Development of an Integrated Information Platform for Rural Regeneration Using WebGIS and Web Services

Wayne W. Yu

GIS Research Center, Feng Chia University
May 7, 2012
Outlines

- Rural Regeneration
- Problem Statements
- System Architecture
- System Demo
- Conclusion & Future Work
Rural Regeneration

- **City**
  - More Job Opportunities
  - More Facilities and Convenience for Life
  - Highly Populated

- **Countryside**
  - Most people are elders and children
  - Labor Shortage
  - Tardy Development
Rural Village Regeneration

• Rural Regeneration Act
  – Passed in 2010
  – Infrastructure Rehabilitation
  – Village Feature Finding & Creation

• Our Project
  – Sponsor: Soil and Water Conservation Bureau, Taiwan
  – Goal: To Establish an Integrated Information Platform
  – Users: All Village Regeneration Planners supported by the Act
  – Solution: ArcGIS Server & Web Services
Problem Statements

- Too many different Systems
  
  How many systems do I need to surf to get the information I need by 2009?

  - Surf to System A on Browser
  - Surf to System B on Browser
  - Surf to System C on Browser
  - Surf to the Spatial Data Warehouse to apply the map and download the map
Problem Statements

• The legacy Systems
  - System A: I am two years old. I am developed by PHP and MySQL
  - System B: I am five years old. I am developed by ASP and MSSQL
  - System C: I am seven years old. I am developed by ASP and Oracle
  - System D: I am one year old. I am developed by .NET and MSSQL

• Spatial Data but non-spatial Display
  - Our Origin, Our Hometown
    - Huashan Village, GuKeng Township, Yunlin County
  - Data exchange
    - Where it is?
    - Yep, it's over there.
System Architecture
System Demo

• Zoom to Community
System Demo

- Integrated search interface

Weather information. Data are provided by CWB.

Six topic search from six heterogeneous databases
System Demo

- Map overlay Online

Map Overlay Control

Map overlay alpha Control
System Demo

- 2D / 3D together, ArcGis Server With Google earth
System Demo
Conclusion

• Rich Internet Application
  – Highly interactive user interface and low learning curve
  – Use webpages as windows form

• Integrated Search
  – Where the data was not important
Future Work

Rural regeneration
public cloud service

Committee
Person in charge
Public
Government
THANK YOU