SLA Trading Strategies

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Seminar on Internet pricing and charging

HUT

SLA Evolution path

market and business driven premium class Internet

Dynamic SLA management in IP DiffServ based Networks

Static SLA management in IP DiffServ based networks

Static SLA management in IP based best effort networks

Static SLA management in telecom networks and dedicated data networks
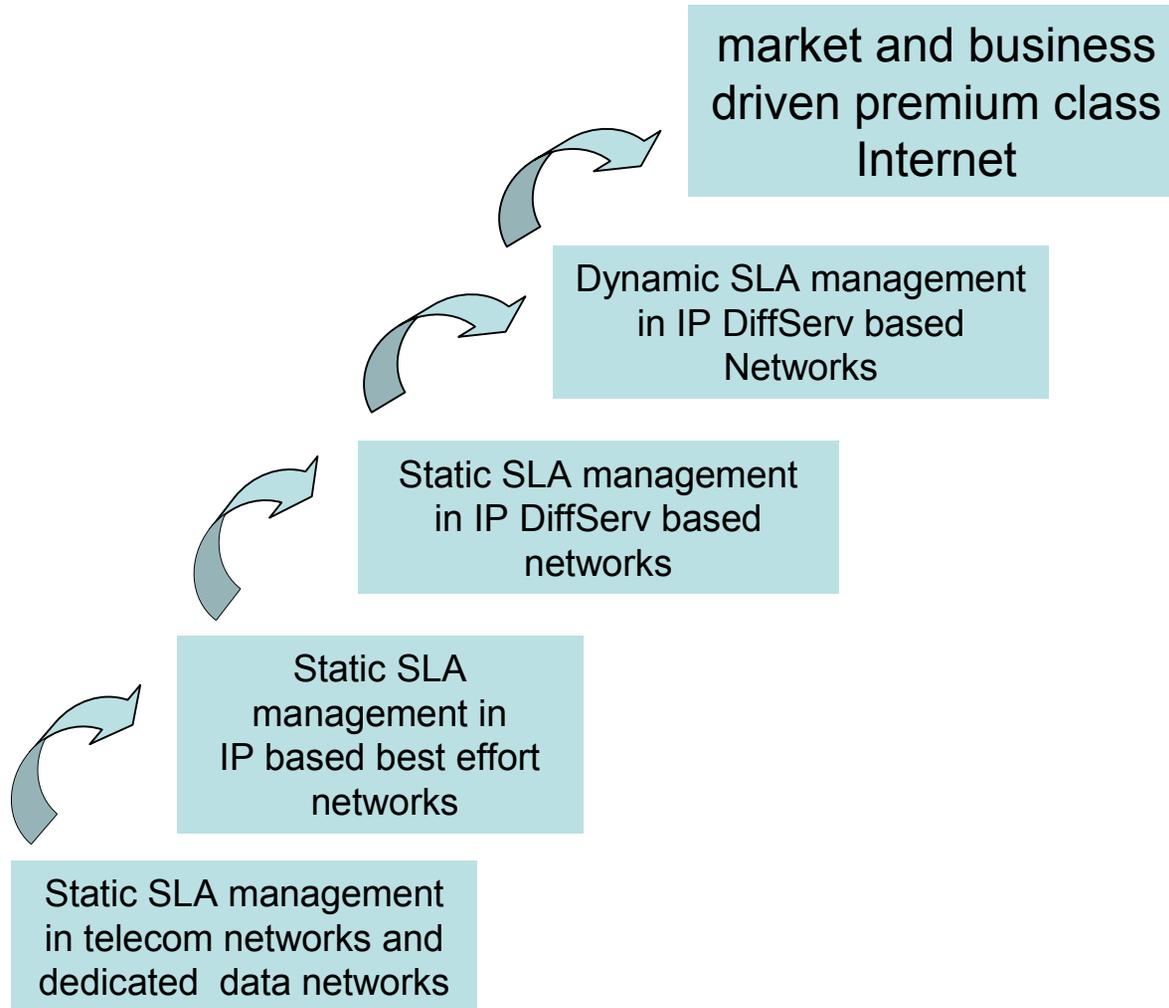
Definitions

SLA – Service Level Agreement

– documented result of a negotiation between a customer/consumer and a provider of a service that specifies the levels of availability, serviceability, performance, operation or other attributes of the service

Static SLA management

– SLA contract is made between two human parties and its terms cannot be altered during its life time, without a human intervention.

Dynamic SLA management

– Automated negotiation and contracting of SLAs with some signaling procedures

SLA Trading

– Dynamic SLA management where information of service provisioning, routing and pricing are exchanged between the providers

SLA traders
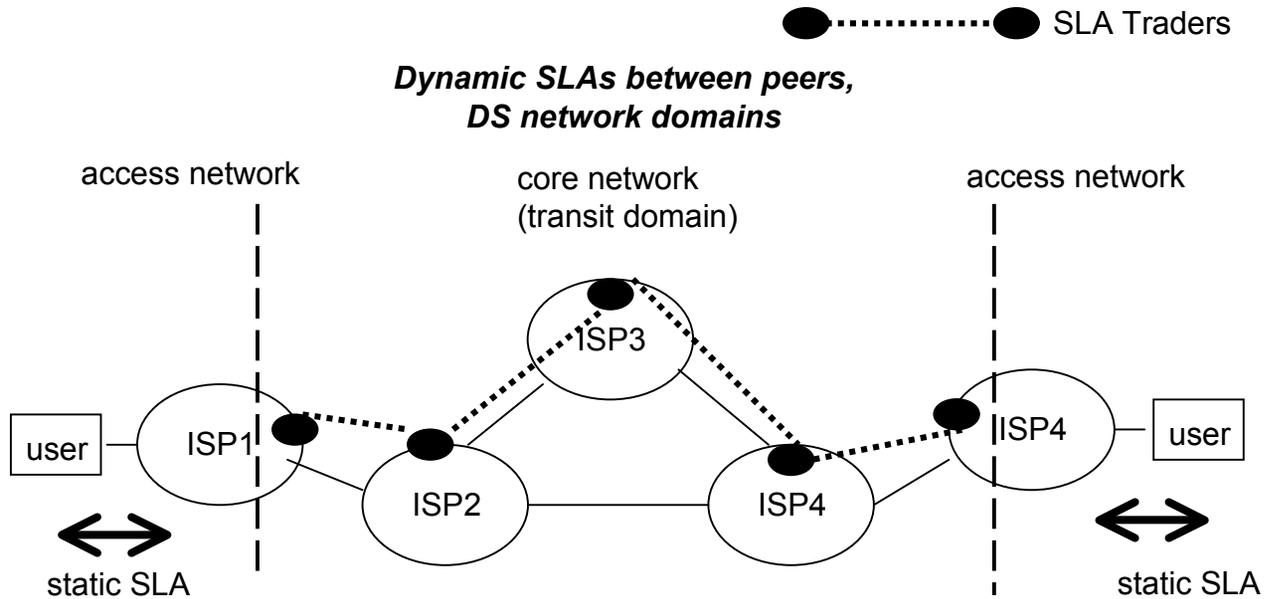
SLATrading Protocol

SLATP data unit types
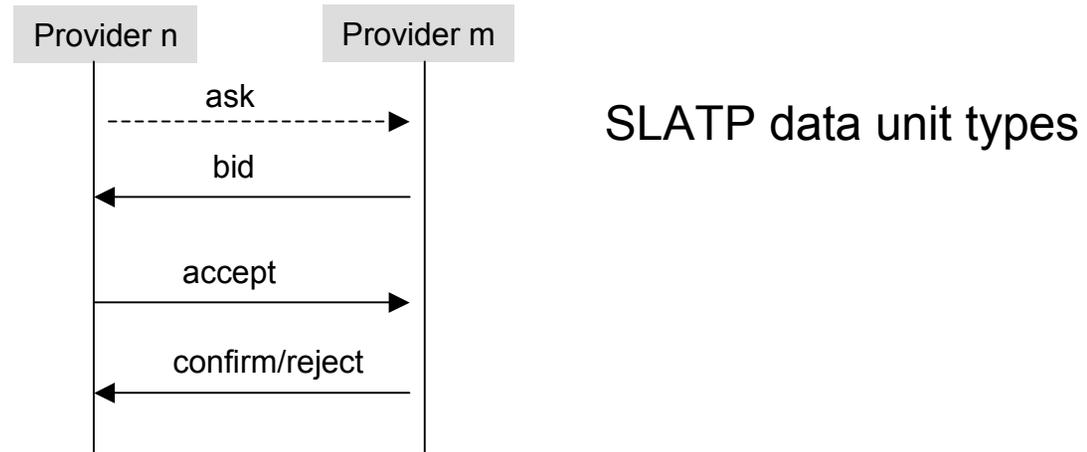
SLA parameters in SLATP data units:

- A traffic description.
- A geographical scope
- Duration of the agreement
- Cost of the agreement.

Strategic views on SLA Trading

- SLAT is still just a concept and no real life experiences exist
- A carefull transition strategy from the static SLA management to the dynamic SLA management is needed
- SLAT is best suited in large scale networks with big ISPs
- SLAT traders have load balancing capabilities
- Simulation results show that an improvement of network utilization by up to 40% over a traditional, shortest-path routed inter-domain network for a wide range of network and traffic parameters, can be achieved.
- The pricing strategy used in SLA trading is residual bandwith pricing. This function ensures that prices get higher the more the SLA or link recourses are used
- The heterogeneity caused by local decisions and strategies has an great effect on the trading strategies.