PSA support of intrinsic metadata



- Today PSA 1.0 supports:
 - Ingress tstamp
 - "should be close to the time that the first bit of the packet arrived to the device, or alternately, to the time that the device began parsing the packet."
 - Egress tstamp
 - Time that packet began processing in EgressParser.
 - Ingress physical port ID
 - Egress physical port ID
- PSA 1.x may or may not support
 - Latency
 - Queue ID
 - Queue occupancy (should specify measurement time, instantaneous vs. avg)
 - Need both of enq + deq time qdepth
 - TX util
- Followings do not need architecture support
 - o switchID
 - Level2 port IDs
 - Drop reason

Notes on metadata semantics



- An example instance of the Yang model, good to have
- Define semantics using PSA terms whenever possible

- P4runtime doesn't have a plan to support non-P4 objects
- Stratum uses gNMI with OpenConfig for configuration of non-p4 objects