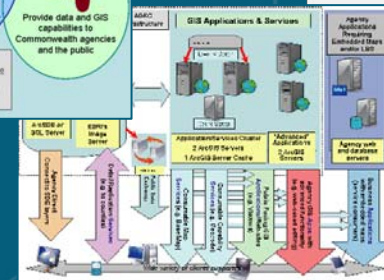
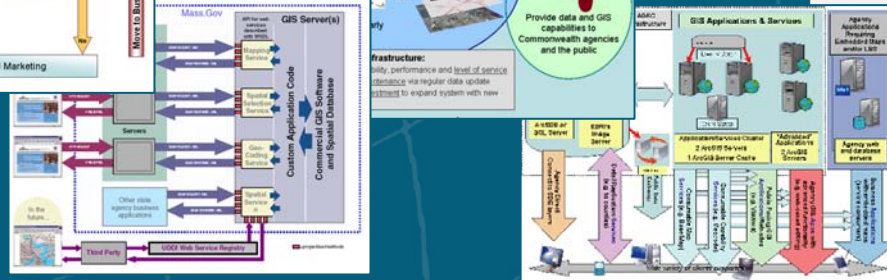
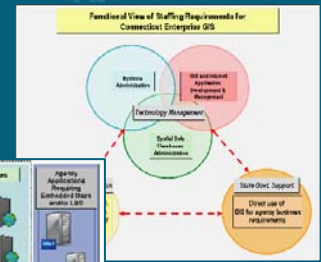
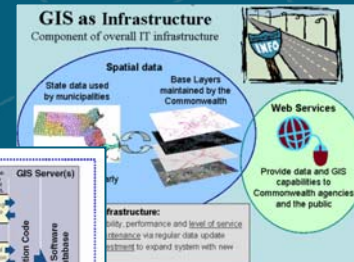


Geographic Information Systems Functional Transformation



Kickoff Stakeholder Session

Prepared by Applied Geographics, Inc.

May 13, 2008

With you today

- Michael Turner, Executive Vice President
 - **Principal in Charge**

- Andy Buck, Senior Project Manager
 - **Project Manager**

Agenda

1. Introductions
2. High-level Project Overview
3. Into to Enterprise GIS Planning
 - What does it mean?
 - What does it look like?
 - What are the challenges?
4. Project Execution & Schedule
5. Questions & Answers
 - Please ask questions at any time!

Project Overview

- Builds on several **prior design and consensus building efforts**
- Focuses on **Functional Transformation**
 - Design of an enterprise GIS for **state government**
- Aligns with **Organizational Transformation** and coordination effort that is underway
 - New/evolved GIS governance in MN

Successful Enterprise GIS for Minnesota

- Meets state agency **business needs** and provides **measurable benefits/efficiencies**
- Aligned with State **IT infrastructure** and policy
- Follows logical **phased development plan**
- Recognizes the interests of the non-state govt. **stakeholder community**
 - Federal agencies, county/local govt, & private sector

Lots of GIS & IT Planning in MN Lately

This project is part of a logical progression

A Foundation for a
Coordinated GIS
MGCGI, 2004

State GIS Enterprise
Conceptual Architecture
Design - MGCGI, 2005

Drive to Excellence
Transformation Roadmap
DOA, 2005

The Case for a MN
State GIS Enterprise
MGCGI, 2006

IT & TeleCom Systems
and Services Master Plan
OET, 2007

Compass Points Retreat
Report – MGCGI / LMIC, 2007

Drive to Excellence
Launch of Enterprise GIS
Project – D2E, 2008

2004

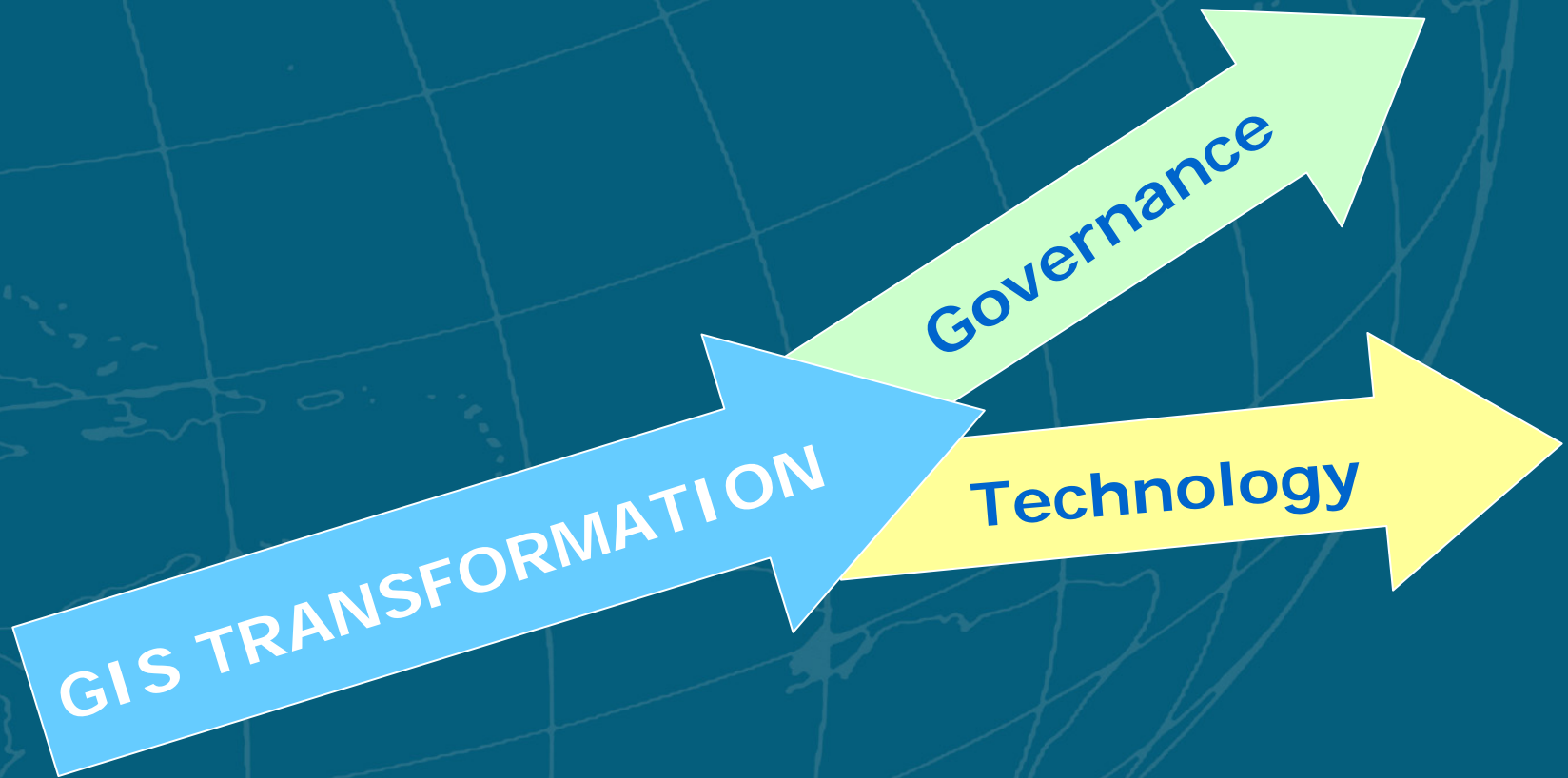
2005

2006

2007

2008

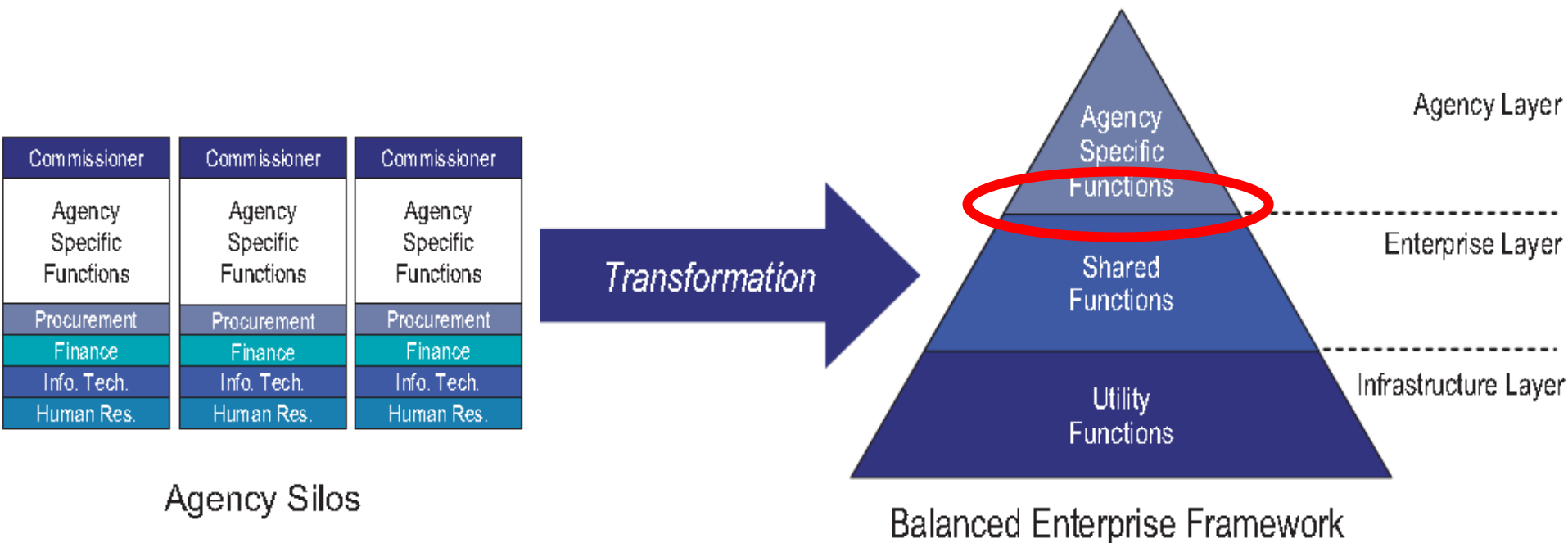
Two paths: Governance & technology



Enterprise Transformation

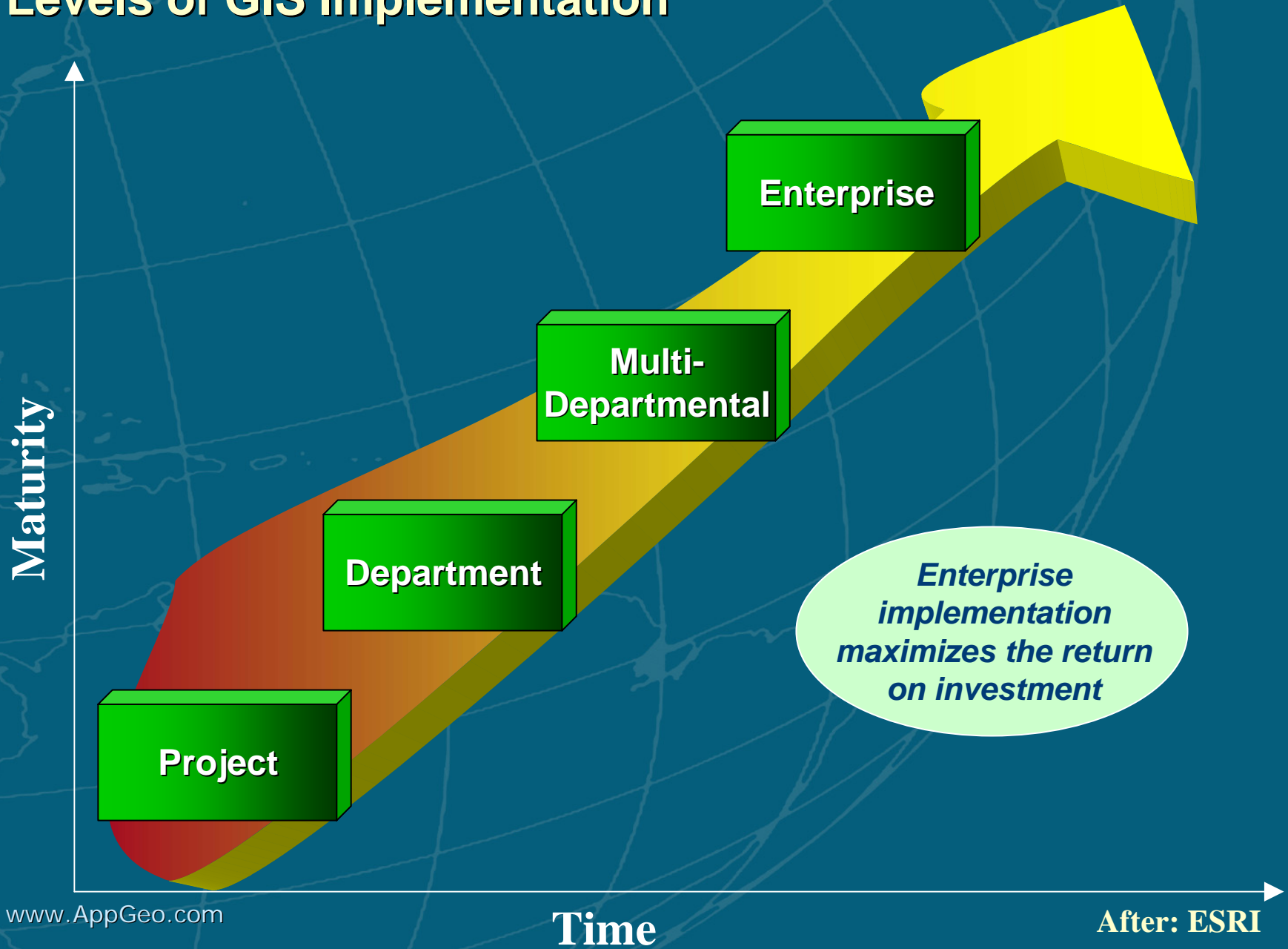
Minnesota Drive to Excellence Transformation Roadmap Summary
From Deloitte: March, 2005

Transformation from an Individual Agency Model to an Enterprise Model



What is Enterprise GIS?

Levels of GIS Implementation



For this project, what is The Enterprise?

- All of State Government
 - Recognizing the link to other governmental partners (i.e. Feds and locals)
- Recognizing that it is likely that some Departments have Enterprise GIS for “their enterprise”

What is Enterprise GIS?

Functional Components

- Statewide **data repository**
 - Desktop
 - Web-service access
 - Data download
 - Support for replication
- Consumable **web services**
 - Map services
 - Image services
 - Capability services (e.g. geocoding, routing)
- **Application** serving and support
 - Public facing viewers
 - Agency business applications
 - Embedded maps
 - Mashup API
- People/skills to support
 - Governance, standards, policies, procedures



What are the benefits of Enterprise GIS?

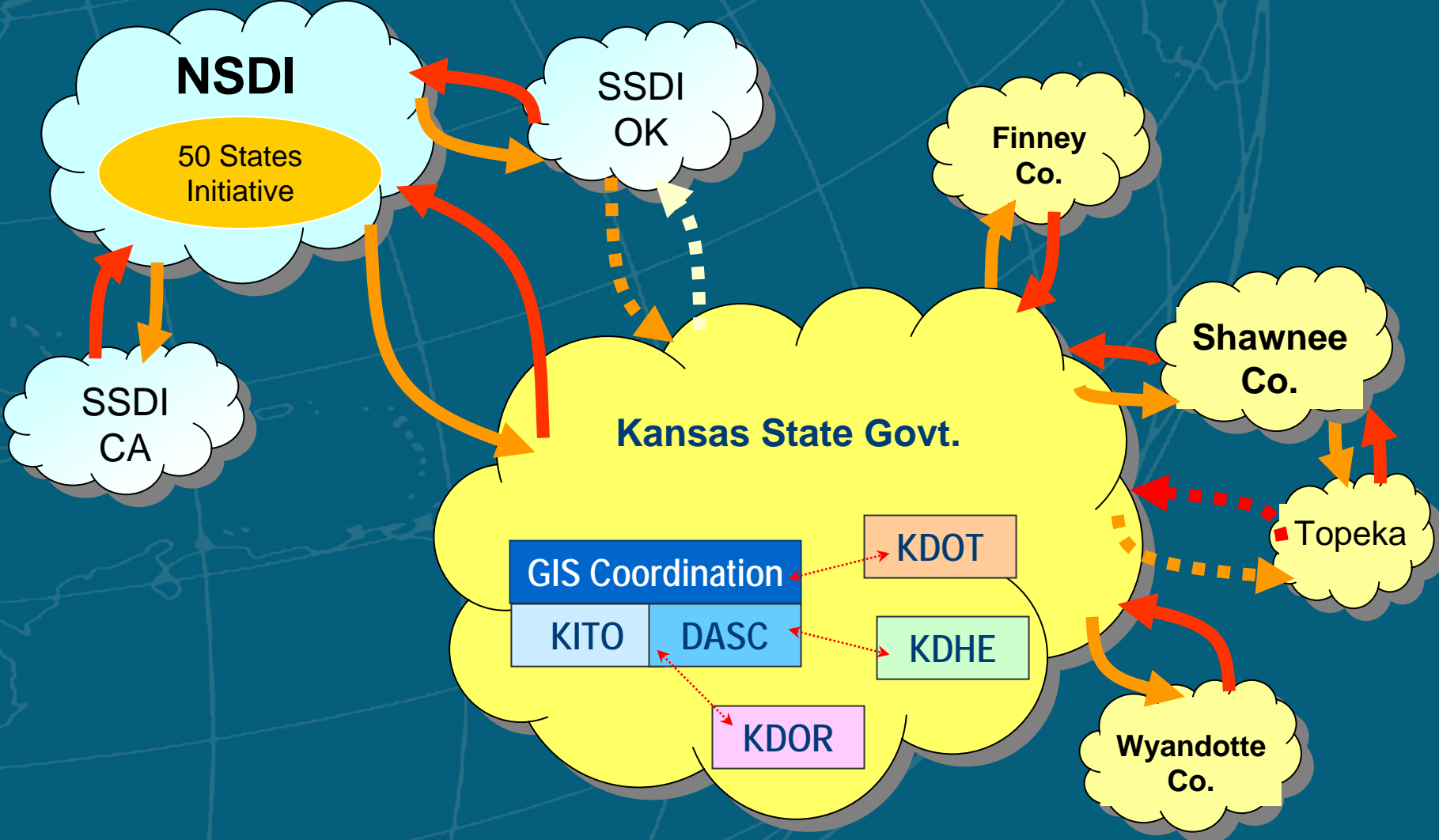
- “Efficiency”
 - Faster/easier
 - Remove redundancy
- Lowers barriers to entry for new participants
 - New agencies “plug-in” to existing infrastructure
 - No need to create new “silos”
- Value-added/new capabilities

What is Enterprise GIS?

What are other states doing?

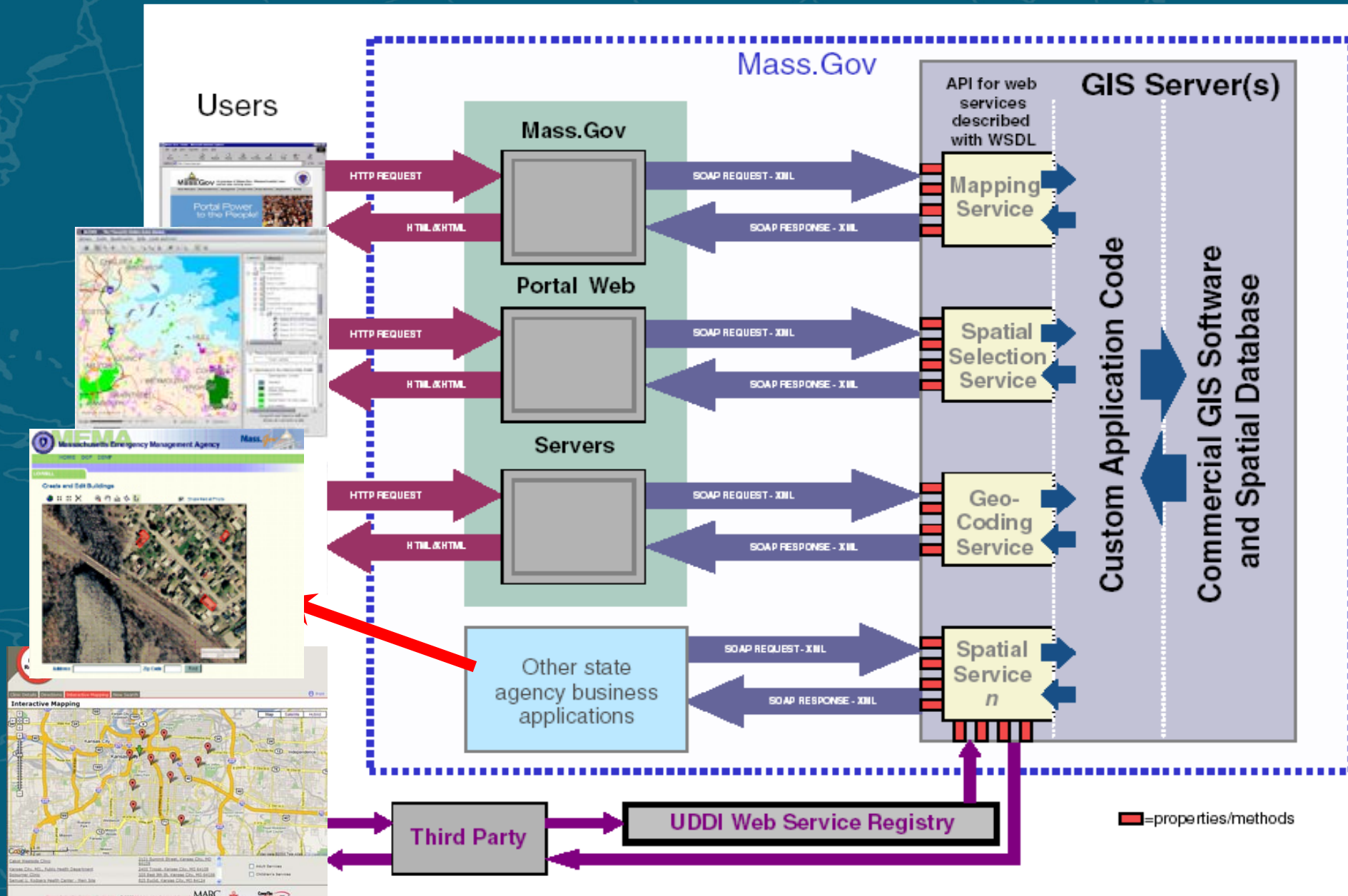
- Statewide Enterprise GIS is challenging
- Lots/most GIS action is at the Departmental level
 - Existing “departmental enterprise” systems
 - Long departmental histories
 - Dedicated GIS staff
- GIS Coordination is a key, distinct activity
 - Intergovernmental coordination
 - Varying levels of *intra*-governmental coordination
 - Coalitions of the willing
 - Voluntary, as opposed to “mandated”
 - Interaction with the public (e.g. Clearinghouse activities)
- We will be looking for leading models

For example, Kansas

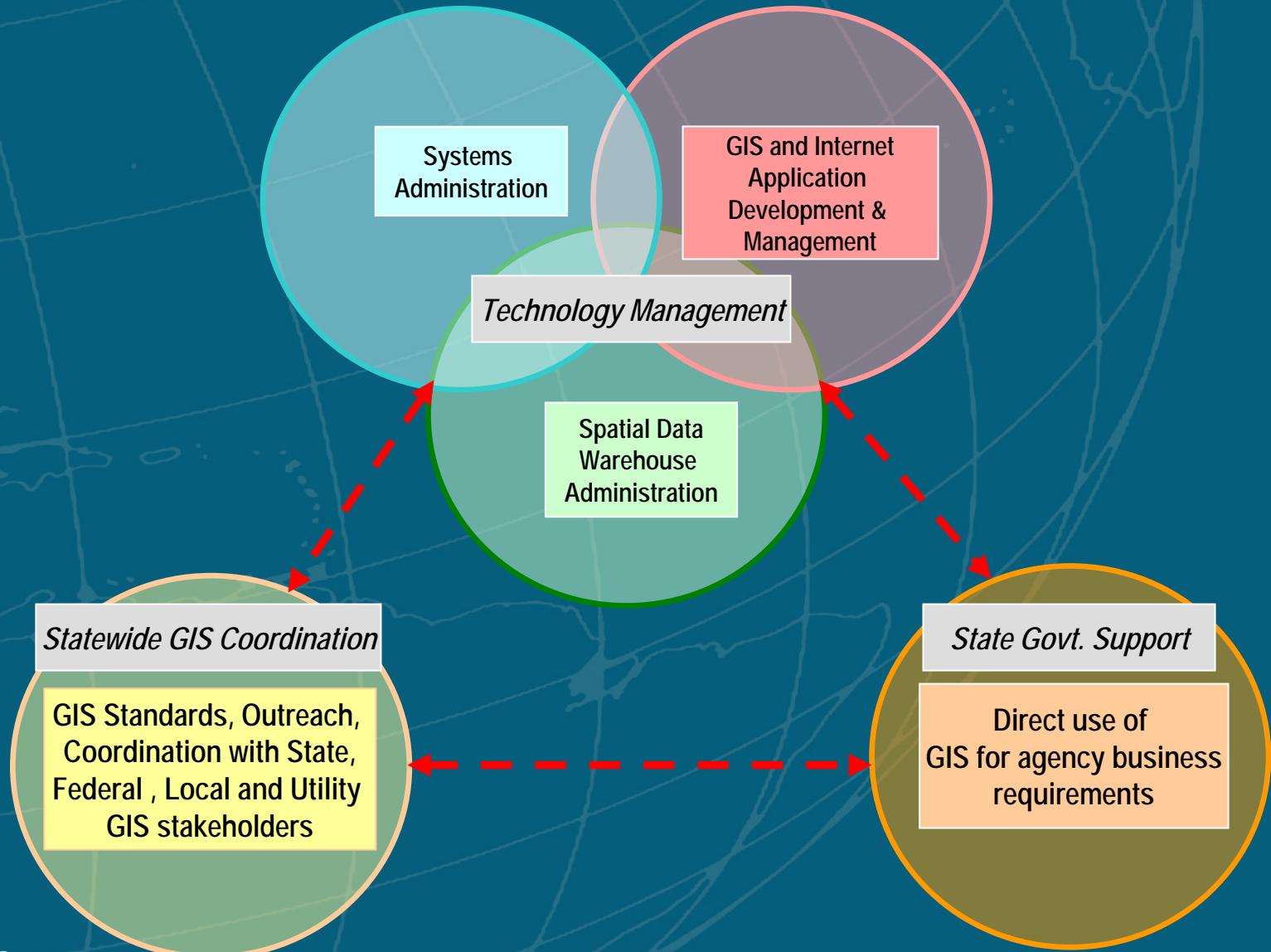


Services Architecture for State Govt.

Example from Massachusetts



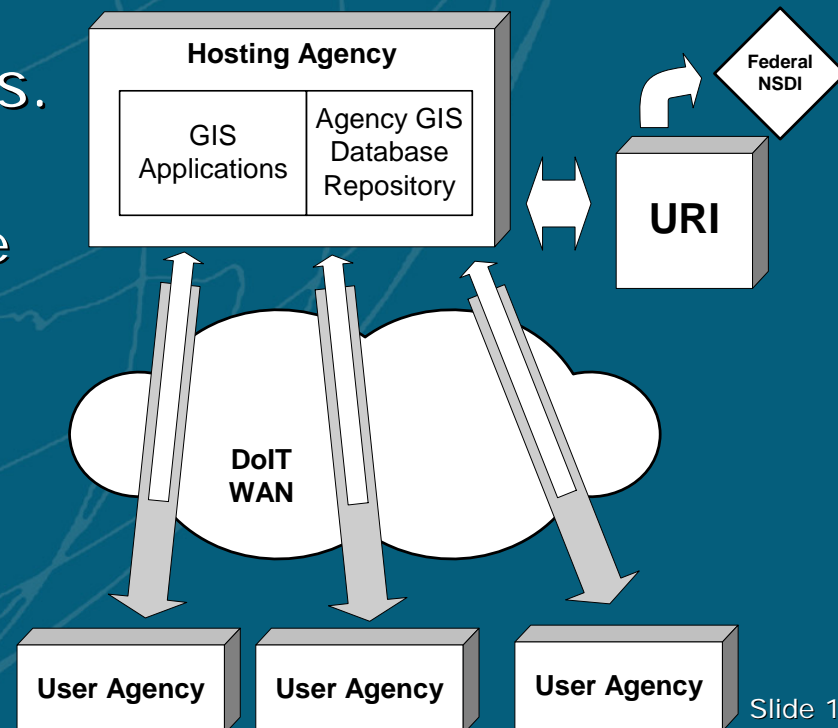
Functional View of Staffing Requirements for Statewide Enterprise GIS



State Enterprise Activities

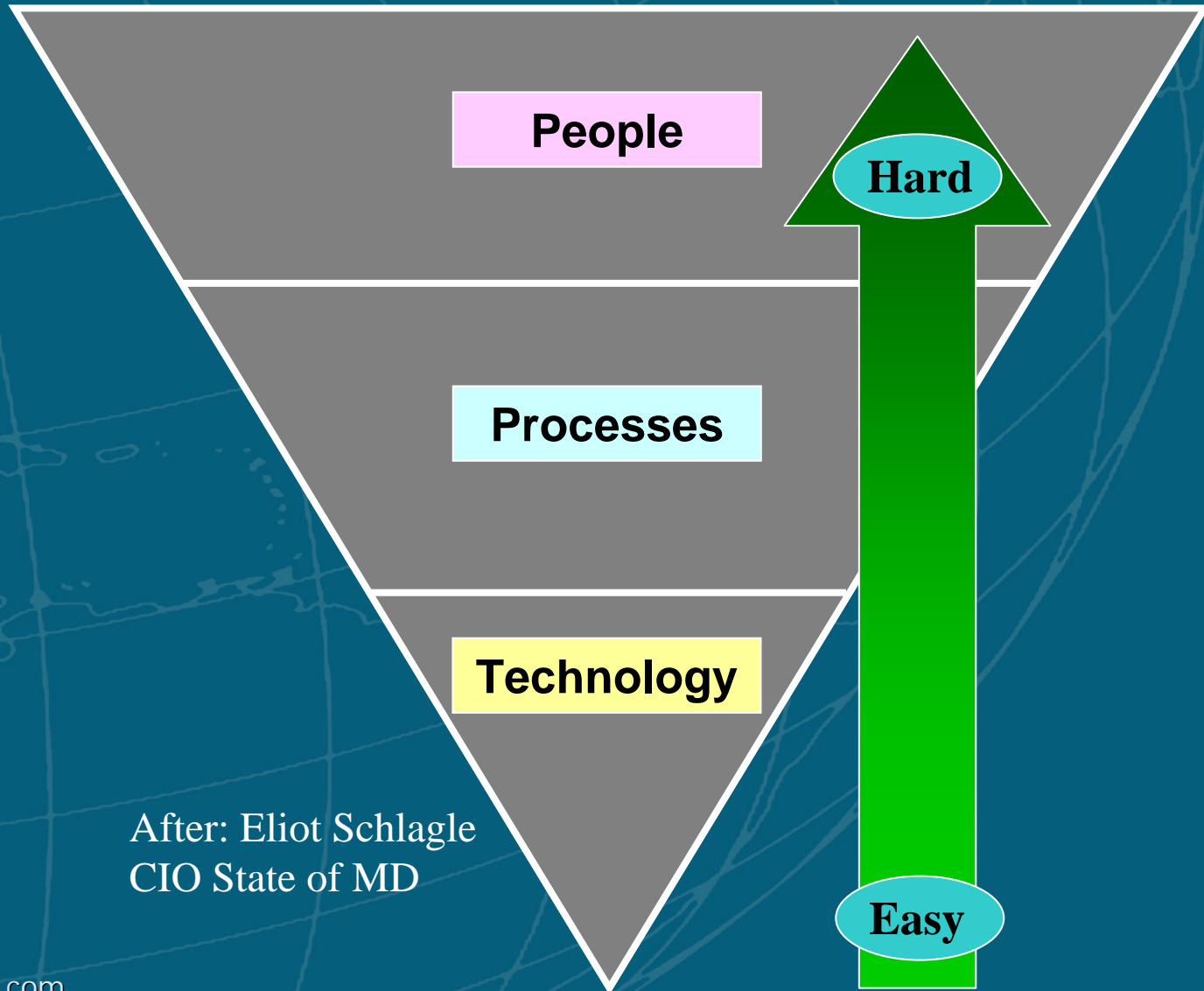
From AppGeo customers

- **NY:** GIS Coordinator has agency procurement review
- **MA & UT:** Developing shared web services
 - No mandates for agencies to use them
- **RI:** Pursuing enterprise architecture for “big 3” Depts.
 - Done on voluntary basis
 - RIDOT opening up its hardware



Issues & Challenges

It's not just about technology...



After: Eliot Schlagle
CIO State of MD

Issues & Challenges

Change is difficult

- Requirement to change
 - From agency perspective: "If it ain't broke...Don't fix it"
- Perceived loss of autonomy
- Expectation is "increased efficiency"
 - Future funding costs?
 - Headcount "adjustments" and/or reassignment
- Performance of "shared services" is paramount
 - Requires "industrial strength"
 - Google & Microsoft have set a high bar

Proposal Scope and Major Tasks

Initiation

- **Task 1: Project Initiation**
Meet with Project Team, review documents, interview key players
- **Task 2: Introduce the Project**
Stakeholder orientation meeting

Information
Gathering

- **Task 3: Evaluate Alternatives**
What are other states doing to solve similar problems? What is the state-of-the-art? Review of the Drive to Excellence draft proposal
- **Task 4: Understand MN Business Requirements**
Survey (1), interviews (20), and workshops (2) with state agencies (and other stakeholders)

Design

- **Task 5: Assess Opportunities**
Define and evaluate short and long term candidates for enterprise GIS
- **Task 6: Design Enterprise GIS**
Define the technical architecture, rationale, costs, implementation strategy

Finalization

- **Tasks 7, 8: Review and Finalize**
Stakeholder close-out briefing and final report preparation

Your involvement: Online Survey

- Factual data gathering through close-ended questions
 - How many GIS users are in your organization?
 - What are your challenges to increasing GIS usage?
 - Which data & sources do you use?
- 15-20 minutes to complete
- Helps to focus interviews
- Ask about both GIS technical capacity and business requirements

The screenshot shows a web browser window displaying the 'Utah GIS Strategic Plan Survey vAGRC'. The page header includes the Utah AGRC logo and the text 'Automated Geographic Reference Center'. Below the header, there is a thank-you message and a note about the survey's purpose. The main content area contains a form with the following sections:

1. Please, tell us about yourself.

Name:

Organization:

Title:

Address:

City/Town/Region:

State/Province:

ZIP/Postal Code:

2. Which category best describes your organization?

Municipality pop: <1,000

Municipality pop: 1,000-10,000

Municipality pop: 10,000-20,000

Municipality pop: 20,000-50,000

Municipality pop: >50,000

County pop: < 4,000

County pop: 4,000-11,000

County pop: 11,000-31,000

County pop: 31,000-125,000

County pop: 125,000-700,000

Regional Planning Organization

Tribal

State Agency

Federal Agency

Military

Education K-12

College / University

Utility

Private Sector (e.g. Surveying/Engineering/Planning/Consulting)

Other

Your involvement: Small Group Interviews

- For each interview, 2 – 8 persons
- Up to 20 interviews:
 - Across multiple agencies
 - Several departments within a key agency
- Topics include:
 - Current GIS resources and capabilities
 - Current and potential GIS uses: the **business requirements**
 - Data: generated by agency, externally available, gaps
 - Key needs, constraints, and opportunities

Project Schedule

May

- Initial Planning Meeting
- Stakeholder Meeting
- Assess State Enterprise Options (delivery in early June)
- Create survey

June

- Conduct Survey
- Agency Interviews
- Workshop for Non-state agencies

July

- More Interviews
- Workshop for State agencies

August

- Opportunity Assessment finalization

September

- Design document delivery
- Stakeholder close out briefing

October

- Final report delivery