BURTON GRAD ASSOCIATES, INC.

101 POST ROAD EAST
WESTPORT, CONNECTICUT 06880
(203) 222-8718
(203) 222-8728 FAX
BURTGRAD@AOL.COM

November 24, 1998

Mr. John Blaine
Sterling Commerce, Inc.
4600 Lakehurst Court
P. O. Box 7160
Dublin, Ohio 43017

Dear John:

At the request of Sterling Commerce, Inc. (SCI), Burton Grad Associates, Inc. (BGAI) has conducted a valuation study of the intangible assets acquired as part of SCI's purchase of XcelleNet, Inc. (XNet) as of the acquisition date of July 21, 1998, 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 XNet products. These product values must be amortized over the expected economic life of each product. Only one of those three products (RemoteWare Windows/NT) has been valued, since one of the other products (RemoteWare OS/2) will not be actively marketed and the third product (RemoteWare Express) will be replaced shortly by SCI's new Connect:Manage. The RemoteWare Windows/NT value will need to be capitalized and amortized over its anticipated life.

The study also provides an assessment of the value of the in-process technologies acquired from XNet as they are planned to be used by SCI in SCI's future products and offerings. 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 one cannot demonstrate that the technologies can pass FAS86 technical feasibility and achievable market value tests.

SCI has identified 10 new products that it plans to produce within the next 1-2 years which will depend significantly on the technologies acquired from XcelleNet. For each of these planned new products, BGAI has determined with MSD (new name for the former XNet operations) and SCI input and advice, the total value of the XNet technology contributions. The total value of these XNet technology contributions, after adjustment for core technologies contributions, must be expensed (as In-Process R&D) as of the date of acquisition per FAS2 rules.
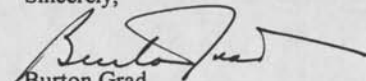
After deducting the net tangible assets and the product and technologies values, the remaining purchase and acquisition costs are considered as other intangibles and amortized over appropriate economic lives.

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

Many MSD and SCI managers and other personnel have contributed substantially to describing the planned new products and analyzing SCI's intended use of the acquired XNet technologies; they also assisted BGAI in understanding the current and new products and their market potential, along with SCI's strategic plans. However, all projections of revenues and costs are the sole responsibility of BGAI and do not generally correspond with SCI's own projections.

Contributing to this analysis for BGAI were: Carol Anne Ances, Sid Dunayer, Jeanne McConnell, Gary McSwain and Marty Silberberg, all of whom are BGAI Associates and have signed SCI-prepared non-disclosure agreements.

Sincerely,

Burton Grad

Enclosure
4021

Valuation Report on Intangible Assets of XcelleNet, Inc.
Acquired by Sterling Commerce, Inc.
Valued as of July 21, 1998

Prepared for: Sterling Commerce, Inc.
4600 Lakehurst Court
P. O. Box 7160
Dublin, Ohio 43017

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

Burton Grad
Carol Anne Ances
Sidney J. Dunayer
Jeanne McConnell
Gary McSwain
Martin Y. Silberberg

Date: September 4, 1998

Table of Contents

EXECUTIVE SUMMARY

Appendices

Table of Contents
(continued)

EXECUTIVE SUMMARY

At the request of Sterling Commerce, Inc. (SCI), Burton Grad Associates, Inc. (BGAI) has conducted a valuation study of the intangible assets acquired as part of the purchase of XcelleNet, Inc. (XNet) as of July 21, 1998 (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 XNet products. It also provides an assessment of the value of technologies acquired from XNet as they were planned to be used by SCI in SCI's future products and offerings.

To perform the study, BGAI assembled a small team of consultants to work with the information requested from and provided by XNet and SCI. A number of people at XNet and at SCI were interviewed in order to gather additional information and to understand SCI's planned strategies and directions.

In allocating the total intangibles acquisition costs, BGAI has examined all of the products and technologies which XNet 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 SCI had formulated for future sales of the existing XNet products and for incorporation of the available and in-process XNet technologies into new products from each of the SCI groups. 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.

Only one of the three then current products (RemoteWare Windows/NT) has been valued, since one of the other products (RemoteWare OS/2) will not be actively marketed and the third product (RemoteWare Express) will be withdrawn shortly and replaced by SCI's new Connect:Manage. Product valuation is based on a projection of revenues and operating costs for the product which SCI will continue to market and support (note: it will also contain the remaining value of the RW OS/2 maintenance stream).

SCI has identified 10 new products that it plans to produce and deliver within the next 1-2 years, which will depend significantly on the technologies acquired from XcelleNet. BGAI has determined the value of the total XNet technology contributions by preparing revenue and operating cost projections and has then allocated the NPV of the operating income proportionately to the contribution from SCI technologies and the contribution from XNet technologies. The value of the new XNet technologies (those in process) was then computed by allocating a portion of the total value to RWE core technologies.

BGAI then constructed a set of revenue, cost and NPV calculation models for each of the ten planned new SCI products/services offerings which will use the XNet technologies. These analyses were done separately for Americas and International.

BGAI prepared assumptions which were entered into these models which then calculated the appropriate revenue and operating income projections for each existing and planned product. The spreadsheet models then calculated the net present value for the operating income cash flow using the tax rates as provided by SCI and discount rates reflecting BGAI's projection risks.

The assumptions for and results of these calculations for the one existing XNet product which was valued is shown in Section V. The results are summarized here.

Product Value	Capitalizable Value ($000)	Amortization Life
Connect:Remote	24,861	5 years

This product value ($24,861,000) should be capitalized and amortized over the period noted starting with the date of acquisition on either a straight-line or a revenue-ratio basis.

The assumptions for and results of the calculations for the value of the acquired XNet technologies as incorporated into SCI's intended new products/services offerings are shown in Sections VI and VII. The results are summarized here.

($000)	Total Product Values	New XNet Technologies Values	RWE Core Technologies Values
New MSD Products	$56,411	$46,388	$10,023
New CSG Products	56,755	25,632	1,947
New CVG Products and Services	44,328	15,794	3,921
New ISG Products and Services	44,147	26,880	8,954
Total New Products	$201,640	$114,694	$24,845

The in-process technology value ($114,694,000) must be expensed per FAS2 rules on research and development expenses as of the date of acquisition since the products/services which will incorporate these technologies do not yet meet FAS86 or SCI qualifications for development capitalization.

The total measured intangible value from products and technologies is $139,555,000. To determine the residual value to be capitalized as other intangibles, this figure should be deducted from the net intangible asset purchase value, which is computed by adding the acquisition costs to the purchase price and then subtracting the net tangible value (tangible assets less tangible liabilities). SCI has determined this value after computing the total acquisition costs. The residual value consists primarily of avoided employee costs, customer relations and developed technologies.

Using the acquisition costs supplied by SCI, the total residual value is $63,491,000. We recommend that this value be amortized on a straight line basis over the next 10-12 years.

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

SECTION I. Objectives and Work Process

As requested by Sterling Commerce, Inc. (SCI), Burton Grad Associates, Inc. (BGAI) has performed a valuation of the intangible assets obtained by Sterling Commerce, Inc. (SCI) in its acquisition of XcelleNet, Inc. (XNet) on July 21, 1998. This valuation is based on SEC, AICPA and FASB valuation rules as of the acquisition date.

XNet was the developer and distributor of communications related programs currently used by many companies throughout the Americas and internationally to provide remote access computing services within their organizations. The XcelleNet products, technologies and support and services which were available and those under development, as of July 21, 1998, will be of significant value to SCI in its future development and marketing plans for the Americas and internationally.

BGAI was asked to determine the value of the then current products and related services and of the technologies acquired from XNet so that the asset purchase price and acquisition costs could be properly allocated to the intangible assets which will then be capitalized or written off as applicable. This includes establishing a basis for the value of marketing rights which may be purchased by one or more of SCI's international organizations.

SCI retained BGAI because of its extensive experience over the last 18 years in valuing software companies and their assets. BGAI performed this independent valuation using generally accepted valuation techniques in use as of July 21, 1998. These valuations may be used by SCI to support financial (book) capitalization/amortization and expense write off decisions and for selected tax purposes.

Work Process

1. BGAI received certain information from XNet and SCI for all of the business areas which were examined. Appendix B-1 lists the materials received.

2. BGAI conducted on-site and phone interviews with key management and other personnel of XNet and SCI and examined extensive amounts of materials for all relevant business areas. Appendix B-2 lists the people interviewed.

3. BGAI analyzed the materials and interview notes to provide a basis for revenue and cost projections for each existing product and all planned new products.

4. BGAI then prepared a report summarizing its findings, incorporating detailed descriptions, assumptions, logic and appendices showing all calculations.

Staffing

The project was managed by Burton Grad, president of BGAI, with Carol Anne Ances, Sid Dunayer, Jeanne McConnell, Gary McSwain and Martin Silberberg, all BGAI Associates, serving as consultants on this project. Professional profiles for all of these consultants are enclosed as Appendices A-1 through A-6.

SECTION II. <u>Description of XNet Products, Technologies and Business Operations</u>

A. Current XNet Products (as of July 21, 1998)

1. **RemoteWare for Windows/NT** -- RemoteWare for Windows/NT is a set of programs that provide a powerful PC-based foundation for the configuration and management of remote enterprise transactions. One RemoteWare Server can execute many simultaneous communication sessions while providing the necessary services to control and manage thousands of remote computers. RemoteWare is a line of remote systems management products specifically designed and optimized to work in the remote environment. RemoteWare provides remote systems management tools for:

   Software Distribution: Automated delivery, installation and ongoing maintenance of off-the-shelf commercial software and custom applications

   Asset and Configuration Management: Automated retrieval and tracking of key hardware and software inventory

   Diagnostics and Recovery: Troubleshoot and maintain system integrity, and protect critical end-user data and enterprise information assets from damage or loss

   Content and Applications Management: Accurate, timely, and efficient distribution and synchronization of corporate information across the enterprise

   Event and Alarm Management: Automatic administrator-notification of system and remote client alerts

   The specific RemoteWare for Windows/NT product offerings by XNet are described as follows:

   RemoteWare Basic Client: Enables communications between the RemoteWare Server and a remote PC (Client). It provides communications services, file transfer services, messaging services (for Windows Clients only) and session management services. The RemoteWare Basic Client runs in the background, allowing the remote computer user to run other software applications while communicating with the RemoteWare Server. RemoteWare Basic Client is available for Windows 3.x, Windows 95, Windows NT, DOS and OS/2.

   RemoteWare Managed Client: Includes RemoteWare AntiVirus Manager, RemoteWare Backup Manager, RemoteWare Software Manager, and RemoteWare Inventory Manager, in addition to the RemoteWare Basic Client.

RemoteWare Extended Client: Includes RemoteWare Subscriber, RemoteWare Web Offline, and RemoteWare Workshop. It is available as an add-on to the RemoteWare Basic Client, and the RemoteWare Managed Client.

RemoteWare Subscriber: Available as an add-on to the RemoteWare Basic Client and the RemoteWare Managed Client.

RemoteWare Plus for Tivoli: Gives administrators the ability to operate RemoteWare Servers and Clients through Tivoli's Enterprise Management Console.

2. **RemoteWare OS/2** -- This is the original RemoteWare product. However, OS/2 has a relatively small market share, so XNet maintains this product, but does not actively sell it to new accounts. This will not be valued as a separate product. The revenue and costs for this product have been included in Connect:Remote, the new name for RemoteWare for Windows/NT.

3. **RemoteWare Express** -- This was the first cut at a new XNet product aimed primarily at the mobile remote market, not the fixed site remote market. It will be replaced in FY99 by Connect: Manage which will have much greater functionality. Therefore, the new product is included as part of the technologies valuation in Section VI, and RemoteWare Express is not valued as an acquired XNet product.

Appendix C-1 provides further descriptions of the then current XNet products as of July 21, 1998.

B. Current and In-Process Technologies

XNet had many technologies in the development process as of the date of acquisition. These were primarily being worked on under the code name of Kodiak. These new technologies will be useful for a variety of MSD and other SCI products/services. Appendices C-2 and C-3 describe the then current and in process XNet technologies as of July 21, 1998.

C. XNet Financials

XNet has significant historical revenues derived from product sales, maintenance and professional services.

($000)	1996 Actual	1997 Actual	FY1998 (9/30/98) Projected
Revenues	42,651	53,579	59,606
Costs and Expenses	43,585	49,492	-----
Operating Income (Loss)	(934)	4,087	-----

This financial information was taken from Appendices D-1 and D-2.

SECTION III. SCI Strategic Plans for Use of Acquired XNet Products and Technologies

As of the asset acquisition date, SCI had an initial strategy and plans for pursuing or discontinuing the then current XNet products and for producing future new products/services throughout SCI which would significantly depend upon and utilize the available and in-process XNet technologies. This section summarizes the initial SCI strategy and plans and provides the basis for the assumptions made in valuing the acquired XNet products and the future use of the XNet technologies. The SCI organization as of the acquisition date is shown in Appendix B-3.

A. Current SCI Products

Appendix E-1 describes current SCI products that are relevant to this valuation study. It describes those current SCI products which will provide the framework for the use of the acquired XNet technologies.

B. SCI Technologies

Appendix E-2 describes the technologies in SCI's current products and in-process work that are relevant to this study. Appendix E-3 gives an in-depth discussion of the SCI/CSG technologies that will be included in future CSG products which will also be using acquired XNet technologies.

C. Strategy for Acquired XcelleNet Products (XNet)

1. **RemoteWare Windows/NT**

   SCI will rename this product Connect: Remote and will continue to actively market it for fixed site based remote users. It will continue to enhance Connect: Remote for three years and support it for at least two more years after that. In FY1999, SCI will introduce Connect:Manage which will, for most customers, be preferable for mobile usage. Connect:Manage will also have its functions extended to better cover fixed site remote locations. By FY2002, new customers will be using Connect: Manage for all remote sites.

2. **RemoteWare OS/2**

   SCI does not plan to enhance or market this product because the OS/2 market has become quite small compared to the Windows/NT market. SCI will, however, support the current product for 2-3 years. The revenues and costs for this product have been included in the Connect:Remote projections.

3. **RemoteWare Express**

   This product will be replaced by a new product, Connect:Manage. Sections III-D and VI-E and Appendix F-1 provide comprehensive information on the new product, and the market strategies related to it. We will not value RWE as a current product, since it has had so few sales and will be replaced in FY99.

D. Strategy for Managed Systems Division (MSD) New Products

The Managed System Division (MSD) is a new division in SCI's Communications Software Group (CSG). It is comprised primarily of the acquired XNet staff and products. MSD will provide strategic product planning, labs function (development and support) and some financial and administrative support for its product offerings. Sales for their products will be carried out under the integrated CSG sales force.

1. Connect: Manage

This new product will meet the growing needs of the mobile computer population by replacing RWE with a product containing far more functionality and new technology. Kodiak was the code name for a major in-process research and development (IPR&D) at XNet prior to the acquisition date. Kodiak's goal was to design and program a new product which would provide all of the functionality of RemoteWare Windows/NT, but use a new architecture and implementation language to meet very broad-based market needs. The new product used certain core technologies from RWE. Connect:Manage addresses the mobile customer market that includes laptops and hand-held devices that are not on a network and not necessarily at a fixed location. The initial focus is on serving Microsoft NT and Windows devices. Appendix F-1 has a further description of this offering. Note that all of the other SCI products will have Connect:Manage as their underlying technology base.

2. Connect: LAN/Desktop

The acquired XNet products were market leaders in servicing remote, intermittently connected personnel in a distributed enterprise. This new LAN/desktop product will have newly-developed technologies that enable Connect:Manage technology to function effectively in a LAN or continuously-connected, fast response system, connecting large numbers of PC's and servers. Appendix F-2 has a further description of this offering.

3. Connect: Messaging Oriented Middleware (MOM)

This new product will address the rapidly growing Messaging Oriented Middleware opportunities in the existing MSD market. New messaging standards related to SMTP, LNRA#2 and MQ Series will be incorporated into value-added messaging enhancement products, along with necessary functional enhancements. Appendix F-3 has a further comprehensive description of this offering.

E. Strategy for Other Communications Software Group (CSG) New Products

1. Connect: Direct +

This product will provide a high performance enterprise data exchange solution for exchanging data between distributed business processes where the data exchange is repeated on a frequent schedule. The high performance would be achieved through a "differencing" technology that would comprehend the differences between two time sequential file images and only send the changes.

The biggest value add for Connect:DIRECT, the current CSG product, is the ability to integrate with the applications at either end of the data transfer. However, the process scripting language and API's are inconsistent between Connect:DIRECT and Connect:Mailbox and are even inconsistent between different computer platform implementations. XNet's process language feature set is richer than that of CONNECT:Direct or Connect:Mail, particularly in the area of event and non-event triggers. By utilizing XNet's process scripting technology, CSG would implement a common, consistent and richer set of functionality, thereby providing users with a higher level of specification abstraction. Appendix F-4 has a further description of this offering.

2. Connect: Remote for Enterprise/PA

This product will provide an Enterprise Data Exchange solution for exchanging data between business processes from the occasionally-connected remote sites out through the enterprise. Target customers are large enterprises with highly distributed business processes where the distribution and data exchange connectivity requirements extend from potentially all network points throughout the enterprise to potentially all remote, occasionally- connected sites. The product will also provide an Enterprise Data Exchange solution for exchanging data between various electronic personal assistants and other types of hand-held devices and the distributed business processes throughout the enterprise. These target customers are large enterprises with highly distributed business processes where the distribution and data exchange connectivity requirements extend from potentially all network points throughout the enterprise to potentially all kinds of hand held and application specific devices. Appendix F-5 has a more comprehensive description of this offering.

F. Strategy for Commerce Services Group (CVG) New Products and Services

1. Commerce:Connection for Internet +

Commerce:Connection for the Internet is currently a family of PC products that quickly enable a company to conduct electronic commerce with Sterling Commerce's Commerce:Network over the Internet. However, some potential customers for the product are leery of transacting commerce on the Internet due to security concerns and reliability challenges. Although CVG addresses these concerns by providing highly secure extranet access through Worldcom, a significant number of prospects are still not willing take what they perceive as a significant risk.

Through the combination of acquired XNet technologies with the communications component of Commerce:Connection, most of these customers' security concerns are effectively addressed. This new product also addresses the reliability challenge by providing compression that shortens the communication session as well as strong checkpoint restart capabilities. Appendix F-6 has a more comprehensive description of this offering.

2. **Commerce:Software Distribution**

Commerce:Software Distribution will be an entirely new service offering from CVG aimed at: software companies; large Commerce:Network customers; and virtual communities that are using or could use Commerce:Network. A common need of these target users is to distribute software to multiple users in multi-platform environments. Current methods require the costly manufacture and distribution of CD-ROM's and disks without assurance that patches and releases will, in fact, be installed. CVG's use of the acquired XNet remote software management technologies on CVG's network will offer a unique service that addresses these issues and provides a significant new service for all three potential markets. Appendix F-7 has a more comprehensive description of this offering.

G. Strategy for Interchange Software Group (ISG) New Products and Services

1. **Gentran: EDX**

Gentran:EDX will be a product that includes a restricted-use version of Connect:Manage with Gentran:Server to extend the EC Messaging capabilities with remote systems management. Principal functions will include security and manageability for remote connection and scheduled remote communications with Commerce partners. Platforms would include NT, UNIX, AS/400 and mainframe (S/390). Appendix F-8 has a more comprehensive description of this offering.

2. **Gentran: Web Suite Express**

GENTRAN Web Suite Express is a web application framework allowing companies to deploy web applications that automate business processes. This product would embed Connect:Manage functionality to facilitate remote Internet systems management. It will support four platforms: NT, Unix, AS/400 and S/390. Appendix F-9 has a more comprehensive description of this offering..

3. **Gentran: Sell Suite and Gentran: Buy Suite**

Sell Suite is a Web-based order management solution which provides a web accessible catalog with search and select capability, order management facilities for on-lime orders, partial-orders, and recurring orders, interfaces to payment and logistics service providers, back-end integration with the seller's business systems, and customer community management.

This product solution leverages existing EC systems and legacy applications for complete end-to-end integration. The acquired XNet technologies provide the functional components to: update and refresh catalog content and product information on the Sell Suite server; provide the ability to deliver business rules to customers/distributors for customization of the ordering and selection process; and the synchronization of order content and order status between the Sell Suite server and the customer/distributor platforms.

Buy Suite provides a procurement solution which reduces the cost associated with corporate purchasing. It is a Web-based multi-supplier, procurement product that allows corporate procurement functions to leverage volume and vendor discounts through a structured and efficient buying process which eliminates manual and unauthorized purchasing actions.

The required XNet technologies serve as a delivery vehicle for product and pricing information to the Buy Suite server. It is also used to manage and reconcile the delivery of order confirmation, payment confirmation, shipping status, and back order status. This product solution leverages existing EC systems and legacy applications for complete end-to-end integration. The acquired XNet technologies provide the functional components to update and refresh catalog content and product information on the Buy Suite server, and provides the ability to deliver business rules to customers/distributors for customization of the ordering and selection process. Appendix F-10 has a more comprehensive description of these offerings.

H.   Use of XNet and SCI Technologies in New SCI Products

Appendices G-1 thru G-4 have the detailed tables which show the utilization of acquired XNet technologies in each of the planned new products. These tables indicate the significance of the usage (essential, useful or not used). These tables also incorporate the analysis of the use of core technologies from XNet versus the use of those new XNet technologies which are still under development.

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 intangible assets (current products, non-compete agreements) to be capitalized and amortized over their economic life

2. Determine valuation of incomplete/in-process research and development projects to be written off at acquisition

3. Subtract the sum of the results contained in steps 1 and 2 from the total acquisition costs for the intangible assets and allocate the remainder to other intangible assets for capitalization and amortization.

This valuation of the intangible assets relates primarily to current Software Products in #1 and Technologies for future use in #2.

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

- **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.

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 usually 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 predetermined 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 does not necessarily reflect 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 XNet product, as shown in Section V. We will not value the other XNet products as explained in Section V.

The effective tax rates for Americas profits (Federal and state) and for international profits has 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 analyzes the planned future products to determine if they meet the FAS86 technology feasibility rules for capitalization. If not, the value 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. Neither comparable market value nor even reconstruction costs are particularly useful in this situation.

The projected operating income stream approach requires identification of the specific future products to be produced and marketed using the acquired technologies; a projection is then made of the revenues, costs and profits from these future products. The net present value of the resulting operating income stream is calculated over a realistic economic life to produce the valuation figures. The valuation procedure is similar to that described in Section IV A.

1. Establish the available market opportunity
2. Prepare product forecasts and estimate revenue
3. Project operating costs and pretax operating income
4. Determine economic life and compute net present value

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 the same as used for product valuations. We have generally used seven years as the marketable economic life for the planned future products using the acquired technologies.

Section VI and its associated appendices show the process and calculations for each of the new products.

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 current product and 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 has set a discount rate comparable to the cost of borrowing money for the acquirer, using the prime rate as of the date of acquisition with appropriate add-ons for those companies that would be required to pay premiums to borrow funds. Since operating-income-based, cash-based valuations would not consider these interest payments, the cost of money figure is after-tax; hence, an 8.5% discount rate on after-tax operating income cash flow would be equivalent to a 14.2% pre-tax rate assuming that the effective tax rate was 40%.

BGAI has then produced its forecasts (revenues and costs) such that the projected operating income would be at a low risk, justifying the use of the 8.5% after-tax discount factor. BGAI's operating income projections are typically much lower than the buyer's own projections. If the difference were 50%, then this would double the effective after-tax and pre-tax rates to 17% and 28% respectively; the BGAI forecast difference will make the adjusted rate correspond reasonably with the company's proposed return on investment (equity and loans) for new business opportunities.

In this particular situation, the intangibles valuations for the acquired XNet products and technologies used 8.5% as the after-tax discount rate. The forecasted revenue and operations costs were projected to this level of risk by using very conservative business assumptions. In preparing its revenue forecast and projected operating costs, BGAI has carefully considered, for each in-process and planned project, 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 successful technical completion.

In combination with analyzing specific market opportunities and expected competition, if BGAI feels that the inherent business risks are high, it may eliminate a new product from the valuation study entirely or decrease its revenue forecasts (later introduction date, slower growth rate) and/or increase its projected operating costs (higher R&D or marketing/sales costs. Alternatively, BGAI could have used a higher discount rate and therefore produced a higher operating income projection. In our opinion, it is more accurate for BGAI to reduce its operating income projections to maintain a consistent discount rate.

After completing its projections, BGAI looked at each new SCI product and compared the values which would have been obtained using SCI's assumptions (as stated in Appendices I-1 through I-10 for the new products) and the values obtained using BGAI's assumptions (as set forth in Section VI and in tables in J-2 through J-5). Based on this review, BGAI feels that its discount rate is realistic for the BGAI operating income projections. Therefore, the after-tax discount rate of 8.5% has been used throughout the study.

D. Determining Core Technologies Contributions Versus In-Process Technologies Contributions

The SEC states that the value of core technologies can only be claimed for 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 would have to be excluded from the value of the acquired technologies.

If a new product just uses the same or similar functionality as that in an existing released product, but it has to be rearchitected, restructured, redesigned, reprogrammed and retested, then this does not appear to 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.

With this background, BGAI has determined whether any acquired RemoteWare Windows/NT (now Connect:Remote) technologies will be used in Connect:Manage or in any of the other new products from MSD, CSG, CVG or ISG. Based on explicit representations from the MSD technical management and BGAI's own due diligence review, BGAI believes that there is no such reuse. Therefore, the RW core technologies should not be considered in determining the technology valuation.

BGAI has also determined to what extent the RemoteWare Express (RWE) technology implementations (based on the product as released prior to the acquisition date) are planned to be used in producing Connect:Manage. We have measured the contribution of each of these RWE core technologies to Connect:Manage and allocated the technologies value between RWE core technology contributions and the contributions from the new technologies being produced during the Kodiak and Connect:Manage in-process development activities.

Connect:Manage is a much broader product than RWE and, even for those functions which are similar or the same as in RWE, many have to be significantly reprogrammed and retested in order to insure that the new integrated product will provide the user interfaces, information interchanges and operational performance required to market Connect:Manage successfully. In addition, the integrated product must be fully tested and debugged both internally and through beta sites before general product release. In projecting the value of Connect:Manage, BGAI has fully considered these costs and risks in the operating income projections.

Connect:Manage underlies all of the new products; therefore BGAI has determined the extent to which the RWE technologies as used in Connect:Manage are planned to be used in each of the identified new products. These technology mappings are explicitly shown in Appendices G-1, G-2, G-3 and G-4. These usages were then analyzed in detail and an appropriate percentage of the value of each product was allocated to the RWE core technologies. The RWE-related technologies valuation is described in Section VII.

E. Other Intangible Assets

The principal other intangible assets acquired are:

- trained personnel
- established customer base (i.e., customer relations)
- developed technologies

The remaining elements of infrastructure, name recognition, channel relationships, business procedures, etc. are of only limited value to SCI, since SCI already has these capabilities and will integrate the XcelleNet going concern elements into the Managed Systems Division (MSD) of the Communications Software Group.

The valuation procedure used is described in detail in Section VII.

SECTION V. Valuation of Acquired XNet Products

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

A. SCI Plans for Acquired XNET Products

The XNET products current as of July 21, 1998 were: RemoteWare Windows/NT, RemoteWare OS/2 and RemoteWare Express. These products are described in Appendix C-1. Because the OS/2 market has become quite small compared to the Windows market, SCI does not plan to enhance or market this product, but it will be supported for 2-3 years as customers are migrated to the RemoteWare Windows/NT product. RemoteWare Express will be withdrawn and replaced with a new product, Connect: Manage. SCI will continue to market and enhance RemoteWare Windows/NT under the new name Connect: Remote.

B. Valuation Procedure

Based on historic information from XNet documents, as well as from SCI due diligence documents and strategic planning statements, and from other information supplied by SCI and XNet people, BGAI has constructed its own revenue and cost projections covering Connect:Remote for the next five fiscal years starting October 1, 1998.

The value of XNET's RemoteWare OS/2 was included in the value of Connect:Remote; while SCI does not plan to enhance or market it, SCI will continue to receive revenues from maintenance. XNet's RemoteWare Express was not valued since SCI plans to withdraw it and replace it with Connect: Manage which is valued as a new product, and is described in Section VI.

Using the Connect:Remote operating income cash flow projection, BGAI has determined the net present value for this product for the Americas and for International (principally Europe and Asia). The net present values have been used as the basis for the BGAI value assessment of the acquired XNet product.

C. General Assumptions Used in the Valuation

1. SCI will continue to actively market the Connect: Remote product primarily for fixed site remote users; it will continue to enhance Connect: Remote for at least three years and support it for at least two more years after that.

2. SCI will introduce Connect: Manage in FY1999 which will, for most customers, be preferable for primarily mobile usage. Later, Connect:Manage will have its functions extended to better cover fixed site remote locations. By FY2002, most new customers will be using Connect: Manage for all remote sites.

3. The market for remote communications will grow even more rapidly than in the past and although SCI will not be able to retain the historic XNet market share (over 50%), it should still be the leading provider of software for the remote communications market.

4. The Americas will substantially lead International in accepting remote communications products, so that growth and decline in sales and erosion of the installed base will occur more slowly internationally. This will be amplified because of XNet's past weak international penetration.

5. Prices for new sales and for maintenance of Connect:Remote will be constant during the projected period with no inflation-caused increases and no competitively-induced decreases in price.

6. Professional services will be a significant, although limited, revenue source for new sales and installations of Connect: Remote.

7. Add-on sales will be very significant as the number of seats will steadily increase for virtually all installed customers.

8. Operating costs will be significantly lower than past XNet financial performance, but operating income will still not reach as high a level as traditional SCI/CSG operating income levels during the forecast period. The operating costs for Americas and International will essentially be the same because of special intracompany contracts.

9. A tax rate of 38.4% will be applied against all Americas operating income and a tax rate of 20% applied against all International operating income.

10. A discount rate of 8.5% will be used as the rate of return and applied to the after-tax operating income to compute the net present value. There do not seem to be any unusual risks in the conservative BGAI forecast and 8.5% (after tax) reflects adequately the business risks on this product. It was also the U.S. prime rate as of the acquisition date.

Additional specific assumptions for Americas and International for Connect: Remote are described in the valuation process which follows.

D. Market Opportunities for Connect: Remote

In order to determine the projected revenues for Connect: Remote, the following market related items have been reviewed:

- **Market** – what is the size of the market to be addressed?
  - ▸ The worldwide market potential for 1998 for remote communications is estimated to be $1.18 billion per Gartner Group and IDP calculations. RemoteWare is the market leading product with a 5.2-5.7% market share. The market is estimated to grow in line with the PC market growth of about 20% annually. In order to maintain its market share, Connect: Remote needs to grow at least at a 20% annual rate.

- **Product Viability** – does the product have sufficient functionality and high enough performance for the target market?
  - The product is considered to be the market leader by Gartner and the pricing established for the product is used as the market guide by the competition.
  - Planned product releases over the next six months add functionality and will fix limitations and bugs to keep the product ahead of competition. Primary fixes will allow greater scalability and lead to further add-ons to current installations.
  - Connect:Remote already has robust systems management functionality which will continue to be developed.

- **Competitive Position** – is the product sufficiently competitive in price and support in order to gain new clients, hold market share and retain existing customers?
  - Competition entering the market includes Microsoft, IBM and Intel thus further validating the market opportunity
  - Connect:Manage should be able to hold a significant market share even against this new competition.

- **Customers** – can XNet and SCI provide a substantial enough Windows customer base?
  - Current XNet customers include Fortune 500 companies as well as small, growth organizations. Not only does this validate that there is a market, these should be excellent reference accounts for new business as well as provide growth within the current installations and from new customers.
  - Sterling Commerce has a mostly different set of customers (there is a limited overlap) and offers a new source of business where SCI is already a known vendor.

- **Product Positioning** – is the product aimed at the right platforms?
  - The current server platform, NT, is the largest growth server platform for client/server systems.
  - Optional client and server capabilities including support of UNIX, OS/2, Tivoli/IBM, Microsoft E-mail (Exchange) gateway, SQL/File management links and API's; developer tool kits will continue to make the product even more versatile.

E. Revenue Forecasts for Connect: Remote

Using historic new customer sales, add-on sales, maintenance and professional services experience, BGAI has used the following specific assumptions in determining the Connect: Remote revenue forecasts.

- Professional services and training will continue to be a significant revenue component for new sales. They are computed as 35% of new sales
- Maintenance agreements are accepted by essentially 100% of new customers and erosion has been low. We will use a 10% per year erosion rate on the installed number of customers increasing to 20% over the next few years. Some of these will be migrations to Connect:Manage.

- It is planned to raise the maintenance price to 20% of list price to be consistent with Sterling Commerce practices.
- Many of the RemoteWare OS/2 customers have already moved to RemoteWare Windows/NT and others will still do so. This migration will continue to contribute new maintenance revenue to Connect: Remote. This is included in the maintenance calculations. These figures have been used in Appendix H Table 14.

F. Costs and Operating Income Projections

XNet's history for 1997 shows the following costs:

	($000)	% of Revenues
Cost of Revenues	$10,347	19
Sales, Marketing and Support	22,327	41
R & D	8,713	16
G & A	8,168	15
Total Costs	49,555	91
Revenues	54,456	100
Operating Margin	4,901	9

In projecting the operating income for Connect:Remote, BGAI has used the following cost ratios to revenues (See Appendix H Table 15):

	FY1999	FY2000	FY2001	FY2002	FY2003
Cost of Revenues	.10	.10	.10	.10	.10
Sales, Marketing & Support.					
- Americas	.40	.40	.40	.40	.40
- International	.50	.50	.50	.50	.50
R & D	.15	.15	.15	.15	.15
G & A	.15	.15	.15	.15	.15
Total Costs - Americas	.80	.80	.80	.80	.80
- International	.90	.90	.90	.90	.90
Oper. margin - Americas	.20	.20	.20	.20	.20
- International	.10	.10	.10	.10	.10

G. Net Present Value Calculations – Connect:Remote

The above figures have been used in Appendix H Table 16 calculations to determine the net present value calculations for Connect:Remote:

($000)	Americas	International	Total
Revenues	218,096	34,205	252,301
Costs	174,477	30,785	205,262
Operating Income Pre Tax	43,619	3,421	47,040
Net Present Value	22,626	2,235	24,861

The overall summary for the Connect:Remote product is shown in Tables 12 & 13 Appendix H.

All of the product valuation tables are included in Appendix H with the table numbers noted in the upper right-hand corner.

Based on this projection and analysis procedure, BGAI has determined that the product valuations for Connect:Remote are:

($000)	Americas	International	Total	Amortizable Life
Connect:Remote	22,626	2,235	24,861	5 years

These values should be capitalized and then amortized over five years on either a straight-line or revenue ratio basis.

SECTION VI. Valuation of XNet Technologies

The technologies valuation methodology and principles as described in Section IV are applied in this section to the values of the products to be built using the technologies acquired from XNet.

A. Technologies Assessment Principles

XNet had developed a number of significant communications management capabilities over the past five years as it had become the premier supplier of remote communications software. Many of these technologies are already used in the existing marketed XNet products. As they are used in the XNet products, they have been fully valued as part of the XNet Products Valuation (see Section V).

However, XNet has also developed new technologies which have even greater value because they will enable SCI to build many future new products and offerings at a much lower cost and in a much more timely fashion than if SCI had to specify, design, build and test the comparable technologies needed to construct the planned new SCI products and offerings which require advanced remote communications capabilities. These new technologies which are still in the research and development process have not yet been incorporated in products or offerings and have not met the FAS86 technology feasibility and marketing tests for capitalization.

SCI determined the price it was willing to pay for the XNET assets not just by considering the value of the current products and the XNet infrastructure, trained employees and customer base, but primarily by considering what it believed would be the value of the in-process XNet technologies in future SCI products and offerings.

Therefore, in the allocation of the acquisition purchase price, BGAI has assessed the value of the in-process technologies based on SCI's intentions, as of the acquisition date, relative to specific plans for development and marketing of new products and offerings using the acquired XNet and other SCI technologies. BGAI has projected the revenues, costs and operating income from these new products and offerings to determine their net present value.

Based on the rules of FAS2, any 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 SCI products and offerings using the acquired new XNet 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.

B. Specific XNet Technologies Assessment

There will be a total of ten new products and offerings which will be produced, marketed and supported by the SCI Groups: Communications Software (including the Managed Software Division), Commerce Services and Interchange Software. Many of the new products and offerings will incorporate a blend of the acquired XNET technologies and the SCI technologies already available in each particular group.

The total value of the acquired XNet technologies is determined by calculating the net present value of each new product and offering and then allocating this value between the contributing XNet technologies and the SCI technologies used. Each product has been individually examined to set the proper allocation percentage.

BGAI worked with materials provided and communicated with representatives from XNet and SCI to understand the existing and in-process XNet and SCI technologies and then to determine their relative significance to each new SCI product and offering.

The relevant XNet and SCI technologies are listed in Appendices G-1(MSD), G-2 (CSG), G-3 (CVG) and G-4 (ISG) with an assessment of their significance to each of the planned new SCI

C. SCI Assumptions

The following information was obtained from XNet and from the various SCI Groups. 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 each new product and offering.

1. SCI estimate of when initial product or offering will be released (available for delivery) and when additional enhancements will be available (use appropriate quarter of SCI fiscal year).

2. SCI pricing plans for new licenses, upgrades/add-ons, maintenance and services (professional and processing).

3. SCI estimates of the number of new customers during the initial year after release and SCI estimates of revenues from new licenses for the first and subsequent years.

4. SCI projections of ratio between upgrades/add-ons and installed base.

5. SCI projections on ratio of services revenue to new license revenues (and to upgrades/add-ons, if appropriate).

6. SCI projections on initial acceptance rate of maintenance on both new licenses and on upgrades/add-ons considering whether there is any "free" maintenance period and, if so, how long; also SCI projections on maintenance erosion rates after first year.

7. SCI's view on marketable product life in terms of new licenses and continued support of customers. BGAI plans to use a seven-year projection from 10/1/98, although some of the new products may decline during the latter part of that period as a market becomes saturated and/or replacement technologies obsolete these new products.

8. SCI plans and projections for International markets for all of the above questions to identify differences between the Americas markets and projections (U.S., Canada, Mexico, etc.) and international markets and projections.

9. SCI's estimates of expected costs for Americas and International. The classification of cost information was:

   - Cost of revenues (for products, maintenance, services)
   - Marketing, sales and support
   - Research and development
   - General and administrative

10. Identification of any significant differences in costs between Americas and International.

All of this SCI supplied information for each new product valuation in this Section is shown in a separate appendix for that product (see Appendices I-1 through I-10). In some cases, information was not available or not relevant. The assumptions listed below are those used by BGAI in its forecasts of revenues and projections of costs.

D. BGAI General Assumptions

In producing the revenue forecasts, operating cost estimates and net present values, a number of business assumptions have been made. The general assumptions are listed below. The product specific assumptions are shown in the subsection for each new product and offering projection.

1. The market for remote communications and communications-related products and offerings will continue to grow very rapidly, and SCI will get a significant share of this marketplace.

2. The Americas will lead International in adopting these new products and offerings, but International will be close behind, typically one year later.

3. Professional Services will be a limited revenue source for most communications product sales; these services will tend to be used principally when the products or other offerings are originally installed.

4. Operating income ratios will increase for some of the new products and services over the first few years of the seven-year planning horizon, reaching levels well above industry averages, but still below the current very high SCI operating margins.

5. A tax rate of 38.4% will be applied against all Americas operating income and a tax rate of 20% applied against all International operating income.

6. A discount rate of 8.5% will be used and applied to the after tax operating income to compute the net present value. BGAI has prepared all of the forecasts; it has made these forecasts based upon this predetermined level of risk.

7. No inflation or deflation factors will be used for costs or for product or service prices.

8. Many of the new SCI products and offerings will be priced, at least partly, on a per-seat basis so that upgrades and add-ons will constitute a large part of the projected revenues.

9. Most of these products and offerings 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.

E. MSD New Product Valuations

There are three new products planned for the new Managed Systems Division (MSD) of the Communications Software Group (CSG); MSD is comprised primarily of the former XcelleNet, Inc. personnel. Each of these new products will be valued separately:

1. Connect:Manage
2. Connect:LAN/Desktop
3. Connect:MOM/MOM plus Messaging

The valuations will cover both the Americas and International for each new product. The following comments relate to how the International market will relate to the Americas market for all of these new MSD products.

Over 90% of the over $250M in product and services revenue XNet had booked in the past eight years came from North America, and even the relatively few other product shipments were primarily for the English language market. Deployment of the XNet communications functions into International markets with native language versions, leveraging the market niche XNet had clearly validated in North America and augmented by the increased global selling power of SCI, should create international sales even greater than XNET achieved in its initial eight years of selling in North America.

The need for technical solutions to communications application deployment and systems management challenges in foreign markets whose adoption of the distributed PC technology is on a clear upswing is significantly better served by XNet's Remote Communications approach than by the large site focus of products from IBM, Computer Associates and Microsoft. Their products assume constantly connected, well-tuned and fast infrastructure and networks. In fact, foreign markets are more likely to have significant intermittent dial-up populations than in the U. S. markets.

MSD intends to build and ship native language versions for all of the new products for all significant international markets in order to leverage SCI's presence and commitments to expand into those markets. As such, release of these new products will represent a significant source of revenue. However, to accomplish this will involve substantial development work (over and above "routine" language conversions) to accommodate significant International requirements including TAPI integration, country-specific ISDN interfaces and new wireless protocols.

The specific BGAI assumptions are incorporated in the detailed spreadsheet models shown in Appendices J-2 through J-5. For the reader's convenience we have included a net summary of these assumptions for each new product, separated for revenues, costs and net present value

calculations. Please use the referenced Appendix (J-2 through J-5) for each product to see the details of the calculations. The MSD calculations are shown in Appendix J-2.

1. Connect:Manage (based on core technologies from RemoteWare Express and new technologies from the KODIAK in process R&D project)

Connect: Manage is the new name for a newly developed MSD product. It is initially designed to address the mobile customer market (including laptops and hand-held devices) which are not on a network and not at a fixed location. It will add other functionality to better serve the fixed site remote market during the next 2-3 years.

a. Market Opportunities

Connect:Remote has been previously marketed principally to the remote, fixed site market including places like retail stores and remote branch locations and secondarily to mobile users. It addresses multiple operating systems. Connect:Manage, by comparison, will focus on the Microsoft NT and Windows markets. It will initially address the mobile customer market and then the remote fixed site market. Note that portable or notebook computer system sales will continue to grow at a CAGR of 14.5% through 2002.

In-process new technology functions, code named Kodiak by XNET, will be delivered in multiple phases with the initial phases scheduled for release starting in the first quarter of fiscal year 1999. The initial releases will aggressively address the mobile remote communications system management market. They will address integration with Enterprise system management products including IBM's Tivoli, Microsoft's SMS and CAUnicenter. In addition, they will exploit new technologies such as Microsoft's Zero Administration Windows (ZAW), Internet technologies related to various languages and other critical technologies. This will differentiate the new product and provide competitive advantages in the marketplace.

b. Revenue Forecast

BGAI used the following factors in projecting the revenues for Connect:Manage, called MSD A in the tables, in Appendix J-2 Table 60:

- New licenses will start at a moderate rate in 1999 and continue to grow steadily through 2003 and then taper off.

- Professional services will stay at 20% of new sales throughout the forecast period.

- Upgrades/add-ons will be quite important equaling 20% of the license value of the installed base each year.

- Maintenance will be a solid income contributor with a 10% per year erosion rate and a 20% annual fee on the license price value of the installed base (new licenses plus upgrades/add-ons).

- International revenues will follow a similar growth pattern, but will start at a much lower level. It will reach approximately 33% of the Americas revenues by 2005 (25% of total revenues).

The total revenues for Connect:Manage is projected to be:

Americas	$201,322,000
International	$65,378,000
World-Wide	$266,700,000

c. Cost Projections

The detailed cost projections for Connect:Manage are shown in Appendix J-2 Table 61. The costs for this product will be similar to the previous RemoteWare product model, but with improving operating income margins after the first two years. While the Cost of Revenues, R & D and G & A ratios will stay consistent over the projected 7 year life of Connect:Manage, the Americas and International sales cost rate should decline from 40% of total revenues to 30% after the first two years.

The total costs over seven years for Connect:Manage are:

Americas	$142,250,000
International	$46,159,000
World-Wide	$188,409,000

d. NPV Calculations

The detailed NPV calculations for Connect:Manage are shown in Appendix J-2 Table 62. Using an Americas tax rate of 38.4% and an international tax rate of 20% with 8.5% after tax discount rate, the NPV values are:

Americas	$25,168,000
International	$10,572,000
World-Wide	$35,741,000

2. Connect:LAN/Desktop

This product will utilize newly-developed XNET technologies in conjunction with technologies in Connect:Manage to operate optimally on a LAN and on continuously-connected, fast circuits connecting large numbers of PC's and servers.

a. Market Opportunities

As a clear market leader in servicing the remote (intermittently connected) portions of the distributed enterprise, XNet was increasingly being asked to also supply client seats to service LAN, WAN and intranet-connected desktops (the logic being, "RemoteWare works so well on my slow-speed dial-up PC's, why not also do my

other systems with similar technology and avoid the hassle of buying a separate tool to handle the LANS).

Thus the acquired XNet technologies, as packaged and marketed by SCI, will penetrate major new markets for existing XNet customers and new customers using classic desktop management seat pricing.

b. Revenue Forecast

BGAI used the following factors in projecting the revenues for Connect:LAN/Desktop, called MSD B, in Appendix J-2 table 63:

- New licenses will start quite slowly in 2000, but will grow quite rapidly over the forecast period.

- Professional services will be at 10% of new license revenues throughout the forecast period.

- Upgrades and add-ons will be a major factor with revenues equaling 20% of the installed base license value each year.

- Maintenance will be strong with only 10% erosion annually and an annual maintenance fee of 20% of the installed base license value. 100% of new customers will accept maintenance in the first year.

- International will have a similar pattern as Americas for Connect:LAN/Desktop reaching 45% of the Americas revenue in 2003, which is almost 1/3 of the world-wide revenue for that year.

The total revenues over the six years that this product will be available is:

Americas	$86,432,000
International	$36,279,000
World-Wide	$122,711,000

c. Cost Projections

The detailed cost projections for Connect:Lan/Desktop are shown in Appendix J-2 Table 64. The cost ratios are similar to Connect:Manage.

The total costs over the six years that the product is being forecast are:

Americas	$60,568,000
International	$25,421,000
World-Wide	$85,989,000

d. NPV Calculations

The detailed NPV calculations for Connect:LAN/Desktop are shown in Appendix J-2 Table 65. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate the NPV values are:

Americas	$10,346,000
International	$5,616,000
World-Wide	$15,962,000

3. Connect:MOM/MOM plus Messaging

This new offering will support a number of new messaging standards in value-added Message Oriented Middleware (MOM) products. It is designed to maintain MSD's leadership in the MOM marketplace for remote fixed and mobile, intermittently connected users. While these functions have been delivered for MAPI as part of Connect:Remote, the planned product will support many more standard interfaces as a standalone offering.

a. Market Opportunities

The MOM marketplace is experiencing explosive growth. XcelleNet's leadership position in the intermittently connected messaging marketplace, coupled with new MSD products leveraging new and evolving messaging standards and, assisted by SCI's presence in global EC deployments, make this new offering in the MOM marketplace quite significant.

b. Revenue Forecast

BGAI used the following factors in forecasting the revenues for Connect:MOM/MOM plus Messaging, called MSD C, in Appendix J-2 Table 66.

- New licenses for Connect:MOM/MOM plus Messaging will be based on selling to the Connect:Manage customers. MOM will track the Connect:Manage growth at 25% of the Connect:Manage new licenses revenue

- Professional services will be 10% of new sales revenue.

- Upgrades and add-ons will only generate revenue at the rate of 4% per year of the installed base initial license value.

- Maintenance will be quite strong with only a 10% annual erosion rate and 20% of license fee annual maintenance charges. Initially, all customers will accept maintenance.

- International follows a similar pattern on revenues, but at a lower level.

The total revenues for the six years after Connect:MOM/MOM plus Messaging is released are:

Americas	$33,509,000
International	$10,216,000
World-Wide	$43,725,000

c. Cost Projections

The detailed cost projections for Connect:MOM/MOM plus Messaging are shown in Appendix J-2 Table 67. The cost ratios for cost of revenues, development and G and A are similar to the other MSD new product costs. However, the marketing, sales and support costs are higher during the first four years as MSD has to build and retain a staff to introduce and support this new product while obtaining relatively low revenue.

The total costs over the six year period of availability are:

Americas	$25,399,000
International	$7,664,000
World-Wide	$33,063,000

d. NPV Calculation

The detailed NPV calculations for Connect:MOM/MOM plus Messaging are shown in Appendix J-2 Table 68. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate, the NPV values are:

Americas	$3,355,000
International	$1,353,000
World-Wide	$4,708,000

F. CSG New Product Valuations

There are two new products which Communications Software Group (CSG) plans to produce incorporating acquired XNet technologies. These will be separately valued: (1) Connect:Direct+ and (2) Connect:Remote for Enterprise and Personal Assistants. Appendix J-3 has the detailed calculations for the new CSG products.

1. Connect: Direct+

a. Market Opportunities

This product will provide a high performance Enterprise data exchange solution for exchanging data between distributed business processes where the data exchange is repeated on a frequent schedule. An example would be sending daily inventory files from a master location out to points of distribution. The inventory would not change that much on a daily basis and, thus, the majority of the data currently sent would be the same each day.

The high performance nature of this new product relies on the iterative nature of the data exchange: repeatedly sending a new file where a large portion of the file remains unchanged. The high performance will be achieved through XNET's "differencing" technology that comprehends the differences between the two file images and only sends the changes.

The biggest value add for CSG's Connect:Direct product is the ability to integrate with the applications at either end of the data transfer. However, the process scripting language and API's are inconsistent between the various computer platform implementations. Furthermore, it is generally felt that XNet's process language feature set is richer than that of Connect:Direct, particularly in the area of event and non-event triggers. Utilizing the acquired XNet process scripting technology, CSG would be able to implement a common, consistent and richer set of functionality to provide users with a higher level of specification abstraction. Therefore, Connect:Direct+ would be a significant step beyond Connect:Direct for many customers.

As a result, CSG would be able to migrate some of its existing customers to the new product and reach many new customers who were not previously satisfied with Connect:Direct.

b. Revenue Forecast

BGAI used the following factors in forecasting the revenues for Connect:Direct +, called CSG A, in Appendix J-3 Table 70.

- New license revenues would start strong and continue to grow throughout the forecast periods after general release in 2000.

- Migration license revenues would start well and grow symmetrically with the growth rate in new customer sales. However, we have assumed a much lower price, essentially just for the incremental value of the new capabilities. This price difference has been recognized later in the allocation percentages for the migration value versus the new customer value.

- Upgrades and add-ons will be very substantial, continuing the pattern of Connect:Direct. These will generate revenue at the rate of 20% per year of the installed base (from retained new customers and migration customers).

- Maintenance will be strong with a 10% per year erosion over the projected six year life and a 20% annual maintenance charge. Initial maintenance acceptance will be 100%.

- International will grow from a much smaller base, but at a faster pace than the Americas, both for new customers and migration licenses. Upgrades and maintenance will grow at a similar rate as in the Americas.

The total revenues for Connect:Direct + for the six forecast years after release are:

Americas	$339,564,000
International	$72,817,000
World-Wide	$412,381,000

c. Cost Projections

The detailed cost projections for Connect:Direct + are shown in Appendix J-3 Table 71. The cost ratios used are similar to CSG's current experience with Connect:Direct, but operating income margins have been kept somewhat lower recognizing both the initial difficulty in attracting new customers who had not yet bought Connect:Direct and migrating existing customers with only a 20% revenue increment.

The total costs over the six year forecast period are:

Americas	$261,593,000
International	$55,636,000
World-Wide	$317,229,000

d. NPV Calculations

The detailed NPV calculations for Connect:Direct + are shown in Appendix J3 Table 72. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate the NPV values are:

Americas	$31,617,000
International	$8,896,000
World-Wide	$40,513,000

2. Connect: Remote for Enterprise and Personal Assistants

This product will provide an Enterprise Data Exchange solution for exchanging data between business processes and occasionally-connected remote sites throughout the enterprise. This product bundles a number of Connect:Manage clients, a Connect:Manage server, a Connect:Direct or Connect:Mailbox server and a bridge between Connect:Manage and Connect:Direct/Mailbox. This product will also provide an Enterprise Data Exchange solution for exchanging data between various electronic personal assistants and other types of hand-held devices and the distributed business processes throughout the enterprise.

a. Market Opportunities

Target customers are those large enterprises with highly distributed business processes where the distribution and data exchange connectivity requirements extend from all network points throughout the enterprise and potentially extend to all kinds of hand held and application specific devices (WinCE, PalmPilots, cell phones, ATM's and devices for Point of Sale and Point of Use). This product provides specific support for these devices

using acquired XNET technologies with a Connect:Direct or Connect:Mailbox server and the bridge between them.

b. Revenue Forecast

BGAI used the following factors in forecasting the revenues for Connect:Remote for Enterprise/PA, called CSG B, in Appendix J-3 Table 73.

- New licenses will come principally from the Connect:Direct customers who are ready to include remote usage (both fixed site and mobile) of acquired Xnet technologies for full function data exchange for enterprise wide communications and for integrating use of special devices. The product will be introduced in 2000 and will start off strong with many new licenses.

- Migrations for existing CSG customers will also occur with customers only being charged for the extra functions which they have acquired in the new product. This will follow the same growth pattern as the new customer sales.

- Upgrades and Add-ons will be at the rate of 20% of the installed base each year.

- Maintenance will be based on 10% erosion per year and a 20% of license price maintenance fee. 100% of new customers will sign up for maintenance.

- International will follow a similar, but slightly stronger growth pattern from a lower initial base, reaching 25% of Americas revenue by 2005.

The total revenues for Connect:Remote for Enterprise/PA for the six forecast years after release are:

Americas:	$131,365,000
International:	$33,956,000
World-Wide	$165,321,000

c. Cost Projections

The detailed cost projections for Connect:Remote for Enterprise/PA are shown in Appendix J-3 Table 74. The cost ratios are similar to the projected Connect:Direct+ ratios with sales costs dropping over the first 4 years.

The total costs over the six year forecast period are:

Americas:	$101,645,000
International:	$26,159,000
World-Wide	$127,804,000

d. NPV Calculations

The detailed NPV calculations for Connect:Remote for Enterprise/PA are shown in Appendix J-3 Table 75. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate, the NPV values are:

Americas:	$12,136,000
International:	$4,106,000
World-Wide	$16,242,000

G. CVG New Product Valuations

There are two new CVG products to be valued: (1) Commerce:Connection for the Internet+ and (2) Commerce:Software Distribution. Appendix J-4 provides the detailed calculations for the new CVG products/offerings.

1. Commerce:Connection for the Internet+

As described in Section III and Appendix F-6, this new product effectively addresses the concerns of some potential customers for Commerce:Connection relative to security, reliability and recovery.

a. Market Opportunities

The typical customers will be medium to small companies ($60M or less) that are spokes to hubs that already use the current Commerce:Connection product. Currently, 4,000/5,000 new spokes are signing up each year for Commerce:Connection. This new offering will increase that number. The planned price will be $2,600 for the license fee plus $200/year maintenance fee. Additional services revenue of $50/month per trading partner is projected. It is expected that the product will experience a strong market through 2001 and then flatten and drop off as it is replaced by newer technologies. Note that the supported platforms are Windows 95/98 only. Major competition for the Commerce:Connection family of products comes from traditional value added network providers. Harbinger is the most significant competitor and has been very successful with its focus on selling to spokes.

b. Revenue Forecast

BGAI used the following factors in forecasting the revenues for Commerce:Connection for the Internet +, called CVG A, in Appendix J-4 Table 80.

- New licenses were computed based on a projection of the number of new customers acquired each year at an average price per unit acquired.

- Migrations were similarly projected, but with a much lower price tag reflecting just the price for the additional functionality. This is recognized later in the allocation percentages.

- Maintenance revenue was combined with the expectation of an increasing number of units per customer. This is reflected in the increasing maintenance price per unit in Table 80. A 10% annual erosion rate was used.

- International followed a similar pattern starting more slowly than Americas, but growing more rapidly in the latter years of the forecast.

Total revenues for Commerce:Connection for the Internet + are:

Americas	$118,181,000
International	$40,042,000
World-Wide	$158,223,000

c. Cost Projections

The detailed cost projections for Commerce:Connection for the Internet + are shown in Appendix J-4 Table 81. The cost ratios are based on previous CVG experience. Because of the high recurring revenue nature of this type of business, the sales costs are quite low compared to a software products business. The other costs (cost of revenues, R&D and G&A) are similar to the other SCI groups. This leads to a high operating income margin for both Americas and International.

The total costs for the forecast period are:

Americas	$70,909,000
International	$24,025,000
World-Wide	$94,934,000

d. NPV Calculations

The detailed NPV calculations for Commerce:Connection for the Internet + are shown in Appendix J-4 Table 82. Using the Americas tax rate of 38.4% and the International tax rate of 20% with 8.5% after tax discount rate, the NPV values are:

Americas	$20,182,000
International	$8,646,000
World-Wide	$28,828,000

2. Commerce:Software Distribution

This new offering provides effective remote software distribution services for software companies, large Commerce Network customers and for Virtual Communities, as described in Section III and Appendix F-7.

a. Market Opportunities

Potential customers could attempt to satisfy their requirements by using Connect:Manage themselves or they could use products offered by Microsoft or they could write their own

programs to directly apply Internet Web technology. None of these alternatives offers the robust capabilities and ease of use that the CVG services offering will. The CVG service is targeted for release in fiscal 1999 and will first be aimed at SCI software alliance partners. Modifications will be made, as appropriate, based on experience and the service will then be made available to all three of the potential types of customers noted above.

b. **Revenue Forecast**

BGAI used the following factors in forecasting the revenues for Commerce:Software Distribution, called CVG B, in Appendix J-4 Table 83.

- New licenses were computed based on a detailed projection of the number of new customers acquired each year at an average price per unit. The underlying assumptions and calculations to generate the new license revenues are shown in Tables 83A, 83B and 83C.

  The pattern followed was to separately project the sales for each of the three target markets:
    - Software companies
    - CVG Network customers
    - Virtual communities

- Maintenance revenues include the number of units/customer which will grow dramatically; the retention rate will be in the 90% range annually for all three markets.

- International revenues were calculated on the basis of a 15% ratio of International to Americas for 1999, 20% for 2000, and 25% for 2001-2005.

The total revenues for Commerce:Software Distribution are:

Americas	$100,032,000
International	$24,912,000
World-Wide	$124,944,000

c. **Cost Projection**

The detailed cost projections for Commerce:Software Distribution are shown in Appendix J-4 Table 84. The cost ratios have been modified from the other new CVG product to reflect a high cost of revenues and a reduced cost of R&D over the latter years. Again, note that the sales costs are relatively low, partly because of selling into the CVG installed customer base for the network and virtual communities marketplaces. We used the same ratios for International as for Americas.

The total costs for the forecasted period are:

Americas	$70,564,000
International	$17,569,000
World-Wide	$88,133.000

d. NPV Calculations

The detailed NPV calculations for Commerce:Software Distribution are shown in Appendix J-4 Table 85. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate, the NPV values are:

Americas	$11,714,000
International	$3,786,000
World-Wide	$15,500,000

H. ISG New Product Valuations

There are three new products planned by the Interchange Software Group. Each will be valued separately: (1) Gentran:EDX, (2) Gentran:Web Suite Express and (3) Gentran:Sell Suite and Gentran:Buy Suite. The detailed calculations are shown in Appendix J-5.

1. Gentran:EDX

Gentran:EDX will include a restricted-use version of Connect:Manage with Gentran:Server to extend the EC Messaging capabilities with remote systems management.

a. Market Opportunities

Principal functions of this product will include security and manageability for remote connection and scheduled remote communications with commerce partners. Platforms would include NT, UNIX, AS/400 and mainframe (S/390).

Major markets will include traditional EDI and enterprise application integration. Geographically, markets will include U.S. and Europe initially, followed by Asia and Latin America. Broader markets could also include large corporations with a variety of computing platforms and business applications that span most any industry including government. The size of the North American traditional EDI market will grow from $270M in 1997 to $560M in 2001 (Dataquest CAGR of 20%). The size of the worldwide enterprise application integration market is expected to grow from $300M in 1996 to $2.5B in 2001 (META Group).

b. Revenue Forecast

BGAI used the following factors in forecasting the revenues for Gentran:EDX, called ISG A, in Appendix J-5 Table 90.

- New licenses will start in 1999 and grow throughout the forecast period, rapidly at first and then at a declining rate.
- Professional services would be an ongoing revenue source at 20% of the new licenses revenue each year.

- Upgrades are a major long-term revenue contributor; they have been computed at 20% of the initial price value of the installed base.
- Maintenance is also a strong revenue source with 10% annual erosion and a 20% annual maintenance fee. Initial maintenance acceptance is 100%
- International will follow the same pattern as Americas, producing 25% of the world-wide revenues throughout the forecast period.

The total revenues for Gentran:EDX are:

Americas	$87,770,000
International	$29,257,000
World-Wide	$117,027,000

c. Cost Projections

The detailed cost projections for Gentran:EDX are shown in Appendix J-5 Table 91. The cost ratios follow the historic ISG cost ratios, but with a higher initial marketing and sales ratio, dropping from 45% to 30% over the first 4 years. International costs follow the same pattern.

The total costs for the forecasted period are:

Americas	$63,567,000
International	$21,189,000
World-Wide	$84,756,000

d. NPV Calculations

The detailed NPV calculations for Gentran:EDX are shown in Appendix J-5 Table 92. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate, the NPV values are:

Americas	$10,547,000
International	$4,566,000
World-Wide	$15,112,000

2. Gentran:Web Suite Express

Gentran:Web Suite Express is a web application framework allowing companies to deploy web applications that automate business processes. The product will use Connect:Manage functionality to facilitate remote Internet systems management.

a. Market Opportunities

Gentran:Web Suite Express will support four platforms: NT, UNIX, AS/400 and S/390. It will compete in the market generically known as Web Commerce. Geographically, markets would include U.S., Europe, Asia and Latin America. Major competitors would include Harbinger and Netscape. Other competitors would include CrossRoute, WebMethods, CrossWorlds and Neon. According to Gartner/Dataquest research, the

market for Business-to-Business Web Commerce applications was $28.5M in 1997 and is projected to be $1.27B by 2002.

The initial release of Gentran: Web Suite Express will be the second quarter FY99. The fully integrated release is planned for fourth quarter FY99.

b. Revenue Forecast

BGAI used the following factors in forecasting revenues for Gentran:Web Suite Express, called ISG B, in Appendix J-5 Table 93:

- New license revenues will start in 2000 and grow steadily throughout the 6 year planning period.
- Professional services are very significant with revenues at 80% per year of new license fees.
- Maintenance grows steadily throughout the 6 years with a 10% annual erosion rate and a 20% annual maintenance fee. Initial acceptance is 100%.
- International will follow the Americas pattern of growth for all revenue sources, although at 40% of the Americas revenues.

The total revenues for Gentran:Web Suite Express are:

Americas	$61,955,000
International	$24,782,000
World-Wide	$86,737,000

c. Cost Projections

The detailed cost projections for Gentran:Web Suite Express are shown in Appendix J-5 Table 94. The cost ratios are somewhat higher than ISG's historic ratios. This is accounted for by the higher marketing and sales ratios, starting at 50% in 1999 and dropping only to 40% over the 6 year period. International costs will follow the Americas pattern.

The total costs for the forecasted period are:

Americas	$51,160,000
International	$20,464,000
World-Wide	$71,624,000

d. NPV Calculations

The detailed NPV calculations for Gentran:Web Suite Express are shown in Appendix J-5 Table 95. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after tax discount rate, the NPV values are:

Americas	$4,548,000
International	$2,362,000
World-Wide	$6,910,000

3. Gentran:Sell Suite and Gentran:Buy Suite

Gentran:Sell Suite is a Web-based order management solution which leverages existing electronic commerce systems to provide an integrated way to select and place orders for any type of product. It is aimed at business to business transactions and can be provided as a software product or as a hosted service.

Gentran:Buy Suite is a business user-driven solution to coordinate enterprise-wide selection and purchasing of all goods and services needed by the various organizations within the enterprise. It will be typically delivered to the enterprise as a software product, but will also be available as a hosted service.

The acquired XNet technologies provide the heart of this product/service offering since they permit efficient user access, either web-based or internal server-based from remote, mobile and LAN sites.

a. Market Opportunities

The market opportunities for Gentran:Sell Suite are broad. Essentially any provider of business products or services can use this vehicle as a means of reaching all of its potential customers, providing "interactive" catalogs and being able to conclude all elements of a sales transaction: ordering, delivering, billing and collecting. By also providing content preparation and management, Gentran:Sell Suite can obtain a substantial market share of this yet unrealized but very large market opportunity.

As the flip side of the coin, Gentran:Buy Suite provides all business buyers of products and services the means to control and guide their employees (purchasing agents and others) in using approved products from authorized vendors. In this way they can be sure to get the best products and services at attractive prices and delivery schedules. Again, this is a mammoth potential market with ISG being able to become the market leader.

b. Revenue Forecast

BGAI used the following factors in forecasting revenues for Gentran:Sell Suite and Gentran:Buy Suite, called ISG C, in Appendix J-5 Table 96:

- New licenses for both offerings will start slowly in the Americas in 1999 with strong growth during the entire forecast period.

- The professional services revenues will be quite strong at 100% of the new sales revenue. This is work which is required to set up the catalogs and train the customers to maintain and enhance them. It will include installation assistance for those who will use their own servers.

- Maintenance has been combined with hosting services in the calculations. The price per year will be 20% for maintenance and effectively 15% for hosting, taking into consideration that only about one-half of the customers will use ISG's hosting services. These revenues are based on a 10% per year erosion rate.

- International will be a later entry starting in 2000. New licenses will then grow as rapidly as in the Americas, wth corresponding revenues for professional services, maintenance and hosting services.

The total revenues for Gentran:Sell Suite and Gentran:Buy Suite are:

Americas	$230,505,000
International	$105,165,000
World-Wide	$335,670,000

c. Cost Projections

The detailed cost projections for Gentran:Sell Suite and Gentran:Buy Suite are shown in Appendix J-5 Table 97. The cost ratios are somewhat different from the ISG historic pattern. Since these offerings are heavy on professional services, the cost of revenues are 20%. The marketing and sales costs start at 40% and decline to 32% by 2005. The R&D and G&A costs are similar to the other ISG products. International has the same patterns, with a one-year lag.

The total costs for the forecasted period are:

Americas	$197,362,000
International	$89,361,000
World-Wide	$286,723,000

d. NPV Calculations

The detailed NPV calculations for Gentran:Sell Suite and Gentran:Buy Suite are shown in Appendix J-5 Table 98. Using the Americas tax rate of 38.4% and the International tax rate of 20% with an 8.5% after discount rate, the NPV values are:

Americas	$13,813,000
International	$8,311,000
World-Wide	$21,124,000

I. Summary of New Products Valuation

The overall summary for all of the new SCI products and offerings is shown in Table 10 in Appendix J-1, with the overall Americas summary in Table 11 and the overall International summary in Table 12.

The summary tables for each SCI group are in Tables 20-52 as designated below for each group:

	MSD	CSG	CVG	ISG
Worldwide Summary	20	30	40	50
Americas Summary	21	31	41	51
International Summary	22	32	42	52

All of the detailed new product valuation tables are included in Appendices J-2 through J-5 with table numbers noted in the upper right-hand corner of each table:

	MSD	CSG	CVG	ISG
Revenue Calculations	60, 63, 66	70, 73	80, 83	90, 93, 96
Cost Calculations	61, 64, 67	71, 74	81, 84	91, 94, 97
Net Present Value	62, 65, 68	72, 75	82, 85	92, 95, 98

Based on this projection and analysis procedure, BGAI has determined that the new product NPV valuations are:

($000)	Americas	International	Total
MSD	38,869	17,541	56,410
CSG	43,753	13,002	56,755
CVG	31,896	12,432	44,328
ISG	28,907	15,239	44,147
Total	143,425	58,214	201,640

These new product values will be used in determining the value of the XNet technologies for each new product in Section VII.

SECTION VII. Summary of Valuations and Recommendations

SCI has determined that the effective acquisition cost for all of the intangible assets obtained from XNet is $203,047,000.

In Section V, we determined that the net present value of the acquired XNet product (RemoteWare) was $24,861,000, to be amortized from the date of acquisition over five years.

In Section VI, we determined that the net present value of the new SCI products which would use the available and in-process acquired XNet technologies was $201,640,000. This total value must be allocated between the contribution from the XNet technologies and from the SCI technologies used. The XNet technologies contribution must then be allocated between technologies from RemoteWare Express (RWE) and from the new XNet R&D efforts. This establishes the acquired new XNet technologies value which must be written off under FAS2 R&D rules.

Finally, the values of the acquired RemoteWare product and the acquired new XNet technologies must be subtracted from the total intangibles acquisition cost to determine the amount to be assigned to the other intangible assets. We have examined some of these other intangibles to check for reasonableness and to determine amortizable life.

XNet Technologies Valuation

To allocate the total net present value of the new products and offerings, BGAI had to establish the relative significance of the XNet and SCI technology contributions to each new product. This was done using the information in Appendices G-1 through G-4. Appendix K-1 shows the allocation percentages between XNet and SCI technologies for each new product.

Using these percentages against the values for each new product as determined in Section VI, BGAI constructed Appendix L-1 which shows the specific values allocable to the acquired XNet technologies for each new product and offering.

The results of these calculations are summarized below:

New Products	Total Value ($000)	Value XNet ($000)	% XNet	Value SCI ($000)	% SCI
MSD	56,411	56,411	100	0	0
CSG	56,755	27,579	49	29,176	51
CVG	44,328	19,716	44	24,612	56
ISG	44,147	35,835	81	8,311	19
Total	201,640	139,540	69	62,099	31

Therefore, the total value of the acquired XNet technologies, using the net present value of the operating income cash flow from the planned future products is $139,540,000.

Acquisition of trained personnel provides a direct benefit to the acquiring company since it avoids the costs of recruiting, training and bringing these employees to their full level of productivity. These costs are particularly high for experienced programmers and there is intense recruiting competition for successful software sales representatives.

SCI expected to retain most of XcelleNet's 300 employees (as of 7/21/98). In BGAI's consideration of the value of the XNet acquisition to SCI, these avoided employee costs would have been close $10 million. This is a one-time saving occurring principally in the first year, but which should be included as a going concern value and amortized over an 8-10 year period.

The XNet customer base of 1,700 active customers was another direct benefit to SCI as a result of the acquisition. Thirty percent of these customers overlapped with the CSG customer base with a substantially lesser percentage for the other SCI groups.

Acquiring a new customer is an expensive marketing and sales process. But once a company has a customer, they are far more apt to buy additional products than a non-customer. All of SCI's groups have many products and services which would be of direct value to the XNet customers and they will have many more such products in the future (unrelated to the XNet technologies).

The valuation study has specifically excluded the value of selling any current SCI products to the XNet customer base. It has not given any special buying likelihood to these XNet customers for the new products and services to be offered by CSG, CVG and ISG, although it has considered these XNet customers as prime buyers of the new MSD products.

Roughly, we believe that, on the average, the existing, non-overlapped XNet customers would be worth at least $20,000 net present value each over a ten year period. This would yield a net present value of around $20,000,000 as of the date of acquisition.

The value of the developed RWE technologies has been analyzed as part of the XNet technologies value. Appendix L-2 shows these calculations producing a value of close to $25,000,000. The life expectancy for these developed technologies should be at least 10 years.

These three elements make up the bulk of the value of the other intangibles. Since the life expectancy of these items and the other goodwill elements are similar, BGAI did not believe that a detailed separate valuation was worthwhile. BGAI recommends that the residual value of $63,491,000 realistically represents the value of all of these going concern and goodwill elements and that it be amortized over a 10-12 year period.

Summary

Using the logic and calculations in this report, with appropriate guidelines from FASB, AICPA and SEC, BGAI recommends that SCI use the following valuations for the acquired intangible product and new technologies assets as of the date of the acquisition :

	($000) Valuation	Amortization Period	Amortization Method
Acquired XNet Products			
Connect:Remote	24,861	5 years	S/L or Revenue Ratio
Total Product Value	24,861		

Acquired New XNet Technologies			
New MSD Products	46,388	Write off at acquisition	
New CSG Products	25,632	Write off at acquisition	
New CVG Products and Services	15,794	Write off at acquisition	
New ISG Products and Services	26,880	Write off at acquisition	
Total New XNet Technologies Value	$114,694		

The total valuation of these XNet intangible assets, excluding other intangible assets, is $139,555,000. The residual value of the other intangible assets is $63,491,000 which principally comprises trained personnel, customer base and developed technologies. The other intengibles should be amortized over 10-12 years.

This concludes the XNet intangible assets valuation and allocation report.

RWE Technologies Valuation

To establish the relative significance of the core technologies reused from RemoteWare Express (RWE) in producing Connect:Manage and subsequently in producing the other nine new products, BGAI used the information in Appendix G-1 pages 3 and 4, in Appendix G-2 pages 5 and 6, in Appendix G-3 pages 4 and 5 and in Appendix G-4 pages 4 and 5.

Based on the RWE technologies and the new XNet technologies contributions, percentages were determined as shown in Appendix K-2 for the RWE and the new XNet technologies. BGAI then constructed Appendix L-2 which shows the specific values to be assigned to the new XNet technologies and to the RWE core technologies for each planned product.

The results of these calculations are summarized below:

New Products	Total XNet Technology Value ($000)	% XNet New Technology	XNet New Technology Value ($000)	% RWE Technology	RWE Technology Value ($000)
MSD	$56,411	82	$46,388	18	$10,023
CSG	27,579	93	25,632	7	1,947
CVG	19,716	80	15,794	20	3,921
ISG	35,835	75	26,880	25	8,954
Total	$139,540	82	$114,694	18	$24,845

Therefore, the value of in-process R&D technologies acquired from XNet is $114,694,000. This value should be written off per FAS2 as of the acquisition date of July 21, 1998.

Other Intangible Assets

The principal other intangible assets acquired are:

- trained personnel (assembled work force)
- established customer base (customer relations)
- developed technologies (core technologies in future products)

The remaining elements of infrastructure, name recognition, channel relationships, business procedures, etc. are of only limited value to SCI, since SCI already has most of these capabilities and will integrate the XcelleNet going concern elements into the Managed Systems Division (MSD) and the Communications Software Group (CSG). The value of all other technologies is $63,491,000 which was calculated by subtracting the values of product and new XNet technologies from the total intangibles acquisition cost.

In examining the value of the other intangibles, BGAI has been careful not to double count those market values already included in the product valuation or the technologies valuation.
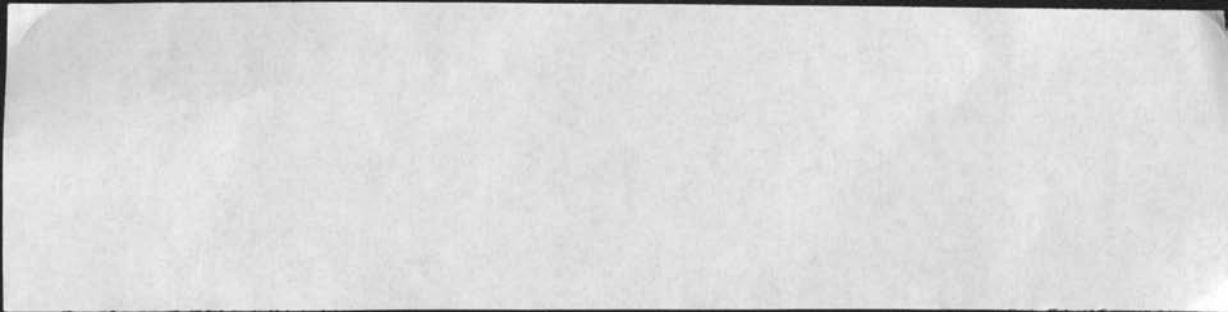
Professional Summary

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

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.
101 Post Road East
Westport, Connecticut 06880
(203)222-8718
(203) 222-8728 FAX

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 TI/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.

JEANNE T. MCCONNELL
41 Highland Road
Westport, CT 06880
(203) 227-1607

SUMMARY

Hands-on Operations Manager with success in P&L management, strategic direction and tactical implementation, marketing and sales, technology and financial management. Commitment to profitability, quality, and team building with staff, management, customers and suppliers. Has created, managed and turned around new businesses. Excellent people management and negotiation skills. Expertise in all IS functions - software, hardware, applications and connectivity with a specialty in Image related technologies.

EMPLOYMENT HISTORY

1987 - Present   **NYNEX Corporation,** White Plains, New York
Northeast Regional Bell Operating Company and provider information solutions.

Managing Director, Image Management	4/90 - Present
Vice President, New Business Development	1989 - 1990
Vice President, Video Information Services	1988 - 1989
Director, Marketing and Sales Support	1987 - 1988

1974 - 1987   **Pitney Bowes, Inc.,** Stamford, Connecticut
Business equipment and supplies provider, Fortune 200 Company.

Director, MIS	1985 - 1987
Director, Systems Development and Operational Training	1983 - 1985
Assistant Controller	1979 - 1982
Project Manager/Lead Systems Analyst	1974 - 1979

1972 - 1974   **Chase Manhattan Bank, NA,** New York, New York
Senior Systems Analyst

1970 - 1972   **Farrington Manufacturing,** New York, New York
Sales Representative
Systems Engineer

1968 - 1970   **John P. Maguire, Inc.,** New York, New York
Business Consultant

1966 - 1968   **Control Data Corporation,** New York, New York
Systems Engineer

EDUCATION

MBA - General Business - University of Connecticut
BS   - Marketing - University of Bridgeport
AA   - Accounting - University of Bridgeport

Jeanne T. McConnell

MAJOR CAREER ACHIEVEMENTS

At NYNEX -
As Managing Director, Image Management Services

- Conceived and established a marketing strategy for document image processing and management by delivering products and services through existing channels - 77 business centers, 35 professional services and integrations offices, and NYNEX locations worldwide.
- Introduced first service in May with $400,000 in revenue in June with expected revenues in excess of $20 million in 1991.
- Multiple-product and services supplied providing complete, integrated image solutions from design, through hardware and software delivery, project management, post installation support and maintenance.

As Vice President, New Business Development:

- Developed a Business Strategy for Nynex to do market entry into image management leading to a $250 million business. Received $11.5 million funding to start new venture.
- Identified and negotiated relationships with strategic partners and acquisition candidates in imaging services and products.

As Vice President, Video Information Services:

- General business manager with P&L responsibility managing 65 people - success through strategic, financial, and tactical savvy, delivering quality products with sound product planning, marketing, sales motivation and support, complex project management, high-tech staffing and customer relationships.
- Product line included interactive and broadcast systems using networks and multimedia technologies, video conferencing, and videotext.
- Sold and delivered major systems to state and local governments, Fortune 500 companies, public information services, NYNEX Corporate and smaller organizations, totaling $10 million in revenue as a start-up business.
- Designed and implemented advertising and promotion program to reach vertical and horizontal markets.
- Recommended disbanding unit because profitable market slow to evolve.

As Director, Marketing and Sales Support:

- Established new organization to provide technical sales support, marketing, product planning, and management consulting.
- Contributed to increasing sales from $2 million to $6 million to outside markets by introducing 5 new products.
- Created new, profitable IS consulting practice yielding 50% gross margin.
- Set company marketing prices and policies meeting margin goals while remaining competitive.

Jeanne T. McConnell

At PITNEY BOWES -
As Director, MIS:

- Directed the design of a contemporary Order Processing System. Technical development of an IBM 3090/200 with a nationwide network. Managed 110 professionals with annual budget of $6 million. System designed to produce invoices for $1 billion in annual revenue and to deliver $10 - $12 million in bottom-line improvements.
- Managed IBM Data Center establishing management controls, providing 99.5% uptime.
- Developed and delivered the Five Year MIS Strategic Plan, setting business and technical strategy for use of $200 million of MIS resource.

As Director, Systems Development and Operational Training and Assistant Controller:

- Directed, as part of Financial Division, activities of seven managers and 54 people with annual budget of $2.1 million.
- Created, automated, and managed financial line organization and automation to support $20 million facsimile business. Maintained costs below 2%.
- Implemented a service call control system to ensure accurate customer billing; increased profitability by $2 million.
- Devised pricing control system, reducing manual exceptions to 20% from 85%, improving annual cash flow by $2 million and eliminating $175,000 clerical expense.
- Reduced cost by holding clerical growth to 2% compared to 5-6% transaction growth.
- Increased productive use of micros/PCs and timesharing from two to 110 people.

As Project Manager/Lead Systems Analyst:

- Implemented major programs such as an Inventory Control System, saving $1.7 million annually.

At FARRINGTON -

- Named "Sales Rookie of the Year" by delivering company's first sale of the year.
- On team that delivered OCR operating system for new, leading edge product line.

Gary McSwain

Post Office Box 7042
Chestnut Mountain, GA 30502
(770) 967-8260

EDUCATION   College of Charleston, May 1986 - Bachelor of Science in Computer Science
Andersen Consulting, April 1994 - Certified client-server developer of applications in FOUNDATION 2.0
The Inteq Group, August 1995 - Certified in Data Modeling and Relational Database Design
Developing in Java, April 1996 - Georgia Institute of Technology one day course
Inside Jaguar and PowerJ, October 1997 - Sybase Inc. one day course
Oracle 8.0 internals on Sequent's Quad SMP machine, April 1998 – 2 day course taught by OEMs

EXPERIENCE

3/98 - present   **Kaiser Permanente**
Principal Consultant
Member of the National Pharmacy Data Warehouse project utilizing my data analysis, database design, and programming skills. Gathered detailed requirements from Regions across the US. Used S-Designor to create physical models. Used C++ to write a very complex data scrubbing tool to edit data before being loaded into Oracle 8.0 tables. Used C++ to write all data load programs that feed the data scrubber.

4/97 – 3/98   **MCI Telecommunications**
Project Manager / Lead Architect
Managed, architected, and developed WebForms, a 3-tier Intranet to process all commissions and bonuses for internal sales group. Project management involved requirements meetings, detailed proposal, budget, project plan, and five person resource management. Architecture consists of Java based thin browser clients accessing business objects written using PowerJ and Power++ hosted on a dedicated Jaguar server using jConnect to access data on a dedicated Sybase server. Used SQL-Programmer 2.0 and Sybase Transact SQL to develop complex stored procedures which utilized advanced SQL Pivoting techniques for query optimization to create custom financial reports for MCI/WorldCom merger.

6/96 - 2/97   **Federal Express**
Principal Consultant
Architected and developed *Shipnet-2000*, a 3-tier client-server package responsible for $1.5B in revenue that is designed to rate, route, label, and track all packages shipped by high volume customers. Wrote C++ class library to encapsulate all ODBC function calls into simple, easy to use interfaces. Used S-Designor to perform logical and physical database design consisting of 105 tables. Development was performed using Visual C++, Visual Basic, MFC, Access, Sybase, OLE and ODBC. Developed an Intranet to track software bug fixes during system testing phase using Website WebServer, HTML, CGI, Access, and Visual Basic.

6/95 - 5/96   **Peachtree Software**
Database Architect
Performed entire database design for Apollo®, a new small business accounting product for Windows 95 and NT. Translated accounting requirements into logical and physical models for AR, AP, GL, Inventory, Sales, Jobs, and Payroll. Performed all DBA functions including proprietary strategy to create and authenticate individual databases for New Company Setup. Assisted programmers with writing SQL queries. Wrote all SQL views for the reporting engine. Programmed Sales Taxes, Finance Charges, and Shipping Methods GUI screens using a Single Document Interface. Programmed custom Tabbed Dialog and Wizard user interface controls. Used InstallShield to write installation programs. The development was performed using Sybase SQL Anywhere, S-Designor, SQL, ODBC, VISUAL C++, and MFC.

10/94 - 6/95 **Georgia Pacific**
Senior Consultant
Developed OLE Automation Servers for all C++ and Visual Basic programmers to perform common application services such as Error Handling, Message Display and Logging, Security, and Memory Management. The analysis was performed in JAD sessions. The class designs were performed using an iterative and incremental process using the Booch methodology. The class diagramming was performed using the Rational Rose CASE tool. The programming was performed using VISUAL C++, OLE 2.0, MFC, ODBC, SQL, Windows NT, Microsoft SQL Server, and Access.

4/94 - 9/94 **Andersen Consulting**
Senior Consultant
Developed VIRTUOSO II, a client-server cellular billing system for GTE. The *clients* were developed using VISUAL C++, C, and the Windows SDK. The *servers* were developed using UNIX, C, embedded SQL, SYBASE, and INFORMIX. Performed DBA functions to support database architecture. All work adhered to a strict, repository based, detailed design methodology.

11/93 - 3/94 **Lockheed**
Senior Consultant
Developed a client-server inventory management system for the F-22 fighter aircraft division. Used C, Windows, Unix, Sybase, Transact SQL, and DB-Library to develop applications that were used by major parts suppliers to access a DB2 mainframe database to provide 'Just In Time' inventory management.

10/90 - 10/93 **In Touch Inc.**
Project Manager / DBA / Programmer Analyst
Designed and developed a Television and Radio Information System using C, UNIX, embedded SQL, and INGRES. Wrote over 21,000 lines of C code and over 410 SQL statements for subsystems which included Inventory, Telephone Ordering, and Data Entry. Wrote 24 conversion programs in C to convert legacy B-tree file data to INGRES table data. Performed all DBA functions for PM including creating and populating tables, storage structures, implementing rules and stored procedures, and optimizing database performance.

7/89 - 9/90 **Automated Design Systems**
Programmer Analyst
Developed a Training and Enrollment System for General Motors to maintain and coordinate the training history of employees for 104 plant and office facilities. Developed Training History, Employee Skills, Tuition Assistance, and Print Controller applications using SQLWindows, C, Windows SDK, and Oracle.

1994 - 1998 **Database Technologies**
1998 - Internet Application Architect
Architected and guided the development of a Java based Internet application for I-Net Solutions Inc. that serves the Home Care Service industry.

1996 - Retail Product Architect
Developed EasyINN®, a Reservation Information System, for the Bed and Breakfast Industry. This retail product sells for $149 to a target market of 21,000 B&Bs and INNs across the United States and Canada. The product is written for Windows 95 using VISUAL C++, C++, MFC, Crystal Reports, OLE Custom Controls, Sybase SQL Anywhere, S-Designor, SQL, and ODBC.

1995 - Non-Profit Product Architect
Developed PROGNOSIS®, a personal medical information system, for the CFIDS Association of America using VISUAL C++, C++, MFC, ODBC, and the POET object oriented database.

1994 - Management Consultant
Provided a thorough technical evaluation of ORACLE, SYBASE, INFORMIX, UNIFY, and PROGRESS database engines and application development environments. This evaluation was used by Satellink Paging Inc. to select a vendor for all new application development.

Martin Y. Silberberg

2521 Palisade Avenue
Riverdale, New York 10463

Telephone: (718) 549-4901
Fax: (718) 549-4825

Resume of Professional Experience

Summary of Qualifications

Extensive experience and skills in project organization and management, people management, problem analysis, solution design and implementation, negotiation for agreement and strategic planning. Proven ability to organize and conduct complex projects with both technical and marketing components through the application of skills in planning, organizing, communicating and staff motivation.

Current Status

Retired from IBM August 1991 to start my own consulting company, Creative Management Applications, Inc. Company name was later changed to MYS Management Services.

IBM Experience

During an extensive career in IBM, I held a wide range of business management, product marketing, application marketing, strategic planning, software development and application development positions. Gained significant people and project management experience and training; managed both small teams of high-level staff professionals and development teams of up to 60 people; and worked both field and headquarters organizations. My family and I lived in Japan for three years with IBM. I also had considerable work experience with IBM country staff and organizations in Canada, Australia, Asia and Latin America.

Among the major accomplishments, I would note the following:

- ❖ Implemented the IBM/InterBold Agreement on ATM marketing in Latin America (1990/91)

- ❖ Developed a strategy for marketing IBM point-of-sale products in Latin America (1990/91)

- ❖ Defined and implemented the strategy for efficient electronic dissemination of marketing information, design tools and messaging capability to customers in Latin America. This required management of development teams in Toronto and Buenos Aires and coordination of multiple in-country planning and installation activities. (1988/90)

- ❖ Managed the operations of the six software distribution centers serving the Latin America and Asia Pacific countries. A particular challenge was to prepare for the announcement of the AS/400, which had some unique requirements. (1986/88)

- ❖ Developed and applied strategies for marketing high-volume products (personal computers, small systems and terminals) in Latin America and Asia Pacific. This included analyzing and adapting the brand marketing techniques of such companies as Procter & Gamble and General Foods. (1979/84)

❖ Managed the application development activities of a selected group of specialists assigned to work in Japan in key industry application areas. Was responsible for our efforts in the manufacturing, process, distribution and public sector industries. (1973/76)

❖ Managed the development of several major successful software packages for process control and computer simulation applications. (1966/73)

Creative Management Applications Inc. (CMA) and MYS Management Services Experience

Since leaving IBM, I have been involved in a variety of projects consistent with my company business scope and objectives. Especially noteworthy are the following:

❖ Performed a detailed technical assessment of a software vendor's development projects that were experiencing difficulties; recommended and helped implement corrective actions; then designed and helped implement a successful technical, marketing and organization plan for the products.

❖ Took a lead role in the preparation of a comprehensive report for MITI on the evolution and status of the U. S. packaged software industry.

❖ Took a lead role in development of a strategic plan for an IS professional services firm.

❖ Developed and helped introduce/implement a set of position descriptions, project procedures and documentation standards for a software and services vendor that had outgrown its informal structure and was very much in need of procedures, better internal communications and controls.

❖ Managed the requirements definition and product options evaluation for automation of a medical group laboratory.

❖ Served as acting director of operations for a medical group, focusing on improving its administrative (billing/accounting), management and personnel procedures.

❖ Participated in multiple due diligence studies with particular emphasis on the operations and strategic planning activities of the target organizations.

Education
❖ Dr. Engineering, Yale University, 1957
❖ Masters in Engineering, Yale University, 1951
❖ BEE, Polytechnic Institute of Brooklyn, 1950
❖ Extensive management training in IBM (people management, project management, negotiation skills)
❖ Certificate in Management of Non-profit Organizations, New York University Summer Institute, 1991

Personal
❖ Married, two daughters no longer at home; resident of New York State since 1976; served in the U. S. Army from 1954-1956; good health

RESUME

NAME: Carol Anne Ances

ADDRESS: 5 St John Place, Westport, CT 06880
(203) 454-2104

EDUCATION: B.A. in Psychology, Dickinson College, 1965
M.A. in Education, Michigan State Univ., 1967

EXPERIENCE:

9/73 - now: Data processing consultant (through own corporation, Ances Associates, Inc.) with emphasis on user requirements analysis, application software selection, system design, installation, training, documentation and ongoing user support. Recent specialization on microcomputer hardware and software selection and training, including Novell networks, and installation and support of accounting, order entry, data base and word processing applications.

7/67 - 8/73:   IBM Corp., White Plains, NY. Computer Based Training (CBT) course development, evaluation, course author training, system development and market support.

SOFTWARE: dBASE/FoxPro (multi-user), Paradox, WordPerfect, CBT authoring systems (Scholar/Teach, Phoenix, IIS), SuperCalc, Lotus, Novell Netware, Smartcom, Procomm, Computer Associates ACCPAC Accounting Systems (GL, AR, AP, Payroll, Order Entry).

APPLICATIONS: Order entry/inventory/sales analysis, word processing, attorney timekeeping, payroll, general ledger, AR, AP, client billing, micro/mainframe data transfer, manufacturing, pharmaceutical clinical testing, prospect management, statistical research, advertising spot management.

CONSULTING ASSIGNMENTS:

Microcomputer system application design, development and testing. For a variety of small to medium sized businesses, conducted computer feasibility studies, designed systems (accounting, order entry, word processing, etc.), implemented the designs (including managing custom programming and network integration), developed user documentation, trained users

and provided continuing support. Designed and implemented data base systems using dBASE, FoxPro and Paradox. Designed and implemented spreadsheets for commissions, sales analysis and manufacturing cost analysis.

Designed, implemented and supported a 50-station Novell network for automated test evaluation and report preparation. The system consists of an integration between Pascal, FoxBase, WordPerfect and C programs, and includes analysis of scanned input and production of FAX output. Developed on-line help for Paradox-based application. Established pre-release test procedures for large pharmaceutical firm; supervised team of test personnel.

Designed and coordinated the development of an ad spot management system for local cable stations. Responsibilities included designing system flow and user interface, coordinating between the client and the programmers, program testing, development of help screens and development of user documentation.

Programming. Designed and developed multi-user, networked programs for inventory analysis and reporting, order entry, accounts payable and other custom applications. Designed and wrote multi-user order entry, prospect tracking and research analysis programs using dBASE/FoxBase. Managed team of programmers on various projects.

Word processing training and support. Designed, implemented and documented macro-driven WordPerfect processing systems for a variety of small to medium sized businesses, with special focus on attorneys offices. Developed a three-day WordPerfect classroom training program. Conducted many one-on-on and small group WordPerfect training sessions.

User Training and Programming Documentation. Developed a variety of documents and manuals including word processing manuals, user's manuals and programmer's guide for IBM and other large firms; coordinated development of self-study training materials for IBM's Info Center/1 management support system. Taught Intro to PC and DOS seminar for computer store. Provided extensive end-user training and continuing support for a variety of computer applications including accounting, law offices, order entry, word processing, spreadsheets and data bases.

Computer Based Training (CBT) course design, development and author training. For IBM, Boeing, Equitable and other clients, established CBT course standards and procedures for the design, development and testing of CBT; completed overall course design, including selection of appropriate media; trained CBT authors; wrote CBT courses using tutorial, Computer Managed Instruction (CMI), testing and simulation techniques; managed CBT development team; evaluated completed courses; edited and revised courses; coordinated CBT courses with classroom instruction; prepared workbooks and other printed materials to be used with CBT.

Materials Received from Sterling Software and XNet

1. Sterling Commerce Acquisition of XcelleNet, Inc. 4/15/98 Presentation

2. Sterling Commerce Board Meeting Notes - 4/15/98

3. XcelleNet Annual Report 1997 Remote Systems Management

4. SCI Acquisition Memorandum for XcelleNet, Inc. April 1998

5. XcelleNet Product Plan Overview Presentation

6. MSD FY99 Business Plan July 16, 1998

7. XcelleNet Top Tier Customers 1998

8. Price List for RemoteWare Products and Services

9. XcelleNet 10K for 12/31/97

10. RemoteWare Express Server - Administrator's Guide

11. Microsoft and XcelleNet:Extending the enterprise-wide benefits of Microsoft backoffice-client/server computing to remote and mobile users. A White Paper from XcelleNet

12. Communications Software Group FY'99 Business Plan

13. Sterling Commerce, Inc. Communications Software Group '99 Business Plan Review Presentation

14. FY99 Sterling Commerce Web Commerce Plan Overview July 2, 1998

Valuation Study Contacts

XNet (MSD   Joe Owen
                       Corey Smith
                       Bob McGowan
                       Dennis Crumpler

CSG   Bob Barker
                       John Long

CVG   Jay Armstrong
                       Ed Hafner
                       David Winkler

ISG   Randy Harvey
                       David Evangelisti
                       Kevin Byrd
                       Greg Martin
                       Dave Wilkinson

SCI Corporate   Jim Hoyt
                       John Blaine
                       Clark Woodford

```
                    ┌─────────────────────────────┐
                    │ Sterling Commerce Corporate  │
                    └─────────────────────────────┘
```

Sterling Commerce Corporate

CSG
Communications Software Group

ISG
Interchange Software Group

CSG Functions

MSD
Managed Systems Division

ISG Functions

MVD
Managed Services Division

WCBU
Web Commerce Business Unit

CVG
Commerce Services Group

BSD
Banking Systems Division

CVG Functions

CPBU
Commerce Payments Business Unit

ID
Internation Division

SCI Organization Chart

Appendix B-3

XCelleNet Product Descriptions

1. RemoteWare Windows/NT

RemoteWare for Windows NT provides a powerful, but easy-to-use, PC-based foundation for the configuration and management of a remote enterprise. One RemoteWare Server can execute many simultaneous communication sessions while providing the necessary services to control and manage thousands of remote computers. As described in Section II, RemoteWare is a line of remote systems management products specifically designed and optimized to work in the remote environment.

RemoteWare Server is available in five configurations:

- Model 4/100 supports four simultaneous communications sessions and up to 100 computers

- Model 8/250 supports up to eight simultaneous communications sessions and up to 250 computers

- Model 16/500 supports up to 16 simultaneous communications sessions for thousands of computers

- Model 32U supports up to 32 simultaneous communications sessions for thousands of computers

RemoteWare Workstation:

- RemoteWare Workstation allows up to ten Windows NT workstations to access and control RemoteWare Servers on a local area network (LAN).

RemoteWare Basic Client

RemoteWare Basic Client enables communications between the RemoteWare Server and a remote PC (client). It provides communications services, file transfer services, messaging services (for Windows clients only) and session management services. The RemoteWare Basic Client runs in the background, allowing the remote computer user to run other software applications while communicating with the RemoteWare Server.

RemoteWare Management Client

RemoteWare Management Client includes RemoteWare AntiVirus Manager, RemoteWare Backup Manager, RemoteWare Software Manager and RemoteWare Inventory Manager, in addition to the RemoteWare Basic Client.

While RWE has had a clear goal and many outstanding capabilities (as described in the following paragraphs), it has so far been unsuccessful in the marketplace. XNet has a major development project in process (called Kodiak) to add all of the functionality in RW so as to enable a replacement product to achieve very significant market goals.

RemoteWare Express is intended to significantly simplify and automate the operations and procedures necessary to manage remote user systems via the corporate intranet. Using a centralized "transmitter," RemoteWare Express enables the system administrator to define delivery "channels" for software or information distribution. Through the RemoteWare Express Channel Administrator, channels can be made available for user subscription ("pulled"), or can be "pushed" to users by the system administrator. In either case, channel refresh schedules can be individually defined to ensure that information and applications are always up to date. The user can view these channels in one of three ways: from a browser, through Channel Viewer (a familiar Windows Explorer-style interface) or within the context of custom applications which can be channel-enabled through the RemoteWare Express API. The Channel Administrator allows system administrators to define and manage secure software and content delivery channels for specified groups of users.

The Kodiak in-process development effort will fully design and implement many of the functions listed below. In other words, many of the features described in RWE as well as in Software Manager and Session Manager are not yet effectively implemented to meet the market requirements and are being addressed by Kodiak.

RemoteWare Express Key Features:

- Optimized for Dial-Up Users
  - Differential download technologies eliminate unnecessary transfers sending on that content which is new or revised
  - End-to-end data compression of transmitted information
  - Pre-transmission compression and caching of frequently transmitted files
  - Checkpoint restart automatically resumes interrupted transfers from the point of failure, rather than starting over from the beginning
  - Built-in error checking and verification that the file transferred matches the master copy before writing to disk
  - Automated intelligent operations save end-user time

- Security Protects Sensitive Information
  - Microsoft RSA-based data encryption enables system administrators to protect specific channels during transmission
  - Password protection of designated channels limits access to authorized users only

- Scalability Supports Large Number of Users
  - Servers capable of handling hundreds of concurrent sessions supporting millions of user transactions per day

- System Logging and Status Provides Real-Time View and Comprehensive History
  - ▸ Detailed logging and reporting allows administrators to track system events and proactively troubleshoot potential problems
  - ▸ Dynamic status screen provides administrators with real-time view of system-wide activity

- Web-Friendly for Easy Integration
  - ▸ Works in familiar browser environments such as Microsoft Internet Explorer, Netscape Navigator and most other Windows-based browsers
  - ▸ Automatically generates required HTML to activate Web pages
  - ▸ Easily integrates information into new or existing Web page designs
  - ▸ Users can simply visit a Web page for click on a hyperlink to initiate information download

- Channel Viewer Offers Alternative User Interface
  - ▸ Users can view all available channels and scheduling rom an Explorer-style interface
  - ▸ Users can schedule the frequency with which software packages and content are serviced
  - ▸ Users can subscribe to software packages to be installed and continuously monitored for updates

Software Manager

A tool to create channels for the efficient delivery, installation and ongoing maintenance of software applications. Software Manager empowers system administrators with the tools necessary to manage the unique software needs of remote and mobile users. It provides administrators with the ability to efficiently, securely and cost-effectively distribute, install and manage software through intranet or Internet-based remote access.

Typically, users in the field are on their own to install and maintain the software on their systems. When problems occur, central support resources can be overwhelmed. Additional personnel may be required to meet the need and in some cases support staff may even be required to go to the remote site, thus driving up costs and driving down service levels for the entire organization. Even without support issues, the electronic transmission of new software files to remote users can be expensive if delivery methods, such as FTP, are not optimized for remote access. In the worst case scenario, diskettes or CD's are packed into mailers and sent off through the mail, and the success of enterprise-wide software deployment is left in the hands of remote users who may or may not know how to proceed. Unfortunately, this scenario is all too familiar to many IS organizations supporting large numbers of remote or mobile users.

Software Manager addresses these challenges by automating and optimizing the delivery of files, applications and updates to remote users via Web-based technologies. During a communication session between RemoteWare Express and the client user's system, Software Manager automatically checks installed software, verifies that it is current, look for damaged or missing files and downloads required files, based on channel refresh schedules or user-subscriptions. Then only the necessary files are delivered, using the communication optimization features of RemoteWare Express to minimize connect time.

Finally, once the remote connection is terminated, Software Express completes the software installation or update automatically, offline, without requiring end-user intervention. This automated delivery eliminates escalated support requirements, ensures control and consistency and reduces maintenance overhead.

Software Manager Features:

- Supports both shrink-wrapped and in-house, custom-developed applications, including Java, ActiveX and Plug-ins
- "Wizard" interface simplifies creation of software delivery packages
- Administrators can configure packages to install automatically eliminating the need for end-user interaction
- Packages can be forced out to users ("push") or made available to end users on a subscription basis ("pull")
- Incremental, ongoing software maintenance can be scheduled by users and administrators to take place automatically
- Criteria-checking ensures that new software is compatible with existing software and hardware on the client system

Session Manager

A robust scripting tool to create channels for efficient information delivery via automated communication sessions.

Session Manager is a powerful scripting tool that allows administrators to automate complex communication sessions with remote clients. With Session Manager, the common practice of sending files via FTP with an accompanying list of instructions can be a thing of the past. Using Session Manager, system administrators can eliminate end-user involvement in sending or retrieving files, modifying system INI or registry settings, copying or renaming files or creating directory structures. Events to be executed during a session between the server and client are quickly and easily defined using the Session Manager Channel Administrator. System administrators do not need to be C++ or Java programmers to take advantage of the powerful scripting capabilities. Simply select a desired event, such as Send File(s) to Client, then select appropriate options from a drop-down menu or toolbox.

RemoteWare Express Session Manager provides system administrators with the power of creating complex session scripts that send and retrieve files, create directory structures or modify system configurations on remote client machines without user intervention.

Session Manager's Powerful Point-and-Click Scripting -- With the powerful library of session automation commands, administrators have a wide range of options for how and when information is distributed.

XNet Technologies Summary

Product Group	Product	Principal Functions	Technologies
RemoteWare	Basic Client	Communications	Protocols Session Restart Checkpoint Restart Outbound Inbound Compression Safe Transfer Execute Server Performance Enhancements Distributed Server LAN Protocol and Redistribution Non-English Language Version
		Work Object	Selective Work Object Execution File Transfer Session Control File Disk Operations Advanced Events
		Scheduling	GUI Scheduler Persistent Scheduling Template Client
		Clustering	Multi Threaded Management
		Workstation Administration	Licensing Interactive Session-Mode 1 & 2
		Electronic Software Distribution	DOS Terminate Stay Ready
		Logging and Reporting	Server Event Log Client Event Log Reporting
		Alerts and Alarm	System Alarms User Alarms
		Security	Client Security User Security Administrator Security Encryption Security
		Messaging	MAPI Address Book Provider

Product Group	Product	Principal Functions	Technologies
Extended Client			
		Subscriber	
		Directory Services	
		Workshop	
			Data Exchange Agent
			ODBC Data Store Options
		Web Offline	
		Electronic Software Distrib.	
Managed Client			
		Software Manager	Licensing
			Workstation Administration
		Inventory Manager	External Control Files
		Antivirus Manager	
		Backup Manager	
		Microsoft SMS Agent	
		MS Management Console	
Other Interface Programs			
		Lotus Notes	
		Microsoft Mail Transport	Byte Level Differencing
			NT Domain Authentication
			SMTP Messaging Technology
		Tivoli Plus	
		Electronic Forms Applications	Rules Processing Engine
		Java Client	HTTP Encapsulation
			Multi Cast IP

Technology Identification and Review

Of

XcelleNet Software Inc.

June 27, 1998

By Gary McSwain

"Basic Services" Technology

Communication Protocol Technology
- Protocols
  - NetBEUI
  - Ipx/Spx
  - Tcp/Ip - mostly used for <u>inbound</u> communication (client to server)
  - Async - proprietary and used for <u>outbound</u> communications (server to client)

- Session Restart
  - This is used for restarting a sequence of work object events

- Checkpoint Restart
  - Makes sure that RemoteWare can begin where it left off through efficient use of not having to start from the beginning if a transaction is interrupted while in progress.
  - This can be used as a subset of Session Restart above

- Outbound Inbound Communications
  - For <u>outbound</u> communication, the server initiates the process. This is a distinct advantage to XcelleNet. For <u>inbound</u> communication, the client initiates the process.

- Compression
  - Compression Cache - A unique technology that looks at files in from the background that have already been precompressed to determine if they should be the next ones sent. This technology is used to save data transfer time.
  - Uses a variety of technology to compress information based on the particular need of the user or program. The advantage that Xnet has is how well it works and their ability to scale this technology.
  - Data compression
  - Asynchronous Compression - reliable guaranteed delivery that uses a pass/fail methodology to keep the user from worrying about the "packet transfer" details.

- Safe Transfer
  - Makes sure that you never have an unusable or incomplete file after or during a transfer. This service can be turned off and on. The Xnet version of this technology prevents loss of data by copying the file to be transferred to a TEMP directory, verifying the safe delivery, then renaming it to the destination location.

Work Object Technology

Client to Server collaborative scripts consisting of logic that allows an automated sequence of events (one or more) to occur. Unique is the feature where only one instance of the script is running both places (client and server) at the same time. These work objects which consist of one or more events provide all the tools to the programmer in a prepackaged library allowing the rapid creation of new products or services. The programmer does not have to be concerned with managing or testing the underlying code thereby reducing time to market for new products or current product enhancements. Predefined events that are deployed in current products are:

- Selective Work Object Execution
  - This technology allows a "user" to control exactly how many "work objects" to execute during a given session. A couple of common scenarios are:
    - Salesman is remote and going to dinner, they choose to execute all of the work objects.
    - Salesman is remote and has a few minutes between flights, they choose to execute only the critical work objects.
  - There are two types of WOE technologies
    - Forced Work Objects
    - Requestable Work Objects

- File Transfer events
  - move
  - copy

- Session Control events
  - A session can be controlled by any of 6 events:
    - Client
      - Manually - push a button on the GUI
      - Scheduled - sent to client from server
      - Programmatically - a program API call
    - Server
      - Manually - push a button on the GUI
      - Scheduled - sent to client from server
      - Programmatically - a program API call
  - branching
  - repeat loop
  - test against conditions
  - act against return codes

- File Disk Operations
  - copy
  - append
  - delete
  - remove directory
  - get files

- Advanced events
  - Define variables in a session - set/test these variables
  - Notify processes like named pipes
  - Directory synchs
  - Registry manipulation
  - INI file manipulation

Scheduling Technology

Very sophisticated technology at the client and server level that allows An automatic initiation of a session. In this scenario, the server contacts the client instead of the usual client contacting the server.. Used primarily for fixed location installations such as franchises and retail stores (e.g. The GAP store server can initiate hundreds of phone calls at one time to talk to each store to update the pricing file). In this model, the server calls the shots. Client can be configured, but not override the server; therefore, one central point of configuration.

- GUI Scheduler - This is very sophisticated proprietary tool that is a technology within itself. It is primarily used as for server scheduling
- Persistent Scheduling - Proprietary disk file scheduler that can survive a computer shutdown or restart and pick back up where it left off

Clustering Technology

More than one computer collaborating for capacity and reliability. Have more than one RemoteWare servers act as one logical RemoteWare server. This technology can support vast numbers of remote clients by just adding capacity (i.e. another server). This technology is unique in that it offers record level locking and not just file level locking.

Licensing Technology

This allows the control of how components and subcomponents are delivered on a server based on alpha-numeric key. When a customer purchases the product, all of the products are delivered on one CD. The particular software product that the customer purchases is "unlocked" using a specific "key". If the customer purchases another product, they do not have to wait for the product to ship, they just have to be given a new "key" which can be easily done over the phone. This technology also all allows for a Web Storefront where customers can download software from a customer website, then make perform some payment transaction and receive the appropriate "key" to unlock the components they downloaded.

External Control Files (ECF) Technology

99% of all operations that can be performed by the system are controlled using ASCII text keyword defined files that are organized like an INI file. RW looks in a specific directory for a file in ECF format and the RW server will process this file within 60 seconds. It can take a fully running RW server, write out its state information in ECF format, send this to another server and have the new server running just like the old one that sent the file.

API Technology

They have APIs to everything on the client and server to allow anything that the GUI can do, can be performed below the scenes using the API calls.

Execute Server Technology

Processes on RemoteWare servers are queued up to run as a FIFO list to maximize resource utilization of the server's abilities. This technology is good for unmatched resources.

Workstation Administration Technology

The technology lets administrators to be anywhere on the LAN or remotely connected and be able to control and administer the servers.

Electronic Software Distribution Technology

Multi Threaded Management Technology

All COM architecture is multi threaded. They rearchitected the NT servers so that they manage the threading instead of relying on the NT O/S.

DOS Terminate Stay Ready (TSR) Technology

The RemoteWare kernel server is architected to run as a TSR. All this functionality fits tightly into less than 90K. The technology directly manages the ports and manipulates the PCP.

Logging and Reporting Technology

Log every event inside every worklist inside every session that runs on a client into an event log. These logs are displayed using drill down technology utilizing color schemes differentiation. The event information is written using long English information strings.

Server Event Log Technology
Records all details of all events that take place on a server. These logs can be truncated is their length reaches a predetermined threshold.

Client Event Log Technology
Same technology as the server except at the client level.

Reporting Technology
Utilizes a GUI interface to select and execute reports. Have their own templates that are faster and precanned or can use Crystal Reports for custom reports.

Template Client Technology

This technology allows for templates to be defined and then deployed on new clients. When the new clients are first booted, an application wizard is run to capture information from the user. This information is then sent to the server which will then make a decision as to what to do with this new client. The client can be given the go ahead to proceed or can be put into a wait state until further notice. The administrator determines what actions are to be taken.

Alerts and Alarms Technology

System Alarms - A number of error and warning thresholds are used to notify the user of these conditions. These are logged and visual information pops up in the console.

User Alarms - Used by administrator to define any kind of condition they want to test for. Uses a log and visual alerts. Can be used for specific files on a client.

Directory Services Technology

Manages all clients on system and maintains information on all clients. Allows Add, Update, and Delete using their own directory structure because they can't rely on other systems to exist. This technology is sophisticated but fundamental.

Security Technology

Client Security - Authentication between client and server uses randomly generated magic cookies passed between them each time a session is run. This assures that the client is a valid RW client for this particular RW server. RW uses specific signatures, protocols, formats, and serial numbers to communicate between client and sever.

User Security - RW manages user names and passwords on the server

Administrator Security - There is always a "master" administrator that can define users and grant them specific access rights.

Encryption Security - A generic encryption subsystem that encrypts the substream so that every bit in the packet is encrypted. The standard is 40 bits but can be swapped to uses up to 128 bits. This technology is based on Microsoft Crypto API architecture to define how the calls are made, but does not use Microsoft's specific API calls.

Electronic Software Distribution

Very efficient method to maintain lists of files and directories where things can be found on the client. Can efficiently compare files on server and client to determine if they are in sync. If not then they can be updated if necessary. The default for this technology is ON and requires that an ESD list be built by an administrator. All of this processing takes place transparently to the user for the RW user and what the administrator sets up. This technology is used specifically in the publish/subscribe technology.

Interactive Session Technology

Ability to remotely control clients from the server through an interactive mode.

Mode 1 - Screen scraper mode where the screen, mouse, and keyboard are taken over and operated remotely.

Mode 2 - A non-disruptive, command oriented mode where events can be used by an administrator to check of repair the health of the remote clients. The key to this technology is that it is performed remotely and transparently to the user.

Messaging Technology

Takes the Microsoft technology and sticks themselves in between any MAPI compliant application and move the mail faster and more reliably.

MAPI Address Book Provider - Performs incremental address book updates to the client. Use this to provide a better remote user email. This is a MAPI message transport service provider technology.

"New" Technology

New Client Platforms to be Supported
- Windows CE
- Palm Pilots
- Sun Solaris
- HP UX

HTTP Encapsulation Technology

New technology within existing products that will encapsulate the RW protocols within HTTP. This is a major feature because everyone allows HTTP through their firewall. This will allows RW to get to any server and dramatically extends deployability.

Byte Level Differencing Technology

File sends, software distribution, and all data transfers are adding Byte Differencing. Here they extract the differences, compress them, send them to the client, and the client implements the changes. Now are able to do file, directory, and disk synchronization's amazingly fast because only the part that has changed is processed.. this technology is already in use for backups, except now it is going into the RW platform generically.

NT Domain Authentication

Not just proprietary authentication, now authenticate against the NT domain using NT's entire directory.

Performance Enhancements
- Using different compression algorithms
- Enhancing server scalability
- Speed enhancements

SMTP Messaging Technology

Faster more efficient checkpoint restart than the existing SMTP technology.

Rules Processing Engine

Define conditions to have rules applied to the client level

Distributed Server Technology

Remote Management - Central server automatically creates software distribution channel and sends all channel or application data or subscribes to those documents. Doesn't impose a rigid structure on the delivery. Provides remote administration.

LAN Protocol and LAN Redistribution Servers

Now going to move occasionally connected, low speed users across the LAN. This is a new selling market.

Multi Cast IP Technology

Uses IP protocol for batch oriented data delivery over thousands of users through manipulation of routers. Waiting for ISPs to flip a switch on their routers to open this market up.

SMS Technology

Have a software redistribution agent that sends SMS packets that do not have to be defined by the administrator twice.

Microsoft Management Console(MSMC) Snapins

Be able to support and administer a RW server from any NT computer that has MSMC installed.

JAVA Client

This technology is already complete but is considered new because it has not shipped yet.

Spanish Language Version

A new version of the software to be a complement to the existing French and German international versions

ODBC Data Store Options

Uses this technology instead of the Xnet proprietary option if the user chooses.

"Extended Client" Technology

Publish / Subscribe Technology

Allows the user to publish documents and lists of documents in a hierarchical structure. Allows a one time or permanent subscription from remote clients each time the client connects to the server. GUI controlled.

Workshop Technology

Lets the user manage the layout and force a password confirmation when the client boots up. Allows for control that an end user can see

*selected consolidated
financial data*

The consolidated statement of operations data for the years ended December 31, 1997, 1996 and 1995, and the consolidated balance sheet data at December 31, 1997 and 1996 are derived from the audited consolidated financial statements included elsewhere in this annual report and should be read in conjunction with those consolidated financial statements and notes thereto. The consolidated statement of operations data for the years ended December 31, 1994 and 1993, and the consolidated balance sheet data at December 31, 1995, 1994 and 1993, are derived from audited consolidated financial statements not included herein. The selected consolidated financial data set forth below should also be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations.

*summary of
selected financial data*

in thousands, except per share data

Year Ended December 31,	1997	1996	1995	1994	1993
consolidated statement of operations data					
Revenues:					
Software license fees	$34,320	$30,703	$25,612	$21,390	$14,222
Software upgrade fees and services	19,259	11,948	8,487	5,490	3,191
	53,579	42,651	34,099	26,880	17,413
Costs and expenses	49,492	43,585	29,331	21,707	14,484
Operating income (loss)	4,087	(934)	4,768	5,182	2,929
Other income, net	877	934	1,264	748	162
Income before income taxes	4,964	–	6,032	5,930	3,091
Provision for income taxes	1,819	–	2,230	2,375	1,149
Net income	$ 3,145	$ –	$ 3,802	$ 3,555	$ 1,942
Net income per share - basic	$ 0.39	$ –	$ 0.51	$ 0.55	$ 1.18
Net income per share - diluted	$ 0.36	$ –	$ 0.45	$ 0.45	$ 0.30
Weighted average shares outstanding - basic	8,035	7,229	7,387	6,493	1,648
Weighted average shares outstanding - diluted	8,692	7,915	8,480	7,833	6,450

December 31,	1997	1996	1995	1994	1993
consolidated balance sheet data					
Cash, cash equivalents and short-term investments	$29,289	$12,744	$18,419	$23,505	$ 4,381
Working capital	37,066	23,198	24,968	28,815	7,689
Total assets	55,583	36,683	33,461	36,144	12,208
Long-term debt	–	–	–	–	–
Total shareholders' equity	46,258	31,130	29,849	32,473	9,869

in thousands

This annual report contains forward-looking statements that involve risks and uncertainties. The statements contained in this document that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including without limitation statements regarding the Company's expectations, beliefs, intentions or strategies regarding the future. All forward-looking statements included in this annual report are based on information available to the Company on the date hereof, and the Company assumes no obligation to update any such forward-looking statements. Actual events and outcomes could differ materially from those anticipated in these forward-looking statements as a result of many factors, including those set forth in the risks factors described in filings with the Securities and Exchange Commission.

results of operations

The following table sets forth for the periods indicated the percentage of total revenues of the line items in the Company's Consolidated Statements of Operations and the percentage changes from the preceding periods:

1997	1996	1995		1996-97	1995-96
			revenues		
64%	72	75	Software license fees	12%	20
36	28	25	Software upgrade fees and services	61	41
100	100	100	Total revenues	26	25
			costs and expenses		
5	5	5	Costs of software license fees	31	9
14	9	7	Costs of software upgrade fees and services	99	63
41	51	43	Sales and marketing	3	49
16	15	15	Product development	37	26
13	14	16	General and administrative	16	12
2	8	–	Non-recurring charges	(71)	–
92	102	86	Total costs and expenses	14	49
8	(2)	14	*operating income (loss)*	538	(120)
2	2	4	Other income, net	(6)	(26)
9	–	18	Income before income taxes	100	(100)
3	–	7	Provision for income taxes	100	(100)
6%	–	11	*net income*	100%	(100)

revenues

Total revenues were $53.6 million, $42.7 million and $34.1 million in 1997, 1996 and 1995, respectively, representing increases of 26% from 1996 to 1997 and 25% from 1995 to 1996. These increases in total revenues were due to increases in both license fees and software upgrade fees and services revenues, both domestically and internationally. The Company's international operations accounted for approximately 14%, 9% and 9% of consolidated revenues for the years ended December 31, 1997, 1996 and 1995, respectively. See Note 1 in the Notes to Consolidated Financial Statements.

The Company recognizes revenue in accordance with the Statement of Position 91-1 on "Software Revenue Recognition" issued by the American Institute of Certified Public Accountants. Software license fees are recognized when a noncancelable license agreement has been signed, the product has been shipped and all significant contractual obligations have been satisfied. Effective for periods beginning after December

15, 1997, the American Institute of Certified Public Accountants has issued Statement of Position 97-2, "Software Revenue Recognition." The statement sets new guidelines for the recognition of software revenue. The adoption of the standards in this Statement of Position is not expected to have a significant impact on the Company's consolidated financial statements.

The Company licenses its products directly to licensees and through Solution Providers. All licensees, whether licensed directly or through Solution Providers, are referred to throughout this document as the Company's customers. Revenue related to software licensed to a customer through a Solution Provider is recognized net of the discount to the Solution Provider. Software upgrade fees and services revenues are primarily derived from fees paid for rights to upgrades and updates ("maintenance"), telephone support, system integration services, and training. Revenues from the maintenance program are recognized proportionately over the term of the agreement which is typically 12 months. Revenues for training and systems integration services are recognized as such services are performed.

software license fees   The Company currently derives all of its software license fees from noncancelable license agreements for its RemoteWare products. Software license fees were $34.3 million, $30.7 million and $25.6 million in 1997, 1996 and 1995, respectively, representing increases of 12% from 1996 to 1997 and 20% from 1995 to 1996. Software license fees as a percentage of total revenues were 64%, 72% and 75% in 1997, 1996 and 1995, respectively, reflecting the growth of software upgrade fees and services revenues associated with the larger installed base, the high rate of participation in the maintenance program as well as the January 1997 purchase of a systems integration company, XcelleNet Integration Services, Inc. ("XIS"), formerly Electronic Commerce, Inc.

Software license fees from RemoteWare for NT products accounted for 71% and 18% of total revenues for 1997 and 1996, respectively, reflecting increasing market acceptance of RemoteWare for NT products released beginning in 1996. While the Company intends to offer and support its RemoteWare for OS/2 products, the Company anticipates that sales of RemoteWare for NT will continue to constitute an increasing proportion of total software license fees.

Software license fees from new customers were $14.6 million, $13.3 million and $11.1 million in 1997, 1996 and 1995, respectively, representing 43% of total software license fees for all three years. The Company added 320, 296 and 301 new customers in 1997, 1996 and 1995, respectively. The average initial RemoteWare purchase for these new customers was $46,000, $45,000 and $36,000 during the same three years. Average initial purchase size varies as a function of the number of clients and servers included in the sale, whether the sale was direct or through a Solution Provider, and the specific products and options licensed.

Software license fees from existing customers were $19.7 million, $17.4 million and $14.5 million in 1997, 1996 and 1995, respectively, representing 57% of total software license fees for all three years. Existing customers that purchase additional RemoteWare products do so to complete deployment of an initial pilot or limited production implementation and to extend RemoteWare to additional clients and projects within the enterprise.

Software license fees generated by Solution Providers represented 27%, 38% and 48% of total software license fees in 1997, 1996 and 1995,

respectively. During the second half of 1996, the Company implemented changes to its Solution Provider channel to place greater emphasis on Solution Providers who offer substantial RemoteWare integration services. These changes, and additional program changes that became effective January 1, 1997, have resulted in fewer Solution Providers that are authorized to remarket RemoteWare and remarketing discount rates that generally range from 20% to 30%, compared to 30% to 40% in prior years. As a result, software license fees generated from Solution Providers have decreased. During 1997, the Company took steps to leverage its direct sales model by signing OEM agreements with two companies that private label RemoteWare. These agreements have not yet resulted in significant revenue.

software upgrade fees and services   Software upgrade fees and services revenues were $19.3 million, $11.9 million and $8.5 million for 1997, 1996 and 1995, respectively, representing increases of 61% from 1996 to 1997 and 41% from 1995 to 1996. The percentage of total revenues derived from services increased to 36% in 1997 from 28% in 1996 and 25% in 1995. The growth in software upgrade fees and services revenues is due primarily to the Company's growing customer base and their significant rate of participation in the maintenance program. Because a significant portion of the Company's installed base is composed of customers of the RemoteWare for OS/2 products, the software maintenance revenue that may be received from those customers in the future will depend in large part on the Company's ability to introduce updates to or migration paths for its OS/2 products that encourage these customers to continue their participation in the Company's software maintenance program. There can be no assurance that such services revenues will not decline in the future.

Software upgrades fees and services revenues also include field engineering and systems integration services that are focused on selected RemoteWare customer implementations and that facilitate Solution Provider development, certification and quality assurance. The revenue generated from these activities totaled $3.3 million, $438,000 and $343,000 in 1997, 1996 and 1995, respectively. Systems integration revenues increased in 1997 due to the acquisition of XIS.

costs and expenses
costs of software license fees   Costs of software license fees consist primarily of amortization of capitalized software development costs, packaging and documentation materials and royalties. Costs of software license fees were $2.6 million, $2.0 million and $1.8 million in 1997, 1996 and 1995, respectively, representing 8%, 6% and 7% of software license fees for those years, respectively. These increases in absolute dollars are due primarily to the increased amortization of capitalized software associated with the RemoteWare for NT products and the increased royalties associated with new products.

costs of software upgrade fees and services   Costs of software upgrade fees and services consist primarily of personnel costs for field services, customer support and training. In addition, a portion of packaging and documentation materials and personnel costs for shipping are allocated to costs of software upgrade fees and services for upgrades and enhancements shipped to customers participating in the maintenance program. Costs of software upgrade fees and services were $7.6 million, $3.8 million and $2.3 million in 1997, 1996 and 1995, respectively, representing 39%, 32% and 28% of software upgrade fees and service revenues in those years, respectively. The 1997 increase is primarily

due to the Company's January 1997 acquisition of XIS, which expanded the Company's system integration business. The 1996 increase was primarily due to increased personnel costs for field engineers, systems integration personnel and trainers.

sales and marketing   Sales and marketing expenses consist primarily of salaries and commissions of direct sales and marketing personnel and marketing program costs. These expenses were $22.2 million, $21.6 million and $14.5 million in 1997, 1996 and 1995, respectively, representing 41%, 51% and 43% of total revenues in those years, respectively. During 1997 sales and marketing expenses decreased as a percentage of total revenues primarily due to lower marketing personnel costs and lower marketing program costs resulting from a more focused marketing campaign. The increase in sales and marketing expenses, in absolute dollars and as a percentage of total revenues, in 1996 was due primarily to a new advertising campaign initiated in 1996, personnel additions and investments in Europe. Advertising expenses were $1.9 million, $2.0 million and $194,000 in 1997, 1996 and 1995, respectively.

product development   The table below summarizes product development expenditures:

in thousands
twelve months ended

December 31,	1997	1996	1995
Product development expenditures	$9,810	$ 8,559	$5,447
Less: capitalized software development costs	(970)	(2,108)	(319)
Net product development expenses	$8,840	$ 6,451	$5,128
As a percentage of revenues:			
Product development expenditures	18%	20%	16%
Less: capitalized software development costs	(2)%	(5)%	(1)%
Net product development expenses	16%	15%	15%
Capitalized product development rate	10%	25%	6%

Most product development costs are personnel-related. Product development expenditures (expenses plus capitalized software development costs) were $9.8 million, $8.6 million and $5.4 million in 1997, 1996 and 1995, respectively, representing increases of 15% from 1996 to 1997 and 57% from 1995 to 1996. Beginning in 1995, the Company substantially increased its product development expenditures in order to develop its RemoteWare for NT product. These costs were primarily personnel-related and included a number of independent contractors. The RemoteWare for NT development efforts were substantially completed with the May 1997 release of RemoteWare for NT 3.2.

In accordance with Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed" ("SFAS 86"), the Company capitalizes certain

costs incurred in developing computer software products. These rules require capitalization of certain product development expenses from the time technological feasibility is established for a new product or significant enhancement of an existing product until it is generally available for all customers. The Company defines technological feasibility as the release of product to selected customers for testing. Thus, capitalization levels each year depend on product development cycles. The Company amortizes capitalized software development costs on a product-by-product basis over periods not exceeding three years, with such amortization included in costs of software license fees.

Capitalized software development costs were $970,000, $2.1 million and $319,000 in 1997, 1996 and 1995, respectively. The majority of the capitalized software development costs in all three years related to the Company's development of RemoteWare for NT, which was substantially completed in May 1997 with the release of RemoteWare for NT 3.2.

general and administrative General and administrative expenses consist primarily of personnel costs for general management, finance and administration, information systems and human resources. General and administrative expenses were $7.2 million, $6.2 million and $5.5 million in 1997, 1996 and 1995, respectively, representing increases of 16% from 1996 to 1997 and 12% from 1995 to 1996. General and administrative expenses as a percentage of revenues were 13%, 14% and 16% in 1997, 1996 and 1995, respectively. The absolute dollar increase in these costs during 1997 was primarily due to additional personnel costs and the amortization of goodwill associated with the January purchase of XIS.

non-recurring charges The Company recorded non-recurring charges of $1.0 million during the third quarter of 1997 due primarily to severance and facilities costs associated with the Company's organizational streamlining and tighter focus on its remote systems management strategy. During the fourth quarter of 1996, the Company purchased the WorldLink product line from The NetPlex Group, Inc. for approximately $3.0 million in cash. The purchase price of the WorldLink technology was allocated to goodwill as of the acquisition date and written off as a non-recurring charge in the fourth quarter due to uncertainties regarding its recoverability. In addition, during 1996, the Company recorded non-recurring charges of $459,000 primarily representing severance and hiring costs associated with certain key employees. See Note 6 to the Consolidated Financial Statements.

provision for income taxes The effective tax rate was 37%, 0% and 37% in 1997, 1996 and 1995, respectively. The effective tax rate varies from the statutory tax rate of 34% due primarily to state income taxes, losses from foreign operations, research and development tax credits and tax-exempt interest income. The effective tax rate in 1997 and 1995 exceeded the statutory rate due primarily to state income taxes. Since the Company reported no taxable income in 1996, no provision was made for income taxes.

year 2000 The Year 2000 issue is pervasive and presents both technical and business risks that may affect much of the Company's business and industry. The Year 2000 issue refers to the various problems that may result from improper processing of dates and date-sensitive functions by computers and other equipment before, during or after January 1, 2000 ("Millennium Date") with respect to the change in century. The Company has already begun to address this problem by examining the

code in its products, communicating with vendors regarding their handling of the issue and notifying customers of its preliminary findings on the issue through Product Notes and otherwise. The Company expects the Year 2000 issue to be an ongoing risk through and beyond the Millennium Date that may require a significant investment of time and resources to correct. The Company is unable to speculate as to the magnitude of the costs that may be incurred at this time to eliminate the risk and can offer no guarantee that such efforts will be successful given the breadth of this worldwide issue. Failure to successfully address the Year 2000 issue could have a material adverse effect on the Company's business, results of operations and financial condition.

liquidity and capital resources

Since 1994 the Company has financed its operations primarily through the public sale of its common stock in its initial public offering in 1994 and its follow-on public offering in 1997 and cash generated from operations. At December 31, 1997, the Company had $29.3 million in cash, cash equivalents and short-term investments, $37.1 million in working capital and no long-term debt.

Net cash provided by operating activities was $10.3 million, $1.7 million, and $5.0 million in 1997, 1996, and 1995, respectively. In 1997, cash provided by operating activities resulted primarily from net income, depreciation and amortization, and increases in current liabilities and deferred revenue. In 1996, net cash provided by operating activities resulted primarily from depreciation and amortization, the write-off of the WorldLink product line, and an increase in liabilities, offset primarily by an increase in trade receivables. In 1995, net cash provided by operating activities consisted primarily of net income plus depreciation and amortization, offset by an increase in trade receivables.

Net cash used in investing activities was $22.5 million, $1.5 million, and $2.0 million in 1997, 1996, and 1995, respectively. In 1997, the net cash used in investing activities resulted primarily from the investment of the proceeds of the Company's public sale of its common stock in short-term investments and fixed asset additions. In 1996, net cash used in investing activities resulted primarily from the purchase of the WorldLink product line from The NetPlex Group, Inc., fixed asset additions and capitalized software, offset by a decrease in short-term investments. In 1995, the net cash used in investing activities resulted primarily from fixed asset additions offset by a decrease in short-term investments. The Company expects that its capital expenditures, primarily for computer workstations and file servers, will remain approximately the same or increase as the Company's employee base grows.

Net cash provided by financing activities was $10.1 million and $1.1 million in 1997 and 1996, respectively. Net cash used in financing activities in 1995 was $6.4 million. Net cash provided by financing activities in 1997 consisted primarily of the net proceeds from the issuance of common stock and in 1996 consisted of the proceeds from, and income tax benefits associated with, the exercise of stock options. Net cash used in financing activities in 1995 resulted primarily from the Company's purchase of treasury stock.

To date, the Company has not invested in derivative securities or any other financial instruments that involve a high level of complexity or risk. Management expects that, in the future, cash in excess of current requirements will be invested in investment grade, interest-bearing securities.

The Company's principal commitments consist primarily of leases on its headquarters facilities. See Note 4 of Notes to Consolidated Financial Statements.

The Company believes cash flows from operations and existing cash and investments will be sufficient to meet its cash requirements over at least the next two years.

| | Revenue History | | | Forecast* | | | | |
| | Calendar | Calendar | Trailing 12 Months | | Sterling Fiscal Years | | | |
	1996	1997	Oct97-Sept98	FY'99	FY'00	FY'01	FY'02	
RemoteWare								
Total License Fees	30,703	34,320	36,517	51,125	45,728	46,762	46,762	Note:2 & 4
# of Customers	1,416	1,736	1,911	2,319	2,531	2,707	2,853	Note:3
New Customers	296	320	261	408	212	177	145	
Average Revenue per New Customer	45.01	45.73	56.61	50.00	52.50	55.13	57.88	Note:6
New Customer License Fees	13,323	14,633	14,775	20,398	11,109	9,749	8,408	
Add-on/Upgrades	17,380	19,687	21,742	30,727	34,619	37,013	38,353	
Maintenance (1)	10,813	14,942	17,707	25,887	33,203	40,685	48,167	Note:8
Professional Services	439	3,304	4,084	4,080	2,222	1,950	1,682	Note: 5
Training/Other	696	1,013	1,073					
RemoteWare Express								
Total License Fees	0	98	210	5,681	33,401	64,576	109,111	Note:4
# of Customers	0	11	13	122	277	521	860	Note:3
New Customers	0	11	13	109	155	244	339	
Average Revenue per New Customer	0.00	8.91	16.15	45.00	47.25	49.61	52.09	Note:7
New Customer License Fees	0	24	60	4,907	7,303	12,116	17,658	
Add-on/Upgrades	0	74	150	773	26,099	52,459	91,453	
Maintenance (1)	0	0	15	909	6,253	16,585	34,043	Note:8
Professional Services	0	0	0	981	1,461	2,423	3,532	

Notes:

#1 - Maintenance is calculated at a rate of 15-17% of the net sale, changing to 20% in 1999

#2 - Includes RemoteWare for OS/2 and RemoteWare for Windows NT

#3 - Assumes a 15% annual growth rate in number of customers spread across RW & RWX in proportion to annual license fee contribution

#4 - On the Forecast side the Forecasted Total License Fees include Add-on/Upgrades

#5 - Estimate to be 20% of new license fees

#6 - 5% increase in average revenue per new customer, based on product enhancements and price of harvest product over time

#7 - 5% increase in average revenue per new customer, based new product enhancements and add-on modules

#8 - RWX Maintenance calculated as running total at 20% of license fees times 80% customers subscribing

The CONNECT Family of Products

- **CONNECT:Conceal** ensure the privacy and integrity of information stored and transmitted across public or private networks

- **CONNECT:Direct** high performance communications software

- **CONNECT:Express** (formerly TOM) is automated enterprise data exchange especially for intercompany use across multiple platforms using specific protocols (PeSIT/Etebac/Odette/FTP). For French Version: click here

- **CONNECT:Firewall** regulates internet & intra-company access to corporate information

- **CONNECT:Mailbox** - An automated and secure data exchange gateway that enables communication with trading partners and customers over the Internet and other standard communication protocols

- **CONNECT:NetSuite** - combines Sterling Commerce's leading data exchange and security encryption products, CONNECT:Mailbox™, and CONNECT:Conceal™ to provide secure information repository fortified with industry standard data encryption.

- **CONNECT:Remote** extends your enterprise by enabling the integration of corporate information systems with remote enterprises, allowing information to be shared with both disconnected fixed sites as well as remote users.

In today's increasingly electronic world, electronic commerce - doing businesselectronically - is no longer an option. You can't afford the time involved in submittingpaper-based financial reports, inventory data, purchase orders, insurance claims, andmore. You can't afford human intervention errors when processing information. You can'tafford to trust unreliable, insecure mediums such as mailing magnetic tapes or usingunsound electronic transfer means to deliver your mission-critical information. In orderto stay in the game, operations must be intelligently automated enterprise-wide with thehighest levels of security and integrity so that the information you're moving can bequickly received and utilized.

The CONNECT family of products is the high-performance communications software solutionfor automated, reliable and secure data movement across multiplatform and multiprotocolenvironments. Today, thousands of customers in more than 60 countries worldwide depend onthe CONNECT products to do business electronically and more efficiently than ever. Infact, most of our customers couldn't open their doors for business without the CONNECTproducts. They provide the infrastructure necessary for electronic commerce, includingautomated data exchange across diverse hardware, software and network systems as well asprotection against unauthorized information access and data encryption to preserve theintegrity of the information moving throughout your network - public or private. TheCONNECT products enable organizations to link their increasingly disparate technologies,providing advanced data movement capabilities beyond those of any simple data transfertool. CONNECT is the chosen standard in numerous industries, including financial services,government, insurance, telecommunications, healthcare, manufacturing, retail, banking, andmany more.

- Click here for information on Year 2000 Support for the CONNECT Product Family
- CONNECT:Direct Sunset Schedule
- CONNECT:Express Sunset Schedule
- CONNECT:Mailbox Sunset Schedule

Microsoft Internet Explorer

[News | CONNECT Products | Technical Support |Customer Services |
CONNECT Partners | Case Studies| Market Solutions | Survey -New!
| Contact Us | CONNECT Home| | Corporate Home | Employment]

CVG Products / Technologies

COMMERCE: Connection for the Internet

- **COMMERCE: Mail** – A full function, MIME-enabled E-Mail package that supports SMTP for sending and POP3 server access for receiving. The key technologies here are the SMTP and POP3 protocol support.

- **COMMERCE: Library** – Provides a repository for all forms of information a user may wish to share with others. This is similar in function to a bulletin board (BBS) system. The actual data storage is on a server on the COMMERCE: Network. Access to this data, as well as all content, is controlled by the end user.

- **GENTRAN: Director** – Provides EDI translation and management. The product contains a communications module that is not used by CVG. The key technology here is the EDI translation.

- **GENTRAN: Smartforms** – Provides EDI translation using a "forms" metaphor. The outbound translation is from data entered onto screen forms set to mimic actual paper forms to EDI. The inbound translation is from EDI to printed forms using "print templates". The data entry forms and print templates can be created by Sterling or by the end user using GENTRAN: Integrator. The product contains a communications module that is not used by CVG. The key technology here is the EDI translation.

- **COMMERCE: Forms** – Provides EDI translation using a "forms" metaphor. This product is very similar to the GENTRAN: Smartforms package. The key technology is the EDI translation.

- **Connection Manager** – Provides the "secure", Internet based communications interface between the various products in COMMERCE: Connection and the COMMERCE: Network. The key technologies are encryption and the Internet protocol suite.

GENTRAN: Integrator – Provides the ability to create the translation objects, data entry forms and print templates used by GENTRAN: Director and GENTRAN: Smartforms. The key technology is mapping.

ISG Products / Technologies

GENTRAN: Director – Provides EDI translation and management. Contains a communications component to connect to a VAN or trading partner. The key technologies here are the EDI translation and the communications protocols and scripting.

GENTRAN: Smartforms – Provides EDI translation using a "forms" metaphor. The outbound translation is from data entered onto screen forms set to mimic actual paper forms to EDI. The inbound translation is from EDI to printed forms using "print templates". The data entry forms and print templates can be created by Sterling or by the end user using GENTRAN: Integrator. Contains a communications component to connect to a VAN or trading partner. The key technologies here are the EDI translation and the communications protocols and scripting.

GENTRAN: Integrator – Provides the ability to create the translation objects, data entry forms and print templates used by GENTRAN: Director and GENTRAN: Smartforms. The key technology is mapping.

GENTRAN: Server for Windows NT – Provides a complete client/server EC messaging solution. GENTRAN: Server can interface and integrate with a variety popular applications systems and databases, as well as customer written applications. It also provides a complete complement of access control, auditing and tracking functions. The key technologies are translation, mapping, access control, process control, message management, exception management, application integration, database interfaces and communications protocols and scripting.

GENTRAN: Web Suite – Provides a link to GENTRAN: Server and database information using Microsoft IIS on the server side and a Web Browser on the client side. Allows secure file exchange and the translation of Web based business "forms" to EDI. The key technology is the transfer agent application.

CSG Products and Technologies

Products/Functions	Technologies -- CSG
Connect	
Connect:Direct	
Automation	Process Language
	Data Type
	DBCS Translation
	Batch Subsystem Interface
	API Technology
Auditing	Network Topology Control
Logging	Dynamic SQL and ODBC
	Data Access
Event Management	Communications Layer
	Protocol Layer
	Request Technology
	Notification
	Request Queuing
	Request Scheduling
	Remote and Network Print
Security	Security Technology
Performance	Performance Technology
	Operations Interface and Control
Recovery	Session Control
Connect Mailbox	
Communications	Communication Protocols
	Protocol Conversion
Security	Security Gateway
	Security Routing
Repository	Mailbox Repository
Library	Common Component Library
	Batch Application Interface
	Operator Control

Products/Functions	Technologies — CSG
Connect:Conceal	
Encryption	Key Management
Administration	Role Based Security
Access Control	Token Control
	Pass Phrase Technology
	Validity Access
Conceal Governor	Security Server
	Trusted Third Party
Connect: Express	
Platforms	
Networks	
Protocols	
New Technology	
Product Support	
Y2K Support	
Security	
Enhancements	
Digital Signature	Contract Authorization
Internationalization	
Additional Platforms	

CVG Products and Technologies Analysis

Products/Functions	Technologies - CVG
Commerce:Connection	
Connect:Mail	Protocol Support
Connect:Library	Repository
Connect:Director	EDI Translation
Connect:Smartforms	EDI Translation
Connect:Forms	EDI Translation
Connection Manager	Encryption, Internet Protocol
Commerce:Integration	
Commerce Network	

Technology Identification and Review

of

Sterling Technologies (CSG)

July 1, 1998

By Gary McSwain

"CONNECT: Direct" Technology

A family of data movement, data exchange tools to support the following features between client and server:

> Automation
> Auditing
> Logging
> Event Management
> Security
> Performance
> Recovery

Specific technologies include:

> **Communications Layer Technology**
  SNA (LU_0, LU_2, APPC), TCP Sockets, NETEX HyperChannel, IPX, SPX, DECNet

> **Protocol Layer Technology**
  Node to Node Version 2 (NNV2) is a self-defining node to node execution protocol that is platform independent.

> **Process Language Technology**
  There is lots of technology in this group including multi-platform, mult-step, dynamic control logic, remote execution, bi-directional data exchange, request initiation. Additional features: submit time and execution time variables, dynamic execution flow, reuseable Process templates, normalized syntax over heterogeneous platforms.

> **Dynamic SQL and ODBC Technology**
  Data access interfaces for data extraction and manipulation.

> **Process Language Technology**
  This technology uses a GUI editor to support and develop the process language.

> **Data Access Technology**
  Normalized to file or object names.

> **Data type Technology**
  Attributes and translation control for the mainframe.

> **DBCS Translation Technology**
  This is in support of double byte character sets for ASCII and DBCS

> **Request Technology**
  An API that is both Synchronous or Asynchronous

➢ **Notification Technology**
Used to notify the user of success and failures messages through mail, messages, or un-solicited prompts.

➢ **Performance Technology**
Adaptive compression, file repositioning and request level checkpoint/restart, remote execution synchronization.

➢ **Session Control Technology**
Parallel session class control and priority selection mechanism are used to control the seglection and use of facilites.

➢ **Request Queueing Technology**

➢ **Request Scheduling Technology**
Requests can be made based on Time of day, periodic, or wait for remote initiation.

➢ **Security Technology**
A point-of-entry security proxy is used to capture the ID of the user to establish security at the server. No passwords ever traverse the network.

➢ **Batch Subsystem Interface Technology**
This is used to schedule batch jobs on any nodes

➢ **Remote and Network Print Technology**
Process languages ability to route print files to the appropriate print server.

➢ **Network Topology Control Technology**
Either Network Map or the Registry is used to manage the topology control.

➢ **Audit Trail and Statistics Facility Technology**
This repository is in either a database tables or flat files with search capabilities containing information on what went wrong providing display or report capabilities.

➢ **API Technology**
The technologies mention here utilize various SDK, Select Stats and Submit ActiveX Controls when they are being developed.

➢ **Operations Interface and Control Technology**
Used for request management so that a process can be initiated if it has not been started by a certain time limit.

Supported Platforms:
    ➢ CONNECT:Direct for MSP
    ➢ CONNECT:Direct for MVS

- CONNECT:Direct for OpenVMS
- CONNECT:Direct for OpenVME
- CONNECT:Direct for NetWare
- CONNECT:Direct for OS/400
- CONNECT:Direct for Status
- CONNECT:Direct for Tandem
- CONNECT:Direct for UNIX (RS6000, Stratus, Sun, SGI, Pyramid, Sequent, Siemens, Ultrix)
- CONNECT:Direct for VM/ESA
- CONNECT:Direct for VSE/ESA
- CONNECT:Direct for OS/2 Warp
- CONNECT:Direct for the Web
- CONNECT:Direct for Windows NT
- CONNECT:Direct for Windows 95
- CONNECT:Direct Interconnect Option with CONNECT:Mailbox

"CONNECT: Mailbox" Technology

Allows any kind of open connection to access or distribute batches of data. Used in Electronic Commerce and Electronic Data Exchange. This allows the client to use their existing mail system. Specific technologies include:

> **Mailbox Repository Technology**
> Gets deployed in the trading partner community. Used for low volume POS and invoicing. API on one side and network interface on the other. Supports a 1:M distribution model.

> **Security Gateway Technology**
> Secure access on both sides for mailbox access.

> **Communications Protocols Technology**
> Open communication protocols are integrated with network configuration: RJE, FTP, X, Y, Zmodem, Kermit, Bisynch, SNA.

> **Protocol Conversion Technology**
> This is used in Software Protocol Converter product as a cost effective way to bridge protocols.

> **Secondary Routing Technology**
> This technology is used after the primary routing has failed past a certain threshold of attempts.

> **Batch Application Interfaces Technology**

> **Operator Control Technology**
> The application programming interface(API) and command level interface(CLI) are used for operator control features.

> **Common Component Library Technology**
> This library of technology is available to the customer but is used primarily through the internal applications. These include accounts, log, script, presentation, storage, communication with inter-component communication based on messaging.

Supported Platforms
> - CONNECT:NetSuite – combination of CONNECT:Mailbox, Conceal, on UNIX with FTP transport. Announced in April as a product that uses encryption technology to offer secure access to an EC server.
> - CONNECT: Software Protocol Converter (SPC) Option for CONNECT:Mailbox
> - CONNECT:Mailbox for MVS
> - CONNECT:Mailbox for VSE

- CONNECT:Mailbox for OS/400
- CONNECT:Mailbox for UNIX
- CONNECT:Mailbox Client for Windows

"CONNECT: Conceal" Technology

Security product used by Mailbox and Direct to manage encryption and data hiding using selectable security and roles based events. Keys are created and destroyed as required in order to remove the administration of keys in a transparent method to the user. Specific technologies include:

- ➤ Roles based security administration
- ➤ Just-in-time encryption key management for recipient
- ➤ Encryption selection technology using 10 different types
- ➤ Access control through token, pass phrase (up to 32 characters), valid access
- ➤ Conceal Governor – Security Server, token repository, trusted third party

Supported Platforms
- ➤ CONNECT: Conceal – Win NT
- ➤ CONNECT: Conceal – Win 95
- ➤ CONNECT: Conceal – Win 98
- ➤ CONNECT: Conceal – MVS
- ➤ CONNECT: Conceal – Unix (Sun, AIX, HP)

"CONNECT: Express" Technology

This data exchange technology is used in electronic data interchange and electronic commerce to support European protocols for file transfer with emphasis on French protocols. Refer to the list of CONNECT: Direct technologies since most of these are including in this product. This product was acquired in 1997. Specific technologies include:

Supported Platforms
- CONNECT: Express – MVS
- CONNECT: Express – VM
- CONNECT: Express – Tandem
- CONNECT: Express – AS/400
- CONNECT: Express – Unix (AIX, Bull, HP-UX, Digital, NCR, Sun, Sinix, SGI, Tandem, VAX)
- CONNECT: Express – Win NT
- CONNECT: Express – Win 95
- CONNECT: Express – OS/2
- CONNECT: Express – Unisys

Supported Networks
- CONNECT: Express – X.25
- CONNECT: Express – SNA
- CONNECT: Express – PA-PA, LU6.2, LU2
- CONNECT: Express – NETEX
- CONNECT: Express – TCP/IP (IBM and Interlink)

Supported Protocols
- CONNECT: Express – PeSIT Versions D/E
- CONNECT: Express – ETEBAC 1/2/3/5
- CONNECT: Express – ODETTE
- CONNECT: Express – FTP

"New" Technology

- Additional support for existing products
- Year 2000 support
- Security options have been enhanced
- Digital Signature is being implemented this year for authorizations of contracts
- Internationalization has been enhanced
- Additional operating system platforms have been added

New Product and Market Description for Connect:Manage (MSD A)

1. Product Description

- Connect:Manage is a new brand name for an in-process R&D project under way at XNet as of the date of acquisition. The first product that XNet produced specially for the remote mobile market was called RemoteWare Express (RWE). This product has not sold effectively. The in-process development efforts were called Kodiak as an internal code name at XNet.

- This new product was developed on a new platform and fully rewritten as a new product. Although some of the product is built using RWE components and is modeled on RemoteWare functionality, this is a completely new product development offering, correcting the shortcomings of the previous offering, and focusing on an extended marketplace.

- Connect:Manage will be delivered to meet the growing needs of the mobile computer population. It will be the principal product for the next generation platforms. It will offer essentially all of the functionality in RemoteWare including Software Manager, Document Manager, Inventory Manager, Backup Manager and AntiVirus Manager and will use Session Manager architecture.

2. Marketplace

IDC and Gartner both recognize the Remote Systems Management (RSM) software market as critical to many users and growing very rapidly.

- Portable or notebook computer system sales will continue to grow at a CAGR of 14.5% through 2002.

- Connect:Manage is designed to address the mobile customer market including laptops and hand-held pc-compatible devices not on a network and not at a fixed location. Connect:Remote is marketed primarily to the remote, fixed site market including places like retail stores or remote locations; it addresses multiple operating systems. Connect:Manage will focus principally at first on the Microsoft NT and Windows worlds. Other offerings will address remote fixed sites. These growth markets are all included in the RSM software industry.

Competition

- Per IDC, "XcelleNet was virtually the exclusive provider of RSM solutions in 1997 and should continue to be the leading provider in 1998...."

- Gartner does not name any leaders in the market but puts XcelleNet highest on the visionaries and ability to execute. IBM, CA and Microsoft are challengers and will become more competitive in the LAN market and in future developments of their own products.

New Product and Market Description for
Connect: LAN/Desktop (MSD B)

1. Product Description

As a clear market leader in servicing the "remote" (intermittently connected) portions of the distributed enterprise, XNet was increasingly being asked to also supply client seats to service LAN, WAN and Intranet-connected desktops; the logic was: "RemoteWare (now Connect:Remote) works so well on my slow-speed dial-up PC's, why not also provide it as a new product with the same (or better) functionality to connect to other clients and avoid the hassle of buying a separate system to handle them?"

SCI has specific plans to incorporate the in-process R&D from Kodiak into a new product which will directly address the LAN/desktop market.

To attack this opportunity, the acquired in-process XcelleNet technologies have to be further developed to enable the new MSD product to function optimally on a LAN for continuously connected, fast circuits serving large numbers of PC's and servers. Protocols and fundamental protocol behaviors have to be extended to exploit these different conditions, server and pass-through logic has to be built to allow for large-scale "tiering" of servers (which can be evolved from "router node" technology XNet developed previously), and facilities to handle real time alarms and alerts.

2. Marketplace

Gartner Group and IDC confirm the size and growth of the centralized systems management marketplace at $5B in 1997 growing at over 30% to over $9B in 2001, with roughly 45% of the revenue going to "desktop management" products. From these numbers one can extrapolate a gross seven-year desktop management revenue stream of over $20B.

3. Competition

It is anticipated that this product will be at the leading edge for those who want combined centralized and remote usage and that there will be virtually no competition relative to existing XNet customers. This will give SCI a very strong competitive position as LAN-attached desktop systems continue to be a larger oppotrunity than non-LAN remotely managed systems. By 2002, IDC predicts the ratio of central vs. remote will be 4/1. Given this opportunity, it is expected that Microsoft and Intel will also be in the arena.

New Product and Market Description for
<u>Connect:Message Oriented Middleware (MSD C)</u>

1. **Product Description**

Technologies that XNet had built (MAPI) or which were in development by XNet (Lotus Notes Replication, SMTP), coupled with technologies MSD will either buy or develop internally, are essential to the packaging of Message Oriented Middleware (MOM) products for MSD to use to take advantage of the explosive growth of the MOM marketplace.

Gartner Group, who provided one of the MOM market-size confirmations behind the $5B opportunity in 2002, had clearly identified XcelleNet as the clear market leader in the MOM marketplace for remote and mobile, intermittently connected users. However, the rapid evolution of Internet messaging standards (SMTP) and IBM's success with their Lotus Notes and MQ Series messaging standards in major accounts, make it such that MSD must get new messaging standards built into value-added messaging enhancement products. At the same time, SCI must also be introducing new products capable of leveraging emerging SMTP (Internet) standards and related opportunities.

2. **Marketplace**

Middleware 1998 Worldwide Markets and Trends is a recent IDC report which identifies market sizes for middleware segments. Among the report's relevant findings are that:

- The worldwide market for middleware software was $51.7B in 1997. Revenues from U.S. Independent Software Vendors accounted for more than one-half of the overall middleware market. The overall middleware software market is forecast to be $7B in 2002, a CAGR of 33.7%.

- Message-Oriented-Middleware (MOM) is the second largest segment of middleware at $358.2M. MOM will be the largest segment of the middleware market by 2002.

- The U. S. represents 47.7% ($819.4M) of the total middleware market.

- Middleware consumption is highest in Unix operating systems worldwide, with 40.3% or $692.2M.

3. Competition

- BEA Systems is the U. S. middleware software market leader with $134M in revenues in 1997. Other firms include TSI with $16.8M in revenues, NEON with $16.3M in revenues and Frontee AMT with $14M in revenues. All together these 4 companies have less than 12% of the served market. There is a proliferation of small middleware vendors all of whom are vying for market domination

XcelleNet's leadership position in the "intermittently connected" messaging marketplace, coupled with new MSD products leveraging new/evolving messaging standards, and leveraged by SCI's increasing presence in global EC deployment, make MSD's potential in the overall MOM/MOM plus Messaging marketplace quite significant.

Specifically, if the overall MOM market is expected to book $12B cumulatively over the next seven years, SCI's leadership in global EC solutions, now coupled with XNet's past leadership in the deferred access middleware market, should give SCI a substantial market share.

New Product and Market Description for
Connect: Direct + (CSG A)

1. Product Description

This product will provide a high performance Enterprise Data Exchange solution for exchanging data between distributed business processes where the data exchange is repeated on a frequent schedule.

The high performance nature of this product relies on the iterative nature of the data exchange: repeatedly sending the same file where a large portion of the file remains unchanged. An example would be sending daily inventory files from a master location out to points of distribution. The inventory would not change that much on a daily basis and, thus, the majority of the data sent would be the same each day.

The high performance would be achieved through the acquired XNet "differencing" technology that comprehends the differences between the two file images and only sends the changes.

One of the biggest value adds for the current Connect:Direct is its ability to integrate with the applications at either end of the data transfer. However, the process scripting language and API's are inconsistent between Connect:Direct and Connect:Mailbox and even inconsistent between different computer platform implementations. Furthermore, it is generally felt that XNet's process language feature set is richer than that of Connect, particularly in the area of event and non-event triggers. Utilizing the acquired process scripting technology, SCI will implement a common, consistent and richer set of functionality for Connect:Direct users providing, in Connect:Direct+, a higher level of specification abstraction.

2. Marketplace

As noted, this is a product that provides added value to customers when the data exchange between distributed business processes is repeated on a frequent basis. The opportunity is primarily found as a subset of Connect:Remote and Connect:CBU/Desktop users. It is a substantial market with the larger, more sophisticated data exchange customers migrating to the new product.

3. Competition

There will be little, if any, competition in this arena of committed SCI customers, who are heavy duty users of Connect:Direct.

New Product and Market Description for
Connect:Enterprise/PA (CSG B)

1. ### New Product Description

   This new product will provide an Enterprise Data Exchange solution for exchanging data between business processes from the occasionally connected remote sites throughout the enterprise.

   This product bundles a number of Connect:Manage clients, a Connect:Manage server, a Connect:Direct or Connect:Mailbox server and a bridge between Connect:Manage and Connect:Direct and Connect:Mailbox.

   This product will also provide an Enterprise Data Exchange solution for exchanging data between various electronic personal assistants and other types of hand-held devices and the distributed business processes throughout the enterprise; these devices usually do not use pc standard interfaces or protocols.

2. ### Marketplace

   Target customers are those large enterprises with highly distributed business processes where the distribution and data exchange connectivity requirements extends from all network points throughout the enterprise and to potentially all kinds of hand held and application specific devices (WinCE, PalmPilots, cell phones, ATM's, Point of Sale, Point of Use, etc.) This has been identified as a large, untapped marketplace.

3. ### Competition

   Sales will be primarily to existing CSG customers. Since the intermittently connected software market was dominated by XNet, there may be no significant competitors for this integrated function.

New Product and Market Description for
Commerce: Connection for the Internet+ (CVG A)

1. Product Description

- Product is "enabling technology." It lets smaller companies without current electronic commerce capabilities get into EC with minimum investment

- The current CVG product has E-mail, EDI and some Internet connected functions

- The new product will provide EDI, E-mail, etc. through Internet connections with the acquired XcelleNet technologies, adding reliability, security and recovery functions

- Platforms: Win 95/98 only

- Optimizes the current Commerce:Connection v5.0 for the Internet with SMTP transport, template distribution, and a customer services facility by using acquired XNet technologies to produce Commerce:Connection for the Internet+.

2. Marketplace

- Market - typical company is $60M or less; medium to small companies

- Target companies are companies that are spokes to a hub that already has the Commerce: Connection product

- Currently, 4000/5000 new spokes/year sign up for Commerce:Connection; 1st year, expect there will be 600 additional units sold for Internet product

- Expect that product will stabilize and decline after 2002 because it will compete against new technologies

- An extra value comes from attracting more small to medium sized customers by capturing mindshare that Sterling Commerce has the best answer for full EC enablement over the Internet. Large companies (hubs) are currently consolidating their VAN usage from a multi-VAN approach to one or two providers. This direction will make a difference in the competitive challenges. Most small companies follow the recommendations of their large trading partners in the EC world.

4021.ap2

4. Competition

Major competition for the Commerce:Connection family of products is the traditional Value Added Network market. Within the market some VANs offer software or websites that enable small to medium sized companies to participate in the EC/EDI world using PCS.

Harbinger is the strongest competitor in this PC market with recent acquisitions of Supply Tech and Premenos. Supply Tech PC software runs in a Windows environment, but over a non-Internet connection. The Premenos software runs over the Internet; however its major focus is on the UNIX platform. From insider insights, Harbinger is struggling with integrating these two acquisitions and finding it difficult to execute their synergistic vision. Harbinger also provides web form hosting, however recent work has the company struggling with their web technology called Aquion. In summary, Harbinger is very successful with its focus on selling to spokes; however, it has not yet found its Internet solution.

GEIS is a formidable competitor with its Tradeweb product. Tradeweb allows customers to place its forms on the GEIS service over the web. Although not a huge revenue producer yet, GEIS has mindshare in the market. GEIS's PC product has recently been migrated to Windows but still does not pose a significant threat. For small companies looking for a simple solution communicating with their large trading partners cheaply over the Internet, GEIS is a solid choice providing the large trading partner has its forms available on the GEIS service. GEIS PC enabling technology is known as an inferior technology to Sterling Commerce's, however their recent migration from DOS to Windows warrants watching.

Advantis is making many in-roads with its own Internet service and is positioning itself as a large "extranet." Advantis does not have PC enabling products and does not have a web hosting service. Traditionally, Advantis is a low cost/low value EC provider with its technology roots in E-mail. Service challenges have brought some of its customers to Sterling Commerce.

Other companies: Both Kleinschmitt and TranSettlements of the transportation world offer web hosting services although not as a primary revenue contributor.

Sterling Commerce's Commerce:Connection competes well with Harbinger's PC enabling product and is enabled to communicate over the web. Recent subscription pricing packages reflect the cost savings of the Internet. Sterling Commerce also offers an extranet via Worldcom to provide additional reliability and security to match Advantis' claims. Recently, Sterling Commerce made an announcement of Commerce:Webforms that competes with its competitors' web hosting products.

New Product and Market Description for
Commerce:Software Distribution (CVG B)

1. Product Description

Remote software distribution services for Software Product Companies, Commerce:Network customers and Virtual Communities enables CVG customers to distribute and maintain software products or internal software programs for their customers and for all locations throughout the enterprise.

This product uses only the acquired network and billing technologies from CVG; the balance of the functionality is direct usage of the XNet technologies to manage all of the distribution and inventory functions for billing and servicing trading communities (like ANX) and industry specific communities.

2. Marketplace

Major markets are:
   Software Companies
   CVG customer hub/spoke
   Virtual communities (Independents; Associations)

3. Competition

- Competition comes in several forms for this unique service of providing electronic distribution services. Companies can attempt to do this themselves by acquiring the MSD products themselves, purchasing competitive products, or using Internet web technology.

- Microsoft has a component of its Window's NT SMS product that provides distribution capabilities. It is not yet robust and it is difficult to implement in its current form. The big question is whether Microsoft will put much focus in this area in the future. The product does not appear to compare well with the ease of use or robustness of the acquired XNet technologies.

- McAfee uses an electronic distribution engine that can possibly be used as an electronic distribution engine. This capability is used to update virus protection programs.

- Internet Web technology

- There are many file distribution technologies that offer file downloads and upload capabilities. These products are not as intelligent and are much more difficult to administer than the properly packaged and tested XNet technologies.

New Product and Market Description for
Gentran:EDX (ISG A)

1. Product Description

Gentran:EDX will be a product that includes a restricted-use version of Connect:Manage with Gentran:Server to extend the EC Messaging capabilities by adding remote systems management. Principal functions will include security and management for remote connections and for scheduled remote communications with Commerce partners. Platforms would include NT, UNIX, AS/400 and mainframe (S/390).

2. Marketplace

Major markets will include traditional EDI and enterprise application integration. Geographically, markets would include U. S. and Europe initially, followed by Asia and Latin America. Broader markets could also include large corporations with a variety of computing platforms and business applications that span most any industry, including government,.

The size of the North American traditional EDI market will grow from $270M in 1997 to $560M in 2001 (Dataquest CAGR of 20%). The size of the worldwide enterprise application integration market is expected to grow from $300M in 1996 to $2.5B in 2001 (META Group).

3. Competition

Competition to Gentran:EDX would be companies such as Harbinger, TSI Software and NEON. ISG's Gentran:EDX should hold up well against these competitors.

New Product and Market Description for
<u>Gentran: Web Suite Express (ISG B)</u>

1. <u>Product Description</u>

Gentran:Web Suite Express is a web application framework allowing companies to deploy web applications that automate business processes. The product would embed Connect:Manage technologies to facilitate remote Internet systems management. It will support four platforms: NT, Unix, AS/400 and S/390.

2. <u>Marketplace</u>

According to Gartner/Dataquest research, the market for Business-to-Business Web Commerce applications was $28.5M in 1997 and is projected to be $1.27B by 2002.

3. <u>Competition</u>

Gentran:Web Suite Express will compete in the market generically know as Web Commerce. Geographically, markets would include U. S., Europe, Asia and Latin America. Major competitors would include Harbinger and Netscape. Other competitors would include CrossRoute, WebMethods, CrossWorlds and Neon.

Currently, 40% of ISG's existing Web Suite customers are international. Internationally, there are fewer current competitors since most of the competitors are U. S.-based startups that are not able to compete internationally. Netscape is the only serious international competitor.

New Product and Market Description for
<u>Gentran: Sell Suite/Buy Suite</u>

1. <u>Product Description - Gentran:Sell Suite</u>

Gentran:Sell Suite is a Web-based order management solution which provides a web accessible catalog with search and select capability, order management facilities for on-line orders, partial-orders, and recurring orders, interfaces to payment and logistic service providers, back-end integration with the seller's business systems, and customer community management. This product solution leverages existing EC systems and legacy applications for complete end-to-end integration. Acquired XNet technology provides the functional components to: update and refresh catalog content and product information on the Sell Suite server, provide the ability to deliver business rules to customers/distributors for customization of the ordering and selection process, and the synchronization of order content and order status between the Sell Suite server and the customer/distributor platforms.

2. <u>Marketplace - Gentran:Sell Suite</u>

The major market is web and internet commerce for business to business communication. This market cuts across traditional vertical segments and geographic regions. Budgets are getting bigger. 30% of North American companies are spending 10% of their IT budget on the Internet. In the business to business Internet space, 22% of the companies are conducting Internet based E-Commerce (IDC).

The Web commerce software market is growing from $85M in 1997 to $1.6b in 2002 (CAGR 85%). A typical high-end Internet-selling solution is in the $400k range split evenly between software and services. The strongest opportunities are in the area of content management, product information, application integration, transaction processing and robust functionality.

3. <u>Competition - Gentran:Sell Suite</u>

Competitors include SpaceWorks, Netscape, Connect, ERP vendors (SAP, BAAN), CommerceOne.

4. <u>Product Description - GENTRAN:Buy Suite</u>

Gentran: Buy Suite provides a procurement solution which reduces the cost associated with internally directed purchasing. It is a Web-based, multi-supplier procurement product that allows corporate procurement functions to leverage volume and vendor discounts through a structured and efficient buying process eliminating manual or unauthorized purchasing actions.

Acquired XNet technology serves as a delivery vehicle for product and pricing information to the Buy Suite server. It also is used to manage and reconcile the delivery of order confirmation, payment confirmation, shipping status, and back order status.

This product solution leverages existing EC systems and legacy applications for complete end-to-end integration. Acquired XNet technology provides the functional components to update and refresh catalog content and product information on the Buy Suite server, and provides the ability to deliver business rules to customers/distributors for customization of the ordering and selection process.

5. Marketplace - Gentran:Buy Suite

The major market is web and Intranet commerce for within an enterprise communication. This market covers all traditional vertical segments and geographic regions.

The Intranet/Internet purchasing software market is growing from $25M in 1997 to $375M in 2000 (CAGR 287%). A typical high-end Internet procurement solution is in the $200 range, split evenly between software and services. The strongest sales factors are in the area of price leverage, purchase analysis, application integration, transaction processing, accurate product information and business process efficiency.

6. Competition

Competitors include Ariba, SpaceWorks, Netscape, Connect, Harbinger, CommerceOne.

New Product Technologies Analysis - MSD

X --- not used; U --- useful; E --- essential

Product/Functions	Technologies - XNet	MSD A	MSD B	MSD C
XNet Functions				
Basic Client				
Communication	Protocols	E	E	X
	Session Restart	E	E	E
	Checkpoint Restart	E	E	X
	Outbound Inbound	E	E	E
	Compression	E	E	E
	Safe Transfer	E	E	E
	Execute Server	E	E	U
	Performance Enhancements	E	E	U
	Distributed Server	E	E	U
	LAN Protocol and Redistrib.	U	E	X
	Non-English Language Versions	U	U	X
Work Object	Selective Work Object Execution	E	E	X
	File Transfer	E	E	E
	Session Control	E	E	X
	File Disk Operations	E	E	E
	Advanced Events	E	E	X
Scheduling	GUI Scheduler	E	E	X
	Persistent Scheduling	E	E	U
	Template Client	E	E	U
Clustering	Multi Threaded Management	E	E	I
Workstation Administration	Licensing	E	E	E
	Interactive Session - Mode 1 & 2	E	E	X
Electronic Software Distrib.	DOS Terminate Stay Ready	U	U	X
Logging and Reporting	Server Event Log	E	E	E
	Client Event Log	E	E	E
	Reporting	E	E	E
Alerts and Alarm	System Alarms	E	E	U
	User Alarms	E	E	X
Security	Client Security	E	E	E
	User Security	E	E	X
	Administrator Security	E	E	E
	Encryption Security	E	E	X
Messaging	MAPI Address Book Provider	X	X	E

Product/Functions	Technologies - XNet	MSD A	MSD B	MSD C
Extended Client				
Subscriber		E	E	X
Directory Services		U	U	X
Workshop		U	U	X
Data Exchange Agent		U	U	X
ODBC Data Store Options		E	E	X
Web Offline		U	U	X
Electronic Software Distrib.		E	E	X
Managed Client				
Software Manager		E	E	X
Inventory Manager		E	E	X
Antivirus Manager		U	U	X
Backup Manager		E	E	X
Microsoft SMS Agent		E	E	X
MS Management Console		E	E	X
Other Interface Programs				
Lotus Notes		U	U	X
Microsoft Mail Transport		U	U	U
	Byte Level Differencing	E	E	E
	NT Domain Authentication	E	E	E
	SMTP Messaging Technology	X	X	E
Tivoli Plus		E	E	X
Electronic Forms Application		U	U	X
	Rules Processing Engine	U	U	X
Java Client		E	E	U
	HTTP Encapsulation	E	U	X
	Multi Cast IP	E	U	X

RWE Technologies Usage - MSD

X -- not used; U -- useful; % -- technology coverage; Blank -- not available in RWE

Product/Functions	Technologies - XNet	MSD A	MSD B	MSD C
XNet Functions				
Basic Client				
Communication	Protocols	50%	25%	X
	Session Restart	25%	25%	25%
	Checkpoint Restart	100%	100%	X
	Outbound Inbound	50%	50%	50%
	Compression	50%	50%	50%
	Safe Transfer	100%	100%	100%
	Execute Server			
	Performance Enhancements			
	Distributed Server			
	LAN Protocol and Redistribution			
	Non-English Language Version			
Work Object	Selective Work Object Execution	50%	50%	X
	File Transfer	50%	50%	50%
	Session Control	25%	25%	X
	File Disk Operations	100%	100%	50%
	Advanced Events	25%	25%	X
Scheduling	GUI Scheduler			
	Persistent Scheduling			
	Template Client			
Clustering	Multi Threaded Management			
Workstation Administration	Licensing	100%	100%	50%
	Interactive Session - Mode 1 & 2			
Electronic SW Distribution	DOS Terminate Stay Ready			
Logging and Reporting	Server Event Log	50%	50%	50%
	Client Event Log	25%	X	X
	Reporting			
Alerts and Alarm	System Alarms			
	User Alarms			
Security	Client Security			
	User Security			
	Administrator Security			
	Encryption Security	50%	50%	X
Messaging	MAPI Address Book Provider			

Product/Functions	Technologies - XNet	MSD A	MSD B	MSD C
Extended Client				
Subscriber		40%	40%	X
Directory Services				
Workshop				
Data Exchange Agent				
ODBC Data Store Options				
Web Offline				
Electronic Software Distrib.		60%	U	X
Managed Client				
Software Manager		75%	75%	X
Inventory Manager				
Antivirus Manager				
Backup Manager				
Microsoft SMS Agent				
MS Management Console				
Other Interface Programs				
Lotus Notes				
Microsoft Mail Transport				
	Byte Level Differencing			
	NT Domain Authentication			
	SMTP Messaging Technology			
Tivoli Plus				
Electronic Forms Application				
	Rules Processing Engine			
Java Client				
	HTTP Encapsulation			
	Multi Cast IP			

New Product Technologies Analysis - CSG

X --- not used; U --- useful; E --- essential

Product/Functions	Technologies - XNet	CSG A	CSG B
XNet Functions			
Basic Client			E
Communication	Protocols	U	
	Session Restart	X	
	Checkpoint Restart	U	
	Outbound Inbound	X	
	Compression	U	
	Safe Transfer	U	
	Execute Server	X	
	Performance Enhancements	E	
	Distributed Server	U	
	LAN Protocol and Redistribution	U	
	Non-English Language Version	U	
Work Object	Selective Work Object Execution	E	
	File Transfer	X	
	Session Control	X	
	File Disk Operations	U	
	Advanced Events	E	
Scheduling	GUI Scheduler	E	
	Persistent Scheduling	E	
	Template Client	E	
Clustering	Multi Threaded Management	E	
Workstation Administration	Licensing	U	
	Interactive Session - Mode 1 & 2	U	
Electronic Software Distribution	DOS Terminate Stay Ready	X	
Logging and Reporting	Server Event Log	U	
	Client Event Log	U	
	Reporting	U	
Alerts and Alarm	System Alarms	U	
	User Alarms	U	
Security	Client Security	X	
	User Security	X	
	Administrator Security	X	
	Encryption Security	X	
Messaging	MAPI Address Book Provider	U	

Product/Functions	Technologies - XNet	CSG A	CSG B
Extended Client			
Subscriber		U	U
Directory Services		U	U
Workshop		U	X
Data Exchange Agent		E	U
ODBC Data Store Options		E	U
Web Offline		X	X
Electronic Software Distrib.		X	X
Managed Client			
Software Manager		U	E
Inventory Manager		U	E
Antivirus Manager		X	U
Backup Manager		X	U
Microsoft SMS Agent		U	U
MS Management Console		U	U
Other Interface Programs			
Lotus Notes		U	X
Microsoft Mail Transport			
	Byte Level Differencing	E	U
	NT Domain Authentication	U	U
	SMTP Messaging Tech.	U	U
Tivoli Plus		U	U
Electronic Forms Application		X	E
	Rules Processing Engine	E	U
Java Client		U	E
	HTTP Encapsulation	E	E
	Multi Cast IP	E	E

New Product Analysis - CSG

X --- not used; U --- useful; E --- essential

Products/Functions	Technologies	CSG A	CSG B
Connect			
Connect:Direct		E	
Automation	Process Language		E
	Data Type		E
	DBCS Translation		U
	Batch Subsystem Interface		E
	API Technology		E
Auditing	Network Topology Control		E
Logging	Dynamic SQL and ODBC		U
	Data Access		E
Event Management	Communications Layer		E
	Protocol Layer		E
	Request Technology		E
	Notification		U
	Request Queuing		E
	Request Scheduling		E
	Remote and Network Print		X
Security	Security Technology		E
Performance	Performance Technology		E
	Operations Interface and		U
Recovery	Session Control		E
Connect Mailbox		X	X
Communications	Communication Protocols		
	Protocol Conversion		
Security	Security Gateway		
	Security Routing		
Repository	Mailbox Repository		
Library	Common Component Library		
	Batch Application Interface		
	Operator Control		

Products/Functions	Technologies	CSG A	CSG B
Connect:Conceal		X	X
Encryption	Key Management		
Administration	Role Based Security		
Access Control	Token Control		
	Pass Phrase Technology		
	Validity Access		
Conceal Governor	Security Server		
	Trusted Third Party		
Connect: Express		U-Int'l	X
Platforms			
Networks			
Protocols			
New Technology		Note 1	
Product Support			E
Y2K Support			E
Security			U
Enhancements			U
Digital Signature	Contract Authorization		U
Internationalizatio			E
Additional			U

Note 1: included in previous functional values

RWE Technologies Usage - MSD

X -- not used; U -- useful; % -- technology coverage; Blank -- not available in RWE

Product/Functions	Technologies - XNet	CSG A	CSG B
XNet Functions			
Basic Client			
Communication	Protocols	X	25%
	Session Restart	X	10%
	Checkpoint Restart	X	50%
	Outbound Inbound	X	20%
	Compression	X	20%
	Safe Transfer	X	20%
	Execute Server		
	Performance Enhancements		
	Distributed Server		
	LAN Protocol and Redistribution		
	Non-English Language Version		
Work Object	Selective Work Object Execution	50%	20%
	File Transfer	X	35%
	Session Control	X	10%
	File Disk Operations	X	35%
	Advanced Events	25%	10%
Scheduling	GUI Scheduler		
	Persistent Scheduling		
	Template Client		
Clustering	Multi Threaded Management		
Workstation Administration	Licensing	X	35%
	Interactive Session - Mode 1 & 2		
Electronic SW Distribution	DOS Terminate Stay Ready		
Logging and Reporting	Server Event Log	X	20%
	Client Event Log	X	10%
	Reporting		
Alerts and Alarm	System Alarms		
	User Alarms		
Security	Client Security		
	User Security		
	Administrator Security		
	Encryption Security	X	10%
Messaging	MAPI Address Book Provider		

Product/Functions	Technologies - XNet	CSG A	CSG B
Extended Client			
Subscriber		X	U
Directory Services			
Workshop			
Data Exchange Agent			
ODBC Data Store Options			
Web Offline			
Electronic Software Distrib.		X	X
Managed Client			
Software Manager		X	20%
Inventory Manager			
Antivirus Manager			
Backup Manager			
Microsoft SMS Agent			
MS Management Console			
Other Interface Programs			
Lotus Notes			
Microsoft Mail Transport			
	Byte Level Differencing		
	NT Domain Authentication		
	SMTP Messaging Technology		
Tivoli Plus			
Electronic Forms Application			
	Rules Processing Engine		
Java Client			
	HTTP Encapsulation		
	Multi Cast IP		

New Product Technologies Analysis - CVG

X --- not used; U --- useful; E --- essential

Product/Functions	Technologies - XNet	CVG A	CVG B
XNet Functions			
Basic Client			
Communication	Protocols	E	E
	Session Restart	E	E
	Checkpoint Restart	E	E
	Outbound Inbound	E	E
	Compression	E	E
	Safe Transfer	E	E
	Execute Server	U	E
	Performance Enhancements	E	E
	Distributed Server	E	E
	LAN Protocol and Redistrib.	U	E
	Non-English Language Version	U	U
Work Object	Selective Work Object Execution	E	E
	File Transfer	E	E
	Session Control	E	E
	File Disk Operations	E	E
	Advanced Events	U	E
Scheduling	GUI Scheduler	E	E
	Persistent Scheduling	E	E
	Template Client	E	E
Clustering	Multi Threaded Management	E	E
Workstation Administration	Licensing	U	E
	Interactive Session - Mode 1 & 2	U	E
Electronic Software Distrib.	DOS Terminate Stay Ready	X	U
Logging and Reporting	Server Event Log	U	E
	Client Event Log	U	E
	Reporting	U	E
Alerts and Alarm	System Alarms	E	E
	User Alarms	U	E
Security	Client Security	E	E
	User Security	E	E
	Administrator Security	E	E
	Encryption Security	U	E
Messaging	MAPI Address Book Provider	U	E

Product/Functions	Technologies - XNet	CVG A	CVG B
Extended Client			
Subscriber		E	E
Directory Services		E	E
Workshop		U	E
Data Exchange Agent		U	E
ODBC Data Store Options		U	E
Web Offline		E	E
Electronic Software Distribution		E	E
Managed Client			
Software Manager		U	E
Inventory Manager		U	E
Antivirus Manager		U	E
Backup Manager		U	E
Microsoft SMS Agent		U	E
MS Management Console		U	E
Other Interface Programs			
Lotus Notes		U	E
Microsoft Mail Transport			
	Byte Level Differencing	U	E
	NT Domain Authentication	E	E
	SMTP Messaging Technology	E	E
Tivoli Plus		X	U
Electronic Forms Applic.		U	E
	Rules Processing Engine	U	E
Java Client		U	E
	HTTP Encapsulation	E	E
	Multi Cast IP	E	E

New Product Technologies Analysis - CVG

Product/Functions	Technologies - CVG	CVG A	CVG B
Commerce:Connection			
Connect:Mail	Protocol Support	E	X
Connect:Library	Repository	E	X
Connect:Director	EDI Translation	E	X
Connect:Smartforms	EDI Translation	E	X
Connect:Forms	EDI Translation	U	X
Connection Manager	Encryption, Internet Protocol	U	X
Commerce:Integration		X	X
Commerce Network		E	E

4021.app

RWE Technologies Usage - CVG

X -- not used; U -- useful; % -- technology coverage; Blank -- not available in RWE

Product/Functions	Technologies - XNet	CVG A	CVG B
XNet Functions			
Basic Client			
Communication	Protocols	X	50%
	Session Restart	25%	25%
	Checkpoint Restart	100%	100%
	Outbound Inbound	50%	50%
	Compression	50%	50%
	Safe Transfer	100%	100%
	Execute Server		
	Performance Enhancements		
	Distributed Server		
	LAN Protocol and Redistribution		
	Non-English Language Version		
Work Object	Selective Work Object Execution	50%	50%
	File Transfer	100%	100%
	Session Control	25%	25%
	File Disk Operations	10%	100%
	Advanced Events	25%	25%
Scheduling	GUI Scheduler		
	Persistent Scheduling		
	Template Client		
Clustering	Multi Threaded Management		
Workstation Administration	Licensing	U	100%
	Interactive Session - Mode 1 & 2		
Electronic SW Distribution	DOS Terminate Stay Ready		
Logging and Reporting	Server Event Log	U	50%
	Client Event Log	U	25%
	Reporting		
Alerts and Alarm	System Alarms		
	User Alarms		
Security	Client Security		
	User Security		
	Administrator Security		
	Encryption Security	U	50%
Messaging	MAPI Address Book Provider		

Product/Functions	Technologies - XNet	CVG A	CVG B
Extended Client			
Subscriber		40%	40%
Directory Services			
Workshop			
Data Exchange Agent			
ODBC Data Store Options			
Web Offline			
Electronic Software Distrib.		60%	60%
Managed Client			
Software Manager		U	75%
Inventory Manager			
Antivirus Manager			
Backup Manager			
Microsoft SMS Agent			
MS Management Console			
Other Interface Programs			
Lotus Notes			
Microsoft Mail Transport			
	Byte Level Differencing		
	NT Domain Authentication		
	SMTP Messaging Technology		
Tivoli Plus			
Electronic Forms Application			
	Rules Processing Engine		
Java Client			
	HTTP Encapsulation		
	Multi Cast IP		

New Product Analysis -ISG

X --- not used; U --- useful; E --- essential

Product/Functions	Technologies - XNet	ISG A	ISG B	ISG C
XNet Functions				
Basic Client				
Communication	Protocols	E	E	E
	Session Restart	E	E	E
	Checkpoint Restart	E	E	E
	Outbound Inbound	E	E	E
	Compression	E	E	U
	Safe Transfer	E	E	U
	Execute Server	E	E	E
	Performance Enhancements	E	E	U
	Distributed Server	E	E	E
	LAN Protocol and Redistribution	E	E	X
	Non-English Language Version	E	E	U
Work Object	Selective Work Object Execution	E	U	E
	File Transfer	E	U	E
	Session Control	E	U	E
	File Disk Operations	E	U	E
	Advanced Events	E	U	E
Scheduling	GUI Scheduler	U	U	U
	Persistent Scheduling	U	U	U
	Template Client	U	U	U/E
Clustering	Multi Threaded Management	E	X	E
Workstation Administration	Licensing	E	U	U
	Interactive Session - Mode 1 & 2	E	U	X
Electronic Software Distribution	DOS Terminate Stay Ready	E	X	X
Logging and Reporting	Server Event Log	U	U	E
	Client Event Log	U	U	U
	Reporting	U	U	U
Alerts and Alarm	System Alarms	U	U	U
	User Alarms	U	U	U
Security	Client Security	U	U	E
	User Security	U	U	E
	Administrator Security	U	U	E
	Encryption Security	U	U	E
Messaging	MAPI Address Book Provider	E	X	U

Product/Functions	Technologies - XNet	ISG A	ISG B	ISG C
Extended Client				
Subscriber		E	E	E
Directory Services		E	E	E
Workshop		U	X	X
Data Exchange Agent		U	U	U
ODBC Data Store Options		U	U	U
Web Offline		U	U	E
Electronic Software Distribution		U	U	E
Managed Client				
Software Manager		U	U	U
Inventory Manager		U	U	E
Antivirus Manager		X	X	U
Backup Manager		U	X	U
Microsoft SMS Agent		U	X	U
MS Management Console		U	X	U
Other Interface Programs				
Lotus Notes		U	X	X
Microsoft Mail Transport				
	Byte Level Differencing	E	U	X
	NT Domain Authentication	U	X	U
	SMTP Messaging Technology	E	U	U
Tivoli Plus		U	X	U
Electronic Forms Application		U	X	E
	Rules Processing Engine	E	U	E
Java Client		U	E	U
	HTTP Encapsulation	U	E	E
	Multi Cast IP	U	E	U/E

New Product Technologies Analysis - ISG

Products/Functions	Technologies – ISG	ISG A	ISG B	ISG
Gentran: Director		X	X	X
Gentran: Smartforms		X	X	X
Gentran: Integrator		X	E	X
Gentran: Server for Win NT		E	E	X
Gentran: Web Suite		U	E	E

RWE Technologies Usage - ISG

X -- not used; U -- useful; % -- technology coverage; Blank -- not available in RWE

Product/Functions	Technologies - XNet	ISG A	ISG B	ISG C
XNet Functions				
Basic Client				
Communication	Protocols	50%	100%	100%
	Session Restart	25%	25%	25%
	Checkpoint Restart	100%	100%	100%
	Outbound Inbound	33%	33%	33%
	Compression	100%	100%	U
	Safe Transfer	100%	100%	U
	Execute Server			
	Performance Enhancements			
	Distributed Server			
	LAN Protocol and Redistribution			
	Non-English Language Version			
Work Object	Selective Work Object Execution	50%	U	50%
	File Transfer	100%	U	100%
	Session Control	25%	U	25%
	File Disk Operations	100%	U	100%
	Advanced Events	25%	U	25%
Scheduling	GUI Scheduler			
	Persistent Scheduling			
	Template Client			
Clustering	Multi Threaded Management			
Workstation Administration	Licensing	100%	U	U
	Interactive Session - Mode 1 & 2			
Electronic SW Distribution	DOS Terminate Stay Ready			
Logging and Reporting	Server Event Log	U	U	50%
	Client Event Log	U	U	U
	Reporting			
Alerts and Alarm	System Alarms			
	User Alarms			
Security	Client Security			
	User Security			
	Administrator Security			
	Encryption Security	U	U	50%
Messaging	MAPI Address Book Provider			

Product/Functions	Technologies - XNet	ISG A	ISG B	ISG C
Extended Client				
Subscriber		40%	40%	40%
Directory Services				
Workshop				
Data Exchange Agent				
ODBC Data Store Options				
Web Offline				
Electronic Software Distrib.		U	U	60%
Managed Client				
Software Manager		U	U	40%
Inventory Manager				
Antivirus Manager				
Backup Manager				
Microsoft SMS Agent				
MS Management Console				
Other Interface Programs				
Lotus Notes				
Microsoft Mail Transport				
	Byte Level Differencing			
	NT Domain Authentication			
	SMTP Messaging Technology			
Tivoli Plus				
Electronic Forms Application				
	Rules Processing Engine			
Java Client				
	HTTP Encapsulation			
	Multi Cast IP			

XNet Products

	A	B	C	D	E	F	G	H
50								12
51	Summary for Connect:Remote Product - Worldwide							
52								
53								
54	($000)	Forecas			Projected			Total
55		1998	1999	2000	2001	2002	2003	1999-2003
56								
57	Revenues							
58	New & add-on licenses	36497	32540	30594	25201	18963	12535	119833
59	Professional services	5157	4901	3992	2743	1565	810	14011
60	Maintenance	17707	22445	25197	25198	23951	21668	118457
61	Total revenues	59361	59886	59783	53142	44478	35013	252301
62								252301
63	Costs							
64	Cost of revenues		5989	5978	5314	4448	3501	25230
65	Marketing and sales		24523	24609	22012	18521	14676	104341
66	R and D		8983	8967	7971	6672	5252	37845
67	G and A		8983	8967	7971	6672	5252	37845
68	Total costs		48477	48523	43269	36313	28681	205262
69								205262
70	Operating Income		11409	11260	9873	8165	6332	47040
71								47040
72	Net Present Value		6853	6256	5077	3885	2790	24861
73								
74								
75								
76								
77								
78								
79								
80								
81	Total							
82	Revenue	59361	59886	59783	53142	44478	35013	252301
83	Cost	0	48477	48523	43269	36313	28681	205262
84	Operating Income	0	11409	11260	9873	8165	6332	47040
85	Net Present Value	0	6853	6256	5077	3885	2790	24861
86								
87	Total- Americas							
88	Revenue	54819	54200	52821	45591	37177	28307	218096
89	Cost	0	43360	42257	36473	29741	22646	174477
90	Operating Income	0	10840	10564	9118	7435	5661	43619
91	Net Present Value	0	6416	5763	4584	3445	2418	22626
92								
93	Total- International							
94	Revenue	4543	5685	6962	7551	7302	6705	34205
95	Cost		5117	6266	6796	6571	6035	30785
96	Operating Income		569	696	755	730	671	3421
97	Net Present Value		437	493	493	439	372	2235

	A	B	C	D	E	F	G	H
100								13
101								
102	**Summary for Connect:Remote Product - Americas and International**							
103								
104	($000)	Forecas			Projected			Total
105		1998	1999	2000	2001	2002	2003	1999-2003
106	**Americas**							
107	**Revenues**							
108	New & add-on licenses	33344	29056	26540	20972	15092	9204	100864
109	Professional services	4435	3997	2998	1799	809	243	9846
110	Maintenance	17040	21147	23283	22821	21275	18861	107387
111	Total revenues	54819	54200	52821	45591	37177	28307	218096
112								218096
113	**Costs**							
114	Cost of revenues		5420	5282	4559	3718	2831	21810
115	Marketing and sales		21680	21128	18236	14871	11323	87238
116	R and D		8130	7923	6839	5576	4246	32714
117	G and A		8130	7923	6839	5576	4246	32714
118	Total costs		43360	42257	36473	29741	22646	174477
119								174477
120	**Operating Income**		10840	10564	9118	7435	5661	43619
121								43619
122	**Net Present Value**		6416	5763	4584	3445	2418	22626
123								
124	**International**							
125	**Revenues**							
126	New & add-on licenses	3153	3484	4054	4230	3870	3332	18969
127	Professional services	722	904	994	945	756	567	4165
128	Maintenance	668	1298	1914	2377	2676	2807	11071
129	Total revenues	4543	5685	6962	7551	7302	6705	34205
130								34205
131	**Costs**							
132	Cost of revenues		569	696	755	730	671	3421
133	Marketing and sales		2843	3481	3776	3651	3353	17103
134	R and D		853	1044	1133	1095	1006	5131
135	G and A		853	1044	1133	1095	1006	5131
136	Total costs		5117	6266	6796	6571	6035	30785
137								30785
138	**Operating Income**		569	696	755	730	671	3421
139								3421
140	**Net Present Value**		437	493	493	439	372	2235

	A	B	C	D	E	F	G	H
150								14
151	**Revenue Sources for Connect:Remote Product - Americas and International**							
152								
153								
154	($000)	Forecas			Projected			Total
155		1998	1999	2000	2001	2002	2003	1999-2003
156								
157	**Americas**							
158	New licenses rate		.90	.75	.60	.45	.30	
159	revenue	12689	11420	8565	5139	2313	694	28131
160	Add-on Revenue	20655	17636	17975	15832	12780	8510	72733
161	Prof. Svcs & Trng Rev	4435	3997	2998	1799	809	243	9846
162	Maintenance revenue	17040	21147	23283	22821	21275	18861	107387
163	Total	54819	54200	52821	45591	37177	28307	218096
164								218096
165	**Maintenance calc**							
166	Previous year maintenance		17040	21147	23283	22821	21275	
167	Retention rate		.90	.85	.80	.80	.80	
168	Rem. Maintenance	10371	15336	17975	18626	18257	17020	87214
169	Add-on Revenue	20655	17636	17975	15832	12780	8510	72733
170	New licenses & add-ons	33344	29056	26540	20972	15092	9204	100864
171	Maint/license price ratio	0.20	.20	.20	.20	.20	.20	
172	Initial conversion rate	1.00	1.00	1.00	1.00	1.00	1.00	
173	New & add-on lic-maint	6669	5811	5308	4194	3018	1841	20173
174	**Maintenance revenue**	17040	21147	23283	22821	21275	18861	107387
175								107387
176	**International**							
177	New licenses rate		1.25	1.10	.95	.80	.75	
178	revenue	2066	2583	2841	2699	2159	1619	11900
179	Add-on Revenue	1087	901	1213	1531	1711	1712	7069
180	Prof. Svcs & Trng Rev	722	904	994	945	756	567	4165
181	Maintenance revenue	668	1298	1914	2377	2676	2807	11071
182	Total	4543	5685	6962	7551	7302	6705	34205
183								34205
184	**Maintenance calc**							
185	Previous year maintenance		668	1298	1914	2377	2676	
186	Retention rate		.90	.85	.80	.80	.80	
187	Rem. Maintenance	37	601	1103	1531	1902	2141	7277
188	Add-on Revenue	1087	901	1213	1531	1711	1712	7069
189	New licenses & add-ons	3153	3484	4054	4230	3870	3332	18969
190	Maint/license price ratio	0.20	.20	.20	.20	.20	.20	
191	Initial conversion rate	1.00	1.00	1.00	1.00	1.00	1.00	
192	New & add-on lic-maint	631	697	811	846	774	666	3794
193	**Maintenance revenue**	668	1298	1914	2377	2676	2807	11071
194								11071

	A	B	C	D	E	F	G	H
200								15
201	**Costs for Connect:Remote Product - Americas and International**							
202								
203		.						
204	**($000)**	Forecas			Projected			Total
205		1998	1999	20002	2001	2002	2003	1999-2003
206								
207	**Americas**							
208	Revenues	54819	54200	52821	45591	37177	28307	218096
209								
210	Cost of revenues rate		.10	.10	.10	.10	.10	
211	cost		5420	5282	4559	3718	2831	21810
212	Marketing and sales rate		.40	.40	.40	.40	.40	
213	cost		21680	21128	18236	14871	11323	87238
214	R and D rate		.15	.15	.15	.15	.15	
215	cost		8130	7923	6839	5576	4246	32714
216	G and A rate		.15	.15	.15	.15	.15	
217	cost		8130	7923	6839	5576	4246	32714
218	**Total Costs- Americas**		43360	42257	36473	29741	22646	174477
219	**Cost/revenue Percent**		80	80	80	80	80	80
220								
221	**International**							
222	Revenues	4543	5685	6962	7551	7302	6705	34205
223								
224	Cost of revenues rate		.10	.10	.10	.10	.10	
225	cost		569	696	755	730	671	3421
226	Marketing and sales rate		.50	.50	.50	.50	.50	
227	cost		2843	3481	3776	3651	3353	17103
228	R and D rate		.15	.15	.15	.15	.15	
229	cost		853	1044	1133	1095	1006	5131
230	G and A rate		.15	.15	.15	.15	.15	
231	cost		853	1044	1133	1095	1006	5131
232	**Total Costs - International**		5117	6266	6796	6571	6035	30785
233	**Cost/Revenue Percent**		90	90	90	90	90	90

	A	B	C	D	E	F	G
249							16
250	**Net Present Value - Connect:Remote Product**						
251							**Total**
252	**($000)**	**1999**	**2000**	**2001**	**2002**	**2003**	**1999-2003**
253							
254	**Americas**						
255	Revenues	54200	52821	45591	37177	28307	218096
256	Operating Income percent	20	20	20	20	20	20
257	Operating Income pretax	10840	10564	9118	7435	5661	43619
258							
259							
260	Tax Rate	.384	.384	.384	.384	.384	
261	Taxes	4163	4057	3501	2855	2174	16750
262	Operating Income after tax	6677	6508	5617	4580	3487	26869
263	Net Present Value rate	.085					
264	NPV Factor	.961	.886	.816	.752	.693	
265	Net Present Value	6416	5763	4584	3445	2418	22626
266							
267	**International**						
268	Revenues	5685	6962	7551	7302	6705	34205
269	Operating Income percent	10	10	10	10	10	
270	Operating Income pretax	569	696	755	730	671	3421
271							
272							
273	Tax Rate	.20	.20	.20	.20	.20	
274	Taxes	114	139	151	146	134	684
275	Operating Income after tax	455	557	604	584	536	2736
276	Net Present Value rate	.085					
277	NPV Factor	.961	.886	.816	.752	.693	
278	Net Present Value	437	493	493	439	372	2235
279							
280	**Worldwide**						
281	Revenues	59886	59783	53142	44478	35013	252301
282	Operating Income pretax	11409	11260	9873	8165	6332	47040
283							
284	Operating Income after tax	7132	7064	6221	5164	4024	29606
285	Net Present Value	6853	6256	5077	3885	2790	24861

Business Assumptions for Connect:Manage (MSD A)

1.	**Availability**	Connect:Manage which incorporates the in-process KODIAK functions will be delivered in multiple phases with the initial phases scheduled for release starting in first quarter 1999. During the releases in 1999, Direct:Manage will aggressively address the mobile remote system management market. It will address integration with Enterprise system management systems including IBM Tivoli, Microsoft WMS and CAUnicenter. In addition, it will exploit new technologies such as Microsoft's Zero Administration Windows (ZAW), Internet interfaces related to various languages and other critical interfaces. This will differentiate the product and provide competitive advantages in the marketplace.
2.	**Pricing**	$50,000 per initial sale
3.	**New Customers**	Estimated to be 100 in 1999, growing at a very strong rate for the first four years and then flattening.
4.	**Upgrades/Add-ons**	Will provide a 50% increase in revenues for new customers, based on new product priced features and add-on modules plus increased number of accessed clients ("seats")
5.	**Professional Services**	Estimated to be 20% of new license fees
6.	**Maintenance**	20% of previous year license fees with 90% renewals by existing customers. First year is 20% of new license fees for 100% of customers.
7.	**Product Life Cycle**	7 years
8.	**International Revenues**	Follows Americas rates at a 30% level to start, but gaining more rapidly.
9.	**Costs**	The basic historic cost model will be consistent for Connect:Manage as in previous XNet products. This would be business as usual but with the G&A charges required in the new SCI Corporate organization
10.	**International Costs**	Similar to U. S. Costs

Business Assumptions for Connect:LAN/Desktop (MSD B)

1.	**Availability**	Initial release is targeted for 2000
2.	**Pricing**	License fees will be per seat and are currently projected to be two-thirds of Connect:Manage rates.
3.	**New Customers**	Approximately 5% of existing Connect:Manage customers will take this new product in the first year. This will grow to 10% to 25% of new remote customers in future. No current expectation of sales to new customers except related to Connect:Manage sales.
4.	**Upgrades/Add-ons**	Will be significant, 20% of installed base
5.	**Professional Services**	Will be less than for current remote products at 10% of new license revenues
6.	**Maintenance**	90% of new customers will take maintenance with 95% renewal rates.
7.	**Product Life Cycle**	Expect at least 7 years of strong product life.
8.	**International Revenues**	Will follow Americas rates at a 40% level, with some strengthening in last year.
9.	**Costs**	Costs will be comparable to Connect:Remote and Connect:Manage.
10.	**International Costs**	Costs will be comparable to Connect:Remote and Connect:Manage.

Business Assumptions for Connect:MOM (MSD C)

1. Availability	Connect:Remote addresses the MAPI requirements support. SMTP (simple mail transport protocol) is in-process R&D at XNet, but not yet delivered. Initial release of MOM will be in 2000 with additional interfaces.
2. Pricing	Current customers will not be charged for the new release with SMTP support. New customers will pay $75/seat/year for the standalone product.
3. New Customers	It is expected that 50% of the new customers for Connect:Manage and Connect:Remote will buy MOM. Few, if any, independent purchases of MOM are expected.
4. Upgrades/Add-ons	These will be relatively small, related to the growth in the number of seats.
5. Professional Services	Relatively low at 10% of new license revenues
6. Maintenance	Normal growth with 20% maintenance fee and 10% erosion
7. Product Life Cycle	Seven-year life for initial product as maintained and improved
8. International Revenues	Same pattern as Americas, but at a somewhat lower level
9. Costs	Similar to Connect:Manage, but with higher sales cost ratios
10. International Costs	Same as Americas

Business Assumptions for Connect:Direct+ (CSG A)

1. **Availability**   Initial delivery in 2000

2. **Pricing**   Somewhat above Connect:Direct

3. **New Customers**   Principally will be sold to new customers who were not previously satisfied with Connect:Direct and migration from existing Connect:Direct customers

4. **Upgrades/Add-ons**   Substantial revenues at 20% of installed base annually

5. **Professional Services** Will not be significant

6. **Maintenance**   20% annual fee with 10% annual erosion

7. **Product Life Cycle**   Full seven years

8. **International Revenues** Follows Americas, but at a much lower level

9. **Costs**   Similar to Connect:Direct with somewhat higher sales costs

10. **International Costs** Same as Americas

Business Assumptions for Connect:Remote for Enterprise/PA (CSG B)

1. **Availability**   First deliveries in 2000.

2. **Pricing**   Relatively higher prices than Connect:Remote because of PA capabilities

3. **New Customers**   Principally for new customers who were not satisfied with Connect:Remote without the PA capabilities.

4. **Upgrades/Add-ons**   Substantial revenues at 20% of installed base licensees

5. **Professional Services** Limited

6. **Maintenance**   Substantial, based on 20% annual maintenance fee and 10% erosion rate

7. **Product Life Cycle**   Strong seven-year plan

8. **International Revenues** Similar to Americas but at a much lower level

9. **Costs**   Similar to other CSG cost structures with somewhat higher sales cost ratios

10. **International Costs**   Same as Americas

Business Assumptions for Connection for the Internet (CVG A)

1. Availability		CVG is targeting roll-out of this product in 2Q99. As the product rolls out, it will be made available to current 5000+ Commerce:Connection customers and to a range of potential new customers.

2. Pricing
- Price: $2,600 base including $700 maintenance in first year
- $700/year maintenance (85% renewal each year) after first year
- Additional revenue for new templates (first one free, pay $195 for each new document); each partner averages 2 templates; typically add 1-2 trading partners a year

3. New Customers
- 600 initial year, 1,800 in 2000 and 2001; feel there will be initial increase because of Internet hype; then will drop off because of newer technologies that will be introduced

- $3,000 initial license and first-year maintenance ($2,400 plus $600); $600 yearly maintenance; expect the ongoing maintenance to stay the same; will increase functionality so will be able to hold maintenance and price.

4. Upgrades/Add-ons CVG will sell upgrades to 32-bit version of Commerce: Connection for $350 and expect to average 8 upgrades per month over the next 12 months.

5. Professional Services Additional revenue for monthly network subscription ($50/month) for one trading partner

6. Maintenance CVG has 85% retention rate for current Commerce:Connection customers; 15% do not renew after first year (first-year maintenance included in initial charge)

7. Product Life Cycle Expect strong market through 2001, then rate of growth will drop off

8. International Revenues Estimate 10% International; currently very small percentage and do not have plans to increase penetration internationally in early years

9. Costs Follows current CVG cost patterns, yielding very high operating income margins

10. International Costs Will be at same level as Americas

Business Assumptions for Commerce:Software Distribution (CVG B)

1. Availability	This product is targeted for release in fiscal 1999. It will first be rolled out to Sterling Commerce Software alliance partners. Modifications will be made from these experiences and then Sterling Commerce will roll the service out to its customer base and other software companies.
2. Pricing	For each customer (each seat): • Proportional to distribution in volume • Network usage fee • Set-up fee • Storage fee • Data warehousing fee
3. New Customers	Software product marketers, CVG service customers and virtual communities by industry or primary vendor
4. Upgrades/Add-ons	Principally by increasing number of seats per customer
5. Professional Services	Not significant
6. Maintenance	Not priced for maintenance; obtain revenues from renewals of service
7. Product Life Cycle	Seven-year projection
8. International Revenues	Similar to Americas but at a much lower level
9. Costs	Comparable to other CVG offerings, but with somewhat higher cost of revenues and R&D costs
10. International Costs	Same as Americas

Business Assumptions for Gentral:EDX (ISG A)

1. Availability	The initial release of Gentran:EDX will be the second quarter of FY99. The fully integrated release is planned for first quarter FY02.
2. Pricing	Comparable, but somewhat higher than other ISG products
3. New Customers	For FY99, estimated revenue from new customer licenses and upgrades/add-ons will be approximately $11M in the Americas. Revenue growth for Americas' market will be 40% of CAGR.
4. Upgrades/Add-ons	Estimated ratio would be 20% between upgrades/add-ons and installed base.
5. Professional Services	Estimated ratio would be 20% of services revenue to new licenses revenue.
6. Maintenance	Initial acceptance rate of maintenance would be 100% with negligible erosion after the first year. There is no "free" maintenance period.
7. Product Life Cycle	Marketable life for new customers and support is at least seven years based on delivery of the fully integrated release within the planning period.
8. International Revenues	For International markets, the FY99 estimated revenue from new customer licenses and upgrades/add-ons will be approximately $4M. The international list price is 25% uplifted from the Americas' list price on a per-unit basis. Revenue growth for International markets will be 80% CAGR.
9. Costs	Cost of goods 1%; Marketing, Sales and Support 53%; Research and Development 14%; General and Administrative 5%.
10. International Costs	Cost of goods 1%; Marketing, Sales and Support 3%; Research and Development 14%; General and Administrative 5%.

Business Assumptions for Gentran:Web Suite Express (ISG B)

1. Availability The initial release of Gentran:Web Suite Express will be the second quarter FY99. The fully integrated release is planned for fourth quarter FY99.

2. Pricing It is estimated that pricing will be $100,000 for 1,000 users with additional users at $7,500 per 1,000 users.

3. New Customers Worldwide estimates are 50 customers in first year with $5M revenues.

4. Upgrades/Add-ons Estimated that over 75% of customers will be existing Gentran customers who are not current users of Gentran:Web Suite.

5. Professional Services Services revenue is estimated to be 80% of initial license revenue; i.e. $80,000 per installation.

6. Maintenance Initial acceptance rate of maintenance would be 100% with negligible eroding after the first year. There is no "free" maintenance period. Maintenance is at 20% of initial license.

7. Product Life Cycle Marketable life for new customers is at least seven years based on delivery of the fully integrated release within the planing period.

8. International Revenues Currently, 40% of existing Gentran:Web Suite customers are international. Internationally, ISG has fewer current competitors since most of the competition are U.S.-based startups that are not able to compete internationally. Netscape is the only serious competitor that is seen internationally. ISG has seen growth rates similar to the U. S. markets. Pricing for International is based on U. S. pricing with a 25% uplift. It is projected that ISG will achieve $2.5M in International revenue in 1999.

9. Costs Cost of goods 1%; Marketing, Sales and Support 53%; Research and Development 14%; General and Administrative 4%

10. International Costs Cost of goods 1%; Marketing, Sales and Support 63%; Research and Development 15%; General and Administrative 5%

4021.ap2

Business Assumptions for Gentran:Sell Suite and Gentran:Buy Suite

Gentran:Sell Suite

1. Availability

Several custom implementations of Sell Suite exist today. These include Owens-Corning, Vipar, BookNet, NCR, and Tradecompass. This provides the validation of the first product release which will contain the XNet technology. Plans are for availability in late 1999. Major releases are planned for six month intervals.

2. Pricing

Typical new license price will be $150k

3. New Customers

The FY99 target for Gentran:Sell Suite is 20 customers, with a new license value of $3m. Revenue growth will be 50% CAGR over the seven year period.

4. Upgrades/Add-ons

All existing customers are expected to upgrade to new releases on a yearly basis

5. Professional Services

SCI expects a 1:1 ratio between services revenue and new license revenue.

6. Maintenance

SCI expects a 100% acceptance of maintenance for the first year. Experience indicates negligible erosion after the first year; maintenance at 20% of list price.

7. Product Life Cycle

The market for Gentran:Sell Suite will evolve rapidly and the product capability will evolve to match the market requirements. Based on the growth expected for the Internet to general and Web Commerce in particular, the product life is beyond the seven-year planning period.

8. International Revenue

The international market will lag the U.S. by one year. There will be significantly less competition in the international arena as compared to the U.S.

9. Costs

A comparable product is Gentran:WebSuite

10. International Costs

A comparable product is Gentran:WebSuite

Business Assumptions for Gentran:Sell Suite and Gentran:Buy Suite

Gentran:Buy Suite

1. **Availability**

Gentran:Buy Suite is being planned and developed now. It will be generally available in 4QFY99.

2. **Pricing**

Typical new license price will be $150k

3. **New Customers**

The FY2000 target for Gentran:Buy Suite is 40 customers, with a new license value of $4M. Revenue growth will be 50% CAGR over the seven year period.

4. **Upgrades/Add-ons**

Expect all existing customers to upgrade to new releases on a yearly basis, but there will be no extra charge for this beyond the maintenance fee.

5. **Professional Services**

SCI expects a 1.1 ratio between services revenue and new license revenue.

6. **Maintenance**

SCI expects a 100% acceptance of maintenance after the first year. Experience indicates negligible erosion after the first year; maintenance at 20% of list price.

7. **Product Life Cycle**

The Market for Gentran:Buy Suite will evolve rapidly and the product capability will evolve to match the market requirements. Based on the growth projections for the Internet in general and Web Commerce in particular, the product life for is beyond the seven-year planning period.

8. **International Revenues** Will trail U.S. by about 12 months, but should grow at a strong rate.

9. **Costs**

A comparable product is Gentran:WebSuite

10. **International Costs**

A comparable product is Gentran:WebSuite

	A	B	C	D	E	F	G	H	I
1									**10**
2	Summary for New XNet Technology-Based Products/Services - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**MSD**								
9	Revenue	9100	21013	35743	55753	79931	104483	127115	433137
10	Cost	7280	16213	25741	39716	56392	73138	88980	307461
11	Operating Income - pretax	1820	4800	10001	16037	23538	31345	38134	125676
12	Net Present Value	1152	2801	5386	7975	10817	13301	14979	56410
13									
14	**CSG**								
15	Revenue	0	24720	44638	71693	105398	144557	186697	577702
16	Cost	0	22248	37942	57354	79049	108417	140023	445033
17	Operating Income - pretax	0	2472	6696	14339	26350	36139	46674	132669
18	Net Present Value	0	1400	3513	6970	11849	15044	17979	56755
19									
20	**CVG**								
21	Revenue	2926	10917	20250	33051	50128	71160	94737	283167
22	Cost	1802	6797	12891	21249	32131	46123	62075	183067
23	Operating Income - pretax	1124	4120	7359	11802	17997	25036	32662	100100
24	Net Present Value	692	2343	3917	5854	8247	10574	12699	44328
25									
26	**ISG**								
27	Revenue	12275	34103	56955	83011	106791.7	119806.9	126491.8	539433
28	Cost	10728	29588	48606.98	69042	87567.95	96805	100765	443102
29	Operating Income - pretax	1548	4514	8348	13969	19224	23002	25727	96331
30	Net Present Value	959	2644	4516	6988	8910	9902	10227	44147
31									
32	**World Wide Total**								
33	Revenue	24301	90752	157585	243507	342248	440006	535040	1833439
34	Cost	19809	74846	125181	187361	255140	324484	391843	1378663
35	Operating Income - pretax	4491	15906	32404	56147	87109	115523	143198	454777
36	Net Present Value	2803	9188	17332	27787	39824	48822	55884	201640
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									
63									
64									

	A	B	C	D	E	F	G	H	I
65									**11**
66		Summary for New XNet Technology-Based Products/Services - Americas							
67									
68									
69	($000)				Projected				Total
70		1999	2000	2001	2002	2003	2004	2005	1999-2005
71									
72	**MSD**								
73	Revenue	7000	16218	27285	42117	59495	77182	91967	321264
74	Cost	5600	12529	19674	30023	41986	54027	64377	228216
75	Operating Income - pretax	1400	3689	7611	12094	17510	23155	27590	93048
76	Net Present Value	829	2013	3826	5602	7475	9114	10010	38869
77									
78	**CSG**								
79	Revenue	0	21600	38088	59855.04	86540	116688.2	148156.7	470928
80	Cost	0	19440	32375	47884	64905	87516	111117.5	363238
81	Operating Income - pretax	0	2160	5713	11971	21635	29172	37039	107691
82	Net Present Value	0	1179	2872	5545	9236	11483	13439	43753
83									
84	**CVG**								
85	Revenue	2525	9364	16256	25350	38029	54151	72539	218213
86	Cost	1556	5824	10346	16344	24461	35233	47710	141473
87	Operating Income - pretax	970	3540	5909	9005	13568	18918	24830	76741
88	Net Present Value	574	1932	2970	4172	5792	7447	9009	31896
89									
90	**ISG**								
91	Revenue	10675	25818	42388	60368	75197	80888	84896	380230
92	Cost	9368	22408	36172	50139	61495	65097	67409	312088
93	Operating Income - pretax	1308	3410	6216	10229	13702	15791	17486	68142
94	Net Present Value	774	1861	3125	4738	5849	6216	6344	28907
95									
96	**Americas Total**								
97	Revenue	20200	72999	124017	187689	259262	328909	397558	1390635
98	Cost	16523	60200	98568	144391	192847	241873	290613	1045015
99	Operating Income - pretax	3677	12798	25450	43299	66415	87036	106945	345621
100	Net Present Value	2177	6985	12792	20057	28352	34260	38802	143425
101									
102									
103									
104									
105									
106									
107									
108									
109									
110									
111									
112									
113									
114									
115									
116									
117									
118									
119									
120									
121									
122									
123									
124									
125									
126									
127									
128									
129									

	A	B	C	D	E	F	G	H	I
130									**12**
131	Summary for New XNet Technology-Based Products/Services - International								
132									
133									
134	($000)				Projected				Total
135		1999	2000	2001	2002	2003	2004	2005	1999-2005
136									
137	**MSD**								
138	Revenue	2100	4795	8457	13637	20435	27301	35148	111873
139	Cost	1680	3684	6067	9693	14406	19111	24604	79245
140	Operating Income - pretax	420	1111	2391	3944	6029	8190	10544	32629
141	Net Present Value	323	787	1561	2373	3342	4187	4969	17541
142									
143	**CSG**								
144	Revenue	0	3120	6550	11838	18858	27868	38540	106774
145	Cost	0	2808	5567	9470	14143	20901	28905	81795
146	Operating Income - pretax	0	312	982	2368	4714	6967	9635	24979
147	Net Present Value	0	221	641	1424	2614	3562	4540	13002
148									
149	**CVG**								
150	Revenue	401	1553	3994	7701	12099	17009	22197	64954
151	Cost	246	973	2545	4904	7670	10891	14365	41594
152	Operating Income - pretax	154	580	1449	2797	4429	6118	7832	23360
153	Net Present Value	118	411	946	1683	2455	3127	3691	12432
154									
155	**ISG**								
156	Revenue	1600	8285	14567	22642	31594	38919	41596	159203
157	Cost	1360	7181	12435	18903	26073	31708	33356	131014
158	Operating Income - pretax	240	1105	2132	3740	5522	7211	8240	28189
159	Net Present Value	185	783	1392	2250	3061	3686	3883	15239
160									
161	**International Total**								
162	Revenue	4101	17753	33568	55818	82986	111097	137482	442804
163	Cost	3286	14646	26614	42970	62292	82611	101229	333648
164	Operating Income - pretax	814	3108	6954	12848	20694	28486	36252	109156
165	Net Present Value	626	2203	4540	7729	11472	14562	17082	58214
166									
167									
168									
169									
170									
171									
172									
173									
174									
175									
176									
177									
178									
179									
180									
181									
182									
183									
184									
185									
186									
187									
188									
189									
190									
191									
192									
193									

	K	L	M	N	O	P	Q	R	S
1									**20**
2			Summary for New MSD Products - World Wide						
3									
4	($000)				Projected				Total
5		1999	2000	2001	2002	2003	2004	2005	1999-2005
6	MSD A								
7	Revenues								
8	New licenses & upgrades	6500	10920	16845	23963	30969	35898	38151	163246
9	Professional services	1300	1950	2775	3675	4368	4491	4020	22579
10	Maintenance	1300	3300	6209	10143	14938	20057	24928	80875
11	Total revenues	9100	16170	25829	37781	50275	60446	67098	266700
12									266700
13	Costs								
14	Cost of revenues	910	1617	2583	3778	5027	6045	6710	26670
15	Marketing and sales	3640	5660	7749	11334	15082	18134	20129	81729
16	R and D	1365	2426	3874	5667	7541	9067	10065	40005
17	G and A	1365	2426	3874	5667	7541	9067	10065	40005
18	Total costs	7280	12128	18081	26447	35192	42312	46969	188409
19									188409
20	Operating Income - pretax	1820	4043	7749	11334	15082	18134	20129	78292
21									78292
22	Net Present Value	1152	2357	4166	5624	6915	7672	7856	35741
23									
24	MSD B								
25	Revenues								
26	New licenses & upgrades	0	1400	3752	7902	14484	22993	32576	83108
27	Professional services	0	140	350	700	1225	1838	2428	6681
28	Maintenance	0	280	1002	2483	5131	9217	14810	32923
29	Total revenues	0	1820	5104	11085	20841	34047	49815	122712
30									122712
31	Costs								
32	Cost of revenues	0	182	510	1108	2084	3405	4981	12271
33	Marketing and sales	0	637	1531	3325	6252	10214	14944	36904
34	R and D	0	273	766	1663	3126	5107	7472	18407
35	G and A	0	273	766	1663	3126	5107	7472	18407
36	Total costs	0	1365	3573	7759	14588	23833	34870	85989
37									85989
38	Operating Income - pretax	0	455	1531	3325	6252	10214	14944	36722
39									36722
40	Net Present Value	0	270	835	1672	2897	4364	5925	15962
41									
42	MSD C								
43	Revenues								
44	New licenses & upgrades	0	2325	3384	4555	5494	5781	5350	26888
45	Professional services	0	233	330	436	515	528	469	2510
46	Maintenance	0	465	1095	1897	2806	3681	4383	14327
47	Total revenues	0	3023	4809	6887	8815	9990	10202	43725
48									43725
49	Costs								
50	Cost of revenues	0	302	481	689	882	999	1020	4373
51	Marketing and sales	0	1511	2164	2755	3085	2997	3060	15573
52	R and D	0	453	721	1033	1322	1498	1530	6559
53	G and A	0	453	721	1033	1322	1498	1530	6559
54	Total costs	0	2720	4088	5510	6612	6993	7141	33063
55									33063
56	Operating Income - pretax	0	302	721	1377	2204	2997	3060	10662
57									10662
58	Net Present Value	0	174	385	679	1006	1266	1198	4708
59									
60	Totals								
61	Revenue	9100	21013	35743	55753	79931	104483	127114.6	433137
62	Costs	7280	16213	25741	39716	56392	73138	88980	307461
63	Operating Income - pretax	1820	4800	10001	16037	23538	31345	38134	125676
64	Net Present Value	1152	2801	5386	7975	10817	13301	14979	56410

	K	L	M	N	O	P	Q	R	S
65									**21**
66			Summary for New MSD Products - Americas						
67									
68	($000)				Projected				Total
69		1999	2000	2001	2002	2003	2004	2005	1999-2005
70	MSD A								
71	Revenues								
72	New licenses & upgrades	5000	8400	12822	18048	22904	26306	27626	121106
73	Professional services	1000	1500	2100	2730	3140	3140	2669	16278
74	Maintenance	1000	2580	4886	8007	11787	15870	19808	63939
75	Total revenues	7000	12480	19808	28785	37831	45316	50102	201322
76									201322
77	Costs								
78	Cost of revenues	700	1248	1981	2879	3783	4532	5010	20132
79	Marketing and sales	2800	4368	5943	8636	11349	13595	15031	61721
80	R and D	1050	1872	2971	4318	5675	6797	7515	30198
81	G and A	1050	1872	2971	4318	5675	6797	7515	30198
82	Total costs	5600	9360	13866	20150	26482	31721	35072	142250
83									142250
84	Operating Income - pretax	1400	3120	5943	8636	11349	13595	15031	59073
85									59073
86	Net Present Value	829	1703	2987	4000	4845	5351	5454	25168
87									
88	MSD B								
89	Revenues								
90	New licenses & upgrades		1000	2680	5644	10346	16424	22331	58425
91	Professional services		100	250	500	875	1313	1641	4678
92	Maintenance		200	716	1773	3665	6583	10391	23329
93	Total revenues		1300	3646	7918	14886	24319	34363	86432
94									86432
95	Costs								
96	Cost of revenues		130	365	792	1489	2432	3436	8643
97	Marketing and sales		455	1094	2375	4466	7296	10309	25995
98	R and D		195	547	1188	2233	3648	5154	12965
99	G and A		195	547	1188	2233	3648	5154	12965
100	Total costs		975	2552	5542	10420	17024	24054	60568
101									60568
102	Operating Income - pretax		325	1094	2375	4466	7296	10309	25865
103									25865
104	Net Present Value		177	550	1100	1906	2872	3740	10346
105									
106	MSD C								
107	Revenues								
108	New licenses & upgrades		1875	2693	3570	4195	4319	3846	20497
109	Professional services		188	263	341	392	392	334	1910
110	Maintenance		375	876	1502	2191	2836	3321	11102
111	Total revenues		2438	3831	5414	6778	7547	7501	33509
112									33509
113	Costs								
114	Cost of revenues		244	383	541	678	755	750	3351
115	Marketing and sales		1219	1724	2166	2372	2264	2250	11995
116	R and D		366	575	812	1017	1132	1125	5026
117	G and A		366	575	812	1017	1132	1125	5026
118	Total costs		2194	3256	4331	5084	5283	5251	25399
119									25399
120	Operating Income - pretax		244	575	1083	1695	2264	2250	8110
121									8110
122	Net Present Value		133	289	502	723	891	816	3355
123									
124	Totals								
125	Revenue	7000	16218	27285	42117	59495	77182	91967	321264
126	Costs	5600	12529	19674	30023	41986	54027	64377	228216
127	Operating Income - pretax	1400	3689	7611	12094	17510	23155	27590	93048
128	Net Present Value	829	2013	3826	5602	7475	9114	10010	38869
129									

	K	L	M	N	O	P	Q	R	S
130									**22**
131			Summary for New XNet Products - International						
132									
133	($000)				Projected				Total
134		1999	2000	2001	2002	2003	2004	2005	1999-2005
135	MSD A								
136	Revenues								
137	New licenses & upgrades	1500	2520	4023	5916	8065	9592	10525	42141
138	Professional services	300	450	675	945	1229	1351	1351	6301
139	Maintenance	300	720	1323	2136	3151	4187	5120	16936
140	Total revenues	2100	3690	6021	8996	12444	15131	16996	65378
141									65378
142	Costs								
143	Cost of revenues	210	369	602	900	1244	1513	1700	6538
144	Marketing and sales	840	1292	1806	2699	3733	4539	5099	20008
145	R and D	315	554	903	1349	1867	2270	2549	9807
146	G and A	315	554	903	1349	1867	2270	2549	9807
147	Total costs	1680	2768	4215	6297	8711	10591	11897	46159
148									46159
149	Operating Income - pretax	420	923	1806	2699	3733	4539	5099	19219
150									19219
151	Net Present Value	323	654	1179	1624	2070	2320	2403	10572
152									
153	MSD B								
154	Revenues								
155	New licenses & upgrades		400	1072	2258	4138	6569	10245	24683
156	Professional services		40	100	200	350	525	788	2003
157	Maintenance		80	286	709	1466	2633	4419	9594
158	Total revenues		520	1458	3167	5954	9728	15452	36279
159									36279
160	Costs								
161	Cost of revenues		52	146	317	595	973	1545	3628
162	Marketing and sales		182	438	950	1786	2918	4635	10910
163	R and D		78	219	475	893	1459	2318	5442
164	G and A		78	219	475	893	1459	2318	5442
165	Total costs		390	1021	2217	4168	6809	10816	25421
166									25421
167	Operating Income - pretax		130	438	950	1786	2918	4635	10858
168									10858
169	Net Present Value		92	286	572	990	1492	2184	5616
170									
171	MSD C								
172	Revenues								
173	New licenses & upgrades		450	691	984	1299	1462	1504	6391
174	Professional services		45	68	95	123	135	135	600
175	Maintenance		90	219	394	615	846	1062	3225
176	Total revenues		585	978	1473	2037	2443	2700	10216
177									10216
178	Costs								
179	Cost of revenues		59	98	147	204	244	270	1022
180	Marketing and sales		293	440	589	713	733	810	3578
181	R and D		88	147	221	306	366	405	1532
182	G and A		88	147	221	306	366	405	1532
183	Total costs		527	831	1179	1528	1710	1890	7664
184									7664
185	Operating Income - pretax		59	147	295	509	733	810	2552
186									2552
187	Net Present Value		41	96	177	282	375	382	1353
188									
189	Totals								
190	Revenue	2100	4795	8457	13637	20435	27301	35148	111873
191	Costs	1680	3684	6067	9693	14406	19111	24604	79245
192	Operating Income - pretax	420	1111	2391	3944	6029	8190	10544	32629
193	Net Present Value	323	787	1561	2373	3342	4187	4969	17541

	U	V	W	X	Y	Z	AA	AB	AC
1									30
2		Summary for CSG Products - World Wide							
3									
4	($000)				Projected				Total
5		1999	2000	2001	2002	2003	2004	2005	1999-2005
6	CSG A								
7	Revenues								
8	New licenses	0	11000	17000	24500	32550	40110	45591	170751
9	Migration licenses	0	2400	3800	5600	7560	9492	11029	39881
10	Maintenance & upgrades	0	2680	9466	19988	35027	54969	79619	201749
11	Total revenues	0	16080	30266	50088	75137	104571	136239	412381
12									412381
13	Costs								
14	Cost of revenues	0	1608	3027	5009	7514	10457	13624	41238
15	Marketing and sales	0	8040	13620	20035	26298	36600	47684	152276
16	R and D	0	2412	4540	7513	11271	15686	20436	61857
17	G and A	0	2412	4540	7513	11271	15686	20436	61857
18	Total costs	0	14472	25726	40070	56353	78428	102179	317229
19									317229
20	Operating Income - pretax	0	1608	4540	10018	18784	26143	34060	95152
21									95152
22	Net Present Value	0	905	2370	4850	8421	10859	13108	40513
23									
24	CSG B								
25	Revenues								
26	New licenses	0	6000	8000	10225	12480	14489	15937	67131
27	Migration licenses	0	1200	1600	2045	2496	2829	3112	13283
28	Maintenance & upgrades	0	1440	4771	9335	15285	22668	31408	84907
29	Total revenues	0	8640	14371	21605	30261	39986	50458	165321
30									165321
31	Costs								
32	Cost of revenues	0	864	1437	2160	3026	3999	5046	16532
33	Marketing and sales	0	4320	6467	8642	10592	13995	17660	61676
34	R and D	0	1296	2156	3241	4539	5998	7569	24798
35	G and A	0	1296	2156	3241	4539	5998	7569	24798
36	Total costs	0	7776	12216	17284	22696	29989	37843	127804
37									127804
38	Operating Income - pretax	0	864	2156	4321	7565	9996	12614	37517
39									37517
40	Net Present Value	0	495	1143	2119	3429	4185	4871	16242
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60	Totals								
61	Revenue	0	24720	44638	71693	105398	144557	186697.1	577702
62	Costs	0	22248	37942	57354	79049	108417	140023	445033
63	Operating Income - pretax	0	2472	6696	14339	26350	36139	46674	132669
64	Net Present Value	0	1400	3513	6970	11849	15044	17979	56755

	U	V	W	X	Y	Z	AA	AB	AC
65									**31**
66				Summary for CSG Products - Americas					
67									
68	($000)				Projected				Total
69		1999	2000	2001	2002	2003	2004	2005	1999-2005
70	CSG A								
71	Revenues								
72	New licenses	0	10000	15000	21000	27300	32760	36036	142096
73	Migration licenses	0	2000	3000	4200	5460	6552	7207	28419
74	Maintenance & upgrades	0	2400	8352	17300	29772	45913	65311	169048
75	Total revenues	0	14400	26352	42500	62532	85225	108554	339564
76									339564
77	Costs								
78	Cost of revenues	0	1440	2635	4250	6253	8523	10855	33956
79	Marketing and sales	0	7200	11858	17000	21886	29829	37994	125767
80	R and D	0	2160	3953	6375	9380	12784	16283	50935
81	G and A	0	2160	3953	6375	9380	12784	16283	50935
82	Total costs	0	12960	22399	34000	46899	63919	81416	261593
83									261593
84	Operating Income - pretax	0	1440	3953	8500	15633	21306	27139	77971
85									77971
86	Net Present Value	0	786	1987	3937	6674	8387	9847	31617
87									
88	CSG B								
89	Revenues								
90	New licenses	0	5000	6500	8125	9750	11213	12334	52921
91	Migration licenses	0	1000	1300	1625	1950	2174	2392	10441
92	Maintenance & upgrades	0	1200	3936	7605	12308	18076	24877	68003
93	Total revenues	0	7200	11736	17355	24008	31463	39603	131365
94									131365
95	Costs								
96	Cost of revenues	0	720	1174	1735	2401	3146	3960	13136
97	Marketing and sales	0	3600	5281	6942	8403	11012	13861	49099
98	R and D	0	1080	1760	2603	3601	4719	5940	19705
99	G and A	0	1080	1760	2603	3601	4719	5940	19705
100	Total costs	0	6480	9976	13884	18006	23597	29702	101645
101									101645
102	Operating Income - pretax	0	720	1760	3471	6002	7866	9901	29720
103									29720
104	Net Present Value	0	393	885	1608	2562	3096	3592	12136
105									
106									
107									
108									
109									
110									
111									
112									
113									
114									
115									
116									
117									
118									
119									
120									
121									
122									
123									
124	Totals								
125	Revenue	0	21600	38088	59855	86540	116688	148157	470928
126	Costs	0	19440	32375	47884	64905	87516	111118	363238
127	Operating Income - pretax	0	2160	5713	11971	21635	29172	37039	107691
128	Net Present Value	0	1179	2872	5545	9236	11483	13439	43753
129									

	U	V	W	X	Y	Z	AA	AB	AC
130									**32**
131	Summary for CSG Products - International								
132									
133	($000)				Projected				Total
134		1999	2000	2001	2002	2003	2004	2005	1999-2005
135	CSG A								
136	Revenues								
137	New licenses	0	1000	2000	3500	5250	7350	9555	28655
138	Migration licenses	0	400	800	1400	2100	2940	3822	11462
139	Maintenance & upgrades	0	280	1114	2688	5255	9056	14308	32700
140	Total revenues	0	1680	3914	7588	12605	19346	27685	72817
141									72817
142	Costs								
143	Cost of revenues	0	168	391	759	1260	1935	2768	7282
144	Marketing and sales	0	840	1761	3035	4412	6771	9690	26509
145	R and D	0	252	587	1138	1891	2902	4153	10923
146	G and A	0	252	587	1138	1891	2902	4153	10923
147	Total costs	0	1512	3327	6070	9453	14509	20764	55636
148									55636
149	Operating Income - pretax	0	168	587	1518	3151	4836	6921	17182
150									17182
151	Net Present Value	0	119	383	913	1747	2472	3261	8896
152									
153	CSG B								
154	Revenues								
155	New licenses	0	1000	1500	2100	2730	3276	3604	14210
156	Migration licenses	0	200	300	420	546	655	721	2842
157	Maintenance & upgrades	0	240	835	1730	2977	4591	6531	16905
158	Total revenues	0	1440	2635	4250	6253	8523	10855	33956
159									33956
160	Costs								
161	Cost of revenues	0	144	264	425	625	852	1086	3396
162	Marketing and sales	0	720	1186	1700	2189	2983	3799	12577
163	R and D	0	216	395	638	938	1278	1628	5093
164	G and A	0	216	395	638	938	1278	1628	5093
165	Total costs	0	1296	2240	3400	4690	6392	8142	26159
166									26159
167	Operating Income - pretax	0	144	395	850	1563	2131	2714	7797
168									7797
169	Net Present Value	0	102	258	511	867	1089	1279	4106
170									
171									
172									
173									
174									
175									
176									
177									
178									
179									
180									
181									
182									
183									
184									
185									
186									
187									
188									
189	Totals								
190	Revenue	0	3120	6550	11838	18858	27868	38540	106774
191	Costs	0	2808	5567	9470	14143	20901	28905	81795
192	Operating Income - pretax	0	312	982	2368	4714	6967	9635	24979
193	Net Present Value	0	221	641	1424	2614	3562	4540	13002

	AE	AF	AG	AH	AI	AJ	AK	AL	AM
1									**40**
2		Summary for CVG Products - World Wide							
3									
4	($000)				Projected				Total
5		1999	2000	2001	2002	2003	2004	2005	1999-2005
6	CVG A								
7	Revenues								
8	New licenses	2520	7560	8640	8640	7740	6030	3017	44147
9	Migration licenses	95	309	618	950	998	784	392	4145
10	Maintenance, etc.	0	1404	6052	12554	20849	30070	39003	109931
11	Total revenues	2615	9273	15309	22144	29586	36884	42412	158223
12									158223
13	Costs								
14	Cost of revenues	262	927	1531	2214	2959	3688	4241	15822
15	Marketing and sales	523	1855	3062	4429	5917	7377	8482	31645
16	R and D	392	1391	2296	3322	4438	5533	6362	23733
17	G and A	392	1391	2296	3322	4438	5533	6362	23733
18	Total costs	1569	5564	9185	13286	17752	22130	25447	94934
19									94934
20	Operating Income - pretax	1046	3709	6124	8857	11835	14754	16965	63289
21									63289
22	Net Present Value	645	2108	3259	4409	5460	6285	6664	28828
23									
24	CVG B								
25	Revenues								
26	Software Company Revenues	230	1032	2733	5284	8736	13024	18099	49138
27	Network Customer Revenues	69	554	2036	5212	10983	19815	31954	70623
28	Virtual Comm. Revenues	12	58	173	411	822	1436	2272	5183
29	Total revenues	311	1644	4941	10907	20541	34276	52325	124944
30									124944
31	Costs								
32	Cost of revenues	62	329	988	2181	4108	6855	10465	24989
33	Marketing and sales	78	411	1235	2727	5135	8569	13081	31236
34	R and D	47	247	741	1418	2054	3428	5232	13166
35	G and A	47	247	741	1636	3081	5141	7849	18742
36	Total costs	233	1233	3706	7962	14379	23993	36627	88133
37									88133
38	Operating Income - pretax	78	411	1235	2945	6162	10283	15697	36811
39									36811
40	Net Present Value	48	235	658	1446	2788	4289	6036	15500
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60	Totals								
61	Revenue	2926	10917	20250	33051	50128	71160	94737	283167
62	Costs	1802	6797	12891	21249	32131	46123	62075	183067
63	Operating Income - pretax	1124	4120	7359	11802	17997	25036	32662	100100
64	Net Present Value	692	2343	3917	5854	8247	10574	12699	44328

	AE	AF	AG	AH	AI	AJ	AK	AL	AM
65									**41**
66			Summary for CVG Products - Americas						
67									
68	($000)				Projected				Total
69		1999	2000	2001	2002	2003	2004	2005	1999-2005
70	CVG A								
71	Revenues								
72	New licenses	2160	6480	6480	5400	4500	3600	1800	30420
73	Migration licenses	95	285	570	855	855	641	321	3622
74	Maintenance, etc.	0	1229	5253	10369	16241	22489	28558	84139
75	Total revenues	2255	7994	12303	16624	21596	26731	30680	118181
76									118181
77	Costs								
78	Cost of revenues	226	799	1230	1662	2160	2673	3068	11818
79	Marketing and sales	451	1599	2461	3325	4319	5346	6136	23636
80	R and D	338	1199	1845	2494	3239	4010	4602	17727
81	G and A	338	1199	1845	2494	3239	4010	4602	17727
82	Total costs	1353	4796	7382	9974	12958	16038	18408	70909
83									70909
84	Operating Income - pretax	902	3197	4921	6649	8638	10692	12272	47273
85									47273
86	Net Present Value	534	1745	2474	3080	3688	4209	4453	20182
87									
88	CVG B								
89	Revenues								
90	Software Company Revenues	200	860	2186	4227	6989	10419	14479	39361
91	Network Customer Revenues	60	462	1629	4170	8786	15852	25563	56522
92	Virtual Comm. Revenues	10	48	138	329	658	1149	1818	4149
93	Total revenues	270	1370	3953	8726	16433	27420	41860	100032
94									100032
95	Costs								
96	Cost of revenues	54	274	791	1745	3287	5484	8372	20006
97	Marketing and sales	68	343	988	2181	4108	6855	10465	25008
98	R and D	41	206	593	1134	1643	2742	4186	10545
99	G and A	41	206	593	1309	2465	4113	6279	15005
100	Total costs	203	1028	2965	6370	11503	19194	29302	70564
101									70564
102	Operating Income - pretax	68	343	988	2356	4930	8226	12558	29468
103									29468
104	Net Present Value	40	187	497	1091	2105	3238	4556	11714
105									
106									
107									
108									
109									
110									
111									
112									
113									
114									
115									
116									
117									
118									
119									
120									
121									
122									
123									
124	Totals								
125	Revenue	2525	9364	16256	25350	38029	54151	72539	218213
126	Costs	1556	5824	10346	16344	24461	35233	47710	141473
127	Operating Income - pretax	970	3540	5909	9005	13568	18918	24830	76741
128	Net Present Value	574	1932	2970	4172	5792	7447	9009	31896
129									

	AE	AF	AG	AH	AI	AJ	AK	AL	AM
130									42
131		Summary for CVG Products - International							
132									
133	($000)				Projected				Total
134		1999	2000	2001	2002	2003	2004	2005	1999-2005
135	CVG A								
136	Revenues								
137	New licenses	360	1080	2160	3240	3240	2430	1217	13727
138	Migration licenses	0	24	48	95	143	143	71	523
139	Maintenance, etc.	0	176	799	2185	4608	7581	10444	25792
140	Total revenues	360	1279	3006	5520	7990	10153	11732	40042
141									40042
142	Costs								
143	Cost of revenues	36	128	301	552	799	1015	1173	4004
144	Marketing and sales	72	256	601	1104	1598	2031	2346	8008
145	R and D	54	192	451	828	1199	1523	1760	6006
146	G and A	54	192	451	828	1199	1523	1760	6006
147	Total costs	216	768	1804	3312	4794	6092	7039	24025
148									24025
149	Operating Income - pretax	144	512	1202	2208	3196	4061	4693	16017
150									16017
151	Net Present Value	111	363	785	1328	1772	2076	2211	8646
152									
153	CVG B								
154	Revenues								
155	Software Company Revenues	30	172	547	1057	1747	2605	3620	9777
156	Network Customer Revenues	9	92	407	1042	2197	3963	6391	14101
157	Virtual Comm. Revenues	2	10	35	82	164	287	454	1034
158	Total revenues	41	274	988	2181	4108	6855	10465	24912
159									24912
160	Costs								
161	Cost of revenues	8	55	198	436	822	1371	2093	4982
162	Marketing and sales	10	69	247	545	1027	1714	2616	6228
163	R and D	6	41	148	284	411	686	1046	2622
164	G and A	6	41	148	327	616	1028	1570	3737
165	Total costs	30	206	741	1592	2876	4799	7325	17569
166									17569
167	Operating Income - pretax	10	69	247	589	1232	2057	3139	7343
168									7343
169	Net Present Value	8	49	161	354	683	1051	1479	3786
170									
171									
172									
173									
174									
175									
176									
177									
178									
179									
180									
181									
182									
183									
184									
185									
186									
187									
188									
189	Totals								
190	Revenue	401	1553	3994	7701	12099	17009	22197	64954
191	Costs	246	973	2545	4904	7670	10891	14365	41594
192	Operating Income - pretax	154	580	1449	2797	4429	6118	7832	23360
193	Net Present Value	118	411	946	1683	2455	3127	3691	12432

	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1									**50**
2				Summary for ISG Products - World Wide					
3									
4	($000)				Projected				Total
5		1999	2000	2001	2002	2003	2004	2005	1999-2005
6	ISG A								
7	Revenues								
8	New licenses & upgrades	4800	7920	10728	12805	14000	14085	13122	77459
9	Professional services	800	1200	1500	1650	1650	1485	1188	9473
10	Maintenance	800	1920	3228	4555	5750	6660	7182	30094
11	Total revenues	6400	11040	15456	19010	21399	22229	21491	117027
12									117027
13	Costs								
14	Cost of revenues	640	1104	1546	1901	2140	2223	2149	11703
15	Marketing and sales	2880	4416	5410	5703	6420	6669	6447	37945
16	R and D	960	1656	2318	2852	3210	3334	3224	17554
17	G and A	960	1656	2318	2852	3210	3334	3224	17554
18	Total costs	5440	8832	11592	13307	14980	15561	15044	84755
19									84755
20	Operating Income pretax	960	2208	3864	5703	6420	6669	6447	32271
21									32271
22	Net Present Value	611	1295	2087	2839	2945	2821	2514	15112
23									
24	ISG B								
25	Revenues								
26	New licenses	0	3500	5250	6563	7219	7219	7219	36969
27	Professional services	0	2800	4200	5250	5775	5775	5775	29575
28	Maintenance	0	700	1680	2825	3986	5031	5972	20193
29	Total revenues	0	7000	11130	14637	16980	18025	18965	86737
30									86737
31	Costs								
32	Cost of revenues	0	700	1113	1464	1698	1802	1897	8674
33	Marketing and sales	0	3500	5231	6440	6962	7210	7586	36929
34	R and D	0	1050	1670	2196	2547	2704	2845	13010
35	G and A	0	1050	1670	2196	2547	2704	2845	13010
36	Total costs	0	6300	9683	12295	13753	14420	15172	71624
37									71624
38	Operating Income pretax	0	700	1447	2342	3226	3605	3793	15113
39									15113
40	Net Present Value	0	415	789	1177	1495	1540	1494	6910
41									
42	ISG C								
43	Revenues								
44	New licenses	2500	6500	11750	18375	24281	26250	26250	115906
45	Professional services	2500	6500	11750	18375	24281	26250	26250	115906
46	Maintenance & hosting	875	3063	6869	12613	19850	27053	33535	103857
47	Total revenues	5875	16063	30369	49363	68413	79553	86034.95	335670
48									335670
49	Costs								
50	Cost of revenues	1175	3213	6074	9873	13683	15911	17207	67134
51	Marketing and sales	2350	6425	12148	18758	24629	27048	27531	118888
52	R and D	881	2409	4555	7404	10262	11933	12905	50350
53	G and A	881	2409	4555	7404	10262	11933	12905	50350
54	Total costs	5288	14456	27332	43440	58835	66824	70549	286723
55									286723
56	Operating Income pretax	588	1606	3037	5924	9578	12728	15486	48947
57									48947
58	Net Present Value	348	934	1639	2972	4471	5541	6220	22124
59									
60	Totals								
61	Revenue	12275	34103	56955	83011	106792	119806.9	126491.8	539433
62	Costs	10728	29588	48607	69042	87568	96805	100765	443102
63	Operating Income	1548	4514	8348	13969	19224	23002	25727	96331
64	Net Present Value	959	2644	4516	6988	8910	9902	10227	44147

	AO	AP	AQ	AR	AS	AT	AU	AV	AW
65									**51**
66				Summary for ISG Products - Americas					
67									
68	($000)				Projected				Total
69		1999	2000	2001	2002	2003	2004	2005	1999-2005
70	ISG A								
71	Revenues								
72	New licenses & upgrades	3600	5940	8046	9604	10500	10564	9841	58094
73	Professional services	600	900	1125	1238	1238	1114	891	7105
74	Maintenance	600	1440	2421	3416	4312	4995	5386	22571
75	Total revenues	4800	8280	11592	14258	16050	16672	16119	87770
76									87770
77	Costs								
78	Cost of revenues	480	828	1159	1426	1605	1667	1612	8777
79	Marketing and sales	2160	3312	4057	4277	4815	5002	4836	28459
80	R and D	720	1242	1739	2139	2407	2501	2418	13165
81	G and A	720	1242	1739	2139	2407	2501	2418	13165
82	Total costs	4080	6624	8694	9980	11235	11670	11283	63567
83									63567
84	Operating Income pretax	720	1656	2898	4277	4815	5002	4836	24203
85									24203
86	Net Present Value	426	904	1457	1981	2055	1969	1754	10547
87									
88	ISG B								
89	Revenues								
90	New licenses	0	2500	3750	4688	5156	5156	5156	26406
91	Professional services	0	2000	3000	3750	4125	4125	4125	21125
92	Maintenance	0	500	1200	2018	2847	3594	4265	14423
93	Total revenues	0	5000	7950	10455	12128	12875	13547	61955
94									61955
95	Costs								
96	Cost of revenues	0	500	795	1046	1213	1287	1355	6195
97	Marketing and sales	0	2500	3737	4600	4973	5150	5419	26378
98	R and D	0	750	1193	1568	1819	1931	2032	9293
99	G and A	0	750	1193	1568	1819	1931	2032	9293
100	Total costs	0	4500	6917	8782	9824	10300	10837	51160
101									51160
102	Operating Income pretax	0	500	1034	1673	2304	2575	2709	10795
103									10795
104	Net Present Value	0	273	519	775	984	1014	983	4548
105									
106	ISG C								
107	Revenues								
108	New licenses	2500	5000	8750	13125	16406	16406	16406	78594
109	Professional services	2500	5000	8750	13125	16406	16406	16406	78594
110	Maintenance & hosting	875	2538	5346	9405	14207	18529	22418	73318
111	Total revenues	5875	12538	22846	35655	47020	51341	55230	230505
112									230505
113	Costs								
114	Cost of revenues	1175	2508	4569	7131	9404	10268	11046	46101
115	Marketing and sales	2350	5015	9139	13549	16927	17456	17674	82109
116	R and D	881	1881	3427	5348	7053	7701	8285	34576
117	G and A	881	1881	3427	5348	7053	7701	8285	34576
118	Total costs	5288	11284	20562	31377	40437	43126	45289	197362
119									197362
120	Operating Income pretax	588	1254	2285	4279	6583	8215	9941	33143
121									33143
122	Net Present Value	348	684	1148	1982	2810	3233	3607	13813
123									
124	Totals								
125	Revenue	10675	25818	42388	60368	75197	80888	84896	380230
126	Costs	9368	22408	36172	50139	61495	65097	67409	312088
127	Operating Income	1308	3410	6216	10229	13702	15791	17486	68142
128	Net Present Value	774	1861	3125	4738	5849	6216	6344	28907
129									

	AO	AP	AQ	AR	AS	AT	AU	AV	AW
130									**52**
131		Summary for ISG Products - International							
132									
133	($000)				Projected				Total
134		1999	2000	2001	2002	2003	2004	2005	1999-2005
135	ISG A								
136	Revenues								
137	New licenses & upgrades	1200	1980	2682	3201	3500	3521	3280	19365
138	Professional services	200	300	375	413	413	371	297	2368
139	Maintenance	200	480	807	1139	1437	1665	1795	7524
140	Total revenues	1600	2760	3864	4753	5350	5557	5373	29257
141									29257
142	Costs								
143	Cost of revenues	160	276	386	475	535	556	537	2926
144	Marketing and sales	720	1104	1352	1426	1605	1667	1612	9486
145	R and D	240	414	580	713	802	834	806	4388
146	G and A	240	414	580	713	802	834	806	4388
147	Total costs	1360	2208	2898	3327	3745	3890	3761	21189
148									21189
149	Operating Income pretax	240	552	966	1426	1605	1667	1612	8068
150									8068
151	Net Present Value	185	391	631	858	890	852	760	4566
152									
153	ISG B								
154	Revenues								
155	New licenses	0	1000	1500	1875	2063	2063	2063	10563
156	Professional services	0	800	1200	1500	1650	1650	1650	8450
157	Maintenance	0	200	480	807	1139	1437	1706	5769
158	Total revenues	0	2000	3180	4182	4851	5150	5419	24782
159									24782
160	Costs								
161	Cost of revenues	0	200	318	418	485	515	542	2478
162	Marketing and sales	0	1000	1495	1840	1989	2060	2167	10551
163	R and D	0	300	477	627	728	772	813	3717
164	G and A	0	300	477	627	728	772	813	3717
165	Total costs	0	1800	2767	3513	3930	4120	4335	20464
166									20464
167	Operating Income pretax	0	200	413	669	922	1030	1084	4318
168									4318
169	Net Present Value	0	142	270	403	511	527	511	2362
170									
171	ISG C								
172	Revenues								
173	New licenses	0	1500	3000	5250	7875	9844	9844	37313
174	Professional services	0	1500	3000	5250	7875	9844	9844	37313
175	Maintenance & hosting	0	525	1523	3208	5643	8524	11117	30540
176	Total revenues	0	3525	7523	13708	21393	28212	30805	105165
177									105165
178	Costs								
179	Cost of revenues	0	705	1505	2742	4279	5642	6161	21033
180	Marketing and sales	0	1410	3009	5209	7702	9592	9857	36779
181	R and D	0	529	1128	2056	3209	4232	4621	15775
182	G and A	0	529	1128	2056	3209	4232	4621	15775
183	Total costs	0	3173	6770	12063	18398	23698	25260	89361
184									89361
185	Operating Income pretax	0	353	752	1645	2995	4514	5545	15803
186									15803
187	Net Present Value	0	250	491	990	1660	2307	2613	8311
188									
189	Totals								
190	Revenue	1600	8285	14567	22642	31594	38919	41596	159203
191	Costs	1360	7181	12435	18903	26073	31708	33356	131014
192	Operating Income	240	1105	2132	3740	5522	7211	8240	28189
193	Net Present Value	185	783	1392	2250	3061	3686	3883	15239

	A	B	C	D	E	F	G	H	I
1									60
2	Revenue Sources for New MSD A Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rate		1.50	1.40	1.30	1.15	1.00	0.85	
10	revenue	5000	7500	10500	13650	15698	15698	13343	81388
11	Prof services revenue	1000	1500	2100	2730	3140	3140	2669	16278
12	Upgrade revenue	0	900	2322	4398	7207	10609	14283	39718
13	Maintenance revenue	1000	2580	4886	8007	11787	15870	19808	63939
14	Total	7000	12480	19808	28785	37831	45316	50102	201322
15									201322
16	**Maintenance calculation**								
17	Previous year maintenance		1000	2580	4886	8007	11787	15870	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss		100	258	489	801	1179	1587	
20	Remaining maintenance		900	2322	4398	7207	10609	14283	39718
21	New licenses & upgrades	5000	8400	12822	18048	22904	26306	27626	
22	Maint/license price ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
24	New licenses-maintenance	1000	1680	2564	3610	4581	5261	5525	24221
25	**Maintenance revenue**	1000	2580	4886	8007	11787	15870	19808	63939
26									63939
27	**International**								
28	New licenses rate		1.50	1.50	1.40	1.30	1.10	1.00	
29	revenue	1500	2250	3375	4725	6143	6757	6757	31506
30	Prof services revenue	300	450	675	945	1229	1351	1351	6301
31	Upgrade revenue	0	270	648	1191	1922	2836	3768	10635
32	Maintenance revenue	300	720	1323	2136	3151	4187	5120	16936
33	Total	2100	3690	6021	8996	12444	15131	16996	65378
34									65378
35	**Maintenance calculation**								
36	Previous year maintenance		300	720	1323	2136	3151	4187	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		30	72	132	214	315	419	
39	Remaining maintenance		270	648	1191	1922	2836	3768	10635
40	New licenses & upgrades	1500	2250	3375	4725	6143	6757	6757	
41	Maint/license price ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
43	New licenses-maintenance	300	450	675	945	1229	1351	1351	6301
44	**Maintenance revenue**	300	720	1323	2136	3151	4187	5120	16936
45									16936
46									
47									
48									
49									

	A	B	C	D	E	F	G	H	I
50									**61**
51			Costs for New MSD A Products - World Wide						
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues	7000	12480	19808	28785	37831	45316	50102	201322
59									
60	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
61	cost	700	1248	1981	2879	3783	4532	5010	20132
62	Marketing and sales rate	0.40	0.35	0.30	0.30	0.30	0.30	0.30	
63	cost	2800	4368	5943	8636	11349	13595	15031	61721
64	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
65	cost	1050	1872	2971	4318	5675	6797	7515	30198
66	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
67	cost	1050	1872	2971	4318	5675	6797	7515	30198
68	**Total Costs- Americas**	5600	9360	13866	20150	26482	31721	35072	142250
69	Cost/revenue ratio	0.8	0.75	0.7	0.7	0.7	0.70	0.70	0.71
70									
71	**International**								
72	Revenues	2100	3690	6021	8996	12444	15131	16996	65378
73									
74	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
75	cost	210	369	602	900	1244	1513	1700	6538
76	Marketing and sales rate	0.40	0.35	0.30	0.30	0.30	0.30	0.30	
77	cost	840	1292	1806	2699	3733	4539	5099	20008
78	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
79	cost	315	554	903	1349	1867	2270	2549	9807
80	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
81	cost	315	554	903	1349	1867	2270	2549	9807
82	**Total Costs - International**	1680	2768	4215	6297	8711	10591	11897	46159
83									46159
84	Cost/revenue ratio	0.80	0.75	0.70	0.70	0.70	0.70	0.70	0.71
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	A	B	C	D	E	F	G	H	I
100									**62**
101	Net Present Value for New MSD A Products - World Wide								
102									
103					Projected				Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	7000	12480	19808	28785	37831	45316	50102	201322
108	Operating Income rate	0.2	0.25	0.3	0.3	0.30	0.30	0.30	
109	Operating Income pre tax	1400	3120	5943	8636	11349	13595	15031	59073
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	538	1198	2282	3316	4358	5220	5772	22684
112	Operating Income after tax	862	1922	3661	5319	6991	8374	9259	36389
113	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	829	1703	2987	4000	4845	5351	5454	25168
115									
116	**International**								
117	Revenues	2100	3690	6021	8996	12444	15131	16996	65378
118	Operating Income rate	0.20	0.25	0.30	0.30	0.30	0.30	0.30	
119	Operating Income pre tax	420	923	1806	2699	3733	4539	5099	19219
120	Tax Rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes	84	185	361	540	747	908	1020	3844
122	Operating Income after tax	336	738	1445	2159	2987	3631	4079	15375
123	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value	323	654	1179	1624	2070	2320	2403	10572
125									
126	**World Wide**								
127	Revenues	9100	16170	25829	37781	50275	60446	67098	266700
128	Operating Income pre tax	1820	4043	7749	11334	15082	18134	20129	78292
129	Operating Income after tax	1198	2660	5106	7479	9978	12006	13338	51764
130	Net Present Value	1152	2357	4166	5624	6915	7672	7856	35741
131									
132									
133									
134									
135									
136									
137									
138									
139									
140									
141									
142									
143									
144									
145									
146									
147									
148									
149									

	J	K	L	M	N	O	P	Q	R
1									**63**
2	Revenue Sources for New MSD B Products - World Wide								
3									
4									
5	($000)					Projected			Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rate			2.50	2.00	1.75	1.50	1.25	
10	revenue		1000	2500	5000	8750	13125	16406	46781
11	Prof services revenue		100	250	500	875	1313	1641	4678
12	Upgrade revenue		0	180	644	1596	3299	5925	11644
13	Maintenance revenue		200	716	1773	3665	6583	10391	23329
14	Total		1300	3646	7918	14886	24319	34363	86432
15									86432
16	**Maintenance calculation**								
17	Previous year maintenance		0	200	716	1773	3665	6583	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss		0	20	72	177	367	658	
20	Remaining maintenance		0	180	644	1596	3299	5925	11644
21	New licenses & upgrades		1000	2680	5644	10346	16424	22331	
22	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
24	New licenses-maintenance		200	536	1129	2069	3285	4466	11685
25	**Maintenance revenue**		200	716	1773	3665	6583	10391	23329
26									23329
27	**International**								
28	New licenses rate			2.50	2.00	1.75	1.50	1.50	
29	revenue		400	1000	2000	3500	5250	7875	20025
30	Prof services revenue		40	100	200	350	525	788	2003
31	Upgrade revenue		0	72	258	638	1319	2370	4658
32	Maintenance revenue		80	286	709	1466	2633	4419	9594
33	Total		520	1458.4	3167	5954	9728	15452	36279
34									36279
35	**Maintenance calculation**								
36	Previous year maintenance		0	80	286	709	1466	2633	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		0	8	29	71	147	263	
39	Remaining maintenance		0	72	258	638	1319	2370	4658
40	New licenses & upgrades		400	1072	2258	4138	6569	10245	
41	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New licenses-maintenance		80	214	452	828	1314	2049	4937
44	**Maintenance revenue**		80	286	709	1466	2633	4419	9594
45									9594
46									
47									
48									
49									

	J	K	L	M	N	O	P	Q	R
50									64
51		Costs for New MSD B Products - World Wide							
52									
53									
54	($000)		Projected						Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues		1300	3646	7918	14886	24319	34363	86432
59									
60	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
61	cost		130	365	792	1489	2432	3436	8643
62	Marketing and sales rate		0.35	0.30	0.30	0.30	0.30	0.30	
63	cost		455	1094	2375	4466	7296	10309	25995
64	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
65	cost		195	547	1188	2233	3648	5154	12965
66	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
67	cost		195	547	1188	2233	3648	5154	12965
68	**Total Costs- Americas**		975	2552	5542	10420	17024	24054	60568
69	Cost/revenue ratio		0.75	0.7	0.7	0.7	0.70	0.70	0.70
70									
71	**International**								
72	Revenues		520	1458	3167	5954	9728	15452	36279
73									
74	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
75	cost		52	146	317	595	973	1545	3628
76	Marketing and sales rate		0.35	0.30	0.30	0.30	0.30	0.30	
77	cost		182	438	950	1786	2918	4635	10910
78	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
79	cost		78	219	475	893	1459	2318	5442
80	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
81	cost		78	219	475	893	1459	2318	5442
82	**Total Costs - International**		390	1021	2217	4168	6809	10816	25421
83									25421
84	Cost/revenue ratio		0.75	0.70	0.70	0.70	0.70	0.70	0.70
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	J	K	L	M	N	O	P	Q	R
100									**65**
101	Net Present Value for New MSD B Products - World Wide								.
102									
103					**Projected**				**Total**
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	0	1300	3646	7918	14886	24319	34363	86432
108	Operating Income rate	1	0.25	0.3	0.3	0.30	0.30	0.30	
109	Operating Income pre tax	0	325	1094	2375	4466	7296	10309	25865
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	0	125	420	912	1715	2802	3959	9932
112	Operating Income after tax	0	200	674	1463	2751	4494	6350	15933
113	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	0	177	550	1100	1906	2872	3740	10346
115									
116	**International**								
117	Revenues	0	520	1458	3167	5954	9728	15452	36279
118	Operating Income rate	1.00	0.25	0.30	0.30	0.30	0.30	0.30	
119	Operating Income pre tax	0	130	438	950	1786	2918	4635	10858
120	Tax Rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes	0	26	88	190	357	584	927	2172
122	Operating Income after tax	0	104	350	760	1429	2335	3708	8686
123	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value	0	92	286	572	990	1492	2184	5616
125									
126	**World Wide**								
127	Revenues	0	1820	5104	11085	20841	34047	49815	122712
128	Operating Income pre tax	0	455	1531	3325	6252	10214	14944	36722
129	Operating Income after tax	0	304	1024	2223	4180	6829	10059	24619
130	Net Present Value	0	270	835	1672	2897	4364	5925	15962

	S	T	U	V	W	X	Y	Z	AA
1									66
2		Revenue Sources for New MSD C Products - World Wide							
3									
4									
5	($000)					Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rev. MSD A		7500	10500	13650	15698	15698	13343	
10	New licenses rev. MSD C		1875	2625	3413	3924	3924	3336	19097
11	Prof services revenue		188	263	341	392	392	334	1910
12	Upgrade revenue		0	68	158	270	394	510	1400
13	Maintenance revenue		375	876	1502	2191	2836	3321	11102
14	Total		2438	3831	5414	6778	7547	7501	33509
15									33509
16	**Maintenance calculation**								
17	Previous year maintenance		0	375	876	1502	2191	2836	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss		0	38	88	150	219	284	
20	Remaining maintenance		0	338	788	1352	1972	2552	7002
21	New licenses & upgrades		1875	2693	3570	4195	4319	3846	
22	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
24	New lic. & upgrade maint.		375	539	714	839	864	769	4099
25	**Maintenance revenue**		375	876	1502	2191	2836	3321	11102
26									11102
27	**International**								
28	New licenses rev. MSD A		2250	3375	4725	6143	6757	6757	
29	New licenses rev. MSD C		450	675	945	1229	1351	1351	6001
30	Prof services revenue		45	68	95	123	135	135	600
31	Upgrade revenue		0	16	39	71	111	152	389
32	Maintenance revenue		90	219	394	615	846	1062	3225
33	Total		585	978	1473	2037	2443	2700	10216
34									10216
35	**Maintenance calculation**								
36	Previous year maintenance		0	90	219	394	615	846	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		0	9	22	39	61	85	
39	Remaining maintenance		0	81	197	355	553	761	1947
40	New licenses & upgrades		450	691	984	1299	1462	1504	
41	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New lic. & upgrade maint.		90	138	197	260	292	301	1278
44	**Maintenance revenue**		90	219	394	615	846	1062	3225
45									3225
46									
47									
48									
49									

	S	T	U	V	W	X	Y	Z	AA
50									**67**
51	Costs for New MSD C Products - World Wide								
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues		2438	3831	5414	6778	7547	7501	33509
59									
60	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
61	cost		244	383	541	678	755	750	3351
62	Marketing and sales rate		0.50	0.45	0.40	0.35	0.30	0.30	
63	cost		1219	1724	2166	2372	2264	2250	11995
64	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
65	cost		366	575	812	1017	1132	1125	5026
66	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
67	cost		366	575	812	1017	1132	1125	5026
68	**Total Costs- Americas**		2194	3256	4331	5084	5283	5251	25399
69	Cost/revenue ratio		0.9	0.85	0.8	0.75	0.70	0.70	0.76
70									
71	**International**								
72	Revenues		585	978	1473	2037	2443	2700	10216
73									
74	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
75	cost		59	98	147	204	244	270	1022
76	Marketing and sales rate		0.50	0.45	0.40	0.35	0.30	0.30	
77	cost		293	440	589	713	733	810	3578
78	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
79	cost		88	147	221	306	366	405	1532
80	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
81	cost		88	147	221	306	366	405	1532
82	**Total Costs - International**		527	831	1179	1528	1710	1890	7664
83									7664
84	Cost/revenue ratio		0.90	0.85	0.80	0.75	0.70	0.70	0.75
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	S	T	U	V	W	X	Y	Z	AA
100									68
101	Net Present Value for New MSD C Products - World Wide								
102									
103						Projected			Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues		2438	3831	5414	6778	7547	7501	33509
108	Operating Income rate		0.1	0.15	0.2	0.25	0.30	0.30	
109	Operating Income pre tax		244	575	1083	1695	2264	2250	8110
110	Tax Rate		0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes		94	221	416	651	869	864	3114
112	Operating Income after tax		150	354	667	1044	1395	1386	4996
113	NPV Factor (8.5%)		0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value		133	289	502	723	891	816	3355
115									
116	**International**								
117	Revenues		585	978	1473	2037	2443	2700	10216
118	Operating Income rate		0.10	0.15	0.20	0.25	0.30	0.30	
119	Operating Income pre tax		59	147	295	509	733	810	2552
120	Tax Rate		0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes		12	29	59	102	147	162	510
122	Operating Income after tax		47	117	236	407	586	648	2042
123	NPV Factor (8.5%)		0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value		41	96	177	282	375	382	1353
125									
126	**World Wide**								
127	Revenues		3023	4809	6887	8815	9990	10202	43725
128	Operating Income pre tax		302	721	1377	2204	2997	3060	10662
129	Operating Income after tax		197	471	903	1451	1981	2034	7038
130	Net Present Value		174	385	679	1006	1266	1198	4708
131									
132									
133									
134									
135									
136									
137									
138									
139									
140									
141									
142									
143									
144									
145									
146									
147									
148									
149									

	A	B	C	D	E	F	G	H	I
1									70
2	Revenue Sources for New CSG A Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rate			1.5	1.4	1.3	1.2	1.1	
10	New license revenue		10000	15000	21000	27300	32760	36036	142096
11	Migration license rate			1.5	1.4	1.3	1.2	1.1	
12	Migration license rev.		2000	3000	4200	5460	6552	7207	28419
13	Maintenance & upgrade revenue		2400	8352	17300	29772	45913	65311	169048
14	Total		14400	26352	42500	62532	85225	108554	339564
15									339564
16	**Maintenance calculation**								
17	Previous year maintenance			2400	6192	11727	19218	28617	
18	Retention rate		0.9	0.9	0.9	0.9	0.9	0.9	
19	Remaining maintenance		0	2160	5573	10555	17296	25756	
20	Upgrades		0	2160	5573	10555	17296	25756	61339
21	New lic + migration + upgrades		12000	20160	30773	43315	56608	68999	
22	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
24	New & migration & upgrade - maint		2400	4032	6155	8663	11322	13800	46371
25	**Maintenance revenue**		2400	6192	11727	19218	28617	39555	107710
26									107710
27	**International**								
28	New licenses rate			2.0	1.8	1.5	1.4	1.3	
29	New license revenue		1000	2000	3500	5250	7350	9555	28655
30	Migration license rate			2.0	1.8	1.5	1.4	1.3	
31	Migration license rev.		400	800	1400	2100	2940	3822	11462
32	Maintenance & upgrade revenue		280	1114	2688	5255	9056	14308	32700
33	Total		1680	3914	7588	12605	19346	27685	72817
34									72817
35	**Maintenance calculation**								
36	Previous year maintenance			280	862	1911	3534	5875	
37	Retention rate		0.9	0.9	0.9	0.9	0.9	0.9	
38	Remaining maintenance		0	252	776	1720	3181	5288	
39	Upgrades		0	252	776	1720	3181	5288	11217
40	New lic + migration + upgrades		1400	3052	5676	9070	13471	18665	
41	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New & migration & upgrade - maint		280	610	1135	1814	2694	3733	10267
44	**Maintenance revenue**		280	862	1911	3534	5875	9020	21484
45									21484
46									
47									
48									
49									

	A	B	C	D	E	F	G	H	I
50									**71**
51			Costs for New CSG A Products - World Wide						
52									
53									
54	($000)					Projected			Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues		14400	26352	42500	62532	85225	108554	339564
59									
60	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
61	cost		1440	2635	4250	6253	8523	10855	33956
62	Marketing and sales rate		0.50	0.45	0.40	0.35	0.35	0.35	
63	cost		7200	11858	17000	21886	29829	37994	125767
64	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
65	cost		2160	3953	6375	9380	12784	16283	50935
66	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
67	cost		2160	3953	6375	9380	12784	16283	50935
68	**Total Costs- Americas**		12960	22399	34000	46899	63919	81416	261593
69	Costs/revenue ratio		0.9	0.85	0.8	0.75	0.75	0.75	0.77
70									
71	**International**								
72	Revenues		1680	3914	7588	12605	19346	27685	72817
73									
74	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
75	cost		168	391	759	1260	1935	2768	7282
76	Marketing and sales rate		0.50	0.45	0.40	0.35	0.35	0.35	
77	cost		840	1761	3035	4412	6771	9690	26509
78	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
79	cost		252	587	1138	1891	2902	4153	10923
80	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
81	cost		252	587	1138	1891	2902	4153	10923
82	**Total Costs - International**		1512	3327	6070	9453	14509	20764	55636
83									55636
84	Costs/revenue ratio		0.90	0.85	0.80	0.75	0.75	0.75	0.76
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	A	B	C	D	E	F	G	H	I
100									**72**
101		Net Present Value for New CSG A Products - World Wide							
102									
103						Projected			**Total**
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues		14400	26352	42500	62532	85225	108554.2	339564
108	Operating Income rate		0.1	0.15	0.2	0.25	0.25	0.25	
109	Operating Income pre tax		1440	3953	8500	15633	21306	27139	77971
110	Tax Rate		0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes		553	1518	3264	6003	8182	10421	29941
112	Operating Income after tax		887	2435	5236	9630	13125	16717	48030
113	NPV Factor		0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value		786	1987	3937	6674	8387	9847	31617
115									
116	**International**								
117	Revenues		1680	3914	7588	12605	19346	27685	72817
118	Operating Income rate		0.10	0.15	0.20	0.25	0.25	0.25	
119	Operating Income pre tax		168	587	1518	3151	4836	6921	17182
120	Tax Rate		0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes		34	117	304	630	967	1384	3436
122	Operating Income after tax		134	470	1214	2521	3869	5537	13745
123	NPV Factor		0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value		119	383	913	1747	2472	3261	8896
125									
126	**World Wide**								
127	Revenues		16080	30266	50088	75137	104571	136239	412381
128	Operating Income pre tax		1608	4540	10018	18784	26143	34060	95152
129	Operating Income after tax		1021	2905	6450	12151	16994	22254	61775
130	Net Present Value		905	2370	4850	8421	10859	13108	40513
131									
132									
133									
134									

	J	K	L	M	N	O	P	Q	R
1									73
2			Revenue Sources for New CSG B Products - World Wide						
3									
4									
5	($000)					Projected			Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rate			1.30	1.25	1.20	1.15	1.10	
10	New license revenue		5000	6500	8125	9750	11213	12334	52921
11	Migration license rate			1.30	1.25	1.20	1.12	1.10	
12	Migration license rev.		1000	1300	1625	1950	2174	2392	10441
13	Maintenance & upgrade revenue		1200	3936	7605	12308	18076	24877	68003
14	Total		7200	11736	17355	24008	31463	39603	131365
15									131365
16	**Maintenance calculation**								
17	Previous year maintenance			1200	2856	5034	7777	11077	
18	Retention rate		0.9	0.9	0.9	0.9	0.9	0.9	
19	Remaining maintenance		0	1080	2570	4531	7000	9969	
20	Upgrades		0	1080	2570	4531	7000	9969	25150
21	New lic + migration + upgrades		6000	8880	12320	16231	20386	24695	
22	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
24	New & migration & upgrade - maint		1200	1776	2464	3246	4077	4939	17702
25	**Maintenance revenue**		1200	2856	5034	7777	11077	14908	42852
26									42852
27	**International**								
28	New licenses rate			1.5	1.4	1.3	1.2	1.1	
29	New license revenue		1000	1500	2100	2730	3276	3604	14210
30	Migration license rate			1.5	1.4	1.3	1.2	1.1	
31	Migration license rev.		200	300	420	546	655	721	2842
32	Maintenance & upgrade revenue		240	835	1730	2977	4591	6531	16905
33	Total		1440	2635	4250	6253	8523	10855	33956
34									33956
35	**Maintenance calculation**								
36	Previous year maintenance			240	619	1173	1922	2862	
37	Retention rate		0.9	0.9	0.9	0.9	0.9	0.9	
38	Remaining maintenance		0	216	557	1055	1730	2576	
39	Upgrades		0	216	557	1055	1730	2576	6134
40	New lic + migration + upgrades		1200	2016	3077	4331	5661	6900	
41	Maint/license price ratio		0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New & migration & upgrade - maint		240	403	615	866	1132	1380	4637
44	**Maintenance revenue**		240	619	1173	1922	2862	3956	10771
45									10771
46									
47									
48									
49									

	J	K	L	M	N	O	P	Q	R
50									**74**
51	Costs for New CSG B Products - World Wide								
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues		7200	11736	17355	24008	31463	39603	131365
59									
60	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	'
61	cost		720	1174	1735	2401	3146	3960	13136
62	Marketing and sales rate		0.50	0.45	0.40	0.35	0.35	0.35	
63	cost		3600	5281	6942	8403	11012	13861	49099
64	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
65	cost		1080	1760	2603	3601	4719	5940	19705
66	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
67	cost		1080	1760	2603	3601	4719	5940	19705
68	**Total Costs- Americas**		6480	9976	13884	18006	23597	29702	101645
69	Costs/revenue ratio		0.9	0.85	0.8	0.75	0.75	0.75	0.77
70									
71	**International**								
72	Revenues		1440	2635	4250	6253	8523	10855	33956
73									
74	Cost of revenues rate		0.10	0.10	0.10	0.10	0.10	0.10	
75	cost		144	264	425	625	852	1086	3396
76	Marketing and sales rate		0.50	0.45	0.40	0.35	0.35	0.35	
77	cost		720	1186	1700	2189	2983	3799	12577
78	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
79	cost		216	395	638	938	1278	1628	5093
80	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
81	cost		216	395	638	938	1278	1628	5093
82	**Total Costs - International**		1296	2240	3400	4690	6392	8142	26159
83									26159
84	Costs/revenue ratio		0.90	0.85	0.80	0.75	0.75	0.75	0.77
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	J	K	L	M	N	O	P	Q	R
100									**75**
101	Net Present Value for New CSG B Products - World Wide								
102									
103						Projected			Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues		7200	11736	17355	24008	31463.03	39603	131365
108	Operating Income rate		0.1	0.15	0.2	0.25	0.25	0.25	
109	Operating Income pre tax		720	1760	3471	6002	7866	9901	29720
110	Tax Rate		0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes		276	676	1333	2305	3020	3802	11412
112	Operating Income after tax		444	1084	2138	3697	4845	6099	18307
113	NPV Factor		0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value		393	885	1608	2562	3096	3592	12136
115									
116	**International**								
117	Revenues		1440	2635	4250	6253	8523	10855	33956
118	Operating Income rate		0.10	0.15	0.20	0.25	0.25	0.25	
119	Operating Income pre tax		144	395	850	1563	2131	2714	7797
120	Tax Rate		0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes		29	79	170	313	426	543	1559
122	Operating Income after tax		115	316	680	1251	1705	2171	6238
123	NPV Factor		0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value		102	258	511	867	1089	1279	4106
125									
126	**World Wide**								
127	Revenues		8640	14371	21605	30261	39986	50458	165321
128	Operating Income pre tax		864	2156	4321	7565	9996	12614	37517
129	Operating Income after tax		559	1401	2818	4948	6550	8270	24545
130	Net Present Value		495	1143	2119	3429	4185	4871	16242
131									
132									
133									
134									

	A	B	C	D	E	F	G	H	I
1									80
2	Revenue Sources for New CVG A Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses units	600	1800	1800	1500	1250	1000	500	8450
10	New license revenue ($3600/unit)	2160	6480	6480	5400	4500	3600	1800	30420
11	Migration license units	100	300	600	900	900	675	338	3813
12	Migration license rev. ($950/unit)	95	285	570	855	855	641	321	3622
13	Maint, templates & network svcs rev	0	1229	5253	10369	16241	22489	28558	84139
14	Total	2255	7994	12303	16624	21596	26731	30680	118181
15									118181
16	**Maintenance calculation**								
17	Installed units		700	2730	4857	6771	8244	9095	
18	Erosion rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
19	Erosion Loss - units	0	70	273	486	677	824	909	
20	Remaining installed units	0	630	2457	4371	6094	7420	8185	
21	Maintenance et al price/unit ($)	1200	1950	2138	2372	2665	3031	3489	
22	Maintenance revenue	0	1229	5253	10369	16241	22489	28558	84139
23	Current yr new and mig. Lic units	700	2100	2400	2400	2150	1675	838	
24	Total installed units	700	2730	4857	6771	8244	9095	9023	
25									
26									
27	**International**								
28	New licenses units	100	300	600	900	900	675	338	3813
29	New license revenue ($3600/unit)	360	1080	2160	3240	3240	2430	1217	13727
30	Migration license units	0	25	50	100	150	150	75	550
31	Migration license rev. ($950/unit)	0	24	48	95	143	143	71	523
32	Maint, templates & network svcs rev	0	176	799	2185	4608	7581	10444	25792
33	Total	360	1279	3006	5520	7990	10153	11732	40042
34									40042
35	**Maintenance calculation**								
36	Installed units		100	415	1024	1921	2779	3326	
37	Erosion rate		0.10	0.10	0.10	0.10	0.10	0.10	
38	Erosion Loss - units	0	10	42	102	192	278	333	
39	Remaining installed units	0	90	374	921	1729	2501	2994	
40	Maintenance et al price/unit ($)	1200	1950	2138	2372	2665	3031	3489	
41	Maintenance revenue	0	176	799	2185	4608	7581	10444	25792
42	Current yr new and mig. Lic units	100	325	650	1000	1050	825	413	
43	Total installed units	100	415	1024	1921	2779	3326	3407	
44									
45									
46	**World Wide Revenues**	2615	9273	15309	22144	29586	36884	42412	158223
47									
48									
49									

	A	B	C	D	E	F	G	H	I
50									81
51		Costs for New CVG A Products - World Wide							
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	Americas								
58	Revenues	2255	7994	12303	16624	21596	26731	30680	118181
59									
60	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
61	cost	226	799	1230	1662	2160	2673	3068	11818
62	Marketing and sales rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
63	cost	451	1599	2461	3325	4319	5346	6136	23636
64	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
65	cost	338	1199	1845	2494	3239	4010	4602	17727
66	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
67	cost	338	1199	1845	2494	3239	4010	4602	17727
68	**Total Costs- Americas**	1353	4796	7382	9974	12958	16038	18408	70909
69	Cost/revenue ratio	0.6	0.60	0.6	0.6	0.6	0.60	0.60	0.60
70									
71	International								
72	Revenues	360	1279	3006	5520	7990	10153	11732	40042
73									
74	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
75	cost	36	128	301	552	799	1015	1173	4004
76	Marketing and sales rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
77	cost	72	256	601	1104	1598	2031	2346	8008
78	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
79	cost	54	192	451	828	1199	1523	1760	6006
80	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
81	cost	54	192	451	828	1199	1523	1760	6006
82	**Total Costs - International**	216	768	1804	3312	4794	6092	7039	24025
83									24025
84	Cost/revenue ratio	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
85									
86	**World Wide Costs**	1569	5564	9185	13286	17752	22130	25447	94934
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	A	B	C	D	E	F	G	H	I
100									82
101	Net Present Value for New CVG A Products - World Wide								
102									
103					Projected				Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	2255	7994	12303	16624	21596	26731	30680	118181
108	Operating Income rate	0.4	0.40	0.4	0.4	0.4	0.4	0.4	
109	Operating Income pre tax	902	3197	4921	6649	8638	10692	12272	47273
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	346	1228	1890	2553	3317	4106	4712	18153
112	Operating Income after tax	556	1970	3031	4096	5321	6586	7559	29120
113	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	534	1745	2474	3080	3688	4209	4453	20182
115									
116	**International**								
117	Revenues	360	1279	3006	5520	7990	10153	11732	40042
118	Operating Income rate	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
119	Operating Income pre tax	144	512	1202	2208	3196	4061	4693	16017
120	Tax Rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes	29	102	240	442	639	812	939	3203
122	Operating Income after tax	115	409	962	1766	2557	3249	3754	12813
123	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value	111	363	785	1328	1772	2076	2211	8646
125									
126	**World Wide**								
127	Revenues	2615	9273	15309	22144	29586	36884	42412	158223
128	Operating Income pre tax	1046	3709	6124	8857	11835	14754	16965	63289
129	Operating Income after tax	671	2379	3993	5862	7878	9835	11314	41933
130	Net Present Value	645	2108	3259	4409	5460	6285	6664	28828
131									
132									
133									
134									
135									

	J	K	L	M	N	O	P	Q	R
1									83
2	Revenue Sources for New CVG B Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9									
10	Software Company Revenues	200	860	2186	4227	6989	10419	14479	39361
11									
12	Network Customer Revenues	60	462	1629	4170	8786	15852	25563	56522
13	Virtual Comm. Revenues	10	48	138	329	658	1149	1818	4149
14	Total Revenues	270	1370	3953	8726	16433	27420	41860	100032
15									100032
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27	**International**								
28									
29	Software Company Revenues	30	172	547	1057	1747	2605	3620	9777
30									
31	Network Customer Revenues	9	92	407	1042	2197	3963	6391	14101
32	Virtual Comm. Revenues	1.5	10	35	82	164	287	454	1034
33	Total Revenues	41	274	988	2181	4108	6855	10465	24912
34									24912
35	SW Co. Rate vs America	0.15	0.20	0.25	0.25	0.25	0.25	0.25	
36	Net Cust Rate vs America	0.15	0.20	0.25	0.25	0.25	0.25	0.25	
37	Virt Comm Rate vs America	0.15	0.20	0.25	0.25	0.25	0.25	0.25	
38									
39									
40									'
41									
42									
43									
44									
45									
46	**World Wide Revenues**	311	1644	4941	10907	20541	34276	52325	124944
47									
48									
49									

	A	B	C	D	E	F	G	H	I
1		**Customer Growth/Each Market CVG B**							**83A**
2									
3		1999	2000	2001	2002	2003	2004	2005	Total
4									
5	**SW Companies.-New cust**	10	25	40	50	60	70	80	335
6	# Units/customer	2000	4000	6000	7800	9360	10296	11326	
7	Price/unit	10	10	10	10	10	10	10	
8	Retention Rate	1.0	0.9	0.9	0.9	0.9	0.9	0.9	
9	**CVG Network-New cust**	10	50	100	200	300	400	500	1560
10	# Units/customer	600	1800	2700	3510	4212	4633	5097	
11	Price/unit	10	10	10	10	10	10	10	
12	Retention Rate	1.0	0.9	0.9	0.9	0.9	0.9	0.9	
13	**Virtual Comm-New cust**	2	6	12	24	36	48	60	188
14	# Units/customer	500	1000	1500	1950	2340	2574	2831	
15	Price/unit	10	10	10	10	10	10	10	
16	Retention Rate	1.0	0.9	0.9	0.9	0.9	0.9	0.9	
17									
18									
19		**Number of Installed Customers - CVG B/Software Companies**							
20									
21		1999	2000	2001	2002	2003	2004	2005	
22									
23	Year 1 Customers	10.0	9.0	8.1	7.3	6.6	5.9	5.3	
24	Year 2 Customers		25.0	22.5	20.3	18.3	16.5	14.9	
25	Year 3 Customers			40.0	36	32.4	29.2	26.3	
26	Year 4 Customers				50.0	45	40.5	36.5	
27	Year 5 Customers					60.0	54	48.6	
28	Year 6 Customers						70.0	63	
29	Year 7 Customers							80.0	
30									
31		**Number of Installed Units - CVG B/Software Companies**							
32									
33		1999	2000	2001	2002	2003	2004	2005	
34									
35	Year 1 Units	20.0	36.0	48.6	56.9	61.8	60.7	60.0	
36	Year 2 Units		50.0	90.0	121.8	142.7	154.4	153.4	
37	Year 3 Units			80.0	144.0	194.4	227.8	246.2	
38	Year 4 Units				100.0	180.0	243.0	284.7	
39	Year 5 Units					120.0	216.0	291.6	
40	Year 6 Units						140.0	252.0	
41	Year 7 Units							160.0	
42									
43		**Revenue for CVG B/Software Companies**							
44									
45	($000)	1999	2000	2001	2002	2003	2004	2005	Total
46									
47	Year 1 Revenue	200	360	486	569	618	607	600	3441
48	Year 2 Revenue		500	900	1218	1427	1544	1534	7124
49	Year 3 Revenue			800	1440	1944	2278	2462	8923
50	Year 4 Revenue				1000	1800	2430	2847	8077
51	Year 5 Revenue					1200	2160	2916	6276
52	Year 6 Revenue						1400	2520	3920
53	Year 7 Revenue							1600	1600
54	Total Revenue	200	860	2186	4227	6989	10419	14479	39361

	A	B	C	D	E	F	G	H	I
55		CVG B/Network Customers							83B
56									
57									
58									
59		Number of Installed Customers - CVG B/Network							
60									
61		1999	2000	2001	2002	2003	2004	2005	
62									
63	Year 1 Customers	10.0	9.0	8.1	7.3	6.6	5.9	5.3	
64	Year 2 Customers		50.0	45.0	40.5	36.5	32.9	29.6	
65	Year 3 Customers			100.0	90.0	81.0	72.9	65.6	
66	Year 4 Customers				200.0	180.0	162.0	145.8	
67	Year 5 Customers					300.0	270.0	243.0	
68	Year 6 Customers						400.0	360.0	
69	Year 7 Customers							500.0	
70									
71		Number of Installed Units - CVG B/Network Customers							
72									
73		1999	2000	2001	2002	2003	2004	2005	
74									
75	Year 1 Units	6.0	16.2	21.9	25.6	27.8	27.3	27.0	
76	Year 2 Units		30.0	81.0	109.4	128.1	138.6	137.1	
77	Year 3 Units			60.0	162.0	218.7	255.9	276.3	
78	Year 4 Units				120.0	324.0	437.4	511.8	
79	Year 5 Units					180.0	486.0	656.1	
80	Year 6 Units						240.0	648.0	
81	Year 7 Units							300.0	
82									
83		Revenue for CVG B/Network Customers							
84									
85	($000)	1999	2000	2001	2002	2003	2004	2005	Total
86									
87	Year 1 Revenue	60	162	219	256	278	273	270	1518
88	Year 2 Revenue		300	810	1094	1281	1386	1371	6242
89	Year 3 Revenue			600	1620	2187	2559	2763	9729
90	Year 4 Revenue				1200	3240	4374	5118	13932
91	Year 5 Revenue					1800	4860	6561	13221
92	Year 6 Revenue						2400	6480	8880
93	Year 7 Revenue							3000	3000
94	Total Revenue	60	462	1629	4170	8786	15852	25563	56522
95									
96									
97									
98									
99									
100									
101									
102									
103									
104									

	A	B	C	D	E	F	G	H	I
105	CVG B/Virtual Communities								83C
106									
107									
108									
109	Number of Installed Customers - CVG B/Virtual Communities								
110									
111		1999	2000	2001	2002	2003	2004	2005	
112									
113	Year 1 Customers	2.0	1.8	1.6	1.4	1.3	1.2	1.1	
114	Year 2 Customers		6.0	5.4	4.9	4.4	4.0	3.6	
115	Year 3 Customers			12.0	10.8	9.7	8.7	7.8	
116	Year 4 Customers				24.0	21.6	19.4	17.5	
117	Year 5 Customers					36.0	32.4	29.2	
118	Year 6 Customers						48.0	43.2	
119	Year 7 Customers							60.0	
120									
121	Number of Installed Units - CVG B/Virtual Communities								
122									
123		1999	2000	2001	2002	2003	2004	2005	
124									
125	Year 1 Units	1.0	1.8	2.4	2.7	3.0	3.1	3.1	
126	Year 2 Units		3.0	5.4	7.4	8.6	9.4	9.3	
127	Year 3 Units			6.0	10.8	14.6	17.0	18.3	
128	Year 4 Units				12.0	21.6	29.1	34.1	
129	Year 5 Units					18.0	32.4	43.8	
130	Year 6 Units						24.0	43.2	
131	Year 7 Units							30.0	
132									
133	Revenue for CVG B/Virtual Communities								
134									
135	($000)	1999	2000	2001	2002	2003	2004	2005	Total
136									
137	Year 1 Revenue	10	18	24	27	30	31	31	172
138	Year 2 Revenue		30	54	74	86	94	93	430
139	Year 3 Revenue			60	108	146	170	183	666
140	Year 4 Revenue				120	216	291	341	968
141	Year 5 Revenue					180	324	438	942
142	Year 6 Revenue						240	432	672
143	Year 7 Revenue							300	300
144	Total Revenue	10	48	138	329	658	1149	1818	4149

	J	K	L	M	N	O	P	Q	R
50									**84**
51			Costs for New CVG B Products - World Wide						
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues	270	1370	3953	8726	16433	27420	41860	100032
59									
60	Cost of revenues rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
61	cost	54	274	791	1745	3287	5484	8372	20006
62	Marketing and sales rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
63	cost	68	343	988	2181	4108	6855	10465	25008
64	R and D rate	0.15	0.15	0.15	0.13	0.10	0.10	0.10	
65	cost	41	206	593	1134	1643	2742	4186	10545
66	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
67	cost	41	206	593	1309	2465	4113	6279	15005
68	**Total Costs- Americas**	203	1028	2965	6370	11503	19194	29302	70564
69	Cost/revenue ratio	0.75	0.75	0.75	0.73	0.70	0.70	0.70	0.71
70									
71	**International**								
72	Revenues	41	274	988	2181	4108	6855	10465	24912
73									
74	Cost of revenues rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
75	cost	8	55	198	436	822	1371	2093	4982
76	Marketing and sales rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
77	cost	10	69	247	545	1027	1714	2616	6228
78	R and D rate	0.15	0.15	0.15	0.13	0.10	0.10	0.10	
79	cost	6	41	148	284	411	686	1046	2622
80	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
81	cost	6	41	148	327	616	1028	1570	3737
82	**Total Costs - International**	30	206	741	1592	2876	4799	7325	17569
83									17569
84	Cost/revenue ratio	0.75	0.75	0.75	0.73	0.70	0.70	0.70	0.71
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	J	K	L	M	N	O	P	Q	R
100									**85**
101		Net Present Value for New CVG B Products - World Wide							
102									
103					Projected				Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	270	1370	3953	8726	16433	27420	41860	100032
108	Operating Income rate	0.25	0.25	0.25	0.27	0.3	0.3	0.3	
109	Operating Income pre tax	68	343	988	2356	4930	8226	12558	29468
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	26	132	379	905	1893	3159	4822	11316
112	Operating Income after tax	42	211	609	1451	3037	5067	7736	18152
113	NPV Factor	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	40	187	497	1091	2105	3238	4556	11714
115									
116	**International**								
117	Revenues	41	274	988	2181	4108	6855	10465	24912
118	Operating Income rate	0.25	0.25	0.25	0.27	0.30	0.30	0.30	
119	Operating Income pre tax	10	69	247	589	1232	2057	3139	7343
120	Tax Rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes	2	14	49	118	246	411	628	1469
122	Operating Income after tax	8	55	198	471	986	1645	2512	5875
123	NPV Factor	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value	8	49	161	354	683	1051	1479	3786
125									
126	**World Wide**								
127	Revenues	311	1644	4941	10907	20541	34276	52325	124944
128	Operating Income pre tax	78	411	1235	2945	6162	10283	15697	36811
129	Operating Income after tax	50	266	806	1922	4023	6713	10247	24027
130	Net Present Value	48	235	658	1446	2788	4289	6036	15500
131									
132									
133									
134									
135									

	A	B	C	D	E	F	G	H	I
1									90
2	Revenue Sources for New ISG A Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	Americas								
9	New licenses rate		1.50	1.25	1.10	1.00	0.90	0.80	
10	revenue	3000	4500	5625	6188	6188	5569	4455	35524
11	Prof services revenue	600	900	1125	1238	1238	1114	891	7105
12	Upgrade revenue	600	1440	2421	3416	4312	4995	5386	22571
13	Maintenance revenue	600	1440	2421	3416	4312	4995	5386	22571
14	Total	4800	8280	11592	14258	16050	16672	16119	87770
15									87770
16	Maintenance calculation								
17	Previous year maintenance		600	1440	2421	3416	4312	4995	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss		60	144	242	342	431	499	
20	Remaining maintenance		540	1296	2179	3075	3881	4495	15466
21	New licenses	3000	4500	5625	6188	6188	5569	4455	
22	Maint/license price ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
23	Initial conversion rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
24	New licenses-maintenance	600	900	1125	1238	1238	1114	891	7105
25	Maintenance revenue	600	1440	2421	3416	4312	4995	5386	22571
26									22571
27	International								
28	New licenses rate		1.50	1.25	1.10	1.00	0.90	0.80	
29	revenue	1000	1500	1875	2063	2063	1856	1485	11841
30	Prof services revenue	200	300	375	413	413	371	297	2368
31	Upgrade revenue	200	480	807	1139	1437	1665	1795	7524
32	Maintenance revenue	200	480	807	1139	1437	1665	1795	7524
33	Total	1600	2760	3864	4753	5350	5557	5373	29257
34									29257
35	Maintenance calculation								
36	Previous year maintenance		200	480	807	1139	1437	1665	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		20	48	81	114	144	166	
39	Remaining maintenance		180	432	726	1025	1294	1498	5155
40	New licenses	1000	1500	1875	2063	2063	1856	1485	
41	Maint/license price ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
42	Initial conversion rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
43	New licenses-maintenance	200	300	375	412.5	412.5	371.25	297	2368
44	Maintenance revenue	200	480	807	1139	1437	1665	1795	7524
45									7524
46									
47									
48									
49									

	A	B	C	D	E	F	G	H	I
50									91
51		Costs for New ISG A Products - World Wide							
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	Americas								
58	Revenues	4800	8280	11592	14258	16050	16672	16119	87770
59									
60	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
61	cost	480	828	1159	1426	1605	1667	1612	8777
62	Marketing and sales rate	0.45	0.40	0.35	0.30	0.30	0.30	0.30	
63	cost	2160	3312	4057	4277	4815	5002	4836	28459
64	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
65	cost	720	1242	1739	2139	2407	2501	2418	13165
66	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
67	cost	720	1242	1739	2139	2407	2501	2418	13165
68	**Total Costs- Americas**	4080	6624	8694	9980	11235	11670	11283	63567
69	Cost/revenue ratio	0.85	0.8	0.75	0.7	0.7	0.70	0.70	0.72
70									
71	International								
72	Revenues	1600	2760	3864	4753	5350	5557	5373	29257
73									
74	Cost of revenues rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
75	cost	160	276	386	475	535	556	537	2926
76	Marketing and sales rate	0.45	0.40	0.35	0.30	0.30	0.30	0.30	
77	cost	720	1104	1352	1426	1605	1667	1612	9486
78	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
79	cost	240	414	580	713	802	834	806	4388
80	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
81	cost	240	414	580	713	802	834	806	4388
82	**Total Costs - International**	1360	2208	2898	3327	3745	3890	3761	21189
83									21189
84	Cost/revenue ratio	0.85	0.80	0.75	0.70	0.70	0.70	0.70	0.72
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	A	B	C	D	E	F	G	H	I
100									**92**
101	Net Present Value for New ISG A Products - World Wide								
102									
103					Projected				Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	4800	8280	11592	14258	16050	16672	16119	87770
108	Operating Income rate	0.15	0.20	0.25	0.30	0.30	0.30	0.30	
109	Operating Income pre tax	720	1656	2898	4277	4815	5002	4836	24203
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	276	636	1113	1642	1849	1921	1857	9294
112	Operating Income after tax	444	1020	1785	2635	2966	3081	2979	14909
113	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	426	904	1457	1981	2055	1969	1754	10547
115									
116	**International**								
117	Revenues	1600	2760	3864	4753	5350	5557	5373	29257
118	Operating Income rate	0.15	0.20	0.25	0.30	0.30	0.30	0.30	
119	Operating Income pre tax	240	552	966	1426	1605	1667	1612	8068
120	Tax Rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes	48	110	193	285	321	333	322	1614
122	Operating Income after tax	192	442	773	1141	1284	1334	1289	6454
123	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value	185	391	631	858	890	852	760	4566
125									
126	**World Wide**								
127	Revenues	6400	11040	15456	19010	21399	22229	21491	117027
128	Operating Income pre tax	960	2208	3864	5703	6420	6669	6447	32271
129	Operating Income after tax	636	1462	2558	3775	4250	4415	4268	21364
130	Net Present Value	611	1295	2087	2839	2945	2821	2514	15112
131									

	J	K	L	M	N	O	P	Q	R
1									93
2			Revenue Sources for New ISG B Products - World Wide						
3									
4									
5	($000)					Projected			Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	**Americas**								
9	New licenses rate			1.50	1.25	1.10	1.00	1.00	
10	revenue		2500	3750	4688	5156	5156	5156	26406
11	Prof services rate		0.8	0.8	0.8	0.8	0.8	0.8	
12	revenue		2000	3000	3750	4125	4125	4125	21125
13	Maintenance revenue		500	1200	2018	2847	3594	4265	14423
14	Total		5000	7950	10455	12128	12875	13547	61955
15									61955
16	**Maintenance calculation**								
17	Previous year maintenance			500	1200	2018	2847	3594	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss			50	120	202	285	359	
20	Remaining maintenance			450	1080	1816	2562	3234	9142
21	New licenses		2500	3750	4688	5156	5156	5156	
22	Maint/license price ratio		0.2	0.2	0.2	0.2	0.2	0.2	
23	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
24	New licenses-maintenance		500	750	938	1031	1031	1031	5281
25	**Maintenance revenue**		500	1200	2018	2847	3594	4265	14423
26									14423
27	**International**								
28	New licenses rate			1.50	1.25	1.10	1.00	1.00	
29	revenue		1000	1500	1875	2063	2063	2063	10563
30	Prof services rate		0.80	0.80	0.80	0.80	0.80	0.80	
31	revenue		800	1200	1500	1650	1650	1650	8450
32	Maintenance revenue		200	480	807	1139	1437	1706	5769
33	Total		2000	3180	4182	4851	5150	5419	24782
34									24782
35	**Maintenance calculation**								
36	Previous year maintenance			200	480	807	1139	1437	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		0	20	48	81	114	144	
39	Remaining maintenance		0	180	432	726	1025	1294	3657
40	New licenses		1000	1500	1875	2063	2063	2063	
41	Maint/license price ratio		0.2	0.2	0.2	0.2	0.2	0.2	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New licenses-maintenance		200	300	375	413	413	413	2113
44	**Maintenance revenue**		200	480	807	1139	1437	1706	5769
45									5769
46									
47									
48									
49									

	J	K	L	M	N	O	P	Q	R
50									**94**
51			Costs for New ISG B Products - World Wide						
52									
53									
54	($000)				Projected				Total
55			1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues			5000	7950	10455	12128	12875	13547	61955
59									
60	Cost of revenues rate			0.10	0.10	0.10	0.10	0.10	0.10	
61	cost			500	795	1046	1213	1287	1355	6195
62	Marketing and sales rate			0.50	0.47	0.44	0.41	0.40	0.40	
63	cost			2500	3737	4600	4973	5150	5419	26378
64	R and D rate			0.15	0.15	0.15	0.15	0.15	0.15	
65	cost			750	1193	1568	1819	1931	2032	9293
66	G and A rate			0.15	0.15	0.15	0.15	0.15	0.15	
67	cost			750	1193	1568	1819	1931	2032	9293
68	**Total Costs- Americas**			4500	6917	8782	9824	10300	10837	51160
69	Cost/revenue ratio			0.9	0.87	0.84	0.81	0.80	0.80	0.83
70									
71	**International**								
72	Revenues			2000	3180	4182	4851	5150	5419	24782
73									
74	Cost of revenues rate			0.10	0.10	0.10	0.10	0.10	0.10	
75	cost			200	318	418	485	515	542	2478
76	Marketing and sales rate			0.50	0.47	0.44	0.41	0.40	0.40	
77	cost			1000	1495	1840	1989	2060	2167	10551
78	R and D rate			0.15	0.15	0.15	0.15	0.15	0.15	
79	cost			300	477	627	728	772	813	3717
80	G and A rate			0.15	0.15	0.15	0.15	0.15	0.15	
81	cost			300	477	627	728	772	813	3717
82	**Total Costs - International**			1800	2767	3513	3930	4120	4335	20464
83										20464
84	Cost/revenue ratio			0.90	0.87	0.84	0.81	0.80	0.80	0.83
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	J	K	L	M	N	O	P	Q	R
100									**95**
101	Net Present Value for New ISG B Products - World Wide								
102									
103						Projected			**Total**
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues		5000	7950	10455	12128	12875	13547	61955
108	Operating Income rate		0.1	0.13	0.16	0.19	0.2	0.2	
109	Operating Income pre tax		500	1034	1673	2304	2575	2709	10795
110	Tax Rate		0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes		192	397	642	885	989	1040	4145
112	Operating Income after tax		308	637	1030	1419	1586	1669	6650
113	NPV Factor (8.5%)		0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value		273	519	775	984	1014	983	4548
115									
116	**International**								
117	Revenues		2000	3180	4182	4851	5150	5419	24782
118	Operating Income rate		0.10	0.13	0.16	0.19	0.20	0.20	
119	Operating Income pre tax		200	413	669	922	1030	1084	4318
120	Tax Rate		0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes		40	83	134	184	206	217	864
122	Operating Income after tax		160	331	535	737	824	867	3454
123	NPV Factor (8.5%)		0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value		142	270	403	511	527	511	2362
125									
126	**World Wide**								
127	Revenues		7000	11130	14637	16980	18025	18965	86737
128	Operating Income pre tax		700	1447	2342	3226	3605	3793	15113
129	Operating Income after tax		468	967	1566	2157	2410	2536	10104
130	Net Present Value		415	789	1177	1495	1540	1494	6910
131									

	S	T	U	V	W	X	Y	Z	AA
1									96
2	Revenue Sources for New ISG C Products - World Wide								
3									
4									
5	($000)				Projected				Total
6		1999	2000	2001	2002	2003	2004	2005	1999-2005
7									
8	Americas								
9	New licenses rate		2.00	1.75	1.50	1.25	1.00	1.00	
10	revenue	2500	5000	8750	13125	16406	16406	16406	78594
11	Prof services rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
12	revenue	2500	5000	8750	13125	16406	16406	16406	78594
13	Maint. and hosting revenue	875	2538	5346	9405	14207	18529	22418	73318
14	Total	5875	12538	22846	35655	47020	51341	55230	230505
15									230505
16	Maintenance calculation								
17	Previous year maintenance		875	2538	5346	9405	14207	18529	
18	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
19	Erosion Loss		87.5	254	535	941	1421	1853	
20	Remaining maintenance		787.5	2284	4812	8465	12786	16676	45810
21	New licenses	2500	5000	8750	13125	16406	16406	16406	
22	Maint & host/license price ratio	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
23	Initial conversion rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
24	New licenses maint & host	875	1750	3063	4594	5742	5742	5742	27508
25	Maint & hosting revenue	875	2538	5346	9405	14207	18529	22418	73318
26									73318
27	International								
28	New licenses rate		2.00	1.75	1.50	1.25	1.00		
29	revenue		1500	3000	5250	7875	9844	9844	37313
30	Prof services rate		1.00	1.00	1.00	1.00	1.00	1.00	
31	revenue		1500	3000	5250	7875	9844	9844	37313
32	Maint. and hosting revenue		525	1523	3208	5643	8524	11117	30540
33	Total		3525	7523	13708	21393	28212	30805	105165
34									105165
35	Maintenance calculation								
36	Previous year maintenance		0	525	1523	3208	5643	8524	
37	Erosion rate		0.1	0.1	0.1	0.1	0.1	0.1	
38	Erosion Loss		0	53	152	321	564	852	
39	Remaining maintenance		0	473	1370	2887	5079	7672	17480
40	New licenses		1500	3000	5250	7875	9844	9844	
41	Maint & host/license price ratio		0.35	0.35	0.35	0.35	0.35	0.35	
42	Initial conversion rate		1.0	1.0	1.0	1.0	1.0	1.0	
43	New licenses maint & host		525	1050	1838	2756	3445	3445	13059
44	Maint & hosting revenue		525	1523	3208	5643	8524	11117	30540
45									30540
46									
47									
48									
49									

	S	T	U	V	W	X	Y	Z	AA
50									**97**
51			Costs for New ISG C Products - World Wide						
52									
53									
54	($000)				Projected				Total
55		1999	2000	2001	2002	2003	2004	2005	1999-2005
56									
57	**Americas**								
58	Revenues	5875	12538	22846	35655	47020	51341	55230	230505
59									
60	Cost of revenues rate	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
61	cost	1175	2508	4569	7131	9404	10268	11046	46101
62	Marketing and sales rate	0.40	0.40	0.40	0.38	0.36	0.34	0.32	
63	cost	2350	5015	9139	13549	16927	17456	17674	82109
64	R and D rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
65	cost	881	1881	3427	5348	7053	7701	8285	34576
66	G and A rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
67	cost	881	1881	3427	5348	7053	7701	8285	34576
68	**Total Costs- Americas**	5288	11284	20562	31377	40437	43126	45289	197362
69	Cost/revenue ratio	0.90	0.90	0.90	0.88	0.86	0.84	0.82	0.86
70									
71	**International**								
72	Revenues		3525	7523	13708	21393	28212	30805	105165
73									
74	Cost of revenues rate		0.20	0.20	0.20	0.20	0.20	0.20	
75	cost		705	1505	2742	4279	5642	6161	21033
76	Marketing and sales rate		0.40	0.40	0.38	0.36	0.34	0.32	
77	cost		1410	3009	5209	7702	9592	9857	36779
78	R and D rate		0.15	0.15	0.15	0.15	0.15	0.15	
79	cost		529	1128	2056	3209	4232	4621	15775
80	G and A rate		0.15	0.15	0.15	0.15	0.15	0.15	
81	cost		529	1128	2056	3209	4232	4621	15775
82	**Total Costs - International**		3173	6770	12063	18398	23698	25260	89361
83									89361
84	Cost/revenue ratio		0.90	0.90	0.88	0.86	0.84	0.82	0.85
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									

	S	T	U	V	W	X	Y	Z	AA
100									**98**
101		Net Present Value for New ISG C Products - World Wide							
102									
103					Projected				Total
104	($000)	1999	2000	2001	2002	2003	2004	2005	1999-2005
105									
106	**Americas**								
107	Revenues	5875	12538	22846	35655	47020	51341	55230	230505
108	Operating Income rate	0.10	0.10	0.10	0.12	0.14	0.16	0.18	
109	Operating Income pre tax	588	1254	2285	4279	6583	8215	9941	33143
110	Tax Rate	0.384	0.384	0.384	0.384	0.384	0.384	0.384	
111	Taxes	226	481	877	1643	2528	3154	3818	12727
112	Operating Income after tax	362	772	1407	2636	4055	5060	6124	20416
113	NPV Factor (8.5%)	0.961	0.886	0.816	0.752	0.693	0.639	0.589	
114	Net Present Value	348	684	1148	1982	2810	3233	3607	13813
115									
116	**International**								
117	Revenues		3525	7523	13708	21393	28212	30805	105165
118	Operating Income rate		0.10	0.10	0.12	0.14	0.16	0.18	
119	Operating Income pre tax		353	752	1645	2995	4514	5545	15803
120	Tax Rate		0.20	0.20	0.20	0.20	0.20	0.20	
121	Taxes		71	150	329	599	903	1109	3161
122	Operating Income after tax		282	602	1316	2396	3611	4436	12643
123	NPV Factor (8.5%)		0.886	0.816	0.752	0.693	0.639	0.589	
124	Net Present Value		250	491	990	1660	2307	2613	8311
125									
126	**World Wide**								
127	Revenues	5875	16063	30369	49363	68413	79553	86035	335670
128	Operating Income pre tax	588	1606	3037	5924	9578	12728	15486	48947
129	Operating Income after tax	362	1054	2009	3952	6451	8671	10560	33059
130	Net Present Value	348	934	1639	2972	4471	5541	6220	22124
131									

XNet/SCI Technology Allocation Percentages

New Products	XNet Technology	SCI Technology
MSD A **Connect:Manage**	100%	0%
MSD B **Connect:LAN/Desktop**	100%	0%
MSD C **Connect:MOM**	100%	0%

CSG A
    Connect:Direct+
        feature/function add-on sales
        New Customer Sales
	
	100%
	20%
		
		0%
		80%

CSG B **Connect:Remote for Enterprise/PA**	80%	20%
CVG A **Commerce:Connection for Internet +**	20%	80%
CVG B **Commerce:Software Distribution**	90%	10%

ISG A
    Gentran:EDX
        Migration
        New Customers
	
	100%
	30%
		
		0%
		70%

ISG B **Gentran:Web Suite Express**	50%	50%
ISG C **Gentran:Sell Suite and Buy Suite**	90%	10%

XNet New/Core Technology Allocation Percentages

New Products	XNet - New Technology	XNet-RWE Core Technology
MSD A **Connect:Manage**	82%	18%
MSD B **Connect:LAN/Desktop**	84%	16%
MSD C **Connect:MOM**	78 %	22%

CSG A
    Connect:Direct+
            feature/function add-on sales
            New Customer Sales
	
	94 %
	19%
		
		6%
		1%

CSG B **Connect:Remote for Enterprise/PA**	73%	7%
CVG A **Commerce:Connection for Internet +**	15%	5%
CVG B **Commerce:Software Distribution**	74%	16%

ISG A
    Gentran:EDX
            Migration
            New Customers
	
	68%
	20%
		
		32%
		10%

ISG B **Gentran:Web Suite Express**	36%	14%
ISG C **Gentran:Sell Suite and Buy Suite**	72%	18%

XNet Technologies Valuation Summary

New Products	($000) NPV Value	% XNet	($000) Tech Value XNet	% SCI	($000) Tech Value SCI
MSD					
MSD -Connect:Manage	35741	100	35741	0	0
MSD -Connect:LAN/Desktop	15962	100	15962	0	0
MSD - Connect:MOM	4708	100	4708	0	0
Total MSD	56411		56411		0
CSG					
CSG A - Connect:Direct+	40513				
add-ons (20%)	8103	100	8103	0	0
new customers (80%)	32410	20	6482	80	25928
CSG B - Connect:Remote for Ent/PA	16242	80	12994	20	3248
Total CSG	56755		27579		29176
CVG					
CVG A - Commerce: Connection for Internet +	28828	20	5766	80	23062
CVG B - Commerce:Software Distribution	15500	90	13950	10	1550
Total CVG	44328		19716		24612
ISG					
ISG A - Gentran:EDX	15112				
Migration (75%)	11334	100	11334	0	0
New Customers (25%)	3778	30	1133	70	2644
ISG B - Gentran:Web Suite Express	6910	50	3455	50	3455
ISG C - Gentran:Sell Suite and Buy Suite	22124	90	19912	10	2212
Total ISG	44147		35835		8311
GRAND TOTAL	201640		139540		62099

XNet New Technologies Valuation Summary

New Products	($000) NPV Value	% XNet New Tech	($000) XNet New Tech Value	% XNet Core Tech	($000) Net Core Tech Value
MSD					
MSD -Connect:Manage	35741	82	29308	18	6433
MSD -Connect:LAN/Desktop	15962	84	13408	16	2554
MSD - Connect:MOM	4708	78	3672	22	1036
Total MSD	56411		46388		10023
CSG					
CSG A - Connect:Direct+					
add-ons (20%)	8103	94	7617	6	486
new customers (80%)	32410	19	6158	1	324
CSG B - Connect:Remote for Ent/PA	16242	73	11857	7	1137
Total CSG	56755		25632		1947
CVG					
CVG A - Commerce: Connection for Internet +	28828	15	4324	5	1441
CVG B - Commerce:Software Distribution	15500	74	11470	16	2480
Total CVG	44328		15794		3921
ISG					
ISG A - Gentran:EDX	15112				
Migration (75%)	11334	68	7707	32	3627
New Customers (25%)	3778	20	756	10	378
ISG B - Gentran:Web Suite Express	6910	36	2488	14	967
ISG C - Gentran:Sell Suite and Buy Suite	22124	72	15929	18	3982
Total ISG	44147		26880		8954
GRAND TOTAL	201640		114694		24845

Note: Total for XNet Value = $139,539,000