JISC OneVRE Project: "Creating a Secure Distribution Cross-Portlet system for Sharing Electronic Documents"
JISC VRE (Virtual Research Environment) Programme

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http://wiki.rcs.manchester.ac.uk/community/vre3

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Aside on CritterVRE  Andrew Rowley, Mike Jones
The project developed two test servers to be usable by the community. The first server is a booking system, linking together twitter accounts allowing for relevant #tag comments to be harvested during a meeting, and second server considered the navigation of the recordings using these time-linked annotations.
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Original Reasons for OneVRE

Requirement for a cross-site repository
- Joining of Portal environments using lesser known Access Grid technologies to keep researchers in their familiar environment
- Reduction of Administration overheads
- Automatic Venue Generation based on Virtual Organizations Attributes

Identity Management

- New Skype-like interface that monitors VO venues
- Integration of new Shared Applications
- Using SARoNGS to authenticate users and provide VO attributes
- Using X.509 proxy certificates to secure communication
- Provides a Virtual Organization based access to Documents stored in the Venues
- Documents can expire in the shared Storage and will be removed automatically
Features inherited from PAG:

- No special installation required on client machine – requires only Java (version 1.6 or higher)
- All platforms supported (Windows XP, Windows Vista, Linux, Mac OS X)
- Connects to any AGTk3 server and allows free navigation of virtual venues
- Access to Jabber text chat and shared applications and data within the venue
Links to UK Access Management Federation – this time choose the University of Manchester

... whichever login system you use, then ...

Confirm acceptance via NGS site.

Logged in now can access OneVRE tab in portlet.
The local OneVRE Venue Server has a multitude of test folders.

Files can be uploaded and downloaded with expiry dates if required.

Key Features: Identity Management Experience

- Federated Management from SARoNGS
- Centrally Managed HE/FE Sector
- VOMS is controlled elsewhere
- New VOs can be created and then automatically used
Key Features: User Experience

- Reuse of existing Virtual Venues’ Data Repositories
  - Including those within Access Grid Virtual Venues
  - … anywhere in the world
- Can build new temporary Data Repository
- Links as a portlet to multiple portal types
  - Same view for different users
  - … again within their ‘friendly’ environment
- Files can self-delete after specific dates
  - New modes managed

Server and Code

- Try it yourself
  - \[https://onevre.rcs.manchester.ac.uk\]
- or download code
  - \[http://code.google.com/p/onevre/\]
- and a long term study for UK e-Science All Hands Meeting, September 2011
  - \[http://www.allhands.org.uk/\]

Where is OneVRE going?

Main scenario: Case Study 1
Secure space with federated access

- OneVRE user login via their federated access (SARoNGS)
- Users only have to provide some profile details (1st use)
- VO is created on-the-fly providing secure space for file transfers and exchange
- VO management functionality, awareness mechanisms and other features provided (e.g. expire date for files)
- ➔ security caveats: a) storage on the server is not encrypted at the moment; b) in general security is only as good as the weakest link, e.g. users’ machines

Future ideas: Case Study 2
Encrypted Dropbox account

- Data is stored encrypted on Dropbox, e.g. together with public key
- Standard login and authentication via OneVRE
- OneVRE creates certificate/private key(s) for access and decryption of Dropbox data (check: API; one separate Dropbox account for this process)
- ➔ trust mechanisms are important; weakest link
Future ideas: Case Study 3
Linkage with Google Docs etc.

- Include popular systems for document creation, sharing, collaborative working like Google Docs
- ➔ check feasibility

Future ideas: Case Study 4
Creation of ‘mini-VOs’

- Case Study 1 (federated access etc.) works only within a certain domain, here within the boundaries of the UK educational community
- ‘mini-VOs’: users from different organisations (e.g. industry and abroad) simply login OneVRE, OneVRE then acts as a CA and issues a certificate using its own VOM server hence creating a secure and certified ‘mini-VO’
- ➔ to be explored for feasibility: becoming a CA

Topics to AID discussion

- ViCoVRE: Creates a flexible tool for converting Access Grid recordings to standard common formats, such as MPEG-4, MPEG-2 and avi.
- CREW: Captures and publishes research events (Seminars, Conferences, Workshops, ...)
- e-Dance: Adaptation of Access Grid and knowledge mapping technologies for distributed performance and hypermedia.

Current Projects Activity Data – AGtivity

- Registered Nodes
- Total AG usage

Current Projects Activity Data – AGtivity
MAGIC is a series of distributed Postgraduate Mathematics Lectures; about 450 events per year involving 19 universities.

Current Projects
Sustained MAGIC

Conclusions and Thoughts

- Ideas from the audience …

More information:

http://www.rcs.manchester.ac.uk/research/OneVRE