

OpenInfra Days Korea 2018

FreeIPA를 이용한 SSO

1일차 송상준 (LDAP)

FreeIPA & SSO

- 01 FreeIPA 구성
- 02 FreeIPA 이용방안
- 03 Kerberos 활용 SSO
- 04 Idp를 이용한 SSO



01 FreeIPA 구성



01 FreeIPA

Identity, Policy, Audit

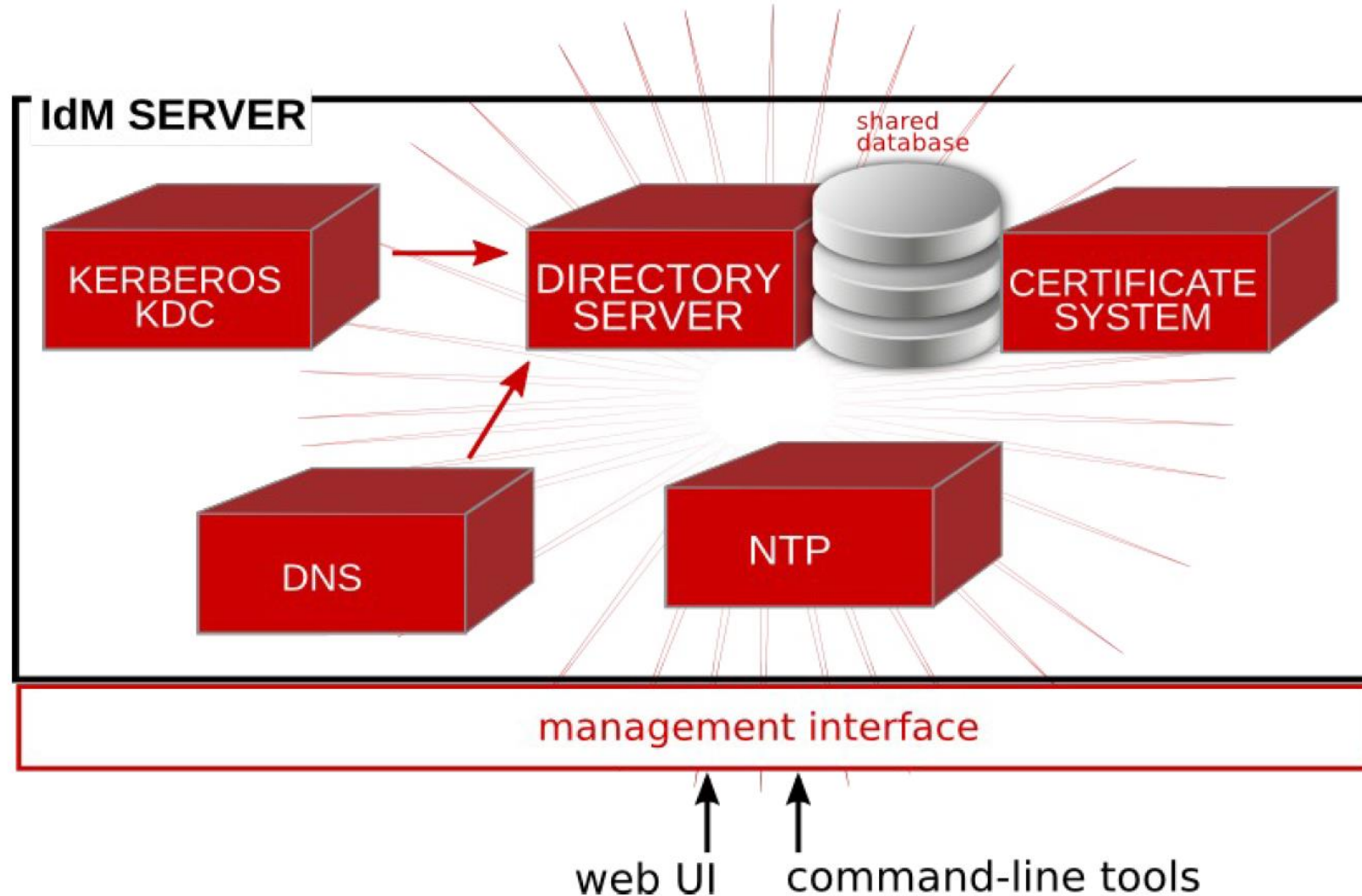
- **Identity** (machine, user, virtual machines, groups, authentication credentials)
- **Policy** (host based access control)
- **Audit** (이 부분은 아직 확정되지 않았음)



<http://scribery.github.io/>

01 FreeIPA 구성

FreeIPA는 크게 Directory Server, CA Server, Kerberos Server로 구성 됨



01 FreeIPA 구성

389
DIRECTORY
SERVER

Directory Server



Kerberos KDC : MIT Kerberos

CA Server : Dogtag Server



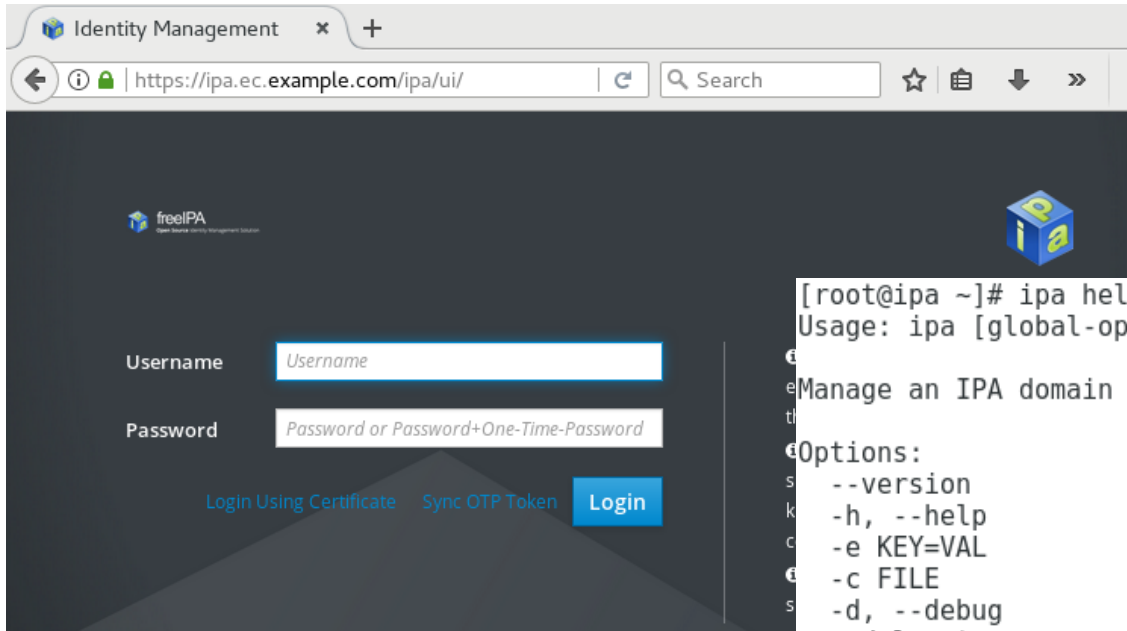
BIND

Berkeley Internet Domain Name



01 FreeIPA 구성

WEB UI, Command Line Tools : IPA



```
[root@ipa ~]# ipa help
Usage: ipa [global-options] COMMAND [command-options]

Manage an IPA domain

Options:
  --version          show program's version number and exit
  -h, --help         Show this help message and exit
  -e KEY=VAL         Set environment variable KEY to VAL
  -c FILE            Load configuration from FILE.
  -d, --debug        Produce full debugging output
  --delegate         Delegate the TGT to the IPA server
  -v, --verbose       Produce more verbose output. A second -v displays the
                     XML-RPC request
  -a, --prompt-all  Prompt for ALL values (even if optional)
  -n, --no-prompt    Prompt for NO values (even if required)
  -f, --no-fallback  Only use the server configured in /etc/ipa/default.conf
```

See "ipa help topics" for available help topics.

See "ipa help <TOPIC>" for more information on a specific topic.

See "ipa help commands" for the full list of commands.

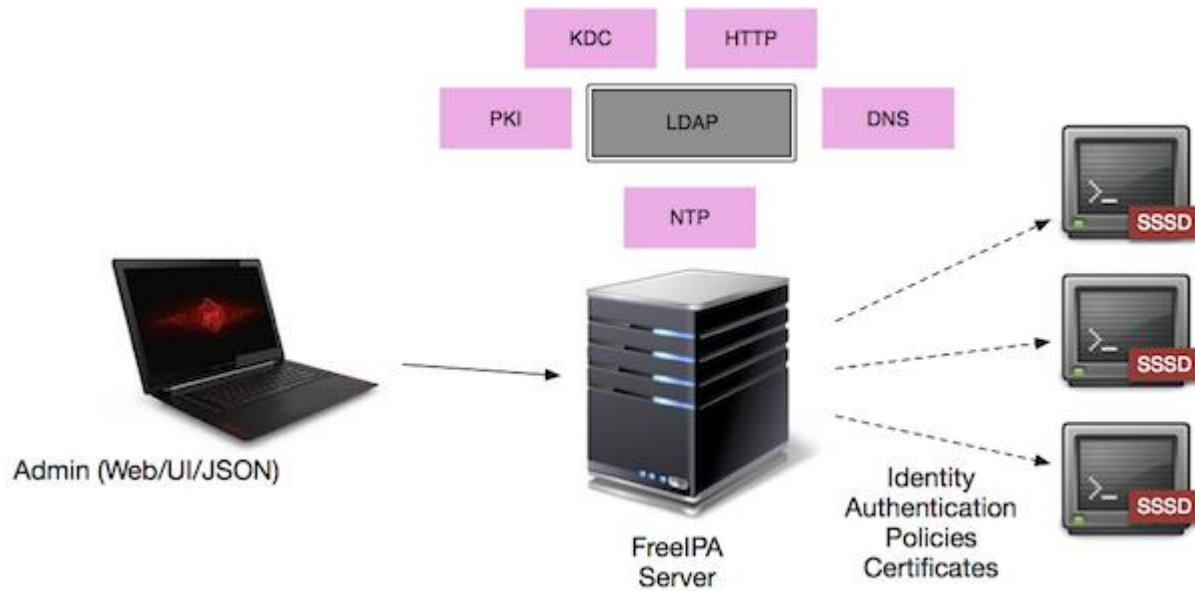
See "ipa <COMMAND> --help" for more information on a specific command.

02 FreeIPA 이용 방안



02 FreeIPA 이용방안

OS 계정 통합



사용용도

1. Linux OS 계정통합

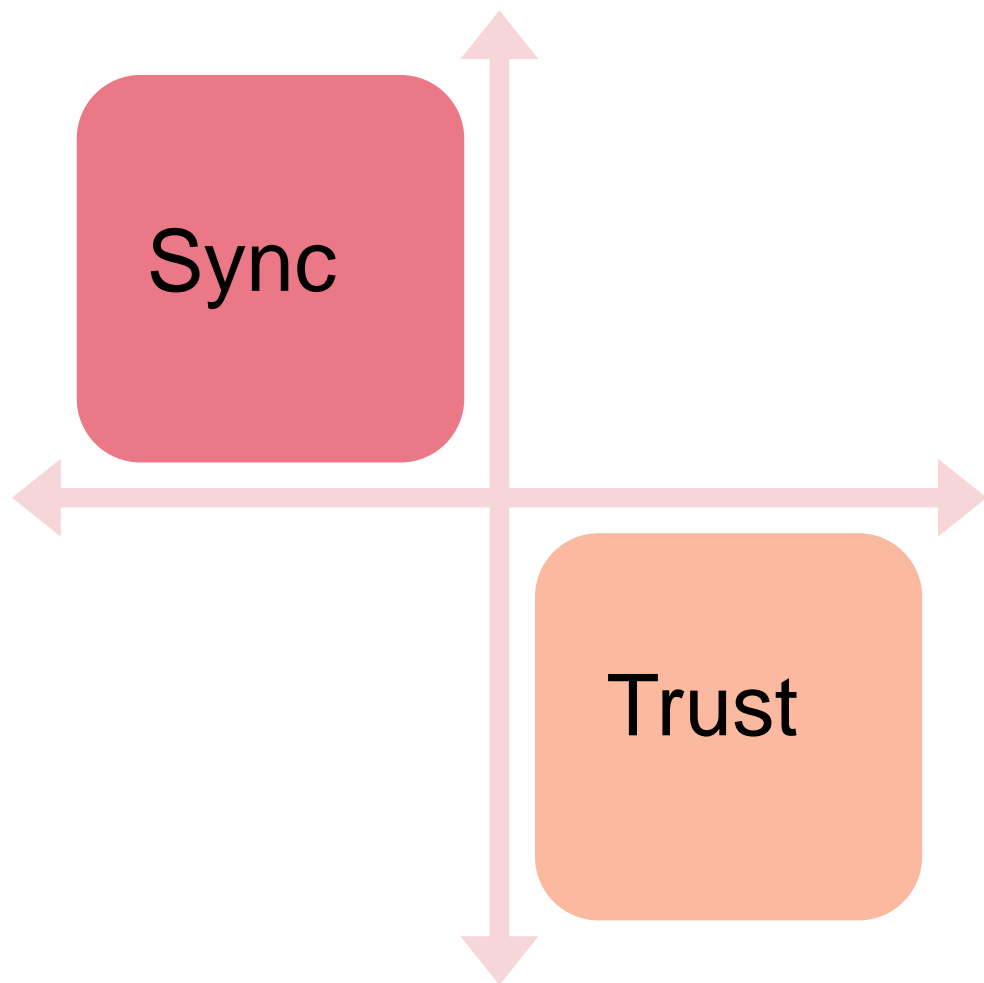
Linux의 OS계정을 통합이 가능하다.
단 ipa client 모듈을 설치해야 됨.

** IPA는 SSSD가 꼭 설치되어야 하므로 Linux OS버전에 따라 사용이 제한 5.x 6.x초반버전은 사용이 안될 수 있음

** ipa client모듈이 설치 없이 쓰기 위해서는 직접 설정을 하면 됨

02 FreeIPA 이용방안

Windows AD 연동 : Sync , Trust



Windows AD 연동

1. Sync

AD -> IPA (389)

IPA (389) -> AD

계정동기화 가능 : AD -> IPA(389)일 경우

AD DC에 모듈 설치 필요

2. Trust

A close-up photograph of the interior of a red sports car. The image shows a white steering wheel with chrome accents, a red gear shift knob, and red leather seats. The background is a solid red color.

03 FreelPA SSO

03 System Login SSO

Kerberos 이용한 사용자 로그인

1. ipa-client 로 첫 로그인 시도

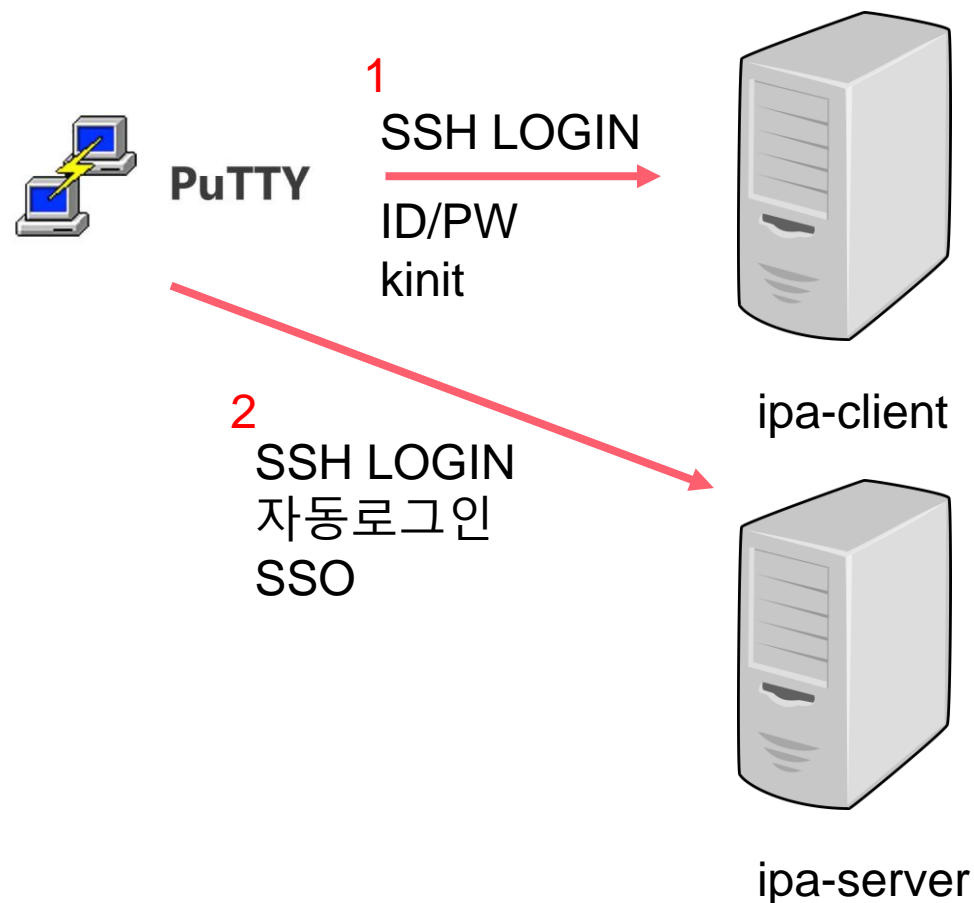
ID/PW로 로그인

kinit으로 Kerberos 티켓 요청 및 획득

(이부분을 Script를 통해 자동화 하면 좀 편함)

2. ipa-server로 두번째 로그인

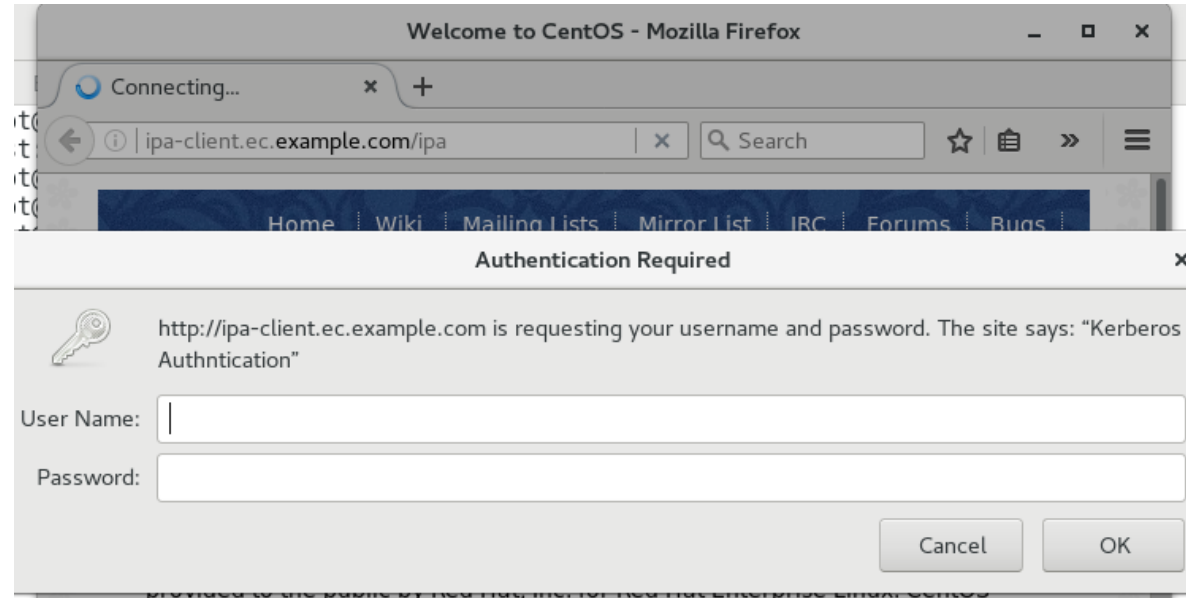
kerberos 티켓을 받은 상황이라 이후 로그인은 자동으로 로그인



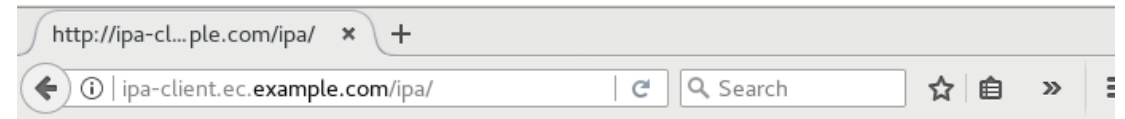
03 Kerberos를 이용한 SSO

Apache Web Server SSO

```
[root@ipa-client ~]# klist
klist: Credentials cache keyring 'persistent:0:0' not found
```



```
[root@ipa-client ~]# kinit sjsong
Password for sjsong@EC.EXAMPLE.COM:
```



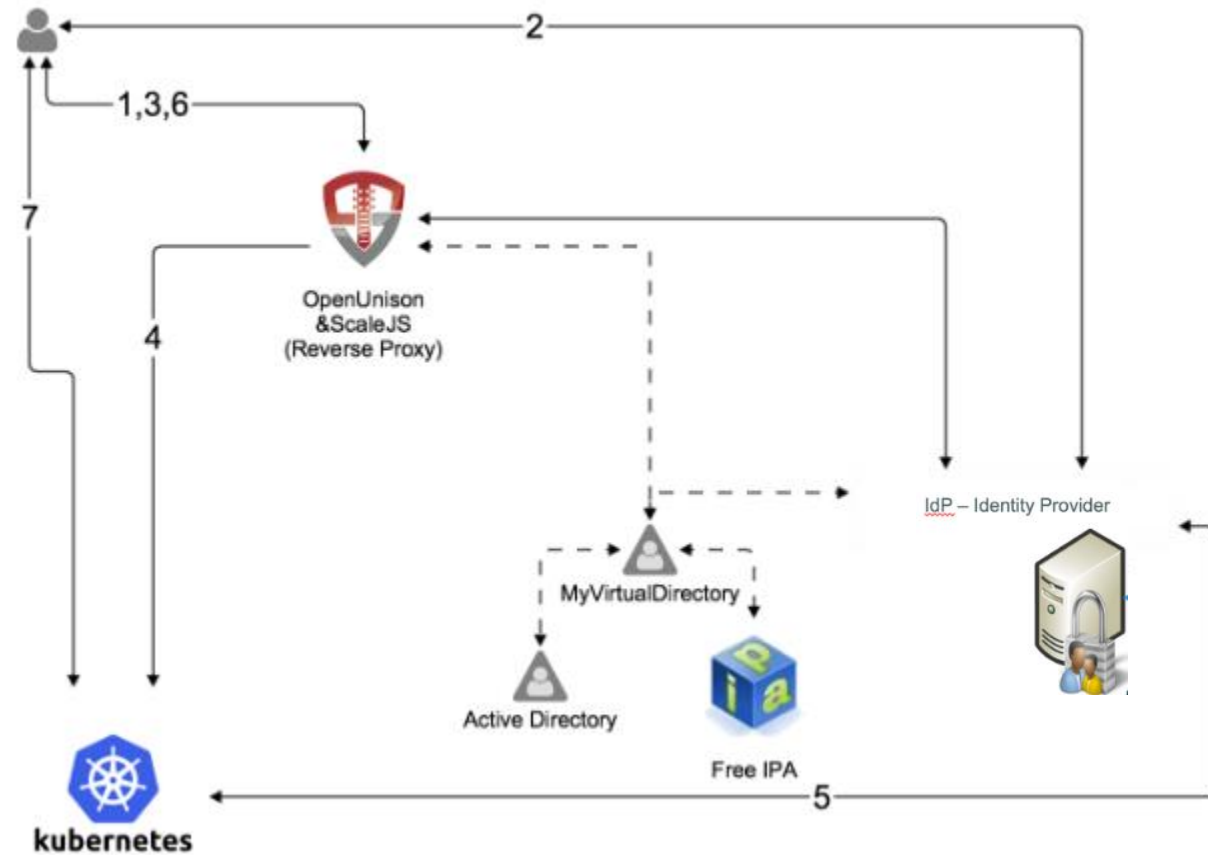
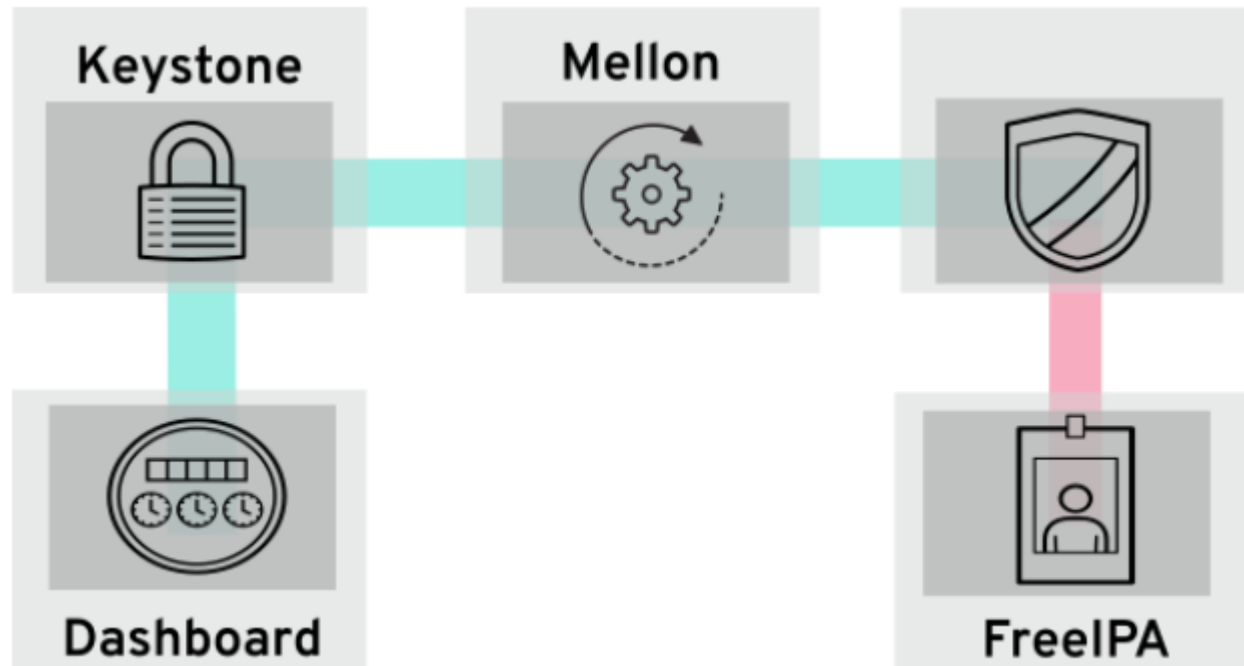
Test Page for IPA Server Auth

The background of the slide features a photograph of a modern building's exterior. A prominent staircase with light-colored steps and a dark metal railing is visible, set against a vibrant red wall. The architectural lines are sharp and geometric, creating a dynamic composition. The overall color palette is dominated by the red of the building and the neutral tones of the stairs and sky.

04 Idp를 이용한 연동 방안

04 Idp를 이용한 연동 방안

FreeIPA -> Identity Provider(Idp)->Apache(mod_auth_mellon:SAML)



THANK YOU