

## Trust & Identity Incubator

### IdP - SP software testbed

### Public Sprint Demo

September 2021

Public

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## Introduction - Goal

### **IdP - SP software testbed**

- Facilitate the deployment and testing of SAML2 federated authentication software.
- We need software to deploy and configure quickly and the tests to be automatic
- Example tests: Login, Attribute release, Known locations..



## Steps taken

### IdP - SP software testbed

- Analyze individual products
- Dockerize individual products
- Make their configuration somewhat automatic
- Write tests with selenium/behave
- Wrap it in a deployment script
- Perform the tests on the deployed dockers

# Deployment

```
(seleniumbehave) giusti@debGM:~/testbed$ ls
dependencies  environment.py  myfeature.feature  README.md  tb.temp
```

```

    Dockerfile
    Dockerfile
    Dockerfile
    Dockerfile
    Dockerfile
    replacelogs.txt
    replacer.sh
    docker-compose.yml
    stack0.txt
    docker-compose.yml
    stack1.txt
    mdq.fd
    proxy_conf.yaml
    saml2_backend.yaml
    saml2_frontend.yaml
    shibboleth2.xml
    config.php
    
```

```

Given we use 0
And we visit sp
And we choose idp
And we arrive at idp
When we login as student:studentpass
Then we check if we are logged in to sp

```

```
giusti@debGM:~/testbed$ cat tb.temp
0
```

```
<SSO entityID="https://192.168.42.198:7777/Saml2IDP/idp.xml"
```

```

!FILE=templates/shib/shibboleth2.xml
!OUTPUTFILE=stacks/stack0/mounts/shibmount/shibboleth2.xml
${shibEntityID};https://${shibhostname}:9999/shibboleth
${SSOentityID};https://${satosahostname}:7777/Saml2IDP/idp.xml
    
```

```

!FILE=templates/shib/shibboleth2.xml
!OUTPUTFILE=stacks/stack1/mounts/shibmount/shibboleth2.xml
${shibEntityID};https://${shibhostname}:9999/shibboleth
${SSOentityID};https://${ssphphostname}/simplesaml/saml2/idp/metadata.php
    
```

```
</SSO>
```

1 → 2 → 3

Every behave test has the same first step  
Checking if the preferred stack is deployed  
And if not, then deploying it

**docker-compose up -d**  
**./replacer.sh**  
**docker-compose restart**

Stack: A specific set of products and their configurations

 Demo video



## Conclusion



### Meets the initial criteria



Once a stack is added to the testbed, testing newer versions of included products is quick and easy.



### Plenty of room for improvement

- You still have to touch the code to add a new product
- Integration into gitlab did not happen



## Further ideas for improvement

### IdP - SP software testbed

- Instead of using a text file and a shell script to configure the dockers
- Use a .json file to store all information about a stack. Process that and handle configuring with python.

# Thank you

Any questions?

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