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Secure Message Delivery Qualified Identifiers

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Document information

Key information

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Product or document version history

Product or document version	Date	Release comments
1.0	2008-12-01	Release
2.0	2010-03-05	Revised syntax that aligns with ATS 5822—2010.
2.0	2025-05-23	The document presentation has been enhanced to align with current branding guidelines; however, the content has not been changed.

Transition of terms

Certain terms used within the context of this document have changed. The table provides a clear comparison of the historical terms used in text and their current equivalents for your reference.

Historical term	Current term
National eHealth Transition Authority (NEHTA)	The Australian Digital Health Agency (ADHA)

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Preface

Document Purpose

The purpose of this document is to describe how identifiers can be represented as Uniform Resource Identifiers (URI).

Scope

This document defines the syntax and rules for creating and use of qualified identifiers.

This document does not define the schema for qualified identifiers for any particular type of identifier.

This document does not define where qualified identifiers are used. Qualified identifiers are used in Web service specifications, where the qualified identifier is represented as an XML element of type xsd:anyURI, but they can also be used elsewhere.

Intended Audience

This is a technical document.

This document should be read and understood by:

- Solution Architect:
  - To understand how qualified identifiers are represented.
- Developer:
  - To implement qualified identifiers.
- Tester:
  - To evaluate whether an implementation conforms to qualified identifiers.

The reader is expected to understand URI, URL and URNs.

Definitions, Acronyms and Abbreviations

For a lists of abbreviations, acronyms and abbreviations, see the Definitions section at the end of the document, on page 9

References and Related Documents

For a list of all referenced documents, see the References at the end of the document, on page 10.

Conformance

The keywords **MUST**, **MUST NOT**, **SHOULD**, **SHOULD NOT**, and **MAY** in this document are to be interpreted as described in IETF's RFC 2119 [RFC2119].

1 Qualified Identifiers

1.1 Background

An identifier is a value that serves to identify an entity. The entity can be anything that that can be distinguished from others like it, for example a person or an organisation. Identifiers can be used as a reference to the entity.

There are many different types of identifiers. They can be different because they are issued by different parties and/or according to different rules. The context in which it was issued is important to correctly use that identifier.

The concept of a qualified identifier is introduced so that local identifiers can be used in outside that context and to support multiple types of identifiers. It is a mechanism for representing a local identifier along with an explicit context to qualify what type of identifier it is.

For example, an identifier “123456789” could be issued by a hospital to identify a patient and a General Practice could also have issued that same number to a different person who is one of their patients. Without known the issuing context, there is no way for a computer system to correctly determine which person is referenced by just the identifier. With qualified identifiers, distinct values will be used and the computer system will be able to correctly determine which person is being referenced. For example, the qualified identifiers could be “urn:hospital-XYZ:123456789” and “http://gp.example.com/patient/123456789”.

1.2 Qualified identifiers as URIs

1.2.1 Syntax

1.2.1.1 Conformance points

A qualified identifier **MUST** be a URI-reference as defined in section 4 of [RFC2329].

A qualified identifier URI-reference **MUST** be an absolute URI.

1.2.1.2 Informative notes

Any valid URI-reference is suitable as a qualified identifier, including URI-references which contain a fragment identifier. That is, a qualified

identifier may comprise of an absoluteURI, the “#” character, and a fragment identifier. The terms “absoluteURI” and “fragment identifier” are defined in the specification of URI [RFC2329].

The qualified identifiers defined by this specification are a superset of the qualified identifiers previously defined by version 1.0 of this specification. Previously, qualified identifiers were defined as always having a fragment identifier, but this was found to be too restrictive. Version 1.0 qualified identifiers are valid qualified identifiers according to this specification, but not all qualified identifiers according to this specification are valid version 1.0 qualified identifiers.

Relative URIs cannot be used as qualified identifiers.

1.2.2 Issuing qualified identifiers

1.2.2.1 Conformance points

The originator **MAY** publish or identify a scheme for qualified identifiers that it creates.

The scheme **SHALL** define how to determine whether a qualified identifier has been issued according to the scheme or not.

The scheme **SHALL** define how to extract the corresponding identifier from a qualified identifier of that scheme.

The schema **SHALL** indicate whether or not consumers are permitted to extract the corresponding identifier from a qualified identifier of that scheme.

1.2.2.2 Informative notes

The originator is the party that created the qualified identifier scheme.

1.2.3 Using qualified identifiers

1.2.3.1 Conformance points

The consumer **SHALL NOT** extract the corresponding identifier from a qualified identifier unless explicitly permitted by the originator.

1.2.3.2 Informative notes

The consumer is a user of qualified identifiers.

Implementations need to treat the qualified identifier as a single opaque value, unless it recognises the particular scheme being used and knows how to extract the identifier from it. Unless there is a guarantee that only specific schemes are being used, an implementation will always need to be able to treat the qualified identifier as an opaque URL.

The original version 1.0 qualifier identifier could be considered as having two parts—the qualifier and the identifier—but the qualified identifier defined in this specification cannot always be treated that way.

1.3 Examples

For example, this Healthcare Provider Identifier for organisations:

```
8003600000000007
```

It is represented as the qualified identifier:

```
http://ns.electronichealth.net.au/id/hi/hpio/1.0/8003600000000007
```

A different issuer could happen to use the same number as an identifier for something else:

```
8003600000000007
```

But it will be represented as a different qualified identifier, even though the local identifier numbers are the same:

```
http://qi.example.com/id#80036000000000007
```

Qualified identifiers are not always URLs, but can be any form of URI. For example,

```
urn:uuid:3b1f9c10-6166-11df-a08a-0800200c9a66
```

Even when a URL is used as the qualified identifier, there is no requirement for it to point to a resource. It is only used as a value, that may or may not be followed as a reference.

Definitions

This section explains the specialised terminology used in this document.

Shortened Terms

This table lists abbreviations and acronyms in alphabetical order.

Term	Description
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
URN	Uniform Resource Name

Glossary

This table lists specialised terminology in alphabetical order.

Term	Description
Identifier	A value used to refer to an entity. The identifier only has meaning within the scope of the type of identifier that was issued.
Qualified identifier	A globally unique identifier.

References

Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[RFC2119] IETF, RFC 2119: Keywords for use in RFCs to Indicate Requirement Levels, S. Bradner, March 1997, http://ietf.org/rfc/rfc2119.txt

[RFC2141] IETF, RFC 2141: URN Syntax, R. Moats, May 1997, http://ietf.org/rfc/rfc2141.txt

[RFC2396] IETF, RFC 2396: Uniform Resource Identifiers (URI): Generic Syntax, T. Berners-Lee, R. Fielding, U. C. Irvine, L. Masinter, August 1998, http://ietf.org/rfc/rfc2396.txt