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New Thinking.

GeoNOVA Initiative - 5 Year Strategy Project

Trends & Technology Workshop 2

GeoPortals – Concepts & Realities

(February 12th, 2002)

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Workshop Objectives

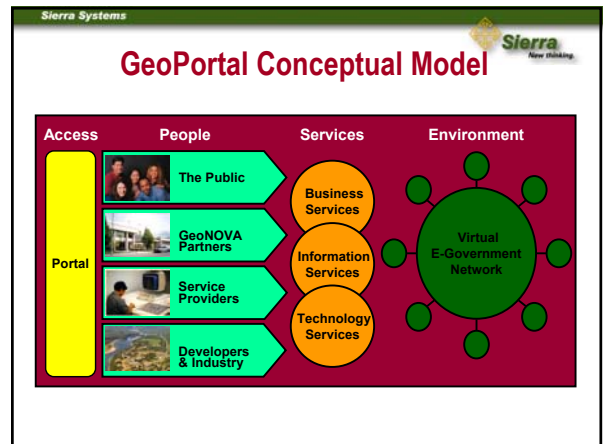
- To Provide an Overview of GeoPortals / Geo-Spatial Warehouses Technology
- To Share Findings from GeoPortal Projects
- To Stimulate Thought & Discussion on GeoPortal options for GeoNOVA

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What is a GeoPortal?

- Map-based Portal
- Portal Provides One Window Web Access to:
 - Information
 - Services
 - Technology
- GeoPortal Uses Map / Location to Access Information & Services
- Example NRCAN's GeoConnections




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The Need for GeoPortals

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Drivers & Industry Trends

- “Do More with Less” - Mantra of Government
- Increase Demand for Data Sharing & Exchange
- Increased Expectation for Info & Services on the Web.
- Spatial Data Used to Link & Integrate Disparate Info.



Drivers & Industry Trends

- Pressure for Interoperability Standards.
- Push for Metadata Standards for Web "Discovery"
- New WEB Mapping Technology
 - (MapGuide, ArcIMS, GeoMedia Web Map, MapExtreme)
- Technology no Longer a Limitation – Data, Organizational & Policy Issues are Greatest Barrier

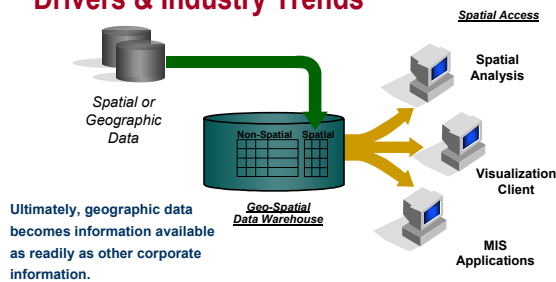


Drivers & Industry Trends

- Data Sharing on the WEB
- From NAPSTER to MAPSTER - A Logical Progression...
 - Sharing Images (Lead by Porn Industry)
 - Sharing Music (Napster)
 - Sharing Video (Movies on Web before released)
 - Sharing Geo-Spatial Data!!



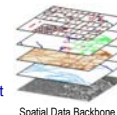
Drivers & Industry Trends



Demand from 3 Broad Sectors....

Resource & Land Management

- ✓ Parks & Recreation
- ✓ Environmental Management
- ✓ Land Development
- ✓ Land Registry
- ✓ Land Use Planning
- ✓ Agriculture
- ✓ Forestry
- ✓ Fish & Wildlife
- ✓ Exploration



Community Info & Services

- ✓ Virtual City Hall
- ✓ Hospitality Services
- ✓ Health Services
- ✓ Justice
- ✓ Emer Services (911)
- ✓ Social Services (211)
- ✓ Town Planning

Infrastructure Management

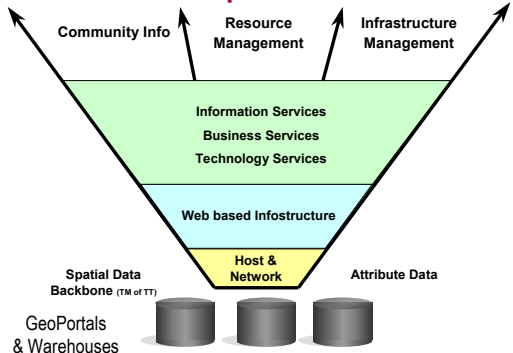
- ✓ Sewer & Water
- ✓ Transportation
- ✓ Telephone
- ✓ Oil & Gas Pipeline
- ✓ Power
- ✓ TV & Internet Cable
- ✓ Real Property / Asset Management



GeoPortals Architecture Options



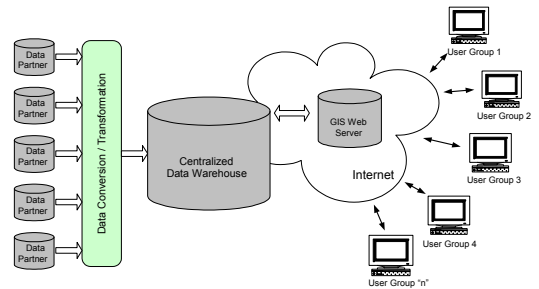
GeoPortals Conceptual Model



GeoPortal with Centralized Warehouse

- Selected Data Replicated to Warehouse
- Common Data Format & Standard Agreed to
- Users Access Warehouse Via Standard Suite of Discovery, Access and Business Applications

GeoPortal with Centralized Warehouse



GeoPortal with Centralized Warehouse

- Pros
 - Relatively Easy to Develop – Inclusive all Data Partners
 - Single Source of Data (Single Format)
 - Good Security
 - User View of the Data
- Cons
 - Relies on “push” from each Partner (Currency Issue)
 - Sub-set of data only
 - Duplicate Data to Manage

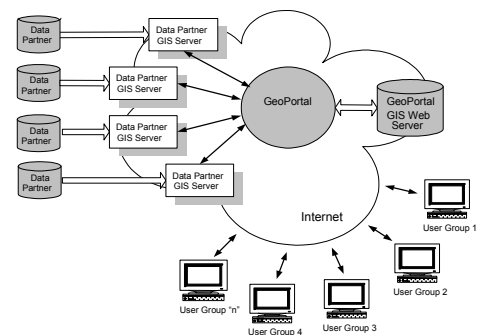
Group Discussion 1

- GeoPortal with Centralized Warehouse
 - Discuss how this option could work for GeoNOVA
 - Do the Pros and Cons Noted Apply?
 - Are there any other Pros & Cons?

GeoPortal with Distributed Database

- Uses OGC Interoperability to Intelligently Communicate with a Network of Distributed Internet GIS Servers
- Hides Data from its Interface
- Internal Structure of Various Partner GIS Database not Exposed to the Outside World

GeoPortal with Distributed Database



GeoPortal with Distributed Data

- Pros
 - Immediate Currency of Data
 - Support Multiple Projections etc. via OGC
 - One stop Shopping
- Cons
 - All Partners must have OGC compliant systems
 - Each Partner Needs a GIS Server
 - Security & Confidentiality can be Complicated

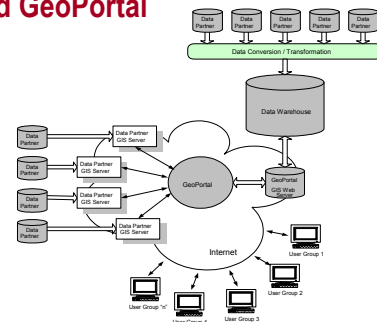
Group Discussion 2

- GeoPortal with Distributive Data
 - Discuss how this option could work for GeoNOVA
 - Do the Pros and Cons Noted Apply?
 - Are there any other Pros & Cons?

Hybrid GeoPortal

- Centralized Warehouse Option for Data Partners without OGC Systems (or Security Conscious)
- GeoPortal with Distributive Data Option for Partners Ready for this

Hybrid GeoPortal



Hybrid GeoPortal

- Combines Pros of other Options plus
 - Permits Migration over Time
- Cons are the Same, Depending on Option Selected

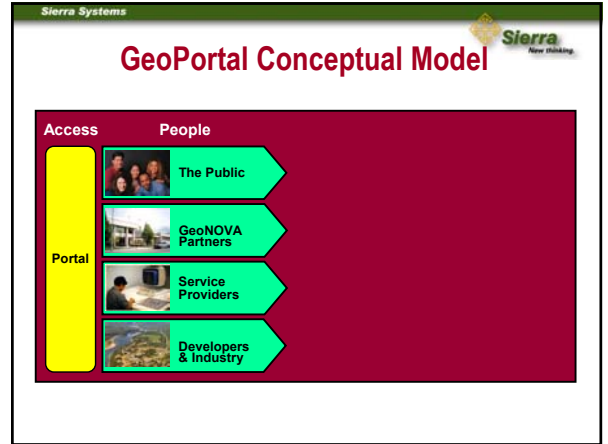
Group Discussion 3

- GeoPortal for GeoNOVA
 - Discuss which GeoPortal Option is Best for GeoNOVA
 - Discuss and Identify Barriers to GeoNOVA GeoPortal (Data, Technology, Organizational)
 - Discuss & Identify Policy Issues that need to be Resolved (Ownership, Cost, Security, etc.)


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GeoPortal Users Groups for GeoNOVA



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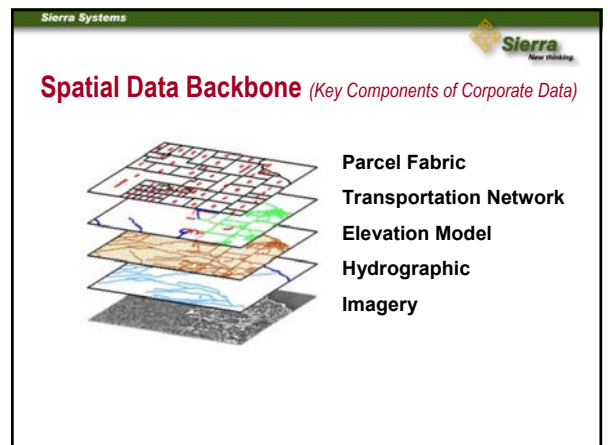
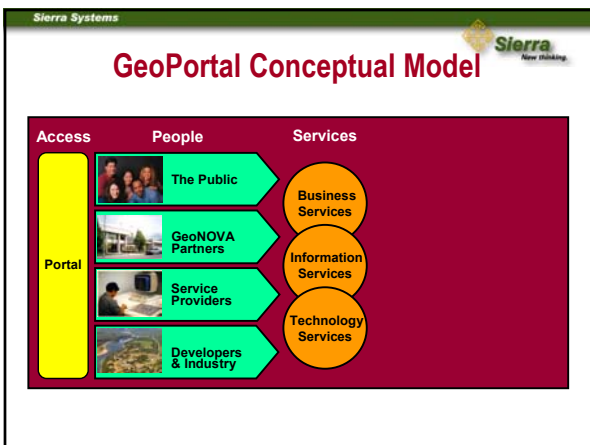
Group Discussion 4

- GeoPortal User Profiles for GeoNOVA
 - Discuss Current Users of GeoNOVA Data & Services
 - Identify User Profiles for Different User Groups
 - Discuss & Identify Possible Future Users / User Group

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GeoPortal Services for GeoNOVA





Group Discussion 5

- **GeoPortal Services for GeoNOVA**
 - Discuss Current Information & Services Provided by GeoNOVA Partners
 - Discuss which of these Information & Services Could be Provided via the GeoPortal
 - Discuss & Identify Possible Future Services GeoNova could offer on Line (Information, Services & Technology)



Best Practices Example of GeoPortal

- New York State Coordination Program
www.nysgis.state.ny.us



Wrap Up

- Did we Meet the Workshop Objectives?
- Questions & Answers
- Action Items and Follow-up