



Enabling Grids for E-scienceE

MyProxy and VOMS

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- **Credential repository**
 - maintains long-term proxy certificates or even full credentials
 - issues short-time proxies
- **A few basic operations**
 - retrieval, renewal
- **Support of long-running jobs/operations**
 - The WMS periodically renews a proxy certificates and pushes it to the running job

- **Authentication based on SSL/TLS**
 - either using client's PKI credentials or password
 - other authN method supported via SASL
- **Authorization based on static lists of subject names**
 - stored in config file
 - independent lists for each operation
 - regular expressions allowed
- **Simple text based protocol**
 - sent over SSL/TLS secured channel

- **Relationship between MyProxy and its client is crucial**
 - clients must be authorized to access the repository
- **So far trust based on static configuration**
 - regular expressions aren't sufficient
 - a subject name of a service must be added on each change or addition
 - not flexible, could't profit from standard VO setup
- **WMS deployment**
 - WMS service must be allowed for `renewal` operations
 - installation of a ne WMS node requires changes to MyProxy

- **VOMS support introduced recently**
 - the motivation was to ease the WMS deployment
 - MyProxy server analysis the client's VOMS attributes
 - allows to specify VOMS attributes instead of specifying subject names:
 - `authorized_retrievers "FQAN:/voce/Role=Admin/Capability=NULL"`
 - requires adding service certificates to VOMS machinery
- **Simplifies configuration**
- **Allows to use the standard VO mechanism for trust establishment**

- **Verification of server's attributes**
 - not implemented
 - clients could verify the server
 - eg. when storing credentials
 - Mutual authorization again
- **Possible extensions to the myproxy protocol**
 - simple, backwards compatible
 - no proxies sent by the server

- **Maintaining service certificates in VOMS**
- **No technical issue**
- **Service should use two credentials**
 - VOMS-enabled when acting as a client for other services
 - Plain credentials for server authentication