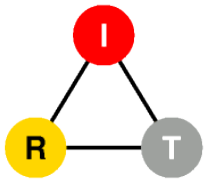

A Session Initiation Protocol (SIP) Load Control Event Package

draft-shen-soc-load-control-event-package-00.txt

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Problem Statement

SIP overload feedback control typically affects traffic already admitted & treat it equally

Where applicable, it is desirable to leverage known overload contexts (e.g., time and scope)

- Complement feedback control
- Push control closer to the source
- Specify selected parties to be controlled
- Setting up control in advance

Solution

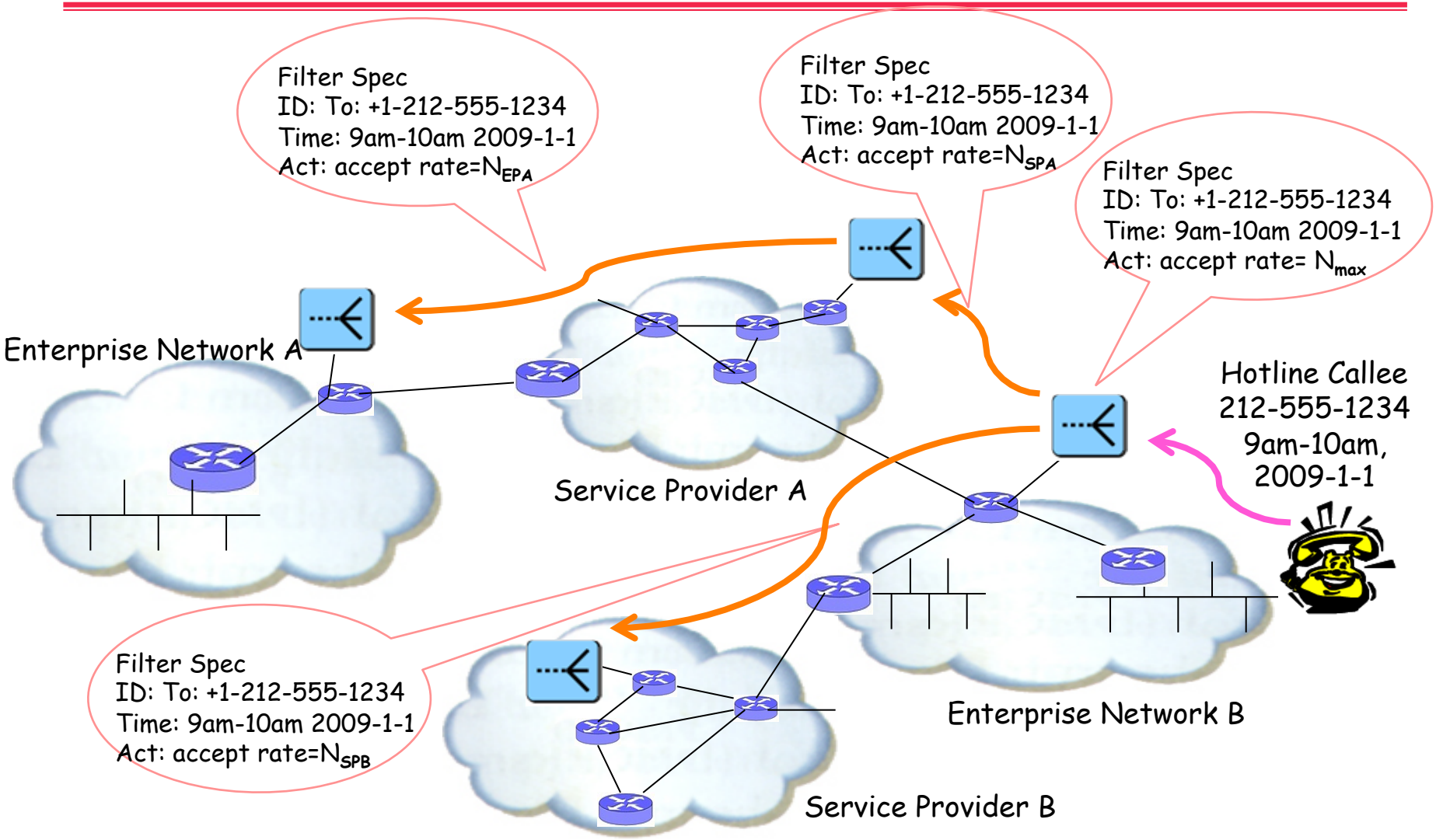
SIP event package for load control

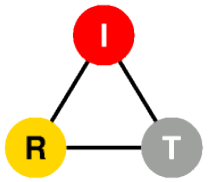
- Subscribe and Notify-based mechanism, instantiation of SIP event framework RFC3265

Definition of load control XML document

- Condition
  - Call Identity: source/destination, SIP or Tel URI(s)
  - Validity: time period to activate control
  - Method: e.g., INVITE
- Actions
  - E.g., accepting a target controlled rate

Example


Filter Spec
ID: To: +1-212-555-1234
Time: 9am-10am 2009-1-1
Act: accept rate=N_{EPA}
Filter Spec
ID: To: +1-212-555-1234
Time: 9am-10am 2009-1-1
Act: accept rate=N_{SPA}
Filter Spec
ID: To: +1-212-555-1234
Time: 9am-10am 2009-1-1
Act: accept rate= N_{max}
Enterprise Network A
Service Provider A
Hotline Callee
212-555-1234
9am-10am,
2009-1-1
Filter Spec
ID: To: +1-212-555-1234
Time: 9am-10am 2009-1-1
Act: accept rate=N_{SPB}
Enterprise Network B
Service Provider B



A Mechanism for Session Initiation Protocol (SIP) Avalanche Restart Overload Control

draft-shen-sipping-avalanche-restart-overload-00

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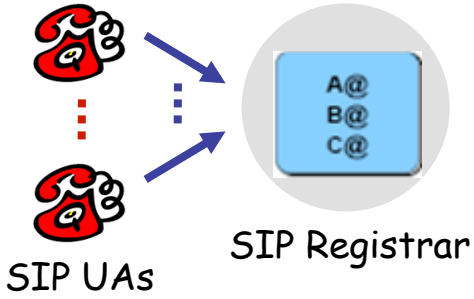
Problem Statement

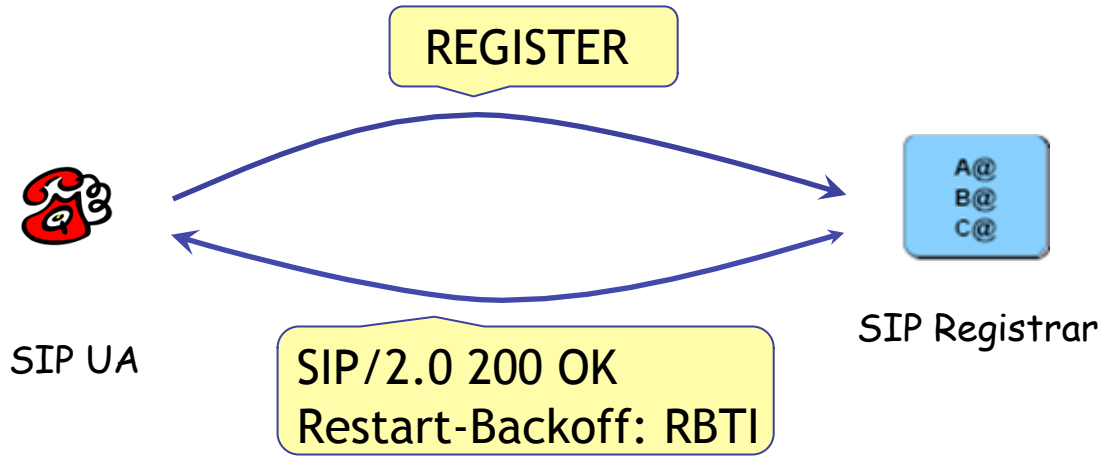


- Avalanche restart (e.g., “Manhattan reboot”) causes simultaneous floods of certain messages (e.g., REGISTRAR, SUBSCRIBE, PUBLISH) which overloads the SIP server

- Very difficult for the UAs to choose an appropriate backoff time by themselves during avalanche restart

Solution

- Server estimates Restart-Backoff Timer Interval (RBIT)
- Server conveys RBIT to UAs during normal operation



- During avalanche restart
  - UAs backoff a randomly distributed time between 0 ~ RBTI

Questions and Comments

Please send questions and comments to the mailing list, thank you!