

HALIFAX

Evolution - Halifax's Journey Towards Enterprise GIS

Esri Regional User Conference
November 15th, 2017

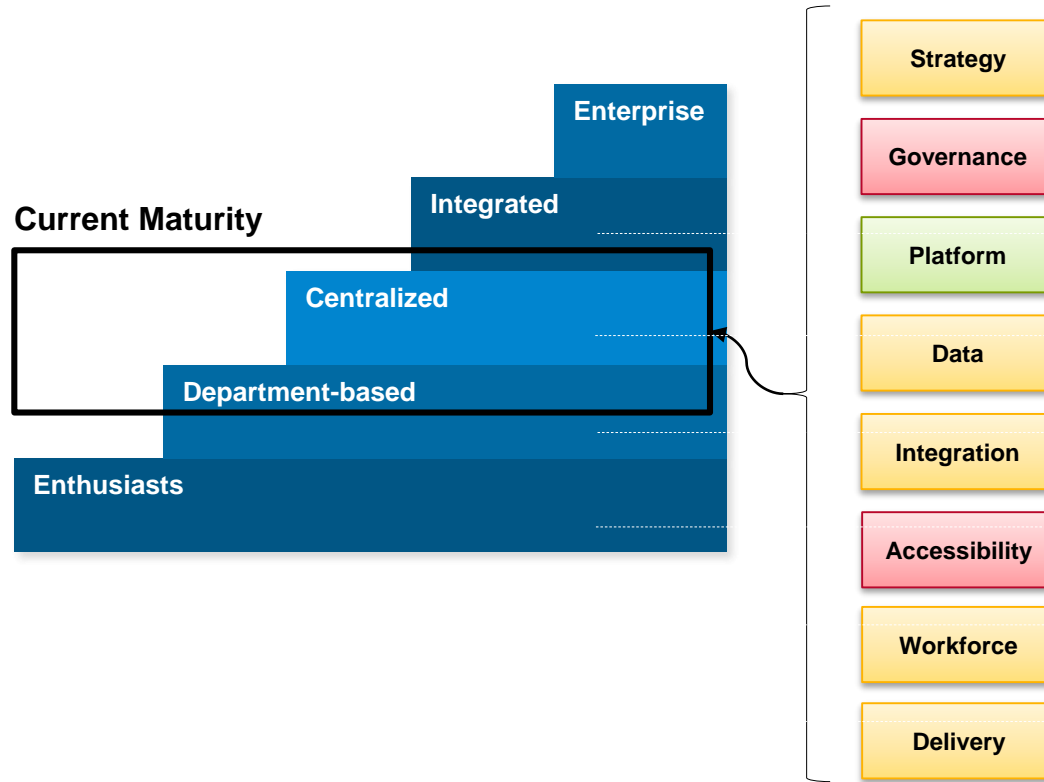
Background

- Leveraging GIS technology for 30 years
- Significant investment in people, data and solutions
- Developed strong processes around traditional GIS support roles
- “Governed from within”

Challenges

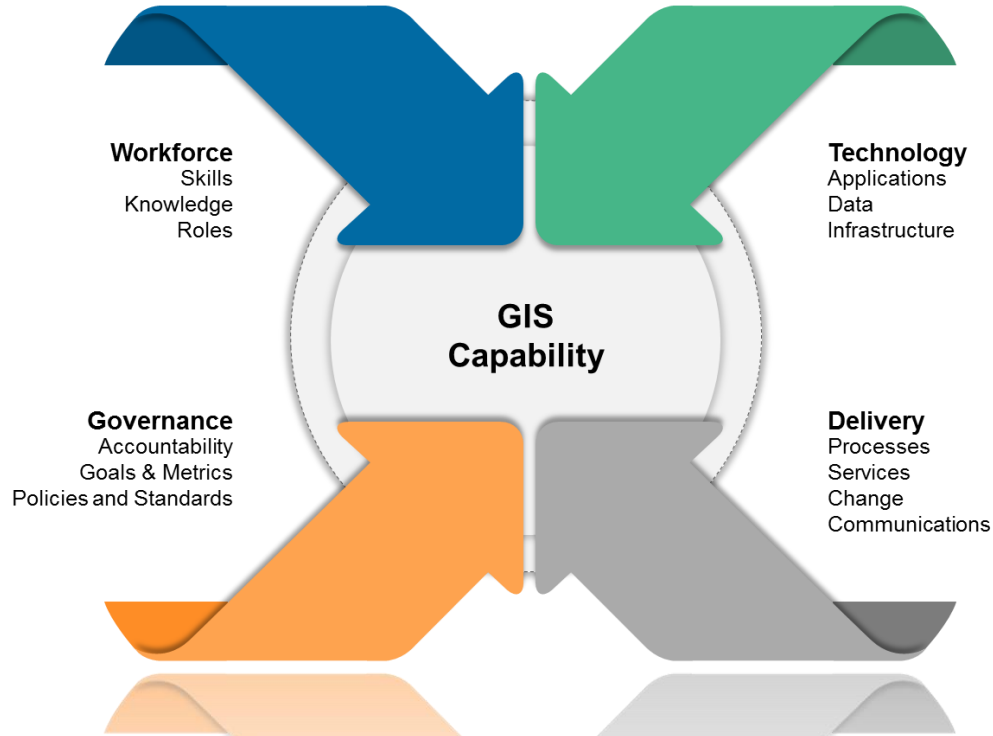
- Technology has changed
- New patterns of use have developed
- Client expectations and requirements have grown
- New users have emerged
- No longer an island - expectation for integration with other systems
- Business units leveraging alternative tools

Maturity Assessment



Red – significant need Yellow – moderate need Green – minor need

GIS as Capability



Current State

We are doing a lot of great things already!

Technology

- HRM has adopted an Esri ArcGIS platform first philosophy for most corporate mapping solutions with a web-centered, configure-first, customize-second philosophy
- ArcGIS online (SaaS/PaaS) is the preferred vehicle for public-facing mapping applications
- Custom applications are deployed through a web server pass through to ArcGIS Online or Portal for ArcGIS
- Standards exist relating to: application design, map service design, preferred coordinate system, deployment configuration, ArcGIS rest configuration, replication and performance
- Several legacy core GIS applications are being replaced by the ArcGIS portfolio

Governance

- GIS Design Authority serving as a structured but somewhat limited form of governance focusing on:
 - Application-level governance
 - Technical architecture
 - Mapping symbology and cartographic standards
- Web mapping migration project used to establish online access controls for the AGOL environment and associated data and map content

Workforce

- ICT supporting the majority of Halifax's GIS needs in terms of map production, general GIS analysis, GIS systems administration, GIS data management of core HRM data layers and GIS application development
- Small number of additional GIS resources in other departments
- ICT recognizes that certain GIS roles are better suited to be embedded within the business units and aligned through a dotted-line to ICT, specifically for focused department-specific skillsets

Delivery

- ICT supports GIS as a service to the business via day-to-day management of incidents and service requests
- Requests are typically data requests, mapping requests, data submissions, in addition to application 2nd and 3rd tier support requests
- As web GIS becomes more common at HRM it is anticipated that SLA-level management of GIS services could be needed to manage user expectations
- Other aspects of service delivery related to GIS including availability management, capacity management and continuity management are managed and supported as part of ICTs enterprise architecture and infrastructure management functions

Future State

So... what comes next?

Technology

- Focus on building innovation – always a challenge in Government!
- Continue to identify GIS service-level integration opportunities (e.g. map services, imagery services) with other enterprise systems
- Once completed, leverage Halifax's mobile strategy to accommodate emerging patterns of use and ease-of-use requirements amongst users
- Continue the rationalization of existing geospatial applications onto the AGS platform. This includes rationalization of existing desktop solutions onto AGS Pro or identifying desktop users that go exclusively online

Governance

- Continue to advance and grow the GIS Design Authority within a tiered governance structure with additional working groups for strategic governance (strategy and investment) and operations (workforce and delivery)
- Identify cross-department steering committee for prioritization of new investment
- Prioritize development of a GIS “business motivation model” describing the GIS vision, mission, guiding principles and strategic objectives. Develop this in collaboration with key department stakeholders
- For all areas of governance, develop appropriate goals and KPIs that can be tracked and measured for relative performance

Workforce

- Explore and evaluate an alternative model such as a “center of excellence” organization structure
- Prioritize new roles or skills development based on business demand
- In addition to new roles and organization structure for GIS, identify roles that may be better suited in other HRM corporate programs (e.g. location analytics and BI)
- Work to build partnerships with local universities and technical colleges to provide internship opportunities for new GIS talent

Delivery

- Design a GIS service catalog that aligns with strategic direction of the GIS program and prioritized business demand
- As GIS service delivery matures, develop SLAs where appropriate for high-priority GIS services
- Evaluate how support operations are structured. Consider structuring components of support according to the core GIS patterns of use

Conclusion

- GIS really is changing – but the community is changing too
- Stakeholder needs don't look like they use to - learn to identify the connection
- Don't be afraid to question your existing norms
- Don't forget to make Esri work for it 😊 - they have a stake in your success too!

Contact

Paul Shaffelburg

Business Relationship Manager & GIS Strategic Lead
Halifax Regional Municipality
shaffep@Halifax.ca

HALIFAX

Thank You!