

Paper for Consideration by NIPWG

Status of IALA's proposal for Maritime Resource Names

Submitted by:	IALA ENAV Committee WG1 Chair; (NIPWG Vice-chair) UK
Executive Summary:	IALA have a proposal for unique identifiers for a range of items within e-navigation. This has not yet been approved by IALA for consultation with other bodies, but will be further developed at ENAV18 (14-18 March 2016).
Related Documents:	IALA ENAV17-14.1.5; IALA ENAV17-14.1.6 ISO 3166-1 RFC 2141 – URN Syntax (https://www.ietf.org/rfc/rfc2141.txt)
Related Projects:	

Introduction / Background

The idea of establishing unique identifiers for features within both an S-100 environment and wider e-navigation applications has been considered for a number of years without a firm proposal becoming established. The need is recognised, but responsibility for establishing an international scheme has been switching between IHO and IALA.

Analysis/Discussion

At IALA ENAV17, a proposal was made to establish an international Maritime Resource Name scheme. The outcome of discussions in WG1 (Harmonisation) was reported to the final plenary as provided in ANNEX A.

A decision was made that the proposal could not yet be released for external consideration, as other IALA committees had not been consulted. A request was made to the IALA Policy Advisory Panel (PAP) to establish an inter-committee task group to coordinate with all IALA committees to further develop Unique Identifier schemas and liaise with external organizations. See ANNEX B for the liaison note from ENAV17 to PAP.

The scheme defined in ENAV17-14.1.5 includes the following example, which is provided as an indication of the principle, without suggesting that this has been approved as a definitive proposal for consultation with the IHO.

A unique identifier for an Aid To Navigation should be assigned by the responsible Aids to Navigation Authority on a national basis.

When referenced outside the context of the national AtoN provider, the identifier should be prefixed using the Maritime Resource Name syntax, with the prefix:

urn:mrn:iala:aton:<countrycode>:<NationalIdentifier>

where <countrycode> is the national identification defined by ISO 3166-1 alpha-2 codes for the representation of names of countries and their subdivisions.

Example: urn:mrn:iala:aton:us:1234.5

denote the AtoN with identifier 1234.5 defined by the AtoN authority of the United States of America. When referenced within the context of the national AtoN provider, only the national identifier is required (e.g. 1234.5).

Conclusions

At the time of writing this paper, the full IALA proposal is not yet available for consideration. However, IALA ENAV18 meets the week before NIPWG2, so there may be more to report by that time. Once the scheme has been more fully reviewed within various IALA committees, a proposal will be released for consultation with the IHO.

Recommendations

NIPWG2 is invited to note the current status of IALA's proposal, and be prepared to consider a verbal update at the meeting.

Justification and Impacts

A global resource naming scheme potentially has far reaching international impacts. The benefits need to be carefully established to justify the appropriateness of the scheme across a wide range of information types and applications.

Action Required of NIPWG

The SNPWG is invited to:

- a. note current status of IALA's proposal

ANNEX 1 - extract from IALA ENAV17 WG1 report (ENAV17-9.14 - October 2015)

9.8 - Persistent Unique Identifiers and Maritime Resource Names

It was recognised that the ENAV16 proposal for Navigation Unique Identifiers (NUID) within ENAV17-9.6 and the new input on Maritime Resource Names (ENAV17-9.14) were broadly compatible. These inputs were combined together with other knowledge to produce a draft guideline on unique identifiers for maritime resources.

Acknowledging that this work was originally driven by the need for unique AtoN numbering, but also recognising a requirement from those developing the Maritime Cloud, the draft guideline addresses AtoN numbering within the context of a schema that will have wider use within e-navigation. The syntax proposed depends on the recognition of a Maritime Resource Name (MRN) namespace, within the Universal Resource Name (URN) standard. It is hoped that other marine stakeholders and domains within the maritime realm will adopt the MRN.

Thus, acknowledging that other IALA committees and other organisations have an interest in the proposed schema, a liaison note has been written to PAP seeking approval of the creation of an inter-committee Task Group to coordinate with all IALA committees and liaise with external organisations to further develop the proposed schema.

Actions

The IALA Secretariat is requested to forward liaison note 14.1.6 (ENAV Proposal on Unique Identifiers for Maritime Resources), together with output paper ENAV17-14.1.5 'Draft Guideline on unique identifiers for Maritime Resources', to PAP.

ENAV Proposal on Unique Identifiers for Maritime Resources

1 Introduction

At ENAV15, the Harmonization Working Group (WG1) reviewed the input paper (e-NAV 15-8.2), submitted on behalf of the IHO Standardisation of Nautical Publications Working Group (SNPWG). The IHO SNPWG has proposed that each AtoN be assigned an internationally recognizable 'Persistent Unique Identifier' (PUI). In their proposal, SNPWG noted that "An increasing number of offices produce their List of Lights information from a database. The re-order of both the national and/or the international numbers would cause significant problems for the producer."

1.1 Discussion

The use of unique identifiers is a necessary development of e-Navigation to maintain harmonization across domains and services. Navigationally unique objects such as aids to navigation, VTS products and services and other maritime services requires identification numbers to avoid duplication and misalignment of AtoN and Marine Safety Information (MSI).

Worldwide harmonized identification of Unique Identifiers for maritime resources can assist in the development and maintenance of enhanced data exchange applications for ship to ship, ship to shore, shore to ship, and shore to shore in the context of e-Navigation;

- assist administrations in the efficient delivery of Marine Safety Information (MSI).
- reduce the administrative burden associated with the maintenance associated with international list of lights numbers and other navigation products;

This is not unique to the maritime domain, and this guideline describes a syntax for Maritime Resource Names, that will enable IALA and its members to issue Unique Identifiers for objects such as AtoN, VTS products and services, Waterways, etc., in a format, which is designed to be compatible with existing lists of lights, yet ensures uniqueness and interoperability with usage in different domains such as Electronic Nautical Charts.

1.2 Draft guideline

The ENAV Committee has drafted a Guideline on Unique Identifiers for Maritime Resources (ENAV17-14.1.5). The concept of Maritime Resource Names implies the ability to expand the use across many areas of application within IALA and beyond.

2 Action requested

PAP is requested to consider how committees should collaborate on this issue, and approve an inter-committee Task Group to coordinate with all IALA committees to further develop Unique Identifier schemas and liaise with external organizations (i.e. IHO) as necessary.