



# XXX Ltd.

## Technology Company

### Fund Raising – BIRD Foundation

(Due to confidentiality and other considerations  
the website version presents the executive summary alone.  
Company identifying information has been removed)

(משיקולי חיסיון ושיקולים נוספים  
מוצגת באתר רק תמצית המנהלים של התכנית העסקית,  
תוך הסתרת מידע מזהה על החברה)

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## Project Proposal Cover Page Proposal

**To:** Israel-U.S. Binational Industrial Research and Development Foundation (BIRD)

**From:** Israeli Company: XXX

Office Address XXX

Mailing Address XXX

Telephone No. XXX

Fax No. XXX

**From:** U.S. Company: XXX Inc.

Office Address XXX

Mailing Address XXX

Telephone No. XXX

Toll free: XXX

Fax No. XXX

**Project Title:** CPI (Continuous Performance Improvement)

**Project Duration:** 30 months **Project Budget:** \$ 2,425,000

Submitted by:	Israeli Company Authorized Company Official	U.S. Company Authorized Company Official
Signature:	_____	_____
Printed Name:	<u>XXX Ph.D.</u>	<u>XXX</u>
Title:	<u>CTO and founder</u>	<u>Vice President, Strategic Projects</u>
Date Submitted:	<u>October 7, 2005</u>	<u>October 7, 2005</u>

Preferred date (month / year) for start of project funding <sup>(1)</sup> 1/2006

<sup>(1)</sup> Do not request a start date prior to the date of the final proposal submission.

# Table of Contents

## **A. Executive Summary**

- I. Companies Background
- II. The Product and its Innovation
- III. Collaborative Relationship
- IV. Commercial Potential

## **B. The Innovation**

1. The Market and Its Limitations
2. The CPI Concept
3. The CPI Novelty and Uniqueness
4. The Patent Situation
5. Regulatory and Technical Standards
6. Obligations to Other Government Agencies

## **C. Proposed R&D Program**

### **C1. Analysis of the Problem**

1. The Required Properties and Functions of the End Product
2. The Challenges Associated with Realizing the Required Properties and Functions

### **C2. Proposed Approach**

1. A General Plan of the Proposed Effort
2. The Techniques and Methods to Be Used for Developing the Product
3. Technical and Economic Constraints
4. Identification and Detailed Description of Each Task

## **D. Program Plan**

## **E. The Market**

1. Market Needs
2. Manufacturing Costs
3. Market Size
4. Pricing
5. Additional Market Information
6. Barriers
7. Competition

## **F. Commercialization**

### **F1. Product Manufacturing, Marketing and Sales Activities**

1. Production
2. Marketing, Sales and Sales Support
3. Sales and Service Network
4. Resources

## **F2. Cash Flow Analysis**

1. Sales
2. Manufacturing Expenses
3. Operation and Marketing Expenses
4. R&D Costs
5. Capital Costs
6. Operating Cash Flow and Working Capital
7. Summary of Findings and Validation Test

## **G. Cooperation and Benefits**

## **H. Organization and Management Plan**

1. Communication
2. Organization Plan
3. New Employees
4. Consultants and Subcontractors
5. Résumés of Key Personnel

## **I. The Companies and Their Resources**

1. Year established. Ownership, Principal Business
2. Record of performance in related undertakings
3. Absorption into an Existing Structure
4. Previous Bird funded Projects
5. Relationship to Other Projects Supported by Outside Agencies
6. Financial Information
7. Number of Employees
8. Facilities, Equipment, Infrastructure to be utilized

## **J. Project Budget**

## **K. CPFA Information**

## **L. Appendix**

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### Tables List

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<b>Table No.</b>	<b>Table name</b>
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---

---

Table 1:	Estimated Sales and Revenues Forecast
Table 2:	Cash Flow Forecast
Table 3:	Total Activities and Sales Plan
Table 4:	Active Customers (Domains) per Year - Estimation Formula
Table 5:	Cost of Employees
Table 6:	Operating and Marketing Expenses
Table 7:	Cost of Capital

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### Charts List

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<b>Chart No.</b>	<b>Chart name</b>
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Chart 1:	CPI building blocks
Chart 2:	Sales & Cash Flow Forecast
Chart 3:	Total Sales Distribution
Chart 4 (a&b):	First GANTT Chart
Chart 5:	Second GANTT Chart
Chart 6:	Annual Sales by Sources of Income
Chart 7:	XXX Organization chart

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## A. Executive Summary

	Israeli Company	U.S. Company
Company name	XXX	XXX
Company location (street address, city, state)	XXX Tel: XXX	XXX Tel: XXX Fax: XXX Toll free: XXX (XXX)
Year established	2004	1987
Revenues: most recent fiscal year	Not Relevant	\$103 million
Increase / (Decrease) over previous year	Not Relevant	11 %
Number of employees	3-6 (project dependent)	630 (worldwide)
Ownership (Public / Private)	Private	Public
Percentage ownership of the company by the other company	-	-
Number of previous BIRD projects	-	-

Expected project title	XXX
Estimated project budget	\$2.4M
Expected project duration	30 months

## I. Companies Background

**XXX:** XXX is a world leader in optimization and business rules technology. More than a decade of developing innovative solutions gives XXX unique project insight. With XXX technology, one builds unparalleled software applications. XXX research and development is committed to delivering the most advanced products available. XXX is the leader in Business Rules Management Solution. Top Business Process Management and Business Integration vendors have chosen XXX XXX to include as complementary technology by providing prebuilt connectors as a standard delivery. These vendors include YYY, YYY, YYY, YYY, YYY, YYY and YYY.

XXX consistently wins technical evaluations based on Performance, Scalability, Integration, Ease of Use and Comprehensive Coverage. XXX has won some awards, among them:

Software Development Magazine's JOLT Product Excellence Award for XXX  
Gartner's XXX "Magic Quadrant" in the Leader Quadrant for Business Rule Engines  
IDC names XXX Leading Vendor in the Business Rules Management Systems Market Dec XXX

**XXX at a glance:**

- **Revenues:** \$102.8 million for fiscal 2004
- **Employees:** 630 worldwide
- **Customers:** 2,000 worldwide
- **Headquarters:** XXX and XXX
- **Subsidiaries:** XXX, XXX, XXX, XXX, XXX
- **Stock:** [XXX](#) XXX and [XXX](#)
- **History:** Founded in 1987
- **Leadership:** XXX, chairman and CEO

**XXX:** XXX specializes in the creation, management and optimization of business solutions. Among XXX's offerings are: complete solutions, modeling, simulation, realization, ROI analysis, and project management to companies employing SAP-APO™, Manugistics™, Retailx SCM™ and other optimization and management applications. XXX provides its clients a clear methodology, scorecards, and tools designed to build and maintain optimization business software efficient thus ensuring achieving the business goals behind the projects. While small in size, its unique expertise and offerings allows XXX to cooperate with leading integrators such as YYY, YYY, YYY, YYY, and others. Among XXX clients are international size companies like YYY YYY, worlds second largest Health Organization, YYY – Israel's leading mobile phone provider, YYY Ltd - a leader in Retail solutions, YYY Ltd. - Development of algorithms for base lining, YYY Ltd. – XXX analysis of web services security algorithm, and others.

XXX was established in April 2004 by Dr. XXX. XXX joined the company after managing SAP Labs for the past five years, to take the responsibility of CEO. The first year turnover till end of December 2004 is circa \$100K; the 2005 turnover is expected to be more than \$200K.

In order to successfully complete the proposed R&D project including its commercialization, following are the assets and strong points of both XXX and XXX, followed by the synergies qualities:

**XXX**

As the world's leading optimization and rule technology provider, XXX brings to the project:

- a. XXX, for creating and maintaining business rules
- b. XXX Optimization tools, experience and knowledge
- c. Customer base for the initial phase and agreements
- d. Front-end to consulting firms
- e. Integration between XXX tools and CPI

## **XXX**

XXX possesses three key points including its management, the proposed CPI methodology and the knowledge and experience in business applications, especially in the SCM arena. XXX brings to the project its unique expertise:

- a. IP of CPI including smart forecasting, score-carding and performance baseline algorithms.
- b. Business process experience and knowledge, especially in SCM.
- c. Deep vertical knowledge in Pharmaceutical, Consumer Packaged Goods, 3<sup>rd</sup> party logistics, mobile carriers
- d. R&D and analysis build-up and leadership

The resulting synergy is both obvious and significant as XXX is the clear market leader in its field and XXX as a young and highly motivated company. Joining forces and ideas will support XXX to carry the current XXX offerings one layer beyond, to the business performance levels, focusing on different vertical domains, starting with Supply Chain Management.

## **II. The Product and its Innovation**

### CPI (Continuous Performance Improvement) Background

The goal of any business system is its ability to allocate and control the flow of scarce resources (e.g. funds, manpower, goods...) into ventures of all kind (investment, distribution...). This is done by a series of actions and decisions, mostly performed automatically, by what are called 'decision support tools', which are based on the organization available data. The ability to understand, at any given time, whether the decisions influencing the flow are optimal or whether the data are appropriate to support the required decisions is limited and is usually left to the domain experts.

It is difficult to understand the effect of any single decision on the global view and it is, therefore, implicitly assumed that an improvement in any local process results in a global improvement. This implicit assumption turns, many times, to be wrong; an improvement of a local process can improve the performance of the global process but, just as likely, is capable of disturbing the global process

Taking a global view, it is evident that assumptions, introduced in design stages of the system, are used without consideration of the changing conditions and new outcomes resulting from them. Over time working with the system becomes "routine" and decisions are rarely challenged or questioned. This often leads to a gradual deterioration in overall business performance.

These problems are being considered for many years but little progress has been achieved thus far as they are so complicated and difficult to solve. Maintaining the personnel and expertise required for keeping systems optimized and efficient is beyond the means of most organizations. External supervision would usually require a learning curve - slow and expensive - before the organization can derive full benefit from it.



Thus, the current approach is a major weakness of smart decision support tools and may be the reason to the sparse acceptance of these tools beyond the boundaries of large corporations. Today's typical decision support tools provide a tailor made system but the costs of implementing it often run high above estimation, while the benefits are many times hard to measure. This syndrome is mainly due to the unique nature of each assignment which does not allow real analysis of expected ROI (Return Of Investment) before most of the system is actually built.

At the heart of the proposed product, CPI, is the ability to connect the two main Decision Tools application types: Decision Support Execution and Business Performance Monitoring under a framework that automates the expert consultant work. It provides the constant supervision required for keeping the decisions regarding performance optimal. It is performed with no disturbance to existing operations, providing the client with the expertise and benefit of high level consulting and technical abilities on a continuous basis. These benefits of CPI go beyond the benefits of any existing system that we know of.

CPI does this by providing the means to model the rules governing the business process in a systematic way and to connect the quantitative results of the process to the basic assumptions that created them. A qualitative analysis of these results, along time, identifies points where the results deteriorate, and isolates the responsible rules. An optimization process, which provides means to change the configuration of the rules, completes the procedure by suggesting a new setting that is capable of improving the overall business performance.

By automating the expert consultant work, the costs are drastically reduced. Thus, if today only large corporations can afford the use of smart decision support tools, after CPI is developed, more companies of smaller size will be able to purchase and use decision support tools. The market is expected to grow significantly. The sketch below (see sketch 1) illustrates this situation:

### **The CPI Novelty**

CPI novelty stems from the main aspects listed below:

1. The ability to define a full process objective connecting many different sub-processes from different disciplines under cost-effectiveness metrics, which allows calculation of the cost of executing a change to a sub processes against the overall expected return from the change,
2. The incorporation of domain vertical knowledge and rules with a generic system thus enabling the focusing on specific departments by modeling and determining the appropriate algorithms; and by this providing both sound technical foundation and specific domain interpretation of the results,
3. The rules defining the connection among data quality, expected noise, and expected algorithms performance.
4. The actual execution of improvements in either automatic or manual fashion.

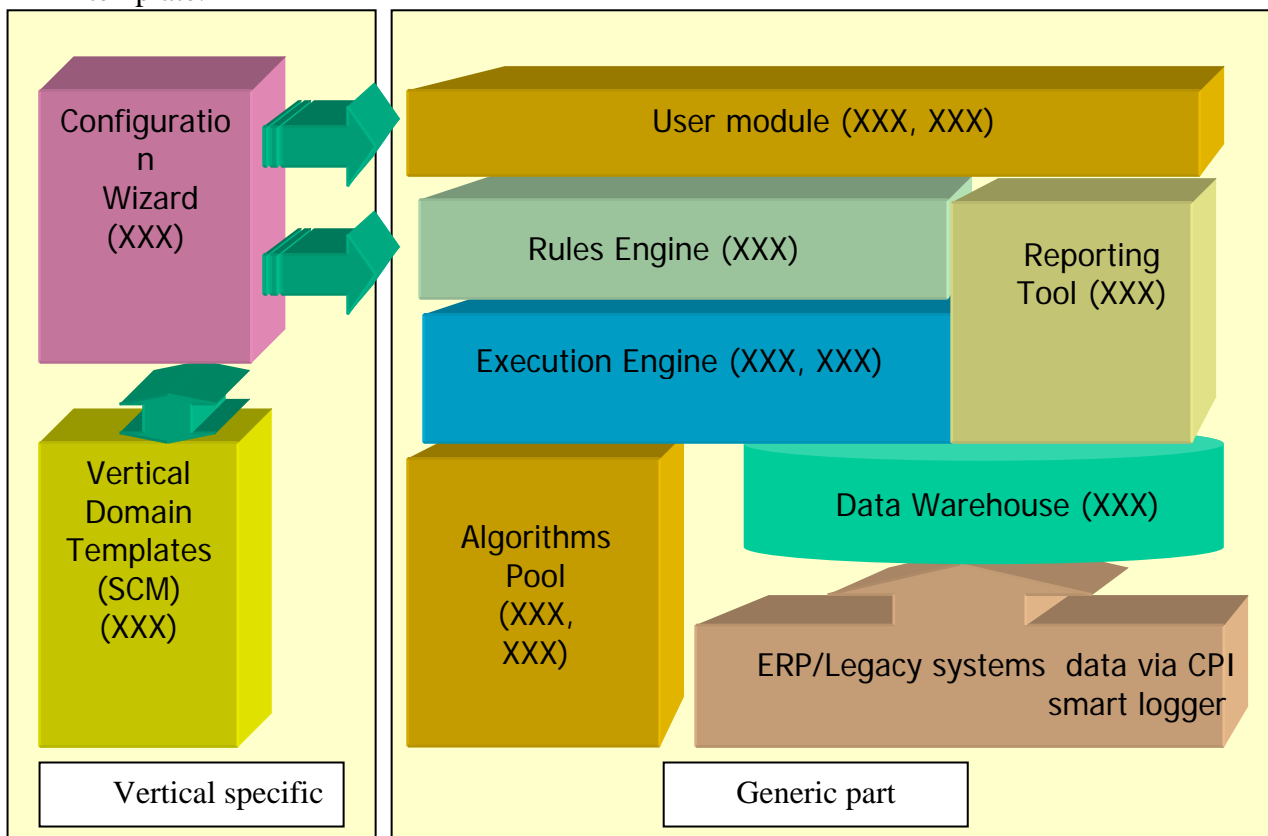
5. The combination of superior analytics, rule based approach, service methodology and state-of-the-art computerized system.

### The CPI Product

The CPI product is a comprehensive computerized system that implements the methodology described in the sections above. It consists of five generic, tightly coupled, modules, a wizard and a vertical domain template (in our project, the template covers processes in Supply Chain Management):

1. User Module
2. Rules Engine
3. Execution Engine
4. Data Warehouse Module
5. Algorithms Module

The modules are fully generic and are combined to create an application instance via the configuration wizard and a vertical template (see Figure 1). In a section C.1.1. there is complete description of the five modules, the wizard and the vertical domain template.



**Chart 1: CPI building blocks**

Due to time and cost constraints of the Bird project we decided to limit the system to deliver of line performance deterioration detection and improvement analysis. In the future, however, CPI is intended to revolutionize decision support by providing an affordable, quantifiable Decision Support system and monitoring with a well-defined ROI. The first production template is intended to be the Demand Planning (DP) template. The template covers processes in Supply Chain Management (SCM).

The domains we are planning to develop are as follows:

1. Demand Planning
2. Inventory optimization
3. Replenishment optimization
4. Distribution
5. Scheduling
6. Slot allocation

These are core domains. They are very important in SCM applications like WMS, Store Level Replenishment, Distribution Planning but are also readily applicable to other verticals like Web services inspection, HR (slot allocation, scheduling), finance (demand planning, slot allocation), production planning, etc.

After developing demand planning/forecasting properly, it can be used in all applications/verticals whose decisions are based on forecasting. So after developing the core technology of demand planning, as we are doing now, what is left is configuring it to different verticals. Therefore, there is no contradiction between developing the core CPI and the SCM domain, rather, we concentrate on those parts of the core CPI that are central to SCM but once they are ready we can easily adapt them elsewhere.

XXX fits exactly into this strategy as it provides the tools needed to develop the core algorithms and rules to tie up everything.

It is important to emphasize that we are developing CPI –SCM for the SCM world, which is very significant, with the flexibility to extend to additional verticals in a very smooth fashion.

### **III. Collaborative Relationship**

#### **General**

The roles of the companies are based on continuous cooperation leveraging the strong and competitive edge of each of the companies. In the first phase (development), XXX will be the responsible partner, leading the development and collaborating with XXX developers. In the second phase (commercialization), XXX will assume the responsibility relying on XXX for all the back-office support, and on-site when needed. XXX will use its client base and relations with world leading integration companies to market CPI directly and via its strategic partners.

Based on this plan, 70% of the budget will be allocated to XXX and the remaining 30% to XXX. XXX will contribute its know-how and experience in both the design as well as in the quality control. The complementary non-BIRD portion of the project expenses of XXX will be covered in part by XXX and the remaining by customer revenues.

### **Roles and responsibilities in R&D**

The R&D plan is built on the strengths of XXX and XXX in their respective fields. XXX executives have spent most of their working career in modeling clients systems and in optimizing real life processes. XXX has built XXX®, the world's leading rules creation and execution engine and the best algorithms infrastructure to solve problems that stem from the vertical models XXX builds and monitors. In the CPI project, the companies will leverage their relative strengths to combine the products to offer a complete CPI package for the SCM world. The package will include XXX domain template structures, and proprietary algorithms (e.g. in Demand Planning) with XXX tools. The responsibilities of each of the partners are also provided in Figure 1, in brackets.

## **IV. Commercial Potential**

The short-term commercial plan is to focus on one key mission-critical vertical domain – Supply Chain Management (SCM), leveraging the strength of XXX in this field, the customer base of XXX as well as selected customers. The long-term vision is to expand into additional vertical domains, such as finance/banking, based upon customer demands.

The supply chain execution (SCE) software market will benefit as the economy recovers and IT spending picks up. The worldwide SCE market is expected to grow at a compound annual growth rate of 9.7% during five years, rising from \$3.3 billion in 2003 to \$5.2 billion in 2008, according to ARC Advisory Group from 2003.

The SCE market includes warehousing, transportation and production management applications. ARC says different application areas are growing at different rates, and big enterprise resource planning (ERP) vendors, such as SAP and Oracle, are gaining ground in the market. The SCE makes up less than half of the total SCM market (about 38%), thus bringing us to an SCM market of \$13.7 billion in 2008, our last year of R&D. These numbers include solely the annual license sales, not the total spending by customers to consultants and integrators, which could reach \$60 billion in 2008.

Smart tools for maintaining high performance are currently a minor percentage of this total market spending, however this is the opportunity for CPI to become one of the emerging market leaders, leveraging the cooperation with consultants and systems integrators. Even if we take worst case scenario, that in 2011 only 2% of the total spending (let's even assume it remains \$60 billion) will be allocated to smart optimization tools, we are facing a \$1.2 billion dollar market opportunity for CPI's first vertical domains. Reaching a 2% market share by 2011 is a very realistic forecast.

**The economic and commercial model highlights are:**

Below is the essence of the business model. In section F.2 the business model and its basic principles are presented in detail.

- a. A positive Profit Before Tax and positive Cash Flow is generated already during Y3. By the beginning of Y5, the initial investment is returned as during Y5 significant cash flow is generated. The cumulative cash flow to Y5 amounts to about \$1.8 millions.
- b. The projected revenues, for XXX (XXX-XXX group), three years after project completion amounts to about \$48 millions with a cumulative net cash flow of about \$18 million.
- c. The total revenues that the project generates in the forecast period (see Table 3 in chapter F.2) to XXX and to the consulting firms (integrators) amounts to about \$334 millions. XXX will generate net income (after commissions to the consulting firms) of about \$192 millions. The difference between \$334 million and the \$192 is an added value or an incentive, paid to the consulting firms for their contribution to the project.
- d. The income model above is a part of the marketing and the whole business strategy of XXX. In determining the business model, we gave weight to two factors, related to the relationship between the group and the consulting firms / integrators:
  - Creation of motivation within the integrators by paying high commissions.
  - Creation of a long-term relationship between XXX and the integrators by division of future incomes, on top of the initial commission of CPI license fee.

These two factors are reflected in the income model detailed in Section F.2.

**The business model is based on the following assumptions:**

1. CPI generates both direct as well as indirect revenues (see Table 3),
2. The revenues consist of license fees, analysis (subscription) fees and consulting/implementation fees,
3. License fee - there will be no sales, and therefore, no income in the first year. The license fee will start from \$20 thousand per customer's vertical domain in the second year; however, the first 2 customers out of the 10 customers assumed in the second year will pay no license fee. In the following years of the forecast, license fee will be \$50 thousand,

4. Subscription fee – there will be no income in the first year. In 2007 the subscription fee will be \$40 thousand. In the following years of the forecast it will be \$50 thousand,
5. Every certain period of time, an analysis report will be produced by the CPI. The output of the analysis, per year, is an improvement project implemented by consultants and CPI experts (about two work months per year, in average: 40 workdays),
6. 50% of the license fee is shared with the local consulting firm or systems integrator against sales and marketing effort,
7. 10% of the subscription fee is provided to the local consulting firm or systems integrator against on-site analysis support whereas 90% is executed by the CPI experts,
8. 90% of the improvement project is executed by the local consulting firm or systems integrators with remote support (10%) by the CPI experts (\$1,200 per workday),
9. The indirect revenues generated by the local consultants consist of 50% of the license fees, 10% of the analysis fees and the major part of the actual improvement project (90%),
10. The new customer projection per year considers an eight-year interval, starting with 0 customers in Y1, a mere 10 in Y2, 30 in Y3, 90 in Y4, 225 in Y5, 350 in Y6, 450 in Y7 and 550 in Y8.
11. The customer projection (aggregated) assumes a year-to-year customer retain rate, detailed in Table 4, starting with 0 customers in Y1, 10 in Y2, 37 in Y3, 117 in Y4, 309 in Y5, 575 in Y6, 875 in Y7 and 1,207 in Y8.
12. The R&D effort begins with the CPI core, continues first to the Supply Chain Management Vertical Domain (CPI-SCM) and then, based on market demands, enters additional domains (up to half a dozen).

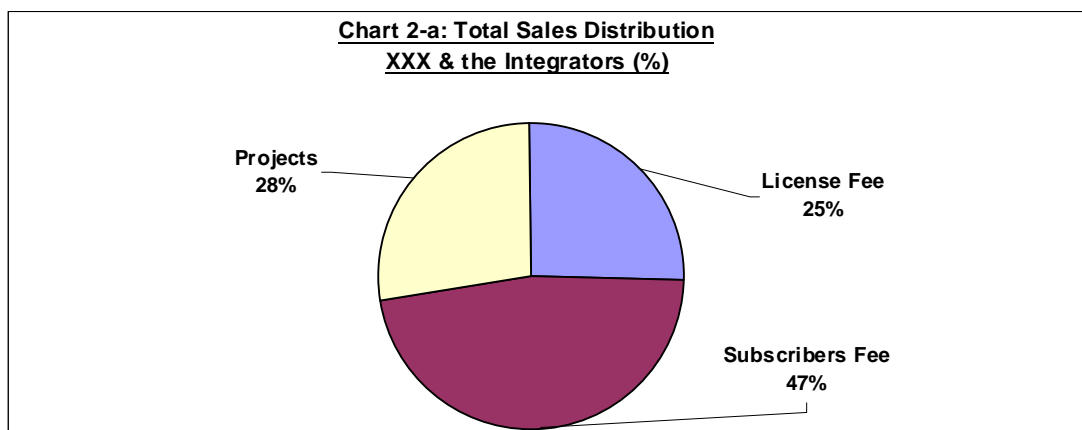
The following table (Table 1) focuses on CPI – SCM direct sales only, not taking into consideration additional verticals or indirect sales by the consulting firms. Please note that in order to be on the safe side, we took off about 30% of the above detailed table's revenues so that the following should be viewed as a conservative estimation.

The jumps are mainly due to additional instances (users or applications at an existing account). For example, a customer with one instance in the Production Plant, once satisfied with the CPI results, would enhance to the finished warehouse, raw material warehouse and more, creating 5-10 potential additional "sales of CPI" at an existing client. Therefore, with minimal marketing effort, the jumps could take place, and the actual implementation projects could be nearly a configuration exercise. Assuming we begin in the beginning of 2006, and develop

for 30 months, the three years following the termination are 2009, 2010 and 2011 with the following initial forecast:

<b>Table 1: Estimated Sales Quantity and Revenues</b>			
<b>Calendar year:</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Target market size for developed product (M\$):			
Estimated market share (%):			
Estimated Domains' No. (units):			
Estimated representative unit price (\$/unit):			
<b>Estimated sales revenue (K\$):</b>	<b>10,508</b>	<b>27,274</b>	<b>47,731</b>
Estimated cumulative sales revenue (K\$):	10,508	37,781	85,512

Below are 3 charts that show the distribution of sales income from the total activity of XXX and the integrators, XXX alone and the integrators alone to the forecast period. For a more detailed explanation, see [section F.2.](#)



As can be seen from the left chart below ([Chart 2-b](#)), most of XXX's sales are from subscription fee (73%).

**(Charts removed due to confidentiality considerations)**

**Authorized Company Officials:**

**Israeli Company**

**U.S. Company**

Signature:	_____	_____
Printed Name:	XXX XXX Ph.D.	XXX X. XXX
Title:	CTO and founder	Vice President, Strategic Projects
Date:	October 7, 2005	October 7, 2005
Tel. no.:	XXX	XXX
Email:	XXX	XXX

**Contact Person Details:**

Name:	As above	As above
Tel. no.:	_____	_____
Email:	_____	_____

*Signatures above do not constitute a legal commitment on the part of either party to undertake the*