0	0	0	0
81	Total Services Revenue	0	0	0	0	0	0	0	0
82	Cumulative Total-Services Revenues	0	0	0	0	0	0	0	0
83									
84									
85									
86	Maintenance								
87	Large-Sized Customers	29	76	115	125	135	137	140	757
88	Medium-Sized Customers	18	64	102	117	115	106	91	612
89	Small-Sized Customers	23	66	116	156	155	119	85	720
90	Total Maintenance	69	206	333	398	405	362	316	2089
91									
92	Total Revenues								
93	Large-Sized Customers	189	346	356	240	259	264	270	1924
94	Medium-Sized Customers	118	327	349	289	198	182	157	1620
95	Small-Sized Customers	148	327	447	507	370	179	128	2104
96									
97	Grand Total Revenue	454	1000	1151	1036	826	625	554	5648
98									
99									
100									

	A	B	C	D	E	F	G	H	I
101	Costs for SOLVE:Netmaster for TCP/IP (Worldwide)								
102									31
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
104									
105	North America								
106	Revenues	1058	1772	2519	2854	2553	1897	1559	14213
107									
108	Cost of revenues	rate	.05	.05	.05	.05	.05	.05	
109		cost	53	89	126	143	128	95	78
110	Marketing and sales	rate	.25	.25	.25	.25	.25	.25	711
111		cost	264	443	630	714	638	474	390
112	R and D	rate	.15	.15	.15	.15	.15	.15	3553
113		cost	159	266	378	428	383	285	2132
114	G and A	rate	.15	.15	.15	.15	.15	.15	
115		cost	159	266	378	428	383	285	2132
116	Total Costs: North America		635	1063	1512	1713	1532	1138	8528
117									
118	Cost/Revenue Ratio: North America		.60	.60	.60	.60	.60	.60	.60
119									
120	International								
121	Revenues	1058	1772	2519	2854	2553	1897	1559	14213
122									
123	Cost of revenues	rate	.05	.05	.05	.05	.05	.05	
124		cost	53	89	126	143	128	95	78
125	Marketing and sales	rate	.25	.25	.25	.25	.25	.25	711
126		cost	264	443	630	714	638	474	390
127	R and D	rate	.15	.15	.15	.15	.15	.15	3553
128		cost	159	266	378	428	383	285	2132
129	G and A	rate	.15	.15	.15	.15	.15	.15	
130		cost	159	266	378	428	383	285	2132
131									
132	Total Costs: International		635	1063	1512	1713	1532	1138	8528
133									
134	Cost/Revenue Ratio: International		.60	.60	.60	.60	.60	.60	.60
135									
136									
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147									
148									
149									
150									

	J	K	L	M	N	O	P	Q	R
101	Costs for SOLVE:Netmaster for SNA (Worldwide)								32
102									
103	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
104									
105	North America								
106	Revenues	549	878	1045	1054	799	597	526	5449
107									
108	Cost of revenues	rate	.05	.05	.05	.05	.05	.05	
109		cost	27	44	52	53	40	30	26
110	Marketing and sales	rate	.25	.25	.25	.25	.25	.25	272
111		cost	137	220	281	264	200	149	1362
112	R and D	rate	.15	.15	.15	.15	.15	.15	
113		cost	82	132	157	158	120	90	817
114	G and A	rate	.15	.15	.15	.15	.15	.15	
115		cost	82	132	157	158	120	90	817
116	Total Costs: North America		329	527	627	632	479	358	3269
117									
118	Cost/Revenue Ratio: North America		.60	.60	.60	.60	.60	.60	.60
119									
120	International								
121	Revenues	454	1000	1151	1036	826	625	554	5648
122									
123	Cost of revenues	rate	.05	.05	.05	.05	.05	.05	
124		cost	23	50	58	52	41	31	282
125	Marketing and sales	rate	.25	.25	.25	.25	.25	.25	
126		cost	114	250	288	259	207	156	1412
127	R and D	rate	.15	.15	.15	.15	.15	.15	
128		cost	68	150	173	155	124	94	847
129	G and A	rate	.15	.15	.15	.15	.15	.15	
130		cost	68	150	173	155	124	94	847
131									
132	Total Costs: International		273	600	691	622	496	375	3389
133									
134	Cost/Revenue Ratio: International		.60	.60	.60	.60	.60	.60	
135									
136									
137									
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141									
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147									
148									
149									
150									

	A	B	C	D	E	F	G	H	I
151	Net Present Value -- SOLVE: Netmaster Products (Worldwide)								41
152									
153	(\$000)	2000	2001	2002	2003	2004	2005	2006	Total
154	SNIP North America								
155	Revenue	1058	1772	2519	2854	2553	1897	1559	14213
156	Operating Income Ratio	.40	.40	.40	.40	.40	.40	.40	
157	Operating Income	423	709	1008	1142	1021	759	624	5685
158	Tax Rate	.38	.38	.38	.38	.38	.38	.38	
159	Operating Income After Tax	262	439	625	708	633	470	387	3525
160	NPV Factors	.935	.813	.707	.615	.534	.465	.404	
161	NPV	245	357	442	435	338	219	156	2193
162									
163	Discount Rate	.15							
164									
165	SNIP International								
166	Revenue	1058	1772	2519	2854	2553	1897	1559	14213
167	Operating Income Ratio	.40	.40	.40	.40	.40	.40	.40	
168	Operating Income	423	709	1008	1142	1021	759	624	5685
169	Tax Rate	.30	.30	.30	.30	.30	.30	.30	
170	Operating Income After Tax	296	496	705	799	715	531	437	3980
171	NPV Factors	.935	.813	.707	.615	.534	.465	.404	
172	NPV	277	403	499	491	382	247	176	2475
173									
174	SNSNA North America								
175	Revenue	549	878	1045	1054	799	597	526	5449
176	Operating Income Ratio	.40	.40	.40	.40	.40	.40	.40	
177	Operating Income	219	351	418	422	320	239	210	2180
178	Tax Rate	.38	.38	.38	.38	.38	.38	.38	
179	Operating Income After Tax	136	218	259	261	198	148	130	1351
180	NPV Factors	.935	.813	.707	.615	.534	.465	.404	
181	NPV	127	177	183	161	106	69	53	876
182									
183	SNSNA International								
184	Revenue	454	1000	1151	1036	826	625	554	5648
185	Operating Income Ratio	.40	.40	.40	.40	.40	.40	.40	
186	Operating Income	182	400	461	414	331	250	222	2259
187	Tax Rate	.30	.30	.30	.30	.30	.30	.30	
188	Operating Income After Tax	127	280	322	290	231	175	155	1581
189	NPV Factors	.935	.813	.707	.615	.534	.465	.404	
190	NPV	119	228	228	178	124	81	63	1020
191									
192	Summary								
193	SNIP Revenue	2116	3544	5038	5709	5106	3794	3119	28427
194	SNIP NPV	522	761	940	926	721	466	333	4688
195	SNSNA Revenue	1003	1878	2197	2090	1625	1223	1080	11097
196	SNSNA NPV	246	405	411	339	230	150	115	1896
197									
198	Total NPV	768	1165	1351	1265	950	616	448	6564
199									
200									

BG
SSI / Interlink

BURTON GRAD ASSOCIATES, INC.

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BURTGRAD@AOL.COM

Sterling Software, Inc.
300 Crescent Court
Suite 1200
Dallas, Texas 75201-1000

Invoice #2943

July 6, 1999

Project: #133-74

Attention: Paul Baker
Copy: Lee McElrath

INVOICE

Project: Valuation of Interlink Intangible Assets

Consulting Services: June 1 - 30, 1999

Burton Grad	4.5 days @ \$2,500/day	\$11,250.00
Elizabeth Virgo	.5 day @ \$1,500/day	<u>750.00</u>

Total Fees \$12,000.00

Expenses Incurred:

Express Delivery	\$144.50
Telephone/fax	<u>32.16</u>

Total Expenses \$176.66

Total Invoice \$12,176.66

Payment Is Due Within 15 Days of Receipt of Invoice

SSI/IL

Subj: write-up
Date: 7/2/99 8:37:51 AM Eastern Daylight Time
From: Lee.McElrath@sterling.com (McElrath, Lee)
To: burtgrad@aol.com ('burtgrad@aol.com')

Burt, I have not received your formal write-up yet. When can I expect to see this?

Regards,

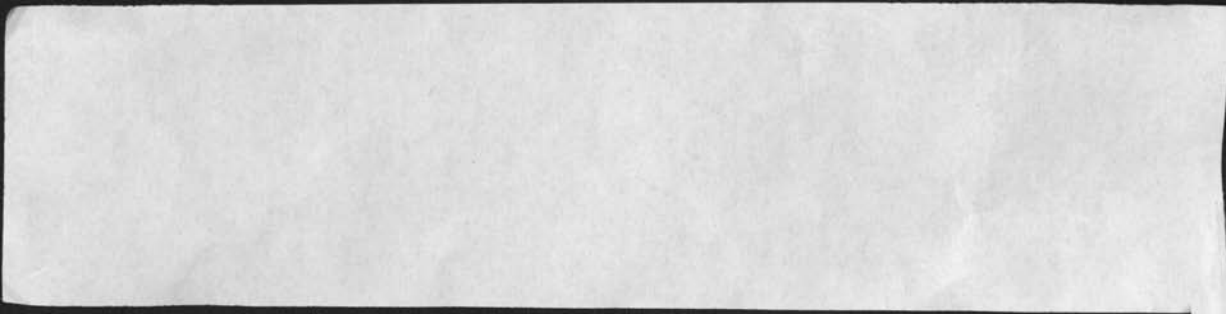
Lee McElrath
V.P. Finance
Network Management Division
Sterling Software

703-264-8426
703-850-5322 (mobile)

lee.mcelrath@nmd.sterling.com

----- Headers -----

Return-Path: <Lee.McElrath@sterling.com>
Received: from rly-yh04.mx.aol.com (rly-yh04.mail.aol.com [172.18.147.36]) by air-yh04.mail.aol.com (v59.54) with SMTP; Fri, 02 Jul 1999 08:37:51 -0400
Received: from ns.reston.nmd.sterling.com (ns.reston.ond.sterling.com [199.0.82.66]) by rly-yh04.mx.aol.com (vx) with SMTP; Fri, 02 Jul 1999 08:37:43 2000
Received: ns.reston.nmd.sterling.com
id AA11828; Fri, 2 Jul 1999 08:34:28 -0400
Message-Id: <43CCFB30BD0AD311B2CA00A0C9E456F761D93D@reston.ond.sterling.com>
From: "McElrath, Lee" <Lee.McElrath@sterling.com>
To: "burtgrad@aol.com" <burtgrad@aol.com>
Subject: write-up
Date: Fri, 2 Jul 1999 08:37:41 -0400
Mime-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2448.0)
Content-Type: text/plain;
charset="iso-8859-1"



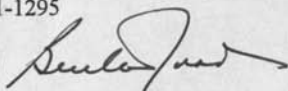
BURTON GRAD ASSOCIATES, INC.
101 POST ROAD EAST
WESTPORT, CONNECTICUT 06880
(203) 222-8718 FAX: (203) 222-8728
E-MAIL: BURTGRAD@AOL.COM

Date: June 25, 1999

No. of Pages including cover: 7

To: Paul Baker
Fax: 214-981-1295

From: Burton Grad



Subject: Interlink Valuation

Enclosed are the following pages to be put into the draft Interlink report to reflect the most recent acquisition values you have sent to me:

ii
iii
VII-3
VIII-1
Appendix I-4
Appendix I-5

Please call me if you have any questions.

There were four products which were in the process of development by Interlink; they will become the basis for four corresponding Solve products, each of which will depend significantly on the core and in-process technologies acquired from Interlink. BGAI has determined the value of the total Interlink technology contributions by preparing revenue and operating cost projections for these new Solve products and has then allocated the NPV of the operating income proportionately to the contribution from the Interlink core technologies and the contribution of the new Interlink technologies (those in process). A further reduction in value was made to reflect the percent not yet completed of these new Solve products as of the acquisition date.

The assumptions for and results of the calculations for the value of the acquired Interlink in-process research and development technologies as incorporated into SSI's intended new products are shown in Section VI. The results are summarized here:

New Product (S000)	Total Product Value	Core Technologies Value	% Non- Complete Value	Interlink In-Process Technology Value
Solve: Sentinel/IP	14,485	5,070	2,260	7,156
Solve: Turbo/API	3,556	2,294	164	1,098
Solve: Turbo/FTP	4,344	3,649	167	528
Solve: TCPaccess/GOS	9,247	7,121	766	1,361
Total	31,632	18,134	3,357	10,143

The in-process technology value of \$10,143,000 must be expensed per FAS2 rules on research and development expenses, as of the date of acquisition, since the products which will incorporate these technologies did not yet meet FAS86 qualifications for development capitalization as of the date of acquisition.

The total measured value from products and technologies is \$22,606,000. To determine the residual value to be capitalized as other intangibles, this figure was deducted from the net intangible asset purchase value; this was computed by adding the acquisition costs to the purchase price and then adjusting for the net tangible value (tangible assets less tangible liabilities). SSI has determined the total value is \$83,352,000 after computing the total acquisition costs on a preliminary basis. The intangibles value is \$67,023,000 after deducting \$16,329,000 for the net tangible value. The residual value of the other intangibles is \$44,417,000 consisting primarily of avoided employee costs, customer relations, core technologies and going concern/goodwill.

Other Intangibles	Value of Intangibles (\$000)	Amortization Period
Retained Employees	1,382	8 years
Customer Base Value for other Solve Products	6,662	10 years
Other Technologies	18,134	10 years
Going Concern/Goodwill	18,239	10 years
Total	44,417	

The total value of other intangibles is \$44,417,000. We recommend that these individual values be amortized on a straight line basis over the periods noted above.

These values and amortization periods represent BGAI recommendations to SSI for its allocation of the Interlink intangible asset purchase value among products, in-process R&D technologies and other intangibles.

C. Other Technologies

Interlink has been developing advanced technologies for its key products and markets for a number of years. However, at the time of the acquisition, NMD could not identify any technologies other than those used for the new Solve products.

Appendix I-3 identifies the value of these e-control and TCPaccess core technologies. The resulting valuation of the acquired Interlink core technologies is \$18,134,000 and should be amortized over a ten-year period, the same period as the new Solve products forecast. See Appendix I-3 for further information.

D. Going Concern and Goodwill Valuation

In addition to the other intangibles itemized in this Section, there are some other going concern and goodwill values which need to be considered in the total valuation process. These items cannot be valued individually so are only assessed as a group. Appendix I-4 provides the reasoning for the going concern and goodwill values. The result is a valuation of \$18,239,000 which should be amortized over a ten-year period.

E. Summary of Other Intangibles Valuation

These four elements constitute the whole of the value of the other intangibles. The life expectancy of each is shown below:

Other Intangibles	Value (\$000)	Amortizable Life
Retained Employees	1,382	8 Years
Customer Base for other NMD products	6,662	10 years
Core Technologies	18,134	10 years
Going Concern and Goodwill	18,239	10 years
Total	44,417	

BGAI believes that the other intangibles value of \$44,417,000 realistically represents the value of all of these acquired elements and that it should be allocated and amortized as shown above.

SECTION VIII. Summary of Valuations and Financial Recommendations

SSI has determined that the preliminary acquisition cost for all of the intangible assets obtained from Interlink is \$67,023,000 (see Appendix I-5).

In Section V, we determined that the net present value of the carryover Interlink products was \$12,463,000. This must be capitalized and should be amortized on a straight line basis over five years.

In Section VI, we determined that the net present value of the acquired Interlink technologies for the new Solve products was \$31,632,000. After deductions to recognize the percent not completed as of the acquisition date and the reuse of core technologies, BGAI recommends that SSI use \$10,143,000 as the value of the acquired new technologies assets as of the date of the acquisition. This value should be written off as of the acquisition date under FAS2 IPR&D rules.

The following calculations were used to determine the total purchase price and the value remaining for the other intangible assets:

	(S000)
Asset Purchase Price	63,907
Acquisition Costs – Preliminary	19,445
Total Purchase Price	83,352
Less: Total Tangible Assets minus Liabilities	16,329
Total Value of Acquired Intangible Assets	67,023
Less: Products	12,463
Less: Technologies	10,143
Value of Other Intangibles	44,417

In Section VII the total valuation of the other Interlink intangible assets to be allocated was computed as \$44,417,000, principally comprised of trained personnel, customer base for other NMD products, other technologies and going concern/goodwill value. These other intangibles should be amortized as shown below:

Other Intangibles	Value (S000)	Amortizable Life
Retained Employees	1,382	8 Years
Customer Base	6,662	10 years
Core Technologies	18,134	10 years
Going Concern and Goodwill	18,239	10 years
Total	44,417	

The sum of all of these intangible assets matches the purchase price plus other acquisition costs less the net value of tangible assets and tangible liabilities.

Going Concern and Goodwill Valuation

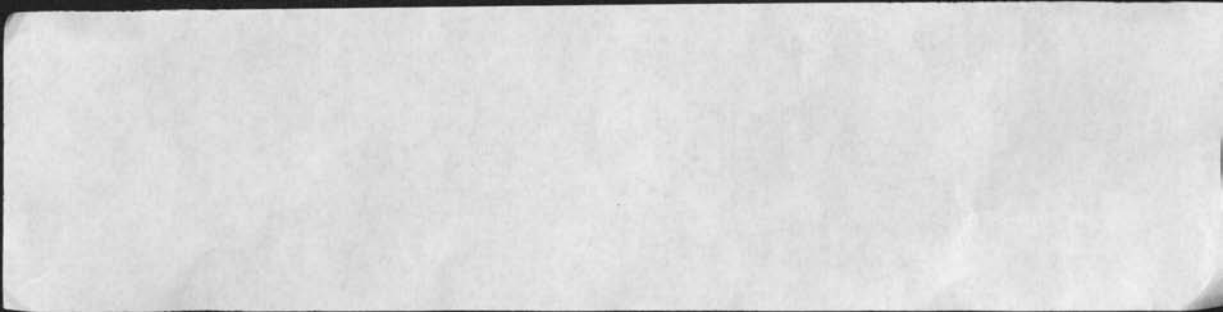
The remainder of the acquired intangible assets from Interlink consists of items which are difficult to individually assess. These include name recognition, operational offices, partnership and channel relationships, going concern practices and procedures, etc.

The remaining unallocated acquisition cost is \$18,239,000 which is determined by deducting the retained work force, customer base/professional services and other technologies from the total value of other intangibles of \$44,417,000.

These are considered long life assets so using a ten-year projected life is a reasonable basis for amortization.

Analysis of Acquisition Costs

Acquisition Costs (\$000)	
Purchase Price	\$63,907,000
Restructuring, Transition and Other Acquisition Costs (preliminary)	19,445,000
Total Acquisition Costs	\$83,352,000
Tangible Assets/Liabilities	
Assets/Liabilities	\$27,930,000
Asset Writeoffs and Book Value Adjustments	(11,601,000)
Net Tangibles	\$16,329,000
Intangibles	
Value of Intangibles	\$67,023,000
Value of Products	12,463,000
Value of Technologies	10,143,000
Value of Intangibles less Products and Technologies	\$44,417,000
Other Intangibles	
Value of Other Intangibles	\$44,417,000
Value of Retained Personnel	1,382,000
Value of Customer Base	6,662,000
Value of Other Technologies	18,134,000
Remainder of Intangibles	\$18,239,000
Goodwill/Going Concern Value	\$18,239,000
Non-Allocated Acquisition Costs	-0-



**Sterling Software, Inc.
Purchase Price Allocation
Interlink Acquisition
PRELIMINARY**

Purchase Price:

Cash Price	63,907	Per Treasury / Cash paid to InterLink
Estimated Acquisition Costs	<u>19,445</u>	
Total Purchase Price	<u>83,352</u>	

Closing Balance Sheet:

InterLink NBV 4/30/99	<u>27930</u>	Per NMD and Cash swept to Corp
Proposed NBV Adjustments		
A/R	(373)	
PPD & Other Assets	(7,687)	
PP&E	(1,665)	
Interlink SW and GW		
Liabilities	(1,876)	
Subtotal - NBV Adj's	<u>(11,601)</u>	
Total Net Assets	<u>16,329</u>	

Valuation:

Purchased Software	<u>27,463</u>	Per Burt Grad Rpt	5 years
Purchased R&D	<u>10,148</u>	Per Burt Grad Rpt	write-off immediately
Core Technology	<u>11,334</u>	Per Burt Grad Rpt	10 years
Goodwill and Other Intangibles	<u>25,393</u>	Balancing Line Item / Remainder	see detail below
Total	<u>83,352</u>		

**Detail of Goodwill and
Other Intangibles:**

Customer Base	<u>26,283</u>	Per Burt Grad Rpt	10 years
Retained Personnel		Per Burt Grad Rpt	8 years
Going Concern & GW		Balancing Line Item / Remainder	10 years
Total	<u>26,283</u>		

*BURT (26283)
1-203-222-8728
FROM PAUL BAKER*

BURTON GRAD ASSOCIATES, INC.
101 POST ROAD EAST, WESTPORT, CONNECTICUT 06880
(203) 222-8718 FAX: (203) 222-8728
E-MAIL: BURTOGRAD@AOL.COM

Date: June 22, 1999

To: Paul Baker

From: Burton Grad

Paul:

Please review this with Logan and give me your joint comments and corrections. I have not sent a copy to anyone else but you. Let me know when I can do so.

Please update Appendix I-5 for me so that I can do a final version for now.

When does Logan expect to show this to E&Y?

Burt