Service Level Specification
Semantics, Parameters and
negotiation requirements

draft-tequila-diffserv-sls-00.txt

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Objective of the draft

- Define template for definition of *Service Level Specification*, suitable for negotiation at customer - provider and provider - provider boundaries
- Provide early idea on requirements on the negotiation protocol
- Is there a home for this at the IETF? If not, propose to organize BoF in San Diego
Relation to other work

Policy mgt tool
Policy consumer
COPS/ diiffserv PIB
SNMP/ diiffserv MIB
DIAMETER/RADIUS/…
CLI

Policy Framework WG/ QPIM
Network Dimensioning
Resource Allocation

Network Element

SLS handler
E.g. H323 GK, SIP server

TE WG/MPLS
Diffserv

Diffserv WG PHB / PDB
Diffserv WG router model
Why needed?

• Allow automated and dynamic negotiation of Service Level Specifications
  – at CPN/ISP boundary
  – at ISP/ISP boundary

• Allow design of Bandwidth Broker functionality (irrespective if distributed or centralized) in multi-vendor and multi-domain environment
SLS parameters

- Scope (ingress, egress)
  - (1, 1), (1, N), (1, all), (N, 1), (all, 1)
- Flow Identification
- Traffic Conformance Testing
  - Combination of Traffic Conformance Parameters & Traffic Conformance Algorithm
- Excess Treatment
  - Dropped, Shaped, Remarked
SLS parameters (ctd)

• Performance Guarantees
  – delay | optional quantile
  – jitter | optional quantile
  – packet loss
  – throughput

• Quantitative as soon as one of the above is quantified

• Qualitative if delay and/or packet loss are qualified as low, medium, high
SLS parameters

• Service Schedule
  – Time of day, day of week, week of year, …

• Reliability
  – Mean Down Time
  – Max time to repair

• others for further study
Services to be constructed as example

• Virtual Leased Line
• Minimum rate guarantee with allowed excess
• Qualitative Olympic Services
• Funnel Service
Interest in BoF?

- Objectives (proposed)
  - Specification of information and semantics (maybe build upon CIM)
  - List requirements on negotiation protocol (no new protocol!)

- Lot’s of work underway:
  - EC IST projects: TEQUILA, AQUILA, CADENUS
  - Internet2 Qbone
  - DMTF SLA WG
Next...

- See upcoming message on creation of sls@ist-tequila.org
- See http://www.ist-tequila.org