# URN policy

## Policy For The urn:mace:ac.uk Namespace

### Version 1.0, 5th January 2004

### Introduction

This policy describes the purpose, structure and rules for the urn:mace:ac.uk universal resource name hierarchy. RFC3613 [1] defines the urn:mace namespace for the Middleware Architecture Committee for Education (MACE), for the purpose of naming persistent resources defined by MACE, its working groups and other designated subordinates. Part of that name space, urn:mace:ac.uk, has been delegated to the Joint Information Systems Committee, as a designated subordinate, for use by UK projects (see http://middleware.internet2.edu/urn-mace/urn-mace.html [2]). Management of this delegated namespace is performed by Janet according to the rules set out in this policy.

Universal Resource Names (URNs) are intended to be globally unique, persistent, location-independent identifiers. They may be used for many different types of object, including documents, object classes, schemas and attributes. Global uniqueness is ensured by using a hierarchical structure with delegated responsibility. Persistence and location independence are ensured by rules for creation and maintenance of names such as those contained within this document.

Names within the urn:mace namespace are owned by the Middleware Architecture Committee for Education (MACE). MACE or any of its designated subordinates retain the right to revoke any delegation of any portion of the name space at any time.

### 1. Purpose

Names within the urn:mace namespace may only be used for purposes associated by MACE, that is middleware projects and services relating to education and research.

Names within the urn:mace:ac.uk namespace are further restricted to those used by UK national, local and institutional projects which will usually be those projects funded by the JISC Middleware initiatives. Projects with a significant international scope should normally use names in the international portions of the urn:mace hierarchy.

### 2. Namespace hierarchy

The urn:mace:ac.uk namespace may contain three different types of subordinate namespaces. These are national attribute sets, project namespaces and institutional

namespaces. Since these have different purposes there are different rules for creating names within them.

## 2.1 Attribute names

Where national attribute sets are defined for use as standards across many Middleware projects and applications, equivalents for these sets will be created within the urn:mace:ac.uk:attribute-def: hierarchy. For example the attributes in a future UK Eduperson schema would be likely to be included within this part of the hierarchy.

Such attribute sets will normally be approved by the JISC and their guidance will be sought by Janet before adding them into the namespace hierarchy.

## 2.2 Project namespaces

Long-lived national middleware projects may request, through their project leader, that a portion of the urn:mace:ac.uk namespace be assigned to them. Such projects will normally have been recognised by the JISC through funding or other association and will be led by a JISC-funded education or research institution.

The rules [3] for project eligibility and choice of name are the same as those for the allocation of DNS names within the .ac.uk domain. Projects will therefore be expected to apply for a .ac.uk DNS name either before, or at the same time as, applying for a portion of the urn:mace:ac.uk namespace. Project namespaces will be named according to the project's fully qualified DNS name.

The management of project namespaces will normally be delegated to a project partner institution according to the rules in RFC3613, as described in section 2.4 below. Where only a small number of names are required, Janet may agree to manage the namespace on behalf of the project partners. Projects must ensure that their namespace continues to be supported after the end of the project term.

## 2.3 Institutional namespaces

Janet primary connected institutions with their own local middleware activities may request, through their head of Computing Services or equivalent post, that a portion of the urn:mace:ac.uk namespace be assigned and delegated to them. These institutional namespaces should not be used for applications where a national or MACE project name would be more suitable.

The institutional namespaces will be named according to the requesting instutition's fully-qualified DNS name, for example Janet would be assigned the namespace urn:mace:ac.uk:janet.ac.uk

Management of the institutional namespace will be delegated to the institution according to the rules in RFC3613 [1] as described in section 2.4 below.

## 2.4 Management of delegated namespaces

Wherever the management of project or institution namespaces is delegated, the institution responsible for the delegated namespace must ensure that it is managed in accordance with RFC3613 [1] and the relevant sections of this policy. In particular:

Institutions must inform the delegating organisation (Janet for first level delegations) of the names and contact details of the individual(s) responsible for the management of the delegated namespace and must ensure that this information is kept up to date. Institutions must also provide, and keep up to date, the address of their local URN registry. E-mail contact details for the responsible person will be published in the index for urn:mace:ac.uk described at section 3.3 below. As required by RFC3613 [1], the responsible person will be contacted by Janet at least annually to confirm that the namespace is being actively maintained. If no response is received, or a response indicating that maintenance has ceased, then the delegation will be revoked and control of the namespace will revert to the delegating organisation.

If institutions further delegate portions of their namespace then they must also confirm at least annually that these sub-delegated portions are still being actively maintained. Institutions are responsible for the continued maintenance of the whole of any namespace delegated to them.

Information about unmaintained namespaces must continue to be published. The delegating organisation may choose to manage them itself, to mark them as unmaintained or to re-delegate them to another manager provided this is compatible with the requirement for permanence.

# 3. Creating names

### 3.1 Syntax and semantics

All names within the urn:mace:ac.uk hierarchy will conform to the syntax and semantics specified in RFC3613 [1]. In particular, such names will comprise a left-to-right series of tokens delimited by colons, corresponding to descending nodes in a tree. The colon character may only be used as a delimiter between tokens. Names will be considered unique according to a case sensitive match, however first level names below urn:mace:ac.uk will be assigned in a case-insensitive way so that there are no two such names that differ only by case.

All such names will begin with the sequence "urn:mace:ac.uk:".

### 3.2 Process

Requests for delegation of names within the urn:mace:ac.uk hierarchy must be sent by e-mail to naming@jisc.ac.uk [4]. The request must include the following information:

- Namespace requested;
- Name and URL of organisation to which namespace will be delegated;
- Name and e-mail address of responsible person;
- URL of local namespace registry page.

### 3.3 Resolution of names

Every URN must be capable of being resolved to obtain the document or specification that it identifies. At present most URNs refer to human-readable documents so it is appropriate for resolution to be done by a human. In future it may also be appropriate to support resolution of some URNs by machine.

Every first-level name in the urn:mace:ac.uk namespace will be documented in the index web page [5]. Presence in this index implies that a given URN is valid. The web page will have links to pages documenting lower level names: for delegated namespaces these web pages must be hosted and maintained by the institution to which the namespace is delegated. Where a namespace becomes unmaintained, as described in section 2.4, this fact may be marked in the appropriate index page(s).

## 4. Maintenance

The most important attribute of URNs is that they are persistent. Once a URN in a public namespace has been created it must always exist and must always refer to the same object. This places an obligation on those who create a URN to exercise care and to ensure that appropriate arrangements are in place to maintain it: URNs cannot be deleted or reused.

## 5. References

The urn:mace namespace is documented in RFC3613 at http://www.ietf.org/rfc/rfc3613.txt [1]

The top-level index for the urn:mace namespace is at http://middleware.internet2.edu/urn-mace/urn-mace.html [2]

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