



KEK Grid CA Report

Tomoaki Nakamura on behalf of the operation team

Computing Research Center, Applied Research Laboratory,
High Energy Accelerator Research Organization (KEK), Japan

APGridPMA Meeting, March 2022

Staffs for operating CA

- Organization of operating CA (minimum 7 staffs)

- User administrator (one):

- Tomoaki Nakamura*, Takashi Sasaki*, Sari Kaneko*** (LOA),
+ Two office staff of KEK-CRC:

- Supporting all groups/VOs related to KEK

- Takanori Hara**, Ikuo Ueda**:

- Dedicated support for users belonging to the Belle VO

- Security officer (two):

- Go Iwai*, S. Takahashi

* Teaching Staff in KEK-CRC

- CA operator (two):

** Teaching Staff in KEK-IPNS

- M. Nakaya, Y. Nemoto, S. Ogawa

*** Technical Staff in KEK-CRC

- RA operator (two):

- Two staff in Help Desk

- Help Desk

- Four other staffs in the Help Desk for the services of KEK-CRC

Overview

- Classic X.509 CA
- Approved by APGridPMA in January 2006
- Serves Japanese high-energy physics and related communities
 - Major players: Belle II, ATLAS, ALICE, ILC, [Muon g-2/EDM](#)
 - Belle II has started Physics run since March 2019.
 - In June 2020, SuperKEKB collider achieved the world's highest luminosity.
 - Belle II experiment is continuously going to take the data before the long shut down (expected roughly 10 months) in 2022.
 - Recently, Muon g-2/EDM experiment in J-PARC (VO name: [mug2ej.kek.jp](#)) started the preparation to utilize Grid infrastructure including KEK-CA.
 - System is built with NAREGI-CA middleware.
 - OCSP responder: Open CA
- CP/CPS
 - Current version: 2.3.2 (February 2021, no update since then)
- The current CA system was renewed in [September 2020](#).
- Status of the Self-Audit was reported at the previous APGridPMA meeting in March 2021. [Latest Self-Audit was done in February 2022](#).

Statistics (as of March 1st, 2022)

- CA users
 - Active users: 168 (-2 from the last meeting in August 2021)
- User certificates
 - Total: 3281 (+83)
 - Valid: 140 (-7)
 - Most users have kept up CA accounts through the annual renewal campaign of KEK-CRC services.
 - 21 account were invalidated by that in January 2022.
- Host certificates
 - Total: 3945 (+124)
 - Valid: 168 (-83)
- Robot certificates
 - Total: 135 (+17)
 - Valid: 40 (+2)

Self Audit

- Conducted in late February
- We conducted an internal audit for FY2020 based on
 - AssuranceAssessment-v04-20190124.xlsx
 - Result: 1 C
 - CP/CPS documents should be structured as defined in RFC 3647.
 - Currently, both documents are still structured by RFC 2527.
 - Planning to revise.
 - IGTF-CAs-Auditing_v1.xlsx
 - Result: No Issue

Other things related CA

- Started to provide client certificates for Australian users belonging to the Belle II experiment.
 - Since they can not obtain the X.509 certificate from DigiCert anymore.
- The current CA Key must be renewed by the end of 2025.
 - Considering to keep the current system and operate in parallel with the new system with SHA-2 root certificate from 2024 if necessary.
- Have been started to construct INDIGO-IAM mainly for the Belle II Grid and users.
 - The other small VOs hosted at KEK also will be able to utilize it.
 - Currently in the validation phase of the software packages and system constitution.
 - Planning to start construction in April and deploy by this summer.
 - We keep VOMS service after the start operation of IAM at least for several years.