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The National Grid Service User Accounting System

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The User Accounting system has simplified administration of users on the NGS.
Users who go over their allocated CPU hours find themselves warned when they reach 90% of their allocation, and automatically locked out when they reach 100%. They can apply for further resources using the online form. Since the system entered production in October 2006, it has locked 74 users out, of which 80% successfully reapplied for more time. 183 new users have applied using the system, enabling the NGS to collect more valuable information on users than before. This automatic collection of data and the use of the Oracle Apex system mean statistics can be produced daily. Figures on how much CPU time is allocated and used, where our users are located, how they found out about the NGS and who funded them are available. The users themselves have benefited from the Accounting System, using the online interface to update their contact data, see their allocations or apply for more resources.

3. Impact

Early 2006, the NGS had the tools to monitor account usage by way of the Open Grid Forum standards Resource Usage Service (RUS) and the policing policies for account usage, but not the tools to enforce those policies.
The User Accounting System was developed by the NGS to address this problem. User account details are kept on an Oracle database. Oracle Application Express (Apex) was used to develop various interfaces to this data for NGS staff, reviewers and users.
When the Accounting System was developed, no other monitoring or accounting system satisfied the needs of the NGS. The NGS User Accounting System does this and more.
As well as CPU accounting, the system performs automatic policing (locking users out when they exceed their limit), statistical analysis, SRB account creation upon account approval and provides a web interface for users to access their own data.

URL for further information:

www.ngs.ac.uk

4. Conclusions / Future plans

The introduction of the User Accounting System has satisfied the NGS accounting needs and will continue to expand to do so. Administration of individual accounts is possible using the Oracle Apex interface. Users now have the important ability to manage their own accounts through the web.
Future plans for the system are many and include incorporating Storage use into the automatic policing and the support for Virtual Organisations and their accounting needs.

Provide a set of generic keywords that define your contribution (e.g. Data Management, Workflows, High Energy Physics)

National Grid Service, Accounting, Policing, Oracle, user account

1. Short overview

The UK's Grid, the National Grid Service (NGS), has developed and implemented a User Accounting System to automate the processes of user registration and account approval as well as provide automatic policing of accounts that go over quota. The User Accounting System queries the Resource Usage Service to obtain usage details for each individual user, inputting the data into an Oracle database which performs automatic policing. Oracle Application Express is used as the web interface to the system

Primary author: Ms WEEKS, Katie (STFC)

Co-authors: Dr RICHARDS, Andrew (STFC); Mr HAINES, Kevin (STFC)

Presenter: Ms WEEKS, Katie (STFC)

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