A STRATEGIC ANALYSIS OF A SOFTWARE COMPANY IN TRANSITION

by

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PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

In the
Faculty
of
Business Administration

EMBA

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SIMON FRASER UNIVERSITY

Summer 2005

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ABSTRACT

This project provides an in depth analysis of a small software company attempting to transition business models in an evolving software market. The market for HR/Payroll software solutions is consolidating quickly and StarGarden Software must decide where its place is in the market and whether it makes sense for the company to continue to go it alone. Options include: utilizing resellers, downsizing, and becoming an acquisition target.

StarGarden also has an exciting new product line in development and this project examines the options relating to the launch of this product line in North America. StarGarden has identified large IT departments and System Integrators as possible target markets for the NeoPath product line. This project attempts to highlight the benefits of each option and make a recommendation for next steps.
EXECUTIVE SUMMARY

StarGarden is a company in transition. StarGarden’s traditional HR/Payroll software market is a mature market that is consolidating quickly. This market evolution has put considerable strain on StarGarden’s current business model. StarGarden management feels that its business strategy needs to be altered to address these market changes. StarGarden management has identified three options with regard to its traditional HR/Payroll market:

- Sell the HR/Payroll product to a larger competitor
- Attempt to complete the web interface for the HR/Payroll product by cutting costs over the next 2 years. Then attempt to heavily market the HR/Payroll product.
- Seek third-party reseller arrangements for the HR/Payroll product.

It is management’s preference to seek out third-party reseller arrangements for the HR/Payroll product and generate sufficient funds to finish the web interface for the HR/Payroll product and to contribute to the funding to launch a new product line that StarGarden’s R&D team has been working on.

StarGarden’s R&D team has produced a new product line called NeoPath. NeoPath addresses the challenge of assigning and managing authority within an organization in a timely manner. The toolkit that manages authority can also be leveraged to create workflows (mapping of tasks within an organization).
If funding can be secured for the Authority Manager product launch, StarGarden will focus on two markets, the IT departments of large organizations and System Integrator firms. IT departments of large organizations struggle with the amount of resources it takes to manage the Active Directory Service to control user privileges. The Authority Manager would streamline this process and save the IT department time and resources. Lowering network administration costs is important to all Chief Information Officers and there appears to be a need for a tool like the Authority Manager on the market.

System Integrators may be interested in the Authority Manager tool to complement their current suite of applications. System integrators are always looking for functionality to differentiate themselves from their competitors and provide their clients with better products and services. Estimates of net income earned from selling to the system integrator market demonstrate a solid return.
ACKNOWLEDGEMENTS

Thank you to everyone who has supported and assisted me through the EMBA experience. A special thank you to my husband who picked up the slack in the other areas of my life for the past two years while I completed this program. I would also like to thank StarGarden, specifically Ken Bailey, for always supporting my educational endeavours and encouraging me to utilize what I learn every day at work.

Lorraine Rieger and Mark Damm also deserve a special mention for all their guidance and advice throughout the research phase of this project. I look forward to working with both of them to execute the recommendations put forth in this project.

The WEMBA class of 2003 is an exceptional group of people. I learned a great deal from my classmates and developed friendships that will last a lifetime. My classmates made this whole experience very enjoyable and I want to thank them for that. I wish them all the best of luck.
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1 STARGARDEN STRUCTURE AND STRATEGY

1.1 Introduction

StarGarden Software is a privately held company and operates in 4 countries (Canada, USA, Australia, and New Zealand). StarGarden employs 11 people worldwide, and is still operated by the founder. StarGarden is headquartered in Vancouver and the President (founder) lives and works out of New Zealand.

StarGarden Software develops and maintains a Human Resource and Payroll software solution for medium to large unionized environments (500+ employees). StarGarden is currently developing a new product line called ‘NeoPath’ that will assist organizations with security and identity management issues and also assist in the definition of tasks throughout the organization and the delegation of the authority to properly complete them. This R&D effort is spearheaded by the President who operates the R&D team out of New Zealand.

Up until recently, StarGarden has competed with a product differentiation strategy. StarGarden felt that the functionality present in the HR/Payroll system was superior to that offered by competitors. More recently, StarGarden decided to bundle license and implementation services and compete on price. Many of the large players in the market are coming downstream and competing with a mid-size business package. StarGarden felt the pressure to do the same and drop into the price bracket below its traditional price point. Those that work on the marketing side of the business felt that StarGarden could no longer compete on functionality as many of StarGarden’s competitors invested in furthering the functionality of their existing HR/Payroll suite while StarGarden chose to spend its R&D dollars on a new product line (NeoPath). The lack of development, especially in the user interface and reporting areas, has left the standard
HR/Payroll product with stiffer competition on functionality in the market. The drop in pricing has attracted a couple of clients that StarGarden would otherwise not have attracted but StarGarden has not seen the volume of sales needed to grow the business more aggressively and fund the R&D efforts for the new product line. StarGarden’s decisions have largely been based on cash flow with an emphasis on the path most likely to generate enough cash flow to continue to fund the R&D efforts.

After considerable research, StarGarden management has decided that a viable option for the company is to create a third party reseller channel to market the HR/Payroll system. StarGarden will also create a new business unit within StarGarden that will license the new NeoPath product from StarGarden New Zealand (R&D) and use that product to build business in North America. The strategy for this new business unit will be fully explored in this paper.

1.1.1 History

StarGarden Software was founded in 1984 originally as a consulting firm specializing in developing custom software solutions utilizing Cognos Corporation’s toolset. One of the first applications that StarGarden coded was a Human Resource and Payroll system for one of the Ministries of the Provincial Government. That application became the first version of the StarGarden HR/Payroll system. The late 1980s was a time of rapid expansion for StarGarden and the company opened sales offices all over North America. Unfortunately, the rapid expansion caused the company to over extend resources and over promise on the product deliverables. In the early 1990s, the sales offices were shutdown and the software engineers went to work solidifying the product and consolidating the code so that the same code stream would run on multiple platforms. By the mid 1990s, the software engineers had turned their attention to the creation of the graphical user interface and the company began to actively market the HR/Payroll system again. The pressure on companies to evaluate their Y2K compliance and the technology boom
kept sales at a moderate pace into the early part of 2002. When the tech market plunged, so did sales at StarGarden. Since 2002, sales have been breakeven and customer attrition levels and growth at StarGarden have flat lined.

1.1.2 Structure

StarGarden has a relatively flat organizational structure:

![Organization Chart](image)

The COO is responsible for the day-to-day operation of the company, all customers in all four countries and the product management of the HIUPayroll system. The President concentrates on overall company strategy and the efforts of the R&D team in New Zealand. All administration functions including reception, accounting, and legal are outsourced.

1.1.3 Culture

There is a marked difference between the culture of the R&D team and the culture of the Support and Implementation teams. Support and Implementation have been focussed on the ongoing maintenance of the core HR/Payroll product and on customer relations. The Vancouver
office (where Support and Implementation reside) is ISO 9001:2000 certified and operations are clearly defined and understood through the use of extensive procedures and work instructions. The Vancouver operations are unlike those of a typical technology company. The employees in the Vancouver office come and go at the same times everyday and do not work overtime. The employees in the Vancouver office are long term employees (some of the employees have been with the company since its inception) and have a very comfortable team environment. There are 1 or 2 people that the team will defer decisions to regularly. When new resources are placed in the team, they quickly start to work the same hours and defer decisions to the same 2 people indicating that although it is a small team, it is very influential. When hiring, the COO has to be very careful about the type of resource that is placed in that team as upsetting the team balance can negatively affect productivity. The Support and Implementation teams have to be cognizant of their decision making processes as there is a tendency to follow the same path and it becomes difficult for the teams to think outside the box.

The R&D team is the opposite as they are charged with creating something from the ground up, not maintaining existing software. The R&D team has to think outside the box on a daily basis and the team environment is more dynamic and fast-paced. Resources work differently and sometimes very long hours to complete their tasks. Priorities shift quickly and the team has to remain flexible enough to shift with the changing priorities. The President works closely with the R&D team and it is largely his vision that the R&D team is trying to realize. The President collects input from interested parties and then translates that input into coding tasks for the development team. As the President's vision or feedback changes, the R&D team must be able to quickly switch to accommodate the changes.

The interaction between the Support team and the R&D team can be strained at times as the Support team is always evaluating the R&D team’s work based on supportability and within the confines of the current HR/Payroll system. R&D can sometimes have difficulty getting their
message across to the Support team. The R&D team on the other hand can be quite dismissive of legitimate maintenance concerns raised by the Support team. The senior member from each team has worked out ways to cooperate on development efforts without conflicting on procedural differences. Because both teams have very different focuses and ways of working, management has realized that it will be difficult to eventually merge the two units. For this reason, the organizational structure strategy of the company will focus on keeping the R&D team and the Support and Implementation teams as separate business units with a layer of resource supporting both functions to customers and the broader marketplace.
2 FINANCIAL ANALYSIS

Since 2000, many technical companies have suffered losses and StarGarden is no exception. StarGarden does not need large numbers of new sales every year and has traditionally targeted 6-12 deals that are well suited to StarGarden. Since 2000 however, StarGarden has only averaged 2-3 sales a year. StarGarden has been paying its bills off the revenue generated by existing customers through yearly maintenance payments, support calls, customization requests, and training requests. For fiscal 2004, sales revenue breaks down as follows:

Table 1 Fiscal 2004 Revenue

<table>
<thead>
<tr>
<th></th>
<th>New Sales</th>
<th>$101,663</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>Maintenance</td>
<td>$314,185</td>
</tr>
<tr>
<td>Payments</td>
<td>Services</td>
<td>$816,477</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td>$1,232,325</td>
</tr>
</tbody>
</table>

Table 2 Previous Years' Revenue

Previous years results:

<table>
<thead>
<tr>
<th>Year</th>
<th>New Sales</th>
<th>Maintenance</th>
<th>Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>208687.50</td>
<td>404921.60</td>
<td>882466.09</td>
<td>1496075.19</td>
</tr>
<tr>
<td>2001</td>
<td>230120.07</td>
<td>425272.46</td>
<td>530208.32</td>
<td>1185600.85</td>
</tr>
<tr>
<td>2002</td>
<td>144602.17</td>
<td>437389.60</td>
<td>1120712.79</td>
<td>1702704.56</td>
</tr>
<tr>
<td>2003</td>
<td>80973.85</td>
<td>393418.45</td>
<td>1104924.44</td>
<td>1579316.73</td>
</tr>
</tbody>
</table>
Expenses for fiscal 2004 break down as follows (and have been relatively consistent over the last few years):

Table 3 Fiscal 2004 Expenses

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Marketing</td>
<td>175,054</td>
</tr>
<tr>
<td>Operations</td>
<td>896,339</td>
</tr>
</tbody>
</table>

StarGarden has a relatively small client base (26 clients on maintenance, 50+ not on maintenance) and the concern is that without a decent volume of sales, normal client attrition will put the current financial situation at risk. StarGarden is also coming off a wave of large client projects (upgrades), a situation that will not be repeated in the next couple of years further adding to the concern over cash flow in the next year or two. StarGarden has also invested well over a million dollars in R&D over the last 2 years and the results of that effort are not yet ready for the general market though StarGarden has had success with initial beta sites.

2.1 Ratio Analysis

Ratio analysis was completed on June 2004 StarGarden data (fiscal year end) and compared to averages of SIC codes 7370-7374 from the Research Insight database:
Table 4 Ratio Analysis

<table>
<thead>
<tr>
<th></th>
<th>StarGarden</th>
<th>Industry (Compustat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit Margin</td>
<td>15%</td>
<td>-1603.88%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>2.08</td>
<td>2.58</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>26%</td>
<td>-680.88%</td>
</tr>
<tr>
<td>A/R Turnover</td>
<td>9.76</td>
<td>9.6</td>
</tr>
<tr>
<td>Collection Period</td>
<td>37.41</td>
<td>113</td>
</tr>
<tr>
<td>A/P Turnover</td>
<td>6.41</td>
<td>N/a</td>
</tr>
<tr>
<td>A/P Deferral Period</td>
<td>56.99</td>
<td>N/a</td>
</tr>
<tr>
<td>Cash Conversion Cycle</td>
<td>-19.58</td>
<td>142</td>
</tr>
<tr>
<td>ROIC</td>
<td>42%</td>
<td>-75.35%</td>
</tr>
<tr>
<td>Sustainable Growth/ROE</td>
<td>-27%</td>
<td>-66.39%</td>
</tr>
</tbody>
</table>

StarGarden compares strongly to the industry when comparing ratios. StarGarden shows a profit margin of 15% while the industry on average is at a loss. Current ratio is strong as is the return on assets.

StarGarden is collecting monies owed quickly and utilizing some of the credit available from suppliers. StarGarden is collecting receivables in approximately 38 days and deferring payables for 57 days. The resulting cash conversion cycle is very low at -19.58. In 2004, resulting Free Cash Flow was $43,164.

ROIC is also strong with a 42% return on invested capital. ROE is not a helpful indicator in this scenario as StarGarden has negative equity (combination of only 100, one dollar shares outstanding and carry forward losses from previous years). Perhaps similar scenarios exist in the industry as well as the ROE is also negative on average.
Although StarGarden compares favourably to the industry based on its last fiscal year, revenue forecasts for fiscal 2005 will be approximately half of fiscal 2004 and although StarGarden has continued to cut expenses over the last few months, the financial position StarGarden held in fiscal 2004 is not sustainable.
3 STRATEGIC FIT

StarGarden has had difficulty defining the strategy for the organization over the last few years. Up until 2003, StarGarden had always competed with a product differentiation strategy. StarGarden felt that the functionality present in the HR/Payroll system was superior to that of StarGarden competitors. More recently, StarGarden decided to bundle license and implementation services and compete on price due to the fact that many of the large players in the market started to come downstream and compete with a mid-size business package. StarGarden felt the pressure to do the same and drop into the price bracket below the traditional price point. The marketing side of the business also felt that StarGarden could no longer compete on functionality as many of StarGarden’s competitors invested in furthering the functionality of their existing HR/Payroll suite with better user interface and reporting options while StarGarden chose to spend its R&D dollars on a new product line. The drop in pricing has attracted a couple of clients that StarGarden would otherwise not have attracted but StarGarden has not seen the volume of sales needed to grow the business more aggressively and fund the R&D efforts for the new product line. Unfortunately, little market analysis was completed prior to the strategy shift and the decision was based on the path most likely to generate enough cash flow to continue to fund the R&D efforts.

As illustrated below in Table 1.1, StarGarden is currently stuck in the middle of the Cost Based and Differentiation strategies. StarGarden has attempted to move from the Differentiation strategy to the Cost Based strategy but not all variables have been adjusted to provide the consistency needed. At this point, StarGarden management is unsure that either of these strategies would take StarGarden into the future and management has started the process of looking for
other options for the company including building a reseller strategy, and becoming an acquisition target.

<table>
<thead>
<tr>
<th>Table 5 Strategic Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Cost Based</td>
</tr>
<tr>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Differentiation</td>
</tr>
<tr>
<td>8  9  10</td>
</tr>
<tr>
<td>Product Strategy</td>
</tr>
<tr>
<td>R&amp;D Expenses</td>
</tr>
<tr>
<td>Structure</td>
</tr>
<tr>
<td>Decision Making</td>
</tr>
<tr>
<td>Services</td>
</tr>
<tr>
<td>Labour</td>
</tr>
<tr>
<td>Marketing</td>
</tr>
<tr>
<td>Risk Profile</td>
</tr>
<tr>
<td>Capital Structure</td>
</tr>
</tbody>
</table>

*Based on Bukszar Strategy Slides, Spring 2005*

3.1 Analysis of Strategic Fit Variables

1. Product Strategy

StarGarden is a bit of a contradiction with regard to its product strategy. The president is an innovator and enjoys working with the development team much more than day-to-day business activities. The R&D team has come up with some very innovative and cutting edge concepts and prototypes. Other than the HR/Payroll product, StarGarden has had little experience bringing a prototype through testing and into the market successfully. The R&D team is reluctant to let go of a project/product until it satisfies their original vision. So, although StarGarden may have been leading edge when it had the prototype, by the time the product is ready to market, StarGarden is a follower, and often not a rapid one.

The standard HR/Payroll product has had little R&D investment other than tax updates and needed fixes. Competitors have spent R&D dollars making their legacy products more user-friendly and providing greater access to data through enhanced reporting features. StarGarden has
just recently diverted R&D effort to the user interface of the product and are going to make the interface completely web-based. This will likely take the next 8 months which will put StarGarden in a distant follower position with respect to the standard HR/Payroll product. This decision, though late in coming, is in line with a cost based strategy.

2. R&D Expenses

StarGarden spends a great deal on R&D; approximately 35% of revenues go into the R&D team in New Zealand. Comparatively, marketing receives approximately 7.5% of revenues. As the R&D team is the passion of the president, decisions are often skewed in favour of the R&D team. StarGarden has not yet received any significant revenues from the endeavours that the R&D team in New Zealand have undertaken. Almost all of StarGarden’s revenue continues to come from servicing the standard HR/Payroll product.

Given that StarGarden’s product strategy is more of a ‘follower’ strategy, the amount spent on R&D does not contribute to this strategy. StarGarden continues to spend large amounts on cutting edge investments when the actual expenditures should be lower and focused on added value to the standard HR/Payroll product so that StarGarden could compete functionally and at a lower cost.

3. Structure and Decision Making

StarGarden has spent considerable effort over the last 5 years improving its operational efficiency. StarGarden is certified to ISO 9001:2000 standards which is unusual for a software company of StarGarden’s size. All day-to-day operational and financial decisions are handled by the COO or her designate in her absence. StarGarden has a very flat structure and everything generally goes through the COO for approval or action and the COO consults with the President as need be.
The structure of the company and the way that decisions are made do generally contribute to a cost based strategy. StarGarden is run centrally with all business decisions being made by the COO and the President. Although the Product Team has some autonomy with respect to product fixes and client support, all major product decisions are deferred to the COO for final decision. StarGarden's procedures are clearly defined and understood by all employees to provide a consistent level of service and support to all clients.

4. Services

As StarGarden is a small, specialized operation, its focus is on providing a full range of services for its clients. When StarGarden makes a sale, it handles all aspects of the implementation and works with the client team to get the system up and running. StarGarden also customizes the HR/Payroll product to meet the needs of clients as required. StarGarden gets very high marks on customer surveys for responsiveness to client needs and support issues. StarGarden employees have personal relationships with clients and StarGarden goes out of its way to make sure the client gets what they need as quickly as possible. StarGarden's efforts to become ISO 9001:2000 certified were largely to deal with some of the client management issues it was having in the mid 1990s. The procedures in place make sure that each client can rely on a consistent procedure to deal with their support issues but still allows a personalized level of service.

If StarGarden was trying to implement a cost based strategy, providing all required services to clients does not contribute to the strategy nor does trying to provide a personalized service experience to the client. In a cost based strategy, it would make sense for StarGarden to concentrate on what it does best, for example, HR/Payroll customization and enhancement. Other services such as training or implementation support may be better handled by a third party allowing StarGarden to concentrate on its strengths. By trying to be everything for clients,
StarGarden is providing a service that really should attract a premium but it is a premium StarGarden is unable to capitalize on if trying to compete on price.

5. Labour

The StarGarden HR/Payroll system is built in a 4GL language called PowerHouse (a Cognos product). As PowerHouse is not a widely used language, finding programmers to work for StarGarden can be a challenge. The support team is comprised of highly skilled PowerHouse programmers and turnover in the support team is very low. The support team members are largely interchangeable and have the flexibility to work on any portion of the HR/Payroll system. Because of the complexity of the HR/Payroll product, these experienced PowerHouse programmers are essential to the ongoing maintenance of the product.

If StarGarden is competing on price, having only a highly skilled labour force works against a cost based strategy. Because of the skill involved in working with the HR/Payroll product and PowerHouse, most technical tasks cannot be offloaded to a third party or even lower skilled resources internally. If a proper analysis of the tradeoffs was completed prior to deciding to drop price and move to a cost based strategy, it would have been evident that the labour pool StarGarden has is necessary and we cannot move to a model of more mass production in this area. Only a rewrite of the system and its interface into a more widely used technology would provide StarGarden with the flexibility to offload more areas of the system to third parties or other internal resources. The fact that PowerHouse is an older technology is one of the reasons StarGarden has chosen to divert R&D dollars and rewrite the user interface into web-based technology.
6. Marketing

As mentioned above, StarGarden has not spent a great deal on marketing. In addition, the delays in getting new product from the R&D team and lack of overall strategy left the Director of Sales in an unfortunate position and ultimately led to her decision to leave StarGarden. The sales cycle in StarGarden's industry has always been long and requires a great deal of relationship building. Each sale can therefore be quite expensive. Although StarGarden dropped its price point and went for a smaller sale (both size and revenue), StarGarden continued to use the same expensive selling model and targeted largely the same market. As, the sales strategy has not been successful for StarGarden and the company was looking at overall strategy anyway, StarGarden decided to put marketing activities on hold until the direction of the company was established. StarGarden continues to respond to proposals that the company feels are a good fit for the HR/Payroll product but all other marketing activities are currently on hold.

7. Risk Profile and Capital Structure

StarGarden experienced some financial problems in the early 1990s which caused the President to take a more conservative, low-risk approach to the company. StarGarden is not leveraged at all and the company does not make any purchase or investment unless the cash is on hand. Although StarGarden has taken some risk with spending so much on R&D with no return yet, StarGarden has paid for all those efforts with existing cash.

StarGarden’s risk profile is in line with a cost based strategy but StarGarden’s capital structure is more in line with a differentiation strategy. Since the financial problems of the early 1990s, the President has insisted on a buffer of cash flow to weather down times. This strategy helped StarGarden through the lull in sales and general tech activity after the dot com bust of recent years but has kept StarGarden from taking advantage of growth opportunities unless the
company had the cash in pocket to do so. Opportunities that may have required leverage for
growth were dismissed as too risky.

StarGarden is currently stuck in the middle of a cost based and a differentiation strategy.
StarGarden has recognized that the way it does business may not make sense anymore in an
industry that is quickly consolidating. To this end, StarGarden has begun the process of further
analyzing the strategy of the company and the industry that StarGarden operates in.
4 INDUSTRY ANALYSIS

The HR/Payroll software application market is very competitive and quickly consolidating and StarGarden is struggling with how it fits into this changing marketplace. As the market that StarGarden operates in aggressively consolidates, StarGarden finds itself squeezed on all fronts and unable to successfully compete in its traditional market. One of the first steps to understanding how StarGarden fits into this changing market, is to take a more in depth look at the industry itself.

As illustrated below in Figure 1, StarGarden is facing some challenges from suppliers, customers and competitors.
Figure 1 Industry Analysis

Threat of Entry
Low

(-) R&D expenditures high
(-) Government regulation dictates software requirements
(-) Difficult to differentiate payroll product-larger number of competitors
(-) Payroll and/or HR often bundled with other software

Rivalry Among Existing Competitors
Intense

(+/-) Programmer skills needed for maintenance can be difficult to find and/or expensive
(+/-) Proprietary technology from other suppliers
(+/-) Consolidating market
(+/-) ERP providers coming down market
(+/-) PEOs coming up market
(+/-) Homogeneous product offerings
(+/-) Declining switching costs
(+/-) High exit costs

Threat of Substitutes
Moderate to High

(+/-) Payroll services more prevalent
(+/-) Co-employment arrangements gaining popularity

Bargaining Power of Suppliers
Moderate

Bargaining Power of Customers
Moderate to High

(+/-) Products seemingly more homogeneous
(+/-) Customers more sophisticated
(+/-) Product seen as an overhead application
(-) Lack of buyer concentration

Adapted from Porter, M.E. 1979
4.1 Bargaining Power of Suppliers

There are a multitude of programming languages and toolsets on the market for use in creating application products. Some companies choose to develop their own toolsets making their solutions proprietary top to bottom. Most however purchase licenses to utilize other technology in the construction of their applications. Depending on the level of utilization of third party technology, that third party may or may not have considerable bargaining power. StarGarden can be used as an example of the moderate influence a supplier may have in this industry.

StarGarden's HR/Payroll software application is written in a 4th Generation Language (4GL) called PowerHouse which is supplied by Cognos. Cognos is the largest software company in Canada and is headquartered in Ottawa. In recent years, Cognos has developed successful report writing and data mining tools that now account for almost 95% of their revenues. The Application Development Tools side of their business (where PowerHouse falls) has been in steady decline since the mid 1990s. Cognos no longer actively markets PowerHouse though they do put out new releases and collect 5% of their revenues from maintenance contracts for PowerHouse (Cognos, 2004). The development team for PowerHouse at Cognos has been shrinking as well and StarGarden has found that the quality of the PowerHouse product has decreased in recent years.

Until StarGarden rewrites the HR/Payroll product into a non-proprietary language, StarGarden is at the mercy of Cognos and their development team to supply the necessary fixes and enhancements to PowerHouse so that the StarGarden product operates correctly. StarGarden is also obligated to remit a yearly partner fee to Cognos and 15% of every licence sale. StarGarden's clients need to have PowerHouse installed prior to a StarGarden installation which adds a layer of complexity to each client site. StarGarden also uses a Cognos user interface product called Axiant. Axiant provides the user with a windows-like look and feel to the product. Axiant has been problematic and StarGarden is in the process of re-writing the user interface into
web-based technology. The backend (where all the processing occurs) of the HR/Payroll product will continue to use PowerHouse for the foreseeable future until StarGarden is able to re-write it.

Both the age of the technology StarGarden uses and the fact that it belongs to Cognos, limits the flexibility StarGarden has with regards to development and marketing efforts. For example, if StarGarden chose to waive the license fee on the HR/Payroll system in return for a larger yearly maintenance contract, StarGarden still owes Cognos a license fee. The technology itself also works against StarGarden in the sales process as buyers are often aware of how dated PowerHouse is and StarGarden and clients worry that Cognos will shelve PowerHouse altogether in the near future. To re-write the backend of the HR/Payroll product is very risky and time consuming. StarGarden is therefore bound tightly to Cognos for the next several years. This reliance causes this particular supplier to have considerable bargaining power.

The other major supplier in the industry is labour. There are certain skill sets that are more readily available on the market as there are some toolsets and languages that are used extensively in the industry. StarGarden is at a disadvantage with regards to available labour as PowerHouse skills are not easy to find on the market and when it is possible to locate them, they are extremely expensive. StarGarden has a development team that has been with the company since it started 20 years ago and StarGarden is very dependent on this team. The original product architect still does a majority of the design work for the HR/Payroll product. StarGarden is also a small company so there is little room for a large amount of redundancy to be built in to the company. StarGarden cannot afford to lose its core support and development team and for this reason, the labour component at StarGarden has considerable bargaining power. A rewrite of the product into a more mainstream technology would reduce the dependency StarGarden has on its current support and development team.
4.2 Threat of Entry

The HR/Payroll software application market has a large number of competitors currently. There are very few new entrants to this market for a variety of reasons.

The development of an HR/Payroll system requires a large investment in R&D. For example, the first release of the StarGarden product took 3 years to complete and the product is continually being improved and refined. StarGarden is now on its third major release of the product. In addition to the size of the development effort, government regulations need to be respected especially in the area of payroll. These government requirements change 2-3 times a year and thus the maintenance of a payroll system becomes an ongoing process. There is also the added pressure of the liability that clients and therefore payroll providers carry with regards to accurately calculated pay for employees and proper remittances to the government. There is very little room for errors in the payroll application field.

Because HR/Payroll rules and methods are dictated largely by government regulations, it is very difficult to differentiate one HR/Payroll system from the next other than the aesthetics of the system. The results have to be exactly the same regardless of the system used. As it is difficult to stand out in the market with a HR/Payroll system on its own, HR/Payroll is often bundled with a larger application such as a financial management system or an enterprise resource planning system.

The threat of entry into the HR/Payroll application market is therefore low. The development of a HR/Payroll system is expensive and regulated and the number of current competitors is large. It is very difficult to enter this market and stand out in such a way as to be seen as providing a value added service to clients.
4.3 Bargaining Power of Customers

Customers have become a lot more sophisticated in their software and hardware purchases. Many organizations have had the experience of buying software that was inadequate and having implementation projects that did not go well. The buyers of HR/Payroll applications (or applications in general) are now doing a much more thorough job in the selection process and attempting to keep a tighter reign on budget and timelines during an implementation. In some cases, organizations spent considerable money on a system only to realize that they could not pull out the data in a meaningful way to use within the organization. Application software that was supposed to solve all their problems ended up causing more.

An HR/Payroll system is seen as an overhead system and does not usually garner the attention of upper management as long as it continues to pay employees accurately. Organizations do not see the selection of the HR/Payroll system as core to their business model and in some cases take the attitude that the cheaper the system the better. Some customers have taken the position that unless the application supports their core business, it should be outsourced. Outsourcing options will be discussed further in the ‘Threat of Substitutes’ section.

Overall, the market is facing a savvier buyer who increasingly looks at HR/Payroll as an overhead application. The choices for buyers are increasing with the addition of payroll services and outsourcing options and it is becoming increasingly difficult for HR/Payroll providers to differentiate their products. The bargaining power of buyers is currently at a moderate to high level in the HR/Payroll application market.

4.4 Threat of Substitutes

Payroll service companies have been players in the HR/Payroll market for many years. Recently, there has been a trend to go to payroll services as organizations are tired of carrying the overhead of a large payroll department internally. Payroll is generally not thought of as central to
an organization's business and therefore could be moved out of the organization. Payroll services
companies are also extending their product and service lines to try and attract customers.
Traditionally, small companies have been the main users of payroll services but now that payroll
services are offering more services and greater access to data, larger companies are considering
payroll services as a viable option.

The giants in the payroll services arena continue to be ADP and Ceridian. ADP pays
between 30 and 43 million people in 460,000 organizations (Scott, Kies, Schoch, Wesley,
Bernard, 2003, 36) and is one of the leaders in acquisitions. ADP is acquiring software firms in
order to fill out the line of offerings for their clients. ADP has even gone as far as to offer full
outsourcing services through their Professional Employer Organization (PEO), ADP TotalSource
(Top Enterprise HRO Deals, 2004, 23). Ceridian pays approximately 23 million people and has
also been aggressively acquiring firms to fill out their product offerings (Top Enterprise HRO

There are other payroll service firms that serve very specific niche markets or geographic
areas but ADP and Ceridian have the payroll outsourcing market dominated.

Professional Employment Organizations (PEOs) are growing in popularity and size as
well. Gartner estimated that the PEO market would grow by 8% in 2004 to $131 billion dollars
(McDougall, 2004, 2). A PEO is a co-employment arrangement between a PEO company and an
employer in which the PEO takes full responsibility for the human resource administration of the
company and shares in the legal responsibility of the employees. The PEO becomes a partner in
the business (Human Resources Management Buyer’s Guide, 2005, ¶ 5). PEOs are traditionally
smaller companies that operate in specific geographic regions and partner with other small
businesses but recently, PEOs are aggressively growing through acquisition and coming up
market to compete with the larger outsourcing companies.
The PEOs are going head-to-head with established and larger players in the HR outsourcing market. HR outsourcing generally includes payroll outsourcing. The large outsourcing companies are also actively acquiring smaller firms to fill out their product line and fuel growth of the bottom line. Some of the players in this market include (Top Enterprise HRO Deals, 2004, 23-28):

- **Accenture.** Worldwide enterprise serving 900,000 employees. Offer customized and integrated HR solutions that span the entire employee lifecycle.

- **Aon.** Service 6 million employees worldwide. Services focus on employee benefits and compensation, communication and process redesign.

- **ARINSO.** Employs 1,400 staff in 22 countries. Has implemented best of breed HR solutions for more than 100 of the world’s largest companies.

- **EDS.** Serves over 26 million employees worldwide. EDS offers a full range of IT and business solutions to its clients.

- **Exult.** Serves 2 million employees. Offers a range of HR services as well as HR business process consulting.

- **Hewitt.** Serves 17 million employees worldwide. Hewitt is the largest multi-service HR delivery provider in the world.

- **IBM.** Serves 100,000 employees worldwide. Offers payroll, benefits and compensation administration, relocation services and HR technology.

- **Mellon.** Serves 15 million employees worldwide. Offers a full range of HR services.
• **Mercer.** Employs more than 15,000 people in 40 countries. Mercer specializes in compensation, benefits, communication, and human capital strategy.

• **RSM McGladrey.** Serves 30,000 employees in the USA. Offer benefits brokerage, payroll, and HR administration.

There is a blurring of offerings between competitors as illustrated by ADP entering the PEO market with ADP TotalSource, and the PEOs entering the outsourcing market and competing with some of the big players there. This blurring is indicative of the market consolidation that is happening in the application market as a whole which will be discussed further in the section below.

**4.5 Rivalry among Existing Competitors**

The small to medium enterprise (SME) market has become the focus for much of the technical world. The SME market is huge with 12.7 million companies employing between 11 and 49 people and 27.2 million companies with 1 to 10 employees (Sullivan, 2004, ¶ 6).
Microsoft is focusing on the SME market as well. Microsoft estimates the global business applications market to reach 62.1 billion dollars by 2008 and Microsoft is pursuing 35 billion dollars of that market (Evers, 2004, ¶ 2). In its attempt to attract mid market business, Microsoft acquired products such as Great Plains and Navision. Microsoft has identified another large mid market player and acquirer, Sage, as their next big target to surpass in license revenue (Burgum, 2004, ¶ 13). Sage is also an aggressive acquirer and has purchased Best Software, Timberline and Peachtree among others in an attempt to cater more to mid market verticals. Sage now has a market capitalization on the London Stock Exchange of over £2 billion (About Sage, 2005, ¶ 1).

Niche outsourcers are also making a play for the mid market. As organizations trend toward outsourcing, companies have formed to provide a full product suite for particular industries. The biggest group of niche outsourcers are catering to the municipal government market. Outsourcers such as Harris and Cartegraph are pulling together suites of product to try...
and address all the needs of the municipal governments from licensing systems to administrative systems (finance, payroll etc.).

‘Best of Breed’ companies, such as StarGarden, operating in the mid-market are feeling the pressure as the large players in the industry come down market and substitute solutions such as outsourcing and PEOs gain ground. Any deals available in the mid-market are fiercely sought after. The market for large ERP vendors has become saturated forcing them to come down market to attract clients. Large companies are also acquiring smaller firms to demonstrate growth of the bottom line. Those companies that focus on a ‘best of breed’ HR/Payroll application market are feeling the squeeze and many have positioned themselves as acquisition targets.

As technology improves, the switching costs between applications can be minimized. Data conversion from one system to another can be done more easily now in the relational database environment and there are many skilled system conversion and integrators in the marketplace to assist companies with their efforts. Many organizations have made an effort to keep their applications as vanilla as possible so as to minimize the on-going maintenance of customizations. Reducing the number of customizations also reduces the switching costs if and when an organization decides to employ a new system.

Companies in this market face high exit costs due to the large sums of money invested in their applications. It is difficult to abandon a product that may have 20+ years of coding invested in it and generates on-going maintenance revenue even if that revenue stream is in decline. Many smaller application vendors see becoming an acquisition target as their exit strategy. In a market that is consolidating quickly, this has become an attractive strategy for many.

The HR/Payroll application itself can be differentiated aesthetically and by offering different service packages to go with it. However, the end result of an HR/Payroll system,
accurate pay, is a homogeneous result. Larger companies are able to bundle HR/Payroll in with other more differentiated product and service offerings thereby providing a unique solution.

As discussed previously, more and more organizations want to outsource those functions that do not relate to their core competencies. In the public sector specifically, outsourcing or PEO arrangements have become popular options. When combined with all of the other factors in play in this market, it adds up to intense rivalry among existing competitors.

4.6 Attractiveness of the Industry

The HR/Payroll application market is not attractive for the smaller ‘best of breed’ companies. Although the threat of entry is low and the bargaining power of suppliers and buyers is reasonable and not unlike other application markets, the threat of substitutes and the intense rivalry among existing competitors makes the industry unattractive.

The SME market, where the ‘best of breed’ players concentrate is the focus of all the players in the IT industry now. ERP suites and outsourcing options in the past were out of the price range of many SMEs. ERP vendors and large outsourcing companies are creating packages of software and services in the price range of most SMEs now. Many businesses have also decided that certain functions in the organization, such as HR and Payroll, can be outsourced. Many companies prefer to not worry about that part of their business and are more actively using payroll services or PEO companies. The ‘best of breed’ HR/Payroll companies providing in-house software solutions for SMEs are feeling the pressure from all sides. Many of the smaller software companies have been acquired by larger ones as the market aggressively consolidates. To be a small company in this market is becoming increasingly difficult.
4.7 Key Success Factors

To be a success in the HR/Payroll application market (or the application market in general), the company needs to be very large or supply a very unique product that is difficult to find elsewhere. The industry is increasingly becoming dominated by the large software vendors, service providers and outsourcers. As HR/Payroll is not typically unique, most companies are satisfied to source it from the cheapest or most convenient source. Increasingly that is the service providers and outsourcers that perhaps provide the company with other services already.

Large vendors and outsourcers are fuelling further growth by acquiring companies and assuming their client base. In some cases, the acquirer is attempting to add functionality or service into their existing line. In other cases, the reason for acquisition is to acquire more customers or enter a vertical or geographic market that they have not been previously in. In any case the HR/Payroll application market is increasing becoming the ‘land of the giants’. Unless a small company can differentiate their service or product offerings at some level, there is likely not a place for them in the HR/Payroll application market.
5 VALUE CHAIN

5.1 Industry Value Chain

StarGarden participates in the entire HR/Payroll software application industry value chain. StarGarden codes, markets, implements and maintains the StarGarden HR/Payroll product. StarGarden is stronger at performing certain functions within this value chain. These strengths lie in the areas that are highlighted.

Table 6 Industry Value Chain

<table>
<thead>
<tr>
<th>Research and Development</th>
<th>Testing</th>
<th>Product Release</th>
<th>Marketing and Sales</th>
<th>Implementation and Consulting Services</th>
<th>Maintenance</th>
</tr>
</thead>
</table>

Most of StarGarden’s traditional ‘best of breed’ competitors in the HR/Payroll market also perform all steps on the value chain. Competitors have their own in-house R&D teams and also install and configure their own systems. Very little of the revenue from a sale and implementation comes from the license anymore. Most of the margin to be made is in the services that are performed to install, configure, customize, and maintain the system. Up until recently, only the very large companies (SAP, Peoplesoft, etc.) would outsource the implementation and support of their product to third-party consulting firms because their license cost was so high and provided them with sufficient revenue. As sales in the tech market have decreased in general over the last few years, even the larger players are performing more of the services surrounding
implementations and long term maintenance to extract much needed revenue from their client base.

5.2 Firm-Level Value Chain

StarGarden’s primary activities closely resemble the industry value chain. One of the main differences is that StarGarden does separate the implementation process from the ongoing consulting and maintenance services internally as the tasks are generally handled by different teams within the organization. There is overlap of team responsibilities within an implementation project but an implementation project is the responsibility of the Implementation Team. During an implementation, client requests are treated as high priority and managed in detail by the Implementation Team. Once a client is up and running in a ‘live’ production environment, their requests are handled as technical or consulting requests and queued with other ‘live’ customer requests for the Product Team to review.
### Table 7: StarGarden Value Chain

<table>
<thead>
<tr>
<th>Primary Activities</th>
<th>Research and Development</th>
<th>Marketing</th>
<th>Implementation</th>
<th>Consulting Services</th>
<th>Tech Support and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design</td>
<td>Prospects</td>
<td>Needs Assessments</td>
<td>Customization</td>
<td>Support Line 24/7</td>
</tr>
<tr>
<td></td>
<td>Testing</td>
<td>management</td>
<td>System Configuration and Training</td>
<td>Training</td>
<td>800 support</td>
</tr>
<tr>
<td></td>
<td>Product Release</td>
<td>RFP response</td>
<td>One-off requests</td>
<td></td>
<td>Line 24/7</td>
</tr>
<tr>
<td></td>
<td>Product Updates</td>
<td>Demos</td>
<td></td>
<td></td>
<td>Tax updates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Competency</th>
<th>Outsourced</th>
<th>Handled In-House</th>
</tr>
</thead>
</table>

### 5.2.1 Support Functions

StarGarden utilizes outsourced or contract resources for all non-primary activities as much as possible. StarGarden outsources reception services and general administration (photocopying, mail, courier etc.) and contracts for bookkeeping, accounting and legal services.
StarGarden also has an outsourced arrangement for network administration and hardware and software support.

StarGarden does handle Customer Relationship Management and HR functions internally. All employee matters including compensation, benefits, performance reviews, and dispute resolution are handled by the Chief Operating Officer. Customer Relationship Management is also the responsibility of the Chief Operating Officer with the administrative functions (newsletter, support renewals etc.) handled by members of the Implementation team when not working on active Implementation projects. The Quality Management System is monitored by the Chief Operating Officer with a designated Internal Auditor completing the scheduled quality audits.

5.2.2 Research and Development

The Vancouver-based StarGarden team spends approximately 14% of their time on R&D efforts. R&D projects can be requested by employees internally or come from the client base. The number of R&D requests can be overwhelming and therefore each R&D task is carefully reviewed and scoped before put into the queue for assignment and eventual installation into the standard HR/Payroll product.

The StarGarden team in New Zealand that is tasked with the new ‘Workflow’ technology devotes 100% of their time to R&D.

StarGarden’s strength with regards to R&D is in the design phase. StarGarden’s original product architects still work for the company and their knowledge of the payroll and HR function as well as the StarGarden system gives StarGarden an advantage in the speed and accuracy with which a change to the system can be scoped.
StarGarden is less strong in the testing and release phases of the R&D function. When StarGarden introduced the Quality Management System, the testing plans and procedures were revamped but up until that time, testing was a lower priority for the Product Team. The testing procedures have been steadily improving over the last 2 years but there is still considerable room for improvement. The testing is also sufficiently complex that it cannot be outsourced to third party testers or given to employees who don’t have considerable experience with the system. The technology that the StarGarden product is built in does also not give StarGarden the flexibility to easily automate the testing procedures.

Once a product update is ready for release, it needs to be scheduled to be applied to the client sites. Each client has their own set of customizations which means that every product update is a custom installation. Some clients have a considerable amount of customization and because of the uniqueness of each installation; they are quite prone to user error on the part of the technical resource applying the update. These procedures have been flagged through the Quality Management System as needing improvement and StarGarden is currently working on an online mechanism to help the technical resource with the installation process.

The following flowchart illustrates the process that StarGarden uses to evaluate, approve and complete R&D work.
Figure 3 Research and Development Process

5.2.3 Marketing

The marketing function is largely on hold while StarGarden re-evaluates its position in the market. StarGarden’s focus has been on the R&D side of the business with the President heading up the R&D function from New Zealand. A majority of StarGarden’s excess cash flow has gone into R&D projects over the last 3 years. Marketing has not been an organizational focus and therefore has not received the resources needed to make it a successful function within the company. Many of the ‘best of breed’ competitors market and sell their product very well. Some competitors have bypassed the opportunity to invest heavily in product functionality and have spent their money on marketing instead.

Because of the lack of organizational focus on the sales and marketing function, sales and marketing has never been fully developed to its potential as a revenue centre and it therefore is not a core competency of StarGarden. StarGarden has managed over the past 3 years to hold steady and add 2 or 3 clients each year (enough to cover the client attrition rate). Although the HR/Payroll market has suffered in general since Y2K and the dot com bust, most of StarGarden’s competitors have managed to fare better than StarGarden in generating revenue from new sales.

Prospects are found through a variety of methods including the web, tradeshows, industry publication advertising, and telemarketing. When the function is fully operational within the company, the following chart illustrates the standard flow of a sale from prospect to contract signing.
5.2.4 Implementation

Once a product is sold, the implementation team steps in to install and configure the HR/Payroll system. A typical implementation in a site with 500-1500 employees takes approximately 3-6 months to complete depending on the resources available on the client site. The first step of this process is to do a full needs assessment to make sure that the product is a
good fit for the organization. This phase can also be done prior to completing the sale (which is often the case) and gives the client and StarGarden an understanding if and where customization may be needed. It also highlights any configuration issues that StarGarden needs to be aware of before implementation. It is a good opportunity for the client and StarGarden teams to meet and develop a strong working relationship. StarGarden is unique in the industry in that the needs assessment is offered and usually performed before the final decision is made and the contract is signed. StarGarden utilizes the information discovered in the needs assessment to schedule resources and build a tentative implementation plan before implementation officially starts. This gives StarGarden and the potential client a head start on the project as a whole. The needs assessment can also be a point of differentiation from competitors in the sales cycle as most competitors will not spend the time to do a needs assessment without a signed contract. StarGarden has also learned that the needs assessment can be a valuable tool in spotting any red flags that could be blockers to a successful implementation. If these red flags cannot be dealt with before contract signing, StarGarden still has the option to not sell the product to that particular prospect.

Once the implementation is in full swing, three activities then begin simultaneously. The product is installed on the client server and PCs, requirements for customizations are collected, and table setup is planned in conjunction with the client team. The next couple of months of the implementation are centred on table setup and configuration, data loads from the client's legacy system and coding customizations. Once the configuration and customization phases are complete, the client moves into system and parallel testing. Only when the client is satisfied with the testing results does the product move into a production environment and the legacy system is turned off.

StarGarden has spent considerable effort standardizing and documenting the implementation process over the last few years (as part of the Quality Management System). This
standardization has made the implementation process much clearer and StarGarden resources have an easier time executing the implementation. The level of documentation allows the client user team to come up to speed quite quickly on the system. A standard implementation now takes approximately 3-6 months compared to implementations years ago that took double or triple that time.

The StarGarden HR/Payroll system is also a mature product with a large amount of functionality built into the standard version. It is very rare now that the product requires extensive customization for the client to be able to use it. The combination of standardization, documentation, and the high level of standard product functionality has made the implementation process one of StarGarden’s strengths.

The following flowchart illustrates the stages of an implementation project. StarGarden assists at each phase at levels requested by the client.
Figure 5 Implementation Process


* Note: the WI# listed in some of the flowcharts refers to Work Instructions that can be referenced through StarGarden's Quality Management System.
5.2.4.1 Customizations

Often clients will want a change to the way the base HR/Payroll product works. These customizations are evaluated request by request and some are installed into the base product for delivery to StarGarden’s entire client base. The majority however are done for one client only and remain as client source code on the client server.

The same design strengths that StarGarden has in the R&D function apply to client customizations as well. In fact, most of the advances the product has gone through over the years have been based on client requested customizations. The difference between the R&D design phase and the client customization function is that the client customization must meet the client’s needs specifically. R&D tasks are evaluated on their generic usefulness for the product and the entire client base. A client customization may not always be in the best interest of the generic product but has to satisfy the needs of the client. In some cases, StarGarden is able to design a customization that both satisfies the client needs and adds value to the standard product. A majority of the customizations however, do end up being too client specific to be of benefit for the standard product and the broader client base.

The StarGarden Product Team has considerable experience with designing changes to the system and the quotes and specifications that are produced are very accurate and solidly designed. The clients appreciate the fact that they design is functionally sound and the cost of the customization is known beforehand and can be relied upon for budgeting purposes.
Figure 6 Customization Process

5.2.4.2 Consulting Services

During and after the initial implementation phase, StarGarden provides consulting and training services. StarGarden can do business process reviews (BPR) in preparation for an install or reconfiguration, assist with report writing tools and advise on database and hardware issues. StarGarden is also called upon to do refresher training courses or train new employees when they are hired by StarGarden’s clients. StarGarden works very hard to provide a high level of service for clients and meet whatever needs they may have.

StarGarden strengths in the training arena are based in the level of knowledge of the StarGarden HR/Payroll system that is needed to be a successful trainer. The StarGarden product is very large and it takes several months to learn the product to a level where the resource could act as a trainer. All of StarGarden’s trainers are also implementers and therefore have very detailed examples and experiences to draw from in a training session. Clients can be confident that when they request training, they will be getting a StarGarden expert to run the training session.

StarGarden does not however concentrate on BPR consulting, report writing and the other one-off database and hardware requests that clients might have and so have not developed core competencies in these areas. StarGarden resources may have some knowledge and StarGarden makes every effort to assist the client but there are many experts in the industry that concentrate on BPR or other types of consulting specifically who at times would be better suited to the task. StarGarden may have an advantage in some scenarios if the HR/Payroll product is central to the analysis or consulting the client requests. Because StarGarden understands the product, StarGarden resources can more easily see where the product can be better utilized to streamline processes. Clients also may feel more comfortable using StarGarden consultants for certain tasks as they already have a solid working relationship with StarGarden.
The following flowchart illustrates how a request such as one for training, is handled within the organization:

Figure 7 Training Request Process


5.2.5 Technical Support and Maintenance

Once a client has completed their initial implementation and they are in a live production scenario with the product, the StarGarden Product Team deals with the day-to-day technical support calls that clients call and email in. Technical calls are dealt with in order of priority.
(priority 1-4) as defined in the yearly maintenance agreement that all clients have with StarGarden. StarGarden prides itself on not running a large support backlog and most clients’ issues are dealt with within a couple of hours of the original call. The technical support services are a core competency of StarGarden. The clients, when surveyed, always give StarGarden very high marks in the technical support area. Because StarGarden is a smaller company with a relatively small client base, StarGarden has the luxury of having personal relationships with its clients. Clients have someone in person to call when things go wrong. StarGarden does not employ an answering service. All calls go directly to a Product Team member on a mobile phone no matter what time of day (StarGarden provides 24x7 support). The clients appreciate knowing that they will be getting an actual person on the other end of the phone instead of a voice recording.

The client may be reporting an issue that exists in the standard product version and therefore for all clients. If this is the case, the problem is fixed in the standard product version on the StarGarden servers at the same time that it is fixed for the client. If the issue is deemed particularly risky for other clients to carry on with, it is immediately sent out to all clients as a hotfix rather than have clients wait for the fix in the next release of the product.

The other service provided by the yearly maintenance agreement is the delivery and installation of the tax updates (the government changes taxes and/or tax forms twice a year on average). Although StarGarden can design the tax update to the system quickly and get it out to clients in a timely manner, the tight timelines imposed by the government does not afford StarGarden time to thoroughly test. StarGarden must also apply the changes to all the client sites some of which have customizations that complicate the install. As mentioned previously, the installation process has not been strength of StarGarden’s and has been flagged in the Quality Management System as needing further work. The tax update process can therefore not be regarded as a StarGarden core competency.
Currently, StarGarden creates value for its clients by providing a personal level of service to address their needs in relation to the StarGarden HR/Payroll product. StarGarden attempts to
differentiate itself in this regard. For a ‘best of breed’ HR/Payroll vendor, companies have felt they have no choice but to operate in the entire value chain and attempt to extract rents where possible. StarGarden and its competitors have attempted to be everything for a client yet have been unable to charge a premium for these services as the market consolidates and squeezes out the small players.

StarGarden does provide value for its clients in the accuracy of design in customizations and in the ongoing maintenance and support of the HR/Payroll system. The StarGarden team will bend over backwards for its clients and the clients know they are not alone in any difficulty that may arise with the system.
6 THE FUTURE OF STARGARDEN HR/PAYROLL

6.1 Challenges Facing StarGarden

StarGarden does not have a core competency in the sales and marketing area as the company tends to focus on product development issues rather than business development issues. StarGarden is projecting an erosion of close to 40% of revenues in fiscal 2005. From 2000-2004, StarGarden had a healthy revenue stream from existing client service work, mainly in the form of large upgrade projects. In 2005, StarGarden's client base, although stable in numbers, has little in the way of service revenue to offer. With very few new clients to supplement the loss of service revenue, StarGarden's revenue levels will start to drop off sharply in 2005. Cash flow projections indicate that StarGarden needs $300,000 more in revenue per year to sustain current resource and overhead levels for the next 3 years. To fund further growth or to market the products coming out of R&D would take additional financial resources and is discussed in further detail below.

The HR/Payroll system market has become increasingly competitive leading to rapid consolidation. This market evolution has put further strain on StarGarden. It has already been established that StarGarden does not have a sales and marketing focus and given the size of the competitors in the market, any efforts by StarGarden pale in comparison to the efforts of some of the large software companies. Given the fierce competition in the HR/Payroll market, StarGarden management feels it has 3 options with regard to its core HR/Payroll product:

- Sell the StarGarden HR/Payroll system
- Downsize the company and attempt to complete the web user interface. Marketing efforts would resume after the new interface is complete.
• Seek third party reseller arrangements

All alternatives will be rated on the net present value of the increase to revenue, how StarGarden employees and clients will be treated, how the intellectual property would be protected, and the personal preferences of the President. The President and COO will make their decision based on the best financial outcome providing the employees and clients are treated fairly. StarGarden management would walk from a lucrative deal if there was not some level of protection afforded to the employees and the clients. The President is also concerned that if third parties are involved with the intellectual property, that it be properly protected as it is his largest asset. If the intellectual property is part of an acquisition deal, fair market value must be obtained in order for the President to sell it.

As StarGarden is privately owned, the President will make the ultimate decision about which direction StarGarden will go. The President’s personal preference is to find third party licensing or resell arrangements. If third party arrangements can not be found quickly enough, acquisition would be the President’s second choice. The President’s backup plan is to downsize and maximize the revenue stream as long as possible while attempting to complete the web user interface.

6.2 StarGarden HR/Payroll Options

6.2.1 Sell the Company and/or the HR/Payroll Product

The StarGarden HR/Payroll product is marketable in itself to large companies looking to supplement their own product offerings. Although this appears to be a rather drastic option, it is an option that warrants investigation.

The software application market is going through a period of consolidation and larger companies are acquiring smaller companies or their products to supplement their own product
offerings. This is often a much cheaper option than developing the software in house. As the StarGarden HR/Payroll product is quite large, it will likely need the R&D team to move with the product if it is sold. So this could be an option to save jobs if it comes down to that.

The HR/payroll product was valued in May 2003 as having a replacement value of 3.85 to 4.5 million dollars (Canadian). In other words, if another company wanted to be in the same position as StarGarden at the valuation date, it would cost 3.85 to 4.5 million dollars to build a HR/Payroll product of this magnitude from the ground up.

That said, it is typical in software acquisitions to pay approximately 3 times EBITDA. StarGarden’s EBITDA in fiscal 2004 was $542,846. Based on that earnings figure, the company would attract an asking price of no more than about 1.6 million dollars. The president has indicated that any offer less than 2 million dollars is not worth considering. StarGarden’s client base is small as are revenue streams and the president would prefer not to be valued on the revenue stream but rather on the value of the intellectual property as it stands today. He feels that the product is worth the 3.85 to 4.5 million dollar valuation and that if a buyer is truly interested in the intellectual property, they will pay in that price range for it.

This is not an overly attractive option for the President for other reasons as well. He enjoys the work that he currently does and even though selling the product may give him seed money enough to start up another venture; it may not be where he wants to go. The President has analyzed this option and is prepared to sell if the right offer was made with proper contingencies built in for the fair treatment of employees and clients. Sale of the StarGarden product would have to include an agreement that the StarGarden clients are treated fairly and given ample time to move off the StarGarden product if they so choose. The president values his employees and customers above all else and would want to make sure they were protected at all costs.
Of course this would be very traumatic for all involved in the company and even for those that might stay to support the product; it would be quite a culture shock to work for a new organization. Many of the employees at StarGarden have worked for the company for many years so to even have to consider working somewhere else would be quite an adjustment.

6.2.2 Downsize the Company

If all other options fail, the President is prepared to downsize the company and support the clients as long as possible while attempting to complete the web interface of the HR/Payroll system. Management feels that if current operations were scaled back, expenses could be cut by $200,000-$300,000 per year and cash flow projections would extend out far enough for completion of the web user interface (approximately 2 years). Once the web interface is completed, the product would be more viable on the market or a more attractive acquisition target. If StarGarden decided to market the web based HR/Payroll system itself, outside funding would need to be acquired to ramp up marketing efforts.

This option would involve getting agreements from StarGarden employees to remain with the company which could be problematic given that the company would be in such a small state and appear to be winding down. With the proper incentives though, employees would likely stay on. All of the clients would have to be notified and assured that they would continue to receive the support that they always have.

This option is a last resort and the President would prefer not go down this path if at all avoidable. It would be difficult to complete the web interface work with a smaller team as client support could occupy a majority of the team's time. It is a risky option as it would be a race to complete the web interface before funds from existing clients decreased to a level making operations difficult. This option involves cutting all non-technical resources so a ramp up of
business development and marketing activities after 2 years would be a ground up exercise and external funding would be needed quickly to sustain a business development team.

6.2.3 Seek Third Party Reseller Arrangements

As StarGarden is a small company and it has been established that direct sales may not be the best option to grow the company, using third parties to resell the StarGarden product could be a viable option. By using third parties effectively, StarGarden could increase its market exposure without it costing StarGarden a great deal of money.

StarGarden is currently researching the alternatives and estimates that to setup an appropriate reseller or licensing strategy, it would require 6 months of work followed by an additional 6 months of execution time. There is currently no one at StarGarden who has this type of experience so StarGarden would have to get some outside assistance and advice in structuring and negotiating these types of deals, probably in the form of an independent consultant.

StarGarden has attempted to use third parties to sell the product in the past. These deals were largely unsuccessful. StarGarden, at the time, had limited experience with these types of arrangements and ended up entering into agreements that were too restrictive and locked StarGarden out of potential markets. The resellers then did not aggressively sell the StarGarden product leaving StarGarden shut out of the market with no compensation in the form of revenue from resellers. In both instances, once the agreement expired, StarGarden went back into the market and has attempted to service those markets directly.

Because of the past unsuccessful attempts with resellers, there will be some nervousness with going down this path again. These types of arrangements can be very demanding on the technical staff as they try to meet the product obligations that the resellers are asked for by the market. The President is open to this idea and given the financial pressures that StarGarden faces
and the tight timeline StarGarden is working on feels that this may be the best option for growing the company. With the President’s support, this option could be viable for StarGarden.

It will be key to present this option to the company as a whole as a path to success. It will be an educational exercise to make sure that the questions and concerns of the StarGarden employees are dealt with in a timely manner and to get the entire team on side.

The model that StarGarden management would like to employ is one where exclusive marketing rights for territories or functions are given to resellers who will then license the product from StarGarden for a yearly fee. Given that there is a trend towards consolidation and outsourcing in the HR/Payroll market, there are two types of resellers that may be interested in this type of arrangement.

- Payroll bureau companies who need new or replacement payroll software for their bureau operations
- Software vendors attempting to bring together and integrate a full suite of software solutions for a particular industry

The pricing model for each scenario would be different. In the case of a payroll bureau company, they would pay a flat fee per year to run the HR/Payroll software in bureau mode. Total cost would depend on the number of people that are paid through the bureau service. Examples are listed in the table below.
Table 8  Payroll Bureau Licensing Model

<table>
<thead>
<tr>
<th>Base License</th>
<th># of People Paid</th>
<th>Rate Per Pay</th>
<th>Total Cost per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000</td>
<td>50,000</td>
<td>$2.00</td>
<td>$200,000</td>
</tr>
<tr>
<td>$100,000</td>
<td>100,000</td>
<td>$2.00</td>
<td>$300,000</td>
</tr>
</tbody>
</table>

One or two of these types of arrangements would satisfy the revenue requirements for the company. These types of deals would require the payroll bureau to act as first line support as StarGarden does not have the resources to perform that function. Only system development issues would be passed back to StarGarden for review. This type of arrangement will also take work up front to train the technical and end users of the system. Additional hours of training or technical development time would be billable at a preferred rate once the initial implementation period has passed. StarGarden could handle one or two of these types of deals with existing resource levels.

If a company chooses to integrate the HR/Payroll software into a suite of applications to be sold to customers, StarGarden would take a percentage of the total license sold by the reseller. This percentage would likely be negotiated reseller to reseller but StarGarden would expect approximately 15% of the license and again would not be responsible for first line support. Only system development issues would be passed back to StarGarden for review. The HR/Payroll system in this scenario would be re-branded as the reseller's product so as to present a one-stop software solution. Additional hours of training and technical development would be billable at a preferred rate once the initial integration phase is completed. The following table illustrates the possible revenue stream from a mid-size reseller:
If StarGarden was to negotiate one or two of these types of deals, it would meet immediate cash flow requirements and StarGarden would be able to handle the capacity with existing resource levels.

While management attempts to find and negotiate third party arrangements for the StarGarden HR/Payroll system, the products coming out of the R&D team in New Zealand can be positioned and marketed separately. StarGarden management is proposing that a new business unit be setup to handle the market development for the new NeoPath product line coming out of the R&D team in New Zealand.

<table>
<thead>
<tr>
<th>One-time Licensing Cost</th>
<th>Percentage of Sales</th>
<th>Typical Sale Size</th>
<th>Number of Sales per Year</th>
<th>Revenue to StarGarden</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,000</td>
<td>15%</td>
<td>$250,000</td>
<td>6</td>
<td>$255,000</td>
</tr>
</tbody>
</table>
7 PRIVILEGE MANAGEMENT BUSINESS UNIT

7.1 Product Overview

The R&D team in New Zealand have been working on a product line (NeoPath) to map business processes throughout the organization. The routing of business processes relies on the definition of authority within the organization. In other words, each business process has to know who has the authority to do what in the organization and what are the limitations surrounding that authority. The R&D encapsulated their efforts under the "Workflow" banner as most organizations have heard of workflow and many are striving to utilize workflow systems to improve efficiency and cut costs.

The R&D team has been working in conjunction with a 2 healthcare clients of StarGarden in New Zealand. The first workflow that was built was to handle the 360 degree performance evaluation system. The R&D team needed to build a set of tools in order to construct this workflow. The team decided to build a generic toolset that could be used to build any type of workflow an organization may need. They built two primary engines, an Authority Manager and a Workflow Director. The Authority Manager directs and controls what a user can see and do in an online environment based on the job description or role they play in the organization. A user may have multiple roles within an organization and it is the Authority Manager's job to define and maintain the rules of authority within the organization. The Workflow Director is the tool used to build the workflows themselves. It draws upon the Authority Manager and the multitude of systems within the organization to route tasks to the appropriate resources. Users work off of an online task list that allows them to see what tasks require their intervention and at what stage
are the tasks at. A manager could see exactly at what stage all of the tasks they are responsible for are at without having to physically track them all down.

The beta sites that have utilized the toolset have been very successful. The 360 degree performance evaluation process has been streamlined and now saves the HR department $108,000 per year. The HR department has reduced the time and effort to complete the reviews and provided employees with 24 hour access to their review forms online.

The Authority Manager tool has independent uses as well. One of the beta sites has recognized the power of the Authority Manager in managing the users and their privileges throughout the organization based on what they do. This site has tied the Authority Manager to Microsoft Active Directory to streamline their network support. This site currently has 6 resources that are used exclusively to handle the changes to user ids and privileges within the organization. Security and the management of it within an organization are top of the list of issues to be dealt with by every IT department.

StarGarden management would like to launch the Workflow product line in North America providing that an appropriate business model can be put in place and funding acquired for the initiative. Preliminary research has been conducted on the Workflow market in general as well as on the possible market for the Authority Manager tool.

7.1.1 Workflow Market

It was rather quickly ascertained that the Workflow market is saturated in North America. Workflow has become a buzzword to describe everything from document management to industry specific software applications that handle everyday transactional work. There are hundreds of small players focusing on niche markets and all of the large application vendors (Oracle, SAP etc.) have workflow integrated into their ERP systems.
Workflow is everywhere and brief run through of the factors in an industry analysis further illustrates the unattractiveness of the industry:
Figure 9 Workflow Industry Analysis

Threat of Entry

High

(+/-) Moderate R&D expenditures
(-) Often bundled with other software
(+/-) Broad application definition

Bargaining Power of Suppliers

Low

(+/-) Moderate level of programmer skill required
(-) Non-proprietary technology from other suppliers

Rivalry Among Existing Competitors

Intense

(+/-) Consolidating market
(+/-) Large number of competitors
(+/-) Homogeneous product offerings
(+/-) Declining switching costs

Threat of Substitutes

Low

(-) Internally programmed workflow scripts

Bargaining Power of Customers

High

(+/-) Products seemingly more homogeneous
(+/-) Customers more sophisticated
(-) Lack of buyer concentration

Adapted from Porter, M.E. 1979
7.1.1.1 Threat of Entry

The R&D efforts to put a Workflow solution on the market are low to moderate depending on the depth of the application. The label “Workflow” can be (and is) used to describe any application or portion of an application that streamlines a business process. As the term “Workflow” has such broad sweeping definitions, there are new players in the market all the time and many existing applications are marketing themselves as a workflow solutions.

It becomes very difficult to differentiate a workflow product when the term “Workflow” is being utilized to describe such a broad range of products. Workflow is also bundled with larger ERP solutions again making it difficult to justify the purchase of a stand alone system. All of these factors in play lead to a high threat of entry.

7.1.1.2 Bargaining Power of Suppliers

The bargaining power of suppliers is low in the Workflow scenario. Unlike the HR/Payroll application, the Workflow application is built in non-proprietary technology and there is a large pool of resources to draw from on the market. There are no licensing arrangements as there is with Cognos which frees StarGarden to pursue any type of pricing model it chooses.

7.1.1.3 Bargaining Power of Customers

Customers have quite a lot of power in the Workflow application world. Buyers are savvier than they have ever been and there are a large number of choices on the market. Most large ERP solutions have Workflow built into them and the fact that there are hundreds of solutions on the market make it difficult for the buyer to differentiate between products giving the illusion of a homogenous product offering.
7.1.1.4 Rivalry among Existing Competitors

There is intense rivalry among the players in the software application market and the Workflow application market is no different. There are a large number of competitors in the market all trying to differentiate themselves and as the market is in its early stages, there is quite a bit of consolidation going on as well. Large and mid-size players are trying to grow through acquisition and own the market space they are operating in.

Buyers are also able to switch to applications more easily as the tools for system conversion become more robust. Workflow applications generally sit on top of other applications and draw from them to build the required workflows. Because Workflow does not replace core systems (such as HR, Payroll, and Finance), it becomes easier to switch between Workflow applications.

7.1.1.5 Threat of Substitutes

The threat of substitutes is low as the Workflow application market is still relatively young and the technology (hardware, network, and communication protocols) supporting workflow has just more recently been installed in sites allowing for the easier implementation of workflow solutions.

There are larger organizations that over the years have programmed their own Workflow scripts for internal use but these tend to be programmer dependent and therefore the user is unable to easily manipulate them. Also, when the underlying systems (HR, Payroll, and Finance) change, these Workflows take large amounts of effort to retool to fit the new technical environment.

7.1.1.6 Attractiveness of the Industry

The intense rivalry and threat of substitutes makes the Workflow market very unattractive for a small player to enter. Although StarGarden feels that the underlying Authority Manager tool
is technically superior to most of the Workflow engines on the market, it would be difficult to sell those differences without a huge marketing budget or sales channel to educate users. What users have to access on the market right now suits their purposes and therefore it would be very difficult to penetrate this market at this point.

Once it was established that the Workflow market was saturated and StarGarden would have difficulty entering it, the research focus switched to the Authority Manager itself. The Authority Manager can be used stand alone and could solve a big problem that most IT departments have, the management of the privileges that users are entitled to within an organization. Current methods are labour intensive and time consuming and changes are not being made to user accounts in a timely manner. The Authority Manager functionality falls under “Privilege Management” or “Identity Management” when comparing it to other functionality on the market currently. This market is in its infancy and the large players (Microsoft, Oracle etc.) are weighing in with their solutions.

7.1.2 Identity Management Market

According to Forrester, ‘the identity management (IdM) market segment encompasses the technical and service infrastructure that allows companies to create, manage, and authenticate user identities and broker services based on the identities for use within an enterprise or in an Internet-based context.’ (Braunberg, 2005, ¶ 1). Forrester lists several drivers for the identity management industry (Braunberg, 2005 ¶ 10-19):

- Government and industry compliance issues. Sarbanes-Oxley as well as industry standards such as HIPAA (health privacy act) are forcing organizations to tightly control authority within their organizations.
• The need for vendors to provide integrated suites for clients. Vendors need single sign-on tools and tools that easily integrate authority across applications.

• There are broad security infrastructure initiatives underway that require identity management across organizations and entities. The broader the community or federation, the more concerned entities become about data security.

• IT has to demonstrate ROI now more than ever and the need to reduce network administration costs is becoming increasingly important.

• Privacy is becoming increasingly important and increasingly legislated. Organizations have to be able to demonstrate that they have taken every possible step to protect employee and customer information.

There are a number of players in the Identity Management market. Every major vendor (Oracle, Microsoft, IBM etc.) have some application that addresses at least a portion of the Identity Management market. After researching the types of applications on the market and talking at length to an industry expert (Damm), it was established that the piece of functionality that the Authority Manager addresses is not readily available in the market making a product launch of the Authority Manager a real possibility.

To better understand the place that the Authority Manager might have in an organization, an examination of where in the technology stack it falls is needed.
The Authority Manager falls into the Core Technology category which is below the line where front-line users could properly assess its value. When examined from this perspective, it becomes clear that the Authority Manager is a tool that has to be sold to a technical user who could understand its uses within an organization. Approaching end users would require too much of an education effort and the ROI of such a solution would be difficult to quantify for the end user group.

There are two main categories of technical users that StarGarden could market to:

- Those responsible for network administration of larger organizations

- System Integrators such as Accenture or EDS that would OEM the Authority Manager with their own suite of products (these could be niche players or larger companies like Microsoft)
7.2 Market Entry Strategies

7.2.1 Network Administration of Larger Organizations

As the NeoPath Authority Manager interfaces to Microsoft’s Active Directory Service, the ultimate goal is to attract the attention of Microsoft. Microsoft may decide to acquire the technology for integration with their product suite (or to simply eliminate their competition). Before approaching Microsoft, it is important to find field test sites to prove the technology in this area. StarGarden would concentrate on finding a managed services company that acts as the network administrator for many smaller firms as well as to find IT departments in larger companies who may be interested in beta testing the tool.

Initial research demonstrates that the managed services area is still a relatively new business and there are very few local companies that perform such work. StarGarden has made contact with one such firm that will likely take the tool on in beta to test the capability of managing ADS across multiple sites. A recent article in CRN Canada stresses that there are opportunities in the managed services market to be taken advantage of and this segment will likely grow. There are even companies concentrating on training solution providers to be successful managed service providers or MSPs (CRN, 2005, 14).

IT departments, depending on the size of the organization, may have multiple resources assigned to the management of ADS. As an example, one of StarGarden’s clients that employ approximately 5000 people has 6 resources dedicated to the management of ADS and the issuing and deletion of user accounts and privileges. The heads of the IT departments in larger companies are interested in any tool that can reduce departmental costs. As with most businesses today, they need to be able to do more with fewer resources and IT has felt this pressure more than any other
department. If this NeoPath Authority Manager tool can reduce network administration costs, it becomes a very attractive offering to a larger IT department.

### 7.2.1.1 Proposed Revenue Models

There would need to be two pricing models in this scenario, a pay-as-you-use model for an MSP and a straight licensing model for an IT department within an organization.

Pricing was discussed in the interview with a managed service provider (Anderson). As the managed service provider bills on a monthly basis, an up front licensing arrangement does not work well. The MSP needs to be able to pay for technology as it is installed and utilized by their client base. In the case of a tool that would manage ADS across multiple sites, they would prefer to license and pay each time they bring up a new site. As a comparative example, the licensing model of the software used to monitor external machines for the MSP was used to model the possible revenue stream for the Authority Manager product. In the case of an MSP, per ADS installed model could be used. For example:

**Table 10 MSP Pricing Model**

<table>
<thead>
<tr>
<th></th>
<th>Per ADS License Cost</th>
<th># of Clients</th>
<th># of ADS installed</th>
<th>Total License</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSP 1</td>
<td>$500</td>
<td>60</td>
<td>60</td>
<td>$30,000</td>
</tr>
<tr>
<td>MSP 2</td>
<td>$500</td>
<td>30</td>
<td>40</td>
<td>$20,000</td>
</tr>
<tr>
<td>MSP 3</td>
<td>$500</td>
<td>100</td>
<td>100</td>
<td>$50,000</td>
</tr>
</tbody>
</table>
The above licenses would be one time costs as clients as added and would give the MSP the ability to incorporate the cost in their initial quotes. A maintenance agreement could also be sold to provide standard levels of support and updates to the toolset. This could be a yearly fee or could be structured so that each upgrade is purchased as a new license. From the MSP interview, it was established that the one time cost per user was more attractive than a recurring cost model and they would prefer the option to purchase the upgrade as needed rather than be bound by a yearly maintenance payment.

The revenue model for the IT department would be a straight license sale with a maintenance contract attached. IT departments are familiar with this type of arrangement and it makes the most sense given that there would likely only be one ADS installation. Pricing for this model would be based on the proposed labour savings of the tool. If it can be established that the tool can save a full network administrator FTE in a 5,000 employee site, the license should fall in the $50,000-$70,000 range based on average network administrators wage rates. Very large organizations may achieve greater savings and the license could be scaled based on client employee count.
Table 11 Large Organization Pricing Model

<table>
<thead>
<tr>
<th>Employees</th>
<th>License Cost</th>
<th>Maintenance at 20% per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 employees</td>
<td>$50,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>10,000 employees</td>
<td>$100,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>15,000 employees</td>
<td>$150,000</td>
<td>$30,000</td>
</tr>
</tbody>
</table>

The cost implications for these two models to begin with would be minimal to StarGarden as the sales volumes would be relatively low. StarGarden would need to hire a business development resource to spearhead the sales effort but the support of this tool can be handled by the NeoPath Development team and the costs covered by the annual maintenance fees. If the sales to the IT departments were to escalate quickly, StarGarden would need to hire more technical support people and more resources to handle the end user installation and training. The sales force would likely ramp up at that point as well.

7.2.2 System Integrators

System Integrator firms offer full suites of applications and services to their defined markets. The NeoPath Authority Manager could be marketed as an addition to those product suites. The System Integrator would provide the tool and the first line support services for it. Any application that can add functionality to a product suite and differentiate the System Integrator from their competitors will be an attractive opportunity.
7.2.2.1 Proposed Revenue Model

The System Integrator market is quite large and is dominated by international giants such as Accenture, EDS, and IBM. As this market is so large, StarGarden will have to look at a reorganization and growth of the existing structure to support this model.

The pricing model for the System Integrator market could include a one-time license but also a percentage of sales of sites installed with the Authority Manager.
Table 12 System Integrator Pricing Model

<table>
<thead>
<tr>
<th>Integrator</th>
<th>Annual License</th>
<th># Clients with ADS</th>
<th>Per ADS Cost</th>
<th>Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrator 1</td>
<td>$500,000</td>
<td>200</td>
<td>$500</td>
<td>$600,000</td>
</tr>
<tr>
<td>Integrator 2</td>
<td>$500,000</td>
<td>100</td>
<td>$500</td>
<td>$550,000</td>
</tr>
<tr>
<td>Integrator 3</td>
<td>$500,000</td>
<td>50</td>
<td>$500</td>
<td>$525,000</td>
</tr>
<tr>
<td>Integrator 4</td>
<td>$500,000</td>
<td>500</td>
<td>$500</td>
<td>$750,000</td>
</tr>
</tbody>
</table>

As StarGarden would be supporting large clients, a bigger support staff would be needed.

The following table lists the additional resource cost that StarGarden would incur:
Table 13 Labour Expense

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Wage Cost</th>
<th>Benefit Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Development</td>
<td>1</td>
<td>$75,000</td>
<td>$7,500</td>
<td>$82,500</td>
</tr>
<tr>
<td>Technical Support</td>
<td>4</td>
<td>$60,000</td>
<td>$6,000</td>
<td>$264,000</td>
</tr>
<tr>
<td>End User Support</td>
<td>4</td>
<td>$60,000</td>
<td>$6,000</td>
<td>$264,000</td>
</tr>
</tbody>
</table>

There would also be some initial start up costs and some increases to overhead which are illustrated below. This new business unit would generate additional net income for StarGarden however.
Table 14 Net Income Estimate

<table>
<thead>
<tr>
<th>Revenue</th>
<th>$2,425,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start-up</td>
<td>$50,000</td>
</tr>
<tr>
<td>Additional Overhead</td>
<td>$25,000</td>
</tr>
<tr>
<td>Labour</td>
<td>$610,500</td>
</tr>
<tr>
<td>Bonus (assume 10% of revenue)</td>
<td>$242,500</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$1,497,000</td>
</tr>
<tr>
<td>Tax (assume 40%)</td>
<td>$598,800</td>
</tr>
<tr>
<td>Net Income</td>
<td>$898,200</td>
</tr>
</tbody>
</table>

7.3 Recommendation

Both options for the market entry of the NeoPath Authority Manager will require additional funding. Further exploration of each market is required to identify the size and create the list of companies to approach and to develop the strategy of how to approach them. The fact that there are two different markets that can be approached will likely make the investment opportunity more attractive for the venture capitalists. There is the possibility that if StarGarden is able to capitalize on its venture into the reseller market, the HR/Payroll side of the business could help finance the NeoPath Authority Manager product launch. Any additional funds over
and above the $300,000 needed to sustain current resource levels (which includes the NeoPath
development team) could be used to cover the $50,000 start up costs and to hire a business
development resource to start building the needed relationships. The level of contribution to this
new venture will depend on the success of StarGarden’s reseller strategy. If the reseller strategy
proves ineffective, funding for this new business unit will have to come entirely from external
sources and management will have to re-evaluate what to do with the HR/Payroll product.

7.3.1 Next Steps

If funding can be found, launch into both markets should begin at the same time. The
immediate next steps include the following:

1. Complete the market research for both target markets and develop the value
   proposition to approach the market.

2. Compile a product demonstration and product sheet.

3. Solidify the pricing and revenue models.

4. Find field test sites, get them installed and start collecting their feedback.

These steps can be completed by the COO with outside consultant assistance. If the
feedback is promising, StarGarden will prepare to go after external funding (if the reseller model
is not generating sufficient revenue). Once funding is obtained, a senior business development
resource will be hired to begin forging relationships with System Integrator firms and larger IT
departments. Additional technical and end user resources will be added to ready the product for
full release and make the necessary product changes that were identified as necessary in the field
test phase.
8 CONCLUSION

StarGarden is a company in transition. StarGarden's traditional market is a mature market that is currently consolidating quickly. StarGarden has three options with its traditional HR/Payroll market:

- Sell the HR/Payroll product to a larger competitor

- Attempt to complete the web interface for the HR/Payroll product by cutting costs over the next 2 years. Then attempt to heavily market the HR/Payroll product.

- Seek third-party reseller arrangements for the HR/Payroll product.

It is management's preference to seek out third-party reseller arrangements and generate sufficient funds to finish the web interface for the HR/Payroll product and to fund the NeoPath Authority Manager product launch.

If funding can be secured for the Authority Manager product launch, StarGarden will focus on two markets, the IT departments of large organizations and System Integrator firms. IT departments of large organizations struggle with the amount of resources it takes to manage the Active Directory Service to control user privileges. The Authority Manager would streamline this process and save the IT department time and resources. Lowering network administration costs is important to all Chief Information Officers and there appears to be a need for a tool like the Authority Manager on the market.
System Integrators may be interested in the Authority Manager tool to complement their current suite of applications. System Integrators are always looking for functionality to differentiate themselves from their competitors and provide their clients with better products and services. Estimates of net income earned from selling to the System Integrator market demonstrate a solid return.

Further research and funding is required to define market size and identify the key players and to develop the strategy to approach these two markets. StarGarden is currently working towards acquiring that funding and management is excited about the prospects for both the legacy HR/Payroll system and the new NeoPath Authority Manager.
BIBLIOGRAPHY

Works Cited


Damm, M. President of Trilogics. Multiple interviews between November 2004 and June 2005.


StarGarden internal documentation including the Quality Management Systems Procedures manual.


Works Consulted


Feinberg H., President of HROA. Phone Interview December 8, 2004.


Web Sites Consulted

http://www.hrgopher.com
http://dir.yahoo.com/Business_and_Economy/Business_to_Business/Corporate_Services/Human_Resources/Professional_Employer_Organizations
http://www.software-x.com/software/municipalities.html
http://www.citiitech.com/corporate.htm
http://www.accountingsoftware411.com
http://www.bestsoftware.com/newsroom/news
http://www.cpasoftware.com/company04a.htm
http://www.micosoft.com/msft/InvestmentandAcquisitionsList.mspx
http://www.harriscomputer.com/about/aboutmain.htm
http://www.corumgroup.com/PR-Cort.asp
http://www.softwarespectrum.com/products/default.asp
http://www.domain-b.com/companies/companies_p/peoplesoft/acquisitions.html
http://www.business.com/directory/accounting/payroll_accounting/payroll_services
http://www.accenture.com
http://www.cartegraph.com
http://www.dyrandsystems.com
http://www.novell.com
http://www.sentillion.com
http://www.ibm.com
http://www.oracle.com
http://www.microsoft.com
http://www.cisco.com