

Enabling Grids for E-sciencE

Introduction to Argus

Andrea Ceccanti, Vincenzo Ciaschini (Francesco Giacomini)

CCR & INFNGrid Workshop Santa Tecla, 19th May 2010

www.eu-egee.org





Enabling Grids for E-sciencE

Can user X perform action Y on resource Z



Motivations and Benefits

Enabling Grids for E-sciencE

- Render consistent authorization decisions for different services
- Enable composition of policies from distributed sources
 - local policy + INFN policy + OCST policy + VO policy = effective policy
 - Example: distibuted banning/unbanning users becomes straightforward
- Enable dynamic management of AuthZ policies
 - without having to restart services
- Flexible deployment model
 - designed with HA in mind
- Monitoring and auditing



- Argus policies contain rules that state which actions can be performed on which resources by which users
 - Expressed in XACML v. 2.0
 - Difficult to read and write
- A Simplified Policy Language (SPL) is available

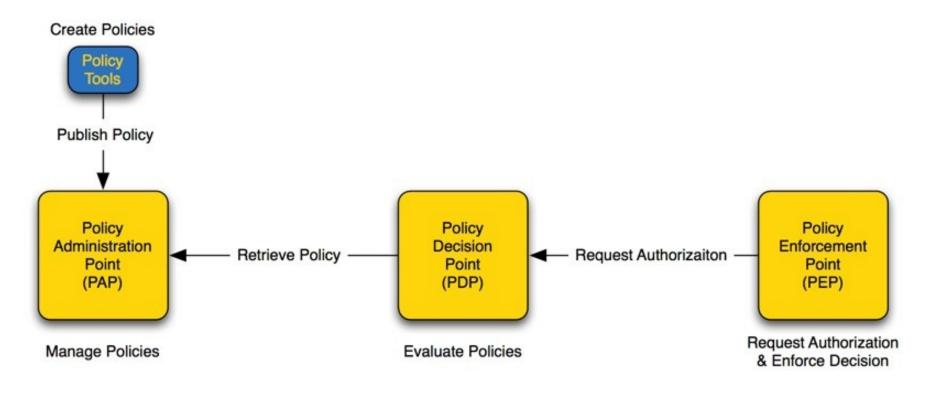
```
resource "devce.cnaf.infn.it:8443/cream-pbs-cert" {
   action ".*" {
     rule permit {
       subject = "CN=Andrea Ceccanti, L=CNAF, OU=Personal Certificate, ..."
     }
   }
}
```

```
resource ".*" {
   action ".*" {
     rule deny {
       subject = "CN=Andrea Ceccanti, L=CNAF, OU=Personal Certificate, ..."
     }
   }
}
```



Architecture Overview

Enabling Grids for E-sciencE

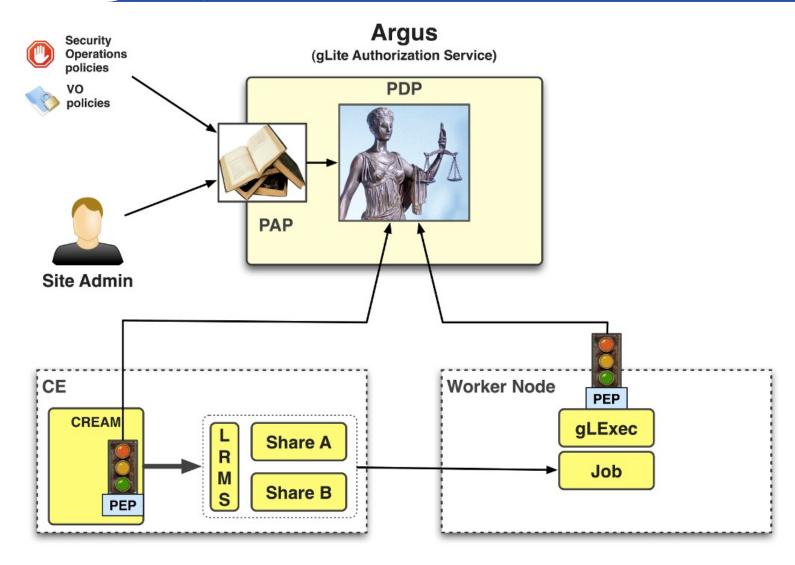


- PAP: author, store, manage and distribute policies
- PDP: evaluate requests against policies
- PEP: create request and enforce PDP decisions

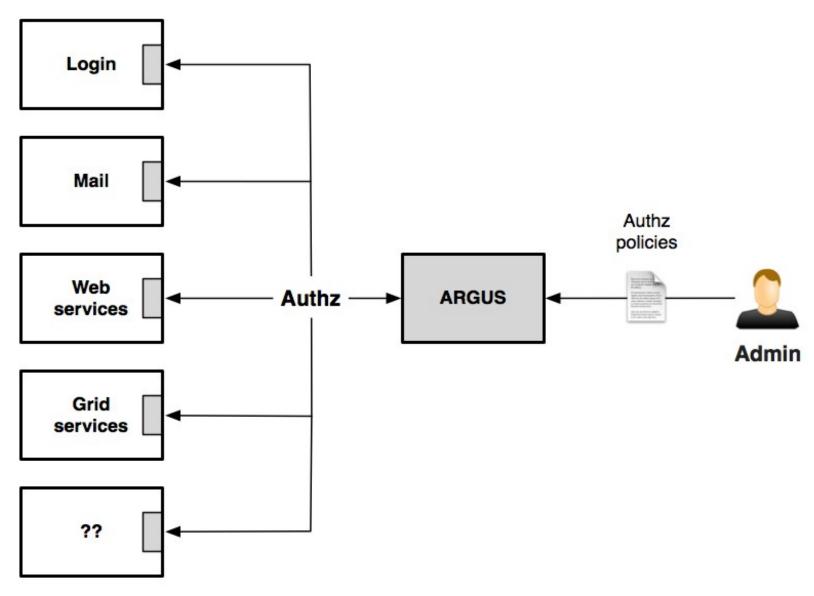


Usage Example

Enabling Grids for E-sciencE









```
resource "devce.cnaf.infn.it:8443/cream-pbs-cert" {
   action ".*" {
    rule permit {
      subject = "CN=Andrea Ceccanti, L=CNAF, OU=Personal Certificate, ..."
      }
    }
}
```



```
resource "bastion.cnaf.infn.it" {
   action "login" {
    rule permit {
      username = "aceccanti"
      }
   }
}
```