



Web Enabled Enterprise Integration

Presenter:
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CITY HALL
911 N. 7th



GATEWAY TO
THE NORTHWEST

City of Pocatello

Web Enabled Enterprise Integrated Application

The screenshot displays a web mapping application interface. The main window shows an aerial view of a city street intersection with various colored overlays representing utility lines and permit areas. A 'Tools' panel is visible in the top right corner. Two windows are open over the map:

- Identify 1** window (top left):

Field	Value	Link
LOC_ID	18317	
ADDRESSLINK	860 YELLOWSTONE AV	
ID	99-1750	Open
PERMITTYPE	ELECTRICAL SIGN-OUT	
ADDITIONALDES	ONE POLE, THREE WAI	
PERMITNUMBER	1750	
STATUS	CLOSED	
ISSUEDATE	990727	
VALUATION	0	
SQUAREFOOTA	0	
- Print** window (bottom):

PERMIT # 99-1750
ELECTRICAL SIGN-OUTLINE PERMIT

CITY OF POCATELLO
Building Department
911 N 7th Ave - P.O. Box 4169
Pocatello, Idaho 83205-4169

Phone (208) 234-6158
Inspections (208) 234-6275

DATE ISSUED: 990727
SITE ADDRESS: 860 YELLOWSTONE AVE
DESCRIPTION OF WORK: ONE POLE, THREE WALL, & SIX DI
PERMIT SUBTYPE: ELECTRICAL SIGN-OUTLINE PERMIT
APPLICANT: IMAGE NATIONAL
OWNER: BANK OF AMERICA
CONTRACTOR: IMAGE NATIONAL





Overview

- City of Pocatello, Idaho
 - 32 Square Miles
 - Population of 54,255
 - Maintaining Water, Sewer, Storm, and Land base
 - ~120 Work Orders Last Month
 - ~2400 Permits in 2012
- GIS is responsible for providing data used by Lucity asset management, permitting, work orders, City staff and field crews



History

- Mid-1990s ArcInfo 6 on Unix
 - Can GIS get any better from here?
Wow! ArcInfo 6 enables the GIS user at Pocatello to create GIS data
- Librarian, Coverages, Regions – pure nirvana!



Goals

- Provide an easy-to-use, easily maintained web interface to share GIS data to both internal and external users
- Provide cross-departmental data in a single interface portal that meets City departmental needs.
- Provide public access to City GIS and departmental data



Specifications

- Software
 - Esri 10.1
 - ArcServer WebMap
 - Microsoft Silverlight 5
 - C# Web Services
 - Lucity 7.4 Asset and Work Order Management
 - HTE Permitting running on AS/400 linked to SQL Server Views



Specifications

- Web Server Dell r310
 - Intel Xeon Quad Core with 8 Threads
 - 4 GB RAM
 - 512 GB RAID1 Local Storage
 - Gigabit Network Adapter
 - Microsoft Windows Server 2008 R2
 - IIS 7.5
 - Microsoft .NET Framework 4
 - ArcGIS Server Web Adapter 10.1
 - Flex Viewer



Specifications

- ArcGIS Server Custom
 - Intel Xeon E3 1275 V2 Quad Core with 8 Threads
 - 16 GB RAM
 - 512 GB RAID1 Local Storage
 - Ultra Fast Solid State Drives
 - Gigabit Network Adapter
 - Microsoft Windows Server 2008 R2
 - Scalable for internal applications (not necessary for ArcGIS Server to exist)
 - IIS 7.5
 - Microsoft .NET Framework 4



Specifications

- Database Server Dell R715
 - 2 AMD Opteron 6220 Quad Processors
 - SAS Drives
 - 32 GB RAM
 - 1.675 TB RAID10 Local Storage
 - Gigabit Network Adapter
 - Microsoft Windows Server 2008 R2
 - Microsoft SQL Server 2012
 - 16 GB RAM Dedicated
 - ArcSDE 10.1



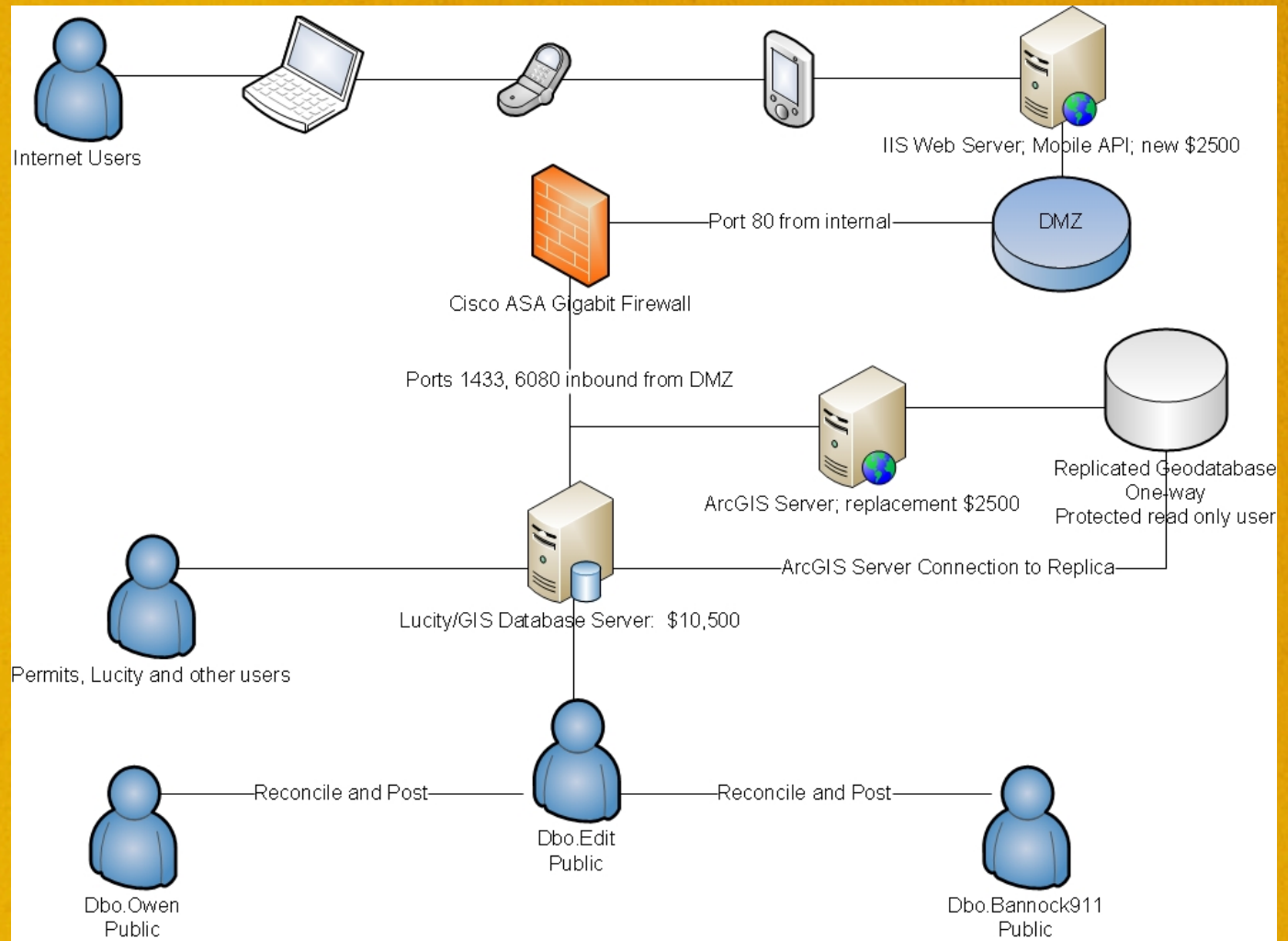
Specifications

- Remote Desktop Server Dell R715
 - 2 AMD Opteron 6220 Quad Processors
 - SAS Drives
 - 64 GB RAM
 - 1.675 TB RAID10 Local Storage
 - Gigabit Network Adapter
 - Microsoft Windows Server 2008 R2
 - For off-campus GIS and Asset Data Management(6 simultaneous users)
 - ArcGIS for Desktop, AutoCAD, EMS Crossfire, Lucity Desktop, Water Valve Turning Management





October 2012 System Upgrade





Web Features

- Custom XML configuration
- GIS layers and display control
- Bookmarks
- Identify
- Custom printing
- Redline
- Custom searches
- Map Tips
- Multimedia Support
- Vehicle Routing
- Relational data links



Benefits

- Single application for the integration of separate data sources linked to GIS
- Spatial interface used for location based workflows
- No installation required (except Silverlight), available wherever there's an internet connection
- Customizable interface
- Open design allows for easy future integrations



Benefits (continued)

- Do more with less – a single portal minimizes maintenance, user training, and screen space
- Reduce Operating Costs
 - Fewer ArcMap seats needed
 - Users can self-serve
 - Smaller application footprint
- Better leverage of legacy systems
 - Links to visual features
 - Provides access to a wider user base
 - All data can be found in one place



Application – Public Access

- Custom branding
- User configured help
- Custom searches
- Data blended from separate sources
- Data limited for specific use
- User configured printing



Application – Work Orders

- Protected site
- Authenticates against Lucity or the secured service
- Visual display of Work Orders
- Access asset management and work order data from the map
- Access map from asset management software
- Common shared notes



Application – Permitting

- Protected site
- Integrated with HTE Permitting and Inspection data
- Searchable relational data
- Linked to permitting reports
- Custom field searches



ArcGIS Online

- Esri's Morphology
 - Desktop GIS
 - Workgroup Sharing GIS (Librarian)
 - Enterprise GIS
 - ArcGIS System (Map Services, Database, Desktop)
 - *ArcGIS Platform*
 - *Support of multiple formats including Shapefiles, File Geodatabases through Layer Packages, Map Packages*



ArcGIS Online

- What is it?
 - Content Management System
 - Both Spatial and Non-Spatial information (.doc, .xls and more)
 - GIS Collaboration Tools
 - mashups and datastreams via map and feature services hosted and non-hosted.
 - Way bigger than a Cloud GIS (dead terminology)
 - Information sharing through social media



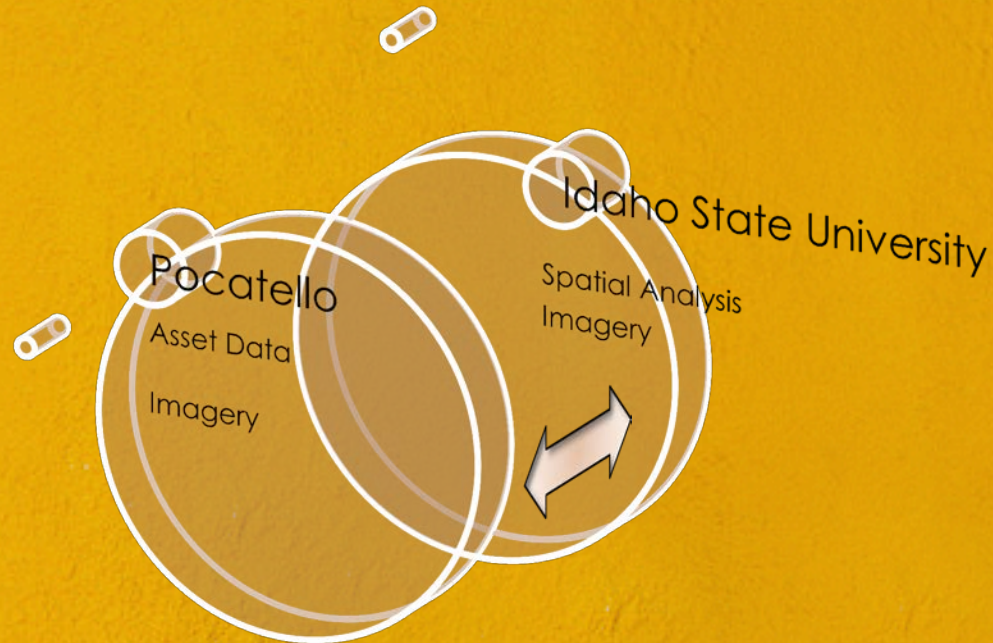
ArcGIS Online

- What is it?
 - It's a Portal with tools, apps, data, and storage. Built around a framework given to developers, users and publishers for distributing massive amounts of information in a visual representation



ArcGIS Online

- Sharing?
 - Multi-Tenant: Independent space sharing content





ArcGIS Online

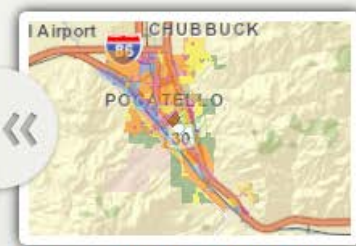
- Collaboration Demo

[HOME](#) [GALLERY](#) [MAP](#) [GROUPS](#)

[SIGN IN](#)



Pocatello Public



[City of Pocatello Zoning Map](#)



[City of Pocatello Property Map](#)



[City of Pocatello FEMA Flood Plain Map](#)

 **City of Pocatello Featured Content**

Maps Web Apps Mobile Apps



City of Pocatello Utilities Map



City of Pocatello Permits



City of Pocatello FEMA Flood Plain



City of Pocatello Property Map



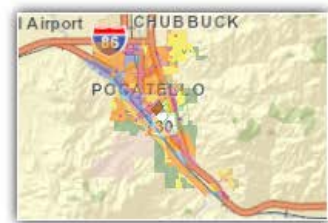
City of Pocatello Property



City of Pocatello FEMA Flood Plain Map



City of Pocatello Zoning



City of Pocatello Zoning Map



Permits

Find...

The most viewed items in the organization

Items recently added by the organization's users

The organization's groups



ArcGIS Online Utilities



City of Pocatello Featured Content

[Maps](#) [Web Apps](#) [Mobile Apps](#)



basemap



City of Pocatello Utilities



ArcGIS Online Utilities

HOME City of Pocatello Utilities

NEW MAP Luke

Save Share Print Directions Measure Bookmarks Find address or place

Details Add Basemap

About Content Legend

City of Pocatello Utilities - Sewer Structures

City of Pocatello Utilities - Sewer Pipe

- Gravity Main
- Gravity Trunk
- Pressure Main
- Private
- Abandoned

City of Pocatello Utilities - Wells

City of Pocatello Utilities - Booster Station

City of Pocatello Utilities - Water Control Valves

City of Pocatello Utilities - Water Hydrants

- Hydrant
- Private Hydrant
- Abandoned Hydrant

City of Pocatello Utilities - Meters

City of Pocatello Utilities - Nodes

City of Pocatello Utilities - Service Lines

0 30 60ft

City of Des Moines, PC, NHD, Esri, DeLorme, NAVTEQ, USGS, USDA, EPA, Intermap, TomTom, esri





ArcGIS Online Utilities

HOME - City of Pocatello Utilities

NEW MAP Luke

Details Add Basemap

Save Share Print Directions Measure Bookmarks Find address or place

About Content Legend

Contents

- City of Pocatello Utilities - City Limits 2009
- City of Pocatello Utilities - Sewer Structures
- City of Pocatello Utilities - Sewer Pipe
- City of Pocatello Utilities - Wells
- City of Pocatello Utilities - Booster Station
- City of Pocatello Utilities - Water Control Valves
- City of Pocatello Utilities - Water Hydrants
- City of Pocatello Utilities - Meters
- City of Pocatello Utilities - Nodes
- City of Pocatello Utilities - Main Breaks
- City of Pocatello Utilities - Service Lines
- City of Pocatello Utilities - Valves
- City of Pocatello Utilities - Water Pipes
- City of Pocatello Utilities - Storage Tanks
- City of Pocatello Utilities - Storm Structures
- City of Pocatello Utilities - Storm Pipe
- City of Pocatello Utilities - Building Footprint
- City of Pocatello Utilities - Parcels
- Topographic

Storm Pipe: CB2335

(4 of 5)

Enabled
US Structure CB2335
DS Structure M1593
Subtype
Type STORM LATERAL
Material REINFORCED CONCRETE
Length 23.25
US Invert
DS Invert
Dia/Height (in)
Slope %
Zoom to Get Directions

City of Pocatello Utilities - Storm Pipe (3,613 features, 0 selected)

Enabled	US Structure	DS Structure	Subtype	Type	Material	Length	US Invert	DS Invert	Dia/Height (in)	Slope %	Pipe Shape	Owner	Index No.	Unique Ni
0	PS3	M2034		FORCE MAIN	N/A	250.00	0.00	0.00	6	0.00	CIRCULAR	CITY OF POCATELLO		3,418
0	PS2	CB2269		FORCE MAIN		281.64	0.00	0.00	0	0.00	CIRCULAR	CITY OF POCATELLO		3,419
0	PG1009	M1226		ENCLOSED	REINFORCED	303.22	0.00	0.00	12	0.00	CIRCULAR	CITY OF		3,337

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ArcGIS Online Geocoding Services

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City of Pocatello Geocator



Geocoding Service by Isavage_Pocatello

Source: Geocoding Service

Last Modified: March 11, 2013

☆☆☆☆☆ (0 ratings, 9 views)

[Facebook](#) [Twitter](#)

OPEN ▾



SHARE



EDIT



DELETE



MOVE ▾



CHANGE OWNER

Description

Access and Use Constraints

ArcGIS Web API REST Connection

<https://webmap.pocatello.us/map/rest/services/GeoLocate/GeocodeServer>

Properties

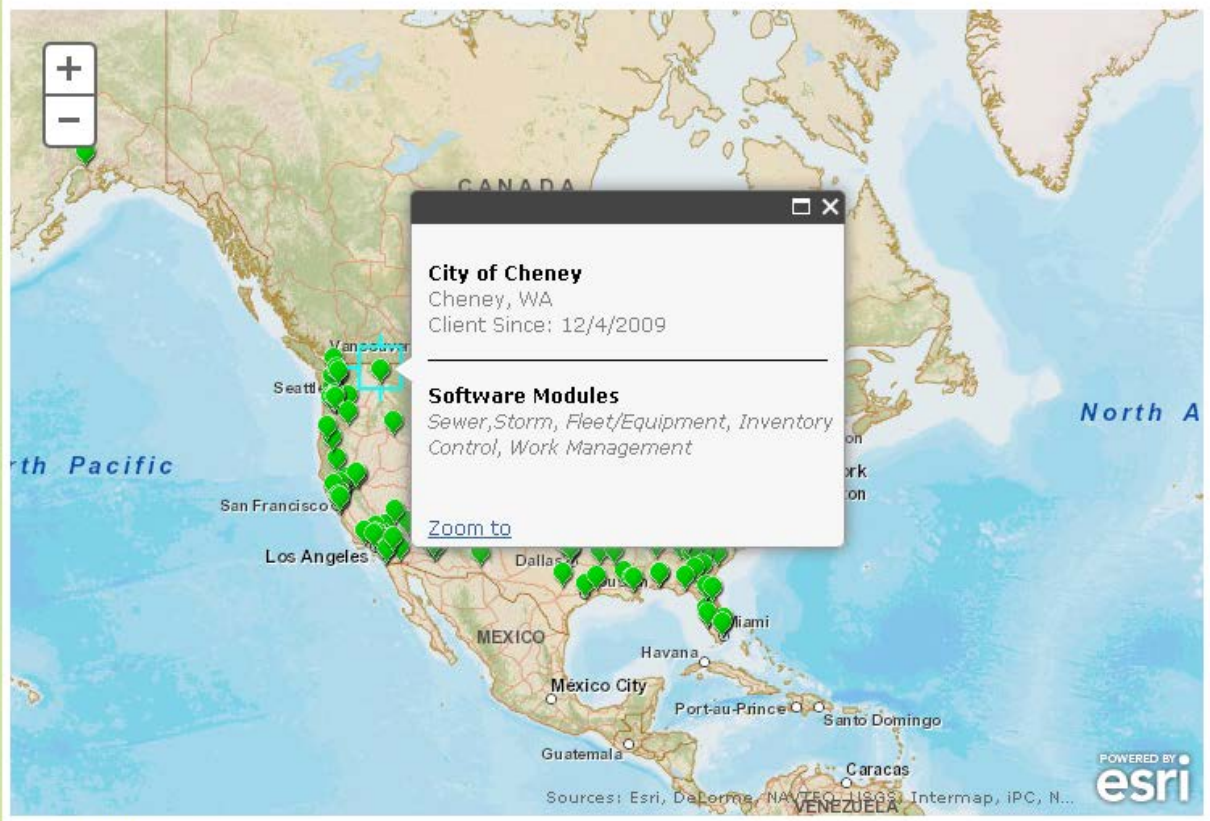
Shared with	Everyone (public), Utility
Tags	Geocode, Geolocate, Geocoding
Credits	
Size	1 KB
Extent	



ArcGIS Online Embedded HTML

Client Map

Take a minute to look around your 'neighborhood' - you can click on each of the markers below and find out a little about that organization and their Lucity tools. And if you'd like to get in touch with Lucity users in your area, [let us know](#) and we'll make sure you get connected.



[View Larger Map](#)





ArcGIS Online

- City Collaboration Demo

HOME ▾ City of Pocatello FEMA Flood Plain Map NEW MAP [SIGN IN](#)

Details Add ▾ Basemap Save ▾ Share Print Measure Bookmarks

About Content Legend

Contents

- City of Pocatello FEMA Flood Plain - FEMA Flood Plain
- Topographic

City of Pocatello FEMA Flood Plain - FEMA Flood Plain (937 features, 1 selected)

ZONE	FLOODWAY	PANEL	EFFECTIVE DATE
0.2 PCT ANNUAL CHANCE FLOOD HAZARD		16005C0358D	7/6/2009, 5:00 PM

Table Options ▾
 Filter
 Show All Records
 Center on Selection
 Clear Selection
 Show/Hide Columns



ArcGIS Online

- City Collaboration Demo

HOME Pocatello PubPage New Map My Content Help Sign Out

Details Add Basemap Save Share Print Measure Bookmarks Find address or place

Contents

Density (RL)

- Pocatello PubPage - Residential Medium Density Multi Family (RMM)
- Pocatello PubPage - Residential Medium Density Single Family (RMS)
- Pocatello PubPage - Residential Stabilization Overlay (RSO)
- Pocatello PubPage - University (U)
- Pocatello PubPage - Original Townsite Overlay (OTO)
- Pocatello PubPage - Trailheads
- Pocatello PubPage - Greenway Trails
- Pocatello PubPage - USFS Trails
- Pocatello PubPage - Streams
- Pocatello PubPage - Land Manage Areas
- Pocatello PubPage - Public Parks
- Pocatello PubPage - City Limits Linear
- Pocatello PubPage - Property
- Pocatello PubPage - FEMA Flood Plain
- Topographic

Parcel

AREA: 0.00

PARCEL NUM: RPPOC221500

DEED OWNER: HENSON, STANLEY L.

MAIL ADD: 270 E DAY ST

MAIL CITY: POCATELLO

MAIL STATE: ID

MAIL ZIP: 83201

LOT / BLOCK: N 1/2 LOT 17 LOTS 18-19-20

SUB / SECTION: PLUS 10' VAC ALLEY ADJ INTS F PORT VAC 2ND

Zoom to

Page - Property (25,911 features)

PARCEL NUM	DEED OWNER	MAIL ADD	MAIL CITY	MAIL STATE	MAIL ZIP	LOT / BLOCK	SUB / SECTION	STREET NUM	APT NO	STREET	STREET DIR	DEED	PREVIOUS DEED	Comments
0.00	RPCV2001900	WARD, WILLIAM & LORRAINE	365 MATTWOOD	POCATELLO	ID	83204	LOT 24 BLOCK 2	CEDARVIEW SUB 2ND	365	MATTWOOD		99015029	683606	
0.00	RPCV2002400	WHITMAH, DEVIN	331 MATTWOOD	POCATELLO	ID	83204	LOT 29 BLOCK 2	CEDARVIEW SUB 2ND	331	MATTWOOD		21109413	20520041	
0.00	RPCV2002200	HIGGINS, JONATHAN L & JENNY	347 MATTWOOD	POCATELLO	ID	83204	LOT 27 BLOCK 2	CEDARVIEW SUB 2ND	347	MATTWOOD		977018785	650537	

City of Des Moines, AARC, NR CAN, IPC, IHD, Esri, DeLorme, NAVTEQ, USGS, USDA, EPA, Intermap, TomTom

esri



ArcGIS Online

- Pricing? I'm confused
 - Storage
 - 12 cents per 1 gigabyte per month
 - \$1.44 per year
 - Outbound data transfer
 - 60 cents per 1 gigabyte
 - \$600 per 1 terrabyte
 - Geocoding Services
 - \$8 per 1000 geocodes
 - Tile Loading
 - Not worth mentioning because it's really cheap





ArcGIS Online

- Stable platform yet?
- Different builds ios, Android, Windows
- Out of sync

- Pricing? I'm confused
 - Feature Services Hosted
 - 24 cents per 10 MB per month
 - \$2.88 per year



ArcGIS Online

- Pricing: Collaboration and more for \$2,500-\$5,000 per year?
- 5 user \$2,500 per year with \$250 of credits (2,500) = **workstation PC**
- 10 users \$5,000 per year with \$500 of credits (5,000) = **a low end server**
- 50 users \$10,000 per year with \$1000 of credits (10,000) = **database server**
- **Free** User Account per ArcGIS Desktop
100 credits per user



ArcGIS Online

- Like a Utility Bill, elastic in cost. Fund through Operations; not a software

Service Credits Estimator

Get Started Learn more about service credits usage through [example scenarios](#).

User Accounts

Users How many users will log into your subscription? 5 100 ⓘ

GB Estimate the data transfer per user per month Low Average High ⓘ

Services

Feature Services How many feature services will you host online per month? 0 10 20 30 40 50 60 70 80 90 100 ⓘ

How many tile services and updates will be hosted?

Geographic Area	<input type="text" value="0"/> Country	<input type="text" value="0"/> Yearly updates
	<input type="text" value="0"/> State/Province	<input type="text" value="0"/> Yearly updates
	<input type="text" value="0"/> County	<input type="text" value="0"/> Yearly updates
	<input type="text" value="0"/> Large city	<input type="text" value="0"/> Yearly updates
	<input type="text" value="0"/> Small city	<input type="text" value="0"/> Yearly updates

[Learn more about Map Tile Generation](#)

Estimated Annual Service Credits

2,334

The service credits estimator should only be used as a reference to estimate ArcGIS Online service credits usage. Your actual service credits usage may vary.

For information on larger plans in the US call **1-800-447-9778** or contact your local [Esri office](#).

Have feedback on the service credits estimator? [Email us](#) your suggestions.





Soooo Dreaming with DDDennis

- Drifting in and out of Conscious
- Picture this...



- What do we do with this...Where can we pump this...what infrastructure is available here...



- How do we notify the crews in the field the current conditions...
- Looking to collaborate communicate with regional agencies (Bannock County, City of Chubbuck)
- Utility information published online for field workers and regional GIS collaboration
- Imagery loaded and served from ArcGIS Online storage and image services



ArcGIS Online Future

- Discussion
 - Security
 - Metadata
 - Annotation
 - Vendor reliant for storage and distribution.
 - Who has a backstage pass to my data?
 - Not a replacement for existing ArcGIS Server users; consider it as an enhancement.
 - Is this right for you? Think about the content, purpose and the audience.



Summary

- By utilizing a centralized web-based data portal, information from various enterprise sources is viewed through a common interface via the internet.
- The City saves costs on software deployment and training
- The City can better respond to public and staff needs by minimizing the time needed to deploy