

# Identity and Access Management System (IAM)

Soňa Mastráková

mastrakova@mail.muni.cz

#### 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

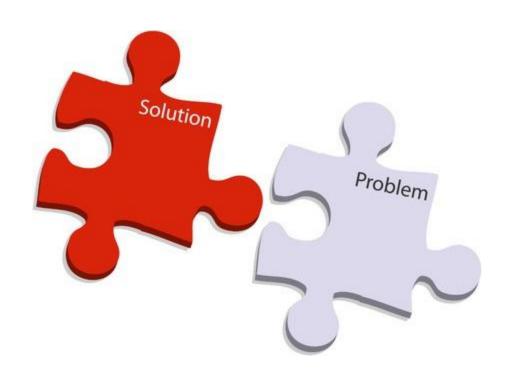
### **Security teams**



security teams create and manage blacklists of users

 blacklisted users are not propagated to managed services

#### **Successful stories**



#### **CESNET**



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

### **Masaryk University**



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

### **VŠUP**



- university access management
- heterogeneous systems at university

#### **ELIXIR**



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

#### **SAGRID**



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

#### Automated testing:

- Jenkins

### **Technologies**



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



http://perun.cesnet.cz

perun@cesnet.cz







