

# URN Registry

tf-emc<sup>2</sup>

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# Outline

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  - Human
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# URNreg

## URN registration and delegation

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- general registry presentation procedures

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- a REST based protocol for querying the registry
- general registry presentation procedures
- everything in distributed flavor

# URNreg

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- LDAP objects and attributes for URN namespace delegation
- LDAP objects and attributes for representing URN values
- a REST based protocol for querying the registry
- general registry presentation procedures
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- PHP code to support it all

# Delegation objects

## Delegating URN namespaces

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Delegation objects belong in the `urnRegDelegation` object class, with the following attributes

- `urnRegValue`

### URN value

URN value of the delegated namespace.

e.g: `urn:mace:terena.org:rediris.es:`

# Delegation objects

## Delegating URN namespaces

Delegation objects belong in the urnRegDelegation object class, with the following attributes

- urnRegValue
- urnRegOwner

### Internet Domain

The internet domain of the institution that owns the delegated namespace.



## Delegation objects

### Delegating URN namespaces

Delegation objects belong in the urnRegDelegation object class, with the following attributes

- urnRegValue
- urnRegOwner
- **urnRegHttpsURI**

#### HTTPS URI of the registry

Entry point for the registry web services. The attribute has been designated *HTTPS* on purpose, to carry the idea that registry query entry points should be *trustable*.

# Delegation objects

## Delegating URN namespaces

Delegation objects belong in the urnRegDelegation object class, with the following attributes

- urnRegValue
- urnRegOwner
- urnRegHttpsURI
- **urnRegLdapURI**

### LDAP registry URL

In case the registry owner decides to offer an LDAP browsable service. TLS or SSL is strongly encouraged in the specification.

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- urnRegValue
- urnRegOwner
- urnRegHttpsURI
- urnRegLdapURI
- **urnRegRegistryURI**

### The registrar's home page

This URL points to the home page of the institution that owns the URN namespace.

# Delegation objects

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- urnRegValue
- urnRegOwner
- urnRegHttpsURI
- urnRegLdapURI
- urnRegRegistryURI
- **urnRegPolicyURI**

### The registry policy document

A document describing the policy that governs delegations inside the namespace controlled by the registry.

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- urnRegValue

## URN value

Value of the URN.

e.g:

urn:mace:terena.org:schac:homeOrganizationType:int:university

# Description objects

Describing the meaning of URN values

Description objects belong in the urnRegDescription object class, with the following attributes

- urnRegValue
- **urnRegDescription**

## Description of the value

A description of the intended meaning of the value.  
Allows for multilanguage values per RFC 3866.

# Description objects

Describing the meaning of URN values

Description objects belong in the urnRegDescription object class, with the following attributes

- urnRegValue
- urnRegDescription
- **urnRegValuePresentation**

## Human representation of the value

How the URN value should be presented to humans.

Allows for multilanguage values.

The previous example would be University in English, Universität in German and Universidad in Spanish.



# Description objects

Describing the meaning of URN values

Description objects belong in the urnRegDescription object class, with the following attributes

- urnRegValue
- urnRegDescription
- urnRegValuePresentation
- **urnRegValueVisibility**

## Who may see this value

Allows for the implementation of release policies, so the value may be shown to the world, just inside the institution or to the consumer apps.

# Description objects

Describing the meaning of URN values

Description objects belong in the urnRegDescription object class, with the following attributes

- urnRegValue
- urnRegDescription
- urnRegValuePresentation
- urnRegValueVisibility
- **urnRegValueUser**

## Consumers of the value

This attribute holds identifiers of the applications that use the value, mainly for change impact assesment.

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nice clear URLs

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**Search** Finds an specific URN value,  
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# Simply REST

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Just two operations defined, that can produce both human and machine readable documents, as requested using a *format=* parameter.

**Search** Finds an specific URN value,  
passed via the *urn=* parameter  
or shows a search form if there is none.

**List** Lists all the delegations or descriptions,  
as requested through the *type=* parameter.  
Lists descriptions if there is no parameter.

# Human interface to the registry

mostly nice web pages

The specification defines two ways for navigating the registry

*In house* The user connects to a given registry web,  
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*In house* The user connects to a given registry web, and gets information from all registries through it.

*Jumpy* The user is made to jump from one registry interface to the next following delegations.



# Machine interface to the registry

lots of ugly XML

The attributes and values are sent inside XML documents.



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```
<Response>
  <urns>
    <urn value="urn:mace:terena.org">
      <descriptions>
        <description value="TERENA - URN"/>
      </descriptions>
    </urn>
  <urn value="urn:mace:terena.org:schac:homeOrganizationType:int:NREN">
    <descriptions>
      <description value="National Research and Education Network"/>
    </descriptions>
    <presentations>
      <presentation value="Forskningsnettet i Norge" lang="no"/>
      <presentation value="Red Académica y Científica Nacional" lang="es"/>
      <presentation value="National Research and Education Network" lang="en"/>
    </presentations>
  </urn>
</urns>
</Response>
```

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even real soon now

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- AAI enabling the registry

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- Python module implementing the protocol
- Back links to the parent of a delegated namespace
- Extending the schema to include contact information
- Registration interface
- AAI enabling the registry
- Use of urnRegUser attribute for self provisioning



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but do not forget to send back the changes.