

# TRILL OAM

Tissa Senevirathne  
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# Updates

- Requirements document is now RFC 6905
- Framework document cleared WG last call.
- Fault management document is a WG document
- -01 of Performance management document published
- -00 of OAM MIB document available for review
- We are behind on advertised (Vancouver) timelines for Fault-management document

# Agenda

- Fault management document
- MIB
- Performance Management
- Next steps

# Fault Management

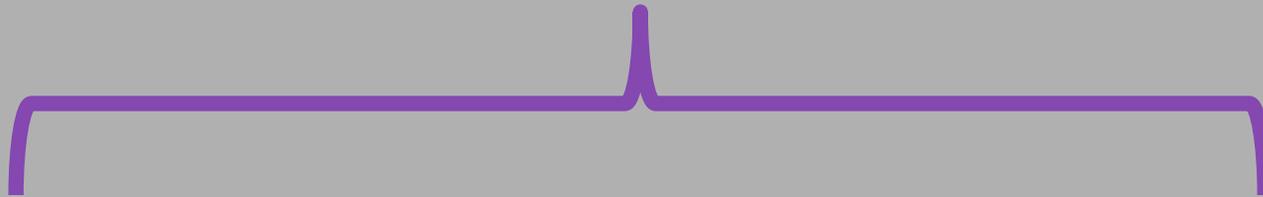
# TRILL OAM Base Mode

- Added based on the review comments
- IEEE CFM is flexible and extensible
  - Does not have out of the box, default operations mode
- Base Mode provide out of the box, default mode, where all RBridges are members of a default Maintenance Association.
  - Virtual MEP is at the CPU
  - Allow to use Ping to test liveness,
  - Trace route to test reachability
  - Can not be used to isolate faults to port level

# TRILL Base Mode



MEPID: RB-nickname



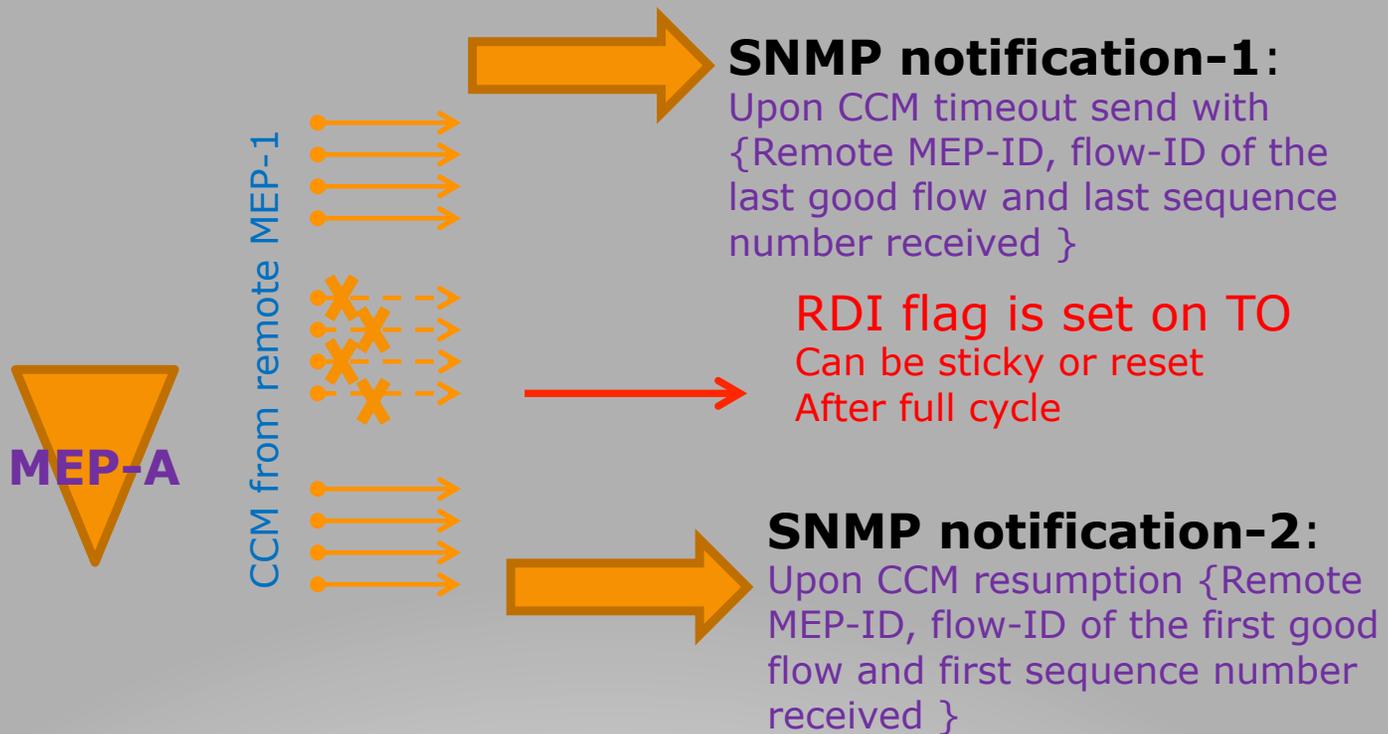
MA Domain Name: TrillBaseMode  
MA Name : 65532 (0xFFFC)  
MD Level : 3

Please refer to appendix B: draft-ietf-trill-oam-fm

# CCM and variation for TRILL (multipath)

- CCM was originally designed for single path 802.1 bridged networks
- CCM uses a single RDI flag to denote failure to receive CCM probes.
- In TRILL only a single flow/Path may be at fault among many flows.
- In TRILL we use
  - Single RDI flag on CCM message: which is set on timeout of any flow from any remote partner
  - SNMP Notifications (traps) that notify last good flow and first good flow after the failure
- Idea here is
  - RDI Flag tells there is a fault seen
  - Logs/SNMP allow to further isolate the failure to the exact flow
  - Path Trace message utilized to further isolate the failure along the path

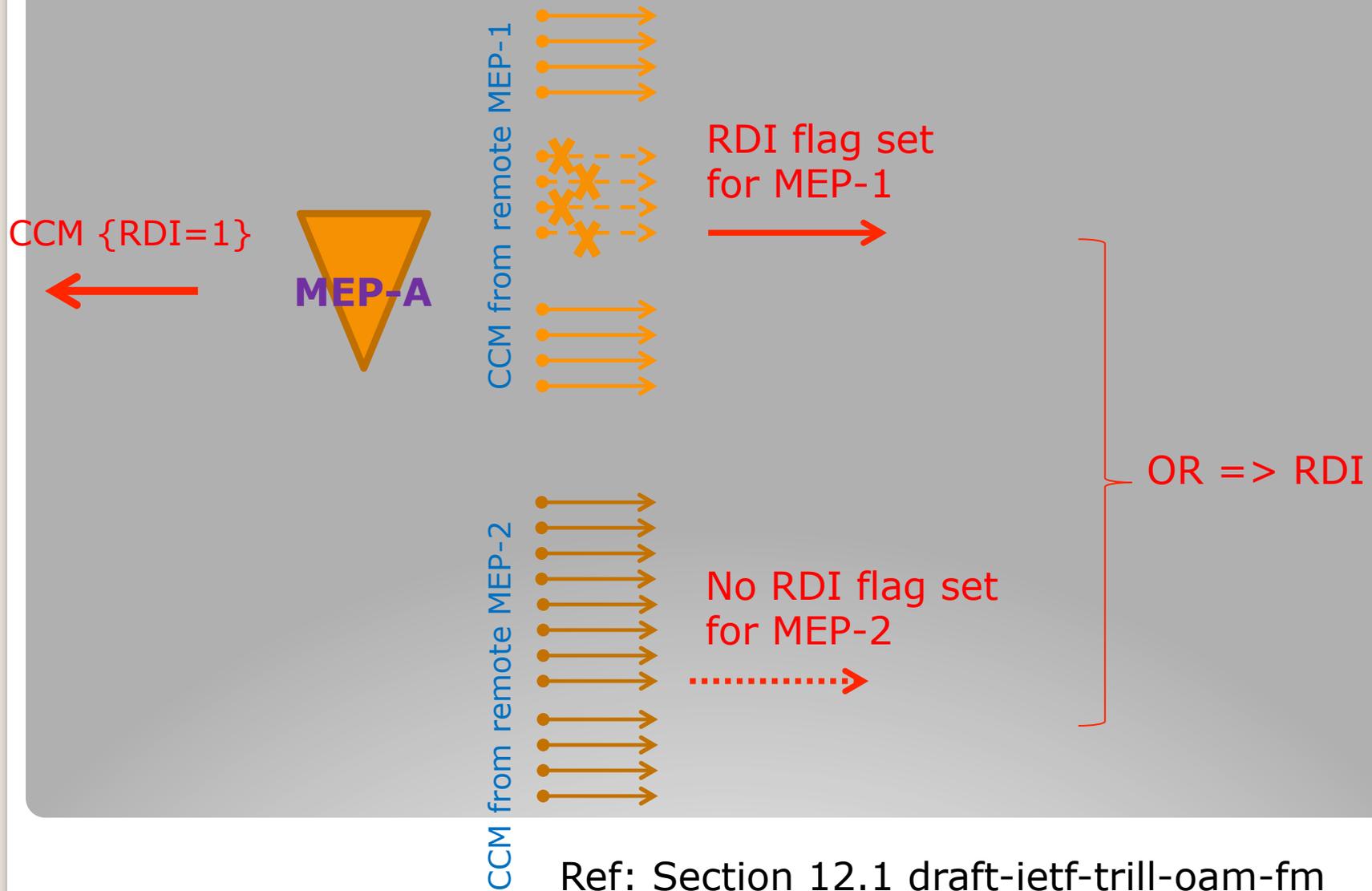
# CCM in TRILL



Ref: Section 12.1 draft-ietf-trill-oam-fm

# CCM in TRILL - multiple remote MEP

## MEP



## Errata section 12.1

- Second last paragraph, the last sentence reads: . . . “In the foregoing example, it is MEP-A, flow-id (1) and sequence number 9”.
- This should read as . . . “In the foregoing example, it is MEP-A, *flow-id (3)* and sequence number 9”.



## Next steps

- Official liaison letter to SDOs to review fault management document
- Review and WG adoption of Performance management document
- Review of MIB document
- Update of fault management and MIB document based on SDO comments
  - Target: Prior to next IETF