



Enabling Grids for E-science

The Bazaar Vision

Ideas of RC/VO coordination, sites policy and resource allocation

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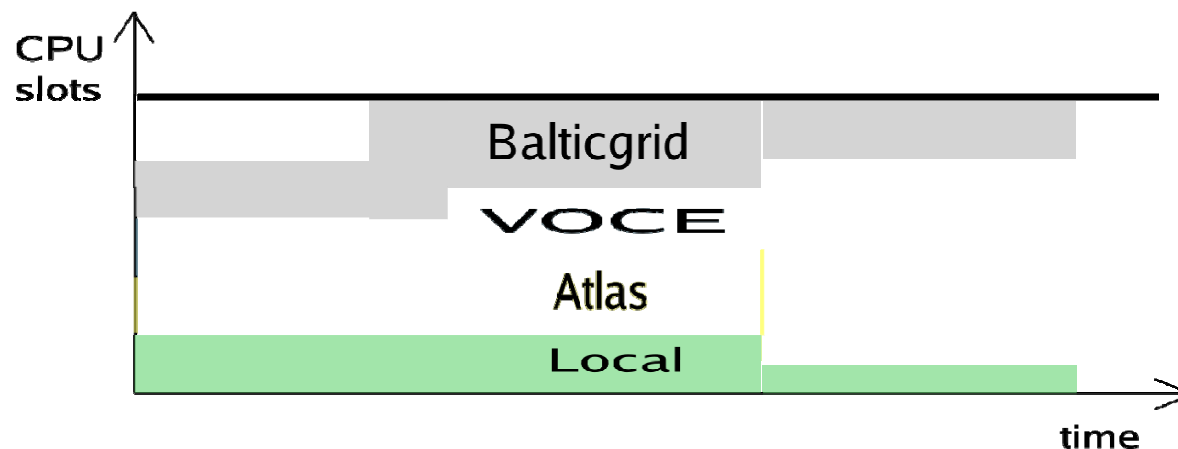
- **A challenging vision of 'Grid Bazaar'**
- **RC/VO scenarios that needs to be improved**
- **Simple ideas that would be introduced**
- **Status of work**
- **Discussion!!!**

- **EGEE-III TNA requires a different way of handling resource allocation for VOs**
- **The portal is needed to:**
 - make bids and negotiate resources
 - form SLA-based contracts between VO and RC
 - request and approve setting-up VO support
 - make communication between RC and VO Managers
 - provide feedback about sites and VOs
 - manage money (based on Tycoon accounting logs)
- **Bazaar would be a web-based grid resources market platform available in frame of EGEE-III TNA**

- **Consider the following scenarios:**
 1. VO already supported by sites needs more computing power for 1 month starting from next week
 2. VO needs increase storage/CPU ratio, so they want to negotiate this with 20 sites and track the process of enabling this
 3. RC needs resources for new VO and wants to cut (re-negotiate) resources for already supported VOs.
- **Currently, in each case only e-mail-based approach is available, or a silent cut (3rd case)**

- **Current site policy should be defined in portal**
 - to make it clear and visible
- **Support for a VO could be considered as 'contracts'**
 - each between single RC and single VO
- **Contract can change over the time**
- **Possibility to compare site policy with policy declared**

for EGEE



- Both parties could propose changes to the 'contract'
- In this case other party is notified and can accept/reject or continue negotiation of each contract item
- Number of rounds is not limited

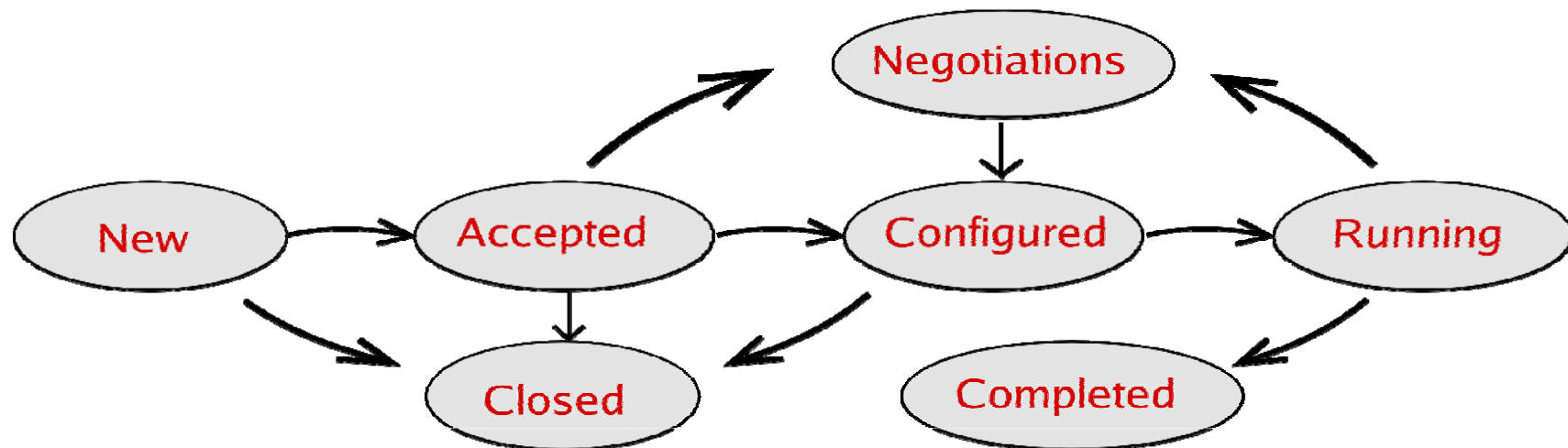
New proposal

	Now	New proposal
Status:	NEW	NEGOTIATION
Start date:	2007-06-18	2007-06-18
End date:	2007-07-26	2007-07-27
Guaranted CPU:	5	5
Best effort CPU:	6	5
Guaranted storage space:	50	30
Best effort storage space:	55	40

Your decision:

Accept
Reject
Propose changes

- **Change of state can be requested by each party**
- **Other party confirms or rejects each transition**
 - that way verification of work is done
 - e.g. checking if site indeed increased guaranteed CPU slots
- **Trace of action available in the portal**



- **Execution of contract can be assessed in form of feedback**
 - e.g. for RCs: Did site enable support in time? Did site provide promised number of CPUs?;
 - e.g. for VO: Is the proper VO configuration available? Did VO exploit guaranteed (reserved) resources?
- **Feedback would be collected:**
 - during contract state transitions or/and on request
 - semi-automatically based on monitoring and accounting data
 - always with possibility to make comments, explanations, etc.
- **Points could be assigned to RCs and VOs based on the feedback**
 - Top 10 reliable sites list can be published ;-)
- **Points and feedback could help in making policy-related decisions**

- **Feasibility study**
 - The idea is to provide useful RC/VO collaboration tool
 - Integration with other tools (monitoring, accounting) would be profitable but is not critical
 - 'Contracts' are based on 'VO assessment tool'
- **Details still need to be defined**
 - e.g. sites and VO ranking based on feedback
- **Development work**
 - Bazaar is being integrated with CIC Portal
 - Development in progress on separated instance of CIC on Portal (<http://cic-cyfronet.in2p3.fr/>) as unfunded work of CYFRONET

- **We find useful to have the portal that:**
 - Simplify collaboration between RC and VO
 - Formalize RC/VO related processes
- **Main ideas presented:**
 - RC policy management in portal (VO management could be done in similar way)
 - Changes in level of VO support at site becomes subject of negotiations/communications
 - Tracking of state transition could include approval
 - Possibility of providing simple feedback about VOs (by sites) and about sites (by VOs) and rankings
- **Dear RC Managers and All! What you think?**