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Uniform Resource Name (URN) Namespace for the National Emergency Number Association (NENA)

Abstract

This document describes the Namespace Identifier (NID) "nena" for Uniform Resource Name (URN) resources published by the National Emergency Number Association (NENA). NENA defines and manages resources that utilize this URN model. Management activities for these and other resource types are provided by the NENA Registry System (NRS).

Status of This Memo

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1. Introduction

The National Emergency Number Association (NENA) is currently in the process of setting standards, processes, and procedures for the use of an IP-based Emergency Services IP Network (ESInet) for all public safety entities in North America. Some of the solutions being developed by NENA require XML namespaces that are managed so that they are unique and persistent. To assure that the uniqueness is absolute, the registration of a specific Uniform Resource Name (URN) [RFC2141] Namespace ID (NID) for use by NENA is required. This document defines and registers such a namespace in accordance with [RFC3406].

2. URN Specification for "nena" NID

Namespace ID: nena

Registration information:

 registration version number: 1

 registration date: 2010-10-13

Declared registrant of the namespace:

 Registering organization

 Name: National Emergency Number Association (NENA)

 Address: 4350 North Fairfax Drive, Suite 750
 Arlington, VA 22203-1695

Designated contact:

 Role: NENA Registry Services Administrator

 Email: nrs-admin@nena.org

Declaration of syntactic structure:

The Namespace Specific String (NSS) of all URNs that use the "nena" NID will have the following structure:
`{NENAClass}:{ClassSpecificString}`

The "NENAClass" conforms to the URN syntax requirements [RFC2141] and defines a specific class of resource type. Each class will have a specific labeling scheme that is covered by "ClassSpecificString", which also conforms to the naming requirements of [RFC2141].

NENA maintains a naming authority, the National Emergency Number Association (NENA) Registry System (NRS), that will manage the assignment of "NENAClass" and the specific registration values assigned for each class. Other NENA standards documents will define the "ClassSpecificStrings" for a given "NENAClass".

Relevant ancillary documentation:

The National Emergency Number Association Registry System (NRS) provides information on the registered resources and the registrations for each. More information about the NRS and the registration activities and procedures to be followed are defined in "NENA Registry System Standard", NENA 70-001 [NENA70-001], which is available at <http://www.nena.org/>.

Identifier uniqueness considerations:

The NRS will manage resources using the "nena" NID and will be the authority for managing the resources and subsequent strings associated. The NRS shall ensure the uniqueness of all nena URNs by checking such names against the list of existing namespace names, as documented in NENA 70-001 [NENA70-001].

Identifier persistence considerations:

The NRS will provide clear documentation of the registered uses of the "nena" NID. The NRS will establish a registry for "NENAClass", as defined in NENA08-003 [NENA08-003]. Each "NENAClass" will have a separate description in the registry and may have its own sub-registry. In particular, new "NENAClass" registry entries will require a full NENA Technical Standard document.

The NRS will maintain a website at a stable address that provides XML and text renderings of the urn:nena registry.

Process of identifier assignment:

The NRS processes and procedures for identifier assignment are documented in NENA 07-001 [NENA70-001]. The registry that will control the urn:nena namespace is defined in NENA 08-003 [NENA08-003]. In particular, assignments to the "NENAClass" registry will require a NENA Technical Standard document. Subregistries for particular "NENAClasses" may be established by such technical standards. Subregistries may be defined to have more liberal management policies as defined in NENA 70-001 [NENA70-001], but must be NRS managed and will not be permitted to be delegated to any other organization or registry. Thus, the NRS will manage the entire urn:nena tree.

Process for identifier resolution:

The namespace is not currently listed with a Resolution Discovery System (RDS), but nothing about the namespace prohibits the future definition of appropriate resolution methods or listing with an RDS.

Rules for lexical equivalence:

No special considerations; the rules for lexical equivalence of [RFC2141] apply.

Conformance with URN syntax:

No special considerations.

Validation mechanism:

None specified. URN assignment will be handled by procedures implemented in support of NENA activities.

Scope:

Global

3. Examples

The following examples are representative URNs that could be assigned by the NRS. They may not be the actual strings that would be assigned.

NENAResource "psaproutel"

Syntax: "urn:nena:emergencyresponders:<responder name>"

ResourceSpecificString: simple string with name of responder,
defined in a subregistry

Use: Defines the URN to be used for queries to an NG9-1-1 Emergency Call Routing Function that provides URIs for responding agencies.

Examples:

```
urn:nena:emergencyresponders:ambulance
urn:nena:emergencyresponders:fire
urn:nena:emergencyresponders:police
urn:nena:emergencyresponders:poison
urn:nena:emergencyresponders:coastguard
urn:nena:emergencyresponders:marine
```

4. Namespace Considerations

The National Emergency Number Association has developed standards for emergency calling in North America for several decades. NENA is developing a variety of applications and services using Internet protocols built upon IETF standards. Some of these services require that supporting information (e.g., data descriptions, attributes, etc.) be fully specified. For proper operation, descriptions of the needed supporting information must exist and be available in a unique, reliable, and persistent manner. These dependencies provide the basis of the need for namespaces, in one form or another, and will enable NENA to define URNs that are to assign cleaner, more general, more permanent, more reliable, and more controllable namespace names related to NENA standards, while keeping URNs defined by NENA properly separate from the IETF-defined URNs.

As the National Emergency Number Association work is ongoing and covers many technical areas, the possibility of binding to various other namespace repositories has been deemed impractical. Each object or description, as defined in NENA, could possibly be related to multiple different namespaces, so further conflicts of association could occur. Thus, the intent is to utilize the National Emergency Number Association Registry System, operated by NENA, as the naming authority for NENA-defined objects and descriptions.

5. Community Considerations

The North American public safety organizations will benefit from publication of this namespace by having permanent and reliable URNs to be used with protocols defined by NENA. The objects and descriptions required for services defined by NENA are generally available for use by other organizations. The National Emergency

Number Association will provide access and support for name requests by these organizations within the constraints of the defined NRS processes and the specific urn:nena registry and subregistries. This support can be enabled in a timely and responsive fashion as new objects and descriptions are produced. These will be enabled in a fashion similar to current IANA processes, as documented in NENA70-001 [NENA70-001].

The NRS establishes registries when called for in a NENA Technical Standard. Such standards must provide the NRS with clear and concise instructions on creating and maintaining such registries. Defined management policies include "NENA Technical Standard Required", "NENA Document Required", "Expert Review", and "First Come First Served", which correspond to similar IANA management policies. NENA is establishing a website that provides controlled entry of new registries and entries in registries, and automatically produces HTML and XML descriptions of registry contents that are used by vendors and other consumers of the content.

6. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general.

7. IANA Considerations

This document adds a new entry in the URN Namespaces registry. The namespace is "nena". The defining document is this RFC. The entry can be found in the Uniform Resource Names (URN) Namespaces registry available from <http://www.iana.org> and any associated mirrors.

8. Acknowledgements

The author thanks Alfred Hoenes (TR-Sys) for his careful reading and extensive comments and suggestions. The author also acknowledges that the text from [RFC4358] formed the basis of this document.

9. References

9.1. Normative References

[RFC2141] Moats, R., "URN Syntax", RFC 2141, May 1997.

9.2. Informative References

[NENA08-003] NENA, "Detailed Functional and Interface Specification for the NENA i3 Solution - Stage 3", NENA Standard 08-003, September 2010.

[NENA70-001] NENA, "NENA Registry System Standard", NENA Standard 70-001, September 2009.

[RFC3406] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", BCP 66, RFC 3406, October 2002.

[RFC4358] Smith, D., "A Uniform Resource Name (URN) Namespace for the Open Mobile Alliance (OMA)", RFC 4358, January 2006.

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