From Old to New: Migrating to ArcGIS Online In A Local Government Organization

July 11, 2018
Halifax Regional Municipality

- Population: ~403,000
- Area: 5944 km²
  (2295 square miles)
- Coastline: 400 km
  (250 miles)
- 215 distinct communities
- ~4000 municipal employees
2002-2004: ArcIMS
and ReGIS... (Regional GIS) on ArcGIS Server
2012: ReGIS
2016: Decisions, decisions…
HRM's Plan on a Page: 2017-2021

The Plan on a Page articulates the values of our organization and demonstrates our key priorities.

VISION
HRM's vision for the future is to enhance our quality of life by fostering the growth of healthy and vibrant communities, a strong and diverse economy, and sustainable environment.

MISSION
We take pride in providing high-quality public service to benefit our citizens. **We make a difference.**

VALUES
- Respect
- Collaboration
- Diversity & Inclusion
- Integrity
- Accountability
- Evidence-Based Decision Making
- Sustainability

ADMINISTRATIVE PRIORITY AREAS
- Financial Responsibility
- Our People
- Health & Safety
- Service Excellence

COUNCIL PRIORITY AREAS
- Economic Development
- Service Delivery
- Healthy, Liveable Communities
- Social Development
- Governance & Engagement
- Transportation
Cloud or On-premise?

• Portal for ArcGIS vs. ArcGIS Online
• Long debate - strong opinions
• Pros and cons for each approach
Solution – a hybrid approach

- ArcGIS Online selected
- Open Data feature layers used whenever possible
- Non-public data hosted on corporate server
Web Map Migration Project (WMMP)

• Main objective: replatform data and functionality of existing apps
  • Maps and apps built in AGOL - Web App Builder
    – “Configuration first” approach: minimal custom content

• Project team – HRM staff with Esri complement

• Data governance – part of GIS Strategy
  – GIS Design Authority
  – Architecture Review Board
Data, data, data…

• 196 unique feature layers derived from 120 unique data sources consumed in ArcIMS and ReGIS
  – Open Data refresh frequency increased to match internal standards

• Related tasks:
  – Reprojecting data from ATS77 to WGS84
  – Establishing/modifying data refresh schedule
  – Creating web maps, default symbology, metadata
A themed approach

• Suite of multiple apps
• Designed around purpose, not business unit
  – One app can suit many groups
• Requirements:
  – Good response times
  – Simple/intuitive
  – Flexible
  – Get attribute information easily
Testing templates
Functionality

• Had to ensure users could do everything they could do before (and then some)
Halifax Map Gallery

Welcome to the Halifax Map Gallery

The Halifax Map Gallery presents a suite of web-based, purpose-built, interactive maps allowing users to view, explore and query HRM's corporate spatial data.

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Asset Investment Planning
Community Protection & Emergency Measures
Government & Administration
Apps in the Halifax Map Gallery

- Asset Investment Planning
- Community Protection & Emergency Measures
- Government & Administration

- Land Use Planning & Development
- Parking Management
- Parks & Recreation

- Property
- Regional Planning
- Road Operations

- Solid Waste
- Transit
- Utilities
Customization

- Of the 12 apps created, only 1 contains custom content
- Property app - hosted on HRM server
- Contains custom widgets
Supporting change

• Essential to the success of this implementation
One last bump in the road…

- Functional Testing and Pilot Testing carried out in late 2017
- Training began in January 2018
- Performance issues became apparent
- Project halted until server was upgraded to handle increased server traffic
  - Also reviewed apps again for configuration improvements
- Training resumed in late March
Going Live!

• The Halifax Map Gallery was officially launched on April 26

• New ExploreHRM web app launched on external website on May 31

• All legacy applications were shut down on June 15
Our system administrator was pretty happy…
Measures of success

- User acceptance
- Improved functionality
- High availability
- No functional gaps
- Leveraging Open Data whenever possible
Project Outcomes

• Transparent
• Customer-Centric
• Evidence-based
• Authoritative
• Opportunities for Spatial Analysis
• Dynamic
Recommendations

• Data Governance
• Bring in Esri resources, but build your in-house knowledge
• Test a wide variety of options – research
• Build in flexibility wherever possible
• Have a testing environment that matches your production environment!
• Create strong documentation and training programs
• Get support from all levels of management
EVERY NEW BEGINNING COMES FROM SOME OTHER BEGINNING’S END
Thank you!

Visit our public-facing app at https://www.halifax.ca/home/maps/explorehrm

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