

# SEE-GRID CA CP/CPS Update & EGI Catch All CA Service

Christos Kanellopoulos <[skanct@grid.auth.gr](mailto:skanct@grid.auth.gr)>

Christos Triantafyllidis <[ctria@grid.auth.gr](mailto:ctria@grid.auth.gr)>



**GRID & HPC**  
Operations Center  
ARISTOTLE UNIVERSITY OF THESSALONIKI



**grnet**

Networking Research and Education



# Brief history...

- May 2004: Start of the SEE-GRID project.
- July 2004: SEE-GRID CA was created
  - “provide catch all PKI services to the wider region of South Eastern Europe in order to facilitate the needs of distributed computing”
  - “pave the way for the countries in the region to establish their own national Public Key Infrastructure and guide them through the IGTF accreditation process”

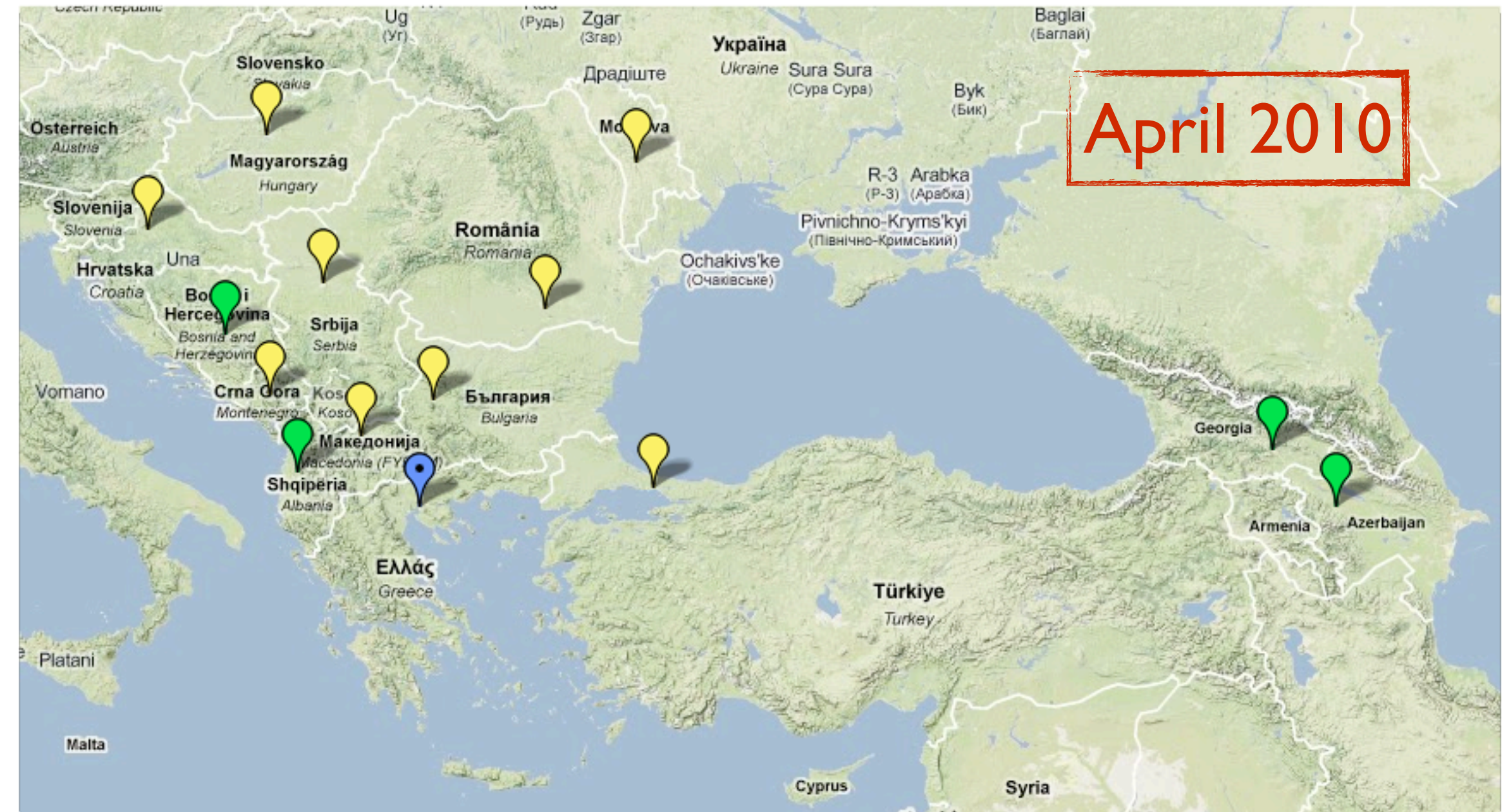
# The accreditation...

- September 2004: Accreditation at the 2nd EUGridPMA meeting in Brussels.
- September 2004: Established initial network of Registration Authorities.
  - *RAs in Greece, Albania, Bosnia & Herzegovina, Bulgaria, Croatia, F.Y.R.O.M., Hungary, Moldova, Romania, Serbia & Montenegro, Turkey*

# Timeline & Milestones

2004 - 2006	<i>Operating CA, RA Network, Training, Dissemination</i>
Nov 2006	<i>Hungary and Turkey set up their National CA</i>
Mar 2007	<i>Bulgaria sets up its own National CA</i>
Aug 2007	<i>Croatia and Serbia set up their own National CA; established RA in Montenegro</i>
Jan 2008	<i>Romania sets up its own National CA</i>
Mar 2008	<i>F.Y.R.O.M. sets up its own National CA</i>
Sept 2008	<i>Montenegro sets up its own National CA; established RA in Georgia</i>
Jun 2009	<i>Moldova sets up its own National CA</i>
Dec 2009	<i>Established RA in Azerbaijan</i>
May 2010	<i>Provide Catch All CA Services for EGI</i>

# Current RA Network



Central Registration  
Authority (1)



Active Registration  
Authorities (4)



Retired Registration  
Authorities (8)

# EGI Catch All CA Services

- In EGI, SEE-GRID CA will provide catch all CA Services
- In EGEE CNRS has been performing this task
- Goal: Smooth transition of the catch all CA Services from CNRS CA to the SEE-GRID CA.



# EGEE Catch ALL CA Service

- CNRS has been operating as the EGEE Catch All CA Service
- The following organizations have been supported by the CNRS CA:
  - Italy: ESA (ESRIN Unit)
  - Senegal: UCAD (CCI Unit)
  - US: MathWorks (Support Unit)
  - Vietnam: VAST (IAMI Unit, IOIT Unit), HUT (IFI Unit)

# CP/CPS Update

- The new version of the CP/CPS is available for review at the SEE-GRID-CA web site [1]
- Three type of changes:
  - I. Spelling & Wording Corrections
  - II. Update of old information
  - III. New items
- All changes are tracked on the master document with track changes on [2].
- Changes of type II and III are also tracked in the ChangeLog [3]

[1]: <http://www.grid.auth.gr/pki/seegrid-ca/documents/cps/SEE-GRID-CA-CP-CPS-2.0.pdf>

[2]: <http://www.grid.auth.gr/pki/seegrid-ca/documents/cps/SEE-GRID-CA-CP-CPS-2.0-TC.pdf>

[3]: <http://www.grid.auth.gr/pki/seegrid-ca/documents/cps/SEE-GRID-CA-CP-CPS-changelog-1.1-2.0.pdf>



# Change Log

1. The overview text was changed in order to add information regarding the goal of SEE- GRID CA. [1.1]
2. Changed the OID arc of the CP/CPS to: 1.3.6.1.4.1.23877 [1.2]
3. Removed the term “medium security CA” [1.3.1]
4. RAs are appointed by SEE-GRID CA [1.3.2]
5. SEE-GRID CA will provide Catch All CA Services for EGI.eu [1.1, 1.3.3, 3.2.2, 7.1.5]
6. Providers of Computing Infrastructure Services are also considered to be Relying Parties [1.3.4]
7. Apart from research, also educational activities are considered as appropriate use [1.4.1]

# Change Log

8. Changed the name of the organization to Grid & HPC Operations Center and the contact information [1.5.1, 1.5.2, 1.5.3, 2.1, 5.1.1, 5.3.1]
9. The CPS is reviewed internally in order to verify its compliance with the IGTf minimum requirements [1.5.4]
10. Added definitions and acronyms [1.6]
11. Certificates issued by the SEE-GRID CA, will be published in a searchable repository after the requester has successfully accepted the terms and conditions written in the CP/CPS [2.3]

# Change Log

- I 2. There will be no access controls for the CA certificate, the latest CRL and all versions of the CP and CPS, under which SEE-GRID CA has issued End Entity certificates [2.4]
- I 3. SEE-GRID CA will support also Robot certificates [3.1.1, 3.1.5, 3.2.3, 4.1.2, 7.1.4, 7.1.5]
- I 4. SEE-GRID CA checks that organization requiring certificate services for their users are affiliated with GRNET or EGI.eu and that there is person acting as liaison between the two [3.2.2]

# Change Log

- I 5. Digital processing entities must have a valid DNS name and the requesters must use their personal certificates in order to authenticate themselves at the SEE-GRID CA portal or digitally signing the e-mail before submitting their certificate request. [3.2.3]
- I 6. The telephone number of the subscriber is not verified. [3.2.4]
- I 7. Adherence to the IETF minimum requirements is the criterion for interoperability. [3.2.6]
- I 8. Requests can be submitted either via the web portal or via digitally signed e-mail [3.3.1, 3.4, 4.4.1, 4.7.3, 4.9.3]

# Change Log

19. At least once every five years or in case the request for re-key a personal certificate is due to revocation or expiration of the existing certificate or compromise of the private key, the user must present himself/herself in front of an RA in order to have his/her ID vetted [3.3.1, 4.7.3]

20. All users who have enrolled to the SEE-GRID CA can submit a certificate request. [4.1.1] 21. Reworked enrollment process and responsibilities [4.1.2] 22. Identity vetting must take place at least every 5 years. [4.2.1]

21. Each certificate request is assigned a unique hash string instead of a 10 digit number. [4.2.1]

# Change Log

- 24. Removed the sentence stating the the subject must submit the certificate request within 2 working days after the id vetting has taken place. The requesters first submit their certificate request and then they have their identity vetted. [4.2.2]
- 25. SEE-GRID CA publishes only those certificates , whose requesters have accepted the terms and conditions outlined int the CP/CPS [4.4.2]
- 26. The on-line repository with the end entity certificates will be accessible only via a search web form. [4.4.2]

# Change Log

- 27. Certificates can be used also in other kind of Computing Infrastructures [4.5.1, 4.5.2]
- 28. Subscribers must generate a new key pair for each certificate they request to be signed by the SEE-GRID CA. [4.7.1]
- 29. SEE-GRID CA does not modify signed End Entity certificates. [4.8.1, 4.8.2, 4.8.3, 4.8.4, 4.8.5, 4.8.6, 4.8.7]
- 30. Changed word “subscriber” with “owner” [4.9.2]



# Change Log

- 31.The CA equipment is located in the Data Center of the Grid & HPC Operations Center and thus it uses the Power Generators, UPS, and Cooling System of the Data Center. [5.1.3]
- 32.Off-line media might be magnetic tape cartridges, floppies and CD-ROM” [5.1.6, 5.1.7]
- 33.GRNET is the Greek NGI [5.3.1]
- 34.Along with the old CA certificate, also the old CA private key must remain available. [5.6]
- 35.Added “No stipulation” instead of empty text. [5.7.2, 5.7.3, 5.7.4, 7.2.2, 9.2.1, 9.2.2, 9.2.3, 9.3.1, 9.3.2, 9.3.3]

# Change Log

36.Changed “person, service or server” with “End Entity”. [6.1.5]

37.Removed Netscape Cert Type from the Certificate Extensions [7.1.2]

38.Removed non-repudiation from the key usage of the EE certificates [7.1.2]

39.Added Hash Function, RSA Encryption and Signature Algorithm [7.1.3]

40. Allow the following name space for EE  
Certificates: /DC=EU/DC=EGI/C=Country/  
O=Institute/OU=[Hosts|People|Robots]/  
CN=SUBJECT NAME [7.1.4, 7.1.5]

# Change Log

- 41. Added description for the name constraints on the OrganizationalUnit field [7.1.5]
- 42. All EE certificates will include the OID 1.2.840.1.136.1.2.5.2.2.1 [7.1.6]
- 43. SEE-GRID CA will issue only CRLs in version 2 format. [7.2.1]
- 44. Added subscriber's work phone number in the information that is not deemed as private . [9.4.3]
- 45. SEE-GRID CA denies any financial or any other kind of responsibility for damages or impairments resulting from its operation. [9.7]

# Change Log

- 46. Removed the following statement: “SEE-GRID CA is run on a best effort basis and does not give any guarantees about the service security or suitability” [9.8]
- 47. Corrected the “Laws of Greece” to the “Greek Law” [9.14]

Thank You! Any Questions?