



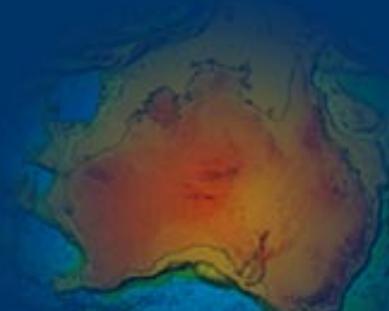
Australian Government

Geoscience Australia

WHY INTEROPERABILITY – A RESPONSE TO NATIONAL DRIVERS

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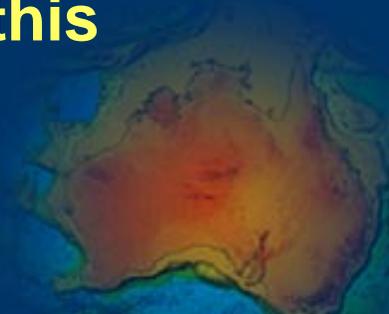
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Sciences, Geoscience Australia**



Geoscience Australia

DRIVERS

- **Many serious challenges facing Australia (eg Homeland Security, Emergency Management, Natural Resource Management, Public Health, and Animal and Plant Health etc) and require a national response.**
- **Many external to government wish to access government information and data from a variety of sources and uses it for their own or government program purposes.**
 - **Government increasingly wish to facilitate this**



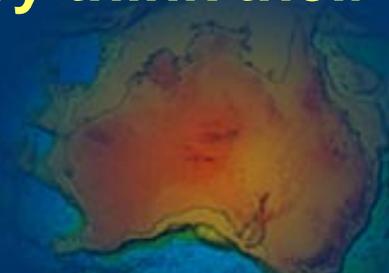
WHY INTEROPERABILITY?

- **No single agency or jurisdiction has all the answers – putting a premium on inter-agency and inter-governmental cooperation**
- **We need to establish systems to make maximum use of our extensive but widely dispersed data and information assets**
- **The technology conceptually allows this to happen**



THE SHIFTING PARADIGM (1)

- **Interoperability represents perhaps the most significant paradigm shift in how data and information are managed and utilised since the emergence of the Internet**
- **Interoperability will expedite the major transition that's currently underway - from 'supply' to 'demand' driven systems**
- **In the supply "push" paradigm data suppliers push or deliver their content to clients, as and how they think their clients want to utilise that content**

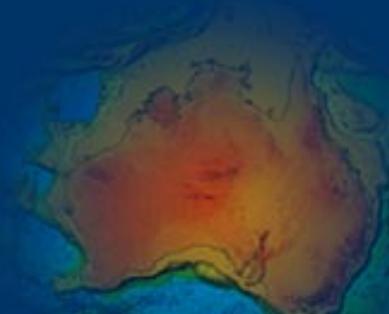


THE SHIFTING PARADIGM (2)

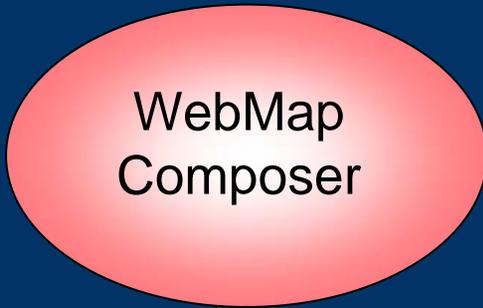
- In the user “pull” paradigm clients access and use what data or information they require, from any data supplier that can supply authoritative data in the appropriate standardised formats
- With appropriate international standards and formats data and information can be harvested in real time from globally distributed databases. No longer do we need to build and maintain large, costly data warehouses that holds all the data we think we might need. Just-in-time becomes a reality for information, not just for supermarkets

BUT

- **There is substantial background technical work to be done which will be addressed in various ways in this conference, but also**
- **There are substantial investment, policy, governance and cultural issues to be overcome both institutionally and in individuals.**



CLIENT APPLICATIONS



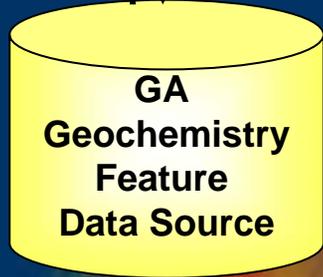
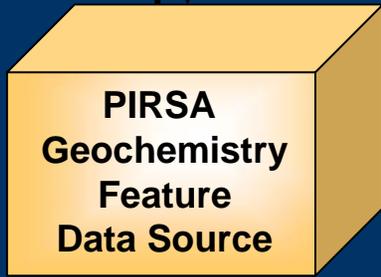
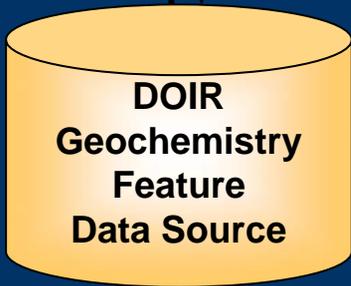
Common Interface Binding – GML/XML

DATA ACCESS SERVICES



Geoserver
(Open Source)

DATA SOURCES

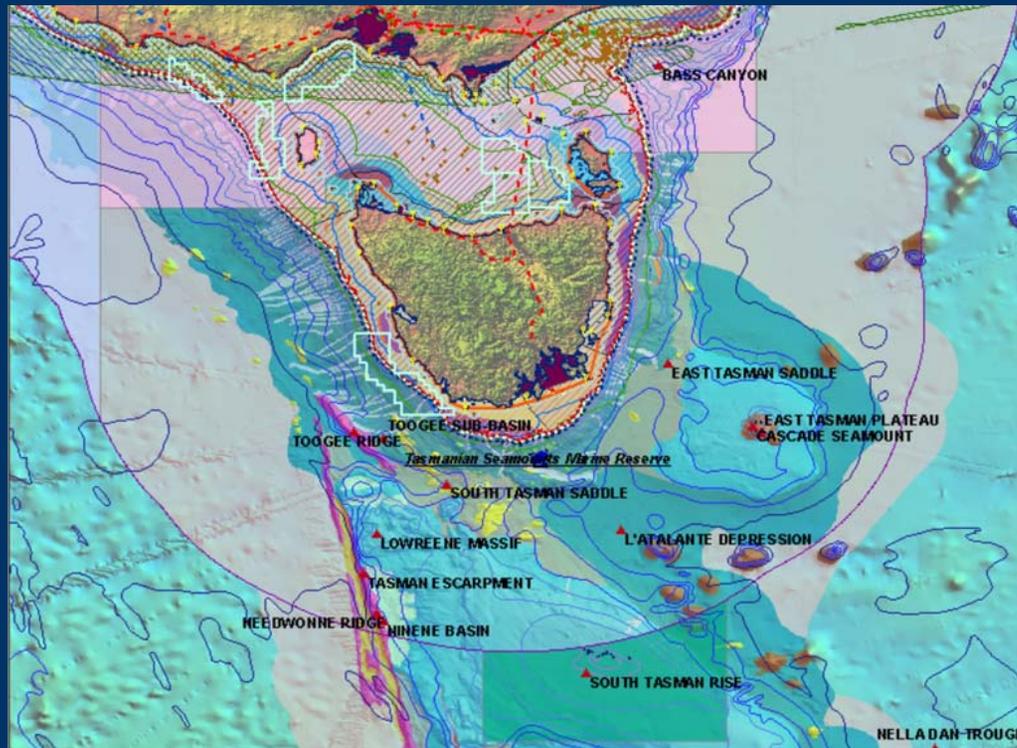


PostGIS
(Open Source)

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(Open Source)

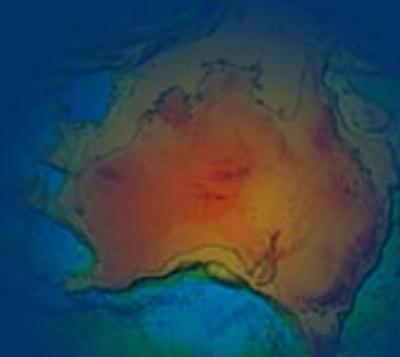
Oracle

AMISIS is designed improve management of Australia's Marine jurisdiction, by mapping the various interests that exist.



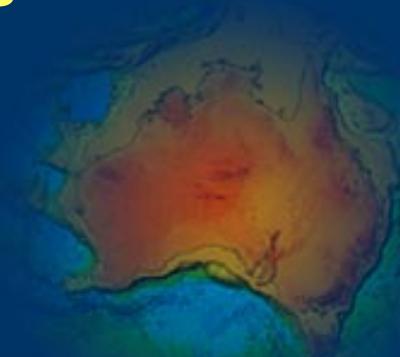
Project Drivers

- **UN Convention on Law of the Sea**
 - **Need to manage our marine jurisdiction**
 - **Need to make information available**
- **GA and ITR requirement to identify interests in marine jurisdiction. (eg for offshore petroleum acreage releases)**
- **Other Commonwealth agency requirements for integrated information.**



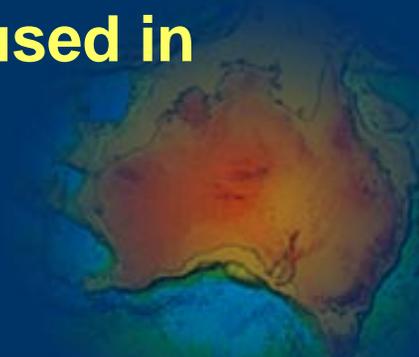
Project Scope

- **Develop a system and processes to make accessible the growing number of interests in the marine zone.**
- **Establish the necessary relationships with stakeholders and custodians.**
- **Integrate information from GA sources and other agencies – using interoperability and data agreements to ensure authoritative source.**
- **Identify and address fundamental information gaps and poor quality data.**
- **Provide the necessary applications/services required by stakeholders.**



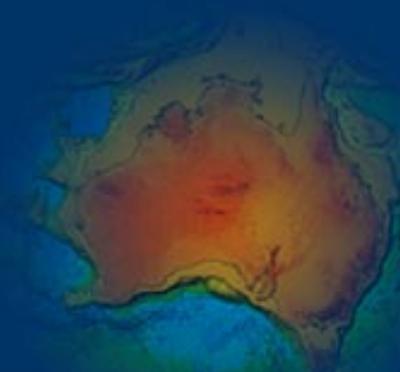
Stakeholder Requirements

- **Data audit done (83 “priority layers of information from approx 15 agencies)**
- **Four main areas of interest identified:**
 - **An internet based application to support management decisions.**
 - **A way of improving access to GA data integrated with other interests.**
 - **A way of producing basic map products.**
 - **A web service that could be potentially used in stakeholder applications.**



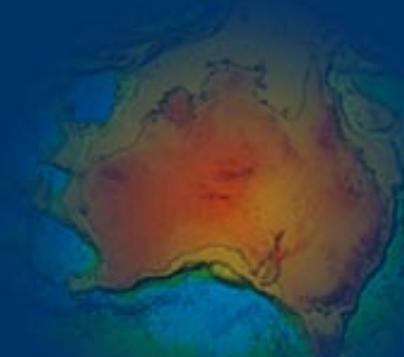
Project Challenges

- **Information currency.**
- **Formal stakeholder agreements.**
 - **Data supply to GA**
 - **SLA from GA to user**
 - **Maintaining involvement**
- **Maintaining and improving system.**
- **Ensuring fitness for use of data.**
- **Minimising misuse / liability**
- **Integrating with other initiatives.**



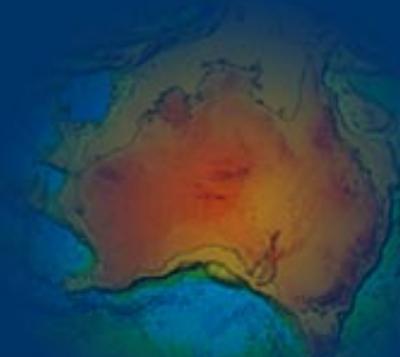
Project Challenges (2)

- **24/7 requirement by some agencies.**
- **Technology**
 - **Linking directly to source data (eg GA PMD)**
 - **Our corporate infrastructure not yet fully implemented.**
 - **Interoperability – standards may not fully support our applications (Eg WFS) or may not exist (access to ERIN shipwrecks db)**
- **Including state information**



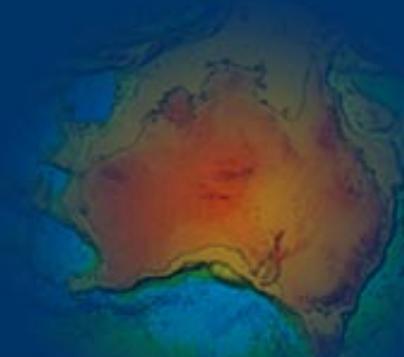
IF WE SUCCEED

- AMSIS will integrate Commonwealth interests therefore enabling agencies to focus on managing the information essential to their operations. (eg assets / threats)
- This removes a large amount of overhead and effort by not having to constantly maintain information generated by other agencies.
- GA will also ensure the accurate spatial representation of boundaries and assist custodial agencies with their definition.



KEY ISSUES

- How is the business case made?
- Who makes the investment?
- How do you get multi agency buy in?
- How do you guarantee sustainability?
 - dependency and currency
- Is there a free rider problem?
- Ensuring fitness for purpose.
- Minimising misuse/liability



THANK YOU

