



Perun

Identity and Access Management System
(IAM)

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Introduction



Perun is an application for group management, access management and identity management

Features



Various interfaces support



- LDAP
- SAML2 Attribute Authority
- VOOT
- SCIM (in progress)

Propagation mechanism



- PUSH mechanism
- services are always available
- independent on Perun accessibility
- scalability
- need only small connector to the service

Privileges delegation



2 separated manager roles:

- administrative manager
 - access control
- technical manager
 - manages services

Self-registration



- application form creation even on group level
- approval: manual vs. automatic
- user redirection to another system
- account expiration



Mini applications

- designed for one specific use-case
- fully customizable
- web based
- typically aimed to end users

- *user profile*
- *simplified group management*

Security teams



- security teams create and manage blacklists of users
- blacklisted users are not propagated to managed services

Successful stories





Challenge:

- services provided to academical environment
- distributed group management
- synchronization with existing groups and identities



Challenge:

- centralized access management at MU
- huge amount of users (students, employees, guests, service accounts)



Challenge:

- university access management
- heterogeneous systems at university



Challenge:

- access management to sensitive data
 - levels of assurance
- reliable authentication of researchers



Challenge:

- access management to grid infrastructure in South African Republic
- access to unreliable infrastructure

More about development



Development team



- team leader
- developers
- support
- Masaryk University cooperating (contributing students)
- service connectors development with other people from CESNET and MU

Development process



Agile development:

- iterative development
- extreme programming
- task/feature driven development

Development process



Version control system:

- Git (<https://github.com/CESNET/perun>)
- code reviews

Automated testing:

- Jenkins

Technologies



- Java, Spring, Maven, Tomcat
- Bash, Perl
- GWT, JavaScript, Bootstrap
- Jenkins
- Git
- Redmine



<http://perun.cesnet.cz>

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