

# BusinessMinds, Metcash and 3 Mobile well-received at the Ark Conference

## Agenda

- Business Intelligence turnaround in 3 Mobile
- Marketing Your DW for Future Success in Metcash
- Where is your data warehouse heading?



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An Ark Conference entitled '**Realising the Capabilities of your Data Warehouse and Repository**' was held on 27/5/08 at Rydges World Square, Sydney. It was followed by a second single day conference entitled 'Strategic Data Mining: Techniques, Tools and Tactics'.

Ark Group is part of an international organisation which runs conferences in the areas of information and knowledge management.

On day 1, there were 5 presentations, a panel discussion and an **interactive workshop run by BusinessMinds**. The quality of all presentations was very high. They included examples from theory and practice and some excellent case studies. The **sessions by Stuart Horyna and BusinessMinds were scored the most highly by delegates**.

**Sam Mallett** (Business Systems Manager, **PBL Media**) spoke about aligning your data warehouse with organisational **strategy**. Sam's key point was that to add value through your DW, you must engage closely with business and the business planning process.

- Business must see data as an asset, **own** it and address issues of data quality.
- PBL's increased focus on **strategic planning** in the business, has resulted in an alignment of the DW with strategic rather than purely tactical goals. This means that the DW provides data for the quarterly, yearly and 5-yearly planning process and has caused an expansion of BI into modelling and predictive analysis.
- It has been necessary to have a couple of **super-users in each department** to drive standards and manage requirements.
- **Training and re-training** is essential as is raising of awareness about the opportunities of modelling and mining.

The **Panel discussion** was called 'Selling your warehouse project to management'. Some of the hot tips related to roadshows, drawcards, business cases and exploration warehouses:

- Some panellists market their DW/BI platform in a **roadshow** to the rest of their organisations, using examples from the business to showcase techniques or how to align with business strategy. These kinds of demonstrations use data and scenarios that are familiar (e.g. an analysis cube of employee demographic data) to help business understand what BI is and they result in a flood of requests. It is dangerous to show prototypes, as business doesn't understand why production versions can take so much longer to produce.
- Business must own and drive DW projects. A couple of panellists have regular meetings with business to discuss all ideas for improvements and prioritise them. The performance and savings of all solutions are tracked. The business has **2 main goals**: to do more quickly the things they don't want to do but have to; and to have more time to do the things they would like to do and to do them more easily.
- When building a business case, **\$ or FTE** benefits can be more convincing.
- An **exploration warehouse** can be a good place to familiarise business with new data or techniques

**Russell Garnett** (BI Solutions Architect, **Patrick's**) presented on 'Sourcing the right people for your data warehouse project'. Russell talked about the drivers of **staffing** decisions, the main options and their pros and cons.

- Staff must have good business knowledge and client facing skills and be able to build good relations (which are needed when things don't go quite as planned).
- Key **drivers** of staffing decisions are company policy, project timelines, cost & time constraints.
- The main **options** and associated issues are
  - **Local partner**: good expertise, reduced flexibility if work done off site
  - **Contractors**: need to deal with agencies, lack of business knowledge, retention
  - **Internal staff**: need to maintain skill sets, increased control, ability to develop relationships
- A combination of the 3 staffing options is likely to give the right mix of expertise, control and flexibility. The key **challenges** are to ensure adherence to organisational expectations, project time frames, standards and goals, to handle the variables and politics during project development and maintain a high level of post implementation support

**Stuart Horyna** (Manager Business Intelligence, **Department of Innovation, Industry, Science & Research**) spoke about addressing the many and frequent **misconceptions** about your warehouse project. A couple of the key misconceptions are that data quality issues won't arise any more, and that implementations will be quicker/cheaper.

- Most **data quality** issues arise in the source systems and must be fixed there, however for new combinations of data, issues must be fixed by the business. Data must be continually audited by IT, and reports with recommendations sent to the business. It is business' responsibility to ensure all problems are fixed in source systems or elsewhere.
- Implementations are **complex** and **costly**, and ongoing monitoring is essential. How to report annually on data compiled in a fiscal year? How to deal with data time mismatches between different databases? Allow time in the project schedule for unknowns (25-50%!). More advanced BI will result in a massive increase in volumes.

**Paul Ormonde-James'** topic was 'From data to **decision making**: the source to solution continuum'. Paul is Head of Group Intelligence, MBF Australia Limited, and Australasian President of The Data Warehousing Institute. Paul described DW/BI as an iceberg, with all the necessary infrastructure working well behind the scenes, so that good decisions (the tip of the iceberg) are made.

- The **infrastructure** covers source systems, ETL, DW, data quality, metadata, analytical marts, distribution and analytics.
- The purpose of DW/BI is **decision making**, which includes hindsight, insight and foresight.
  - **Hindsight** relies on reporting and querying and requires clean data to answer questions like: What happened? How often/many? Where is the problem?
  - **Insight** relies on alerts, banding and statistical analysis to answer questions like: When is action needed? What degree of action is happening? Why is it happening?
  - **Foresight** requires 2-5years of history. It entails data mining, forecasting, predictive modelling and maximisation to answer questions like: What are the drivers? What if the trend continues? What could happen? What is the best that could happen?

- A Business Intelligence Competency Centre (**BICC**) ensures that business and IT communicate and work together. IT delivers the infrastructure that provides the data and information. The BICC does BI for business and executives. IT stewardship and BI ownership are important.
- **Hot tips:**
  - If reports are not being used – delete them!
  - Lunch and learn sessions every 2 months can present a guest speaker on a topic of interest
  - Customise each exec's portal (do a prototype first)

**Kamal Karunaratna** (Project and Support Manager, **Australian Prudential Regulation Authority**) spoke about remodelling APRA's DW into a **generic schema** that contains **tens of thousands of measures** and can incorporate new measures without changing the ETL. He also spoke about correctly selecting data warehouse **tools and methodology**. Kamal explained why and how APRA have remodelled their DW to be very generic with strictly controlled metadata:

- Before they remodelled, they had to introduce new data items every time there was a new field in input forms. After remodelling they have a simple generic star schema model.
- APRA has tens of thousands of measures. Most other businesses only have about 2000.
- They have many **new measures** that need to be **incorporated**. The DW can cater for any new metric to be included **without changing the ETL or Data Model**.

Kamal recommends that tools are selected only once the project is underway, so that they can be assessed based on their ability to address performance issues.

- APRA has slowly changing dimensions and slowly changing facts. Different structures for the DW result in radically different **performance**.
- Kamal provided a set of **criteria for assessment of tools** which can be provided to tool vendors and a format for baselining and evaluating the tools according to those criteria.

The largest time slot in the day was allocated to an **interactive workshop run by BusinessMinds**. As part of the workshop 'Where is your data warehouse heading?', Hanne Breddam from BusinessMinds co-presented with **Richard Roose** from **Metcash** and **Neil Fraser** from **3 Mobile**. Hanne and Susan Day facilitated 2 break-out groups who chose to deal with business questions and data quality as ways to move forward in future.

- Hanne, our Director, highlighted the importance of establishing a BICC which will focus on improving skills, culture and governance. She also explained how you can assess your organisation's maturity and make improvements using 7 critical success factors covering business, process and technical aspects
- Richard, who is IT Manager - Business Intelligence Group presented a case study 'Marketing your data warehouse to future success'. Metcash's DW has 25 facts and 15 conformed dimensions. The largest fact table has over 0.5billion rows. Richard's team is branded as 'BIG' the BI Group. **BIG actively markets** to its customers in relation to service offerings and provides role-based communications and training.
- Neil is General Manager - Business Intelligence, and he presented on 'Business intelligence turnaround'. Neil explained some of the issues he is facing, including lack of a data model, prevalence of Access & Excel and lack of metadata. To turn it around, he has focussed on business strategy driving the BI strategy. He believes that business doesn't just need reports, it needs **commentary and recommendations** so he has established an insight analytics team.

The speakers' case studies were great examples of how you have to start where you are, dealing with infrastructure and other challenges, as well as being visionary and taking things further. There were **2 workshop topics**:

- The next delivery from the data warehouse must provide high business value and be hot! Which questions should the next version of your data warehouse answer? Which business processes should it support?
  - The group decided to focus on **enablers** rather than questions relevant to particular organisations. These included operational BI, integrating external data sources, modelling and GIS, and delivery to mobile devices.
- What action should be taken to improve maturity gradually? Select any of the 8 factors relating to DW success (business, technical and process domains)
  - The group focussed on **Data Quality** which is in the technical domain.
  - Stuart Horyna described his DQ audit process: assess, recognise, own, establish options, decide, action, advise
  - Stuart's DQ audit process is applied in one of 4 cycles: monthly if there are major issues; quarterly or every 6 months for other issues; and annually for all data and applications just in case new issues have emerged.
  - Alerts regarding DQ issues can be used to trigger action
  - Approaches in different organisations included:
    - pushing DQ issues back to business who push back to source systems; data is not brought into the DW if there is an error, validation is performed on data prior to load, this triggers an alert that the source system must be fixed.