



2014-15 LG Spatial Capability Program

End of Year Report



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LGSRG and MAV

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1. Context

The council wide vision for spatial capabilities set out in the 2013 Local Government Spatial Strategy is that:

Appropriate and effective spatial capability is established across all Local Councils and is recognised as fundamental to council efficiency and service delivery.

The strategy was an initiative of the Local Government Spatial Reference Group (LGSRG) supported by the MAV. The council-wide strategy, a first for Australia, identifies a number of objectives to promote broad adoption and utilisation of GIS and spatial capabilities to support Council activities and services to the community.



The GIS Good Practice Framework provides a mechanism to highlight the relative ability of Council to meet core objectives and to improve capabilities and awareness. The Good Practice Framework was first implemented in 2013 – 2014 and was by 50 Councils. 59 Councils took part in the 2014 – 2015 framework survey.

One of the aims of the strategy is to engage with GIS Managers and Coordinators to encourage further capacity development, innovation and cooperation between Councils. To that end, over the past three years a series of workshops have been held around the state for GIS Managers. In 2015 the four Spatial Capability workshops were undertaken at Melbourne, Nunawading, Benalla and Ararat.

The 2015 workshops focussed on:

- Open data
- Cloud and shared services
- Future priorities for the LGSRG

This report summarises the outcomes from the workshops and makes recommendations to the LGSRG for actions to be undertaken in the 2015-16 financial year.

2. Open Data

Open Data is the idea that certain data should be freely available to everyone to use and republish as they wish without restrictions from copyright patents or other mechanisms of Control.¹

The 2015 workshops introduced the principles of 'open data' and encouraged discussion around why councils might get involved.

Steve Bennett, an advocate for open data and a representative of NICTA (National ICT Australia) was involved with the development of the National Map (<http://www.nicta.com.au/project/national-map/>) which makes use of open data sourced from various levels of Australian government. At the LGSRG workshops Steve presented on the current state of open data use within Local government.

The Open Council Data organisation has developed standards for LGA's wishing to make their data publicly available for the following datasets.

- Trees
- Bins
- Building accessibility ratings
- Toilets
- Customer Service Centres
- Childcare Centres
- Dog walking zones
- Footpaths
- Drainpipes
- Road closures
- 3D buildings

Workshops participants were asked to review the advantages and disadvantages of making data available through Open Data Channels;

Advantages	Disadvantages
Council is perceived an forward thinking and open	Inaccurate and/or out-of-date data may be published
Community engagement and participation takes place in an open environment	Risk of litigation would require staff to perform due diligence in order to release data.
Council would have to create metadata for users – this would benefit internal users of data if metadata is not currently available	Council would have to create metadata for users (resourcing issue)
More eyes on the data to identify errors thereby improving Council data	More use of the data will identify errors which councils may not have the resources to rectify.
Adding value by getting more use out of investment in data	More time and effort required to publish the data in formats suitable for open data
Fewer customer calls to deal with	Open data may generate a new set of consumer issues.
Ready-made standards around sharing and data content	Another dataset to maintain

¹ Wikipedia entry 'Open data'

Advantages	Disadvantages
Potential to direct consultants (and other data requestors such as students) to a single location for data rather than having to provide it using Council resources.	
Data licensing is simplified through a Creative Commons license.	
Potential for developers to create new and innovative uses of the data.	

The key constraints to the implementation of open data policies within those councils that were not already participating in open data delivery were seen to be;

1. There is no interest in an executive level in making the data available so within my council who will lead the push for open data.
2. In an environment where there are constraints on resources, can a Council GIS officer find additional resources to publish data to open data.

The solutions to these may be found in a collaborative approach facilitated by the LGSRG. In the spirit of open data, the City of Port Phillip made available a report prepared for its executive leadership team on the Adoption of Open Data Principles and Creative Commons licensing. The report was used to seek endorsement of the Council executive to pursue an open data policy. This report could serve as a template for other Councils wishing to gain the support of their executive for an open data policy.

Councils that were already active in open data recognise that in order effectively implement open data, the overheads of making data available need to be minimised. These Councils have developed tools to automate the export of their data into the open data standard formats and automate the uploading of the data to open data distribution sites. These councils expressed a willingness to share these tools with other councils.



Identifying common data that could be made open at the Benalla workshop

3. Cloud and Shared Services

Cloud computing is a significant technology development that is already impacting Local Government. This impact will continue to accelerate over the coming years. In the context of spatial data and systems, the cloud presents a number of specific opportunities including simplifying the provision of external services, providing scalable infrastructure and services and facilitating the storage of very large data sets.

One of the potential benefits of using Cloud is the potential for increased collaboration between LGAs. To this end, MAV Technology is encouraging the adoption of a sector-wide “Local Government Cloud” as a platform facilitating collaboration and enabling flexibility within the LG Sector.

Lisa Bennetto, Executive Officer of MAV Technology, gave a presentation on the use of shared services and explained that a number of Councils were participating in a pilot program to explore the extent to which cloud-based shared services could be implemented on a state-wide level. MAV has appointed Telstra as its provider of a platform for shared services across Victorian local government.

The workshops reviewed the benefits (advantages) and potential hazards (disadvantages) associated with the use of cloud and shared services.

Advantages	Disadvantages
Reduced costs to LG by sharing services.	Although there may be long-term reduced costs associated with shared solutions, the initial cost of implementing a shared services solution including adapting internal work practices will be expensive.
Potential for establishing a single site for accessing local government data. This would be valuable when dealing with council border issues and when working across several councils.	One size does not fit all for Councils. While shared services may be appropriate for the provision of some software, Councils have invested a great deal of time into tailoring data to meet their requirements and should not be forced into adopting standard data models.
More secure and consistent standards for managing data	Some people felt that a cloud-based platform would be less secure than their current systems. Security of data is taken out of the hands of individual Councils. Hacking a database with contributions from many councils would have more dire consequences than hacking a single council database. There is also concern about off-shore storage of sensitive data.
Easily generate standard reports for valuations and other reports required by state and federal government.	Internet reliability is seen as an issue for some LGAs particularly rural LGAs. This will be less of an issue when the NBN roll

Advantages	Disadvantages
	out is more advanced.
Redundancy and backup of data and software no longer needs to be undertaken by Council IT departments.	Software as a Service (SaaS) depends on convincing vendors to adopt a common approach to delivering on a common platform.
Services are easily scalable to accommodate Council requirements at a point in time.	

Analysis

Currently there is limited understanding among many people about what Cloud and shared-services are and how their implementation will impact on current work practices and the delivery of Council serves. Understandably, councils are concerned about being forced into a ‘one size fits all’ approach to managing their data holdings given the effort that has gone into tailoring data to suit a Council’s specific needs.

The benefits of SaaS are more readily apparent with the potential of cost savings associated with being able to negotiate shared licenses on a state-wide basis and the opportunities for scalability that SaaS provides. However software vendors will also need to be willing and able to deliver their products as SaaS. Councils would not be prepared to incur the additional costs associated with changing internal systems if their current vendors were not prepared to offer a SaaS solution.

The benefits and impact of implementing shared services across Councils will need to be better communicated to LG. This should be an outcome of the MAV Technology collaborative initiative into shared services.

4. Future Directions for Strategy

The diagram represents the range of initiatives identified in the 2013 Spatial Capability Strategy.



The LGSRG have addressed a number of these initiatives are described in the following table. The Good Practice Framework (GPF) addresses a few of these.

Ref	Initiative	Status
1.1	Best Practice: GIS & Property System integration	-GPF
1.2	Best Practice: GIS & AMS integration	-GPF
3.1	Best Practice: Core Data Maintenance	-GPF
4.1	Promotion & Advocacy - CEO and CIO	- Strategy - 2013 IT Conf
4.3	Annual Spatial Capability Forums	-Workshops
4.5	Align LGSRG with other MAV Streams	- Wiki - Technology
4.7	Promotion & Advocacy – GIS Managers	-Workshops

At each 2015 workshop, participants were users were asked to identify initiatives from the strategy or new ideas that they would like to be considered by the LGSRG for going forward.

The next table shows the initiatives which the workshops identified as priorities for the LGSRG in the next 12 months. The Workshops column indicates workshops that were supportive of each initiative;

1. Metro – Box Hill 2. Metro – Melbourne 3. Regional Ararat 4. Regional - Benalla

Ref	Initiative	Workshops
1.3	Best Practice: Mobile data capture	2
New	Best Practice: Linking GIS with CRM for tracking customer requests/record management	1
2.3	Collaborative benchmarking – Citizen Self service	2, 3, 4
2.4	Cross Council Analysis – what are other councils doing	2, 3
3.2	Business case and PoC: Smart phones and tablets	2
3.3	Cloud and shared Services	2, 3
3.4	3D cadastre	2
New	Council access to state government registers for inclusion in mapping and analysis. For example aged care facilities and pre-schools need to be registered by the state government. It would be useful to councils to know where non-council facilities are.	1
New	Open data promote adoption by Councils	1, 3
New	Open data: encourage other authorities, particularly utilities to make their data available in data.gov	1
4.1	Promotion & Advocacy - CEO and CIO	1, 3, 4
4.4	Collaborative training – leverage LGA sector-wide training	3
4.6	Research funding to support Cloud services	3
4.8	Spatial Strategy Review – development of GIS Strategy templates and supporting documents.	4

Analysis

The areas of strongest common interest for participants in the workshops were:

2.3	Collaborative benchmarking – Citizen Self service	2, 3, 4
4.1	Promotion & Advocacy - CEO and CIO	1, 3, 4

Citizen self service reflects an interest by councils in leveraging their GIS information so that it not only provides benefits for internal Council business but also supports customer-facing services to better inform citizens about council activities and provide information to reduce the time spent by Council staff in addressing phone or face-to-face customer queries.

The other area of great interest to Council GIS staff is ensuring that their work and the advantages of GIS are better understood at an executive level in Council. Executive

interest in GIS differs from Council to Council with some CEO's and CIO's strong advocates of GIS while others unaware of its capabilities beyond 'making maps'. It would be useful for the LGSRG to approaches that could be applied to increase the profile and demonstrate the benefits to council that GIS offers.

Other areas of interest arising out of the workshops include;

Cross Council Analysis and Initiatives;

One of the benefits of forums such as the LGSRG Spatial capability workshops is that they provide GIS staff with the opportunity to meet, discuss what they are doing and share information about work practices tools and techniques. The LGSRG could look at facilitating information sharing between councils on a more regular level particularly with respect to the development of regional GIS initiatives or online platforms.

Cloud and Shared Services;

Participants in some of the workshops recognised that current work practices would need to change as the use of cloud and shared services became more ubiquitous within the local government sector and the LGSRG had a role in assisting Councils to make the change to the new environment.

Open Data;

Many participants in the workshops saw the benefits of making data open although there was some reticence about how it might be implemented within their own organisation. LGSRG could provide a role in assisting Councils with Open data by assisting councils wishing to make the leap with advice and tools. One of the main concerns was how to ensure that the data in open data distribution sites was up to date. Some Councils were already dealing with this problem and had developed tools to facilitate loading the latest data onto data.gov.au.

5. Recommendations

On reflection on the workshops, the following recommendations are offered:

Business Case for Cloud Services:

LGSRG remain involved in the MAV Technology collaborative cloud initiative. However the LGSRG should push MAV Technology to more clearly articulate and communicate the potential benefits of moving to cloud-based solutions. It is anticipated that the current pilot project will identify some of these benefits. Assuming a successful outcome, LGSRG could work with MAV Technology to assist Councils in preparing business cases for the adoption of shared services and advice on shifting to shared cloud services if an LGA choose to go down this path.

Open Data:

The LGSRG adopt a strong role in advocating the benefits of open data and encouraging Victorian local government to make data freely available. This support would include the documentation of procedures on how and where to publish the data.

One of the constraints for many Councils wishing to pursue an open data policy is the difficulty of reformatting existing datasets and the effort required to ensure that the most up-to-date Council data is made available through the Open data distribution sites. Advocates of local government open data have resolved many of these problems by developing tools to facilitate these processes. LGSRG can assist in making these tools available to others wishing to open their data.

Collaborative Spatial Platform:

Establish a Shared Spatial Platform that councils support through the contribution of common datasets that are deemed open. The platform would serve as a demonstration of Cloud computing and open data.

Councils in a region or across the state would be encouraged to contribute a core set of spatial data with a common set of attributes. The platform could be aimed at providing:

1. Public *my council* style web services
2. Location for consultants and contractors to self-serve access to spatial data from one or many councils.

The public website would enable a customer to find services relevant to their current location or entered address. The services would include bin night, nearest childcare centre etc. The platform would also utilise Vicmap data.

The underlying data would be available download under creative commons licensing.

Continued Advocacy of GIS to Executive:

Seek an opportunity via the MAV to present to CEO's and CIO's on the significance of spatial information to Councils and their relative scores from the GPF.

Good Practice Framework:

LGSRG continue to refine the GPF and potentially extend it to include an additional theme for 2015. The proposed theme is Citizen self-service through websites and apps eg. Snap-send-solve.

Appendix A: Workshop participants

Workshop 1 – Box Hill

Introductions – Nunawading



Participant	Role	Organisation
Robert Ellis	GIS Administrator	Glen Eira
Greg Dunmill	GIS Co-ordinator	Moreland
Andrew Rutherford	GIS Officer	Maroondah
Jeanette Paoletti	GIS Coordinator	Whitehorse
Gregory Day	TBD	Whitehorse
Lacey Andrew	GIS Administrator	Yarra Ranges
Milind Joshi	G.I.S. Coordinator	Dandenong
Aloysius Thoonen	GIS Officer	Dandenong
Paul Lennox	GIS Coordinator	Bass Coast
Nigel Wells	GIS Coordinator	Port Phillip
Claudia Michienzi	App Support Team Leader	Port Phillip
Anne Qiu	Senior GIS Administrator	Monash
Steve Bennett	Open Knowledge Ambass.	
Lisa Bennito	Executive Officer	MAV Technology
Peter Debicki	Senior Business Relationship Advisor	DELWP
Jeremy Alcorn	Senior Consultant	Spatial Vision
Graeme Martin	Senior Consultant	Spatial Vision

Assessment: (1 low to 5 high): 4,4,4,4,4,3,4,4,4,5

Workshop 2 – MAV offices Melbourne CBD

Ben Crockett	GIS and Asset System Administrator	Darebin
Kim Quach	Team Leader – GIS	Whittlesea
Stuart McDougall	GIS Support	Maribyrnong
Will McIntosh	GIS Coordinator	Geelong
David Rowe	TBD	Geelong
Jesse Cardey	TBD	Geelong
Peta Moores	TBD	Geelong
Jason Davey	GIS/GPS/3D Coordinator	Manningham
John Cole	GIS Coordinator	Yarra City
John Skerman	GIS Applications Coordinator	Casey
Vaibhav Gupta	TBD	Casey
David Lee	Corporate Applications Officer - GIS	Nillumbik
Chrissie Hind	Senior GIS Analyst	Bayside
Tony Ljaskevic	Information Services Manager	Bayside
Steve Bennett	Open Knowledge Ambass.	N/A
Peter Debicki	Senior Business Relationship Adviser	DELWP

Assessment: (1 low to 5 high): 4,3,3,5,4,5,5,5

Workshop 3 Ararat

Trudie Holland	Rates Officer	West Wimmera
Vaughan Williams	DIRECTOR CORPORATE SERVICES	Northern Grampians
Nic Hendriks	GIS Administration Officer	Southern Grampians Shire Council
Diane Daniell	GIS Administrator	Central Goldfields
John Freimanis	Project Engineer	Hindmarsh Shire
Michael Evans	Asset Engineer	Yarriambiack Shire Council
Matthew Swords	Corporate Systems Administrator Spatial Information	Ballarat
Vincent Liao	ICT Coordinator	Horsham
Simone Elliott	IT Coordinator	Murrindindi Shire Council
Punam Rana	Technical Officer Assets	Murrindindi Shire Council
Peter Debicki	Senior Business Relationship Adviser	DELWP

Assessment: (1 low to 5 high): 5,3,3,5,5,5,5

Workshop 4 – Benalla 4/6/2015

Jenny Levy	GIS Coordinator	Benalla
Bethan McKay	GIS Officer	Moira
Paul Drummond	GIS coordinator	Wodonga
Jane Kaye	GIS Coordinator	Wangaratta
Di Brock	GIS Coordinator	Strathbogie
Fiona Spencer		Strathbogie
Simone Elliott	IT Coordinator	Murrindindi
Barrett Higman	GIS & Assets Officer	Alpine
Chris Rootsey		Towong
Steve Ryan	GIS Coordinator	Melton
Robert Graves	Assets & GIS Coordinator	Mansfield
Peter Debicki	Senior Business Relationship Advisor	DELWP
Graeme Martin	Senior Consultant	Spatial Vision

Assessment: (1 low to 5 high): 5,5,5,4,5,4,5,4,5