IdP/SP Software Testbed

Details:
https://wiki.geant.org/x/TgCeDQ
General topics

- Why do we need to test?
- Why it is hard?
- The solution
- Demonstration
- Next steps
Updates can break things!

Sometimes changes do more harm than good, especially in software development.

The likelihood of this increases with complexity.

You may not notice it happening until release.
Why testing is hard and takes a long time:

• Testing your own product is hard enough

• There are multiple IdP-s and SP-s and various accessory software
  DS like:
    Pyff, Seamless access
  Other software like:
    SaToSa
The solution: IdP/SP software testbed

The tools used:

Docker

Selenium/behave

Gitlab
The solution: IdP/SP software testbed

Docker:
- Domain Name Resolution
- Metadata Exchange
- Log Management
- Test users

Initially we are doing the packaging IdP/SP product developers seem to be willing to take that burden in the future.

First IdP/SP products + accessory software is dockerized.
The solution: IdP/SP software testbed

Selenium/behave

Selenium is a portable framework used to test web applications, behave is built on top of that.

They can be used to create automated tests for our dockers.

The test cases are well defined

- known locations like fqdn/Shibboleth.sso,fqdn/simplesaml/module.php/core/frontpage_federation.php etc.

First test implemented
The solution:
IdP/SP software testbed

Gitlab:

Our continuous integration tool of choice.

Whenever we change something on the dockers it’s able to automatically deploy the dockers and run selenium tests on them to verify they still work.

The configuration is not yet integrated into gitlab.
Next steps

- Implement more tests
- Add more SAML products
- Establish collaboration with SimpleSamlPHP and Shibboleth
- Define a more exact docker specification
Thank you

Any questions?

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