

# ECDS-MIB Update

## draft-nguyen-manet-ecds-mib-00

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# Background

- RFC6621 - Simplified Multicast Forwarding (SMF)
  - a mechanism that provides an appropriate multicasting forwarding capability
  - allows for a variety of distributed algorithms for forming Connected Dominating Sets (CDS) to optimize the simplified data flooding and relaying process amongst routing peers:
    - Classical Flooding (CF)
    - Source-specific Multipoint Relay (S-MPR)
    - Non-source-specific MPR (NS-MPR)
    - Essential CDS (E-CDS)
    - MPR-based CDS (MPR-CDS)
- SMF-MIB managed objects, which are being defined, are only common to all CDSes:
  - In order to manage a specific CDS, e.g. E-CDS, a specific CDS MIB is required, e.g. ECDS-MIB.

# Essential CDS

- A Method for implementing selection of Multipoint Relay nodes
  - using a nodal metric known as “Router Priority” for all one-hop and two-hop neighbors
- Produces a common shared set of relay nodes for all the nodes in MANET network
- Does not require knowledge of previous node discovery for multicast forwarding

# To Do

- Need more inputs
- Implementing ECDS-MIB

# Questions

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- **An extension to SMF-MIB**
- **Define Managed Objects for Essential CDS:**
  - **Control Objects:**
    - ecdsAdminStatus
    - ecdsRouterID
    - ecdsConfiguredRouterPriority
    - ecdsConfiguredMember
    - ecdsConfiguredRtrPriMethod
  - **State Objects:**
    - ecdsOperationStatus
    - ecdsCurrentRtrPri
    - ecdsCurrentInEcds
  - **Performance Objects:**
    - ecdsAdminStatusChange
    - ecdsCurrentRtrPriValueChange
  - **Notification Objects:**
    - ecdsAdminStatusChange
    - ecdsConfiguredMemberChange
    - ecdsRtrPriChange
    - ecdsRtrPriMethodChange