YANG Types for DNS Classes and Resource Record Types

draft-ietf-dnsop-iana-class-type-yang-00

Ladislav Lhotka
⟨lhotka@nic.cz⟩

Petr Špaček
⟨petr.spacek@nic.cz⟩

23 April 2020

Summary

Two IANA registries from [1] are defined as YANG derived types for use in data modelling:

- DNS CLASSes

- Resource Record (RR) Types

The document only provides an *initial revision* of the YANG module, plus detailed instructions for IANA that will henceforth maintain the module along with the registries.

[1] https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml

Changes since draft-lhotka-dnsop-…-02

- Instead of an initial revision of the YANG module, the document now contains an *XSLT 1.0* stylesheet to be used by IANA for generating the initial revision.

- IANA registry entries marked as "obsolete" or "deprecated" are mapped to YANG enums with

```
status obsolete;
```

Initial revision of the YANG module

Appendix A contains XSLT stylesheet "iana-dns-class-rr-type.xsl" that trans-forms the current contents of the IANA registries (XML format) into the initial revision of the YANG module:

```
$ curl -s https://www.iana.org/assignments/dns-parameters/dns-parameters.xml \
> | xsltproc iana-dns-class-rr-type.xsl -
module iana-dns-class-rr-type {

  yang-version 1.1;

  namespace "urn:ietf:params:xml:ns:yang:iana-dns-class-rr-type";

  prefix dnsct;

  ...
```

This solves the concerns that the RFC won't get updated with new revisions of the YANG module.

Approval from IANA requested, no response yet.

Semantics of *obsolete* and *deprecated*

IANA [RFC 8126]:

- *obsolete* = "no longer in use"

- *deprecated* = "use is not recommended"

YANG [RFC 7950]:

- *obsolete* = "SHOULD NOT be implemented and/or can be removed from implementations"

- *deprecated* = "obsolete definition, but it permits new/continued implementation in order to foster interoperability with older/existing implementations"

Solution: Both IANA terms are mapped to *obsolete* in YANG.

Next steps

We received a few suggestions for improving the text.

A `-01` revision will be submitted after this interim meeting.

The authors believe the document is **ready for WGLC**, which will also include a review by YANG Doctors [2].

[2] https://datatracker.ietf.org/group/yangdoctors/about/