



A Survey of SIP In Distributed Systems

Project report for IKT 404

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Agenda

- Introduction
- SIP & Distributed systems
- Current issues about SIP
- Discussion and Usages of SIP
- Conclusions

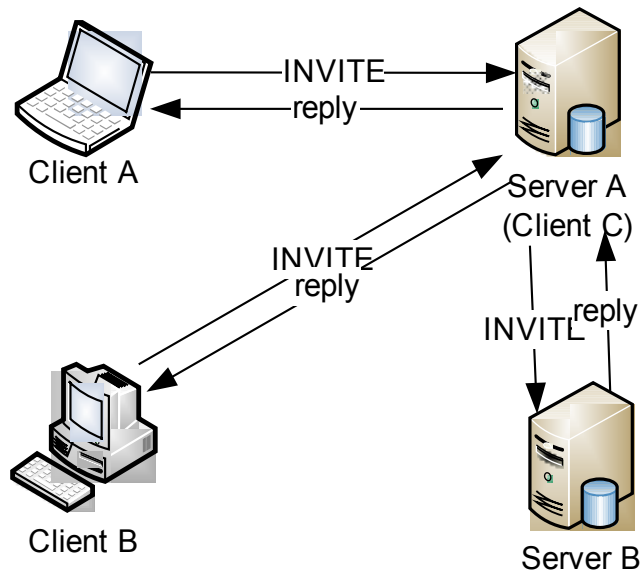


Introduction

- What is SIP ?
- How does SIP work ?



SIP & Distributed systems



C/S architecture of distributed system

- One of the most important structures of distributed systems is also called C/S (client/server) architecture.
- SIP is used in the C/S architecture as a signaling protocol for initialing, managing and terminating multimedia sessions.

Current issues about SIP

SIP Security

- Different attacks for SIP-based networks
- SIP security mechanisms
 - Network and transport layer security
 - SIPS URI scheme
 - HTTP Authentication
 - S/MIME



Current issues about SIP

NAT/firewall traversal

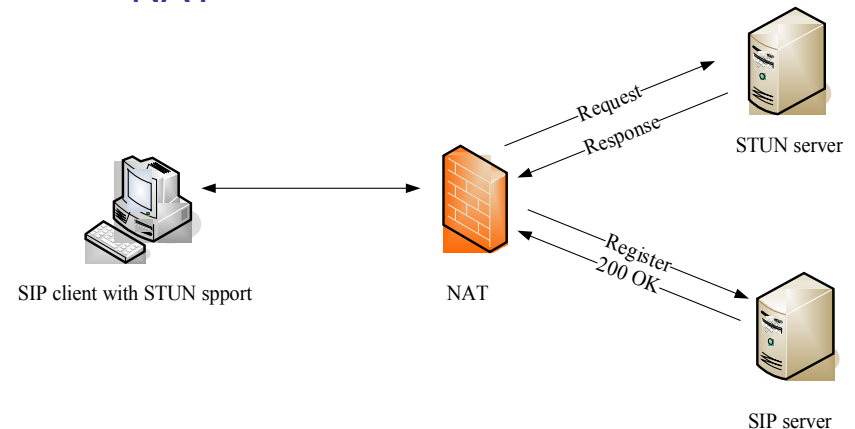
- ALG (Application layer gateways)

ALG is designed to be as a gateway which able to identify H.323 and SIP protocol.

- STUN (Simple traversal of UDP over NAT)

STUN is widely used by SIP endpoints used to discover what their IP address and port look like on the other side of a

NAT



Discussion and Usages of SIP

1. SIP and VoIP

- **Benefits:**

a mature all-IP technology

lower costs

QoS guarantees

greater consumer control

location flexibility

- **Drawback:**

the range of SIP usage is still limited



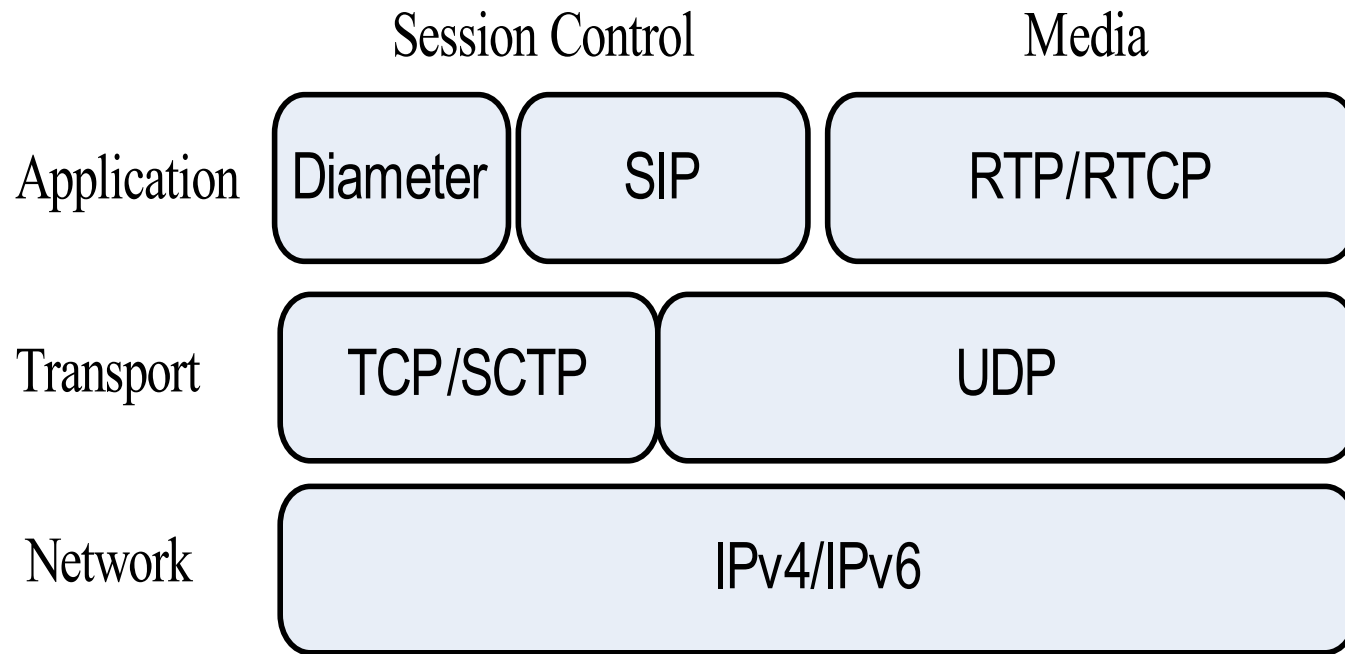
Discussion and Usages of SIP

2. SIP used in IMS

- IMS adopted SIP protocol to control the signaling procedure as the core protocol in the 3rd generation of mobile communication.
 - Registration
 - Call session setup
 - Presence
 - Instant Messaging



Discussion and Usages of SIP



Conclusions

With the improvement of interoperability of SIP, it will become main protocol for media communicate networks.



Questions?



Thank you !

