Using Markup in YANG Text Arguments

`draft-lhotka-netmod-yang-markup-00`

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Objectives

1. Define metadata item for specifying the type of markup used in arguments of selected YANG statements (`yin-element == true`):

   - **contact**
   - **description**
   - **error-message**
   - **organization**

2. Provide guidelines for reasonable and interoperable use of (lightweight) markup languages.

Markup in YANG

Some markup can already be found in existing YANG modules:

- multiple paragraphs separated by empty lines

- bulleted or numberes lists use indented items.

In programmatic use (e.g. for HTML rendering) descriptions etc. often need to be reformatted – tricky with casual markup conventions.

Several "lightweight" markup languages became popular: Markdown (in a number of variants), reStructuredText, MediaWiki, Org mode in Emacs, …

YANG extension `text-media-type`

Permitted at the top level of a module or submodule, specifies media type used throughout the (sub)module in arguments of the four YANG statements.

Example:

```
module foo {
  ...
  import ietf-yang-media-type {
    prefix ymt;
  }
  // GitHub-flavoured Markdown
  ymt:text-media-type "text/markdown; charset=UTF-8; variant=GFM";
  ...
}
```

Just metadata information, no requirements on implementations.

RECOMMENDED to use only lightweight markup.

Open Issues

1. Restrictions on the set of permitted formats

   Proposal: Only IANA-registered `text/markdown` variants

   https://www.iana.org/assignments/markdown-variants/markdown-variants.xhtml

2. Permit `ymt:text-media-type` anywhere in a module, apply scoping

   Use cases:

   - interpret markup only in selected YANG statements
   - multiple markup formats in the same module