

Updated Common TE Types

TEAS WG, IETF 113, Vienna+Virtual

draft-busi-teas-te-types-update-01

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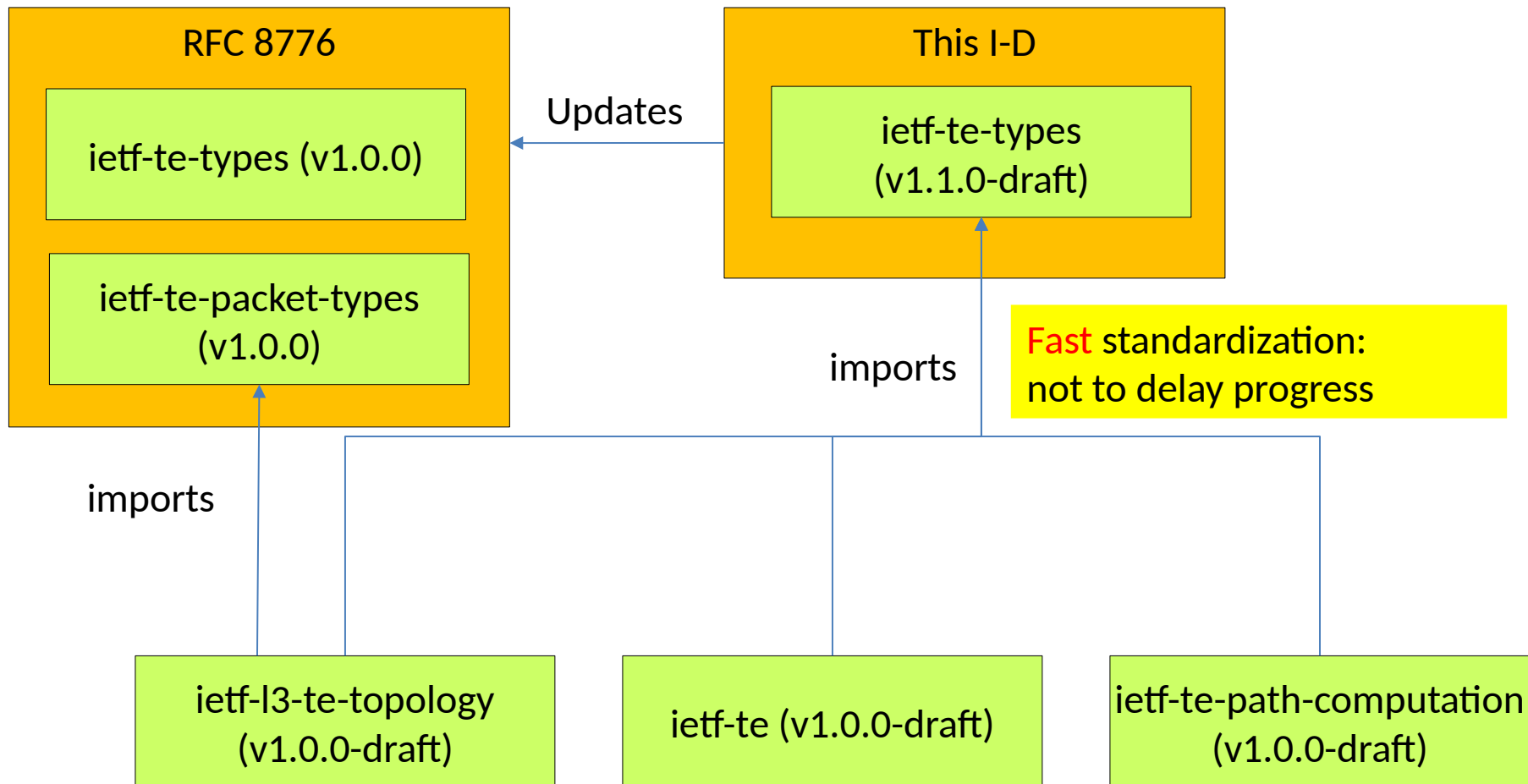
Motivation

- Need to support tiny and backward compatible updates on the ietf-te-types YANG module already published in RFC 8776
 - Just defining a new typedef and a new grouping
- Issues with RFC 8776-bis approach
 - RFC 8776 is an 84 pages long RFC (pdf version)
 - RFC 8776 contains other YANG modules that do not need to be updated
 - The content is quite mature since moved from mature WG documents (some of which are ready for WG LC)
 - Need to be **fast** not to delay the progress of other WG documents

What is needed

- New typedef: bandwidth-scientific-notation
 - Defined in draft-ietf-teas-yang-l3-te-topo
 - Broader applicability
 - Not only limited to Packet TE Topology model
 - Not only limited to packet technologies
- New grouping: encoding-and-switching-type
 - Defined in draft-ietf-teas-yang-path-computation
 - Attributes copied from draft-ietf-teas-yang-te (for alignment)
 - Moved to draft-ietf-teas-yang-te
 - Imported by draft-ietf-teas-yang-path-computation
 - Alignment guaranteed by using a common grouping
 - Broader applicability
 - Not only limited to TE tunnel and Path Computation models

Proposed Approach



Note: semver label applied to the YANG modules to simplify the drawing

Issues and proposed resolution

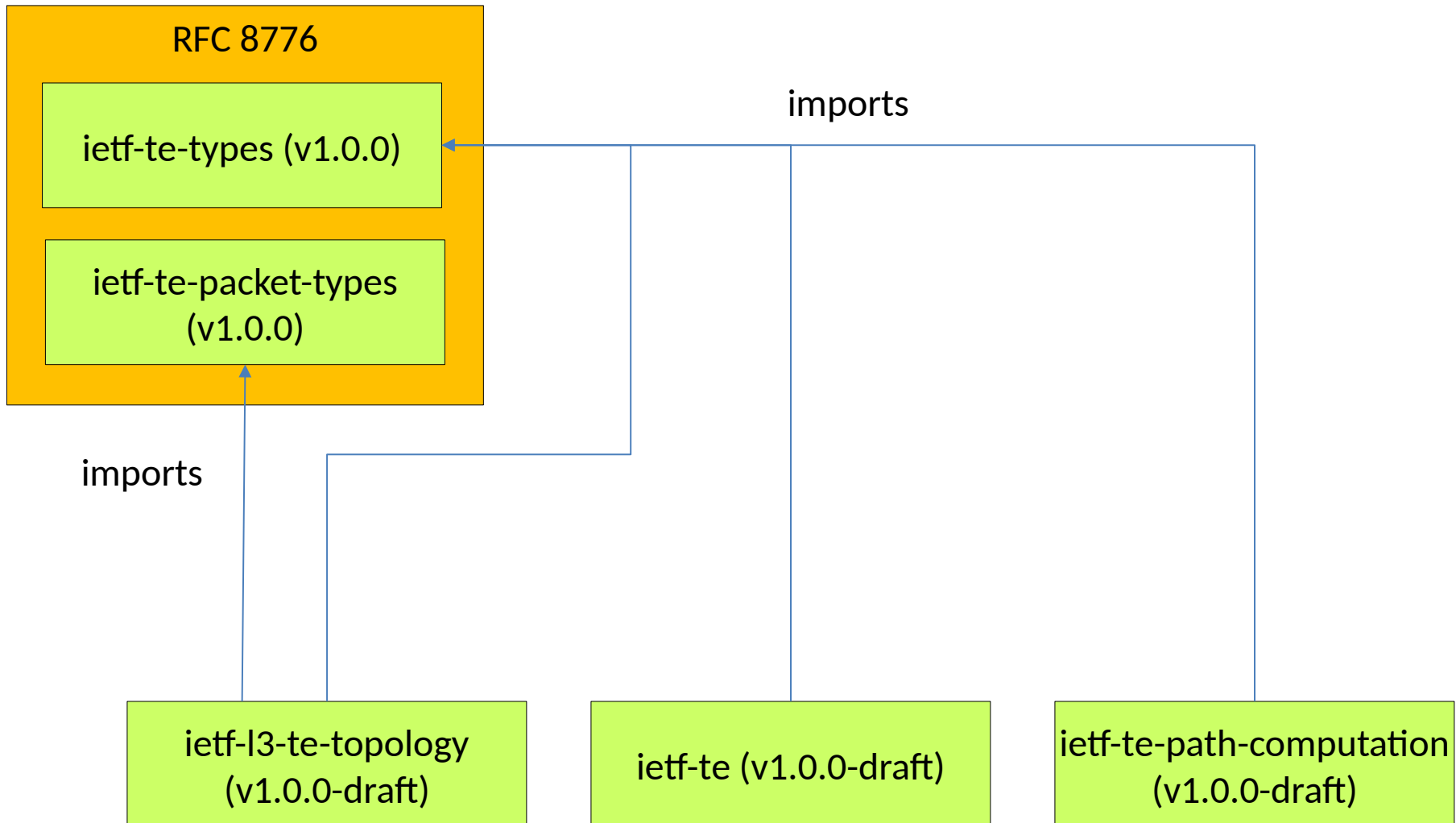
- Limit the scope of work only to the tiny and backward compatible updates
 - Include in the main body of the RFC text only the proposed changes
- Compatibility with YANG toolchain (e.g., rfcstrip)
 - Include the whole module revision within an Appendix (out of scope for the review/comments)
- Ensure alignment between the changes in the main body and the module revision in the appendix
 - Generate the text in the main body via automatic (simple) diff tool

Next Step

- Get feedbacks from Netmod WG and ADs on the process
 - Is the proposed process of updating an existing YANG module reasonable?
- Get feedbacks from TEAS WG on the technical content
 - Review the typedef and grouping definitions
- If the proposed approach is accepted:
 - Ready for TEAS WG adoption (hopefully soon)
 - Keep updating the draft based on the comments
 - Align dependent WG I-Ds
 - draft-ietf-teas-yang-te
 - draft-ietf-teas-yang-path-computation
 - draft-ietf-teas-yang-l3-te-topo
 - Ideally to go in WG LC together with the first dependent WG I-D

Backup

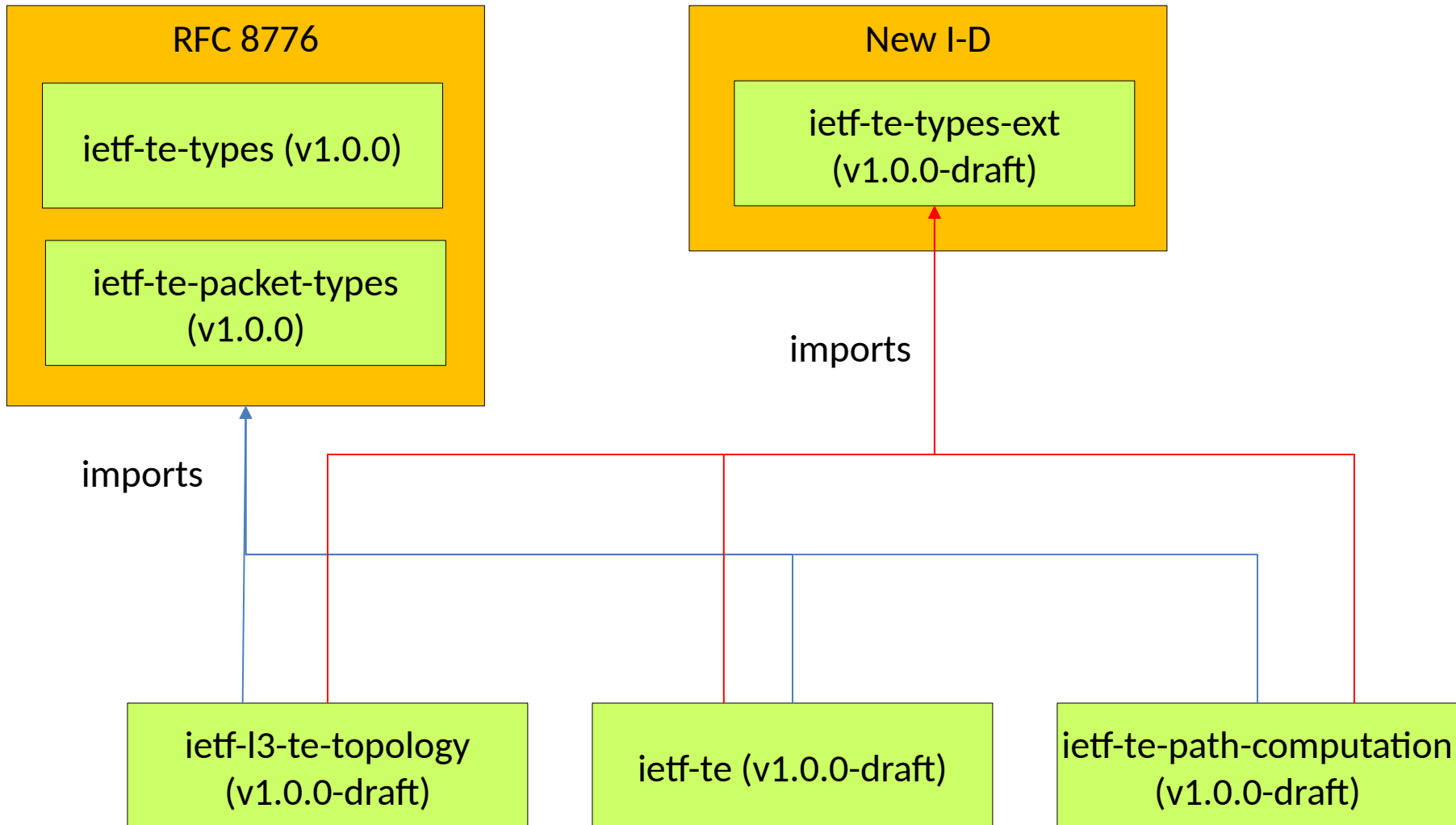
Keep current status



Issues with current status

- Defeating the value of common types modules
 - Trying to complete the common types would delay the process for work which is mature
 - Publishing common types step-by-step would cause spreading the additional common types in multiple modules just to avoid the process of updating the old version of common types

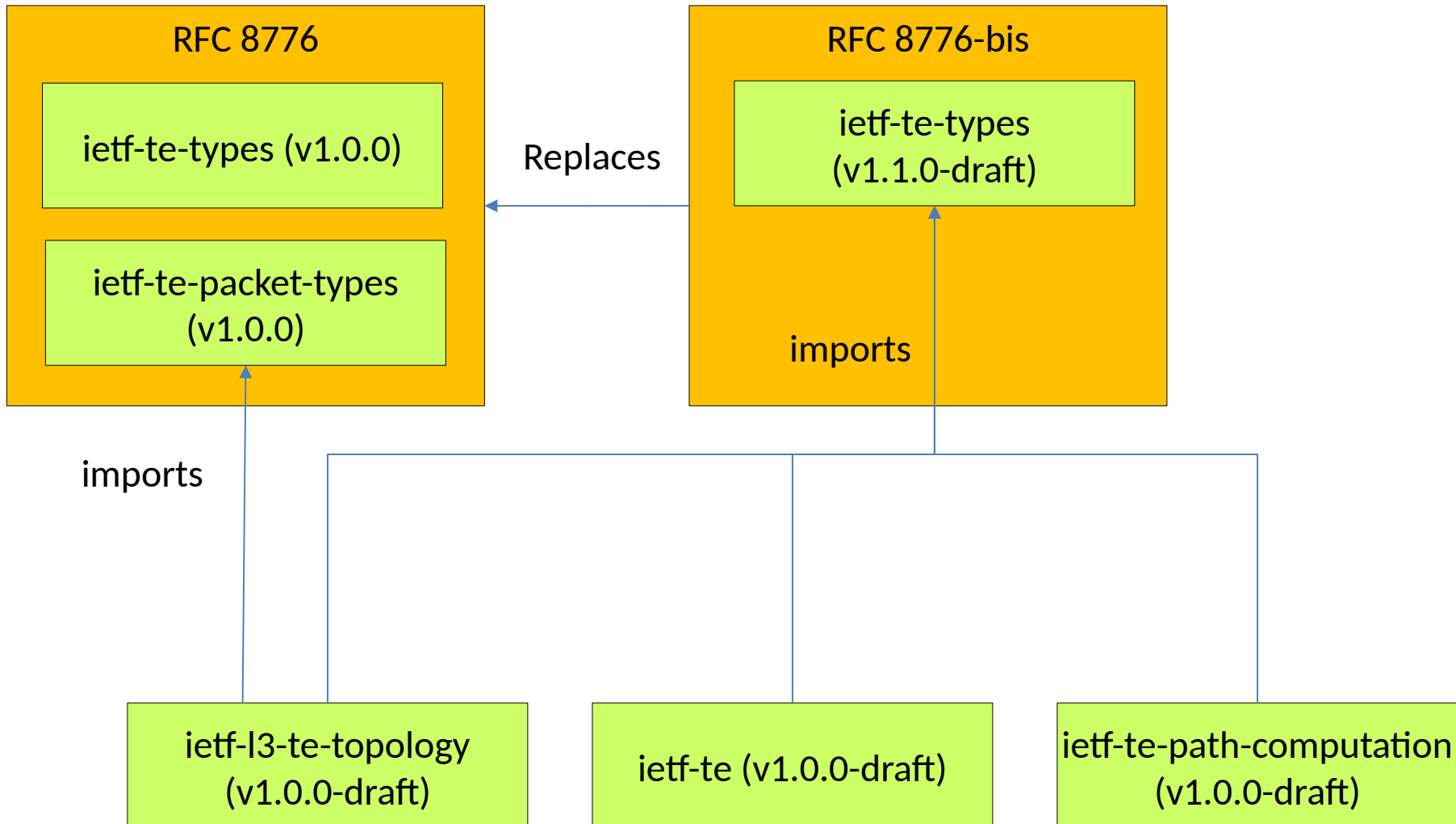
New YANG module



Issues with new YANG module

- Defeating the values of YANG module revisions
 - Proliferation of YANG modules providing few common types
 - ietf-te-types
 - ietf-te-types-ext
 - ietf-te-types-ext-ext
 - ...

RFC 8776-bis



Issues with RFC 8776-bis

- How to ensure fast standardization process?
 - Difficult to limit the scope of review/comments
 - Difficult to mark the changes
 - Need to develop a long document for tiny updates
- What to do with ietf-te-packet-types YANG module?
 - No changes are needed
 - RFC 8776 is obsoleted so needs to be republished?
 - The reference to RFC 8776 would break?
 - A new YANG revision that just updates the reference?