

BA requirements for sustainable IT

Sustainable IT systems include those that reduce the power consumption of business processes and ICT infrastructure. With ICT use by Australian businesses generating over 1.5% of Australia's CO₂ emissions, the need to reduce the carbon footprint of IT systems is real. Sustainability business drivers include a reduction in business costs, with Business Analysts being on the leading edge to identify sustainable business drivers and write requirements specifically focussed on sustainable IT systems.

"The Business Analyst is on the leading edge to identify aspects where carbon emissions can be reduced and where costs savings can be achieved."

Wendy Ashmore

Supervising Consultant,
Object Consulting

1. Design efficient processes

Aim for straight through processing, as reprocessing is costly - it introduces intermediate storage points which require more data to be stored. Design for storage efficiency, as reducing the amount of stored data is one of the architectural principles for reducing carbon emissions and the overall footprint of applications. From a business perspective, straight through processing is likely to also increase customer service satisfaction. In addition, look at processes to optimise logistics and consider all end-to-end environmental costs.

2. Architecture does matter

Architecture is directly related to power consumption. Applications can be designed more efficiently but are reliant upon the information provided by Business Analysts. Architectural principles for sustainable design include minimising the amount of data stored by the application, including data archiving in application design, rationalising applications and platform portfolio, and consolidating applications onto a minimum number of servers.

3. Sustainable requirements

Successful sustainable architecture is dependent on a detailed

understanding of the system requirements, its use, volumes of data, peaks, security and privacy needs. Business Analysts are ideally positioned to identify sustainable drivers and to write requirements specifically focussed on long-term sustainable IT systems.

4. Sustainable BA approach

Object uses a three-tier requirements model approach, where sustainability elements can be added.

1. Requirements Position - determine how the system is partitioned, how and when the system will be used and how the system's footprint will change.
2. Requirements Definition - address privacy issues, examine your data classification requirements and refactor domain / data models to reflect security requirements.
3. Requirements Specification - additional functional focus includes archiving requirements, regulatory and reusable requirements.

5. Business analysis matters most

To write requirements for a sustainable system does not require a new BA skill set. Some things need to be done better, some things need to be done earlier, and architectural awareness needs to be increased. It is the Business Analyst who identifies sustainable business drivers, which can then lead to careful sustainable architectural design based on system requirements.

