A Service Provider View
Service Level Specs BOF

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Objective

- Describe case for a semantics of negotiation to provide QoS-enabled services across an IP network
- Importance of such specifications for deployment of services across a multi-vendor and multi-provider environment.
- General guidelines for a WG from the perspective of a provider.

Issues

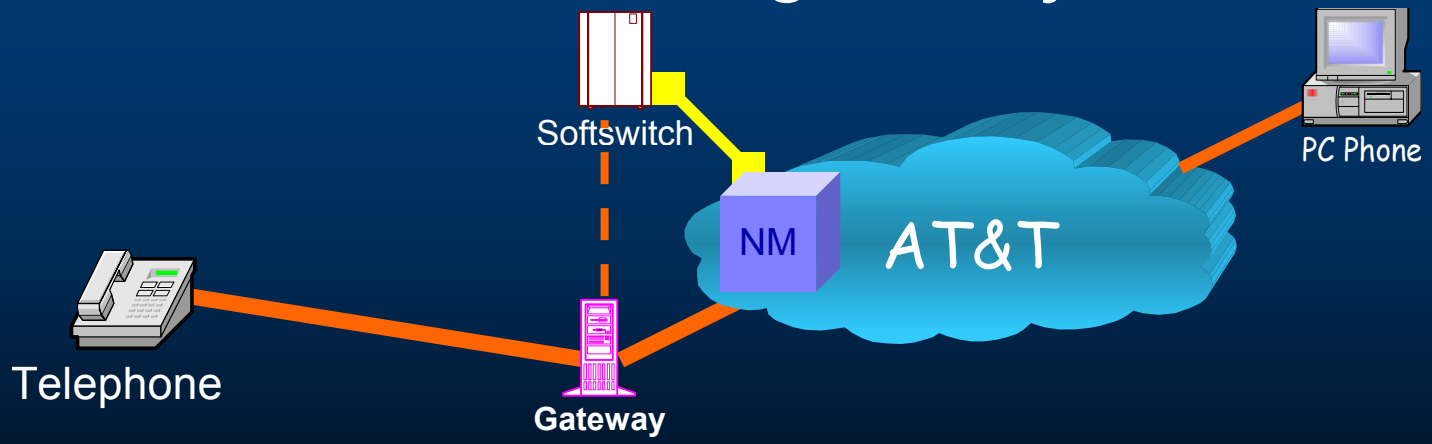
- Need to standardize interfaces
- Possible Deliverables
- The Data Representation
- The Negotiation Protocol
- The Negotiation Model
- Negotiation Elements
- Summary

Need to standardize the specification of QoS Service Level negotiation on interfaces

- Intra-domain interfaces
- inter-domain interfaces for the customer-provider relationship
- inter-domain QoS provisioning for the provider-provider relationship

Need to standardize the specification of Intra-domain interfaces

- Example: *a softswitch interface towards the NM platform for automatic sizing of trunks between voice gateways*

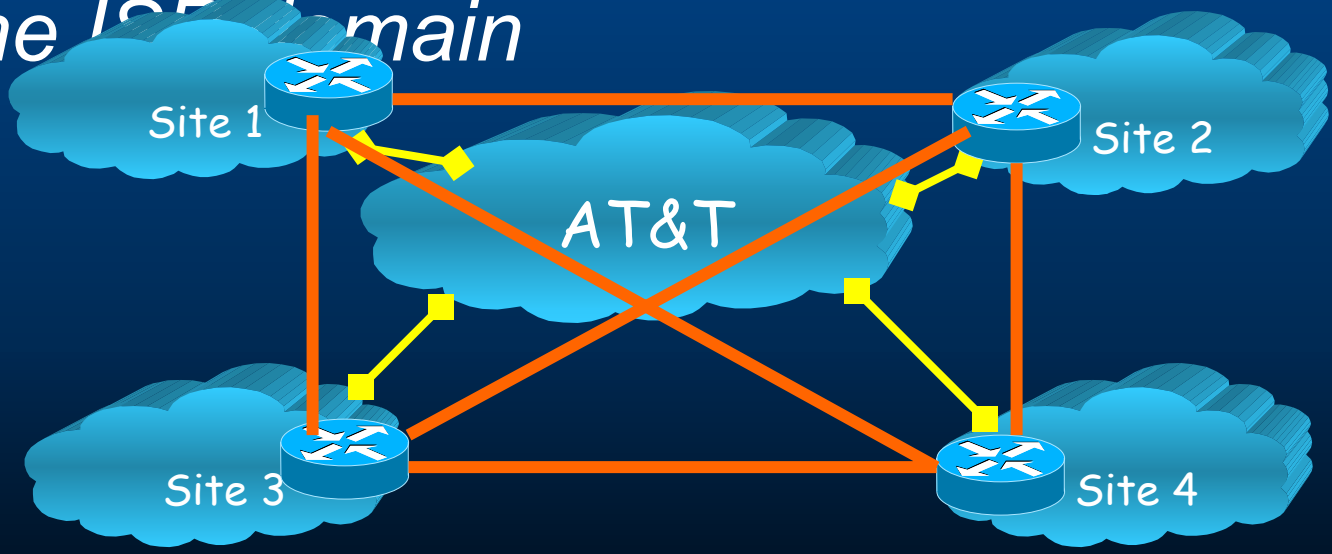


Need to standardize the specification of Intra-domain interfaces

- Work in progress in the Policy WG
- Interactions?

Inter-domain interfaces for the customer-provider relationship

- Example: *allowing an automated VPN config be managed by the customer on the IS[illegible]main*

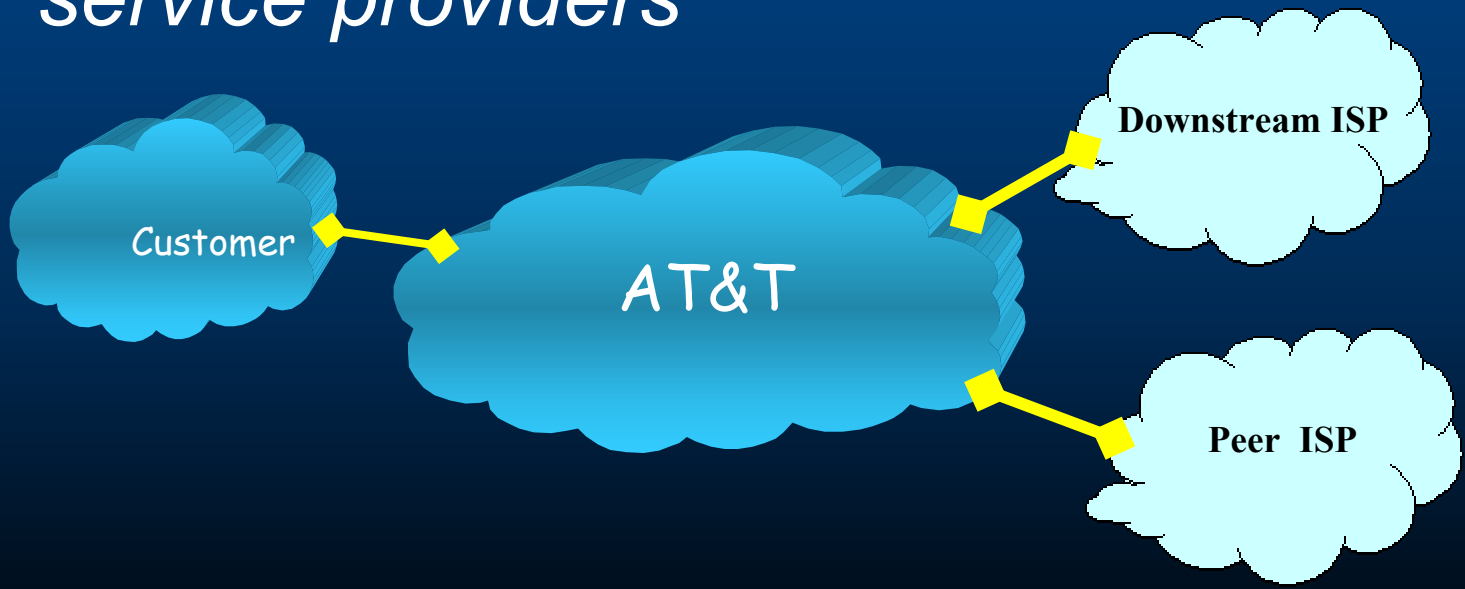


Inter-domain interfaces for the customer-provider relationship

- SLA gaining importance
- Different demands from different types of users
  - Access the global Net
  - Connect different sites
  - Access proprietary networks
- Need precise semantics

Inter-domain QoS provisioning for the provider-provider relationship

- Example: *relationship over multiple IP service providers*



Inter-domain QoS provisioning for the provider-provider relationship

- How are QoS policies of neighbors known?
- How an admission system act upon them?
- How about the policies downstream in the path?
- How to communicate changes back?
- What levels of specificity we need?

Possible Deliverables

- Framework document (including architecture)
- Protocol independent SLS information model document
- Negotiation Requirements and Semantics document
- Interface protocol standardization (e.g. XML/LDAP/....)
- others ? Priorities?

Data Representation

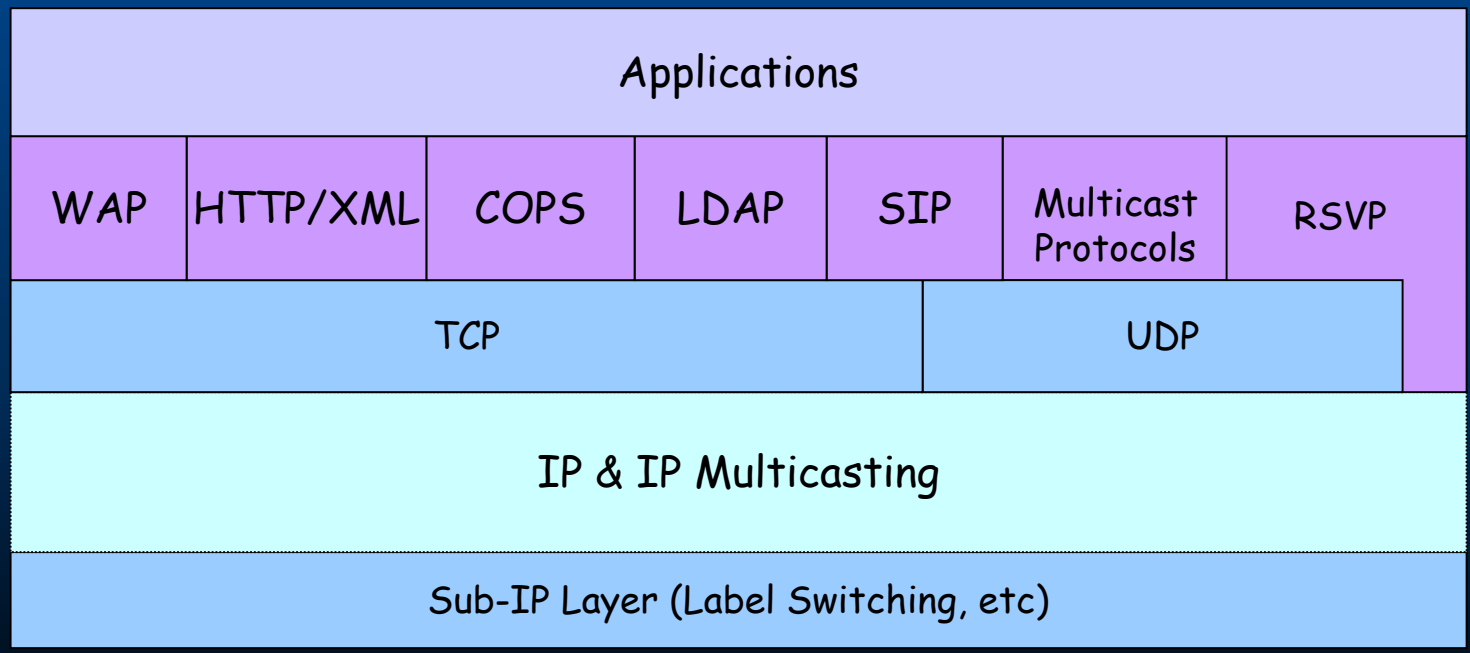
- What should be the protocol independent data representation language ?
  - PCIM
  - XML
  - BNF
  - others?
- Proposal: XML?

Negotiation Protocol

- What are the negotiation protocols that make sense in the chosen environment?
- Choices: *PPP, WAP, HTTP, SIP, RSVP, shared LDAP directories, COPS, …*
- Proposal: COPS & LDAP?

Negotiation Protocol

- Logical Layout



Negotiation Model

- Subscriber signup w/ no confirmation
- Subscriber signup with confirmation
- Provider sends menu followed subscriber signup with our without confirmation
- Provider sends menu followed by subscriber signup with confirmation and monitoring updates
- Provider sends menu followed by more complex negotiation process with confirmation and monitoring updates and potential re-negotiation

Negotiation Elements

- Which formats make sense for documentation of the syntax of negotiation elements?
- Choices: *XML DDTs, LDAP schemata, COPS PIBs, PPP elements (?), RSVP Policy Elements, …*
- Proposal: *LDAP schemata, COPS PIBS?*

Summary

- Issues for Service Level specification from providers side
- Standards needed to communicate QoS policies between different domains