NECTEC GRID CA

Sornthep Vannarat
NECTEC
About NECTEC

- National Electronics and Computer Technology Center
- Government Research Institute
- Under National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology

Missions:
- Research, development, design, and engineering of Electronics and ICT technologies
- Technology transfer to industries
- Human resources development for Electronics and ICT technologies
- Technology-related infrastructure and policy development
Grid Computing in Thailand

- **Thai Grid Group**
  - Started Dec. 2000
  - Build researcher community for Grid applications
  - Create Grid Computing infrastructure
  - Lead by Kasetsart University and members include NECTEC

- **National Grid Project**
  - Proposed by KU’s HPCNC to Min. of ICT. in 2004
  - Approved with ~ $US 5.5 M in 3 yrs
  - Starting October 2005
  - NECTEC as a committee member
NECTEC Grid Infrastructure

- Main Cluster Computer
  - 32 node Rocks Cluster
  - 3.2 TB storage
  - ~200 GFlobs

- Grid supporting systems
  - MDS (GT4 starting in Jan 2006)
  - Resource Broker (Starting in Apr 2006)
  - CA system (Started in July 2005)

- Access Grid System
  - Venue server
  - Bridge server
  - Mobile Clients
Assumptions

- Grid Computing Sites ~10x
- Number of users: ~100 or 5/month
- Number of transactions: 5/week
NECTEC-Grid CA Team

- Piyawut Srichaikul (Division Director)
  - Sornthep Vannarat
  - Supakit Prueksaaroon
  - **Suriya Uruekolan** (main CA developer)
  - Pitsanu Laosangpha

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Hardware & Software Stack

- Pentium4 3.0GHz, RAM 512MB, RAID1 SATA 120GB
- Slackware10.1
- OpenSSL 0.9.7e
- MySQL 4
- PHP5 + CMS
- Logging systems
  - Unix Log is recorded in a separated system
  - MySQL + Apache logging system to be developed
- Backup system to be developed
RA+CA Operation

- User Enrollment (Contact information)
- Profile Filling (User information)
- Profile Verification
- Certificate Request
- CR Review
- Issuing Certificate
- Certificate Revocation Request
- CRR Review
- CRL Update
Current status

- CA is relatively developed
- RA still need significant improvement
  - User information verification and management
  - User official document management
Welcome to NECTEC-GRID Certificate Authority

NECTEC-GRID Certificate Authority provides X.509 certificates to support GRID Computing Research and Development.

We issue:
- Grid Computing Certificates
- Access Grid Certificates

NECTEC-GRID Certificate Authority is operated by Computing Research and Development Division, National Electronics and Computer Technology Center.

Last Updated (Thursday, 24 November 2005)
NECTEC-GRID Certificate Authority

All fields are required. Support Host and Service Certificate (e.g. FTP or LDAP).

Grid Service Certificate Request Form

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Submit Request