VOX Project Status

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Goals, team and collaborators

- Purpose:

To facilitate the remote participation of US based physicists in effective and timely analysis of data from the LHC experiments during DC04 by designing, developing, and deploying Virtual Organization Management Service eXtension (VOX) for US CMS

- Team and effort(so far):
  - T.Levshina – CD/CCF - (50%)
  - V. Sekhri – SDSS/iVDGL - (75 %)
  - Y. Wu – CD/CMS - (40%)
  - J. Kaiser –CD/CSS – sysadmin (10%)
  - L. Grundhoefer – iVDGL (40 %)
- Collaborators
  - BNL – VOMRS architecture, registration process, common interfaces - R. Baker, D. Yu
  - EDG – VOMS – V. Ciaschini
  - VDT (U of Wisconsin) - ongoing communication and agreements with Globus.

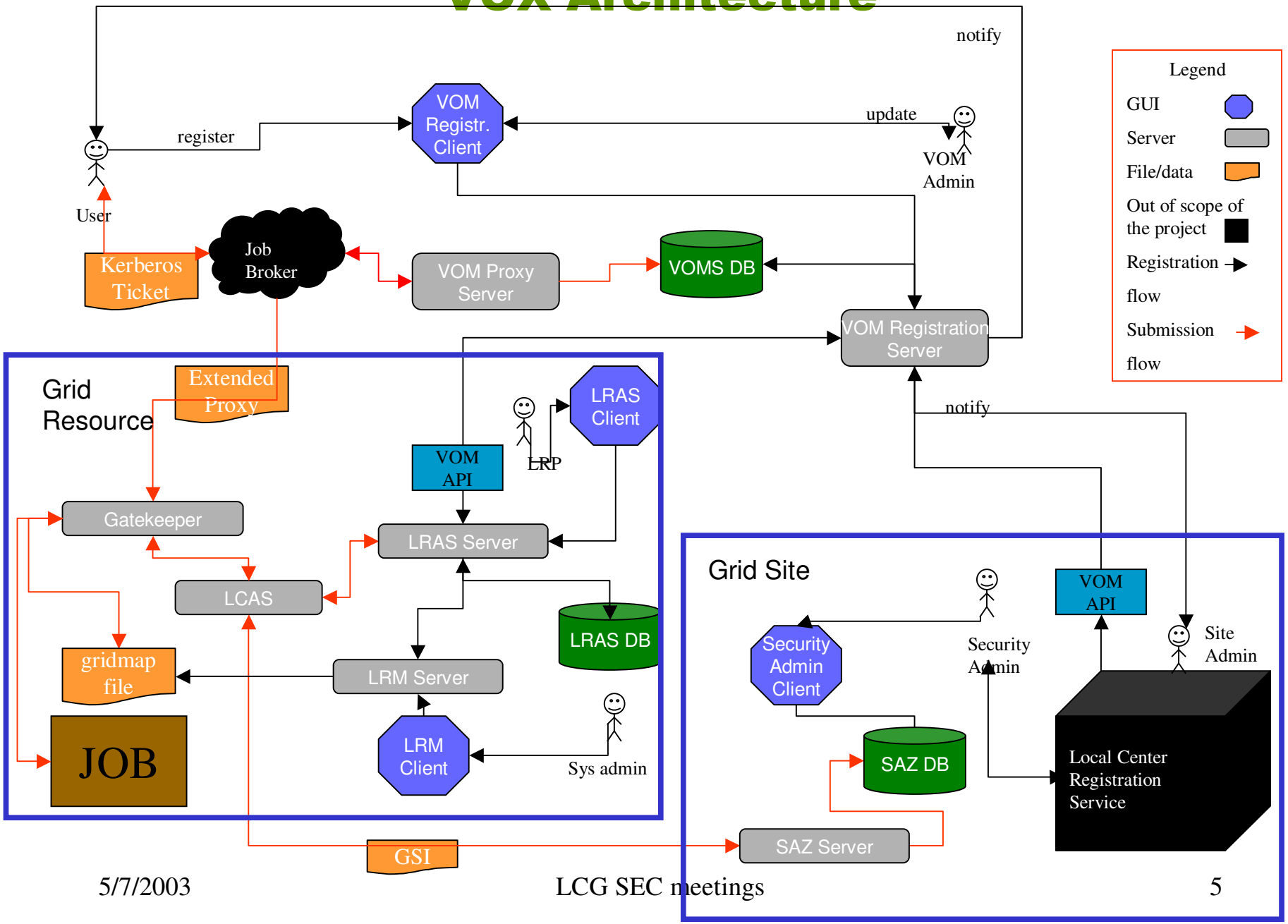
Scope of VOX Project (I)

- Provide US CMS registration service that
  - allows single access to registration with US CMS VO
  - facilitates, negotiates and monitors the process of member's acceptance to grid resources
  - provides centralized storage of
    - members DNs and their personal data
    - US CMS VO institutions and their representatives
    - US CMS VO affiliated grid resource administrators
  - provides means to query this information
  - performs authentication and authorization of VO members based on member's proxy, group, role and status and generated VOMS extended proxy (EDG-VOMS)

Scope of VOX Project (II)

- Local Resource Authorization Service (LRAS) – (GUMS in BNL)
  - automates and facilitates the process of managing fine grain access to local grid element
  - provides storage of subset of VO membership information and mapping to local accounts
- LCAS callouts (in agreement with standard agreed by Globus, EDG, FNAL, and Virginia Tech)
- Site authentication and authorization service (SAZ)
  - allows security authorities of the local site to control access to the site
  - provides storage of all grid users that can potentially use the site resource
  - provides means to retrieve the information about users and their access

VOX Architecture



VOM Registration Service

(Status of component specification and code development)

- VOMS DB:
  - Design is done
  - Schema is deployed
    - mysql
    - 17 tables
    - standard interface being defined independent of RDBMS being used
  - Waiting for review
- VOM Registration Server
  - Design in progress
- VOM Registration API
  - Design has been started
- VOM Registration Client
  - Started requirements collection
- EDG-VOMS (VOM Proxy Server)
  - Installed (all but GUI part)
  - Testing is started

LRAS

(Status of component specification and code development)

- LRAS Server, API and Client (GUI)
  - Design is done
  - Coding is done
  - (* needs some modification due to new requirements coming from local grid SE)
  - Code review is planned for the next two weeks
- LRAS DB
  - Design is done
  - Schema is deployed
- LAMS (Local Admin Manager Server responsible for updating gridmap file and optionally creating user account on grid cluster)
  - Design is done
  - Coding is done
- LAMS GUI Client
  - Design is done
  - Coding is done

LCAS Plug-ins and Java Authorization Module
(Status of component specification and code development)

- LCAS Plug-ins
  - Allow/Deny plug-in checks with LRAS if user has access to local grid cluster
    - Done
  - Timeslot plug-in check with LRAS if user is allowed to run during current timeslot
    - Not started
  - SAZ plug-in check with SAZ server if user has been authorized to use grid cluster
    - Done
- ANAM (Authorization and Authentication Module) –based upon GSS library comes from Java Cog (version cog-1.1a)
  - Design is done
  - Coding is done
- SAZ will be re-written in Java using ANAM module

Progress plan

- VOM Registration Server
  - Design (with API) should be done by May 16
  - Prototype version ready by mid June
  - Code review starts in mid June
  - Integration test starts in mid June
  - More robust version should be done by the end of July
- VOM Registration Client
  - Requirement collection should be done by end of May
  - Design (will be done in parallel with req.collection) should be done by June 6th
  - Prototype – web based simple GUI and CLI for administrators should be done by the end of July
- Usability of EDG-VOMS should be determined by end of May
- LRAS
  - Code review should be done by the end of May
  - Code modification based on the new requirements ready by mid June
  - Integration test starts in mid June