Beehive Mapping Update

locate.utah.gov
statewide high-res imagery
plss stewardship

Bert Granberg, Utah AGRC
Completeness: Important Questions

- What is the value of a pixel?
- How much can a pixel afford to pay?

IFTN, 3DEP, NG911, Address Points, FirstNet ….
Statewide 6” High Resolution Imagery

Google Contract:

$988,451 upfront
$12.70 / mi2

Hosted imagery services

Licensed use: State, Local, Tribal, contractors, & partners

Right to purchase updates in 2016 & 2017
Registering to Use:

1a. Organization & Primary Contact

1b. Addition info from Contractors or Partners*

2. Informational Items and Terms of Service

3. On-Premise Files Request*

4. Acknowledgement & Digital Signature
2015 updates are included in license purchase:

Expected updates, at a minimum are:

~37% of the state (31K mi²)
Utah Imagery Appliance in GCP
Monthly Operating Costs 2015

GCP storage w/ Level 20 tiles (@23 TB) $575
Bandwidth (@100 GB) $13
Google Compute Engine hosting $250
Server operating system $0
Managed application & services (AppGeo) $416
Application database (BigQuery users & logs) $1
GCP storage credits (estimated) "$-200"

Total $1055
High-Res Aerial Photography

**Accomplished:**
- Funding raised
- License purchased
- 177 organizations onboard
  - online signup
  - usage measured
- Image service appliance
  - GME engine deprecation
  - Custom NodeJS web service
    - = scaling & inexpensive operations
- Download capability
- On premise distribution

**Next Steps:**
- 2015 updates
- Business model for 2016 and 2017 updates
- ROI study
- Additional outreach
- Add public domain imagery & base maps?

<table>
<thead>
<tr>
<th>group</th>
<th>data</th>
<th>requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>utah</td>
<td>49.83</td>
<td>768,520</td>
</tr>
<tr>
<td>county</td>
<td>37.01</td>
<td>688,908</td>
</tr>
<tr>
<td>sub</td>
<td>251.90</td>
<td>673,142</td>
</tr>
<tr>
<td>dnr</td>
<td>59.46</td>
<td>536,872</td>
</tr>
<tr>
<td>city</td>
<td>32.21</td>
<td>372,944</td>
</tr>
<tr>
<td>higher_ed</td>
<td>20.01</td>
<td>166,909</td>
</tr>
<tr>
<td>udot</td>
<td>16.00</td>
<td>56,778</td>
</tr>
<tr>
<td>appgeo</td>
<td>6.75</td>
<td>30,610</td>
</tr>
</tbody>
</table>
High Res Digital Orthophotography

Paradigm change...

USGS is A-16 theme lead...

USDA has the MVP

Is it in the national interest to revisit IFTN??
BLM, AGRC, SITLA MOU

- State stewardship of Public Lands Survey System section corners
- Corrections and added precision
- Database integration to keep public land boundaries map layer in sync.

Status: Signed August 4th
Next step: Begin data PLSS section corner migration in partnership with BLM, SITLA, ESRI, & Premier Data (BLM Contractor)
= \( \frac{1}{2} \) mile