



802.1AS-Rev BMC Redundancy

Contributed by Philippe Klein, PhD

Broadcom (philippe@broadcom.com)

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- **As currently described in the 802.1AS-Rev draft, the GMC redundancy scheme is based on the “legacy” 802.1AS Rev1 scheme, that:**
 - was initially designed to advertise a **single** BM clock only
 - uses a **proprietary** loop free Announce message flooding protocol
- **To support multiple concurrent BM clocks for redundancy, this scheme requires to establish a separated tree for **each concurrent** BM clock**

- **Inefficient**

- requires one VLAN ID per clock

- **No “scalable friendly”**

- by the need for separated trees and Announce message traffic

- **Incomplete**

- the required VLAN separation for each BM capable clock is not currently specified in the draft

- **Weak against faulty BM**

- nodes do not distinguish Announce messages from faulty BM sources

- 1. Information about all the GM capable clocks is part of the topology DB on each node (instead of been provided by the Announce messages)**
- 2. The BMCA selection is locally performed on each node to select the BM clock(s)**

- **Simpler:**

the GM information is distributed by standard topology propagation protocol (anyway necessary) instead of the proprietary GM Announce Msg one. No need for multiple VLAN IDs on a per clock base

- **More scalable:**

the BMCA selection could be invoked iteratively on several subsets of GM capable clocks to select any configurable number of concurrent GM clocks.

- GM Clock-1 = Clk-a = BMCA {Clk-a, Clk-b, Clk-c..., Clk-n}
- GM Clock-2 = Clk-c = BMCA {Clk-b, Clk-c..., Clk-n}
- GM Clock-i = ...

- **Stronger:**

as the BMCA is performed by each node, a node could more easily identify and block Sync messages of unselected clock (rogue or faulty source).

A decorative graphic consisting of numerous thin, parallel lines in a light red or pink color. These lines are arranged in a series of overlapping, wavy bands that flow across the upper half of the slide, creating a sense of motion and depth.

THANK YOU