12.5 Structure of the YANG model

IEEE Std 802.1CB YANG models are divided into a number of YANG modules. A summary of the modules contained in this clause is represented in Table 12-1.

Table 12-1—~~Structure~~ Description of the YANG modules

Module	References	Notes
ieee802-dot1cb-stream-identification-types	12.6.2.1	General type definitions used by IEEE Std 802.1CB stream identification.
ieee802-dot1cb-stream-identification	12.6.2.2	YANG model for stream identification.
ieee802-dot1cb-frer-types	12.6.2.3	General type definitions used by IEEE Std 802.1CB frame replication and elimination for reliability.
ieee802-dot1cb-frer	12.6.2.4	YANG model for FRER.

The modules in Table 12-1 can be used to create a Stream Identification model or a FRER model.

12.5.1 Structure of the ieee802-dot1cb-stream-identification YANG module

~~The ieee802-dot1cb-stream-identification YANG module is divided into a number of YANG branches (e.g., subtrees). A summary of the YANG subtrees associated with this module is presented in Table 12-2.~~ The Stream Identification model is realized by leveraging the ieee802-dot1cb-stream-identification YANG module along with all the dependencies (YANG imports) that the module uses. Clause 12.6.1.1 contains the YANG data schema tree for the ieee802-dot1cb-stream-identification module.

The high-level structure of the ieee802-dot1cb-stream-identification YANG module is found in Table 12-2.

~~A system implementing the Stream identification model implements the YANG modules as described in Table 12-3.~~ The list of YANG modules directly imported by the ieee802-dot1cb-stream-identification YANG module is found in Table 12-3.

Table 12-2—ieee802-dot1cb-stream-identification structure and relationship to this standard

Module	References	Notes
ieee802-dot1cb-stream-identification	9	—
stream-identity	9.1	Stream identity management within a system.
per-port-counters	9.3	Per-port counters for Stream identification.
per-port-per-stream-counters	9.2	Per-port-per-stream counters for Stream identification.

To complete the model, all the dependencies from the imported modules must also be identified. The process to determine all the dependencies can be done through tooling. For example, if the pyang [add biblio ref] or yanglint tool [add biblio ref] is used on the ieee802-dot1cb-stream-identification YANG module, the tooling will try to include all the imports and produce an error message if an import is missing. The YANG Catalog [add biblio ref] search tools and/or the YANG Catalog's github repository [add biblio ref] can be used to find the missing imports.

Table 12-3—YANG module dependencies for the Stream identification model

YANG module	Notes
ieee802-types	—
ieee802-dot1q-types	—
ietf-inet-types	—
ietf-interfaces	—
ieee802-dot1cb-stream-identification-types	—
~~ieee802-dot1cb-stream-identification~~	~~—~~

12.5.2 Structure of the ieee802-dot1cb-frer YANG module

~~The ieee802-dot1cb-frer YANG module YANG module is divided into a number of YANG branches (e.g., subtrees). A summary of the YANG subtrees associated with this module is presented in Table 12-4.~~ The FRER model is realized by leveraging the ieee802-dot1cb-frer YANG module along with all the dependencies (YANG imports) that the module uses. Clause 12.6.1.2 contains the YANG data schema tree for the ieee802-dot1cb-frer module.

The high-level structure of the ieee802-dot1cb-frer YANG module is found in Table 12-4.

~~A system implementing the FRER model implements the YANG modules as described in Table 12-5.~~ The list of YANG modules directly imported by the ieee802-dot1cb-frer YANG module is found in Table 12-5.

To complete the model, all the dependencies from the imported modules must also be identified. The process to determine all the dependencies can be done through tooling. For example, if the pyang [add biblio ref] or yanglint tool [add bibio ref] is used on the ieee802-dot1cb-frer YANG module, the tooling will try to include all the imports and produce an error message if an import is missing. The YANG Catalog [add biblio ref] search tools and/or the YANG Catalog's github repository [add biblio ref] can be used to find the missing imports.

Table 12-4—ieee802-dot1cb-frer structure and relationship to this standard

Module	References	Notes
ieee802-dot1cb-frer	10	—
sequence-generation	10.3	Sequence generation management within a system.
sequence-recovery	10.4	Sequence recovery management within a system.
sequence-identification	10.5	Sequence identification management within a system.
stream-split	10.6	Stream splitting management within a system.
autoconfiguration	10.7	Autoconfiguration management within a system.
per-port-counters	10.9	Per-port counters for FRER.
per-port-per-stream-counters	10.8	Per-port-per-stream counters for FRER.

Table 12-5—YANG module dependencies for the FRER model

YANG module	Notes
ieee802-dot1q-types	—
ietf-interfaces	—
ieee802-dot1cb-stream-identification-types	—
ieee802-dot1cb-stream-identification	—
ieee802-dot1cb-frer-types	—
~~ieee802-dot1cb-frer~~	~~—~~