

NUS Techno-Venture Forum

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“Will your investment/business fly?”

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Agenda

- **VC Investments in:**
 - ePay.com
 - Neopets.com
 - Time Domain
- **Covering:**
 - Overview of Industry
 - Background to investment
 - Company overview
 - Reasons for investing
 - SWAT Analysis
 - Final Outcome
 - Lessons Learnt

**(1) ePay.com (fictitious name)
a Singapore Based Co.**

Industry Overview

- Payment landscape today unable to keep pace with the demands of the new economy purchasing cycle.
- Internet has enabled automated sourcing, purchasing and logistics tracking
- Payment processes- largely manual and cumbersome, complex and expensive to operate. Especially true for commercial payments.
- Banks find it difficult to establish a universal standard due to competition and apprehension from their peers
- Gives new market entrant the opportunity to set the new global standard for corporate e-payments

ePay.com's Value Proposition

- ePay.com partnered International Credit Card company in Asia Pacific on global messaging and settlement infrastructure.
- ePay.com's generic end-to-end payment solution allows banks to participate in growing e-commerce payments
- No incurring substantial propriety investments by Users
- Simplifies payment process for corporations and reduces the banks' operating costs by offering STP
- A local Bank Card Centre expects to save over S\$250k in its first year.
- Establishing a payment infrastructure for e-commerce
- ePay.com's 5 year projections offers relatively attractive returns above 90%
- Making the processing of payments between buyers, sellers and their banks easy, seamless, quick and predictable through a "virtual cheque" system

ePay.com's Dependencies

- ePay.com's success heavily dependent on securing use of International Credit Card's extensive network.
- Formal decision at Credit Card Co's Asia Pac Board meeting in February 2001
- Allow ePay.com's products to leverage on International Credit Card's global messaging and settlement infrastructure as a backbone
- ePay.com aims to provide internet-B2B and B2C payment services and products
- If Credit Card Co's Board rejects the launch of "virtual cheque", ePay.com will have to come up with Plan B

Virtual Cheque

- Replace both clearing and settlement processes for open-account cross-border commercial payments.
- Today handled via traditional corresponding banking networks, with messaging done through SWIFT
- Settlement through nostro/vostro accounts
- Virtual cheque offers a streamlined, integrated alternative to this cumbersome process
- With this STP, a seller can expect payment within 2 working days from the time payment instructions is sent from the buyer's bank to the sellers' bank.
- Virtual cheque was scheduled for pilot in Dec 2000 and launched proper after Credit Card Co's Board's approval in Feb 2001

Current Challenges faced by most B2B Exchanges and FIs are:

- Attempts to dis-intermediate Financial Institutions
- Costly and time-consuming integration of one-to-one ends (each bank to each portal):
- End users having to manage multiple EB platforms that do not talk to their on-line procurement marketplaces & existing ERP applications
- ePay.com provides Banks and B2B Exchanges with a single connection (many-to-many via single hub).

Insured Payments

- Well suited for medium-value commercial transactions between SME buyers and sellers
- Attractive solution to sellers dealing with unknown buyers
- Participating buyers, meanwhile, are rated on their credit histories by an insurance company, who underwrite the default risk for a small premium.

Merchant Acquiring

- Acquire a software to provide Internet Merchant with Payment Processing facility for credit card via the Net

JVs/Acquisitions

- Plans to enter into JVs in other countries to provide software to JV for payment processing
- Collect licence fee and transaction fee from JV

Pro-Factors For ePay.com

- Total global business-to-business (B2B) e-commerce was forecasted to reach US\$1.1 trillion by 2003
- Asia (including Japan and Australia/NZ) was expected to account for US\$167 B
- Today B2B e-commerce means that companies can view product information and order on-line, with order fulfillment (ie. shipping and related logistics)
- For non-digital goods and payment are usually done off-line
- Lower transaction costs compared to current payment modes (estimated 70-80% cheaper than TT)

Pro-Factors For ePay.com (cont'd)

- Shorter lead times between initiation of payment and crediting of payee's bank account (most likely settlement within two working days)
- Direct reconciliation of invoices, payables and bank accounts via ERP systems (only for those transacting via a B2B exchange)
- Less crowded a market space than B2C and other B2B markets
- Proposed integration of invoices and reconciliation statements into companies' ERP payments

Financial Projections- Base Case

	Yr 2001	Yr 2002	Yr 2003	Yr 2004	Yr 2005
USD (Million)					
Virtual cheque	4	16	46	78	95
Virtual Check gateway	5	8	12	20	26
Insured product	1	3	6	14	17
Merchant acquiring	3	3.5	4	5	6
JVs/acquisition	7	7	8	9	9
Total Revenue	20	37.5	76	126	153
Profit after Tax	(20)	(16)	19	49	56

Con Factors

- Virtual check's takeoff dependent on Credit Card Co embracing it
- Execution risk - highly ambitious product rollout plan.
- Not easy to simultaneously launch a new payment product, across many countries within the first 12 months.
- Management team needs to be reinforced.
- Continuous trend towards open platform and standards, and enhanced security will lower entry barriers for new competing E-payment products.

Outcome

- Green Dot to invests \$5.0M (max)
- Pre-money valuation approx \$50M
- 5 major investors (big corporations!)
- Credit Card Co. declined to participate!!
- No anchor client for virtual cheque product- bulk of revenue!
- More costly to use Credit Card Co.'s processing infrastructure on commercial basis!
- Burn-rate remains very high!

Final Outcome.....

- New Business model seemed risky
- Slow in bringing in other clients
- Costs outstrip revenue
- Investors did not “cough up” their committed amount due to escape clause
- Company was restructured and sold!
- Investors wrote down their investments

Lessons Learnt

- Any business involving change of paradigm is very difficult!
- Must have a heavy-weight champion or “killer app”
- Cross Border Business is tough
- As a start up must have a stringent mentality
- Go for low frills and low costs set-up until cash flow positive!
- Don't start business until Credit Card Co. fully committed
- Not to be dependent on only 1 major revenue stream
- Need a plan B, C.....

(2) NeoPets.com

Background

- NeoPets.com, Inc is a privately held corporation based in Glendale, California that owns and operates the “Gen Y” (age 20 and younger) Web site
- Originally founded by two English college students.
- NeoPets is offering an entertainment site to youth that is compelling.
- NeoPets.com™ is a youth-oriented online network of virtual pet owners whose “NeoPets” inhabit a mythical land called Neopia
- Members’ creation and care of their virtual “NeoPets” is their passport into a constantly changing series of “worlds”
- Provides many hours of challenging games, stories, contests, and entertainment.

Neopets.com Concept/ Offerings

- The NeoPets site is a virtual world with many activities to entertain members.
- Members explore new world, play games, write stories, enter contests, treasure hunt, trade virtual items with other members, form member guild, and interact with other members through multiplayer games, mail, chat and auctions.
- New members adopt a virtual pet (42 species to select from)
- Participation in various interactive activities permits members to acquire “NeoPoints” (the site’s virtual currency)
- Used to purchase food and other items necessary to feed, interact with and develop the NeoPets.

High Street Game

DICE ESCAPE



FREE ALL THE DICE!

Welcome, jmorpheous | Pet: morpheousflight | NP: 250,810

neopets

- Create a neopet
- pet central
- explore
- games
- neomail
- shops
- boards
- news
- stuff
- help
- login!
- logout!

8:49:16 am NST

Search Neopets: Go!

Ultimate Bullseye

Select language: English

link to us

the high street



Neopia Central

Click on the shop you wish to visit. You can buy food or toys for your Neopet, collect rare items, magical potions, collectable cards, and even buy clothes!

You can find even more shops at the [Neopian Bazaar!](#)



Flash or HTML (?)

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Neopets.com Concept/ Offerings (cont'd)

- Members are also encouraged to purchase, create and design their own unique shops.
- They can stock with Neo-items won or collected from around the site and then “sell” to other members.
- Through smart purchases and trades with others, members can turn a “virtual” profit
- Build their own amusement parks
- Write and post news items for the Neopian Times (the site’s online newspaper)
- Set up their own bank accounts
- Invest in the Neopian stock market
- Make “NeoFriends” with other members

Company's Progress

- NeoPets website initially went live on November 15, 1999
- NeoPets incorporated in February 2000 and commenced business operations in April 2000
- Bringing on the artists, writers, programmers, sales and support staff, and senior management that currently comprises The NeoPets Team.
- NeoPets aspires to be the Disney of 21st century.
- Through viral marketing (word of mouth) they want to build the NeoPets brand with as much depth and reach as Amazon, eBay and Yahoo among the Gen-Y community.
- They have achieved tremendous growth in membership

Company's Progress (cont'd)

- Rate of growth has increased to 1.6 million accounts per month
- Users are spending an average of 4.5 hours per session on the Neopets site
- StarHub Internet (April 2001) confirmed that NeoPets is one of the most frequented site among their users.
- Nielsen NetRating has consistently rate them among the top ten most visited site from Singapore with average of 150K unique Singapore users.
- The management team is made up of executives who are experienced in entertainment and market research business.
- Unlike other internet Cos, NeoPets management is very conscious of keeping cost low and matching cost to revenue.

Company's Progress (cont'd)

- Doug Dohring the CEO has extensive experience in managing businesses.
- NeoPets generates revenue from a few sources:-
 - Immersive Advertisement
 - Traffic Referrals
 - Merchandising
 - Licensing
- NeoPets has commanding lead over other sites in terms of stickiness.
- Co. does not believe in publishing NeoPets through advertisement
- Continue to rely on viral marketing to create a commanding lead over other kids entertainment site.

Company's Progress (cont'd)

- Certain revenue is showing signs of weakening due to the dot com crash
- The number of old economy clients have increased.
- 2001 Corporate Clients include
 - ❖ Cartoon Network
 - ❖ Coca Cola
 - ❖ Hershey's
 - ❖ Hollywood Records, Disney
 - ❖ Kellogg's
 - ❖ Kraft Foods
 - ❖ Mattel
 - ❖ Procter & Gamble
 - ❖ Universal Studios
 - ❖ Warner Bros. Home Video

Company's Progress (cont'd)

- Neopets content development team of 30 artists and programmers able to develop content at impressive speed.
- Has developed many reusable templates to speed up the process.
- Most games takes 3 days to develop.
- Computer and network Infrastructure is outsourced.
- Have a total of 129 networked servers.

Business Risks

- NeoPets business faces a few risks which warrant highlighting:-
 - ❖ Hacking
 - ❖ Stealing of Accounts
 - ❖ Parental Disapproval
 - ❖ NeoPets may be a Fad
 - ❖ Execution Risks

Final outcome

- Green Dot invested US\$5M- pre-money valuation of approx \$50M.
- Built-in profit guarantees, translate into increased equity
- Set up Asian HQ in Singapore
- Billy Shum, SVP of Green Dot became CEO Asia.
- Expanded in Asia last 3 years, Singapore, Taiwan, HK
- Growth in worldwide subscribers continued
- Collaborated with international players, Disney, Sony (playstation)
- Diversified revenue streams (from on-line Ads)
- Did not meet its ambitious revenue/profit targets
- Remained profitable!

**** Acquired by Viacom in early 2005 at multiple times original valuation.**

Lessons Learnt

- Importance of thorough Due Diligence
- Realistic Valuation
- Neopets is a dot-com Co. with real community and excellent marketing concept
- Strong Management Team with clear vision
- Management very prudent and careful on expenses
- Passionate workers and highly creative

Lessons Learnt (cont'd)

- Managed to maintain high growth
- Able to monetized the assets, which is its members base
- Kept the Co. on the radar screen of potential investors
- Entry into Asia, the next growth engine!
- Helpful that corpoarte investor can add value & assist the start-up

(3) TIME DOMAIN

Company and Technology Overview

- Time Domain Corp (TD), is a US-based late stage company
- It is a “fabless” semiconductor Co.& a leader in Ultra Wideband (“UWB”) radio
- UWB is a disruptive wireless technology for transmitting digital data over a wide spectrum of frequency bands with very low power.
- Traditional wireless systems operate within the confines of a narrow band of frequencies assigned by government regulators.
- UWB’s technology occupies a broad swath of frequencies

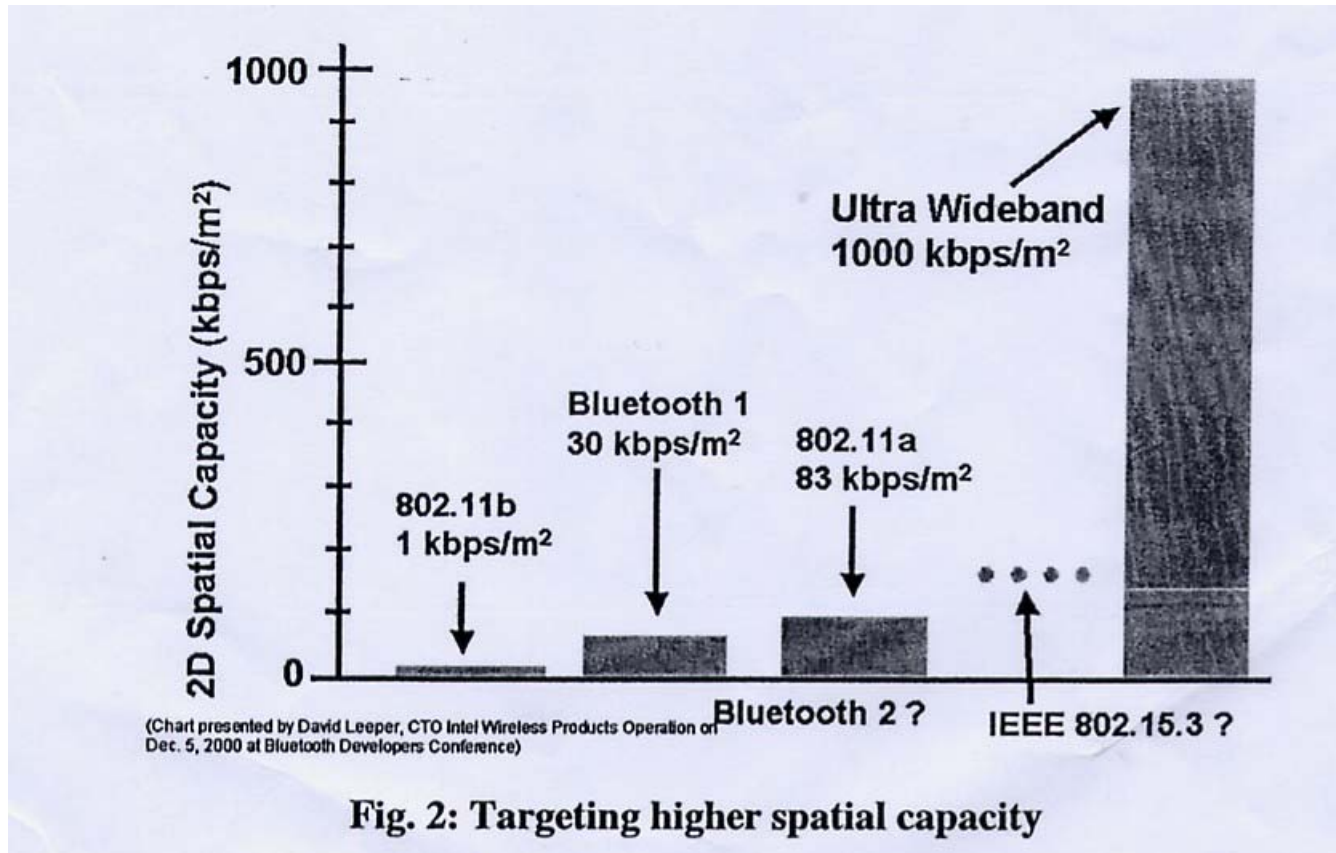
Company and Technology Overview (cont'd)

- Potentially spanning the already assigned spectrum bands in the 1 to 6 GHz range
- By emitting a power so low that it meets the US Federal Communication Commission (FCC) constraints
- There are an estimated 6B devices operating under the Part 15 rule
- TD has developed and patented a wireless technology called PulsON®
- This technology fuses communications, radar and tracking capabilities into a PulsON® chipset

Company and Technology Overview (cont'd)

- While all other commercial wireless technologies employ sine waves, UWB technology sends millions of low-powered coded pulses per second across an ultra wideband of spectrum
- Able to transmit at ultra low power, below the radio frequencies 'noise floor', transmitting at 50 millionths of a watt for commercial applications
- Approximately one ten thousandth the power of a cell phone
- Communications using UWB are inherently secure and encrypted

Targeting Higher Spatial Capacity



Company's Progress

- TD has completed its first generation chipset (10Mbps)- in 2002
- Final stages of completion of its second generation chip-set (40 Mbps)
- Work has also begun on its third generation chip-set, which can potentially achieve transfer rates of 275Mbps.
- Growing demand for wireless data capability in portable devices at higher bandwidth and at lower cost and power consumption. (PDAs, 3G cell phones)

Pro Factors

- Larry Fullerton has been working on UWB since 1987 and is recognized as the world-renowned expert on the subject
- Crowding in the existing licensed and unlicensed radio spectra
- Growth of broadband access to the enterprises and homes
- Shrinking semiconductor cost and power consumption for signal processing
- Good for Communications
- Precision Location and Tracking
- Radar
- Time Domain is a chipset and IP company.
- Its business strategy is to work with strategic partners to integrate PulsON® chipsets into a variety of products and applications

Business Outlook

- Potential Customers: Electronics companies
- OEM to strategic investors and partners:
eg Siemens, Marconi, IBM, GE, Sony
- The Government and Defence Sector
- Other UWB companies:-
 - ❖ Aetherwire
 - ❖ Fantasma CLOSED
 - ❖ MSSI
 - ❖ Xtreme Spectrum
 - ❖ Time Domain

Business Outlook (cont'd)

- Company's on-going efforts to reach profitability in mid 2003 as well as to further reduce burn-rate, TD continued its steps to reduce costs
- The headcount in 2003 was 139, down from its early 2001 peak of 220.
- US\$5.2M in revenue for 2001, up from \$1.0m in 2000
- Forecasting revenue of \$20.0M in 2002
- The company does need to raise money urgently as it is currently in a deficit position.

Con/Risk Factors

- FCC and NTIA Approvals
- Commercialization
- Dependence on Suppliers, IBM's SiGe chips
- Competition
- Secrecy Order/National Security
- High R&D costs

Final Outcome

- **Green Dot Capital invested US\$2m in the Series C round for a small stake**
- **TD gained FCC approval with some qualifications**
- **Management changes, founder left the Co.**
- **New Chairman & CEO husband and wife team!**
- **Sales targets not met, especially with chip sales**
- **Burn-rate remains high due to R&D costs at \$1.5M per month**
- **Competitors catching up fast.**

**TD couldn't achieve the next round of funding.

**A down-round happened with most shareholders being heavily diluted!

Lessons Learnt

- Investment in disruptive technology is very high risk
- Company needs to stay the course with high R&D expenditure
- Investors need to have deep pockets!
- Commercialization of new technology is also an art!
- Best done by people who have been there, done that
- Discount heavily any initial forecasts by the company

Lessons Learnt (cont'd)

- Due D by experts essential but not guarantee of success
- Is the company able to execute its business plan?
- Early adopters of technology are crucial
- Don't under estimate the regulatory barriers/approvals
- 1st across the line is better than 1st off the post!
- Know when to walk away (often a \$64M. question) in this case US\$90M

Final Remarks

- **Some Basics on Investments/Start-ups**
 - ❖ Is there a compelling need for your product?
 - ❖ Is there a barrier of entry, eg. disruptive technology?
 - ❖ Is the business scalable?
 - ❖ Do you have the right management team?
- **If the answer is YES to all the above, it's a good start.....the rest is EXECUTION & LUCK!**



Thank You For Your Attention