A Uniform Resource Name (URN) Namespace for Eurosystem Messaging

Abstract

   This document defines and registers with IANA a Uniform Resource Name
   (URN) namespace for usage within messages standardized by the
   Eurosystem. The URN namespace is managed by Deutsche Bundesbank,
   which is a member of the European System of Central Banks (ESCB).

Status of This Memo

   This document is not an Internet Standards Track specification; it is
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   approved by the IESG are a candidate for any level of Internet
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1. Introduction

   The European System of Central Banks (ESCB) is composed of the
   European Central Bank (ECB) [ECB] and the national central banks
   (NCBs) of all 27 EU Member States (Article 107.01 of the Treaty) --
   whether they have adopted the Euro currency or not. One central bank
   belonging to the ESCB is Deutsche Bundesbank [DBBK], which, for the
   purpose of this document, is acting on behalf of the ESCB. The term
   Eurosystem is used to refer to the entity composed of the ECB and the
   NCBs of those member states that have adopted the Euro currency. For
   further information on the tasks of the ESCB and the Eurosystem,
   please refer to the ECB web site ([ECB], [ESCB], [Eurosystem]).

   The ESCB provides the TARGET2 (Trans-European Automated Realtime
   Gross Settlement Express Transfer) system for market infrastructure;
   it is an interbank payment system for the real-time processing of
   cross-border transfers throughout the European Union. In addition,
   the ESCB is currently implementing TARGET2-Securities, a future
   securities settlement platform that offers a new, harmonized and
   centralized method of settling securities in central bank money. The
   TARGET2-Securities project was initiated by the Eurosystem as
   platform owner in 2006. TARGET2-Securities is currently under
   development. Four central banks of the Eurosystem -- Deutsche
   Bundesbank, Banque de France, Banca d'Italia, and Banco de Espana
   (4CB) -- are entrusted with the development and the operation of the
   platform. For details, see [T2S_ECB] and [T2S_DBBK].

   The future users of TARGET2-Securities will communicate and exchange
   information with the platform via messages (a set of structured
   information) following the ISO 20022 Standard [ISO20022-RA].

This document specifies and registers with IANA a URN Namespace for
the Eurosystem, which will be populated initially by names for
abstract and concrete entities used in TARGET2-Securities messaging,
but may be used for similar purposes in the future.

2. Namespace Considerations

The goal of the requested namespace is to ensure the stability and
uniqueness of the names of various items that are used within the
messages exchanged between the Eurosystem and the users of
TARGET2-Securities (or potentially, other future projects of the
Eurosystem).

It is essential that names of items (such as the XML schema
describing the message itself) can be used to identify the resource
even years after the message has been exchanged. This context
requires a new namespace owned by, and under the perpetual control
of, the Eurosystem.

The messaging context of the needed identifiers necessitates the
usage of Uniform Resource Identifiers (URIs) as specified in Internet
STD 66 [RFC3986].

The persistent identifiers needed are protocol-independent resource
names -- the same resource may exist in multiple physical locations,
and thus be accessible via multiple URLs, but there's the need for a
single abstract identifier as a handle (name) for it.

Thus, the logical choice for the placement of such a namespace is the
use of Uniform Resource Names (URNs), as defined by [RFC1737] and
[RFC2141] (and its work-in-progress successor), by specifying a new
URN Namespace [RFC3406] for the Eurosystem.

3. Community Considerations

The Eurosystem messages carrying the resource names are exchanged in
IP networks. Although the mass production use of the assigned URNs
will be contained in messages carried in cryptographic digital
envelopes or Virtual Private Networks, the message-related resources
being persistently named need to be referred to and resolved in the
public Internet. The transparency requirements (needed for
establishing and maintaining public trust into the subject financial
transaction systems), open software development processes, and
software deployment require the origin and authority for the URNs to
be easily identified, and the URNs to be resolved on the public
Internet. URI references to the Eurosystem resources will be used in
connection with identifiers drawn from previously standardized Formal
URN Namespaces allocated to other international treaty organizations,

   and it is mandatory that the authority behind the new URNs be easily
   and clearly identified, and be at a perceived "equivalent" standards
   level, parallel to the existing ones. Therefore, a mnemonic, Formal
   URN Namespace Identifier is needed for the intended purpose.

   Thus, this document specifies a "Formal URN Namespace" using the
   procedures laid down in RFC 3406 [RFC3406] (and incorporates some of
   the additional information under discussion for its work-in-progress
   successor into the registration template below).

   The requested URN Namespace Identifier (NID) is 'eurosystem'.

4. Registration Template for the Eurosystem URN Namespace

   The registration template below makes references to Internet STD 66,
   RFC 3986 [RFC3986].

   Namespace ID: eurosystem

   Scope / kind of named resources:
      Resources related to Eurosystem messaging.
      This namespace is reserved to the Eurosystem and its community.

   Registration Information:

      - version number: 1

      - date: 2014-02-18

   Declared registrant of the Namespace:

      - Registering organization:
         Name: Deutsche Bundesbank (member of ESCB)
         Address:
         Wilhelm-Epstein-Strasse 14
         D-60431 Frankfurt
         Germany
         URI: http://www.bundesbank.de/

      - Designated contact person:
         Name: Miriam Ortseifen
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Declaration of syntactic structure of NSS part:

   The structure of the Namespace Specific String is a flat space of
   printable URI characters (<pchar>; see RFC 3986), with a
   preference for short letter-digit-period-hyphen-based strings.
   The NSS has no knowable structure outside of the context of the
   Eurosystem community internal resolver.

Relevant ancillary documentation:

   None

Conformance with URN Syntax:

   No special consideration.

Rules for Lexical Equivalence of NSS part:

   No special consideration.

Usage of query part:

   There is no support for query instructions or other components of
   the query part to be used in URI references to 'eurosystem' URNs.

Usage of fragment part:

   The fragment part of URI references to 'eurosystem' URNs has no
   particular specified utility.

Identifier uniqueness considerations:

   Identifiers are opaquely assigned by Eurosystem URN Registration
   that guarantees uniqueness. This is simply achieved by reliably
   keeping track of already assigned names and comparing all new
   proposed names to the ones already present in the database. If
   the name already has been assigned, a new one has to be proposed.

Identifier persistence considerations:

   Assigned URNs will not be reused and will remain valid beyond the
   lifecycle of the referenced resources. However, it should be
   noted that although the URNs remain valid, the status of the
   referenced resource may change.

Process of identifier assignment:

Names are granted by Eurosystem URN Registration via proprietary
registration procedures.

Future changes to the assignment methods may allow others to
assign sub-spaces of the flat namespace, but again, this knowledge
is only valid internally and should never be inferred or relied
upon externally.

Process of identifier resolution:

Eurosystem URNs are resolved via URN resolvers run under
Eurosystem responsibility.

Initially, resolution service will be provided via a web page
listing the assigned names and the related metadata of the named
resources.

Validation mechanism:

None specified.

5. Example

The following example is listed for pedagogical reasons only; it is
not guaranteed to become actually assigned.

urn:eurosystem:xsd:reda.012.001.01

6. Security Considerations

Since the URNs in this namespace are opaque, there are no additional
security considerations other than those normally associated with the
use and resolution of URIs and URNs in general (see the Security
Considerations in Internet STD 66 [RFC3986], RFC 2141 [RFC2141], and
BCP 66 [RFC3406]).

It is noted, however, that attempting to resolve a Eurosystem URN
through a resolver other than the one provided by the Eurosystem is
error prone. In any case, it is not considered authoritative.

7. IANA Considerations

7.1. Registration of Formal URN Namespace 'eurosystem'

IANA maintains the registry of URN Namespaces [IANA-URN] and has
registered a new Formal URN Namespace with the NID 'eurosystem' as
per BCP 66 [RFC3406], using the registration template given above in
Section 4.

8. Acknowledgements

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input received from Subramanian Moonesamy and Alfred Hoenes, as well
as David Black and the IESG for Last Call comments that helped to
improve this document.

9. References

9.1. Normative References

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9.2. Informative References

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