Whats new @ WAYF - TNC19 - Tallin

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- mEdit
  - A hierarchy-tabular schema driven metadata editor

- mRules
  - Ian’s rules for the rest of us

- MDQ
  -Issues and challenges

- jwt2SAML / SAML2jwt
  - SAML for the rest of us

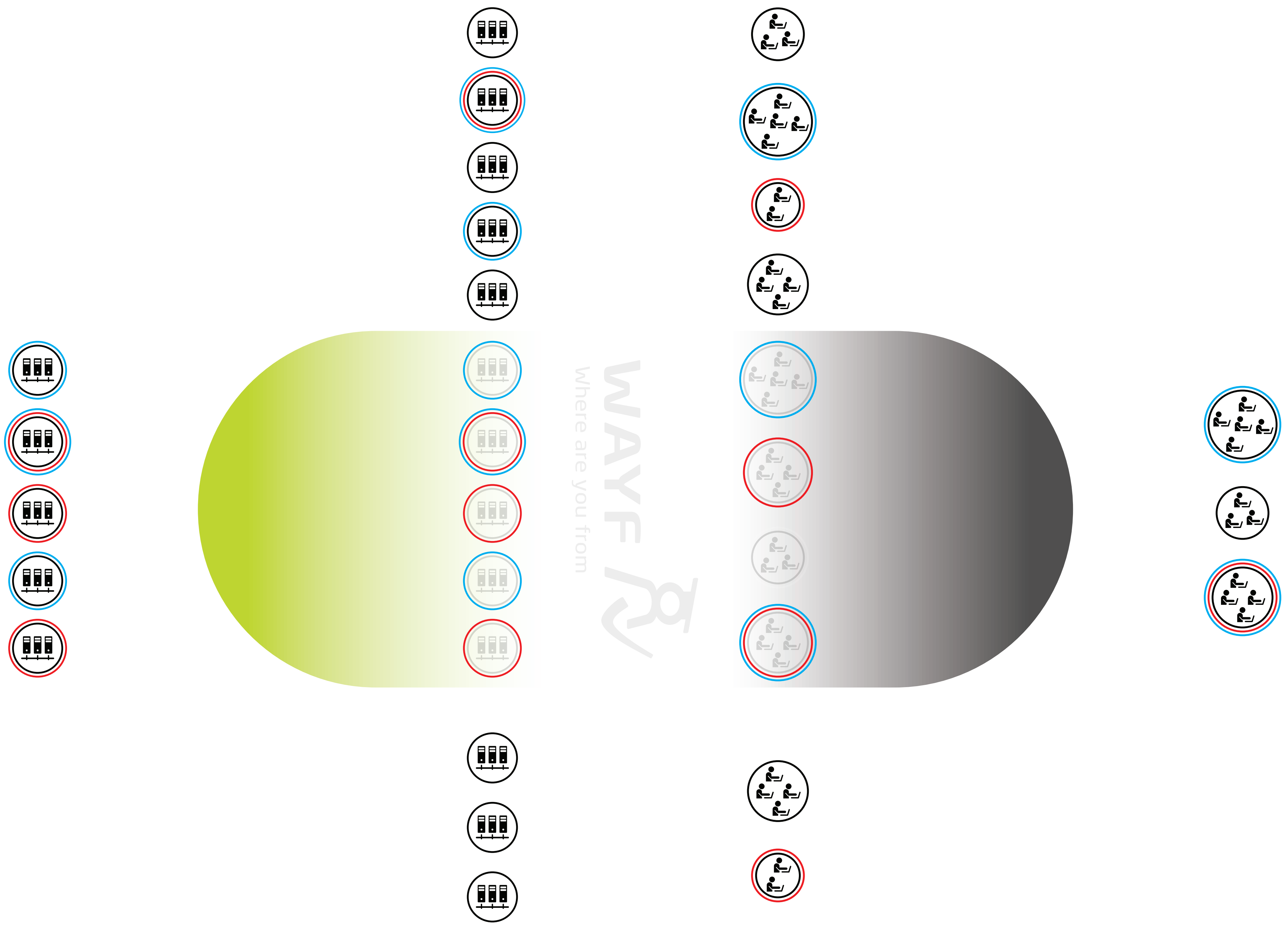
- Grand Unified IdP
  - An “SP”-specific IdP

- Attribute value filtering
  - Nobody wanted to play - so we did our own …

WAYF

- Unus pro omnibus, omnes pro uno
- WAYF is responsible for - most of - the metadata
- The hybrid formerly known as a hub and spoke …
- Tags for sub-federations
  - entities only allowed to “talk” if intersection of sub-feds tags is not empty
  - enforced by hub
- Operational metadata is distributed as a SQLite db
  - compressed, signed per entity
  - lookup up by @Location or @EntityID
  - MDQ via WAYF’s ha-hub servers
  - includes FTS for discovery

WAYF
Where are you from



RELYING PARTY
SERVICE PROVIDER

RELYING PARTY
SERVICE PROVIDER

IDENTITY
PROVIDER

IDENTITY
PROVIDER

mEdit

A schema driven hierarchy-tabular metadata editor

- The UI part of WAYF metadata repository
  - a plain old git repo
- Allow entities to edit selected parts of md
  - admin role - per domain - admin@dtu.dk
    entities have a organisational domain
  - Metadata tsar has root@*

the schema

```
'KeyDescriptor:#:X509Certificate' => [
  'xpath' => ‘/md:KeyDescriptor[#]/ds:KeyInfo/ds:X509Data/
              ds:X509Certificate',
  'roles' => ['SP/','IDP/'],
  'rw' => ['admin'],
  'help' => 'A base64-encoded X.509 structure containing a public RSA key,
             to be used for encrypting traffic to your entity and for
             validating signatures issued by it. Only the public key
             itself is interpreted by WAYF; all other content in the X.509
             structure is ignored.',
],
```

```
'AttributeConsumingService:#:RequestedAttribute:#:Name' => [
   'xpath' => ‘/md:AttributeConsumingService[#]/md:RequestedAttribute[#]/
               @Name',
   'roles' => ['SP/'],
   'datalist' => 'attrname',
   'check' => 'datalist'
 ],
```

Ian’s “Business” Rules with our paths

- Noes
  ```
  md:EntityDescriptor[contains(@entityID, ' ‘)
  ```

- Newnoes
  ```
  md:Ext/mdrpi:RegInfo[@regAuth ='https://www.wayf.dk']/../../md:IDPSSODesc
    count(../md:Extensions/wayf:wayf/wayf:wayf_schacHomeOrganization) != 1
  ```

- PairEqualsWithLang
  ```
  [.//md:AttributeConsumingService/md:ServiceName, .//mdui:DisplayName]
  ```

- Distinct
  ```
  .//md:AssertionConsumerService/@index
  ```

- ValidLocationUrl
  ```
  .//@Location
  ```

- CheckAgainstList
  ```
  [.//md:ReqAtt’ , [@FriendlyName, @Name], meditdatalists::NameFriendlyName
  ```

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- ValidCertificate
  ```
  .//ds:X509Certificate
  ```

- ValidLogo
  ```
  .//mdui:Logo
  ```

MDQ 1

- To enforce sub-federation separation we must let the response depend on who asks!
  - for entities that don’t have a “native” enforcement method

- Combined with 4 different metadata sets
  internal, hub, external-sp, external-idp

- https://wayf.wayf.dk/MDQ/sp/sp.entity.test/idp.entity.test

- https://wayf.wayf.dk/MDQ/sp/03e756cf22/idp.entity.test

MDQ 2

- How to send a “full” metadata set with resigned and compressed entities?

SAML2jwt / jwt2SAML

- Microservices for Service and Identity Providers resp.
- Takes care of everything SAML
- A locally run configuration less daemon
- Needs access to private key(s) and schema definitions
- Allow for very simple SPs and IdPs
- Built using WAYF’s go xml and saml libraries

Grand Unified IdP

aka

Guest User IdP

The Problem:

- Guest logins at a “SP” need be handled in a special way
    - i.e. doing identity validation and store credentials
- For the guests it is yet another username/password to remember

The Grand Unified IdP

- Outsources the authentication to a back-end IdP
    - only gets a pairwise-id
    - only 2FA accepted - e.g. UnitedID
- Lets the “SP” handle the actual identity proofing and provision the GUIdP with the necessary attributes - using LDAP/SCIM
- Lets the “SP” exchange a “SP”-specific userid for a token that is delivered to the user - in a way that satisfies the “SP”s validation requirements
- The user logs into the GUIdP and establishes a connection btw. the “SP”-specific userid and the pairwise-id
- The “SP” can now use federated login for all users
- The user have SSO to the SP and other participating “SP”s

But What if?

- A few other SPs trusted the “SP”s user management mutually?
    - We might call that an audience
- More than a few?
    - We might call that a virtual organisation
- It satisfies a federation’s requirements
    - We might call it an Identity Provider
      (using WAYF’s virtual IdP service)
- The “SP” is actually a scalable attribute authority?

Attribute Value Filtering

- We need it for “internal” systems
- Tried to start a discussion on the lists
  - not an issue for others - supposedly
- We have 4 “types” of values:
  1. Prefix
  2. Postfix
  3. Wildcard
  4. Regexp

2 ⊖	FriendlyName			eduPersonEntitlement
	Name			urn:oid:1.3.6.1.4.1.5923.1.1.1.7
	NameFormat			urn:oasis:names:tc:SAML:2.0:attrname-format:uri
	isRequired			true
	AttributeValue	0 ⊖ ⊕		tag:entity.test:
			type	prefix