New Technology for Cadastral Systems
Brent Jones, PE, PLS

Land Administration
GIS is the platform for land administration

Land administration is the process of determining, recording, and disseminating of information about ownership, value and use of land when implementing land management policies.

Source: UN/ECE Land Administration Guidelines 1996
Platforms Evolve
A New Architecture

New platforms, new opportunities....

This Platform Leverages Many Trends

Cloud GIS
Pervasive
Geographic
Understanding

GIS
Social Media
Remote Sensing
Massive Sensor Networks

Cloud Computing
Social
Industry
Big Data

Data Mining
Big Science
Collaborative
Interdisciplinary
Cyber Infrastructure
2.0 Leveraging the new Platform....

Web 1.0
The Read-Only Web
1996

Web 2.0
The Read-Write Web
2013 (April)

6 billion cell phones worldwide (20% smartphones)....

GIS as a Platform
Connects and Leverages

Pervasive Apps
Enterprise
Desktop
Server
Cloud

Providing Webmaps and Tools...
Enabling New User Experiences

This Platform Integrates All Types of Information

Web Maps Normalize The Information . . .
. . . And Make It Accessible Widely
Web Services
Quick, but very important definition

WFS – Web Feature Service
WMS – Web Mapping Service
Geoprocessing Services

• are application components
• communicate using open protocols
• are self-contained and self-describing
• can be used by other applications

Web services power web maps, open standards……

Web Maps are the New Medium
Providing Intelligent Maps to Everyone

Dynamic

Supporting Visualization, Query, Editing, and Analysis

Making Dynamic Geographic Information Available Anywhere
Global Basemaps are Part of the Platform
Normalized Commercial and Government Sources

Available on the Web and as an Appliance

. . . Providing a Foundation for Your Work

Your Data/Maps On Any Device
Apps - Changing the way we think about computing

. . . Making Land Information Accessible Everywhere
GIS as a Platform
A Complete Cadastre Platform

Apps & Applications

Cloud/Server

Content & Services

Easy, Open and Cloud Enabled... Providing Transformational Opportunities

Global Grid Reference System - GGRS

Worldwide addressing
12 characters
Web service
LADM in the Cloud
On your phone, on your desktop, on the web....

LADM WFS– feature service
Editable worldwide
Publically available

Open Maps and LADM attributes....
Add information on tenure....

Any device
Works disconnected
Authoritative and Contributed Content
Using all data available, appropriately.....

Land Administration for Sustainable Development
Free eBook Download

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