





Updates on DCH-RP services, resources, and the e-CSG

Roberto Barbera Univ. of Catania & INFN



Outline

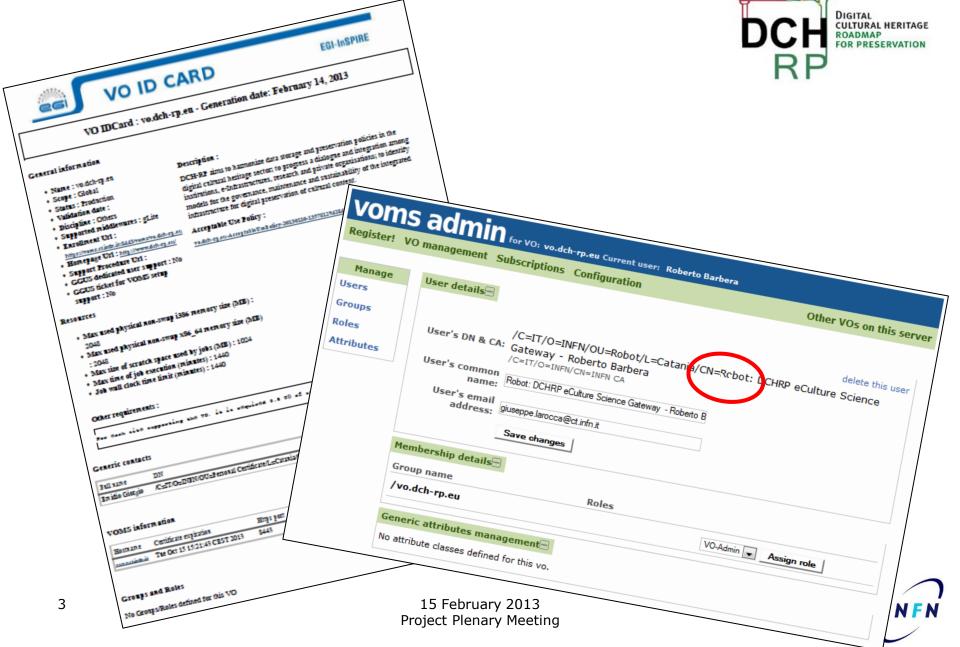


- Status of the DCH-RP infrastructure
- ■The TERENA AAA Study and some driving considerations
- Federated identity services available
- ■The e-Culture Science Gateway
- Upload/download of contents and current middleware limitations
- ■Summary and conclusions



The DCH-RP VO services





The DCH-RP available resources



GARR-01-DIR ldap://gridsrv4-4.dir.garr.it:2170/mds-vo-name=garr-01-dir,o=grid INFN-CATANIA ldap://alifarm10.ct.infn.it:2170/mds-vo-name=infn-catania,o=grid PSNC ldap://bdii.reef.man.poznan.pl:2170/mds-vo-name=PSNC,o=grid

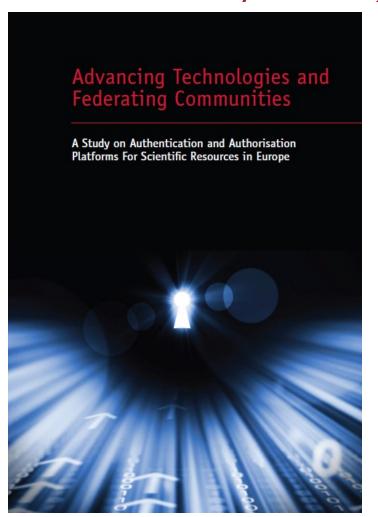
No.	Available space (kB)	Used space (kB)	Type	Storage Element
1	3.474.243.843	780.489.468	SRM	gridsrv3-4.dir.garr.it
2	13.999.999.992	7	SRM	prod-se-02.ct.infn.it
3	15.311.422.562	7.109.837.177	SRM	se.reef.man.poznan.pl
Total	32.785.666.397	7.890.326.652		
Total (TB)	30,53	7,35		



The TERENA AAA Study

(commissioned by the EC)





The goal has been broken down into **two objectives**:

- 1. A collection of **users' access requirements** coming from differentccommunities;
- 2. A gap analysis of the existing AAIs used in the realm of research and education, the use-cases they support and the associated challenges.



The TERENA AAA Study

(commissioned by the EC)

Nearly half of researchers use more than one credential, but a large majority would prefer to access all resources using their institutional credentials.

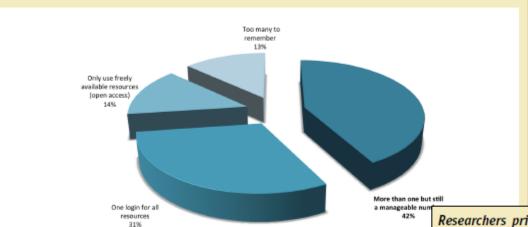


Figure 2.4: Number of credentials used by researchers

Researchers primarily use their institutional credentials for authentication (Figure 2.3), although a not insignificant number (19%), use their social network account credentials to access scientific information.

DIGITAL

CULTURAL HERITAGE

FOR PRESERVATION

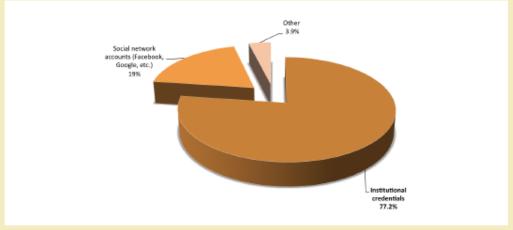


Figure 2.3: Credentials used by researchers

15 Projec

Recommendation

The TERENA AAA Study

(commissioned by the EC)



Enhance existing AA infrastructures to address the demands of research communities for accessing different types of services in a manageable and secure way.

AAA support for mobile access;

Support for non-Web browser applications;

Develop security token translation services to enable inter-operability of different AAIs;

Provide guest IdPs for users that cannot rely on an institutional IdP;

Allow for effective resource usage accounting for distributed and heterogeneous environments;

Enable the uptake and use of persistent identifiers within AAIs;

Support social network identities in combination with institutional identities to address specific usecases for the SDI. National Identity Federations, eduGAIN, Research collaborations (i.e., big scientific projects) Technical



The GrIDP «catch-all» federation



(http://ecsg.dch-rp-eu)







How to Register and Sign-in Back to the DCH-RP website

Follow us on the Social Networks, including the possibility to access the e-Culture Science Gateway from within the Social Network page.











Welcome to the DCH-RP e-Culture Science Gateway

The DCH-RP e-Culture Science Gateway (eCSG) is a standard-based web 2.0 demonstrative platform to show the Proofs of Concepts (PoCs) identified by the DCH-RP project and how they fit with the requirements defined in the Roadmap.

Data contained in the eCSG are stored on the European Grid Infrastructure and are accessible through the pan-European GEANT network and the National Research & Education Networks.

DCH-RP Project

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Contacts: account - project - support

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How to Register and Sign-in

Proofs of Concept
De Roberto DR
MED Repo
China Relics DR
CULTNAT Collections
ICCU Collections
Back to the DCH-RD Website

Follow us on the Social Networks, including the possibility to access the e-Culture Science Gateway from within the Social Network page.











Proofs of Concept

DCH-RP is expected to identity and implement 6 Proofs of Concept (PoCs), where Cultural Institutions and e-Infrastructure Providers will experiment the actual use of distributed computing and storage infrastructures (grids and clouds) to store cultural digital resources.

The PoCs are supposed to be implemented in the following countries:

- Italy with e-Infrastructure facilities provided by INFN and data provided by ICCU;
- Poland with e-Infrastructure facilities and data provided by PSNC;
- Hungary with e-Infrastructure facilities provided by NIIFI and data provided by Hungarian Cultural Institutions that will cooperate with NIIFI;
- Sweden, Belgium and Estonia, with e-Infrastructure facilities provided by the respective National Grid Initiatives exploiting the Memorandum of Understanding signed in the frame of <u>DC-NET</u> and data provided by DCH-RP partners.

The already available PoCs can be accessed clickin on the links which appear in the sub-menu in the left frame.

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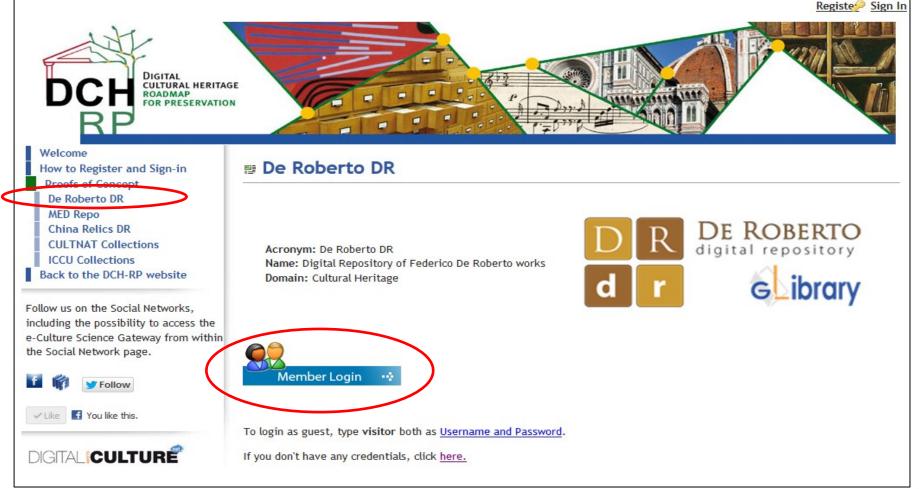


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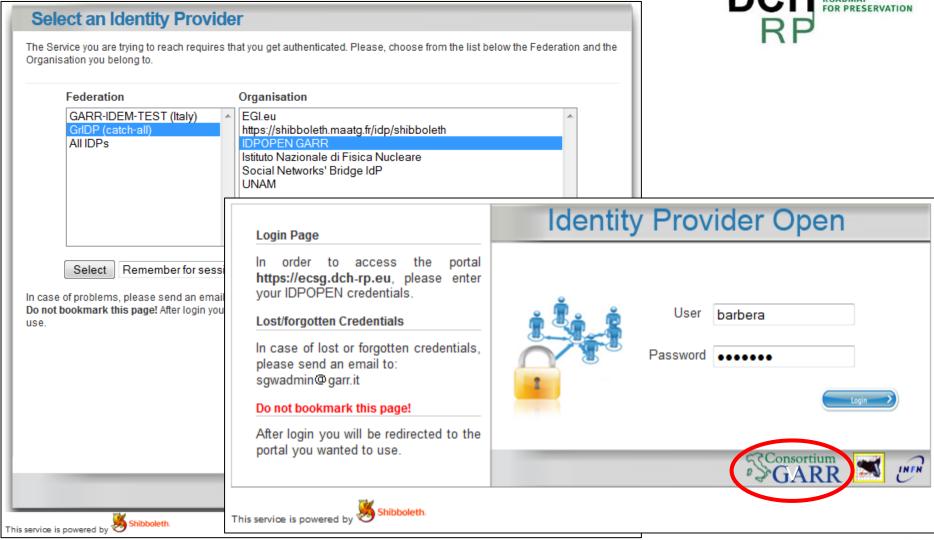






The GrIDP Discovery Service and the IDPOPEN GARR login

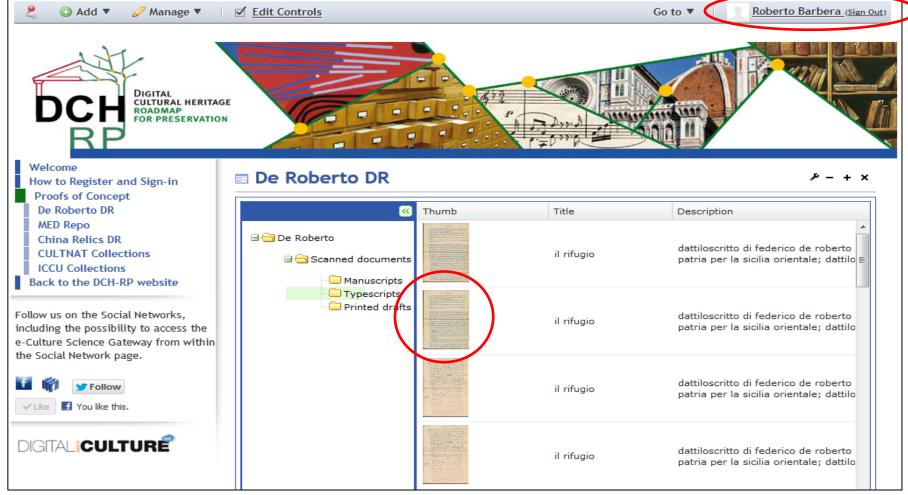






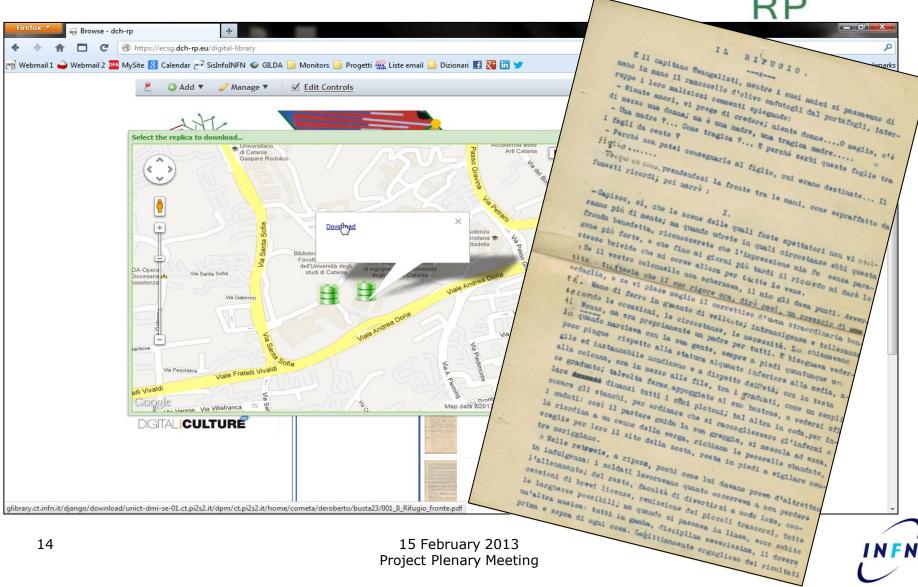
(http://ecsg.dch-rp-eu)







(http://ecsg.dch-rp-eu)



DIGITAL

ROADMAP FOR PRESERVATION

CULTURAL HERITAGE

The DCH-RP e-CSG Community page on FB







Upload of DCH contents (e-CSG «in the middle»)



Immediately feasible but non scalable











Local storage







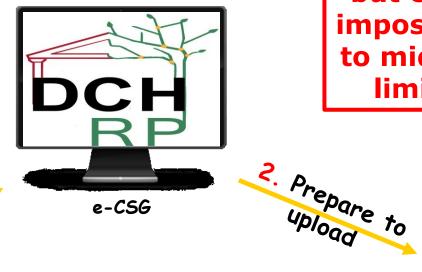
Grid storage



Upload of DCH contents (e-CSG «as a broker»)



Very scalable but currently impossible due to middleware limitations







Local storage







Current status of HTTP/S interface in EMI-2 SE's



- DPM SE
 - GET function supported
 - PUT function supported (through WebDav)
 - POST function unsupported (needed by browsers)
 - We have made a «new feature» request; estimated implementation time: 2 months
 - In Catania we have developed a patch that works with EMI-2
- ☐ StoRM SE
 - GET/PUT/POST functions unsupported in EMI-2
 - They will be supported in EMI-3, to be released at the end of February
- dCache SE
 - No information yet
 - We have to investigate with the developers



Summary and conclusions



- DCH-RP VO services have been created
- Several TB's of disk space are already available to host the data of the Proofs of Concept
- The e-CSG has been released and integrated with federated identity services
- □ Current middleware limitations prevent to use StoRM and dCache Storage Elements
- A patch has been created for DPM so we can start implementing the service in the e-CSG









Thank you!

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