



Open Source vs. Procurement

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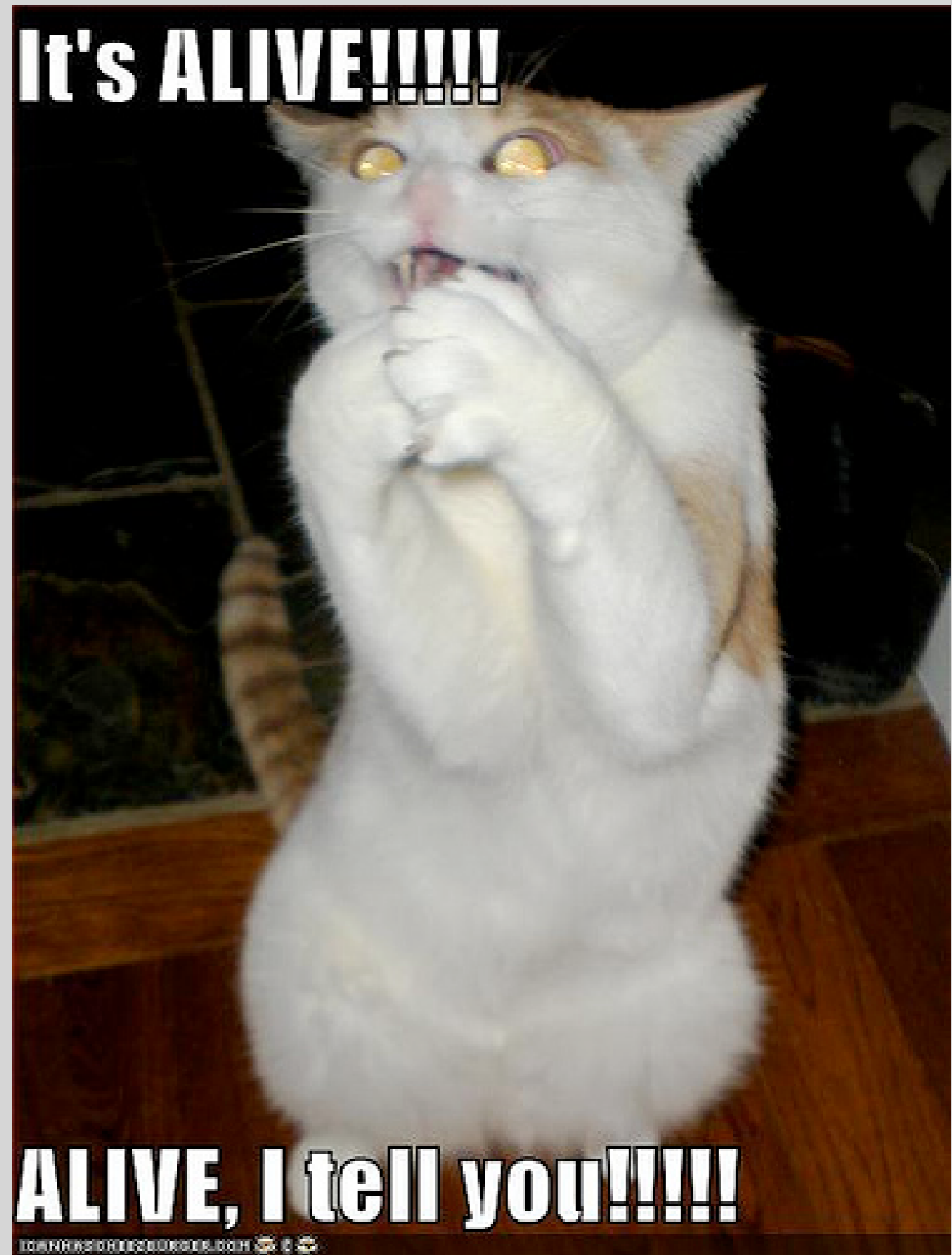
It all starts with a merger...



Current IDMS

- Home grown system
 - Based on Microsoft technologies
- Expensive to support
- Doesn't scale well
 - No services outside Information Services using it
- Poor administration tools
 - UI is mystifying
 - Poor feature set

<http://www.flickr.com/photos/31707807@N05/2969260384/>



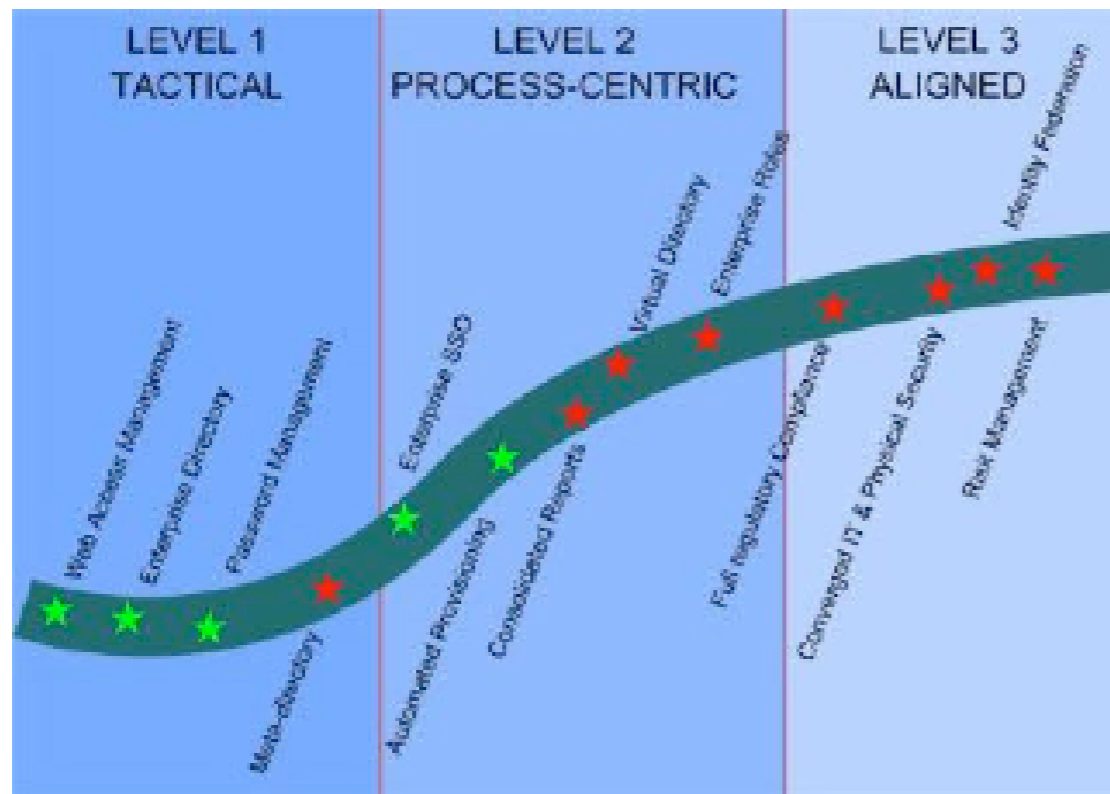


What did I do to deserve this?

- My job was to:
 - identify a solution for our IDM system (done)
 - take us there (still working on that)
- Probably nobody would fire me for buying Oracle.
 - Some people might hate me.

Get some help...

- November 2007: Salford Software produce maturity assessment of our IDM system



- Recommended that we procure and thought that three products were a good fit:
 - Oracle, Novell, Sun



Start planning

- 2007 / 2008: Sun, Novell and Oracle come to demo their products
 - All have really good features, but none are perfect fit
 - All are expensive (except Sun - but that would have been expensive!)
- 2008: Secure funding for potential procurement
- 2008: Plan project to begin August 2008 to do requirements capture and procurement
- **2008: My Director spoke to some consultants (Gartner)**



A brief diversion...

“The CIO Council and the OGC, working with industry and drawing on best practice from other countries, will institute a programme of education and capability-building for the Government IT and Procurement professions on the skills needed to evaluate and make the best use of open source solutions.”

Open Source, Open Standards and Re-use: Government Action Plan
www.cabinetoffice.gov.uk/media/318020/open_source.pdf



“We will require our suppliers to provide evidence of consideration of open source solutions during procurement exercises – if this evidence is not provided, bidders are likely to be disqualified from the procurement.”

“Where there is no significant overall cost difference between open and non-open source products, open source will be selected on the basis of its additional inherent flexibility.”



IDM History

- **Directory Services** – long history (Novell, Microsoft, OpenLDAP)
- **Late 1990s** – single UUN per identity
- **Early 2000s** – Automation Server established
- **2004/5** – EASE SSO & Kerberos authentication
- **2004** – Alumni added to Automation Server
- **2004** – Automation server used to populate University web portal
- **2004** – Visitor Registration System released (for affiliate management)
- **2005** – IDMS Release 1
- **2005/6** – Central Auth & AthensDA
- **2008** – Shibboleth instead of AthensDA
- **2008** – Applicants added to IDMS
- **2008** – EASE Friend
- **2008** – eVisitor service established



Further analysis...

SSO / AuthN	Federated AuthN	Directory Services	Group AuthZ	Identity Store	Provisioning	Auditing / Management
Active Directory EASE EASE Friend Kerberos	Shibboleth	Active Directory Central Auth (OpenLDAP) Oracle Internet Directory	Patchy... AD Central Auth Groups Manager	Current IDMS	Current IDMS (but we have invested in Oracle SOA)	Current IDMS IDMS Portal (but we have invested in SAP Business Objects)



More analysis...

- European Universities tend to favour blended systems (home-grown / open source)
- SOA and Federation are drivers in the bigger institutions
- Compliance - bigger driver in North America; user convenience, lowering costs, security all bigger drivers in Europe.
- Vendor solutions not a great fit for IT (multiple golden copies, high 'churn' rate)
- References:
 - Recent EDUCAUSE mailing list discussion
<https://spreadsheets.google.com/ccc?key=0AnQf-0uSRnrUdGIXNW5hb2VDbElrM0RRWTY1b2wxQ3c&hl=en>
 - Gartner Higher Education Security Survey 2008: Progress in Identity and Access Management, JM Lowendahl, M Zastrocky & M Harris.



Main business drivers

- Services are available at point of need
- Appropriate services are available to all types of user
- Administering access to services is more efficient and scalable
- IDM services are more robust
- IDM support costs are lower
- Constraints
 - Centralisation not the goal
 - Typical connector model has control / support issues



Business Requirements / Analysis

Business strand

- Business requirements analysis
- Identified all our main drivers
- Identified and mapped all our key processes
- Looked at all relevant policy areas
- Functional requirements

Technical analysis strand

- Survey open source IDM products
- Gap analysis
- Shortlisting of components
- Questions to mailing list
- Matrix of assessment criteria



Our shortlist

- Grouper
- OpenPTK
- Velo
- Kuali KIM
- Penrose
- Open Registry
- Sun IAM Suite (it's free - did we mention that already?)
- Central Auth and IDMS were included in the evaluation for the sake of completeness. GMS is an internally developed Group Management System for use with the University Contacts Directory.



Conclusions

- Over the course of the evaluation we have determined that some of these products can satisfy some of these requirements. There are two OS products stood out in our investigations as good fits for the ID Vault and Group components an IDM:-
 - Grouper is a mature, flexible, java based Group Management system which has a large user/development community.
 - Open Registry is an open source Identity system currently under development at Rutgers University. Although still under going major development it should be a good source of inspiration and functionality.
- None of the OS/Freeware products that we evaluated meet our business requirements for Provisioning.
- The other five home-grown / OS / Freeware products were not deemed to be strong contenders for the following reasons:-
 - Velo/Penrose- Poor development community and communication
 - openPTK - Does not fit our business model
 - SUN IAM Suite - Does not fit our business model
 - GMS - Would require significant effort to meet the business requirements



The business case

- We opted for a blended solution of home-grown, re-using existing commercial and open source components and rolling in Grouper.
- Implementation of commercial solution = cost of developing our own
 - Total licensing spend saved = £400,000k approx.
- Risks
 - Competency
 - Technical fit
 - Capacity



Chosen solution

- Architecture uses Oracle SOA suite heavily
- Loose couplings using Oracle Change Data Capture / Oracle Streams / PL SQL to golden copies
- ID Store - Oracle DB
- Push / Pull web services to downstream systems
- Database connection for bulk
- Grouper for groups management
- OpenLDAP for authorisation service
- **All being deployed on existing infrastructure**



Lessons learned

- Do your homework - look at what you've already got in-house.
- Open source communities should consider producing evaluation matrices for their products
 - e.g. uPortal evaluation matrix



Sources of information / help

- Open source evaluation models
 - Business Readiness Rating (BRR)
 - Navica Open Source Maturity Model
 - CapGemini OSMM



More help - OSSWatch

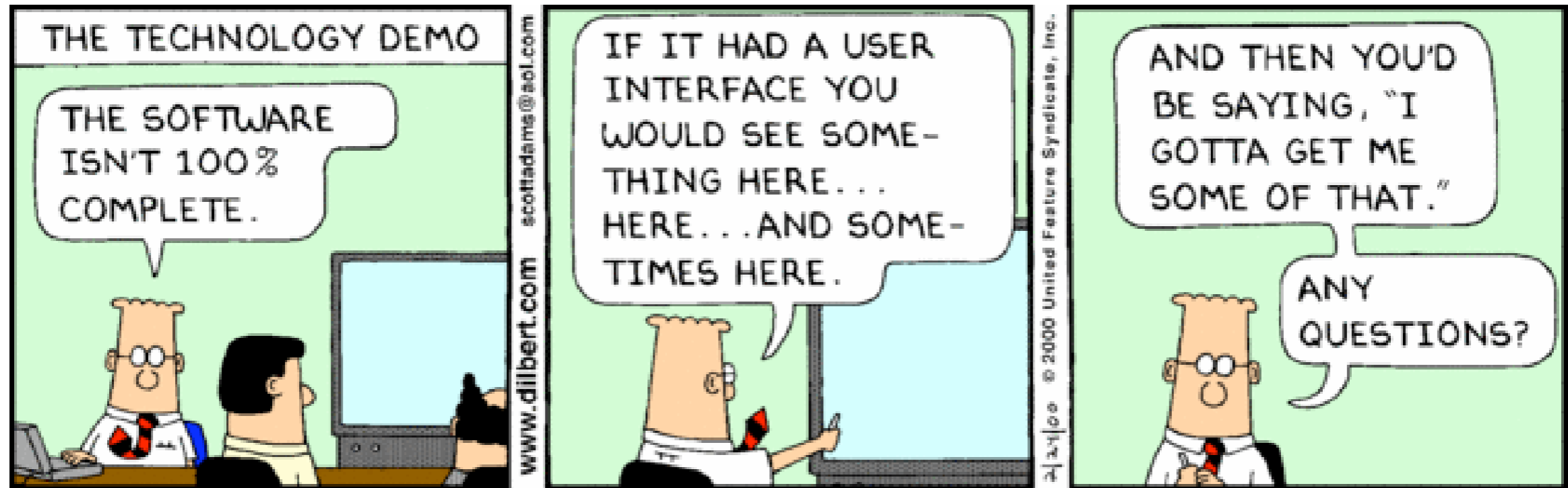
- JISC sponsored
 - Strands for different audiences - lots of publications (conference reports / case studies / briefing papers)
 - Decision Factors for Open Source Procurement
<http://www.oss-watch.ac.uk/resources/procurement-infopack.xml>
 - Procuring Free & Open Source Software
(PDF download)
 - Justin Erenkratz Interview
<http://www.oss-watch.ac.uk/resources/erenkrantz.xml>
 - Richard Stallman Interview
<http://www.oss-watch.ac.uk/resources/Stallman.xml>



References

- Requirements Gathering Project
<http://www.projects.ed.ac.uk/areas/itservices/integrated/ITS011/index.shtml>
- Current Software Build Project
<http://www.projects.ed.ac.uk/areas/itservices/integrated/ITS029/index.shtml>
- Anyone who wants access to our (closed) wiki space, email me.

Any Questions?



<http://dilbert.com/strips/comic/2000-02-24/>

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