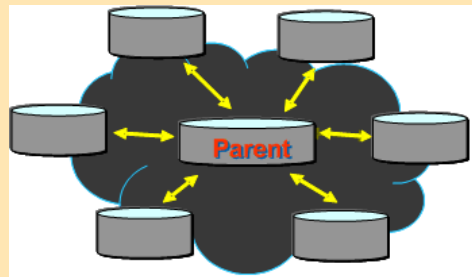


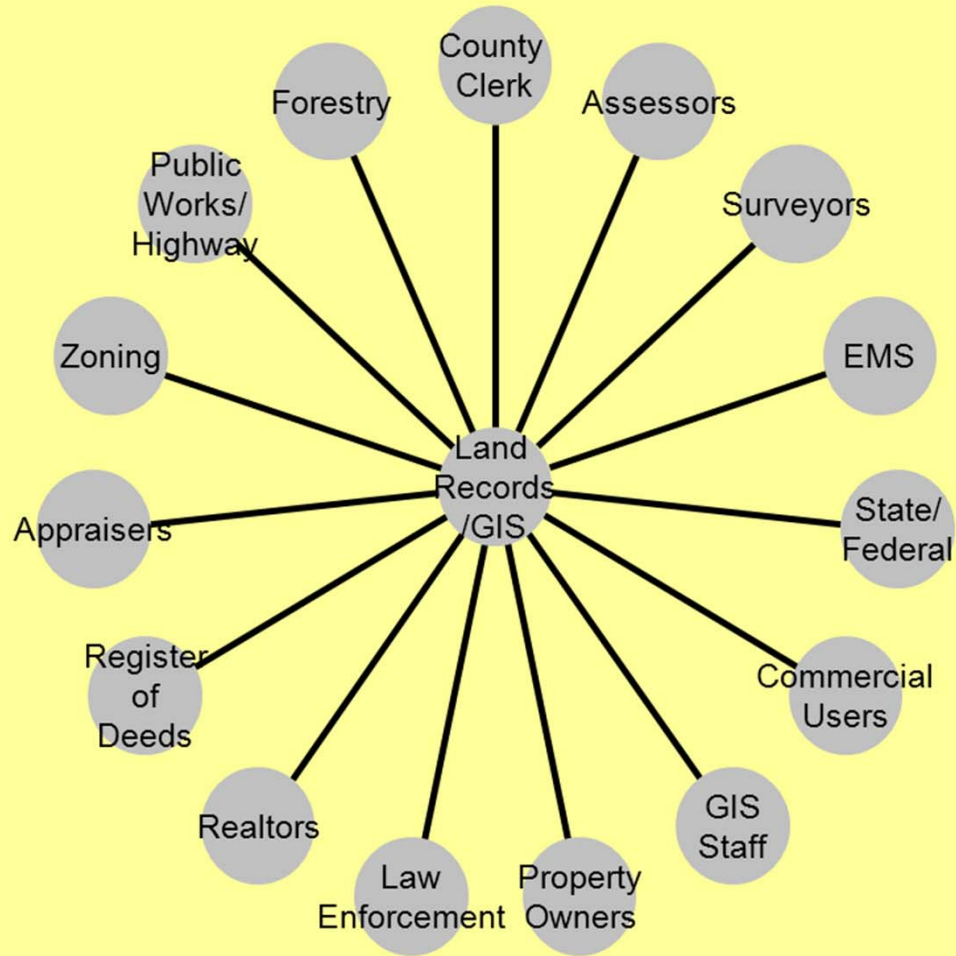


City of Superior/Douglas County GIS Data Replication



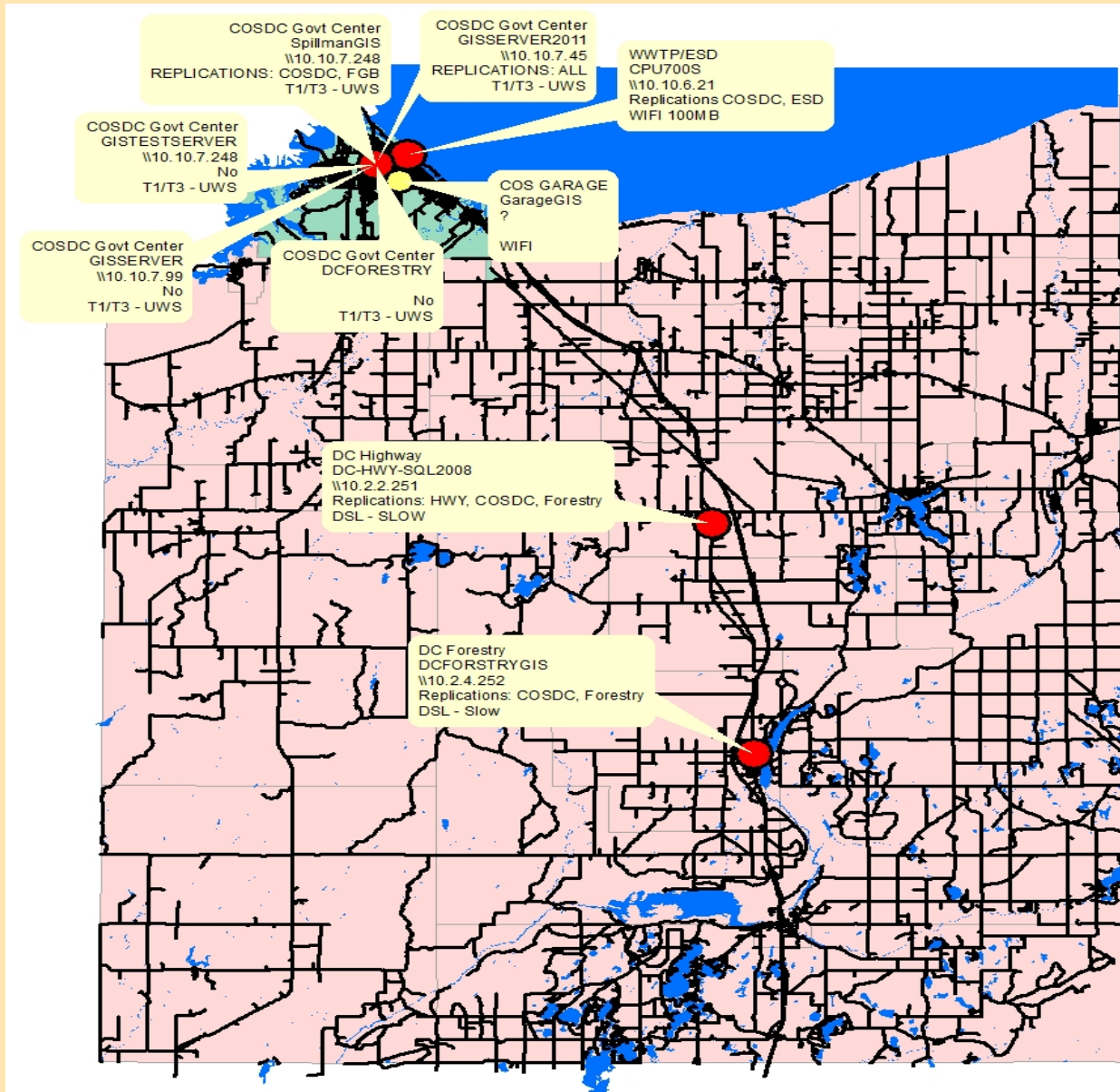


Land Records/GIS Wheel





Replication Servers





COSDC Server Info



Replication Servers

Microsoft Server 2008 R2

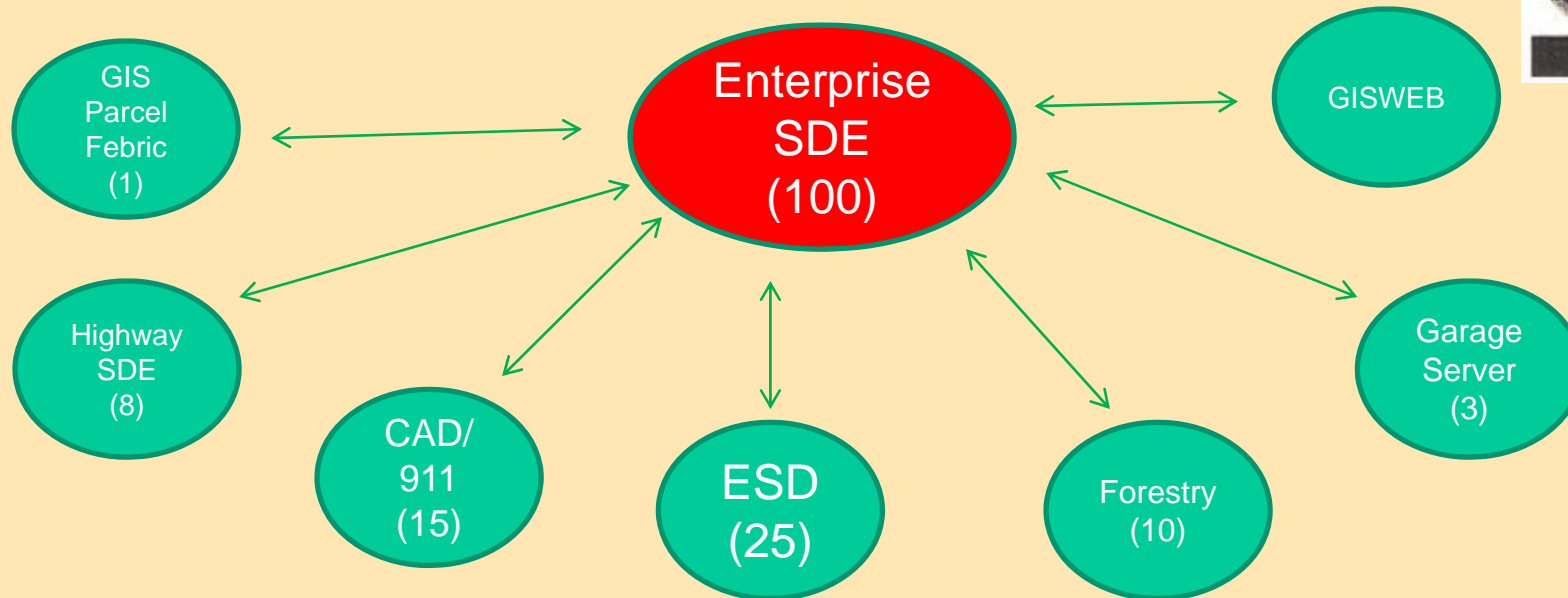
ArcSDE: 10

RDBMS: SQL 2008 or 2003

All Able to connect through network and Remote Connections

City of Superior/Douglas County Enterprise GIS

Server Infrastructure and Replication



Enterprise Server Based Management allows for:

- Multiple Editors and Viewers
- Replication of data
- Backups Simplified
- Less Duplication of data
- More efficient data delivery and speeds to users





Replication Toolbox



The screenshot displays the ArcGIS interface. The main window shows a workflow diagram titled "HWY MGMT ALL" with the following components:

- Two blue ovals: "GIS2011 - HWY.sde (3)" and "GIS2011 - Hwy.sde (2)".
- A yellow rectangular process box labeled "Synchronize Changes".
- Two green ovals: "HWY - HWY.sde" and "GIS2011 - Hwy.sde".
- Arrows indicate a flow from "GIS2011 - HWY.sde (3)" to "Synchronize Changes", and from "Synchronize Changes" to both "HWY - HWY.sde" and "GIS2011 - Hwy.sde".
- Small "P" icons are present next to the "HWY - HWY.sde" and "GIS2011 - Hwy.sde" ovals.

The ArcToolbox on the right is expanded to show the "Replication" toolbox, which contains the following categories and tools:

- Replication
 - CAD FGB
 - Common Names & POI
 - Geocoded Addresses
 - HWY Bridges
 - Hydrants_Trails_Towers
 - Intersections
 - Intersections good
 - Parcels
 - PLSS
 - POI_Hunting
 - Roads
 - RR Crossings
 - Trails_RR_Pipe
 - Zones
 - ESD
 - ESD_Hydro_Model
 - ESD_Parcels_Model
 - ESD_Sanitary_Model
 - ESD_Storm_Model
 - Forestry
 - Forestry_AMP
 - Forestry_Parcels_Model
 - Forestry_PLSS_Model
 - HWY
 - HWY Add Pipe
 - HWY Driveways
 - HWY Hydro
 - HWY Linear Network
 - HWY MGMT ALL
 - HWY PLSS
 - HWY POI Rec
 - HWY RR Trails
 - HWY SAMP
 - HWY_Parcels
 - HWY_Zone_Vote
 - Multi
 - Geocoded Addresses - CAD_Spillman_Multi
 - Road Centerlines - CAD_Spillman_Multi
 - SpillmanGIS
 - CAD_Cem_tower_Model
 - CAD_Geocoded_Address_Model
 - CAD_Hunting_Model
 - CAD_Hydro_water_Model
 - CAD_Munis_Model
 - CAD_POI_Model
 - CAD_Rests_Acc_Mar_Model
 - CAD_ROADS_Model
 - CAD_Trails_Pipelines_RR_Model
 - Schematics Tools

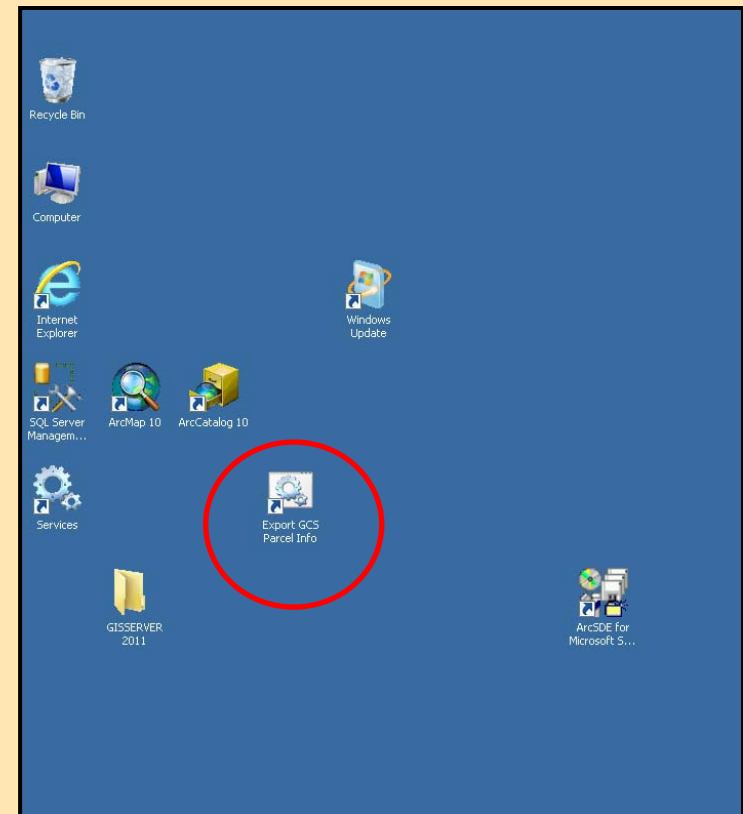


Replication of GCS Taxlister Data



GCS (tax roll) Replication Sequence

- Script (Python) to create a summarized table (SQL Business table)
- Export to Forestry, Highway, Spillman
- Table can be joined to Parcels for ownership info



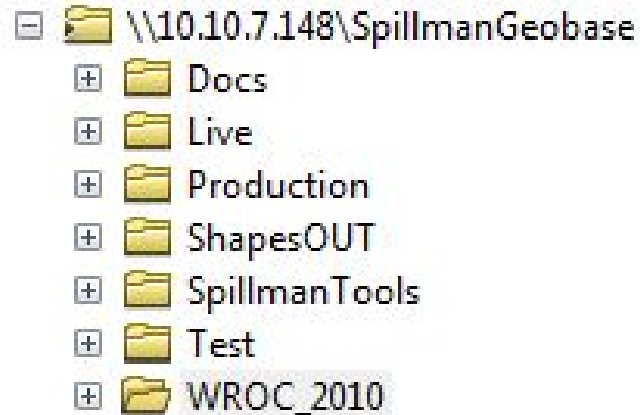


Spillman CAD (911) Server Replication



ArcSDE to File Geodatabase Replication

- Required due to lack of SDE connectivity from the CAD
- System locks a problem so a production FGD exists as does a "Live"





ArcSDE Replication Requirements/Options



Requirements:

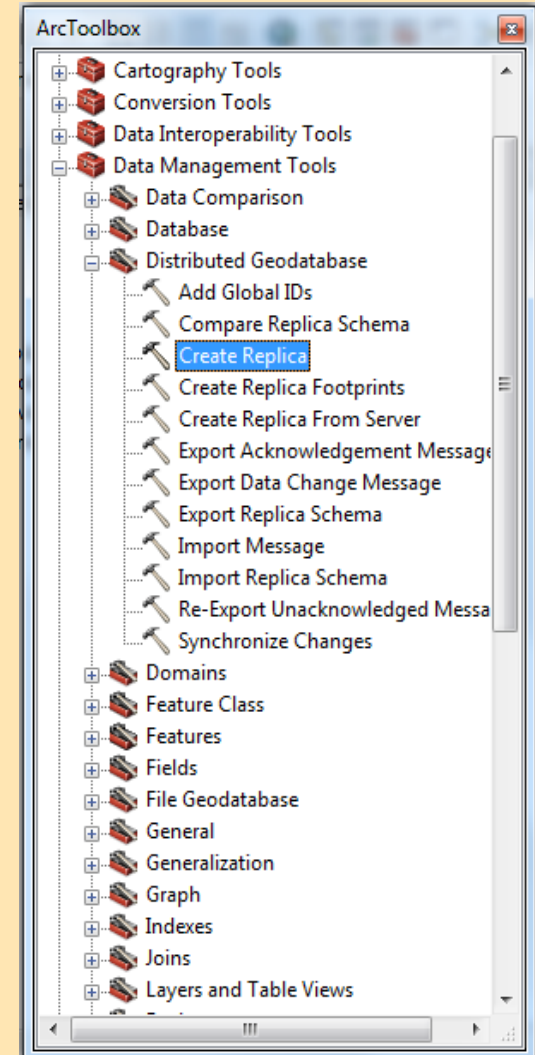
1. Registered as Versioned (but not to base)
2. GlobalID added to each feature class/feature dataset to be replicated

- * Schema should be planned out
- ** when making the replica the feature class or feature dataset can not exist on the target server
- ***

Options:

Need to decide on type of Replication

- 2 WAY – Editing on both servers
- 1 WAY
- CHECK OUT
- 1 WAY CHILD TO PARENT





Replication Manager



Replica Manager (fisknessj - gisserver2011)

Replica types listed: All Types

Name	Owner	Type	Role	Status	Conflicts	Version	Date Created
HWY_Driveways	DBO	Two way	Parent	Data Re...	No	sde.DEFAULT	6/28/2012 6:37:03 AM
HWY_Zone_Vote	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/28/2012 5:56:58 AM
HWY_Trails_RR	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/28/2012 5:12:28 AM
HWY_SAMP	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/27/2012 7:14:22 AM
HWY_POI_REC	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/26/2012 4:29:52 PM
HWY_Hydro	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/26/2012 6:39:22 AM
HWY_PLSS	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/26/2012 6:01:22 AM
HWY_Add_Pipe_Plt_Zon	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/26/2012 5:51:59 AM
HWY_Linear	DBO	Two way	Parent	Data Re...	No	sde.DEFAULT	6/26/2012 5:40:46 AM
HWY_Parcels	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/25/2012 8:01:54 PM
CAD_GIS2011_PLSS	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 4:24:01 PM
CAD_GIS2011_RRX	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 4:21:21 PM
CAD_GIS11_Muni_DCtrails	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 4:05:50 PM
CAD_GIS11_Hydrants_TrIs_Tower	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 4:03:56 PM
CAD_GIS2011_Centerlines	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 4:00:01 PM
CAD_GIS2011_Trail_RR_Pipe	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 3:57:48 PM
CAD_GIS2011_POI	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 3:52:44 PM
CAD_GIS2011_Hunting	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 3:46:21 PM
CAD_GIS2011_Parcels	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 3:18:03 PM
CAD_GIS2011_Geocoded_Addresses	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/18/2012 2:33:42 PM
CAD_Geocoded_Address	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	6/14/2012 7:39:14 AM
CAD_Rests_Acc_camp_Marinas	DBO	Two way	Parent	Data Re...	No	sde.DEFAULT	6/6/2012 6:27:00 AM
CAD_CEM_TOWERS_WAYSIDE	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/5/2012 7:49:29 AM
CAD_COS_HUNTING	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/5/2012 7:45:09 AM
CAD_POINT_DATA	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/5/2012 7:41:51 AM
CAD_LINEAR_NETWORK_GOOD	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/5/2012 7:36:50 AM
CAD_PLSS	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/3/2012 8:08:53 AM
CAD_TRAILS_PIPELINE_RR	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/2/2012 5:17:35 PM
CAD_Parcels	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/2/2012 2:10:34 PM
CAD_HYDRO_WATER	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/2/2012 1:45:21 PM
CAD_Municipalities	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	5/2/2012 1:42:24 PM
ESD_Parcels	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	4/22/2012 8:28:22 AM
ESD_Storm_Sewer	DBO	One way	Child	Data Re...	No	sde.DEFAULT	2/11/2012 2:11:12 PM
ESD_Sanitary_Sewers	DBO	One way	Child	Data Re...	No	sde.DEFAULT	2/11/2012 2:06:05 PM
Matt_PLSS_Hydro	GIS	One way	Parent	Data Se...	No	sde.DEFAULT	12/21/2011 3:04:11 ...
Matt_Parcels	GIS	One way	Parent	Data Se...	No	sde.DEFAULT	12/21/2011 2:47:41 ...
Brad_PLSS_Hydro	GIS	One way	Parent	Data Se...	No	sde.DEFAULT	12/21/2011 11:06:2...
Brad_parcels	GIS	One way	Parent	Data Se...	No	sde.DEFAULT	12/21/2011 10:35:5...
ESD_Hydro	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	12/21/2011 7:30:48 ...
ESD_PLSS	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	12/10/2011 11:23:5...
Forestry_GEOD_PLSS	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	9/25/2011 7:05:57 PM
GISTHREE_PLSS	DBO	Two way	Parent	Data Re...	No	sde.DEFAULT	9/15/2011 9:36:54 AM
GISTHREE_Parcel_test	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	8/29/2011 2:12:43 PM
Forestry_CDSTRL_COSDC_PARCEL_INFO	DBO	One way	Parent	Data Se...	No	sde.DEFAULT	8/14/2011 9:45:26 AM



Future Opportunities/Possibilities



Replication to Laptops (Mobile)

Parcel Fabric Replication in version 10.1

Replication with other Agencies?

- **St. Louis County**
- **Duluth**
- **SWLP (Minnesota Power)**
- **DOT**



Thank You!!!
Any Questions?

Jon Fiskness, GISP
GIS Coordinator
fisknessj@ci.superior.wi.us
715-395-7423

