

Interdomain IP Communications with QoS, Authorization and Usage Reporting

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Payment Insured QoS Communications

Concept 1st draft:

Food chain for IP telephony

- Commercial Internet telephony requires QoS
 - QoS insured or QoS enabled calls
 - Other IP communications require QoS and payments
- QoS will exist ONLY if payment is guaranteed
- A possible interdomain message exchange with existing protocols “as they are”

Assumption: Heterogeneous environment – 15k ISPs

Messaging shown for hard problem

Protocols and “Call Flows”

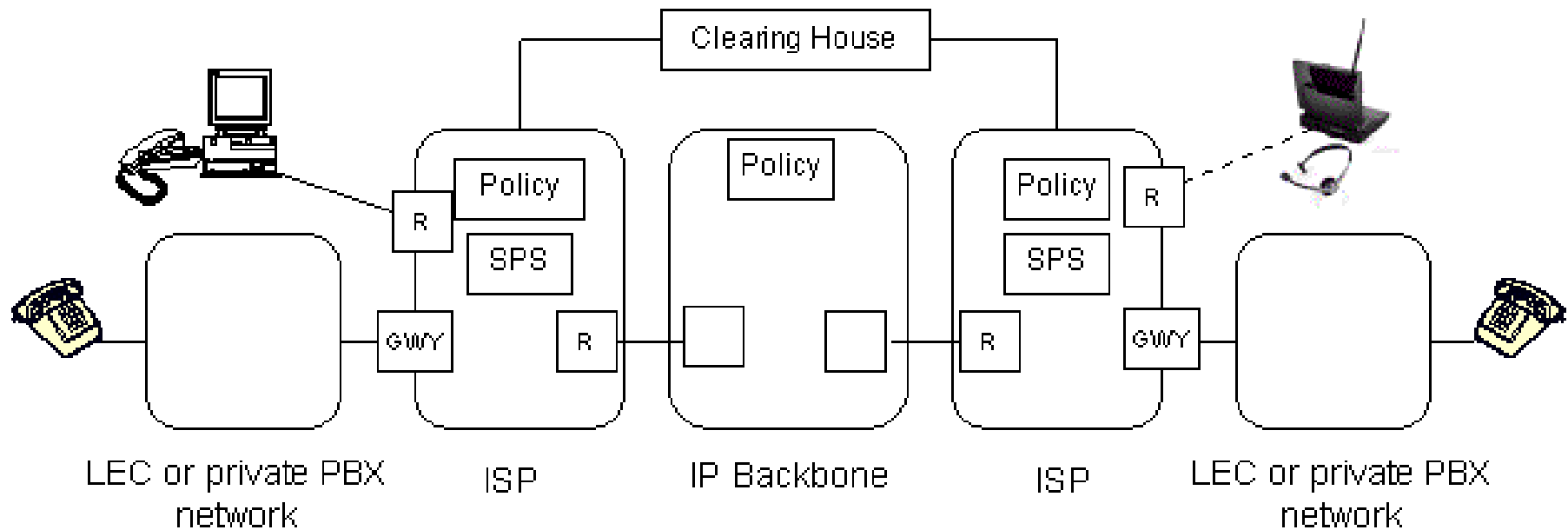
The combined use of:

- SIP to set up call
- OSP to authorize and report usage
- COPS to install policy for call
- RSVP to signal resource reservation
- Aggregation in edge router to DiffServ
- SBM to setup QoS on 802 style LANs

Parameters are passed between
protocols in certain sequence

Can it be made simpler?

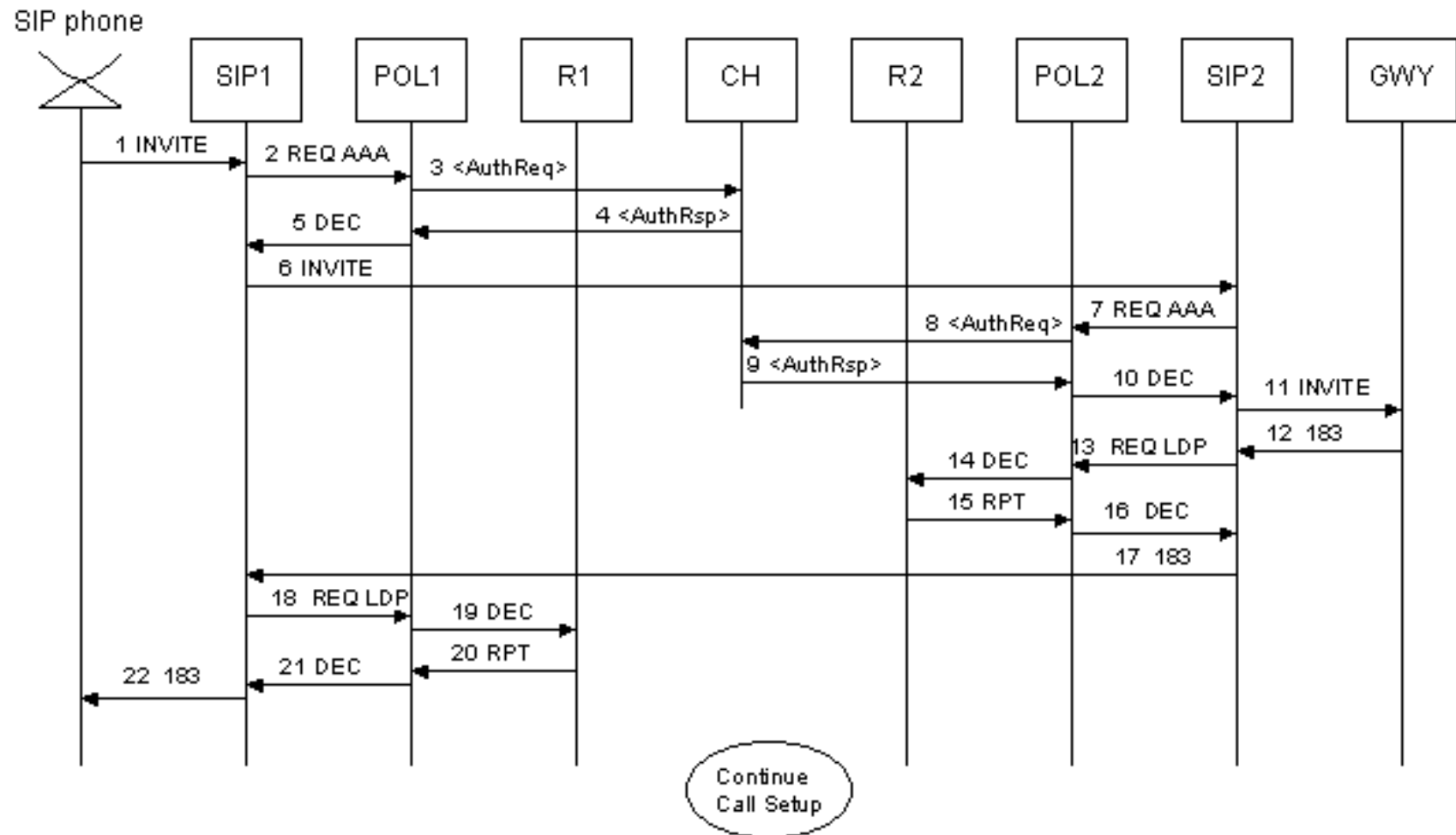
Reference Model



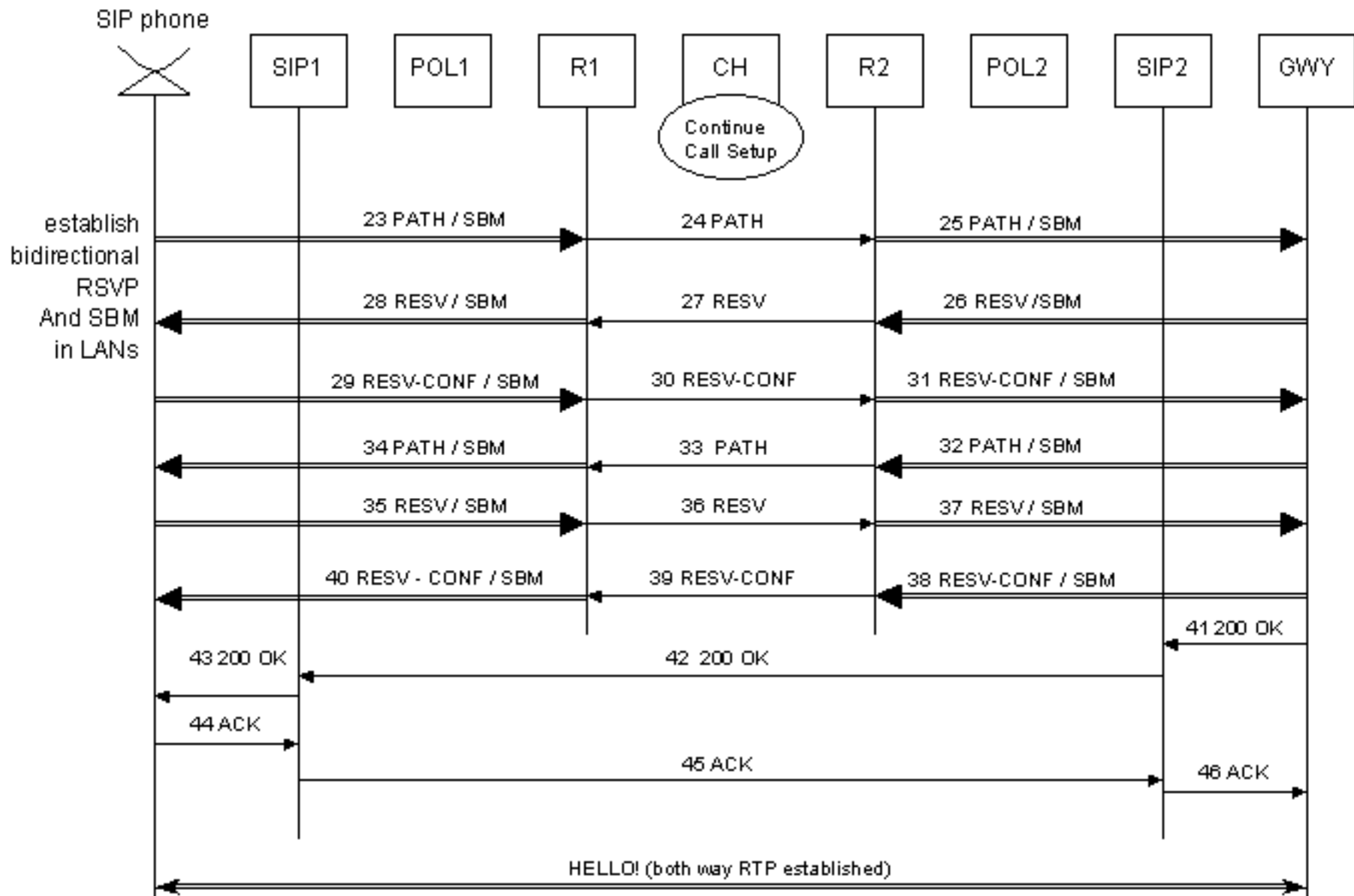
Backbone assumptions

- SLAs for aggregate behavior only
- DiffServ/MPLS only, hose model
- No dynamic policy exchange for microflows

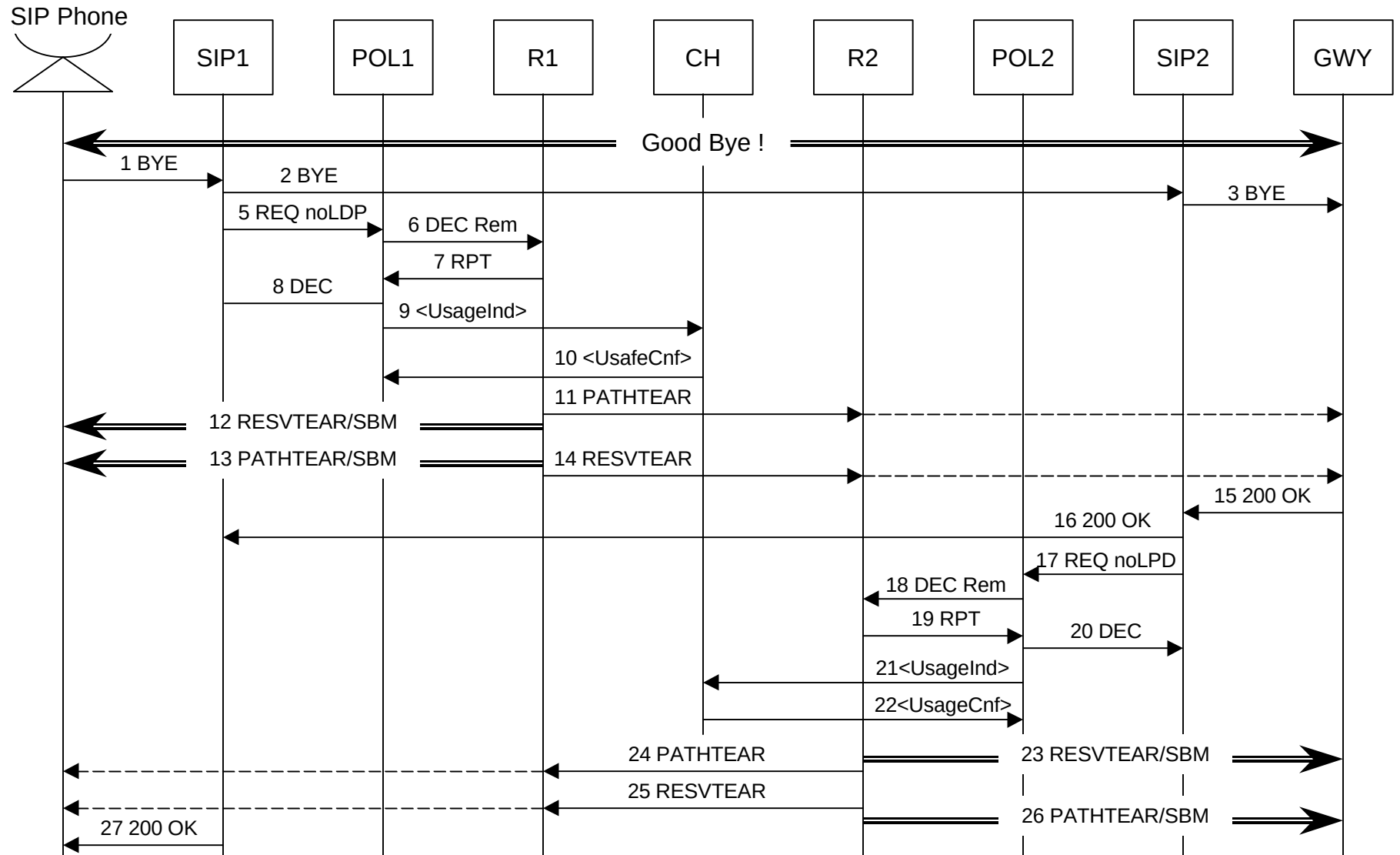
Call setup request, authorization and policy installation



QoS setup and completing the call



Call teardown with real-time usage update



Further Work

Comments like “why did you not?” are welcome

Can it be made simpler?

Use best effort QoS for ringing?...

Continue as SIP WG item?