WaTTS service to provide proxy certificates

Demo

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WaTTS

- OIDC TTS service

- KIT in-house development, Erlang

- Plugin based, easily extendable

- Enables functionality according to attributes and attributes' LOA

- Already provides many services
  - SSH
  - S3
  - X.509

- Many Python plugins already available

- Open source, Apache 2.0

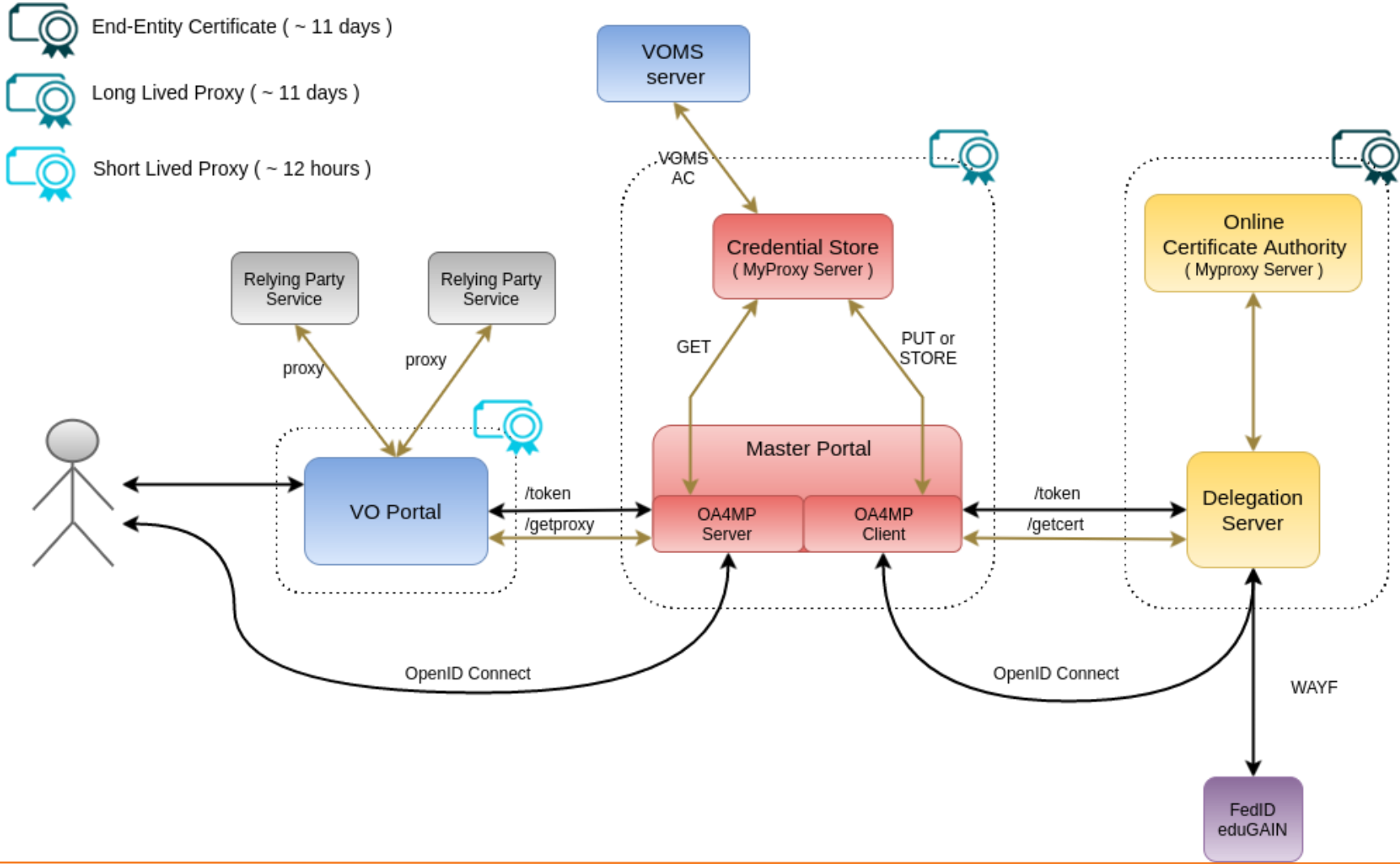- Last demo: WaTTS ssh plugin to deploy keys on OKEANOS

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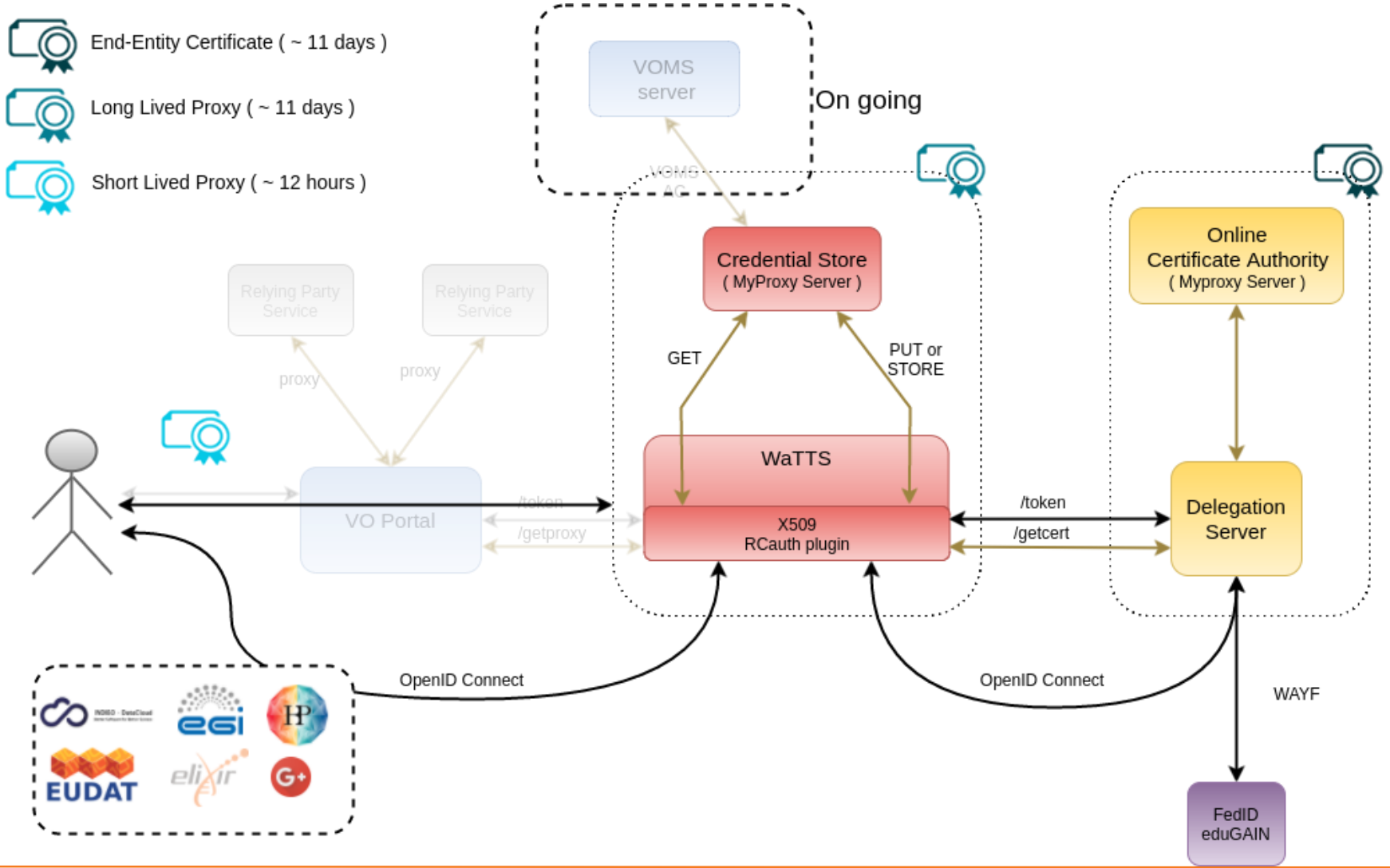- New development → x.509 IOTA certificates using RCauth

Goals

- OIDC flow, with OIDC providers (EGI, HBP, B2ACCESS...)
- "User uses its OIDC token to get a IOTA proxy certificate"
- New certificate is obtained from RCauth only when needed (or has expired)
- Simple interface (with web frontend) to receive (VOMS) proxy certificate
- CLI access to get a proxy certificate (with OIDC access token)
- Using initial OIDC authentication to get a proxy, not the one used for RCauth
  - Although, if supported by RCauth, one can use the same

Current implementation

WaTTS implementation

End-Entity Certificate (~ 11 days)

Long Lived Proxy (~ 11 days)

Short Lived Proxy (~ 12 hours)

VOMS server

On going

Credential Store (MyProxy Server)

Online Certificate Authority (Myproxy Server)

Relying Party Service

Relying Party Service

GET

PUT or STORE

WaTTS

X509 RCauth plugin

Delegation Server

VO Portal

/token

/getproxy

/token

/getcert

OpenID Connect

OpenID Connect

WAYF

EUDAT

FedID eduGAIN

Key differences (vs. Master Portal)

- Differences (worth mentioning)
  - WaTTS is not an OIDC provider, but a service
    => WaTTS support many OIDC providers
  - WaTTS uses a new flow for proxy certificate distribution
    - Web client
    - CLI interface supported
  - WaTTS is a "one stop shop" for token translation
  - SSH, S3, x509..
  - https://watts-dev.data.kit.edu
  - https://github.com/urost/cli-get-proxy

- Future and on-going development
  - Integration with B2Access and EGI-CheckIn
    - Possibly within EOSC-Hub?