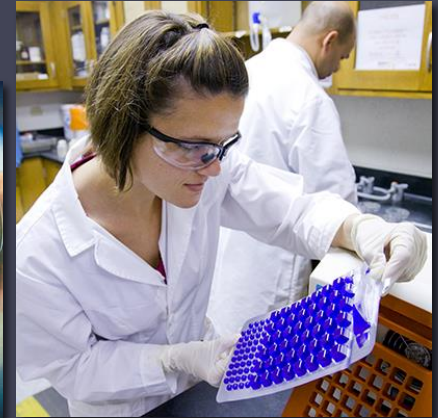
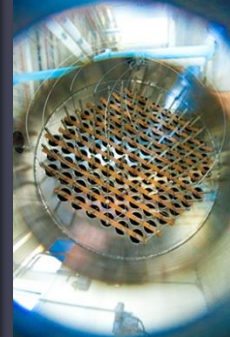
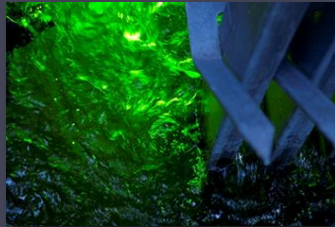




**Greenville
Utilities**

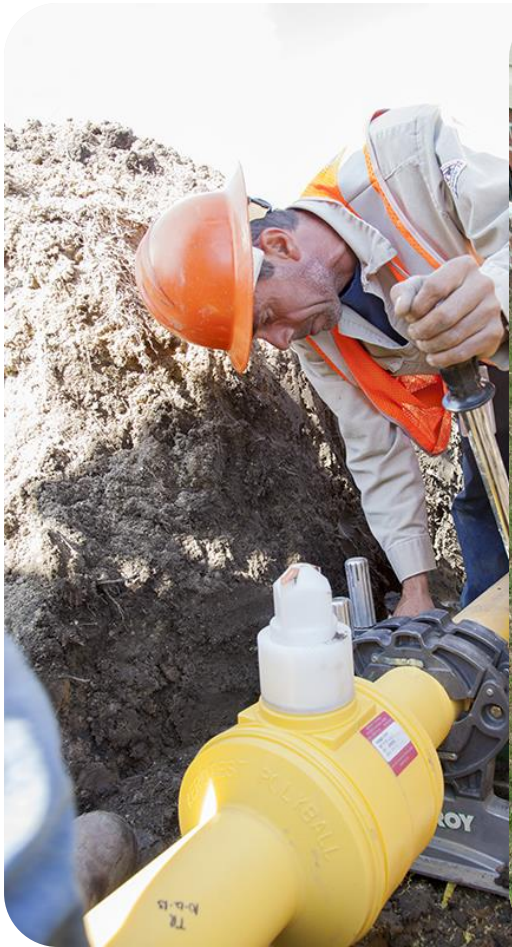


**2016 ESRI USER CONFERENCE
Data Philosophy**

**Alex Li,
GIS Data Services Supervisor, GISP
LIW@GUC.COM
Greenville Utilities**

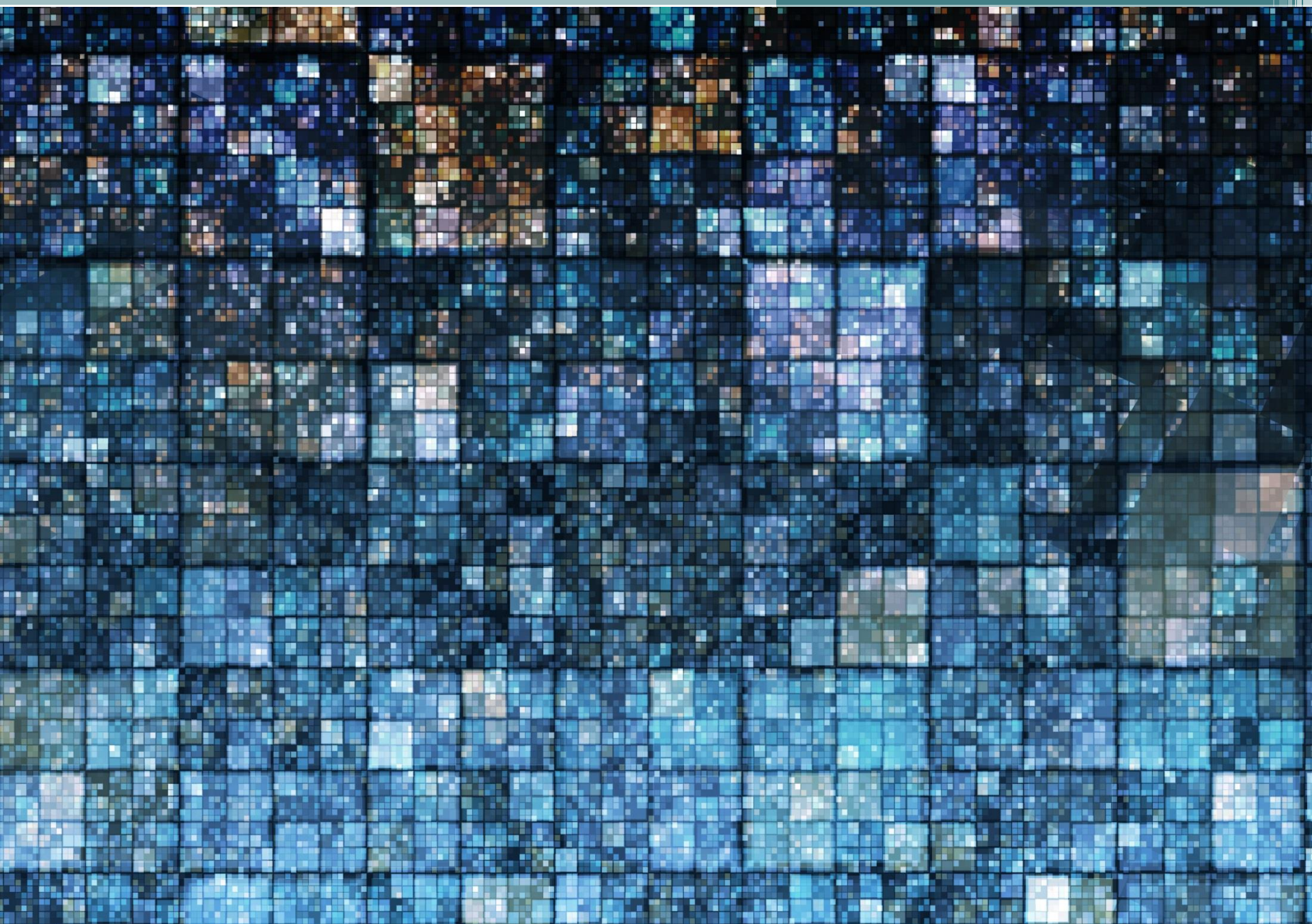
GUC: 107+ Years of Service





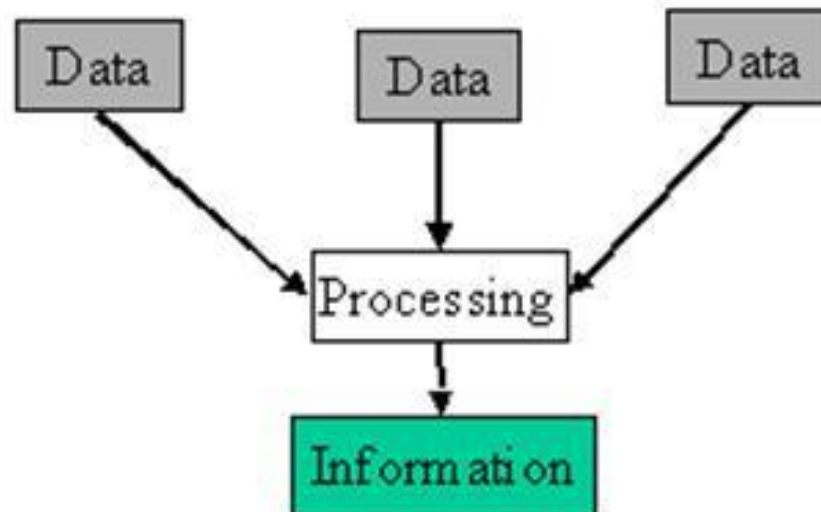
Simple Answer = Very Difficult Task





Information

Information is created from data





Wisdom

Knowledge

Information

Data

Philosophy

Philosophy, 哲學



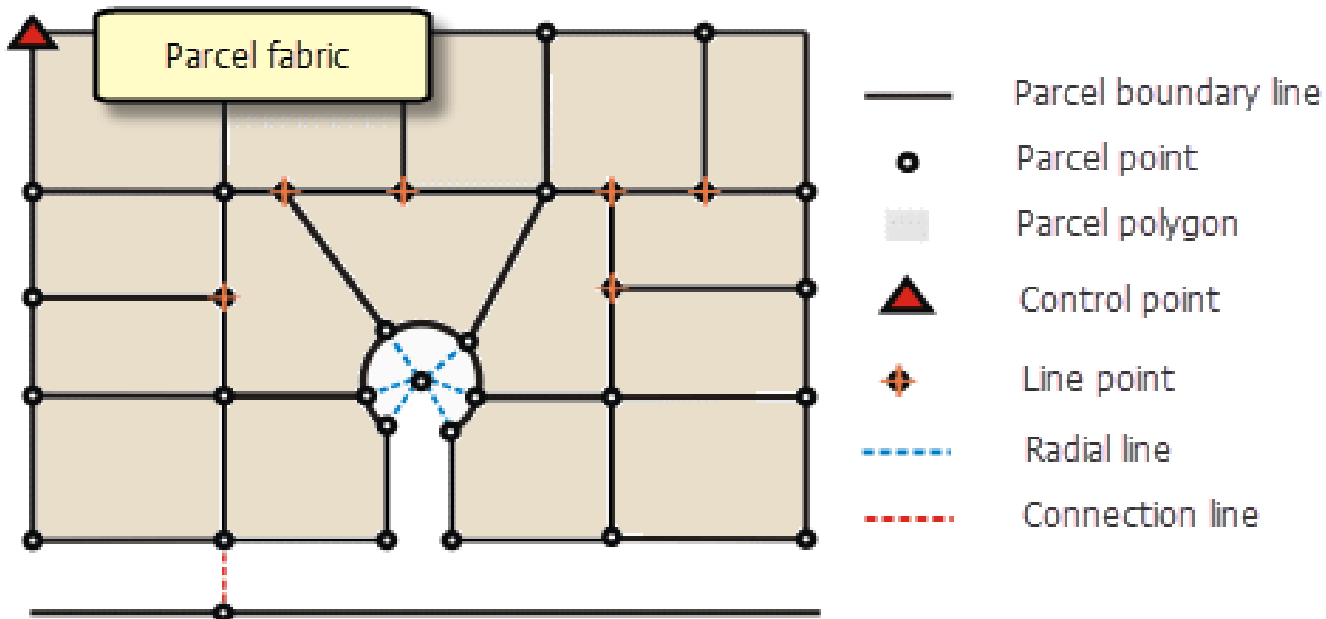
Data

- 1, 2, 3
- 一, 二, 三
- I, II, III
- 1,10,11

Data factual reflection of something in our mind with symbol

**What symbol GIS should use to reflect a
“FACT” of a “Parcel”?**

Data factual reflection of mater in our mind with symbol



Symbol Represent Object



7 Components of GIS Data

- Record of something (log or table)
- Meta data (data about data)
- Symbol represent something (GIS feature)
- Symbol represent the location (footprint, site, work order location)
- Associate document (work order, drawing, field notes)
- Inspection, Maintenance Activities Records (table)
- ID to link all above

Governance

Roles

Rules

Actions

Roles

Data Owner

Data Creator

Data User

Data Custodian

Data Steward

GREENVILLE UTILITIES

GIS Data Services Group

Customer Service Level Agreement

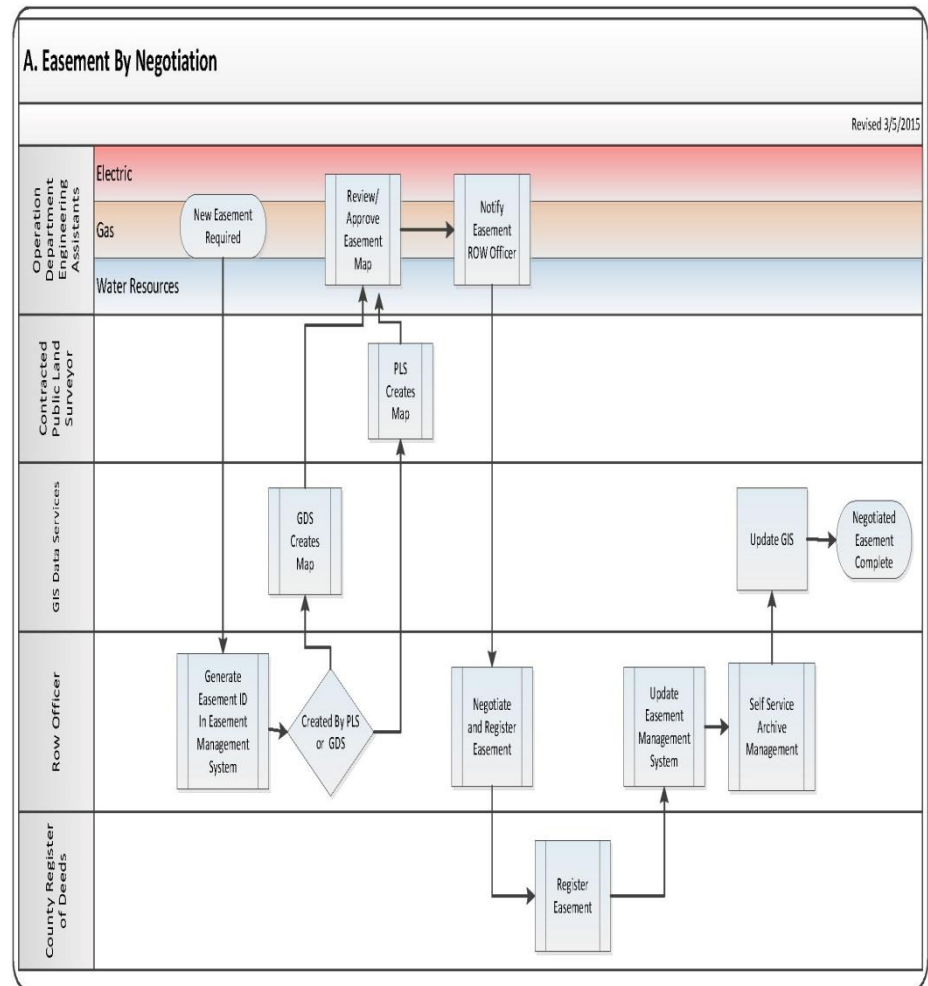
5/10/2012

Mission

The GIS Data Services Group is committed to support internal and external operations through the creation, maintenance and presentation of geographic and related information according to quality standards using the best available technologies while offering superior customer service.

Rules:

Standards Business Rules



Activities

Process
Standard Operation Procedures
QAQC Procedures

Electric GIS

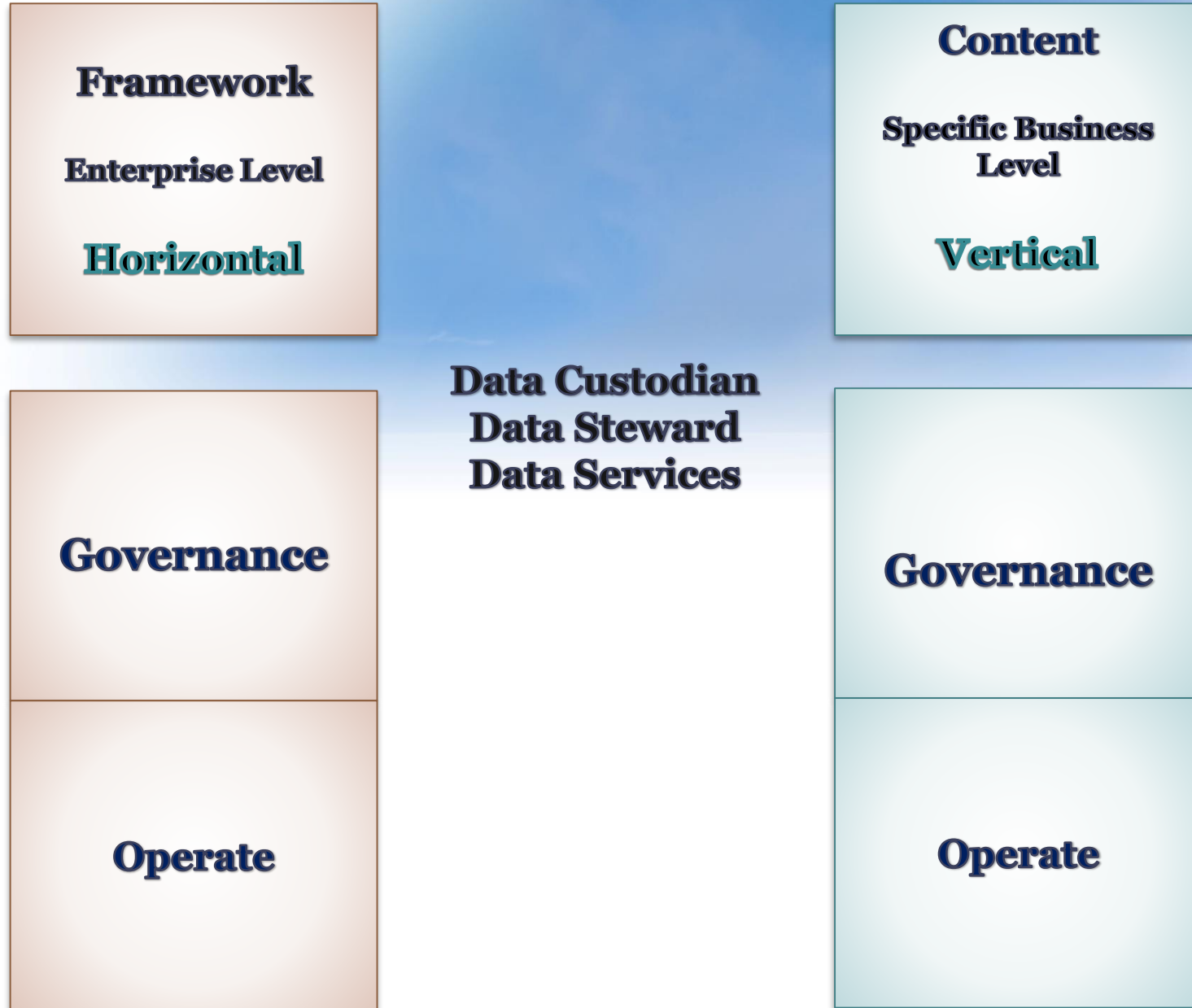


Posting

SOP with Attribute Tables

GIS Data Services Catalog	
1. Record Easement	
1.1	From Preliminary Final Plat
1.1.1	Scan Preliminary Final Plat
1.1.2	Upload Preliminary Final Plat to SharePoint
1.1.3	Digitize Preliminary Final Plat Easements, Surface Lines, Buildings, Plat, and Footprints Feature Class
1.1.8	Hyperlink Preliminary Final Plat to the GIS Easement
1.1.9	Georeference Preliminary Final TIFF Image
1.1.10	Georeference Preliminary Final CAD Dataset
1.2	From Recorded Plat
1.2.1	Download or Scan Recorded Plat
1.2.2	Upload Recorded Plat to SharePoint
1.2.3	Digitize Recorded Plat Easements, Surface Lines, Buildings, Plat, and Footprints Feature Class
1.2.8	Hyperlink Recorded Plat to the GIS Easement
1.2.9	Georeference Recorded TIFF Image
1.2.10	Georeference Recorded CAD Dataset
1.3	From Negotiated Easement
1.3.1	Create Negotiated Easement Map
1.3.2	Upload Negotiated Easement Map to SharePoint
1.3.3	Record Negotiated GIS Easement Polygon
1.3.4	Upload Recorded Negotiated Easement Document to SharePoint
2. Record Gas Utility	
2.1	From Internal As-Built
2.3.1	From Internal As-Built Services New
2.3.2	From Internal As-Built Services Abandoned
2.3.3	From Internal As-Built Services Renewal
2.3.4	From Internal As-Built Main New
2.3.5	From Internal As-Built Main Abandoned
2.3.6	From Internal As-Built Main Renewal
2.3	From Ad-Hoc Data Clean Up Request
2.6	From Redline
2.7	From Data Cleanup Project
2.7.1	Stick-Out Correction
3. Record Electric Utility	
3.3	From Internal As-Built
3.4	From External As-Built
3.6	From Ad-Hoc Data Clean Up Request
3.6	From Redline
3.7	From Data Cleanup Project
4. Record Sewer Utility	
4.3	From Internal As-Built
4.4	From External As-Built
4.5	From Ad-Hoc Data Clean Up Request
4.6	From Redline
4.7	From Data Cleanup Project
5. Record Water Utility	
5.3	From Internal As-Built
5.4	From External As-Built
5.5	From Ad-Hoc Data Clean Up Request

Data Management Concepts



Responsibility and Activities

Framework

Direction,
Standard,
Infrastructure
**Organization
Wide**

Content

Collect, Create, Manage and
Publish Content
Physical Implementation
View, Queries
Conduct Analysis
**Specific
Business**

Governance

Strategies, Policies,
Standards

**Leadership
Standards
Consultation
Assessing Compliance
Training Support
Distribution
Report**

Governance

Business Rules

Operate

Enterprise Steering
Policy Committee
Technical Steering
Committee

Operate

Business Solution
Work Group
Technical Solution
Work Group

Roles and Positions

Framework

Chief Info Officer
Data Architect
Application Architects
Database Administrator

Horizontal

Content

Data Resource Manager
Power Data User
Dept GIS Contact
Data Producer
Data Technician

Vertical

Data Officer
Data Services
Supervisor
Data Manager

Governance

Spatial Standard
Collection Standard
Maintenance Standard
Naming Standard
Archiving Standard

Governance

Process Catalog
Standard Operation
Procedure
QAQC Doc

Operate

Enterprise
Infrastructure and
Solution
Such as GIS,
WAM, Database

Operate

Specific Content
Configuration
Application
Data Entry

Conclusion

- Philosophy, Data
- Symbol Representation
- Governance
- GIS Components
- Separation Framework and Content
and Separation of Governance and Operate

If you need more information:

- Data Custodianship Guidelines For The Natural Resource Sector, British Columbia, Canada
- http://www.data.gov.bc.ca/local/dbc/docs/geo/services/standards-procedures/Data_Custodianship_Guidelines_for_the_Natural_Resource_Sector.pdf