CyGrid CA: Status & Future

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Outline

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2. *Status of CyGrid CA*

3. *The RA Procedures*

4. *Future Work*

Overview

- ## Motivation

  - Established within the EU project "CrossGrid" & Cyprus Grid testbed.

  - Enable researchers to safely use the Grid testbed.

- ## Main operation

  - Provides X.509 certificates for identification and authentication purposes related to Grid activities.

Role of CyGrid CA

- CyGrid CA is independent of any single organization.

- To sign certificates for individuals that are allowed access to the grid resources and hosts.

- CyGrid CA is to put as little information in the certification as possible, only a minimal set has been choosen: Organization element, a class (person, host, service), Common name, email.

A Certificate Application Procedure (1)

1, Request :

- Name, Email address, contact information, RA.

- Applicant :
    - generates a public/private key pair (RSA).
    - the public key is put in the request and sent to the RA.
    - the private key is kept secret.

A Certificate Application Procedure (2)

2, Verified by RA:

- Make a personal contact (with valid identification) to verify the person and approve the request.

3, Issued by CA:

- CyGrid CA issues a certificate and this certificate is sent back by email.

RA Procedures

- One RA has been set up in High Performance Computing Lab (HPCL), University of Cyprus, Nicosia.

- RA Procedures:

  - Receives the request.

  - Make personal contact to approve the request.

  - RA forwards the request to CA after verification.

And,

The namespace:

● Certificates are issued with names of the following form:

/C=CY/O=CyGrid/O=organisation/CN=subject-name

. Example:

/C=CY/O=CyGrid/O=hpcl/CN=host/zoe.cs.ucy.ac.cy

Status of CyGrid CA

- A new version (0.2) CP/CPS is now available.

- CyGrid CA Web page :
  http://www.cs.ucy.ac.cy/cygrid-ca

- CA system has been set up in a single secure room.

- 3 user certs & 6 host certs have been issued for the purposes of the CyGrid test bed by Dec. 2002.

- There are no directory services yet.

Future Work

- Deploy the OpenCA system for the CyGrid CA.

- Make the directory service avaliable.

- Update the CyGrid CA web site.

Thanks for Ur Patience