➢ *Contention-based protocols with Scheduling Mechanism:*

✓ Protocols in this category focus on packet scheduling at the nodes and transmission scheduling of the nodes.

✓ The factors that affects scheduling decisions
  - Delay targets of packets
  - Traffic load at nodes
  - Battery power

✓ Distributed priority scheduling and medium access in Ad Hoc Networks present two mechanisms for providing quality of service (QoS)
  - **Distributed priority scheduling (DPS)** – Piggy-backs the priority tag of a node's current and head-of-line packets to the control and data packets
  - **Multi-hop coordination** – Extends the DPS scheme to carry out scheduling over multi-hop paths.

Classifications of MAC Protocols: ...cntd

➢ *Contention-based protocols with Scheduling Mechanism:*

- **Distributed Wireless Ordering Protocol (DWOP)**
  - A media access scheme along with a scheduling mechanism based on the distributed priority scheduling scheme

- **Distributed Laxity-based Priority Scheduling (DLPS) Scheme**
  - Scheduling decisions are made based on the states of neighboring nodes and feed back from destination nodes regarding packet losses
  - Packets are recorded based on their uniform laxity budgets (ULBs) and the packet delivery ratios of the flows. The laxity of a packet is the time remaining before its deadline.

Distributed Wireless Ordering Protocol (DWOP)

Distributed Wireless Ordering Protocol (DWOP) is based on a distributed priority scheduling scheme and ensure that packets are accessed in a order specified by an ideal reference schedules. Ideal reference schedules can be a FIFO, a virtual clock or a deadline. Consider FIFO, packet priority indices are set to its arrival times. Nodes in FIFO generate a scheduling table (ST) which is ordered depending upon the arrival times that are overhead. Priority information associated with head-of-line packets of nodes are piggy-backed by control packets. DWOP is based on the concept of channel whose packets arrival time is less then others. It uses receiver participation and state entry elimination techniques to keep the original schedule near to reference FIFO schedule.

Distributed Laxity Based Priority Scheduling Scheme

It is a packet scheduling scheme wherein scheduling decisions are based on considerations like,

❖ States of the neighbouring nodes and

❖ Feedback received from destination node related to packed loss.

Distributed laxity-based priority scheduling uses uniform laxity budget and flows of packet delivery ratio in order to perform packet reordering. This reordering can be done by maintaining by two types of tables while performing packet exchange. They are as follows,

1. Scheduling table

2. Packet delivery ratio table.