

Chironworks

Business Plan

James C. Lin

Tel: 886-972060827

Email: jamescclin@gmail.com

Skype:jamesclin827

AIM:jamesclin827

The information in this Business Plan is highly confidential and is provided to you conditioned on your agreement not to disclose or use this information for any purpose other than contemplating an investment in ChironWorks. Do not copy, fax, reproduce, or distribute without permission.

This business plan has been submitted on a confidential basis solely to selected, highly qualified investors. The recipient should not reproduce this plan nor distribute it to others without permission. Please delete this electronic copy if you do not wish to invest in the company.

Copy# 1 of 1

Table Of Contents

| | |
|---|----|
| Executive Summary | 4 |
| The Offer | 7 |
| Funds Required..... | 7 |
| Investor Equity..... | 7 |
| Inventor Equity and Royalty | 7 |
| Board of Director's Composition..... | 8 |
| Exit Mechanisms..... | 8 |
| Investor Claw Back Strategy..... | 8 |
| Business Overview | 9 |
| Description of the business..... | 9 |
| Major demographic, economic, social and cultural factors..... | 9 |
| Nature of the industry | 11 |
| Trends in the industry..... | 13 |
| Government/License regulations..... | 14 |
| Market Segment..... | 15 |
| Products & Service..... | 17 |
| Market trends..... | 18 |
| Implications or risk factors..... | 20 |
| Market Analysis..... | 21 |
| Competitors and type of competition..... | 24 |
| Competitors' strengths and weaknesses..... | 27 |
| Competitive advantage..... | 30 |
| SWOT Analysis..... | 31 |
| Sales & Marketing Plan | 33 |

| | |
|--|----|
| Customers..... | 33 |
| Advertising & promotion..... | 34 |
| Pricing & distribution..... | 36 |
| Customer service policy..... | 37 |
| Operating Plan | 38 |
| Business location & requirements/advantages/lease details..... | 38 |
| Equipment/Technology/R&D aspects..... | 40 |
| Human Resource Plan | 42 |
| Key Employee - CEO/CTO..... | 42 |
| Employees..... | 44 |
| Organizational Chart..... | 47 |
| Policies & procedures..... | 48 |
| Action Plan | 50 |
| Action plan & timetable..... | 50 |
| APPENDIX:Financial Plan | 52 |
| Assumptions made for financial forecasting..... | 52 |
| Assumptions made for approximation of discount rate..... | 53 |
| Pro Forma Income Statement - 7 years..... | 54 |
| Pro Forma Balance Sheet - 7 years..... | 55 |
| Prof Forma Cash Flow Statement - 7 years..... | 56 |
| Financial Standards..... | 57 |

Executive Summary

The worldwide market size of computers of various form factors is estimated to be 339,400,000 units in 2010 and growing at 6% annually. As each computer requires an operating system, the market potential for operating systems is enormous. As the “Babel Operating System” will be developed on 2008 hardware targeting the first 2.5% *innovators* of computer buying population, the potential initial target market of computers from 2008 to 2010 totals 23,507,500 units at product launch. The operating system market is saturated with the “desktop” paradigm which has been in existence for over 39 years and is long over due for a **paradigm shift**.

In the marketing campaign, the “Babel Operating System” will boldly proclaim to be “**the very first semantic computer capable of recording and automating human logical thinking threads**”. In a nutshell, it is a replacement for the traditional desktop managers based on the FreeBSD operating system. The User Interface design of “Babel” is a **disruptive technology** that provides a paradigm shift away from the current “desktop” paradigm. The leap in technological advance may be compared to the switch from Microsoft’s DOS command line interface to Apple’s Macintosh graphical user interface. The “Babel Operating System” is based on the inventor’s invention, Communication User Interface. The invention has broad implications in the development of computer science as we know it and will change the perception of the role of computers from a *tool* to an **extension of the human brain**.

Designed from a communication perspective, the new paradigm allows construction of “computing events” that mimics human logical thinking threads. The advantages of this new paradigm in the Internet age include enticing a much stronger emotional attachments to the computer, natural language based reference of data with context, elimination of multiple existence of the same data, interchangeable computing resource between local and remote processing power, a revolutionary interaction sequence with the computer that hides changes in technology and provides a simplified front end to the end user thus expanding the potential user base of computers, and to make available, **qualitative artificial intelligence** on the computer.

The venture is expected to produce a prototype as concept demonstration in the 6th month, full technology documentation and starting of patent applications up to Version 5.0 at 12th month and,

after a 24 month development period, Version 1.0 with **Communication User Interface** will be released to the general public worldwide at the 30th month of operation. Version 2.0 will be expected at the 48th month with **Qualitative Artificial Intelligence Engine** and computer units with the “Babel Operating System” *pre-installed* are expected to be on sale in North America. Version 3.0 will be expected at the 66th month with **English Natural Language Voice I/O Interface**. Version 4.0 will be expected at the 84th month with **Machine Sensory Integration**. Version 5.0 will be expected at the 102nd month with **Simulated Machine Consciousness**. As demonstrated, new terminologies had to be coined to express the revolutionary new ideas “Babel” proposes and theories development have reached Version 5.0.

It is important to note that Chironworks will **NOT** release Version 1.0 of “Babel” before all patentable technologies up to Version 5 have their patents applications submitted and filed. The history of operating system has proven that UI advances are notoriously difficult to patent and protect. In the 12 years of concept development, secrecy has been the operative word for the project and protected fiercely. However, it will be a top priority once Chironworks is established as an operating corporate entity.

Chironworks expects to sell Version 1.0 of “Babel Operating System” both online and in retail packaging. However, starting with Version 2.0, Chironworks will attempt to make possible for sales of “Babel Operating System” **pre-installed** on new computer systems. The tactic is vital as consumers generally do not distinguish between the cost of hardware and the cost of an operating system. In addition, the main competitor, Microsoft, generates 80% of it’s operating system revenue from OEM pre-installation of its operating systems.

The operation philosophy of Chironworks is made up of two key phrases, “market share” and “longevity”. Therefore, aside from the \$15 million initial marketing budget, 70% of revenue generated from prior year since the release of Version 1.0 will be spent recursively on marketing efforts, until “Babel” gathers sales momentum in the market. Chironworks will be in the operating system business for the long haul.

The **startup** funding requires a total of \$26 million dollars over 2.5 years, \$11 million of which will be used to develop the product, expected to be achieved in 30 months and the remaining \$15 million will be used for initial marketing campaign when the product is released in the 31st month.

The funding, expected in four tranches (3+4+4+15), will be used to establish Chironworks as a type C corporation to be located in San Francisco, California between the second half of 2008 and first half of 2009. The investors will receive equity interest in Chironworks commensurate with the value of their investment. (full financial documentation and forecasting are available in the complete business plan).

Priced at \$299 USD per copy, according to projected financial data, the venture is expected to break even by the 34th month of operation which amounts to 86,957 copies sold for an initial target market of 23,507,500. It will have an Internal Rate of Return (**IRR**) of **722%** by the end of Year 7.

The venture will be headed by the inventor James C. Lin as the CEO/CTO with backgrounds in marketing, interactive arts, software development and hardware manufacturing (full autobiography and list of other past inventions are available in the full business plan).

The Offer

Funds Required

A total investment of \$26 million is sought from an investor or investors who have experience in the software and/or marketing industries. There will be four tranches of funds required:

- The first tranche of \$3 million will be used to set up the company in San Francisco and to finance the first year of operation. The planned milestone is to have a mock-up prototype by the 6th month of operation. Technological documentation of “Babel Operating System” up to Version 3.0 will also be complete by the 12th month.
- The second tranche of \$4 million is due in the 13th month of operation. The monies will be used to finance the second year of operations namely, development work on “Babel” and application of patents.
- The third tranche of \$4 million is due in the 25th month of operation. The monies will be used to conclude the coding, testing and release readiness of the project.
- The fourth tranche of \$15 million dollars is due on the 31st month of operation. The monies will only be used for the purpose of marketing the “Babel Operating System”.

Investor Equity

For the \$ 26 million investment, the investor or investors will receive equity interest in Chironworks commensurate with the value of their investment. The financial projections forecast an Internal Rate of Return of 722% at the end of Year 7.

If the Board unanimously decides, dividends may be distributed; however, this business plan does not contemplate any dividend payments, only capital gains.

Inventor Equity and Royalty

The inventor James C. Lin has already devoted 12 years into developing the concepts of the “Babel Operating System”. The rest of Chironworks’ equity will go to the inventor for remuneration of the efforts put forth on the establishment and ongoing operations of Chironworks as a corporate entity (part of the equity will be made available for share with employees).

Board of Director's Composition

The Board will be comprised as follows:

- Investor (1 positions)
- Management Team (2 positions)
- Inventor (1 position)
- Independent Chairperson (1 position)

Exit Mechanisms

Chironworks does not need an IPO to sustain and expand its operations. It is desirous that the investor who provides the initial startup funding will remain a long term partner and receive long term remuneration for their investment. An IPO is contemplated after year 7 of operation. However, the investor may also choose to exist at the end of year 7, with priority given to Chironworks to buy back the investor equity at fair market value before other mutually agreeable third party buyers.

Investor Claw Back Strategy

If the management team fails to achieve at least 75% of the key performance criteria contained in this business plan (subject to negotiation including a mechanism for measuring the investor's, directors performance and operational support) over the 7 years, the investor will be entitled to claw back from the Management team, at no cost, 5% of the inventor's equity.

Business Overview

Description of the business

The goal is to establish Chironworks with James C. Lin (who holds dual citizenship of Taiwan and Canada) as the CEO/CTO in San Francisco area as a type C-Corporation. Chironworks will supply one single product only, the “Babel Operating System”. The company, within a 30 months time frame, will develop this software product and retail it for US\$299 dollars. In 42 months, Chironworks will be retailing notebook/desktop computers with the “Babel Operating System” pre-installed.

Major demographic, economic, social and cultural factors

The United States leads the world in computing technology, especially in the software sector. For any new operating system to be successful in the market, it first must be successful in the United States. Only when the product is widely adopted in the USA will the rest of the world follow.

Demographic

- There is currently a large number of literate persons under-served by the desktop paradigm
- Their computing needs are over-served by the current computing paradigm

Economic

- The economy is in recession, with oil price approaching \$100 a barrel, the hardware cost of a generic PC is on the rise.
- The rise of super low cost computing hardware (Exemplified by OLPC and Asus’s EeePC).

Technological

- Both Apple and Microsoft target the average consumer by positioning the personal computer as a “digital hub” for consumer electronics.
- All major operating system vendors use the “Desktop Paradigm” as the main interface, which at over 39 years old is in substantial need for change.

Legal

- Microsoft is still under legal fire for their monopolistic practice. Although this legal fire has largely been put out in the United States, other countries have taken legal actions against Microsoft as well.
- On January 29th, 2008, The district judge stated she will extend the government's oversight of Microsoft until 12 November, 2009, two years after its original expiration date, due to delays by Microsoft in filing technical documents to software licensees.¹

¹ <http://news.zdnet.co.uk/software/0,100000121,39292493,00.htm>

Nature of the industry

The market for desktop operating system is monopolized. Microsoft, with their line of operating systems dominates with over 90% market share. Every PC shipped MUST have an operating system. Microsoft offers OEM licensing of their operating systems which gets pre-installed with standard PCs manufactured by most hardware equipment manufactures due to the open hardware standard released by Intel.

Apple, on the other hand produces both the hardware and operating system as a bundle. However, due to the purchasing policies of most companies and government agencies, they are not to purchase from a single supply source. Apple has not been successful in the corporate and government environments.

Linux on the other hand, after more than a decade of collective efforts of volunteer programmers around the world, remains a bleeding edge toy for the tech-savvy. While the originator of Linux, Linus Trovalds has aspirations for world domination, it is only in this past year that major hardware manufacturers (Hewlet Packard, Compaq and Dell) offer Linux pre-installed machines to the general public.

Operating systems are indeed a unique business. Under the desktop paradigm, there is a chicken-and-egg problem. For any given new operating system to succeed, it needs third party software companies to provide useful application software, device drivers and with growing importance, games. However, for most software companies, it is not economically feasible to develop a product for an operating system with miniscule market share. One glaring failure is the BeOS by former Apple employee Jean-Louis Gassée between 1995 to 2001. While BeOS was cutting edge, it was never able to overcome the chicken-and-egg problem which ultimately led to its failure in the market. BeOS currently transformed itself to the Haiku² open source project.

² <http://haiku-os.org/>

For computer enthusiasts, there had been a popular saying: never talk about religion, politics and operating systems. Large percentages of the computer population are extremely loyal to their operating system of choice.

The nature of the operating system market makes it one of the hardest to enter and compete. **However, the opportunity to change the operating system landscape still exists when a paradigm shift comes along.**

Trends in the industry

It has been 39 years of windows and mouse based GUI system as per “the mother of all demos”³ by Douglas Engelbart on December 9, 1968. There are no indications to suggest other research to propel a paradigm shift away from the desktop paradigm.

Among the most recent advancement is the Microsoft “Surface” technology which allows multiple users to control a table top machine the size of 30 inches, which makes it impractical as notebook operating system.

Apple computer is suspected to have a multi-touch based UI in the works for desktop and notebook computers.

Gnome and KDE have not shown the tendency to leapfrog Microsoft or Apple in terms of adding pioneering features to their respective desktop managers. They both play catch up to Microsoft and Apple in terms of features and functionalities.

Another interesting development from the academic world is the concept of a “web operating system” by UC Berkeley. It is defined as operating system that solely provides Web access. However, there's an ongoing controversy upon whether the new breed of WebOSs, that include eyeOS (which is Open Source), YouOS, G.ho.st, and DesktopTwo are actually OSs that fall within the broad definition of the term⁴.

On the open source front, there is an effort “Beryl/Compiz” which attempts to develop compositing window managers for the X Window System that uses 3D graphics hardware to create fast compositing desktop effects for window management. However, it is still an effort to put glitz and cosmetic variation on the “desktop paradigm”⁵.

³ http://en.wikipedia.org/wiki/The_Mother_of_All_Demos

⁴ http://en.wikipedia.org/wiki/Web_operating_system

⁵ <http://en.wikipedia.org/wiki/Compiz>

Government/License regulations

The proposed “Babel Operating System” can be implemented on both Linux and BSD variants. Linux uses the [GPL \(GNU Public License\)](#) ; the BSDs (aside from BSDI) use variants on the [BSD License](#). The GPL requires that works derivative of GPLed works also be GPLed; in effect, enforcing the notion of "once free, always free." BSDL licenses allow BSDLed code to be turned into proprietary products.⁶

While both FreeBSD and Linux use an Open Source licensing model, the actual licenses used differ. The Linux kernel is under the [GPL license](#) while FreeBSD uses the [BSD license](#). These, and other Open Source licenses, are described in more detail at the website of the [Open Source Initiative](#).

“The driving philosophy behind the GPL is to ensure that code remains Open Source; it does this by placing restrictions on the distribution of GPLd code. In contrast, the BSD license places no such restrictions, which gives you the flexibility of keeping the code Open Source or closing the code for a proprietary commercial product.[2] Having stable, reliable code under the attractive BSD license means that many operating systems, such as [Apple OS X](#) are based on FreeBSD code. Apple’s OSX is based on Mach 3.0 and FreeBSD 5.”⁷ It also means that if you choose to use BSD licensed code in your own projects, you can do so without threat of future legal liability.⁸

This difference is the reason why FreeBSD is chosen over Linux.

⁶ <http://cbbrowne.com/info/bsd.html>

⁷ <http://developer.apple.com/opensource/index.html>

⁸ http://www.freebsd.org/doc/en_US.ISO8859-1/articles/linux-comparison/article.html

Market Segment

The initial target is the consumer market, specifically the 2.5% of computing population who are the “innovators” which according to the definition: *“Innovators are eager to try new ideas, to the point where their venturesomeness almost becomes an obsession. Innovators’ interest in new ideas leads them out of a local circle of peers and into social relationships more cosmopolite than normal. Usually, innovators have substantial financial resources, and the ability to understand and apply complex technical knowledge. While others may consider the innovator to be rash or daring, it is the hazardous risk-taking that is of salient value to this type of individual. The innovator is also willing to accept the occasional setback when new ideas prove unsuccessful (Rogers, 1971).”*⁹

This “innovator” market segment has proven to try new ideas without waiting for the influence of others and are willing to pay a premium for the privilege of using the bleeding edge technology. This group of “innovators” are diverse throughout the demographic age, education level and sex. For them, it is a psychological state of mind that drives them to new technologies. What’s more important is getting the message of the availability of “Babel Operating System” to them by choosing the right media they read/watch/listen to.

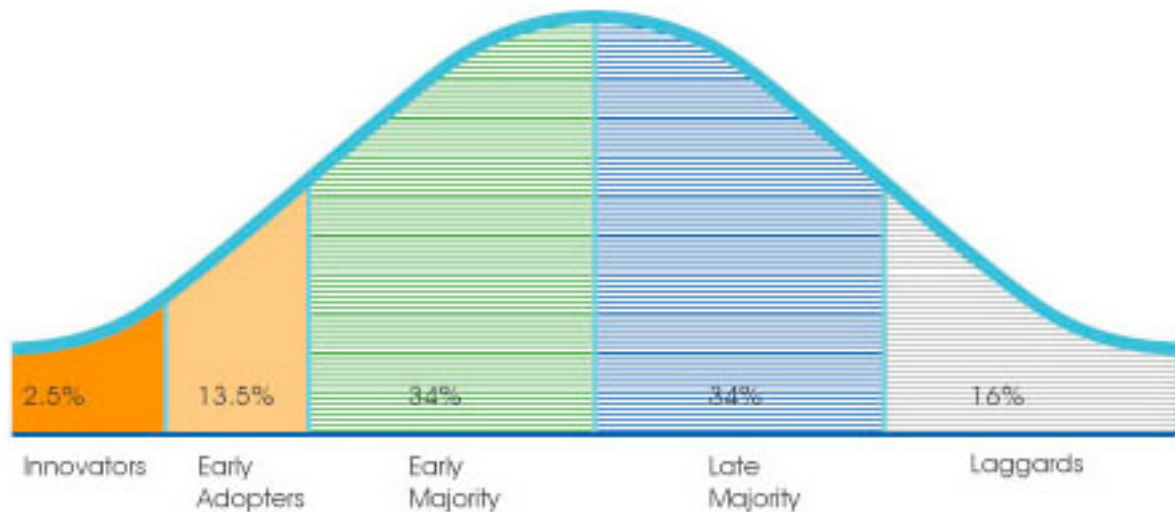
Chironworks will put special emphasis on securing market shares in the United States as the top priority. As the future leader in software development and computer usage, it is paramount that the “Babel Operating System” gains traction and acceptance in this most important market.

In the fourth year of Chironworks product sale, it plans to penetrate into the next segment of adopter categorization called “early adopters” which occupies 13.5% of the total market. *“Early Adopters” are defined as: “Early adopters tend to be integrated into the local social system more than innovators. The early adopters are considered to be localites, versus the cosmopolite innovators. People in the early adopter category seem to have the greatest degree of opinion leadership in most social systems. They provide advice and information sought by other adopters about an innovation. Change agents will seek out early adopters to help speed the diffusion*

⁹ <http://www.ou.edu/deptcomm/dodjcc/groups/99A2/theories.htm>

process. The early adopter is usually respected by his or her peers and has a reputation for successful and discrete use of new ideas (Rogers, 1971). “¹⁰

The following is a graph of adopter categorization and its distribution amongst PC buying population:



¹⁰ <http://www.ou.edu/deptcomm/dodjcc/groups/99A2/theories.htm>

Products & Service

The company Chironworks will have a single product, the “Babel Operating System”. The operating system will be based on the open source project “FreeBSD” and Chironworks’ founder James C. Lin’s invention “Communication User Interface”. Babel is a software product that will replace the current “Desktop Managers” (KDE, Gnome, OSX Finder, Windows Explorer...etc).

The Communication User Interface for which Babel is based on does not make any modification to the underlying lower level services (Kernel, Security, Shell Interface, Networking, Third-Party Networking, Base Utilities) provided by the FreeBSD base. The “Babel Operating System” will be a modular design to incorporate several software components that works as a seamless whole. Details of design are deliberately omitted from this business plan.

The resulting software replaces the current desktop/application paradigm. It provides a disruptive **paradigm shift** by supplying an even more user-friendly interaction sequence in terms of Computer-Human Interaction. In addition, it constructs an environment for recording of human logical thoughts while turning it into computer executables thus abstracting rules for artificial intelligence; making it the very first “**semantic computer**”.

Under the “desktop” paradigm, the problem is that a user has to first master the basics of the operating system, then, as needed, learn to use each new technology as presented on an application by application basis. As a result, the general user only masters the operating system and a few applications which grossly under utilize the full potential of the computer.

The “Babel Operating System” attacks this problem by providing a simplified, yet unified front end to the end user. The end user only has to know the basics of the operating system and then let their logic and imagination take over. Version 1.0 of “Babel Operating System” is also expected to entice even more emotional attachment than Apple’s OSX, thus creating stronger brand loyalty.

Market trends

The market is dominated by Microsoft with various flavors of Windows operating systems.

Microsoft took more than 5 years between the release of the market dominating Windows XP and their latest endeavor Windows Vista. Microsoft Windows variants of operating systems enjoys market share of over 90% since the release of Windows 95.

Apple takes a more incremental approach for the release of OSX. In general, Apple releases a major update to OSX between 12 to 18 months. The latest Apple offering, OSX 10.5 (Leopard) boasts over 300 new features. However, in spite of their advancements, they have not managed to get past the “Desktop Paradigm”.

Linux kernel updates daily, however, kernel improvements do not effect users directly. One popular Linux desktop manager, Gnome, updates in scheduled intervals every six months¹¹. After 10 years of development, Gnome currently stands at Version 2.2. The other popular desktop manager, KDE, started life in 1996 with its’ most current at Version 4.0, but doesn’t have a regular release schedule. Both of these two popular desktop managers have their own share of fans. However, neither Gnome nor KDE have made GUI advances ahead of either Microsoft or Apple. In other words, Gnome and KDE play catch up in terms of product features. The KDE models its’ feature set after Microsoft’s Windows, and Gnome models its’ feature set after Apple’s OSX. The only advantage Gnome and KDE enjoy is the fact that both are under GPL licensing and are both provided to end users free of charge via web download.

There has been no indication that any of these major competitors are moving past the “desktop paradigm”.

Under the desktop paradigm, a new operating system entering the market must overcome the following obstacles:

- Public perception that Windows is the PC OS standard
- Importance of MS Office productivity suit (Compatibility for file exchange, and another suite as replacement)

¹¹ <http://www.gnome.org/start/2.20/notes/en/>

- Chicken-and-egg problem of OS versus third party software developer
- Availability of online games on Windows platform (linked to the above problem).
- “Never buy version 1.0 of any software” perceived wisdom of the technology world.

“Babel” will overcome these five obstacles with a new paradigm, plus the following:

- Spend 32.89 times more marketing dollar than Microsoft for each new convert
- Support the Open Document Format and OpenOffice initiatives
- Not applicable. Due to paradigm shift, necessity for applications are greatly reduced.
- Aim for OS market share as primary objective of operation
- Not applicable to target market of “innovators”

Implications or risk factors

Secrecy of the existence of the “Babel Operating system” is imperative for the 30 months scheduled research and development period.

The reason is simple. User Interface design is a considerable difficult undertaking, yet it is also notoriously easy to copy. Legends of the Silicon Valley tell the tales many times of how Apple were inspired by the GUI concept from Xerox PARC Lab and how Microsoft copied Apple’s Macintosh GUI to develop the market dominating Windows. This is the reason why “Babel Operating System” has no mock up prototype as YET.

With 30 months of head start and patent applications up to feature set planed to Version 5.0 before the release of Version 1.0, Chironworks is expected to stay ahead of competition and fend off would be imitators.

Market Analysis

STAMFORD, Conn., March 20, 2007 — Worldwide PC shipments are forecast to total 255.7 million units in 2007, a 10.5 percent increase from 2006, while PC revenue is projected to reach \$213.7 billion, a 4.6 percent increase, according to the latest forecast by Gartner, Inc.¹²

PC Shipments by Region and Form Factor (in Millions), 2006-2011¹³

| Region | Form Factor | 2006 | 2007* | 2008* | 2009* | 2010* | 2011* |
|---------------|----------------------|-------|-------|-------|-------|-------|-------|
| USA | Desktop & x86 Server | 39.4 | 38.1 | 34.1 | 31.4 | 29.8 | 28.4 |
| | Portables | 26.1 | 31.7 | 37.6 | 43.5 | 49 | 53.6 |
| | Total | 65.5 | 69.8 | 71.7 | 74.9 | 78.8 | 82 |
| International | Desktop & x86 Server | 106.9 | 113.7 | 121.3 | 128.5 | 134.4 | 139.7 |
| | Portables | 56.3 | 74 | 93.1 | 111.5 | 126.2 | 140.7 |
| | Total | 163.2 | 187.7 | 214.3 | 240 | 260.6 | 280.4 |
| Worldwide | Desktop & x86 Server | 146.2 | 151.8 | 155.3 | 159.9 | 164.2 | 168.1 |
| | Portables | 82.4 | 105.7 | 130.7 | 155 | 175.2 | 194.3 |
| | Total | 228.7 | 257.5 | 286 | 314.9 | 339.4 | 362.4 |

*Forecast data, PCs include Desktop, Notebook, Ultra Portable, and x86 Server and does not include handhelds. Source: IDC Worldwide Quarterly PC Tracker, September 2007

¹² <http://www.gartner.com/it/page.jsp?id=502458>

¹³ <http://www.linuxelectronics.com/news/hardware/11928/pc-shipments-increase-2007>

PC Shipment Growth By Region and Form Factor, 2006-2011¹⁴

| Region | Form Factor | 2006 | 2007* | 2008* | 2009* | 2010* | 2011* |
|---------------|----------------------|--------|--------|---------|--------|--------|--------|
| USA | Desktop & x86 Server | -6.80% | -3.30% | -10.50% | -8% | -5% | -4.80% |
| | Portables | 20.70% | 21.50% | 18.60% | 15.70% | 12.60% | 9.40% |
| | Total | 2.50% | 6.60% | 2.70% | 4.40% | 5.20% | 4% |
| International | Desktop & x86 Server | 5.90% | 6.40% | 6.60% | 6% | 4.60% | 3.90% |
| | Portables | 29.10% | 31.40% | 25.70% | 19.80% | 13.20% | 11.50% |
| | Total | 12.90% | 15% | 14.20% | 12% | 8.60% | 7.60% |
| Worldwide | Desktop & x86 Server | 2.10% | 3.80% | 2.30% | 2.90% | 2.70% | 2.30% |
| | Portables | 26.30% | 28.20% | 23.60% | 18.60% | 13.10% | 10.90% |
| | Total | 9.70% | 12.60% | 11.10% | 10.10% | 7.80% | 6.80% |

*Forecast data, PCs include Desktop, Notebook, Ultra Portable, and x86 Server and does not include handhelds. Source: IDC Worldwide Quarterly PC Tracker, September 2007

By the time “Babel Operating System” is widely available to the general public in 2010, the worldwide shipment of PC is projected to reach 339.4 million annually. Of this market, Chironworks will target the 2.5% of innovators of the market.

However, as “Babel” will be developed on PCs with 2008 hardware configurations, it is safe to assume that 2.5% of 2008 and 2009 PC shipments will also meet the hardware requirements of “Babel”. Therefore, 2.5% of worldwide shipments of PC from 2008 to 2010 will be targeted by “Babel”, bringing the grand total of potential market to 23.5075 million within our target market

¹⁴ <http://www.linuxelectronics.com/news/hardware/11928/pc-shipments-increase-2007>

segment.

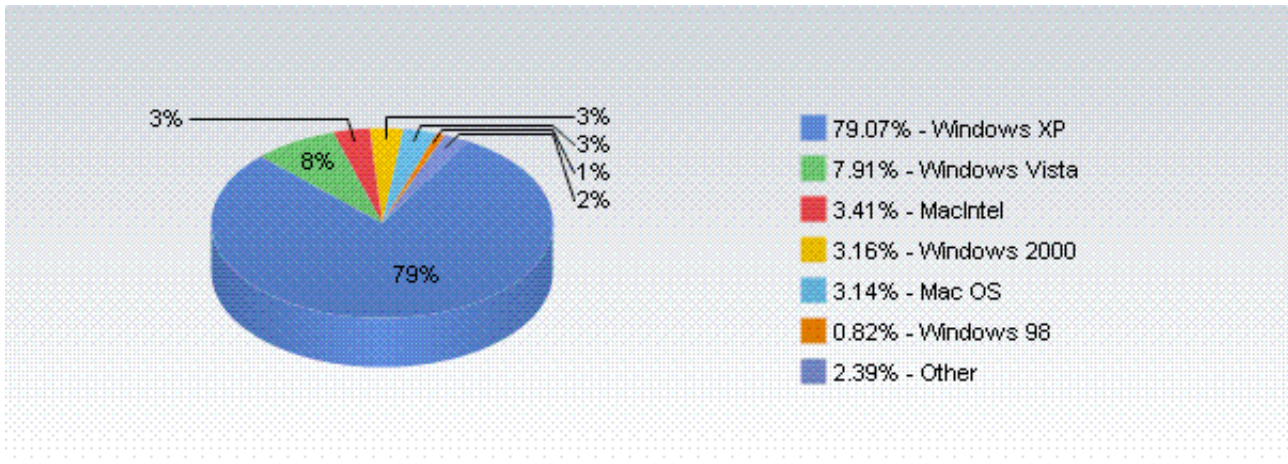
Nintendo's Wii game console is comparable to "Babel Operating System" as it also provides a significant paradigm shift in the established game consoles market. We can safely anticipate the proliferation rate to be comparable.

Nintendo Wii has shipped 13.17 million units in the first 11 months of availability. Currently, it is shipping at a rate of 1.3 million per month¹⁵. However, it is important to note that demand for the Nintendo Wii game console is higher than the speed of production. It is also important to note that Nintendo has an annual advertising budget of 200 million.

¹⁵ ¹⁵ <http://seekingalpha.com/article/51400-nintendo-s-growth-restrained-by-wii-production-shortage>

Competitors and type of competition

Operating System Market Share as of October, prepared on November 13th, 2007¹⁶



| Operating System | Total Market Share |
|----------------------|--------------------|
| Windows XP | 79.07% |
| Windows Vista | 7.91% |
| MacIntel | 3.41% |
| Windows 2000 | 3.16% |
| MacOS | 3.14% |
| Windows 98 | 0.82% |
| Linux | 0.81% |
| Windows NT | 0.61% |
| Windows ME | 0.46% |
| Pike v7.6 release 92 | 0.15% |
| Nintendo Wii | 0.11% |
| Unknown | 0.10% |
| iPhone | 0.07% |
| Windows CE | 0.06% |

¹⁶ <http://marketshare.hitslink.com/report.aspx?qprid=2>

| Operating System | Total Market Share |
|------------------|--------------------|
| Series60 | 0.03% |

Microsoft with their various flavours of Windows operating systems (XP, Vista, 2000, 98, NT, and ME) enjoys a market share of 92.03%.

Apple with (MacIntel and MacOS) enjoys a market share of 6.55%

Linux, a meager 0.81% of market share, is on the rise and have just past the hurdle of having it pre-installed on new machines sold by major hardware vendors.

| Operating System | Price |
|-----------------------------------|---------------|
| Windows Vista Home Basic | 199 |
| Windows Vista Premium | 239 |
| Windows Vista Business | 299 |
| Windows Vista Ultimate | 399 |
| Windows XP Home Edition | 199 |
| Windows XP Professional Edition | 299 |
| Apple OSX Tiger | 149 |
| Apple OSX Leopard | 129 |
| Ubuntu Linux 7.1 | \$5.99 (\$0) |
| RedHat Enterprise Linux 5 Desktop | 80 |
| RedHat Fedora 8 | \$5.99 (\$0) |
| FreeBSD 6.2 | \$39.95 (\$0) |
| NetBSD 3.1 | \$8 (\$0) |
| OpenBSD 4.2 | \$50 (\$0) |

Given the price matrix above it is important to note that price of an operating system is not the deciding factor for consumer's choice of operating systems. Whilst most Linux distributions are free, the average consumer prefer to have an working operating system pre-installed at the time of hardware purchase. The cost of operating system is part and parcel with the cost of the hardware.

The average consumer does not make detailed distinction between the cost of hardware and operating system.

Competitors' strengths and weaknesses

Microsoft

Microsoft has worldwide employees of 78,565 and net revenue of \$51.12 billion as at 2007¹⁷. It took Microsoft seven years to develop the latest offering Windows Vista. Microsoft's strength lies in the numbers of employees. For any given project, Microsoft is capable of utilizing unlimited resources.

While it has a reputation of being an imitator of Apple's products, monopolistic market share still keeps it on top as the market leader.

One other important factor that contributes to Microsoft's dominance of the operating system market is its productivity suit called "Microsoft Office". Due to proprietary file formats, The ability to run this productivity suit and exchange office files plays an significant part in the buying decision of the consumer's mind.

The weakness of Microsoft is lack of corporate culture with innovation, but it makes up for it by either buying off the competing technology or by quick copying of the technology.

Microsoft makes 80% of operating system revenue by OEM agreements with hardware manufacturers. This OEM arrangement is imperative for any new operating system desirous to enter the market.

The next version of Windows operating system, code named "Windows 7" is scheduled to be released in the year 2010. Speculation on the feature sets of Windows 7¹⁸ still expected to be refinement on the "desktop paradigm".

Apple

¹⁷ http://www.microsoft.com/presspass/inside_ms.msp

¹⁸ <http://arstechnica.com/news.ars/post/20071112-early-windows-7-feature-list-leaked-to-the-public.html>

Apple has been leading the operating system industry with innovations. Innovative company culture is its greatest strength. Furthermore, Apple has remedied NIH (Not Invented Here) syndrome and now opted to work with industry standards. This is a formidable combination that makes Apple such an important iconic figure to the computer industry as it leads the industry in innovations in both hardware and software.

With their practice of absolute secrecy towards new products, Apple often comes up with surprising products and product features that leads or creates a new industry.

Apple makes both hardware and software which are proprietary. It is a mixed blessing. Apple products have the reputation of working right out of the box. However, government agencies and most IT departments of corporations have the policy of not buying both hardware and software from a single source.

Linux

Linux has over 500 different distributions.¹⁹ Some of them aim for the desktop, some for the server market, and others for the mobile market. Each Linux distribution has own specialized technical merits, thus their respective fan base. Therefore it is only feasible to discuss “Desktop Linux” as a whole.

Linux draws strength from a vast base of volunteer contributors. In 2006, a study funded by the European Union put the redevelopment cost of kernel version 2.6.8 at 882M € (US\$1.14B)²⁰. This number does not include the others who work on other aspects of the operating system and other GPL licensed application software available. The value of a given Linux distribution will be even more staggering if the volunteer work on “applications” are included.

Linux software fixes are famous for speed and timeliness. As an open source project, contributors often have software fixes before problems are widely known. This is a sharp contrast to Microsoft and Apple who rely on in-house development teams which often takes weeks to months to provide a fix should problems be discovered.

¹⁹ <http://lwn.net/Articles/244843/>

²⁰ http://en.wikipedia.org/wiki/Linux_kernel

Linux's weakness also come from their open source nature. With over 500 Linux distributions available, each distribution pushes its own development in a slightly different direction. This means while the technical advancements are wide spread, it doesn't advance in a single significant direction. The diversified nature means Linux are not competing with Microsoft and Apple on a significant feature-by-feature manner.

Competitive advantage

As the functionalities and representation are modeled by way of human-centric design, computing tasks with relationship to real life produce a few by-products:

- Natural language based referencing of data, computing tasks and construction of computing events can be provided, as opposed to referencing schemes of file location and GUI interface elements as necessitated by desktop metaphor.
- The computer does not need to understand the context of near natural language instructions, but only needs to parse the instructions.
- Tasks, which are not related under the desktop metaphor can be chained by the construction of computing events allowing recording of the thought process of the user.
- Abstraction of rules from "computing events", the user preference and qualitative attributes of an event, allows a new innovation called **qualitative artificial intelligence**.

The advantages of the new metaphor relative to the existing desktop metaphor include:

- A simpler metaphor, easing educational requirements for entry into computing.
- Changes in technology do not affect the interface, therefore there is no need to learn on an application-by-application basis.
- A unified interface that hides the underlying technology and offers greater interoperability between various technologies.
- Reduction of repetitive tasks and multiple existences of the same data, resulting in greater overall efficiency in terms of user effort and computing resources.
- Greater variety of computing tasks, some currently unavailable/impossible.
- Computing resources available on the local computer and on the Internet are more interchangeable, resulting in a longer life span for the local hardware.
- Output using this design is more dynamic in terms of data content, type and collaborative utility relative to the means of communication.
- Reduced development time for customized software solutions.

SWOT Analysis

Strength

- Proposed product is a completely new invention which provides a **paradigm shift** in computing technology. With a complete different interaction sequence with the computer, the product will revolutionize the way computers are used and reposition its role from a tool to an extension of the human brain.

Weakness

- Lack of initial advertising budget in comparison with major competitors Microsoft and Apple. (Win95-\$200 million²¹, WinXP(MS/Intel/others)-\$1 billion²², WindowsVista-\$500 million²³)

Opportunities

- “Desktop Paradigm” has been in existence for over 39 years and is in need of an overhaul in the age of the Internet.
- Microsoft being the market leader has seen it’s latest offering Windows Vista being adopted at a slower rate than Windows XP, even with a much larger PC sales number indicating the consumers are significantly less tempted by advances in “desktop paradigm”²⁴. The market perceives Windows Vista as a failure both in terms of adoption rate and the quality of the product.
- The new market trend of low cost computing hardware is expected to proliferate through a wider demography of computer users.

Threats

- Apple’s latest OSX Leopard sold 2 million copies in 2 days indicating a strong resurgence of Apple’s OSX in the minds of the public²⁵. Though Apple’s market share is still miniscule, Apple is perceived to be the leader in innovator in operating systems.

²¹ <http://query.nytimes.com/gst/fullpage.html?res=990CE5DB1731F93BA2575BC0A963958260>

²² <http://www.news.com/2100-1001-269032.html>

²³ <http://www.istartedsomething.com/20070310/windows-tv-ads/>

²⁴ http://www.microsoft-watch.com/content/vista/stacking_vista_licenses_too_high.html

²⁵ http://blog.wize.com/my_weblog/2007/11/leopard-two-mil.html

- Consolidation of desktop Linux distributions into a single concerted effort, especially if adopted by low cost computing hardware (ie, Asus EeePC, OLPC). Of particular note is OLPC's Sugar UI based on the "Zoom Metaphor" developed by Red Hat which is also a departure from the traditional "desktop paradigm"²⁶.
- Secret long-range research projects within Microsoft and Apple. Microsoft has a research project called "Singularity OS"²⁷, which has been in the works for over 3 years and is still in the stage of designing the basic kernel. It will be interesting to see if Singularity OS breaks any new grounds in UI design in the future. Apple, on the other hand, has been applying for many "touch" based UI advancements, but these developments are still trapped within the "application" sphere. Whilst Apple has been secretive in their research projects, others have predicted that Apple will provide a paradigm shift in its next iteration of OS 11²⁸. Outsider's speculation have predicted similar features to "Babel Operation System".
- Someone else working in a garage/lab somewhere on the next computing paradigm. One such effort is the open source NEPOMUK²⁹, which stands for **Networked Environment for Personalized, Ontology-based Management of Unified Knowledge**, aiming at building a social semantic desktop. This effort, while loosely similar in goal to "Babel" still remains constrained by the desktop paradigm and will never be as capable a tool as "Babel". However, it is now been integrated into KDE 4.0's Dolphin file manager and already released on January 11th, 2008.

²⁶ http://wiki.laptop.org/go/OLPC_Human_Interface_Guidelines

²⁷ <http://research.microsoft.com/os/singularity/>

²⁸ <http://www.applematters.com/index.php/section/comments/whats-next-for-apple-os-11/>

²⁹ <http://nepomuk.semanticdesktop.org/xwiki/bin/view/Main1/>

Sales & Marketing Plan

Customers

The “Babel Operating System” initially targets the 2.5% of PC buying population. **The** “Babel Operating System” is expected to inspire strong emotional bonds of companionship between the computer and the user. The proposed computer can be used by any literate person with reasonable logical reasoning ability. Users of currently popular metaphors can adapt to the new metaphor with little difficulty.

Microsoft’s Windows XP operating system sold 210 million copies in two and half years³⁰ (Launch on Oct 25th 2001, 665 million world wide as at January 2007³¹)with a combined marketing tab of \$1 billion which translate to \$US 1.52 marketing dollar per unit sold. Chironworks plans to use 32.89 times the marketing effort in terms of dollars (\$50) to attract potential customers.

³⁰ <http://www.news.com/2100-1001-269032.html>

³¹ <http://www.itfacts.biz/global-pc-os-shares-windows-xp-743-other-windows-216/8018>

Advertising & promotion

During the first 30 months, Chironworks will keep the existence of the product in absolute secrecy.

When the product is ready for public consumption, a full page ad will be taken out with the message *“Chironworks will introduce “Babel” semantic computer in the year 2010, you’ll see why 2010 won’t be like 2010”*. This strategy is a parody on Apple’s famous Macintosh introduction commercial called “1984”. The ad will be on major newspaper publications such as New York Times, LA Times, and Washington Post. Also on major publications that reach the innovators such as PC Magazine, Linux Journal, Stuff Magazine and Scientific American. With limited advertising budget, hopefully Chironworks will receive free publicity from other medias such as television, radio and the web.

It is expected that by billing the “Babel Operating System” as **“the very first semantic computer capable of recording and automating human logical thinking threads”** that it will generate sufficient amount of free press to notify the availability of this product to the 2.5% innovators. Secondly, multipart series of articles that explains how “Babel” works will be submitted to Scientific American to sustain the publicity train and spread the news of the advantages and innovations of “Babel Operating System”.

Thirdly, online web advertising on major portal sites, such as Yahoo and YouTube, will be launched. Search Engine Optimization tactics will also be deployed with keywords such as “operating system”, “artificial intelligence” and “semantic computer”.

The final part of this plan, as a result of aforementioned three tactics, will be word-of-mouth advertising in both real-life and on the web. Once the “innovators” have had the opportunity to enjoy the technological advantages of “Babel”, the “wow” factor will help spread the gospel and create the buzz for the “Babel Operating System”. A study done in 2000 indicates that with the proliferation of the Internet, each “e-fluentials”, which comprises 8% of the Internet population, has an impact on the attitudes and behaviors of approximately 8 individuals by the year 2005³².

³² <http://www.clickz.com/showPage.html?page=395371>

As stated in the SWOT analysis, lack of advertising budget in comparison to major competitors may be the largest weakness of Chironworks. Therefore, further advertisements will depend on the advertising budget Chironworks will manage to obtain at that point in time.

Pricing & distribution

The “Babel Operating System” will be initially priced at US\$299. For the Version 1.0 of general public release, the product will be available both as downloadable CD image for advanced users who are familiar with this process which is widely used for Linux platforms. Also it will be provided as a physical CD package via online orders.

Starting with Version 2.0 of product availability, Chironworks will aggressively seek hardware manufacturer partners in Taiwan (Quanta, Asustek, Compal, Pegatron or Wistron) to produce computer systems with “Babel Operating System” pre-installed on them. This OEM arrangement will be expected to generate the majority of revenue for Chironworks (Microsoft generates 80% of its operating system revenue from OEM pre-installation³³ “). The pre-installed machines will be available to the world via online purchase, nevertheless initially with special emphasis on the North American market.

³³ http://www.microsoft.com/msft/earnings/FY07/earn_rel_q4_07.msp

Customer service policy

| Service Item | Provided |
|-----------------------------------|--|
| Per Incident Fee | \$9.99/per incident (90 days free unlimited with purchase) |
| Hours of Coverage | Standard Business Hours |
| Support Channel | Web/Email/Phone |
| Number of Cases | Unlimited |
| Initial and Ongoing Response Time | 2 business days for all issues |
| Problems covered | Installation Usage Configuration Diagnosis Bug fixes |
| Problems NOT covered | Modified software package Code development System and network design Implementation and development of security rules and policies Technology and preview features |

Operating Plan

Business location & requirements/advantages/lease details

The proposed company “Chironworks” will be established in San Francisco, California. This decision is based on the following reasons:

- California has the highest concentration of operating system experts and this is important for recruitment.
- The Golden State boasts nearly 1 million high-tech workers, more than any other state and over one-sixth of all U.S. high-tech workers³⁴.
- High-tech exports totaled over \$48 billion in 2004, ranked first nationwide, and high-tech goods represent 44% of the state’s annual exports³⁵.
- California leads the nation in 15 of 16 high-tech segments including: employment totals for computer systems design, telecommunications, research and development and testing labs, and engineering services³⁶.
- California receives approximately 45 percent of the nation’s VC investments³⁷.
- Venture capital investment in California were at over \$1 billion in 2004. The same year, California companies received more than \$9.3 billion, or 45% of all VC dollars invested in the U.S³⁸.
- Top sectors receiving VC funding are software, biotechnology, telecommunications, medical devices and semiconductors³⁹.
- *Business Facilities Magazine* announced in its May 2003 issue that four California cities dominate its new list of 20 "Top High-Tech Cities." The four cities are San Jose (#1), San Diego

³⁴ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

³⁵ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

³⁶ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

³⁷ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

³⁸ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

³⁹ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

(#6), San Francisco (#7), and Santa Clara (#18)⁴⁰.

The main reasons why San Francisco is chosen:

- The economy is closely tied to Silicon Valley to the south.
- Sufficiently close enough to Silicon Valley for hi-tech human resources.
- Sufficiently away from Silicon Valley to keep Chironworks away from spot-light while developing product.
- More than 2,800 Bay Area companies produce computers, semiconductors and related components, scientific instruments, and various other electronic systems and equipment⁴¹.
- Nearby Silicon Valley, along with Stanford University, are considered to be among the places where the worldwide technology boom began, and they remain on the leading edge today⁴².
- Businesses that create new permanent jobs in San Francisco receive a two-year credit against their city payroll tax liability for the new employees as part of the New Jobs Tax Credit.⁴³

The business office must have the capacity for at least 25 employees and meeting room facilities. Ideally the office will be near by a park and food amenities. The lease of office space should last for the first 42 months of Chironworks' operation. Depending on the revenue and human resource requirements, expansion will then be considered. Note, the lease contract for the office space will be on a year-by-year basis in anticipation of rapid growth.

⁴⁰ <http://www.labor.ca.gov/calBIS/cbcalbusadvantage.htm>

⁴¹ <http://www.city-data.com/us-cities/The-West/San-Francisco-Economy.html>

⁴² <http://www.city-data.com/us-cities/The-West/San-Francisco-Economy.html>

⁴³ <http://www.city-data.com/us-cities/The-West/San-Francisco-Economy.html>

Equipment/Technology/R&D aspects

Technology/R&D

There are four variants of BSD. The Darwin project is completely open source. Apple makes the system and source code available online, and changes to the Darwin code are rolled back into the FreeBSD source tree. NetBSD was developed to support as wide a platform base as possible. OpenBSD development began by focusing on producing an incredibly secure OS, and it's an approach that continues to this day. However, FreeBSD is chosen as the basis of "Babel", because the main focus for FreeBSD is high performance, ease of use and stability. FreeBSD holds the unofficial record for transferring data, having achieved more than 2 Terabytes of data from one server running the OS. It follows from this statistic that FreeBSD is also one of the most stable operating systems available. The developers of FreeBSD put a lot of effort into making the system as easy to use as possible. Thus, FreeBSD has one of the easiest installs of all the Unix platforms⁴⁴. Another essential aspect of FreeBSD is the Linux Binary Compatibility⁴⁵ layer that gives FreeBSD access to 90% of applications written for Linux.

Chironworks will attempt to strike a partnership deal with Skype to develop the VoIP and Video Conference capability of "Babel Operating System". Chironworks will concentrate its' efforts on the core "Babel". The choice of Skype is made for three important reasons:

- Technological superiority over other IM based VoIP technology.
- Skype, unlike MSN by Microsoft, is not a direct competitor in the operating system arena.
- As of July 2007, there are a little over 220 million Skype users throughout the world⁴⁶.

Another strategic alliance needs forming for Version 3.0 of "Babel Operating System" is with Nunance Communications for its Dragon NaturallySpeaking voice recognition engine to provide English Natural Language Voice I/O Interface.

⁴⁴ http://www.serverwatch.com/tutorials/article.php/10825_3393051_2

⁴⁵ http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/linuxemu.html

⁴⁶ <http://infoboulevard.com/articles/computer/A-look-at-what-caused-Skype-to-shut-down.txt>

These are the only two outside sources of technology needed for the development of “Babel Operating System” from Version 1.0 to Version 5.0. The rest of required technology will be developed in-house by Chironworks.

Human Resource Plan

Key Employee - CEO/CTO

James C. Lin was born in Taiwan on August 27th, 1972 and holds dual citizenship from Taiwan and Canada. He immigrated to Toronto, Canada in 1986 and received his high school diploma and then university education at York University where he received a BAS degree in marketing. Starting from 1992, he became interested in computers, especially in the user interface designs of operating systems. He spent most of his free time playing with many different operating systems. During this time the idea of building an operating system that differs from the “Desktop Paradigm” started to take shape. In the year 2000, he applied to New York University’s Interactive Telecommunication Program⁴⁷ (ITP, No. 2 ranked graduate program of its kind in North America⁴⁸). ITP granted him the opportunity to enroll in the program with a two-year Tisch School of the Arts Scholarship. During his time at ITP, James C. Lin had ventured into other areas as well. Amongst his accomplishments and inventions at ITP include:

- **MorseNote**, an original invention of lyric/music composition software based on Morse Code.
- **Physical Encryption**, an original invention of theories and practical applications of using human body movements as encryption key for computer data.

After graduation from ITP, James C. Lin returned to Taiwan. He first started a workshop on his own and released two Macintosh shareware programs:

- **ClipClap**⁴⁹, a reverse-bookmark utility that allows users to preserve partial web pages and export to Microsoft Word format and allows users to return to the original source page via a single mouse click. (ClipClap was an original invention that was imitated on the Windows platform by other software companies 6 months after its’ original release.)

⁴⁷ http://news.zdnet.com/2100-9588_22-6178470.html

⁴⁸ <http://itp.nyu.edu/itp/flash/Home>

⁴⁹ <http://www.tucows.com/preview/205037>

- **Pictogizer**⁵⁰, a graphic collection management program with CRC32 verification functionalities.

After the workshop experience, James C. Lin had held jobs working in the electronics manufacturing industry in Taiwan:

- **Mitac Technology Corporation**⁵¹, as Project Manager for MP3 player in Taipei and Canton, China.
- **Kinpo Electronics Inc.**⁵², as Product Planner for Windows Mobiles based PDA phones in Taipei.
- **Quanta Computer**⁵³, as Quality Management Specialist for Apple's MacBook Pro product line, and co-managed a team of 6 quality engineers/assistants at Quanta's manufacturing facility in Shanghai, China.

⁵⁰ <http://forums.info-mac.org/viewtopic.php?f=151&t=5540&sid=aeba080cdf7c17a0b6c47d67b38ea4eb>

⁵¹ <http://www.mitac-mtc.com.tw/>

⁵² <http://www.kinpo.com.tw/english/index.htm>

⁵³ <http://www.quanta.com.tw/Quanta/english/Default.aspx>

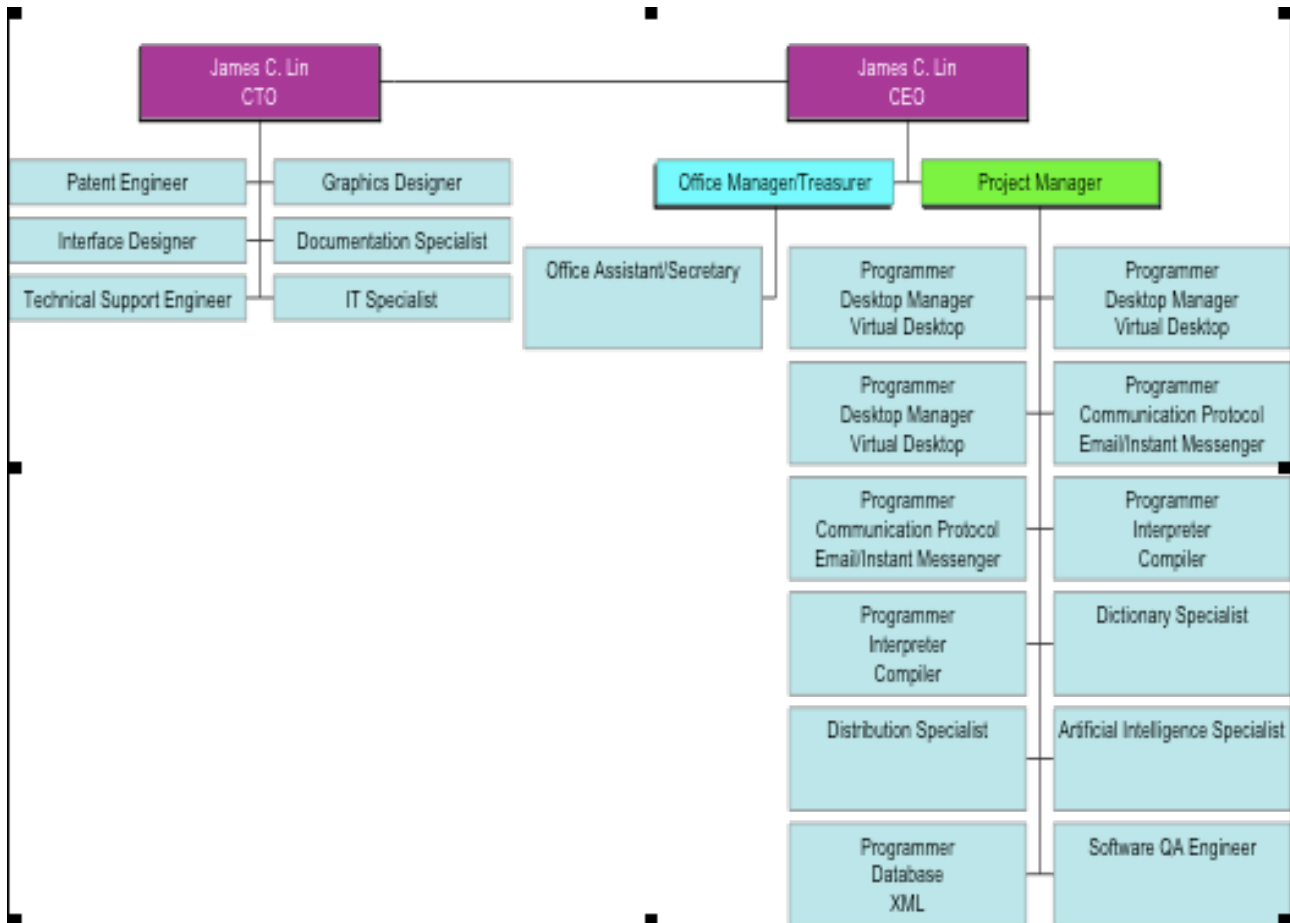
Employees

| # | Title | Job Description | Annual Wage | On-board Time by month of operation |
|---|--|--|-------------|-------------------------------------|
| 1 | Chief Operating Officer & Chief Technology Officer | <ul style="list-style-type: none"> *Running of company *provides theoretical technology guidance *To implement the strategic goals and objectives of the organization *To give direction and leadership toward the achievement of the organization's philosophy, mission, strategy, and its annual goals and objectives | \$200,000 | 1 |
| 1 | Office Manager/Treasurer | <ul style="list-style-type: none"> *Setup of company policies and daily operations *coordinate office support services *purchasing *facilities management *select office vendors, supervise the purchasing process *coordinate regular building safety checks and ergonomics training for employees *bookkeeping and financial responsibilities, such as accounts payable, accounts receivable and payroll. | \$60,000 | 1 |
| 1 | Project Manager | BSD/Linux Guru, coordination, liaison and trouble shooter 8-10 years experience with the development of “desktop managers” and “virtual desktops” and PMP certification | \$100,000 | 3 |
| 1 | Office Assistant/Secretary | Receptionist and general office errands and duties | \$40,000 | 1 |
| 1 | IT Specialist | Set up and running of office computer hardware and network, helps with choice of hardware purchase and maintenance | \$60,000 | 1 |
| 2 | Interface Designer | Detail interface design under CTO’s guidance with 3-5 years of game and/or desktop manager design experience | \$60,000 | 1 |

| # | Title | Job Description | Annual Wage | On-board Time by month of operation |
|---|--------------------------|--|-------------|-------------------------------------|
| 1 | Graphics Designer | Graphic design under CTO's guidance with general graphics and avatar design experience and 2-3 years of 2D/3D design experience | \$60,000 | 1 |
| 1 | Documentation Specialist | Technology theory and company policy and manual writing under CTO and Officer Manager and company journal with 1-2 years of technical writing experience | \$60,000 | 1 |
| 1 | Patent Engineer | *drafting and prosecution of patent applications *identification and timely disclosure of patentable technologies *coordination of documentation, disclosures, patent applications *investigative activities concerning proprietary technology *Primary liaison between engineers and outside counsel on matters of patents and trade secrets with 3 years of experience is software patent filing | \$80,000 | 12 |
| 4 | Programmer | BSD/Linux guru, specializes in the architecture of desktop managers and virtual desktops (C/C++) with 2-3 years of experience | \$80,000 | 6 |
| 2 | Programmer | BSD/Linux guru, specializes in various communication protocols, Instant Messenger and Email (C/C++) with 2-3 years experience | \$70,000 | 6 |
| 2 | Programmer | BSD/Linux guru, specializes in scripting languages and architecture of interpreters and compilers. (C/C++) with 5 years experience | \$80,000 | 6 |
| 1 | Programmer | Database/XML specialist with 3 years experience | \$70,000 | 6 |
| 1 | Distribution Specialist | BSD/Linux distribution architect capable of building installer with 3 years experience | \$60,000 | 18 |

| # | Title | Job Description | Annual Wage | On-board Time by month of operation |
|---------------|-------------------------------------|---|-------------|-------------------------------------|
| 1 | Programmer | XML Specialist with 1 year working experience | \$60,000 | 6 |
| 1 | Artificial Intelligence Specialist | Construction of Qualitative Artificial Intelligence Engine with 3 years experience | \$80,000 | 30 |
| 1 | Software Quality Assurance Engineer | <ul style="list-style-type: none"> *Experience with software quality and testing methodologies *Define, implement and manage long and short term testing strategies for ensuring quality, defining release readiness and delivering quality products that meet market requirements *Develop and maintain test plans for software quality assurance *Execute test plans in coordination with development schedules *Take full responsibility for total product quality *5 years experience with Linux/BSD development projects | \$70,000 | 6 |
| 1 | Technical Support Manager | Set up technical support structure and manage technical support staff | \$80,000 | 27 |
| 1 (as needed) | Technical Support Engineer | <p>with 1 year experience</p> <ul style="list-style-type: none"> * each technical support can handle a maximum of 28 calls (assuming each call takes a maximum 15 minutes on average @ 7hrs/day). 1 tech-support can handle a maximum of 45 wks/yr x 5 days/wk x 28 calls/day = 6,300 calls/year. If 20% of sales require some kind of initial/ongoing support, for every 31,500 copies, would need 1 tech-support staff. | \$50,000 | 27 |

Organizational Chart



Policies & procedures

- All employees must sign a consent form not to work for another competing operating system (desktop manager, virtual desktops) producing company within 3 years of resignation or termination of employment from Chironworks.
- All employees must sign a consent form not to volunteer to work on competing operating system (desktop manager, virtual desktops) open source projects within 3 years of resignation or termination of employment from Chironworks.
- All employees must sign a non-disclosure agreement to keep existence of the “Babel Operating System” and job description secret from anyone outside of the company.
- All employees, except official spokesperson, must refrain from speaking to members of the media about the “Babel Operating System”.
- The Employee agrees that the first **six (6) months** of employment shall constitute a probationary period during which the Employer may, in its sole and absolute discretion, terminate the employment of the Employee without cause, without notice and without any payment in lieu of notice.
- **Exclusive Service.** Throughout the term of employment, the Employee shall devote himself exclusively to the Business and shall not for any reason, directly or indirectly, either as a proprietor, partner, co-venturer, financier, investor or stockholder, director, officer, employer, employee, agent, representative, consultant or otherwise for any person, firm, association, organisation, syndicate, company, corporation or entity, or in any manner or capacity, promote, undertake, carry on, be employed by, engaged in, concerned with, interested in, advise, lend money to, guarantee the debts or obligations of, permit the Employee's name or any part of it to be used or employed by any person, firm, association, organisation, syndicate, company or corporation, without the Employer's prior written approval.
- The Employee acknowledges that the Employee will receive, receive access to, conceive or develop, in whole or part, directly or indirectly, in connection with or in the course of the Employee's employment with the Employer (in any capacity, whether executive, managerial, planning, technical, sales, research, development, manufacturing, engineering or otherwise) or through the use of any of the Employer's facilities or resources, books, records, data, customer lists, customers' business cards, information and records, reference items, sketches, drawings,

memoranda, equipment, automobiles, credit cards, reports, files, diskettes, manuals, literature, printouts, lists, notes, CD, tapes, computer disks and other computer storage media, the Employee's business cards and other documents or copies thereof relating to the Employer's Business (the "Employer's Property") and certain information (whether or not reduced to writing and whether or not patent-able or protect-able by copyright), and which includes, without limitation, product design and manufacturing information, marketing techniques and arrangements, mailing lists, purchasing information, lists of present and prospective customers' names and requirements, pricing and sales policies, quoting procedures, financial information, employee, customer, supplier and distributor data, trade secrets, discoveries, concepts, ideas, processes, formulas, inventions, technology, techniques, "know-how", designs, drawings, specifications, all information regarding the salary, remuneration, benefits, bonus and/or commission structure of the Employee and other employees of the Employer, and other information concerning the Employer and the Business (the "Protected Information").

Action Plan

Action plan & timetable

| Month of Operation | Milestone |
|--------------------|--|
| -3 | <ul style="list-style-type: none"> - Negotiation of contract and compensation package for James C. Lin and contract signing with investor - Immigration matters and preparation for James C. Lin to move from Taiwan to San Francisco - Legal establishment of Chironworks as a legal corporate entity |
| 1 | <ul style="list-style-type: none"> -Start operation of Chironworks, -Hiring of Office Manager, Graphic Designer, Interface Designer, Documentation Specialist and Office Assistant. -Start building mock up of Communication User Interface in Macromedia Flash. -Start technology theory documentation. -Start establishment of company policies and procedures. |
| 3 | <ul style="list-style-type: none"> - Hiring of Project Manager |
| 6 | <ul style="list-style-type: none"> -Hiring of 8 programmers and Dictionary Specialist -Completion of mock up of Communication User Interface -Start coding of "Babel Operating System" -Partnership negotiation with Skype |
| 12 | <ul style="list-style-type: none"> -Hiring of Patent Engineer -Start patent application process -Completion of technology theory documentation of "Babel" up to Version 5.0 |
| 18 | <ul style="list-style-type: none"> -Hiring of Distribution Specialist -Start building of "Babel Operating System" distribution. -Alpha release of Communication User Interface |
| 24 | <ul style="list-style-type: none"> -Beta release of "Babel Operating System" (public or limited yet to be determined) |
| 30 | <ul style="list-style-type: none"> -Official release and on sale of "Babel Operating System 1.0" targets 2.5% of PCs sold between 2008~2010. -Start development of Version 2.0 of "Babel Operating System" |

| Month of Operation | Milestone |
|--------------------|--|
| 48 | -Completion of “Babel Operating System Version 2.0” with Qualitative Artificial Intelligence Engine. -”Babel Operating System” pre-installed and on sale to the general public in USA. -Penetration of the next market segment of 13.5% “Early Adopters” |
| 60 | -Initial Public Offering (Optional) |
| 66 | -Completion of “Babel Operating System Version 3.0” with English Natural Language Voice I/O Interface |
| 78 | -Completion of “Babel Operating System Version 4.0” with Machine Sensory Integration |
| 90 | -Completion of “Babel Operating System Version 5.0” with Simulated Machine Consciousness |

*** This action plan is based on the author’s best estimate. However, it is subject to change based on the actual progress of the plan.**

APPENDIX:Financial Plan

Assumptions made for financial forecasting

- The unit price is set at \$299 per copy.
- The revenue is calculated based on the assumption that it takes \$50 of marketing dollar to sell a single copy. Note: this figure should decrease over time as the product gains market mind share.
- Sales generated by word-of-mouth is calculated based on the assumption that each satisfied customer will make 8 positive recommendations to other people in a single year and every 40 positive comments results in a single unit sold.
- Other revenue comes from out-of-warranty technical support, assuming 5% of customers will need it and priced at \$9.99 per incident.
- Advertising budget is set to \$15 million dollars in the first year of sales and 70% of previous year revenue for subsequent years recursively.
- The number of employees assumes the variables of 1 technical support engineer for every 31500 copies sold and 1 office assistant for every 25 employees.
- Furnishing cost is averaged at \$1,000 per employee.
- Miscellaneous expense is averaged at \$200 per employee per year.
- Salaries are estimated based on a software company of similar size and organizational structure (Please see HR plan for details).
- The employee benefits are assumed to be 30% of salary.
- Computer equipments are depreciated straight-line over 3 years.
- Furnishings and Fixtures are depreciated straight-line over 5 years.
- Occupancy cost is calculated based on each employee needing 200 sq/ft of combined office and common areas at the rent of \$25 per sq/ft per year.
- Other expenses are based on a software company of comparable size.
- Total income tax is estimated to be at 35% for California and Federal taxes combined.

Assumptions made for approximation of discount rate

- Five companies who are either currently or have been in the desktop operating system business are chosen. They are Apple, Microsoft, Red Hat, Sun Microsystems and IBM.
- The latest annual net income and market cap, P/E Multiple, beta and five-year revenue growth rate as of 03/17/2008 are lifted from the finance section of Yahoo⁵⁴ and The Motley Fool CAPS⁵⁵.
- The five-year revenue growth rate of competing companies is extended to 10 years for optimal outlook.
- Highest possible market share ceiling is set to be 90%.
- From year 11 to 15, growth rate is assumed to be the same as Chironworks 6% for comparison sake.
- From year 16 to 20, growth rate is assumed to be the same as Chironworks at 3% for comparison sake.
- Free cash flow for the next 20 years for these competing companies are calculated based on the above assumptions.
- The companies' valuation is based on the net present value of the sum of 20 years cash flow plus terminal value approximated with perpetuity method.
- Each company's market cap is equated with company's calculated value based on perpetual annuity method to approximate discount rate for each company.
- Weighted average of discount rate is calculated based on the company's value in 20 years. Although it is believed to be a close and accurate approximation, it is not used for the sake of conservativeness.

⁵⁴ <http://finance.yahoo.com/>

⁵⁵ <http://caps.fool.com/index.aspx>

Pro Forma Income Statement - 7 years

| Chironworks Income Statement | | | | | | | |
|---|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------------------|-------------------------|
| | Year 1 01 - 12 | Year 2 13 - 24 | Year 3 25 - 36 | Year 4 37 - 48 | Year 5 49 - 60 | Year 6 61-72 | Year 7 73-84 |
| OS Sales - US\$ | \$0 | \$0 | \$48,318,618 | \$316,802,625 | \$1,719,798,126 | \$9,379,430,386 | \$51,192,953,804 |
| Tech Support - US\$ | \$0 | \$0 | \$80,720 | \$609,960 | \$3,483,001 | \$19,151,982 | \$104,673,321 |
| Other Income | \$63,829 | \$131,378 | \$2,185,549 | \$13,102,749 | \$70,546,213 | \$384,404,671 | \$2,097,986,411 |
| TOTAL REVENUE | \$63,829 | \$131,378 | \$50,584,887 | \$330,515,334 | \$1,793,827,339 | \$9,782,987,039 | \$53,395,613,537 |
| Advertising & promotion | \$0 | \$0 | \$7,500,000 | \$44,573,033 | \$235,945,996 | \$1,281,316,749 | \$6,988,458,673 |
| Salaries | \$810,000 | \$1,620,000 | \$2,035,000 | \$3,725,000 | \$13,195,000 | \$64,635,000 | \$345,465,000 |
| Employee Benefits | \$243,000 | \$486,000 | \$610,500 | \$1,117,500 | \$3,958,500 | \$19,390,500 | \$103,639,500 |
| Professional fees | \$100,000 | \$150,000 | \$200,000 | \$250,000 | \$300,000 | \$350,000 | \$400,000 |
| Occupancy costs (Rent) | \$110,000 | \$110,000 | \$150,000 | \$320,000 | \$1,275,000 | \$6,460,000 | \$34,770,000 |
| Office General expenses | \$42,000 | \$42,000 | \$57,273 | \$89,600 | \$167,344 | \$212,800 | \$226,059 |
| Depreciation (Computer Equipment) | \$32,154 | \$32,154 | \$34,618 | \$48,170 | \$123,322 | \$529,882 | \$2,748,304 |
| Depreciation (Furnishing and Fixtures) | \$4,400 | \$4,400 | \$5,600 | \$13,400 | \$64,400 | \$267,400 | \$1,399,800 |
| Meals & Entertainment | \$2,200 | \$2,200 | \$3,000 | \$6,400 | \$25,500 | \$129,200 | \$695,400 |
| Utilities | \$11,000 | \$11,000 | \$15,000 | \$32,000 | \$127,500 | \$646,000 | \$3,477,000 |
| Bank charges | \$550 | \$550 | \$81,550 | \$531,370 | \$2,882,292 | \$15,716,966 | \$85,780,796 |
| Telephone | \$1,100 | \$1,100 | \$1,500 | \$3,200 | \$12,750 | \$64,600 | \$347,700 |
| Auto Expenses | \$16,000 | \$6,000 | \$6,000 | \$26,000 | \$6,000 | \$6,000 | \$51,200 |
| Miscellaneous Expenses | \$4,400 | \$4,400 | \$6,000 | \$12,800 | \$51,000 | \$258,400 | \$1,390,800 |
| Travel expenses | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| Insurance | \$2,200 | \$2,200 | \$43,400 | \$271,285 | \$1,463,458 | \$7,971,533 | \$43,498,873 |
| Building maintenance & repairs | \$1,100 | \$1,100 | \$1,500 | \$3,200 | \$12,750 | \$64,600 | \$347,700 |
| Dues/subscription/membership | \$1,100 | \$1,100 | \$1,500 | \$3,200 | \$12,750 | \$64,600 | \$347,700 |
| TOTAL EXPENSES | \$1,386,204 | \$2,479,204 | \$10,757,442 | \$51,031,159 | \$259,628,562 | \$1,398,089,230 | \$7,613,049,505 |
| Net income before IT & extraordinary | \$1,322,376 | \$2,347,827 | \$39,827,445 | \$279,484,175 | \$1,534,198,777 | \$8,384,897,808 | \$45,782,564,032 |
| Income Taxes | \$0 | \$0 | \$13,939,606 | \$97,819,461 | \$536,969,572 | \$2,934,714,233 | \$16,023,897,411 |
| TOTAL INCOME OR (LOSSES) | \$1,322,376 | \$2,347,827 | \$25,887,839 | \$181,664,714 | \$997,229,205 | \$5,450,183,575 | \$29,758,666,621 |

Pro Forma Balance Sheet - 7 years

| Chironworks | | | | | | | |
|---|--------------------|--------------------|---------------------|----------------------|------------------------|------------------------|-------------------------|
| Balance Sheet at Year End | | | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 |
| | 01-12 | 13-24 | 35-36 | 37-48 | 49-60 | 61-72 | 73-84 |
| Bank - operating in USD\$ | \$1,595,716 | \$3,284,443 | \$54,638,715 | \$327,568,736 | \$1,763,655,318 | \$9,610,116,764 | \$52,449,660,285 |
| Accounts receivables | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Tax Paid & remitted | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Inventory | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Prepays | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Computer equipment | \$96,463 | \$96,463 | \$103,855 | \$144,511 | \$369,967 | \$1,589,647 | \$8,244,911 |
| Accumulated amort - computers | \$32,154 | \$64,309 | \$98,927 | \$50,634 | \$173,957 | \$696,447 | \$3,307,632 |
| Furniture & fixtures | \$22,000 | \$22,000 | \$28,000 | \$67,000 | \$322,000 | \$1,337,000 | \$6,999,000 |
| Accumulated amort - furn. & fixtures | \$4,400 | \$8,800 | \$14,400 | \$27,800 | \$92,200 | \$337,600 | \$1,737,400 |
| TOTAL ASSETS | \$1,677,624 | \$3,329,798 | \$54,657,243 | \$327,701,812 | \$1,764,081,128 | \$9,612,009,364 | \$52,459,859,164 |
| Accounts Payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Credit cards payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Income Tax payables | \$0 | \$0 | \$13,939,606 | \$97,819,461 | \$536,969,572 | \$2,934,714,233 | \$16,023,897,411 |
| Payroll deductions payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL LIABILITIES | \$0 | \$0 | \$13,939,606 | \$97,819,461 | \$536,969,572 | \$2,934,714,233 | \$16,023,897,411 |
| Share capital | \$3,000,000 | \$7,000,000 | \$18,500,000 | \$26,000,000 | \$26,000,000 | \$26,000,000 | \$26,000,000 |
| Retained earnings | \$0 | \$1,322,376 | \$3,670,202 | \$22,217,637 | \$203,882,351 | \$1,201,111,556 | \$6,651,295,132 |
| Current earnings | \$1,322,376 | \$2,347,827 | \$25,887,839 | \$181,664,714 | \$997,229,205 | \$5,450,183,575 | \$29,758,666,621 |
| Dividend declared | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL EQUITY | \$1,677,624 | \$3,329,798 | \$40,717,637 | \$229,882,351 | \$1,227,111,556 | \$6,677,295,132 | \$36,435,961,753 |
| TOTAL LIABILITIES & EQUITY | \$1,677,624 | \$3,329,798 | \$54,657,243 | \$327,701,812 | \$1,764,081,128 | \$9,612,009,364 | \$52,459,859,164 |

Prof Forma Cash Flow Statement - 7 years

| Chironworks | | | | | | | |
|---|--------------------|--------------------|---------------------|----------------------|------------------------|------------------------|-------------------------|
| Statement of Cash Flows | | | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 |
| | 01-12 | 13-24 | 25-36 | 37-48 | 49-60 | 61-72 | 73-84 |
| Cash flows from operating activities | | | | | | | |
| Net Income | \$1,322,376 | \$2,347,827 | \$25,887,839 | \$181,664,714 | \$997,229,205 | \$5,450,183,575 | \$29,758,666,621 |
| Items not requiring an outlay of funds | | | | | | | |
| Depreciation | \$36,554 | \$36,554 | \$40,218 | \$61,570 | \$187,722 | \$797,282 | \$4,148,104 |
| Deferred income taxes | \$0 | \$0 | \$13,939,606 | \$83,879,856 | \$439,150,111 | \$2,397,744,661 | \$13,089,183,178 |
| Changes in non-cash working capital | | | | | | | |
| Accounts receivable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Interest income receivable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Inventory | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Notes payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Accounts payable and accrued liabilities | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Accrued wages payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Bonuses payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Corporate taxes payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sub-Total | \$1,285,821 | \$2,311,272 | \$39,867,663 | \$265,606,140 | \$1,436,567,038 | \$7,848,725,519 | \$42,851,997,903 |
| Cash flows from financing activities | | | | | | | |
| Increase (decrease) in long-term debt | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase (decrease) in capital lease payable | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase in warranty liability | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase (decrease) in due to shareholders | \$3,000,000 | \$4,000,000 | \$11,500,000 | \$7,500,000 | \$0 | \$0 | \$0 |
| Issuance of common shares | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Issuance of preferred shares | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sub-Total | \$3,000,000 | \$4,000,000 | \$11,500,000 | \$7,500,000 | \$0 | \$0 | \$0 |
| Cash flows from investing activities | | | | | | | |
| Computer Equipments | \$96,463 | \$0 | \$7,392 | \$137,119 | \$225,456 | \$1,227,072 | \$6,792,383 |
| Furniture & Fixtures | \$22,000 | \$0 | \$6,000 | \$39,000 | \$255,000 | \$1,037,000 | \$5,662,000 |
| Purchases of capital assets | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase in advances to affiliated parties | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Deferred development costs | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Goodwill | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sub-Total | \$118,463 | \$0 | \$13,392 | \$176,119 | \$480,456 | \$2,264,072 | \$12,454,383 |
| Net increase (decrease) in cash and cash equivalents | \$1,595,716 | \$1,688,728 | \$51,354,271 | \$272,930,021 | \$1,436,086,582 | \$7,846,461,447 | \$42,839,543,520 |
| Cash and cash equivalents at beginning of year | \$0 | \$1,595,716 | \$3,284,443 | \$54,638,715 | \$327,568,736 | \$1,763,655,318 | \$9,610,116,764 |
| Cash (bank indebtedness) and cash equivalents at end of year | \$1,595,716 | \$3,284,443 | \$54,638,715 | \$327,568,736 | \$1,763,655,318 | \$9,610,116,764 | \$52,449,660,285 |
| As represented by | | | | | | | |
| Cash (bank indebtedness) | \$1,595,716 | \$3,284,443 | \$54,638,715 | \$327,568,736 | \$1,763,655,318 | \$9,610,116,764 | \$52,449,660,285 |
| Term deposits | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Financial Standards

The financial forecasts have been a collaborative work by James C. Lin and his sister, who had CPA qualification in Taiwan and an MBA degree from McGill University in Canada. Her experiences include working for KPMG as an external auditor and an 8 year tenure working at the headquarters of Manulife Financial (parent company of John Hancock Financial Services), the second largest life insurance company in North America, as a Senior Financial Analyst, Manager of Investor Relations and Business Development Analyst (Merger and Acquisitions).

The financial forecasts have then been critiqued by James C. Lin's other sister, who is a practicing CGA in Canada.