CONVERGENCE
RESEARCH
GROUP

Using current proposals to give P2P capability to a SIP User Agent

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Where leaders learn

Outline

- Introduction

- P2P SIP overview

- Closed and open questions

- Benefits of P2PSIP

- Objectives

- P2P SIP implemented systems

Introduction

- Investigate the current status of P2P SIP in IETF working group.

- Master project (Rhodes University 2007)

- Analyse, test and compare P2P SIP implemented systems.

- Availability

P2P SIP overview

- Initiatives started in late 2005

  - ➢ Mailing list hosted by Columbia University

- Informal group(Mailing list and IETF BoF)

- IETF P2P SIP working group

  - ➢ Working on a P2P SIP solution

  - ➢ Evolving SIP towards more P2P

  - ➢ Using SIP to control DHT and the overlay

  - ➢ Developing P2P SIP protocols for decentralized SIP

Closed and open questions

- Closed

➢ Which form of layering protocol layering is the most appropriate?

➢ What protocols would be used to maintain the DHT ?

- Open

➢ What the exact nature of the node operations for lookup and session establishment would be?

Benefits of P2P SIP

- Benefits over Skype

  ➢ Skype is a proprietary protocol, unlike P2PSIP's open standard

- Benefits over conventional SIP

  ➢ True to the SIP spirit: fully distributed, no centralized control

  ➢ Interoperability for devices designated for different service providers

  ➢ Minimal effort deployment, plug-and-play

Objective

- Check the status of P2P SIP IETF working group

- Analyse and compare and see which one is viable

  - What application

  - JAIN SIP Applet phone

P2P SIP Implementations

- SIP DHT (Enrico Marocco)

  - An open source project

  - Implements some design decisions that are under debate

  - Embeds SIP stack

  - Uses passive Content Address Network