MSRP Handling on CSN Networks

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CSN Network Coordinator Characteristics

- CSN’s Network Coordinator (NC) is in most case dynamically selected
- First node to join the CSN network acts as NC
- NC node could move to another node:
  1. Scheduled move - NC Handover
     - a new node with better NC capabilities joins the network and initiates an NC handover
     - the NC node is gracefully shut down and prior to disconnecting, initiates an NC handover with another node
  2. Unscheduled move – NC Backup
     - The NC node disappeared from the network and the NC backup node takes control
First Node to join the CSN network is the initial NC…
Subsequent Nodes are joining the CSN network…
The NC node could dynamically change if:

1) a new node with better NC capabilities joins the network
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1) a new node with better NC capabilities joins the network
2) the NC node handovers the control to another node before gracefully shutting down
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The NC node could dynamically change if:

1) a new node with better NC capabilities joins the network
2) the NC node handovers the control to another node before been gracefully shut down
3) the NC node fails and the NC Backup node takes control
NC does not maintain a central BW Reservation database but dynamically queries the nodes on each new BW reservation request.
MSRP Handling on CSN
MSRP over CSN Backbone

1. Talker Advertisement
MSRP over CSN Backbone

2. Listener Request
DMN handling on CSN
DMN Node

Initial DMN node is the NC node…
In case of NC Handover or Backup, *dynamically* recreate the DB on the new DMN.
DMN DB Handling for NC Handover & Backup

In case of NC Handover or Backup, **dynamically** recreate the DB on the new DMN:
1) the new DMN generates a leaveAll message
In case of NC Handover or Backup, dynamically recreate the DB on the new DMN:
1) the new DMN generates a leaveAll message
2) the MRP Participants re-register to the DMN, allowing the new DMN to build its database
MSP Layer – CSN Node Interface

Interface/API between the CSN & DMN entities to:

- CSN NC indication to start/end the DMN service based on the CSN’s node attribute (NC or regular node)
- MRP command to enable/disable MSRPDU filtering
Questions?

Thank you!