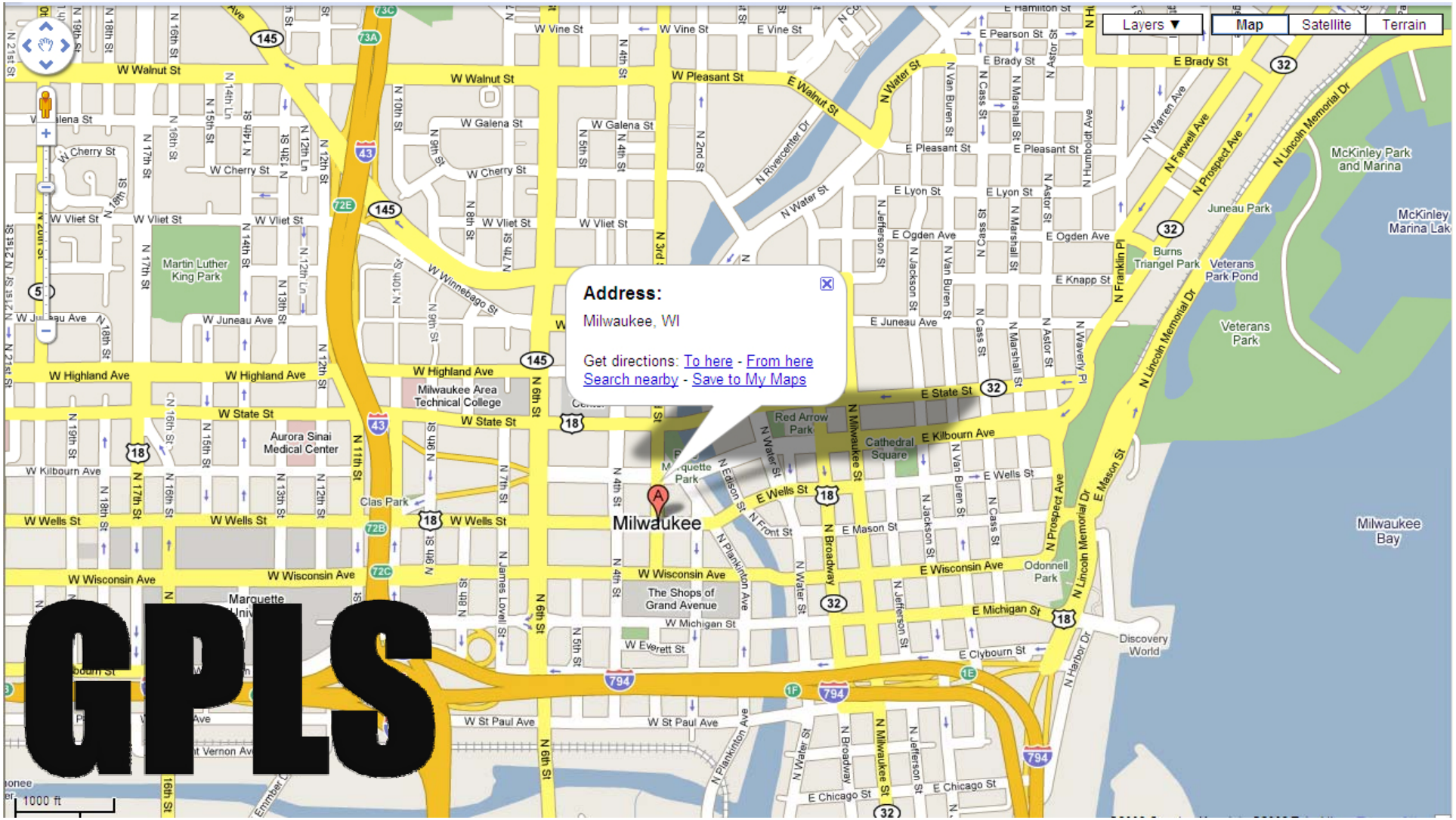


Graphical Parking Location System

Mana 124

12/03/08

Paaj Her & Vang Her

Product: GPLS

- **Key Features**
  - PND – portable navigation device
  - Same features as GPS navigating systems, with added parking feature
  - Uses GIS technology
  - Track parking spaces **available** for structures, meters, lots, street parking, and underground parking
  - Graphically shows closest parking available
  - Indicate parking location base on price/distance
  - Indicate type of parking (lots/streets/structures/meters/UG/private/public/free/charge/valet)

Product: GPLS

- How it works!
  - **Parking Mode**: satellite pinpoint where you are and automatically show (map) out the places available for parking within the range or radius you determined.
  - Enter the address/location name & it'll automatically map out the available parking within that address beforehand

  - RED represent any source of parking 
  - Available parking spots are noted by yellow squares
  - Blue dots (represent cars) in a parking spot 
  - Rest of the graphical images will be in grayscale during **parking mode** 
  - Ahead of time, the satellite will have predetermine image of each parking lots, how many spaces if marked, store in a database

Product: GPLS-camera

- **GPLS camera**:
  - Put up in structures & UG parking lots to transmit images to GPLS
  - Images can be view on GPLS, similar to how it would look outside of building

- **Others:** Security……(activation code)
- Service (monthly fee)

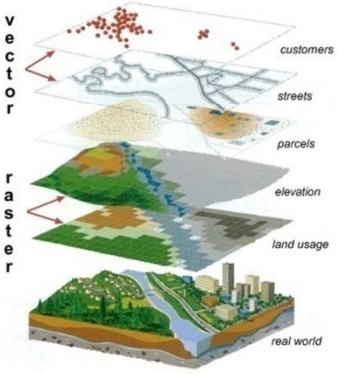
People

- **INTERNAL:**
  - Paaj Her-CEO & Marketing
  - Vang Her-CEO & IT/IS
  - NEED: -Financial/Accounting background
    -Someone with GIS knowledge
  - *We realized that we may need more people to split up the work
- **EXTERNAL**
  - Suppliers
  - Manufacturers
  - Software Developers
  - Engineers
  - Distributors
  - Lawyer
  - *we want to have a relationship w/ all these people

Opportunity: Market

- The market for **parking spot locater technology** is increasing (concepts)
- Less competition in market than industry
- Major geographic markets: US, Canada, Europe, Japan, India and China
- Customer: Anyone who owns a car, more likely newer cars
- ALSO, B2B: businesses/transportation industry

Opportunity: Industry



- Industry for **mobile location technologies (PND)** is propelling
- The technology is fast gaining acceptance worldwide
- Global market for Location Based Services (LBS)
- More software development for mobile transportation
- More vehicles expected have in-vehicle navigation systems (IVNS)
- GPS signal is free to anyone, courtesy of the US Government

- Portable GPS devices gone from high-end curiosities to mass-market devices
- Industry saturated with competitors in (GPS) Magellan to TomTom
- Change from stand-alone to multi-functions

Production Process

- Involve satellite receiver and transmitter and lots of custom chips
- Have a manufacturer create a prototype
- Hire our own suppliers/manufacturer/software developer/engineer-(let them work together)

- Outsource from countries: Taiwan
- Aimed for a more cost-effective design to lower retail price

Price

- **Average** cost to make GPS: low($100-$200) high($300-$500)
- **Average** cost to make 3G 8mpx iphone-($174.95)

ESTIMATIONS-costs

- Bill of Materials (BOM) and manufacturing expenses- **($200-$250)**
- Software development – **($200-$300)**
- Other costs:shipping and distribution, packaging and miscellaneous accessories **($150-$200)**
- The GIS technology already exist-**(get it cheaply**)
- GPS signal-**FREE**
- **Price** the GPLS at **$550** (range: $550-$750)
- Price GPLS service fee at **$35**
- GPLS overhead cameras in structures/UG parking lots-**$300**

Marketing/Promotion

- In-vehicle navigation systems (IVNS)
- Create relationships/partnerships through B2B
- Online advertisements
- Electronic/tech tradeshows
- Street Advertisement: Billboards
- Magazine: Business/Tech/Men's

- Target: Big Cities, business areas
- Target: Transportation industry

Finance

Invest $2,000 in creating a prototype

$6,500,000 in producing 10,000 units GPLS for first ½ year

$3,000,000 in producing 10,000 overhead cameras

Total Investments = **$9,502,000**

GPLS: $5,500,000-$6,500,000 = **-$1,000,000**decrease for 6 months

GPLS service:$35*10,000 units=$350,000/ month 6 months **$2,100,000**

Revenue of **$1,100,000**

GPLS camera: $3,000,000-$3,000,000 = $0 (breaking even)*

Long-Run Growth

- EOS – make it more affordable
- Compete against 3G 8mpx iphone-portable
- Expand the GPLS camera line: into all types of buildings
- Advance the technology

Competition

MARKET

- XM Satellite Radio concept called **"Dynamic Parking Information"**
- **ParkSens** concept developed by students at Boston University
- Streetline used a wireless sensor technology known as "**smart dust**"
- Online competition: ParkWhiz.com, FindPark.com

INDUSTRY

- 3G iPhone with GPS system
- Garmin: leading GPS manufacturer (+50%)
  - Nuvifone: integration of GPS, a portable Web browser, and a phone
- Claimed by big players in recreational and driving navigation

TOMTOM

Context: Macroeconomic

- Economy in a slump
- People are buying less
- People are more price sensitive
- Conservative on purchases

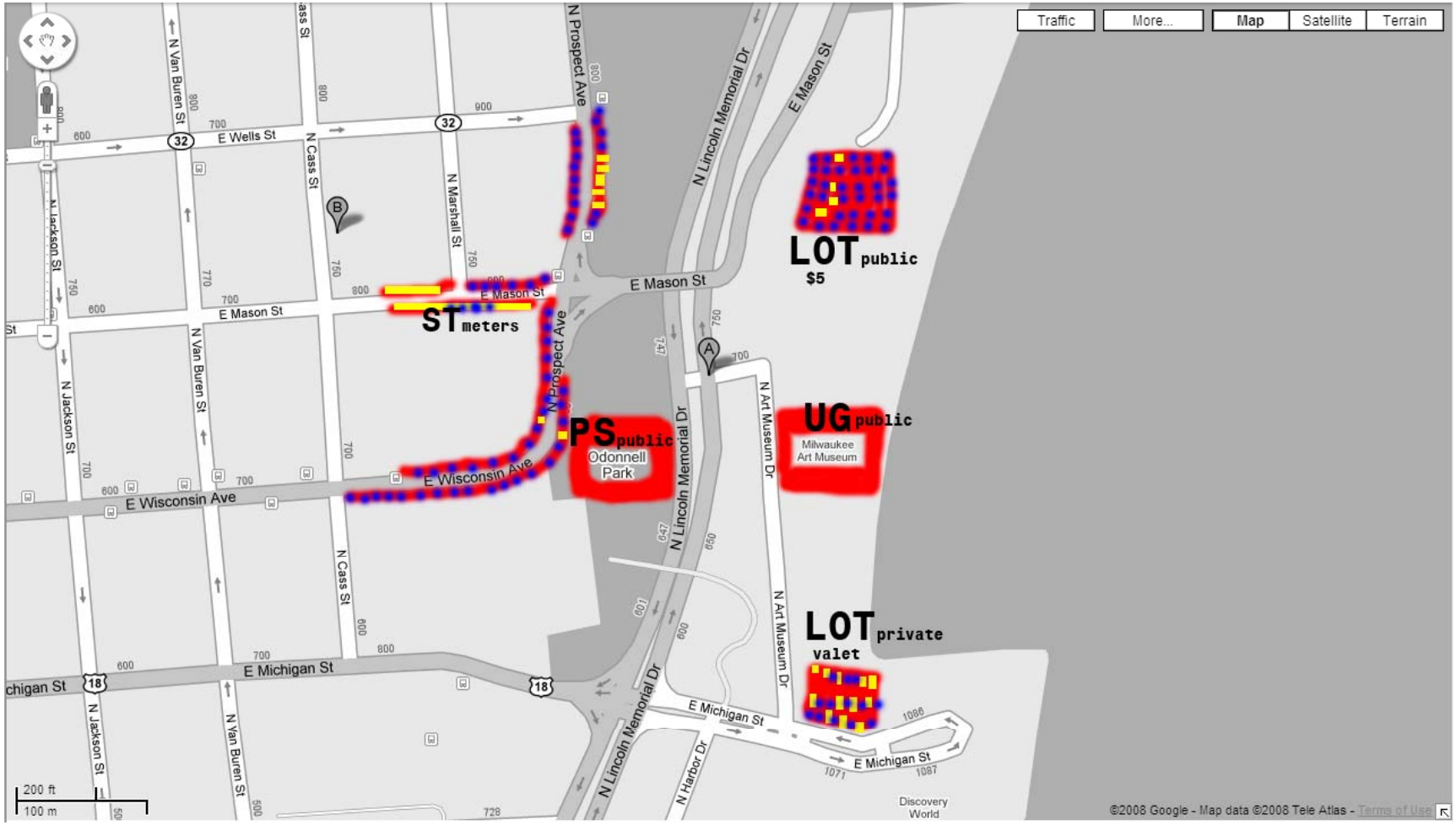
Risks

- New technology
- Expensive
- Not enough drivers see no need for a GPLS like system to find parking spots
- Not enough cooperation with city/states
- Competition can copy
- Not enough funding

Rewards

- High returns if successful
  - drivers numbers in the millions
- Many markets
- Growth potential
- Save cost & time

EXAMPLE: MAM


Traffic
More...
Map
Satellite
Terrain
LOT public
$5
ST meters
PS public
Odonnell Park
UG public
Milwaukee Art Museum
LOT private
valet
E Mason St
E Wisconsin Ave
E Michigan St
E Wells St
N Prospect Ave
N Lincoln Memorial Dr
N Art Museum Dr
N Harbor Dr
N Van Buren St
N Jackson St
N Cass St
N Marshall St
Discovery World
200 ft
100 m
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