

# Migration to Open Source GIS - Case Study

### About Us

- QGIS core development
- Public QGIS tools and plugins

### Migration to Open Source GIS

- Current state
- Proprietary software
- Black box OS software

### Case study - Newcastle City Council

- Business Case & Rational
- Evaluation and pilot study
- Full implementation
- PostGIS

### WebGIS and Geoserver

### Conclusions

### Lutra Consulting

- ▶ Core QGIS developers
- ▶ General (GIS) software/web development
- ▶ Support
- ▶ Training

### Development of:

- ▶ Multi-threaded rendering (2.4)
- ▶ Legend re-factoring and support for virtual multi-canvas, multi-styling (2.6 - 2.10)
- ▶ Rule-based labelling (2.12)
- ▶ Trace digitizing and snap caching (2.14)
- ▶ For the upcoming 2.16 release:
  - ▶ Legend item widget tool
  - ▶ Enhancement to the "reshape" digitizing tool
  - ▶ Advanced "preset" settings for the Print Composer

## Various plugins



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### SDI environments:

- ▶ Proprietary software
- ▶ Black boxes with Open source components
- ▶ Hybrid

## Pros and Cons

- ▶ Advantages:
  - ▶ Unified platform
  - ▶ Support and documentation
  - ▶ Usability
- ▶ Disadvantages
  - ▶ Dependency
  - ▶ Overall cost
  - ▶ Flexibility



## Pros and Cons

- ▶ Advantages:
  - ▶ Things work
  - ▶ Easy to migrate away
- ▶ Disadvantages
  - ▶ Similar cost to Proprietary Software
  - ▶ Not configurable/Customisable

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### Why migrate away:

- ▶ Performance issues
- ▶ Expensive software
- ▶ More number of users
- ▶ Unwanted extras

## Evaluation and pilot study

- ▶ Migrating some data to PostGIS
- ▶ Migrating power users to QGIS
- ▶ Identifying blockers
- ▶ Assessing data & service compatibility and interoperability

## Customised QGIS - based on the LTR

- ▶ Resolving issues with the Active Directory
- ▶ Development of a QGIS plugin for gazetteer
- ▶ Integration with their OGC services
- ▶ Fixing bug (backport to QGIS project)



### Bespoke training for over 75 users

- ▶ Conversion from previous platform to QGIS
- ▶ Several new users

## Migrating data

- ▶ OS Translator II
- ▶ ogr2ogr scripts

## Migrating data

- ▶ Test server
- ▶ Main server
  - ▶ with back-up / restore script



## Sync tool with ArcSDE

- ▶ Waiting for ESRI support (1 year!)

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# Geoserver



### A simple webmap to:

- ▶ Publish select council datasets to the public and council staff
- ▶ Provide a means for staff to self-serve address data

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## If you are considering Open Source GIS

### Considerations:

- ▶ Planning
- ▶ Pilot study
- ▶ Data and service interoperability
- ▶ Cost...nothing is free
- ▶ Support

## Implementation:

- ▶ All running on MS Windows
- ▶ PostGIS
- ▶ Geoserver + Geoserver Printing module
- ▶ Bespoke back-end services for
  - ▶ Find my nearest
  - ▶ Gazetteer
  - ▶ Download
- ▶ OpenLayers3