New CAs: Belarusian Grid CA

Yury Ziamtsou, UIIP NASB

UIIP NASB

Starting from 2003 the State scientific organization "United Institute of Informatics Problems of the National Academy of Sciences of Belarus" (UIIP NASB) is providing supercomputing resources for various applications. Recently UIIP NASB has also engaged into grid computing.

Grid projects participation:
• BalticGrid-II (2008-2010)
• Program of the Union State of Russia and Belarus "SKIF-GRID" (2007-2011)

Membership in:
• Terena
• Invited to participate in the GEANT3 initiative under the status of an "Associate Member" (and agreed to participate ☺)

Future grid projects participation :
• Belarusian State Grid Program "Grid Regions" (2009-2012)
• Program of the Union State of Russia and Belarus "SKIF-SERVICE" (2011-2014)

BALTICGRID-II

Main tasks:

- to provide an extension of the BalticGrid infrastructure to Belarus;

UIIP is responsible for BASNET the National Academy of Sciences of Belarus research network;

- to provide an increasing of the cluster resources of the BalticGrid.

UIIP has a large computing facility comprising more 700 CPUs.

- **contributing to NA2** – executing of the Education, Training, Dissemination and Outreach activities in Belarus.
- **contributing to NA3** – establishing Grid-based services in Belarus for research areas, like: HEP, Operational Modelling of Baltic Sea Ecosystem, Engineering Modelling Tasks, Bioinformatics and Biomedical Imaging.
- **contributing to NA4** – development of a Policy document on sustainable eInfrastructure in Belarus.
- **contributing to SA1:**
  + *to set up and provide a technical support for organization of own new Certification Authority (CA)* and Registry Authority (RA) work in Belarus;
  + to provide an operation of the central middleware services needed for Belarusian users.
- **contributing to SA2:**
  + conclusion of SLA with Belarusian providers (BASNET and Beltelecom);
  + to set up and provide a technical support of National Network Coordination Centre, which will be responsible for local network activities, network monitoring and user support in Belarus;
  + to upgrade a BASNET connectivity to GEANT up to 1Gbps.
- **contributing to SA3**: contributes to services for application integration in Belarus.

SKIF-GRID

"SKIF-GRID" SUPERCOMPUTING PROJECT OF THE UNION STATE OF RUSSIA AND BELARUS: "Development and utilization of grid software and hardware solutions and prospective high-performance SKIF-family supercomputer systems"

Main task is to create national experimental grid area, that will address specific needs of new scientific communities. The establishment of national experimental grid area is defined by the UIIP NASB that runs following tasks:
– general and operative management and coordination;
– development of new grid technologies and applications;
– establishing and running grid central services;
– establishing and running *grid security services*;
– establishing and supporting central grid software repository;
– establishing and supporting national grid-related website and running grid information dissemination activities;
– training grid users and professionals by organizing seminars, conferences, season schools, and workshops;
– involvement and encouragement of users to take part in grid projects.

Traditional X.509 Public Key Certification Authority that issue long-term credentials to end-entities, who will themselves posses and control their key pair and their activation data.

The reviewer said, "I find the CP/CPS mostly consistent with EUGridPMA Authentication Profile".

The CA computer, where the signing of the certificates takes place, is a dedicated machine, running no other services than those needed for the CA operations. The CA computer is completely off-line: kept disconnected from any kind of network at all times and located in a secure environment where access is controlled, limited to specific trained personnel.

Uses EJBCA software.

CP/CPS OF BYGCA

The CP/CPS document is a combined certification policy and certificate practice statement. It describes the set of procedures followed by the BYGCA in issuing certificates as well as the responsibilities of the involved parties.
The CP/CPS is structured according to RFC 3647.

The CP/CPS document name and identification
1. Document title: "Belarusian Grid Certification Authority Certificate Policy and Certification Practice Statement".
2. Document version: 1.1.
3. Document date: 07 October 2008.
4. ASN.1 Object Identifier (OID): 1.3.6.1.4.1.24432.11.1.1.1.

The CP/CPS document is attached to the presentation.

REVIEW OF CP/CPS

✓ Reviewer: Arsen Hayrapetyan <ahairape@mail.yerphi.am> (Yerevan Physics Institute after A.I.Alikhanyan).

✓ 2 mails from EUGridPMA Discussion List <dg-eur-ca@services.cnrs.fr> (are attached to the presentation)

✓ All suggested changes are implemented, errors are fixed (updated CP/CPS is attached to the presentation)

✓ Serial Number issue?

✓Reviewer: Arsen Hayrapetyan <ahairape@mail.yerphi.am>
(Yerevan Physics Institute after A.I.Alikhanyan)

✓Mails from EUGridPMA Discussion List <dg-eur-ca@services.cnrs.fr>
(attached to the presentation)

✓All suggested changes are implemented, errors are fixed
(updated CP/CPS is attached to the presentation)

CERTIFICATES

✓Root
DC=by, DC=grid, O=uiip.bas-net.by, CN=Belarusian Grid Certification Authority

✓User
DC=by, DC=grid, O=uiip.bas-net.by, CN=Yana Kupala

✓Host
DC=by, DC=grid, O=uiip.bas-net.by, CN=ce.grid.by

Please see attached certificates files.

ACCREDITATION

- ✓ BYGCA needs one more reviewer, please

- ✓ Really interested in getting accredited ASAP

Thank you!

Yury Ziamtsou, UIIP NASB