

802f Open Issues

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Open Issues

- Structure of the Registry
- IEEE Ethertypes Module Structure
- IETF Ethertype type Description
- Realizing Subsets

Registry Structure

- IEEE SA Registration Authority for Ethertype
 - <https://standards.ieee.org/products-services/regauth/ethertype/index.html>
 - <http://standards-oui.ieee.org/ethertype/eth.txt>
- Contains the following information
 - Ethertype (as hex)
 - Organization / Address (as string)
 - Protocol Description (as string)
- IETF RFC 8519 contains a YANG module for Ethernets with the following structure
 - Ethertype Name (as an enum literal string)
 - Ethertype Value (as decimal number)
 - Short Description (as string)

Examples

6003

DEC
1925 Andover St.
Tewksbury MA 01876
US

Protocol unavailable.

From IEEE SA Registry

```
enum decnet {  
    value 24579;  
    description  
        "DECnet Phase IV. Hex value of 0x6003."  
}
```

From IETF Ethertypes

```
enum ipv4 {  
    value 2048;  
    description  
        "Internet Protocol version 4 (IPv4) with a  
        hex value of 0x0800."  
    reference  
        "RFC 791: Internet Protocol."  
}
```

From IETF Ethertypes
example of
something in IETF
and not in IEEE
registry

Issues to resolve on structure

- Ethertype Name in IETF module
 - “friendly name” that is not stored in the IEEE Ethertype registry
- Description in IETF module
 - Includes text not found in the IEEE Ethertypes registry
- Address and Protocol Description from IEEE Ethertypes registry
 - Information missing in IETF Module
 - Information in IEEE Ethertypes registry is out-of-date or incomplete in many cases
- Not all Ethertypes from IEEE Ethertypes registry included in IETF module

Ethertype type description

- Notes from Don

```
typedef ethernet-type {  
    type string {  
        pattern "[0-9a-fA-F]{2}-[0-9a-fA-F]{2}";  
    }  
    description  
        "The EtherType value represented in the canonical order defined  
        by IEEE 802. The canonical representation uses uppercase  
        characters.";  
    reference  
        "";  
}
```

The description is half baked.

If we only do Canonical why do we accept lowercase letters[a-f]?

I think somewhere in the annals of time we started accepting lowercase hex alpha characters.

So I think the statement is some remnant of alpha characters should be upper case.

Because in early computers uppercase was easier to read/ less ambiguous than lower case.

But canonical order has nothing to do with uppercase. Uppercase binary anybody? IOIOIOIO

Replace with

"The EtherType value represented in the canonical order defined
by IEEE 802. This value can contain uppercase or lowercase alpha hex characters .";

Subsetting

- TBD

Backup

802f Fundamentals

- IEEE controls eth.txt (ethertypes registry)
- P802f is a project to specify YANG modules containing the IEEE ethertypes information from the official IEEE ethertypes registry
- The resulting 802f standards document may or may not contain the YANG modules, it may contain a description of the process to create YANG modules
- Important Discussions
 1. Updates to official IEEE ethertypes registry to capture information that is needed in the YANG modules (friendly name, short description, etc.)
 2. Since the community that will be using the IEEE ethertypes YANG have expressed that they do not want to be required to load all the ethertypes information, how best to create/indicate subsets of the IEEE ethertypes information (subsetting)?
 3. Process to initiate the generation of the YANG modules and where to store the output