

QoS YANG Model

<http://www.ietf.org/id/draft-ietf-rtgwg-qos-model-15>

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Status

- Addressed comments from WGLC
- Refined language and improved descriptions
- Corrected data types in some Filters and Actions
- Acknowledge recent contributions from David Black, Ruediger Geib, Adrian Farrel, Jurgen Schonwalder, Zaheduzzaman Sarker, Joseph Touch, Colin Perkins and others
- Revised version:
<https://tools.ietf.org/html/draft-ietf-rtgwg-qos-model-15>

Classification based on DSCP Range

- **Comment: DSCP ranges may violate RFC 2474**
 - RFC 2474 permits only a single DSCP per Behavior Aggregate at a node
 - Using ranges in classifiers could conflict with the per-hop-behavior model
- **Resolution:**
 - Domain gateway router classifies and remarks traffic entering the domain
 - RFC 8436 MUST be respected at the gateway (DSCP Pool 3 values)
 - Domain internal routers MAY classify traffic by DSCP ranges
 - Keeps backbone DS configuration simple and comprehensible
- **New normative reference:**
 - RFC 8436 – Update to IANA Registration Procedures for Pool 3 DSCP Values

DSCP to PHB Mapping Clarification

- **Comment: PHB selection location not clearly identified**
 - A single DSCP (for a BA) may map to different PHBs at each node
 - Multiple DSCPs may map to the same PHB at multiple nodes
- **Resolution – Section 3 now explicitly states:**
 - PHB selected at both edge node AND core of the DS domain
 - BA classifier maps DSCP to a specific PHB per node
 - DSCP-to-PHB mapping is local to each node
 - Multiple DSCP values can map to the same PHB at a single node

Data Model Updates

- **IPv4/IPv6 Prefix Filters: list to leaf-list**
 - source-ipv4-prefix, destination-ipv4-prefix, source-ipv6-prefix, destination-ipv6-prefix
- **Protocol Filter Type Correction**
 - Old: uint8
 - New: inet:protocol-number
- **Leafref Improvements (better data integrity)**
 - qos-target-policy/name: string to leafref of /policies/policy/name
 - meter-reference/name: string to leafref of /meters/meter/name
 - queue-reference/queue-name: string to leafref of /queues/queue/name
- **Normative References Updated**
 - RFC 6991 replaced by RFC 9911

Next Step

- Address any remaining WGLC review comments.