

P802.1aw (DDCFM)
Managed Objects Definition and
Operations

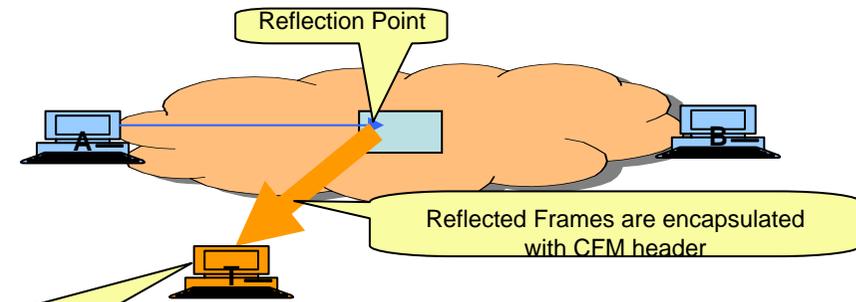
Linda Dunbar

ldunbar@huawei.com

IEEE802.1aw (DDCFM)

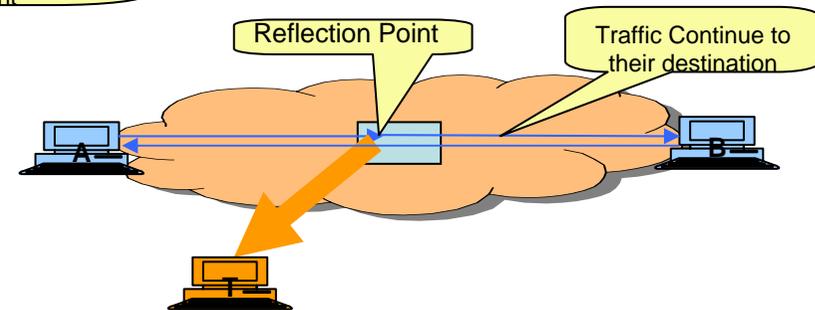
- **Forward Path Testing: Two Modes**

1. Reflecting back all the data frames which meet the filter defined. Reflected data frames are encapsulated with CFM header



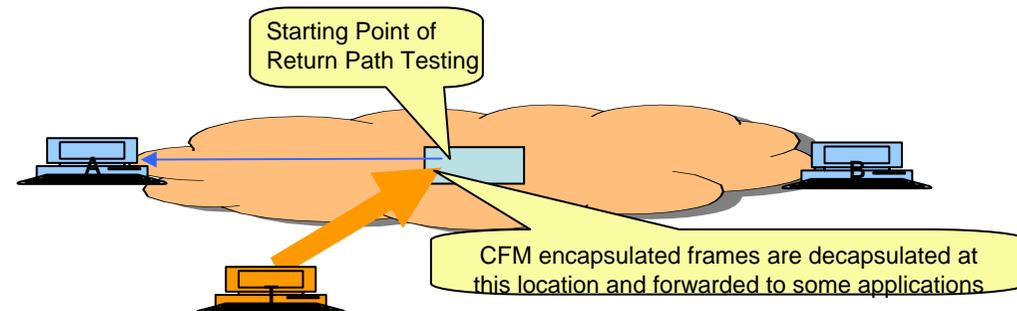
The Target point could be Source Node or any 3rd party test equipment

2. Reflect and Continue Mode: let the data frames continue to their original destination while reflecting data frames encapsulated in CFM header



- **Return Path Testing:**

- Reflector decapsulates the CFM encapsulated frames and forward them to the destinations identified by the DA field of data frames



Forward Path Testing: - Operation at Reflector

- **Only one instance of Forward Path Testing can be created per bridge port**
- **Attributes needed for Forward Path Testing reflector:**
 - A Bridge Port on which the reflector is defined
 - FPT filter definition(s)
 - Continuation Option, which can be “Yes” or “No”. Default is “Yes”
 - Target location of the reflected data frames, which could be either:
 - Target location’s MEPID of a MEP in that MA, or
 - An Individual destination MAC address
 - MA name of the MA to which the Target belongs
 - The purpose of identifying the Target’s MA level is for reflected frames (CFM encapsulated) to be able to reach the target in case the target is at different MA than the reflector.
 - Timer for Forward Path Testing (reflecting action) to be active
 - The priority and drop_eligible parameters to be used in the transmitted encapsulated frames (default is CCM priority 802.1ag: 12.14.7.1.3:h)

Operation of Forward Path Testing Reflector

- Activate/Stop
 - “Activate” command starts the action of reflecting the selected frames.
 - When “timer” expires, the reflecting action stops automatically
 - “Stop” command force the reflection action to be stopped regardless of the timer setup.
- Create
- Delete
- Write attributes
- Read

Forward Path Testing: Operation at Target Location

- **Purpose:**
 - Let the target location be aware of reflected data frames coming and
 - Let the target location be able to process the reflected data frames
- **Attributes:**
 - Reference to the target location of the reflected data frames, which could be either:
 - Target location's MEPID of a MEP in that MA, or
 - An Individual destination MAC address
 - Reference to the Reflector from which the data frames are reflected
 - Individual MAC address
 - MA name of the reflected data frames
 - Expected time span for receiving the reflected data frames
- **Operations: Create/Delete/Read/Write/ Read/transfer the Database of the reflected data frames**

Return Path Testing: Operation at Reflector

- **One instance per bridge port**
- **Attributes:**
 - A Bridge Port on which the Return Path Test reflector is defined,
 - Reference to the source node from which the data frames are originated, which could be:
 - Source location's MEPID of a MEP in that MA, or
 - An Individual destination MAC address
 - A reference to a particular Maintenance Association managed object
- **Operations:** Create/Delete/Activate/Stop/Read/Write