How the 2011 Census Data Supports Social Local and Mobile (SoLoMo) Solutions

Andy Bell - Advisory Product Manager Data

Pitney Bowes Software

Pitney Bowes Software

Overview

- Social Local Mobile – SoLoMo - overview

- How does census data and the subsequent derived data sets (e.g. Geodemographics) support SoLoMo

- Merging disparate datasets to support SoLoMo applications
  - Data to understand the consumer
  - Data to understand location

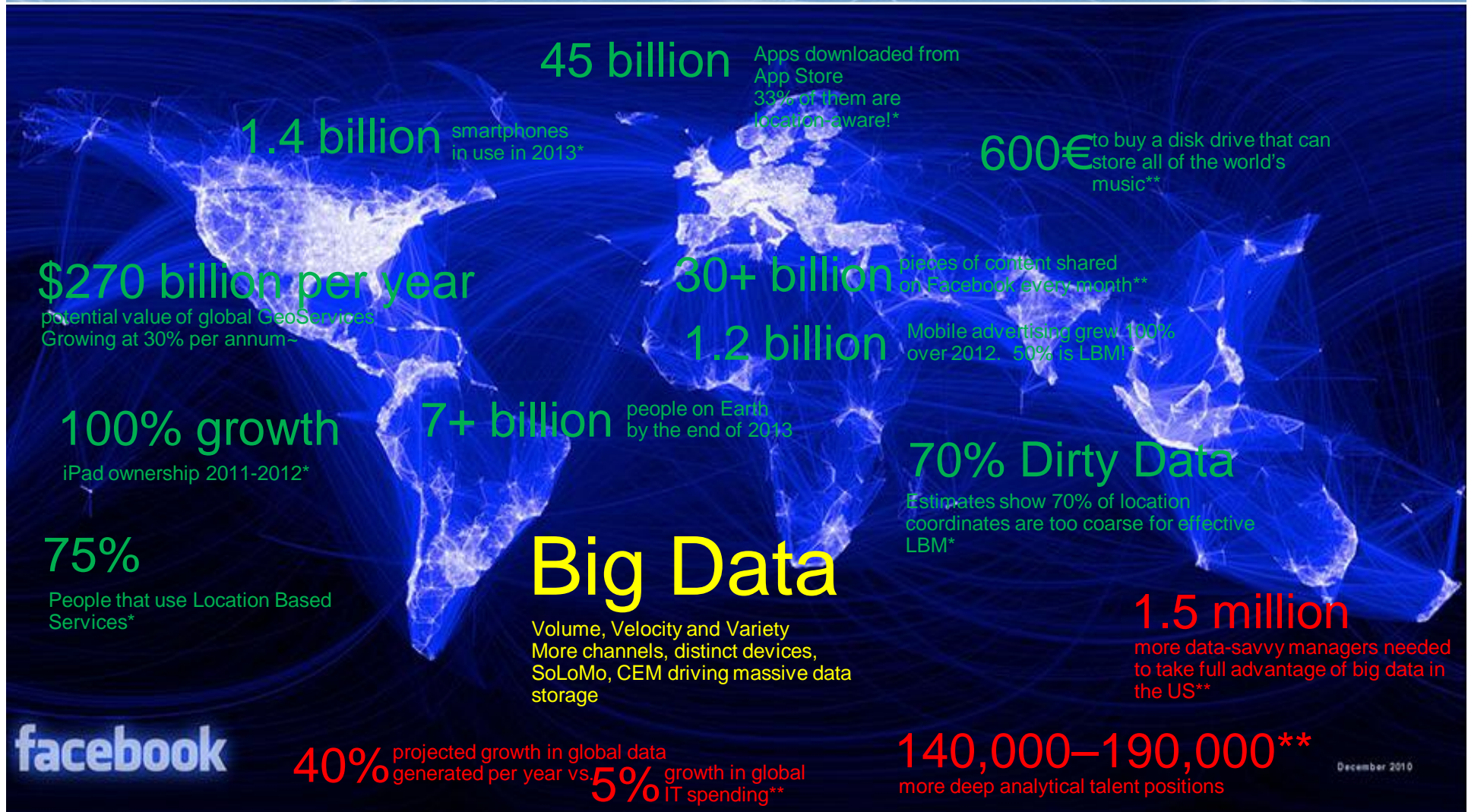- Outline of census data based PBS SoLoMo solutions

Pitney Bowes
Software

What is Social Local Mobile

- SoLoMo is short for Social, Local, Mobile

- Leading to desire to have more precise location based and behaviour based targeting activities

- Consumers now expect brands to deliver personalised experiences.

- Rise of greater volumes of data generated to inform these processes

- Social media is driving innovation for everyone

- Mobile is here to stay

Mast Triangulation   Wi-Fi   GPS

IP Address   Check-ins   QR Codes

To put that in context

45 billion Apps downloaded from App Store 33% of them are location-aware!*

1.4 billion smartphones in use in 2013*

600€ to buy a disk drive that can store all of the world's music**

$270 billion per year potential value of global GeoServices Growing at 30% per annum~

30+ billion pieces of content shared on Facebook every month**

1.2 billion Mobile advertising grew 100% over 2012. 50% is LBM!*

100% growth iPad ownership 2011-2012*

7+ billion people on Earth by the end of 2013

70% Dirty Data Estimates show 70% of location coordinates are too coarse for effective LBM*

75% People that use Location Based Services*

Big Data
Volume, Velocity and Variety
More channels, distinct devices, SoLoMo, CEM driving massive data storage

1.5 million more data-savvy managers needed to take full advantage of big data in the US**

facebook

40% projected growth in global data generated per year vs. **5%** growth in global IT spending**

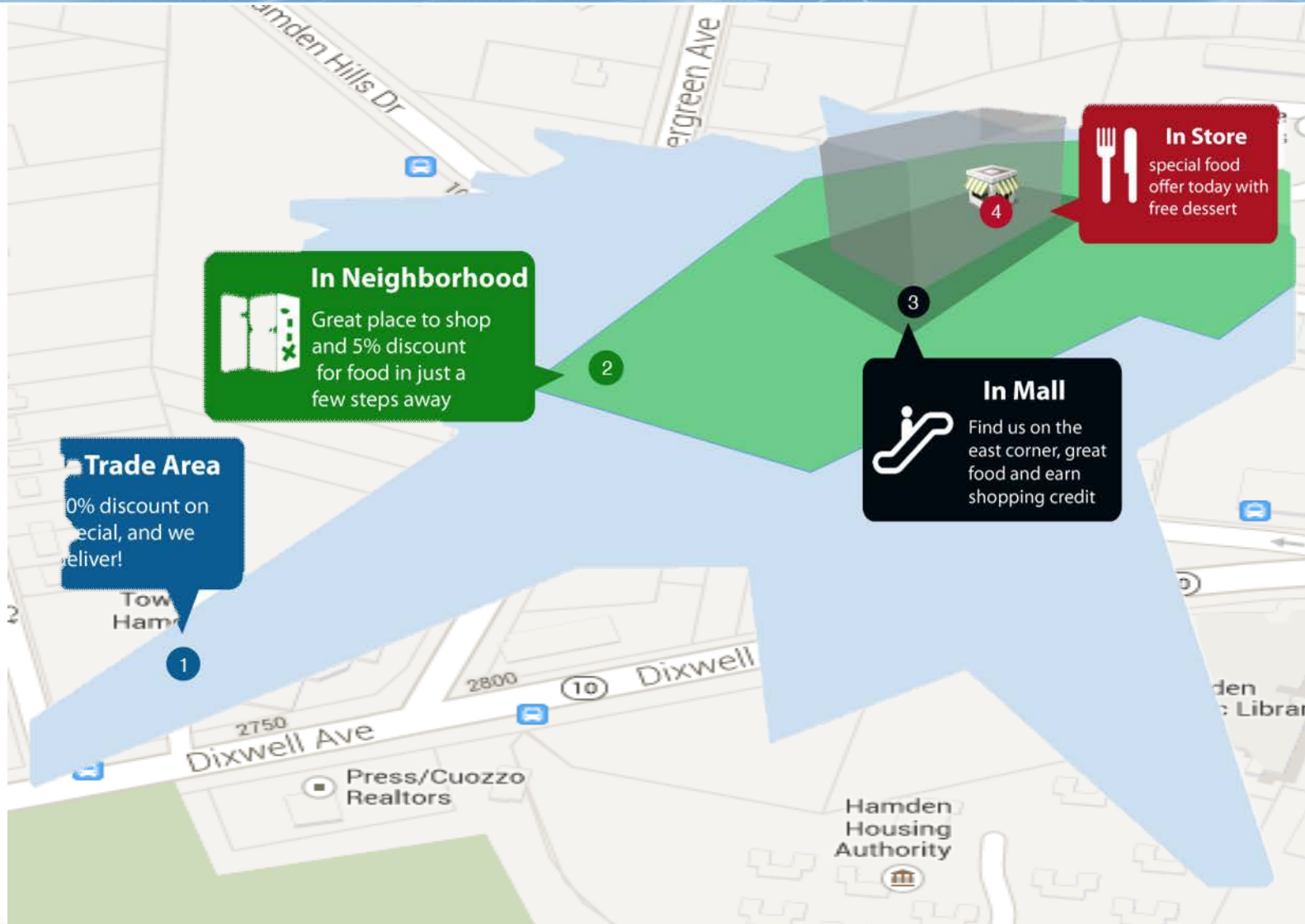**140,000–190,000**** more deep analytical talent positions

December 2010

* Trends & strategies for hyperlocal targeting on the mobile platform – StreetFight Insights, 2013
** Big Data -- McKinsey, 2011
~ What is the economic impact of Geo services? -- Oxera, 2013

Result - Multi-level Smart Geo-Fencing

How does Census Data Support SoLoMo

- Census and Geodmographics tells about people and the places they live in

- and continues to do so.

- Impact on SoLoMo
  - Data protection
  - Lack of precision from devices
  - Speed

- Census data and geodemographics will enhance this understanding by adding additional context to location and behaviour
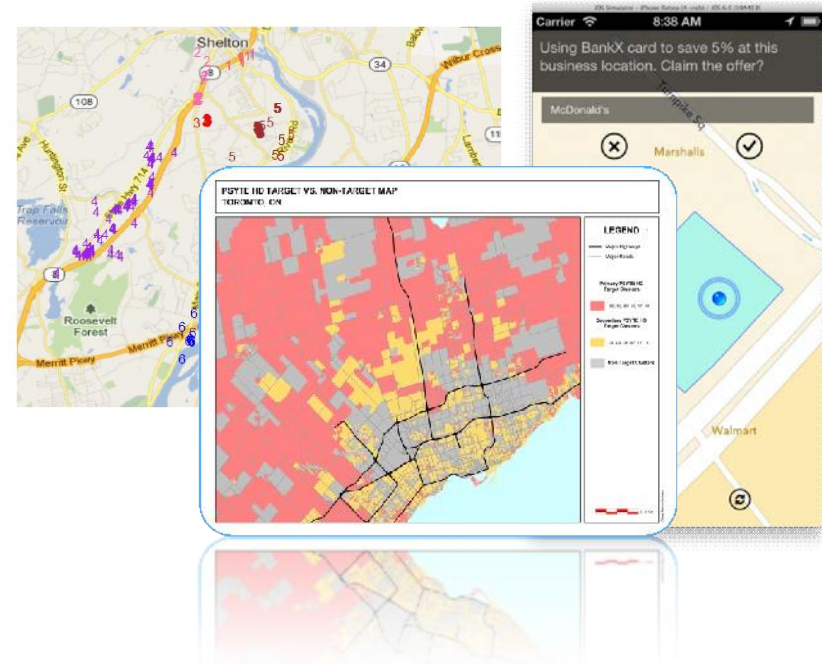
Location-Based Profiling (LBP): Results

In a test we were able to identify 8.8% of mobile users as "travelers", thus the travel agency can target them differently in related mobile applications or web sites.

"Traveler score" distribution

"traveler score"
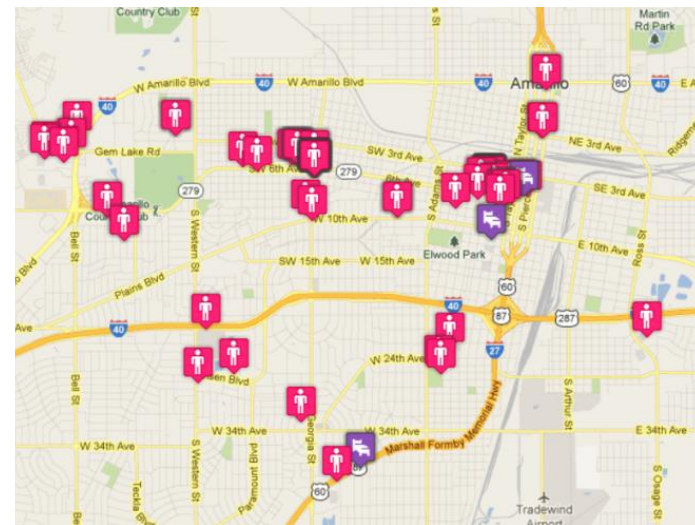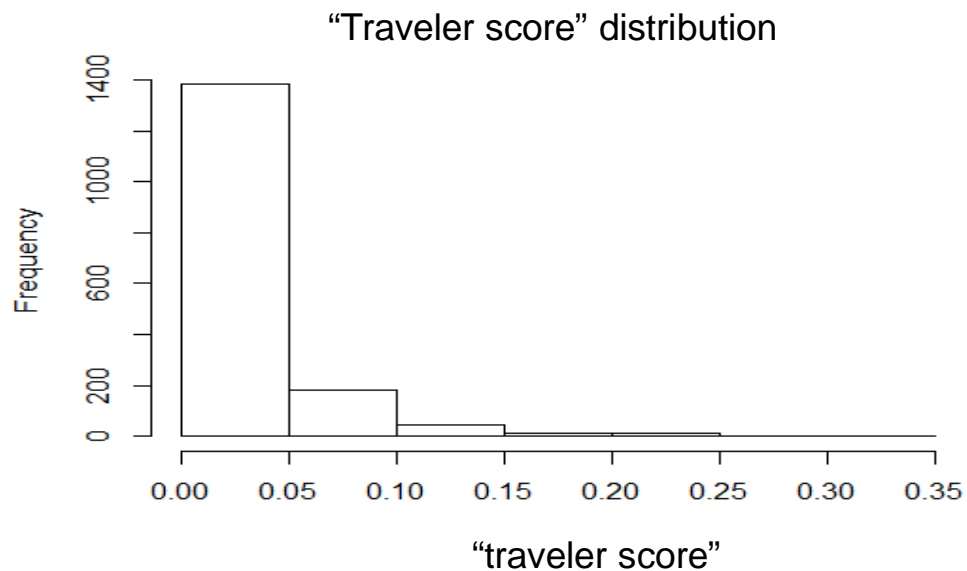
Improving Customer Insight

| First Browsing Interaction | Multiple Browsing Interactions | First Purchase | Repeat Customer | Relationship Customer | Networked Advocate |
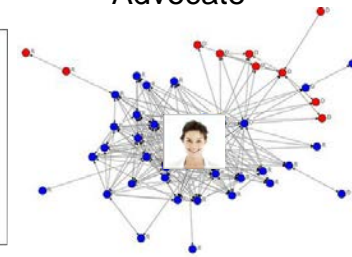
Anonymous

Intimate

Understanding

Female?
15-25 years old?

Female
Age 22
Buenos Aires, Argentina
Married
Interested in Fashion

Female
Age 22
Puerto Madero, Buenos Aires, Argentina
Married with 1 child
Online consumer
Rents apartment
Interested in Fashion
Active Twitter user
Part time job
Lives 5 minute drive time from store
Match profile of my best customer
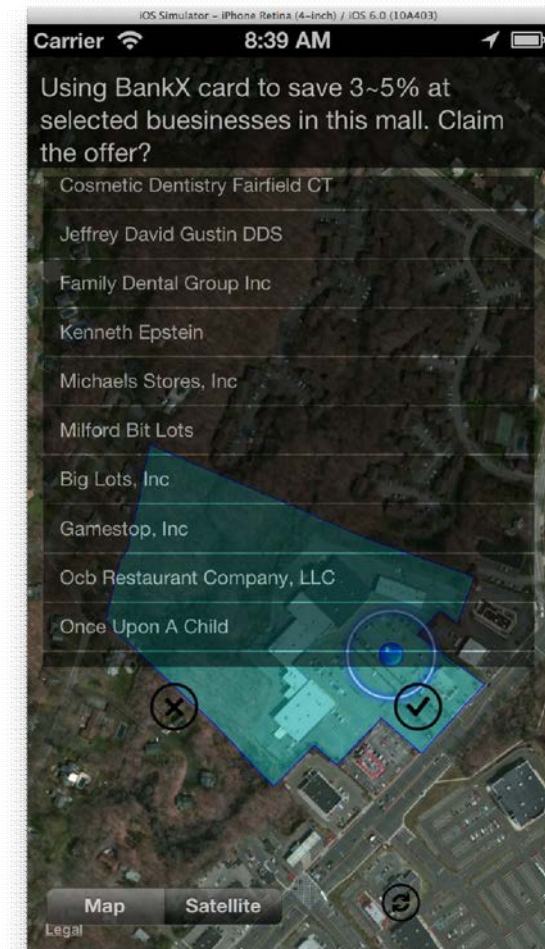Prefers email correspondence

Pitney Bowes
Software

How does Census Data Support SoLoMo

- Social media and mobile marketing
  - Geofencing

- Retail Analysis

- Traditional outdoor marketing and advertising

- Public Services

Merging Disparate Datasets

- Merging Census and Geodemographics with other data sets

- Potential data
  - Where people are travelling to and from
  - When they are going
  - What they are doing
  - implied consumer behaviour and lifestyles

- Derived from
  - GPS and Wifi data

6 months of check-ins = 15.4 Million from 400K unique users
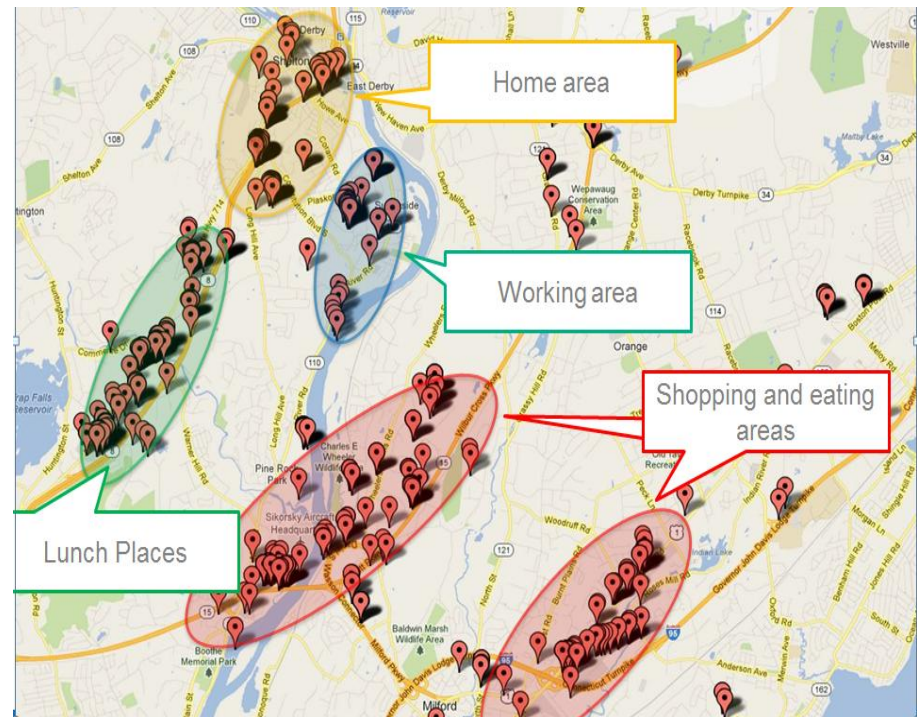
Source: Zhang and Yan, 2013 (internal Pitney Bowes Research)

Merging Disparate Datasets

- Points of Interests

- Business Locations

- Neighbourhood Boundaries

- Parcel boundaries

- Indoor mapping

PBS

- Enhance Geodemographics and Demographics with time dependent behavioural data

- Location Based Profiling:
  - Merge geodemographics and Demographics with location and destination
  - Derive new location based classifications

- Popular Location Profiles

Pitney Bowes
Software

THANK YOU

Andy Bell
Advisory Product Manager
Pitney Bowes Software
Email: andrew.bell@pb.com

Pitney Bowes
Software