

Ad-Hoc On-Demand Distance Vector Routing

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Updates to AODV

- **New extensions to RREQ for QoS**
 - **Allowable Delay, decremented per hop**
 - **Bandwidth, stored with route entry**
- **Prefix length, to be used by *subnet leader***
- **Reduced reliance on *hello* message, in many cases**
- **Ad-Hoc network *may* be used to connect other networks**
- **New parameter values as shown by experience**
 - **retries, broadcast_id, ...**
- **Local repair**

AODV Multicast Route Discovery

Message types:

- **RREQ**, with flags **'J'** (*Join*) and **'R'** (*Repair*)
- **RREP**, with flags **'R'** (*Repair*) and **'U'** (*Update*)
- **MACT**, with flags **'P'** (*Prune*) and **'G'** (*Group Leader*)

Multicast groups build trees to connect members

Multicast Group Leader maintains multicast group sequence number

Updates to Multicast for AODV

- **MINV message -> MACT (Multicast Activation) message**
- **MACT format**
 - addition of 'P' and 'G' flags
 - removal of HopCount and NextHop fields
- **Branch additions to multicast tree chosen by freshest multicast group sequence number and smallest hop count to next group member**
- **Route rebuilding after network partition can only be attempted by a multicast tree member**
- **After a group leader change, set 'U' (*update*) flag in next Group Hello**