UC 507 - Mobile GIS & Cloud Services for York Region Employment Survey
Where is York Region?
York Region Facts

- 9 local municipalities located in the heart of Greater Toronto, Ontario, Canada
- 570,000 local jobs with 800,000 jobs projected by 2030
- 1.1 million residents – 3rd largest municipality in Ontario; 6th largest in Canada
- 1st in population growth among Canada’s largest municipalities

- 45% of residents are foreign born. 90 languages and dialects spoken
- 45,000 businesses – Ontario’s 2nd largest business centre after Toronto
- $8 billion investment in infrastructure and transit in 2011-20 to facilitate growth
Global Companies @ York
Overview and Issues

BUSINESS EMPLOYMENT SURVEY
What is the Business Survey?

- Annual collection effort for summer term
- 10-12 surveyors each year + 1 supervisor
- Door-to-door survey of 28K+ businesses
- Used Windows XP Tablet computers for data collection
- Microsoft Access Database
- System first designed and run in 1999
Survey Data Use

Infrastructure Planning
- Identify / manage growth areas
- Long-term trend analysis by sector
- Local marketing and outreach
- Business directory
- Cultural points of interest
- Success measures for retention / expansion
- Identify high-growth businesses
3 Overlapping Interests

- Long-range planning
  - Employment @ location by activity
- Economic development
  - Employment @ location by sector
- Tourism
  - Public-accessible activity @ location

- ICT
- Life Sciences
- Adv. Manufacturing

- Administrative
- Operations
- Manufacturing

- Accommodations
- Cultural
- Financial Services
### Spatial Systems Architecture, Analysis & Design

**Lookup Tables**

- Street Name
- Street Type
- Street Direction
- City
- Municipality

**York Region Business Database**

- **Do Not Survey**
  - Yes
  - No

**Update Method**: street survey

**Comments**: **** THIS IS AROMA ESPRESSO BAR ****** UPDATED FOR 2012

**Street Address**

<table>
<thead>
<tr>
<th>Street Number</th>
<th>Street Name</th>
<th>Street Type</th>
<th>Street Direction</th>
<th>Suite Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PROMENADE</td>
<td>Circ.</td>
<td></td>
<td>M116</td>
</tr>
</tbody>
</table>

**Full Street Address**: 1 PROMENADE CIRCLE

**City**: THORNHILL

**Municipality**: VAUGHAN

**Province**: ONTARIO

**Postal Code**: L4J4P8

**Country**: CANADA

**Traffic Zone Lookup**: 1N91

**TZ Lookup**

**Auto-Fill Street Address from above.**

**Business Contact Info**

**Update Method**: street survey

**Comments**: **** THIS IS AROMA ESPRESSO BAR ****** UPDATED FOR 2012

**City**: THORNHILL

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**TZ Lookup**

**Auto-Fill Street Address from above.**

**Do Not Survey**

- Yes
- No

**Unable to Contact**: No

**Refused to Participate**: Yes

**Not Found at Location**: Yes

**Language Barrier**: Yes

**Business Closed**: Yes

**Home Based**: Yes

**Auto-Fill Street Address from above.**
Employment Data Concerns

Data Quality
- Count of employees @ location may = total
- NAICS code classifies by activity @ location
- Parent company missing for roll-up of results
- New businesses are missed
- Closed businesses are not removed
- Location on wrong street or municipality
- Management of contacts
Updating the Approach and Technology

CHANGING THE STORY
Partnership & Collaboration

GIS
Economic Dev.
York Region
IT
Long-Range Planning
9 Local Gov’t

Spatial Systems Architecture, Analysis [&] Design
CRM-Enabled Solution

Survey Data
- Employment numbers
- Location confirmation
- Classification

Company Information
- Address
- General contact info
- GIS Location

Contact Information
- Name / Title
- Phone / Email
- Manager role

Activity Tracking
- Call log
- Event attendance
- Task lists

Company Information
- Needs for space / skills
- Hiring forecasts
- Barriers to success

Contact Information
- C-Suite contacts
- Reporting relationships
- History

Opportunity Tracking
- Match foreign investments
- Space / land requests
- Employment potential

Region/Cloud Hosted DB

Employment Survey

EDO CRM
1 DB, Multiple Interfaces

- **Employment Survey**
  - browser-based
  - disconnected-capable
  - location-aware (GPS)

- **Business User**
  - browser-based
  - registration
  - self-survey

- **Tourist**
  - browser-based
  - Points of Interest
  - culture & event map

- **Business Directory**
  - browser-based
  - Map search / view
  - Download directory

- **Region/Cloud Hosted DB**

- **EDO Officer**
  - browser-based

- **EDO CRM**
  - connection
  - opportunities

- **Business Outreach**
  - connection
  - opportunities
Data for Decisions & Analysis
Technologies supporting collection, management, dissemination

PUTTING IT TOGETHER
Survey Workflow
Running the Operation
Activities

Done
• Planning App
• GIS Database
• Selected CRM
• Survey FY13/14

To Do
• CRM App
• Survey App
• CRM DB
• Import History
Questions

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