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YANG-CBOR: Allocating SID ranges for PEN holders

Abstract

YANG-CBOR, RFC XXXX (draft-ietf-core-yang-cbor) defines YANG Schema Item iDentifiers (YANG SID), globally unique 63-bit unsigned integers used to identify YANG items. RFC YYYY (draft-ietf-core-sid) defines ways to allocate these SIDs on the basis of IANA registries.

The present specification uses these SID allocation mechanisms to allocate 100 000 SIDs for each holder of the first 1 000 000 holders of IANA-registered Private Enterprise Numbers (PENs).

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1. Introduction

YANG-CBOR, RFC XXXX (draft-ietf-core-yang-cbor) defines YANG Schema Item identifiers (YANG SID), globally unique 63-bit unsigned integers used to identify YANG items. RFC YYYY (draft-ietf-core-sid) defines ways to allocate these SIDs on the basis of IANA registries.

The present specification uses these SID allocation mechanisms to allocate 100 000 SIDs for each holder of the first 1 000 000 holders of IANA-registered Private Enterprise Numbers (PENs).

We allocate 100 000 mega-ranges, for the SID numbers 300 000 000 000 to 399 999 999 999.

The holder of a PEN ppp ppp then can use the SID numbers 3pp ppp p00 000 to 3pp ppp p99 999 for allocation in a scheme defined by the holder.

2. Example

The Department for Mathematics and Computer Science of Universität Bremen holds PEN 30810.

This confers control over the SID range 303 081 000 000 up to 303 081 099 999 to this department.

3. IANA Considerations

This document allocates 100 000 SID mega-ranges as per [Section 7.4](#) of [[I-D.ietf-core-sid](#)].

The contact for the allocation is: IETF CORE Working Group (core@ietf.org) or IETF Applications and Real-Time Area (art@ietf.org)

The allocation policy inside the mega-range is "private". The URL is that of the present specification.

The management of the SID blocks of 100 000 SIDs each, 10 such blocks for each mega-range 3nn nnn 000 000, is delegated to the PEN holder for nnn nnx, where x is the sequence number of the SID block in the mega-range.

The technical capacity to ensure the sustained operation of the registry for a period of at least 10 years (as required for registries of class "private") is derived from the capacity of IANA to maintain the PEN number registry.

4. Normative References

[I-D.ietf-core-sid] Veillette, M., Pelov, A., Petrov, I., and C. Bormann, "YANG Schema Item iDentifier (YANG SID)", Work in Progress, Internet-Draft, draft-ietf-core-sid-16, 24 June 2021, <<https://www.ietf.org/archive/id/draft-ietf-core-sid-16.txt>>.

[I-D.ietf-core-yang-cbor] Veillette, M., Petrov, I., Pelov, A., and C. Bormann, "CBOR Encoding of Data Modeled with YANG", Work in Progress, Internet-Draft, draft-ietf-core-yang-cbor-16, 24 June 2021, <<https://www.ietf.org/archive/id/draft-ietf-core-yang-cbor-16.txt>>.

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