Enhanced Vision Systems

IPRO-355

See a safer tomorrow, today
Problem

- Mismarked / Unmarked Utility Lines
- Accidents lead to Loss of:
  - Lives
  - Time
  - Money
1988 – 2008

- Average: 288 Significant Incidents / yr
  - 21 Lives Lost / yr
  - 87 Serious Injuries / yr
  - $ 170M in Property Damages / yr
Pipeline Accident Types

- Corrosion: 18.00%
- Excavation Damage: 25.90%
- Human Error: 5.30%
- Material Failure: 15.40%
- Natural Force Damage: 8.50%
- All Other Causes: 22.90%
- Other Outside Force: 4.00%
Solution

- A software product
  - Graphical Map
    - Location of buried utilities
    - Relative position of equipment

- Used by
  - Construction Equipment Operators
  - Utility marking services
Sponsorship Sub-Team

Sub-Team Leader: Bogdan Bistriceanu
Sponsorship Goals

- Develop a comprehensive list of contacts
- Contact sponsors, propose our product
- Achieve a corporate sponsorship or collaboration
Obstacles

- Current state of the economy
- Companies not willing to offer sponsorship
- Lots of no’s and maybes
Successes

- Obtained an opportunity to present to NAVTEQ
- Developed a brief presentation outlining our project
- Presented, and ultimately developed a collaborative relationship with NAVTEQ
Accepted opportunity

Refine our product

Faster market penetration
Business Sub-Team

Sub-Team Leader: Julia Rybakova
Target Market: OEMs

- Original Equipment Manufacturers (OEMs)
  - Distributors of graphical GPS systems
  - Sell to construction industry
  - Includes Trimble and Garmin
Why OEMs?

Sell software to OEMs

Greater distribution channels

No need to develop hardware

Quicker time to market and the end user

Sell software to OEMs
EVS Benefits to an OEM

- More robust product
- Larger customer base
- Increased sales
- Uses existing hardware
- Competitive advantage

Greater Profit
The current economic stimulus package contains targeted efforts in: modernizing roads, bridges, transit and waterways

- $30 billion for highway construction
- $31 billion to modernize federal and other public infrastructure
- $10 billion for transit and rail to reduce traffic congestion and gas consumption.
Value Proposition

- Increased Sales
- Greater Profit
- Faster ROI

EVS
Potential Competitors

- Guardian Prostar, Trimble – US based hardware and software provider for GIS (geographical information system) solutions

- Leica Geosystems – #1 European provider of integrated hardware software GIS solutions
Competitors to Customers

- Original Equipment Manufacturers
  - Hardware
  - Software

Potential Competitors

Potential Customers
Typical Transaction

- Receive Call from/Send Call to OEM
- Send Marketing personnel/materials to OEM
- OEM accepts meeting
- Negotiation takes place
- Licensing Agreement is Reached
- Product delivered
- OEM pays per license sold on a quarterly basis
Risks

OEM

EVST
Negotiation Points

- Software
- Support
- Installation
- Advertising
- Volume Price Discount
- Copyright Infringement
- Insurance
Sales Forecast

Total Sales

Year

Total Units Sold

5% Growth
10% Growth
25% Growth

0 10000 20000 30000 40000 50000

1 2 3 4 5
Year One
- Revenue < Expenses, Net Income = $(67,000)

Year Two
- Revenue < Expenses, Net Income = $(6,000)

Year Three
- Revenue > Expenses, Net Income = $54,000
## 5 Year Cash Flows

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<th>Expenses</th>
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All numbers are in thousands of dollars
Exit Strategy

Acquisition
Benefits to us
- No worrying about logistics
- Better focus on customer
- More capital available for investment

Benefits to OEM
- More control over product
- Can license EVS to others
- Faster distribution to end user
Technology Sub-Team

Sub-Team Leader: Richard Hanley
Graphical Map
Alabama Revisited
Conclusion

Project Team Leader: Chuck Sticha
Previous Work

- Fall 2007 – Augmented Reality
  - Informational commercial virtual reality device
- Spring 2008 – Augmented Reality
  - 3-D hardware & software
- Fall 2008 – Enhanced Vision Systems
  - 2-D top down view; hardware & software
Goals

- Prototype
- Business Model
- Sponsor or Collaborator
- Win
Strategy

- Effective Management
- Sub-Team Accountability
- Goal Oriented
Ethical Issues

- Equitable distribution of work
- Quality vs. Limited Time
- Feature inclusion and exclusion
Next Steps

- Develop collaboration into sponsorship
- Refine prototype
- Utility data acquisition
- Software Licensing
- Device specific testing
Achievements

- Prototype
- Preliminary Business Model
- Collaboration with NAVTEQ
Together, we can start seeing a safer tomorrow, TODAY!!!
Questions