The Rapid

• Outstanding Public Transportation System award in 2004
• 7.2 million annual rides
• Service area
  – 400,000 residents (six city area)
  – 600,000 residents (Kent County)
  – 1,000,000 residents in alternative commute area (three county area)
West Michigan
Carpooling Then and Now

• Offered carpooling assistance since 1990, program growth stagnant
  – Telephone driven
  – Reports mailed via USPS
  – Not secure

• GreenRide
  – Implemented in January 2006
  – Increase of 4-10x registrations, averaging over 60 new registrations per month
  – Within six (6) months of implementation exceeded highest number of registrants
  – Reduced administration time by at least 50%
  – Added more choice riders, reduced phone calls with on-line only access
GreenRide Use

New User Registration Increase (Cumulative Summary)

- Dec-05: 190
- Jan-06: 205
- Feb-06: 242
- Mar-06: 286
- Apr-06: 353
- May-06: 444
- Jun-06: 482
- Jul-06: 546
- Aug-06: 612
- Sep-06: 668
- Oct-06: 810
- Nov-06: 843
- Dec-06: 954

Users
GreenRide Employer Programs

• Allow employers to operate customized sites under The Rapid’s public site
  - Employees only ride with other employees
  - Employers pay yearly fee to help offset The Rapid’s costs
  - Employers pay for site development
  - Employees can opt into The Rapid’s public site

• Local and national press coverage
  - Grand Rapids Business Journal
  - Mention in the Wall Street Journal
Corporate Portals Examples

- Spectrum Health, 13,000 employees
- Metro Health, 3,300 employees
- Foremost Insurance, 2,000 employees
Reasons to Implement Ridesharing

- Parking issues
- Mission of sustainability
- Long commute patterns for employees
- Option to help employees save on commuting costs
Challenges in West Michigan

• Low parking costs
• Short commute times (avg. 18 minutes)
• Stagnant economy (some areas growing, but not overall)
• Urban sprawl
“Cheap and Easy” Alternative Commute Model

• Customized zip code maps created to show where employees commute from
• Availability for presentations (anytime)
• Easy to work with—lots of handholding
• Free or almost free services, GreenRide public site, $350 vanpools, includes fuel, etc.
• Options to customize plans
• Very good reputation, act like a for-profit, but subsidize like a non-profit
Employer Maps
Thank You!

- Please contact me with additional questions:
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What is GreenRide

• Greenride is a web-based software application designed to help organizations facilitate alternative transportation programs

• Greenride is built using ASP.NET technology in conjunction with ESRI’s ArcWeb Services technology and Microsoft’s SQL Server database

• Greenride works by helping users find rideshare partners who live near them with similar schedules, destinations and personal preferences.
Who Is GreenRide Ideal For

GreenRide is ideal for:

- Metropolitan Planning Organizations
- Transportation Management Agencies
- Public Transit Authorities
- Large Companies
- Air Quality Management Districts
Features Of GreenRide

• Helps find potential carpool partners with similar origins and destinations

• Locate park-n-ride lots and bus, rail, and bike routes

• Generate and print maps with routing information

• User friendly intuitive interface

• Privacy protection
Proven Results

Since E&E’s inception:

- Saved more than 30,000,000 driven miles
- Saved 1.7 million gallons of gasoline
- Prevented 13,000 tons of carbon dioxide emissions
- Prevented 125,000 pounds of nitrogen oxide emissions
- Saved 50,000$ by eliminating the need to construct and maintain additional parking
Why Use ArcWeb Services

• No software installation required

• Data coverage for all of North America, and parts of South America, Central America, Western Europe and Australia.

• Data is maintained by ESRI or data vendors who supply ESRI with the data
GreenRide Demo
Connecting To ArcWeb Services
Creating A New Project With VS.NET
Create An ASP.NET Web Service
Add A Web Reference To ArcWeb Service Objects
Type In URL To ArcWeb Service Library
Import ArcWeb Service Objects To Variables
Declare Variables To House Object Info
Function Code Overview

```vbnet
Public Function GetAddress(ByVal HouseNumber As String, ByVal street As String, ByVal city As String, ByVal state As String, ByVal Country As String) As String
    Dim myAuthentication As Object
    Dim mAddress As Address
    Dim mAddressList As List
    Dim mAddressComparer As Comparator
    Dim mAddressDAO As DAO
    Dim MAddress As String
    mAddressDAO = New MAddressDAO
    mAddressList = mAddressDAO.GetAddresses()
    mAddressComparer = New MAddressComparer(nStringComparer.CaseInsensitive)
    For Each mAddress In mAddressList
        If mAddressComparer.Compare(mAddress.street, street) And mAddressComparer.Compare(mAddress.houseNumber, HouseNumber) And mAddressComparer.Compare(mAddress.city, city) And mAddressComparer.Compare(mAddress.state, state) And mAddressComparer.Compare(mAddress.country, Country) Then
            Return mAddress.fullAddress
        End If
    Next
    Return MAddress
End Function
```
Create A Web Method To House Function
Build Solution
Bring Up Web Service Via URL
Testing The Web Service

Service1

Click here for a complete list of operations.

GetAddressXY

Test
To test the operation using the HTTP POST protocol, click the 'Invoke' button.

Parameter | Value
---|---
HouseNumber: | 
street: | 
City: | 
state: | 
Country: | 

SOAP

The following is a sample SOAP request and response. The placeholders shown need to be replaced with actual values.

```xml
POST /ArcWeb_Demo/Service1.smxw HTTP/1.1
Host: localhost
Content-Type: text/xml; charset=utf-8
Content-Length: 493

SOAPAction: "http://tempuri.org/ArcWeb_Demo/Service1/GetAddressXY"

<?xml version="1.0" encoding="utf-8"?>
  <soap:Body>
    <GetAddressXY>
      <HouseNumber xsi:nil="true"/>
      <street xsi:nil="true"/>
      <City xsi:nil="true"/>
      <state xsi:nil="true"/>
      <Country xsi:nil="true"/>
    </GetAddressXY>
  </soap:Body>
</soap:Envelope>
```

invoke
Thank You!

• Please contact me with additional questions:

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