

# Utah's State Geographic Information Database:

**Address Point Activities** 

Bert Granberg NGAC Meeting, September 19, 2012





## About AGRC

### Mission:

 "Encouraging and facilitating the effective use of geospatial information and technology for Utah"

### Activities:

- Geographic Data
  - State Geographic Information Database (SGID)
- Infrastructure for:
  - Data and Imagery Acquisition, Sharing, Distribution
  - Map-based web applications and services
  - GPS base station network
- Coordination of geospatial activities/resources among local government, state & federal agencies geospatial for enhanced ROI



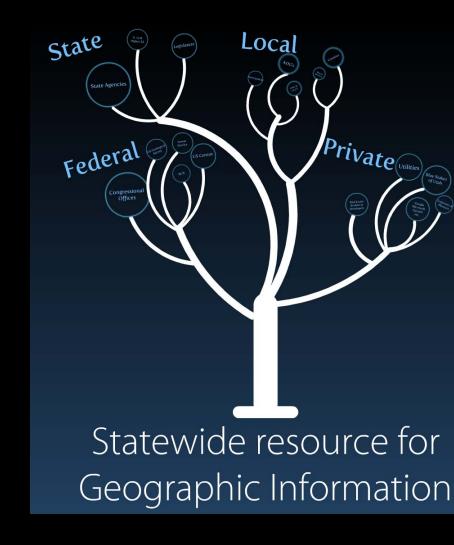
## Utah State Geographic Information Database (SGID)





# Utah's Enterprise GIS Approach

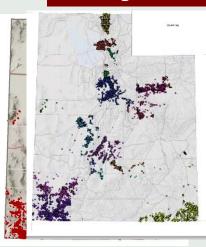
- Serve many users
- Create once, used by many
- State Users of SGID Road Centerline and Address data/services:
  - Public Safety
  - UDOT
  - Tax Commission
  - Elections Office
  - Environmental Quality
  - Natural Resources
  - Commerce
  - Public Service Commission





# Address Points

### **Building Statewide Address Points**



500000 + points

- 11 (of 29)complete counties
- 3 partial counties

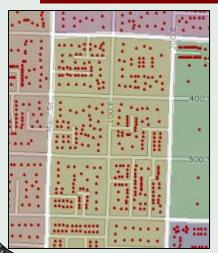
### **Statewide Geocoding Services**



 Address Pts used by Statewide and PSAP based geocoding services. Also,

- 811
- Mobile Phone Sales Tax
- Voter Registration DB
- One Stop Business Registration
- Accidents & Citations

### **Maintaining Statewide Address Points**

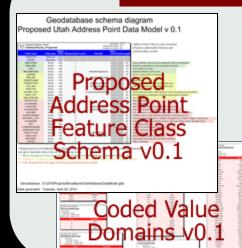


**PSAPs, Cnty GIS** 

# Feedback Loops:

- Clerks
- Integrated Map & Web Services
- Web Service Δ Reports
- Report a Problem

### **Address Point Standards**



- Addressing Stnrd
- → Data Model
- Address Ref Sys
- Tiered
- Keep it Simple



### Address Points Are Multi-Dimensional

- Street or streetside service (accidents, trash pickup, etc)
- Entrances (building entrances, rural driveways)
- Site Address (structure, named facility points)
- Postal Address (mail, database integration)
- Sub Addresses
- Elevation/Floor/Room (urban structures)

Be strategic. But not to point of excessive delay...the approaches above all improve on range-based centerlines....80/20 rule as starting place?



# NextGen 9-1-1 concepts

"Networked"

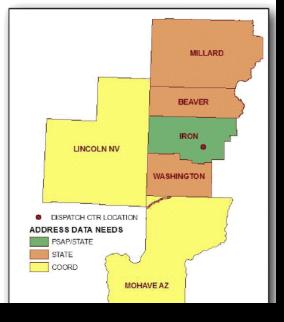
### Cedar Department of Public Safety Dispatch Center

Agencies dispatched:

- · Iron County law enforcement, fire, EMS
- Arizona DPS in Virgin River Gorge
- State agencies in Beaver, Iron, Millard and Washington counties

Address data needs:

- Beaver, Iron, Millard and Washington counties
- Mohave county, Arizona
- Lincoln county, Nevada for mutual aid and road connectivity along borders
- Building locations, parking lots and facilities on the Southern Utah University Campus



"GIS"

& "Networked GIS"

- Regional Call-Taking/Dispatch
- Mutual Assistance
- Shared Hosting
- Mobile Command
- Collaborative GIS Editing

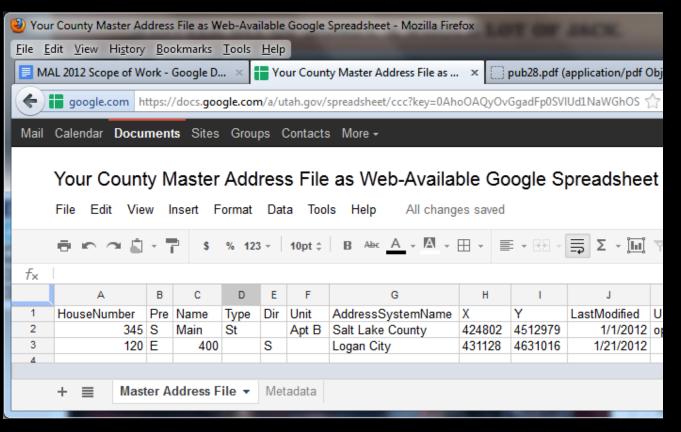


# County Address Point Grants

- NTIA State Broadband Initiative funding
- ~ \$15K per county
- Deliverables:
  - County-designated contact
  - Web-based Master Address List
    - To world
    - To 9-1-1
    - Down the Hall
      - Google Spreadsheet
      - FTP Shapefile, GDB, CSV
      - Web Service

- House Number
- Prefix Direction
- Street Name
- Street Type or Suffix Dir
- SubUnit (optional)
- Address System Name
- X Coordinate
- Y Coordinate
- UpdateDate





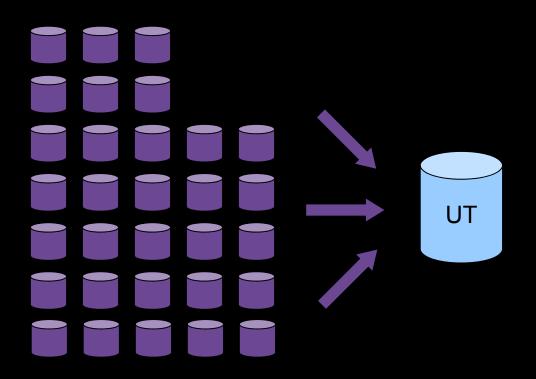
Google SS: Low tech barrier

JSON Web Service: Easy for Dev/DBA team

```
Total: 37874,
Index: 0,
Take: 200,
CountyID: 27,
Residences: [
        CountyID: 27,
        PrecinctID: 16000368,
        DirectionPrefix: null,
        DirectionSuffix: "E",
        PrecinctName: "IV79",
        ResidenceID: 16013275,
        Street: "625".
        StreetNumber: "444",
        Type: null,
        UnitNumber: null,
        UnitType: null,
        Zip: "84738",
        Address: "444 625 E",
        X: 415816.06.
        Y: 4596824.49,
        AddressScore: 63
        CountyID: 27,
        PrecinctID: 16000301,
        DirectionPrefix: null.
        DirectionSuffix: "E",
        PrecinctName: "WA63",
        ResidenceID: 16016585,
        Street: "800",
        StreetNumber: "442",
        Type: null,
        UnitNumber: null,
        UnitType: null,
        Zip: "84780",
        Address: "442 800 E"
        X: 415816.06,
        Y: 4596824.49.
        AddressScore: 63
```

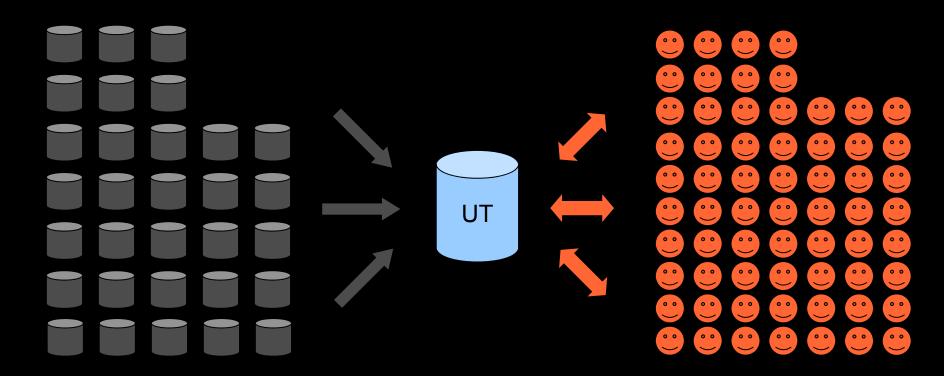


# Paradigm Shift?





# Paradigm Shift?



Less Data Containers –

Same Local Expertise, But More Connected, More Standard, More Current Large Area Data Resource



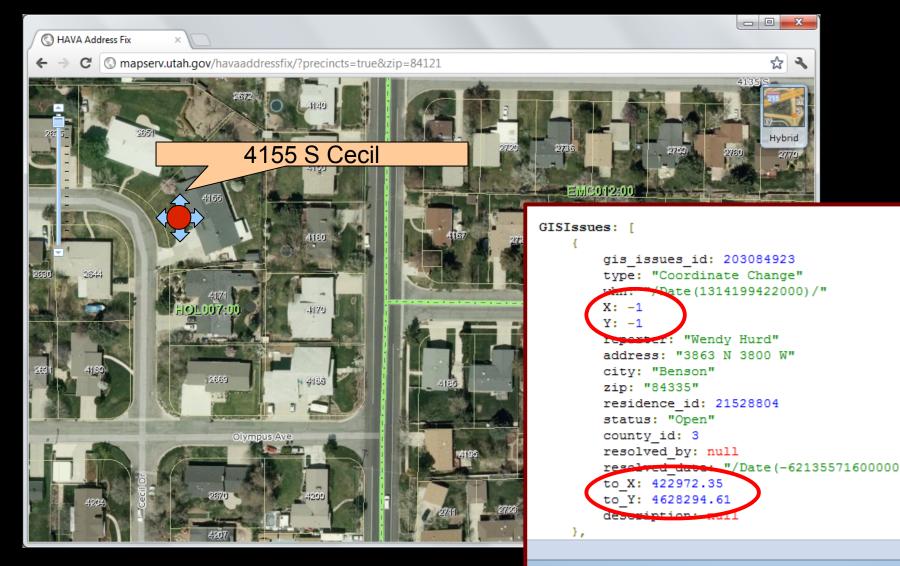
## Feedback



- Who should be able to view address point data and suggest improvements?
- How many 'trusted' editors should be allowed to actively make changes?



# Feedback: App-Embedded Maps County Clerks improve voter address points



## More detailed info & examples:

http://goo.gl/jKakl



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# Automated Geographic Reference Center

### State Level Addressing Activities (AGRC) April 26, 2012

### Address Coordination

- Cities, Counties, PRAPs
   AGRC Counties pius serental villes
   AGRC Balls Operated & Multi-county, PSAPS (Phothest, Box Etter, Cedar, OPS Torre Ope CI), Vernally

- Vermal)
  AGRC Rise Tan Commission, Middle Phone Sales Tan (genoode signés in USPS AIS)
  AGRC Blue Blakes (811)
  Technical Risklance (Shotheror Co, San Juan Co. S. Nengin Tribal areas, Shotherestern Usph

- Funding

   80D: State General Fund, 211 1g/lee

   81D: State General Fund, 211 1g/lee

   81D: State General Fund, 211 1g/lee

   81D: State General Fund, 2011 1g/lee

   81D: State General General Funding State State General (SCS17, UDC1, Makinic State...)

- In general, Utch has a well-defined addressing system
   ACRC montains statewide address and defend (onlik, boundaries, quadrants)
- AGRC has helped with major designs whitefinement to addressing systems. Daggett, Plute, San Juan

- 1000 Registring of Rural Roads gas project (RIDSTP)
   2004 Statestin roads layer weated for Tax Commission MTSA sales for project
   less available pusite pieces. Load or TOSRC000
- 2008 AGRC roads data delivered to Census for Trosk 2010 2011, USOT direct edite
- Update opder every 2 months (bit countestmonth + state edits + user feedback)
   Response Update to Reads Data model

- Multiple sources
   S11. Robifield PRAP (I counties) uses address points for dispatch
   Demont purpose rounty and dispatch (in: Utah Cir., Sendy, Dispet)
- Visia voter residences (Cache Co)
  Proposed Address Point Mode:
  Generating address points start from parcels VSA & python code

- Committed and Committee a
  - ASPC pecceling netransise for initial residence location
     ASPC large man services (heads up residence location editing)

  - ACRC spatial quary web services (precinc) at registence or locations
- Vida provides (among others)

  Vida veto service of all minusity repositioned residence locations

  Vida veto service of all roles residence addresses by county

  Vida veto service of noticeafed other residence.

- Comparison of treatment and the property of the second state of th Buildings, DPR crash data, DDC One Rhip Business Registration website, <u>ASRC and acco</u>

### Address Data Model (Proposed)

- USIC Mandards Committee standard adoption process, Roads, Address Points, Parcel subcommittees
   ACMC proposal data recolar, used for statements address point distance
   ASSALANCES POINT addressing standard. (Internat Techniques Internat)

### Future Requirements & Enhancements

- Location
   Consectionating goal cores deficitive results, less "security" Collega delicit
   Consectionating goal cores deficitive results, less "security" Collega delicitive results, results and results an

- Web based multi-ser?

  But the service of the service of the service of the consecution of

- ski fallome tos?
   site address point, enhance address point(p), address point (where assigned from street, poster address for owner/bocupant. URKS grid occurringte, tip roads.

  Safe Rothwese FTI, local trick Local Conf. data models.

