

QoS-NSLP QSPEC Template

(draft-ietf-nsis-qspec-15.txt)

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QSPEC Document Update

- ❑ draft-ietf-nsis-qspec-13.txt changes:
 - ❖ replaced QSPEC-1 ('mandatory') parameters with QNI settable M-flag to designate parameters that MUST be interpreted
 - only traffic model (TMOD) parameter is mandatory
 - parameters can be 'ignored' if M-flag not set
 - ❖ eliminated concept of 'remapping' QSPEC parameters
 - ❖ allow local QSPEC in local domain (encapsulate initiator QSPEC)
 - retains QSPEC 'stacking' functionality
- ❑ draft-ietf-nsis-qspec-14.txt changes
 - ❖ added text that signaling functionality is only defined by the QoS NSLP document
 - ❖ added text that both mechanisms can be used simultaneously: a) tunneling a QSPEC through a local domain and b) defining a local QSPEC and encapsulating the initiator QSPEC
- ❑ draft-ietf-nsis-qspec-15.txt changes
 - ❖ editorial revisions only

QSPEC Document Update

- ❑ draft-ietf-nsis-qspec-16.txt changes (pending from WGLC)
 - ❖ QSPEC Types
 - additional QSPEC Types can be defined per IANA Considerations Section (already in place)
 - QSPEC Type = 0 is default
 - ❖ Initiator/Local QSPEC bit added
 - ❖ various editorial fixes
 - DSCP parameter encoding
 - various edits carry over from QSPEC-1 parameter removal
 - QSPEC version number edits & additional error code
- ❑ status
 - ❖ completed WGLC
 - ❖ draft QSPEC-16 ready to reissue incorporating WGLC comments
 - ❖ no current open issues

Y.1541-QOSM Update

<draft-ietf-nsis-y1541-qosm-03.txt>

- ❑ went through WGLC about one year ago
 - ❖ then held pending stabilization of QSPEC & QoS NSLP
- ❑ re-issue shortly
 - ❖ update IANA considerations, add QSPEC Type
 - ❖ editorial changes
- ❑ second WGLC after re-issue

Backup Slides

QSPEC Document Changes

- ❑ QSPEC1/QSPEC2 semantics replaced:
 - ❖ source traffic description mandatory to include by QNI & mandatory to interpret by downstream QNEs
 - traffic description specified by traffic model (TMOD) parameter consisting of 4 sub-parameters:
 - rate (r)
 - bucket size (b)
 - peak rate (p)
 - minimum policed unit (m)
 - ❖ all other QSPEC parameters optional to include by QNI & may be either mandatory or optional to interpret by downstream QNEs
 - QNI explicitly specifies whether it wishes admission control to succeed or fail if a constraint cannot be met
 - downstream QNE distinguishes between failure to understand parameter or failure to meet constraint that causes failure
 - ❖ additional QSPEC parameters can be defined in separate specification documents

QSPEC Document Changes

- current QSPEC flags modified as follows:
 - ❖ QNI sets M flag for each QSPEC parameter it populates that must be interpreted or reservation fails
 - ❖ currently M flag is statically set for every QSPEC parameter
 - ❖ if M flag set
 - downstream QNE MUST interpret parameter or reservation fails
 - if QNE does not support parameter it sets N flag & rejects reservation
 - if QNE supports parameter but cannot meet parameter, it sets E flag & rejects reservation
 - ❖ if M flag not set
 - downstream QNE SHOULD interpret parameter
 - if QNE does not support parameter it sets the N flag & optionally accepts or rejects reservation
 - if QNE supports parameter but cannot meet parameter, it sets E flag & optionally accepts or rejects reservation
 - ❖ R (remapped parameter) flag & Q (non QOSM) flag eliminated

QSPEC Document Changes

- summary of QSPEC parameters:
 - ❖ source traffic description:
 - TMOD-1 (mandatory to include)
 - TMOD-2 (optional to include)
 - ❖ constraints (optional to include):
 - Path Latency
 - Path Jitter
 - Path PLR
 - Path PER
 - Priority (Preemption, Defending, Admission, RPH Priority)
 - Slack Term
 - ❖ traffic handling directives (optional to include):
 - Excess Treatment
 - ❖ traffic classifiers (optional to include):
 - PHB Class
 - DSTE Class
 - Y.1541 class
 - ❖ eliminated:
 - Bandwidth
 - Ctot, Dtot, Csum, Dsum

QSPEC Document Changes

- ❑ concept of remapping QSPEC parameters eliminated
 - ❖ 'interpret' a QSPEC parameter means must conform to RFCs defining parameter & procedures
- ❑ concept of local QSPECs retained
 - ❖ edge nodes
 - must interpret initiator QSPEC parameters
 - can either
 - initiate parallel session with local QSPEC or
 - send a local QSPEC & encapsulate initiator QSPEC
 - local QSPEC interpreted by local domain QNEs
 - local QSPEC must be consistent with initiator QSPEC
 - e.g. RMD can initiate a local QSPEC
 - » that contains TMOD = bandwidth (sets r=p, b/m to large values)
 - » allows simple processing but may overprovision bandwidth