

# VoIP Security: Hype or Necessity

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# Where do VoIP Security Discussions take place?

- **Standardization**
- **Business/Operational Environment**
- **Universities and Research Institutes**

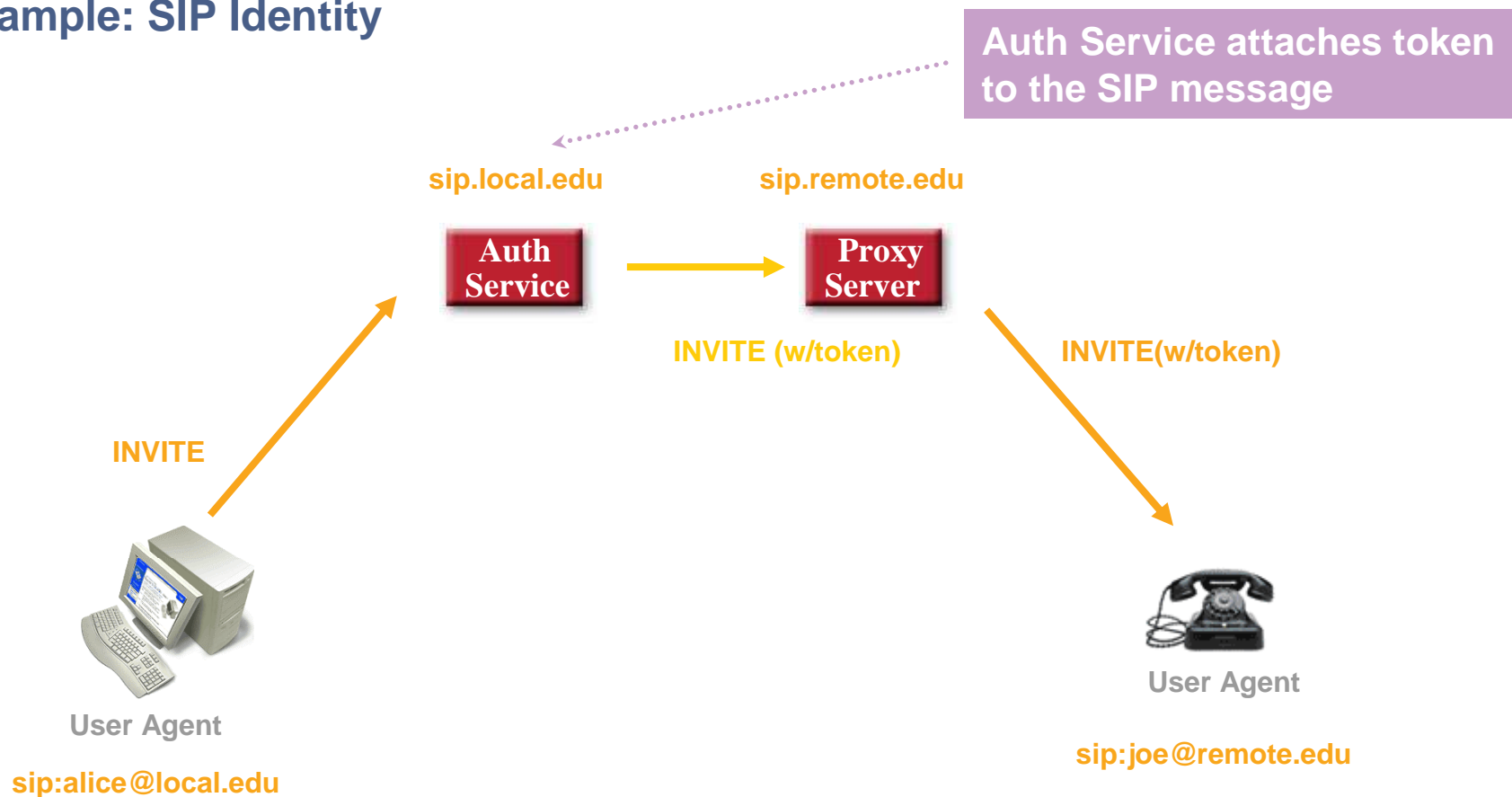
*Discussion topics are quite different in each of these groups.*

# Standardization

- Security work still ongoing
- Why? Several reasons:
  - 1) Wrong Assumptions or Deployment Problems
  - 2) New Security Functionality
  - 3) Non-Security Work Requires Security
  - 4) Applying Protocols to a New Environment

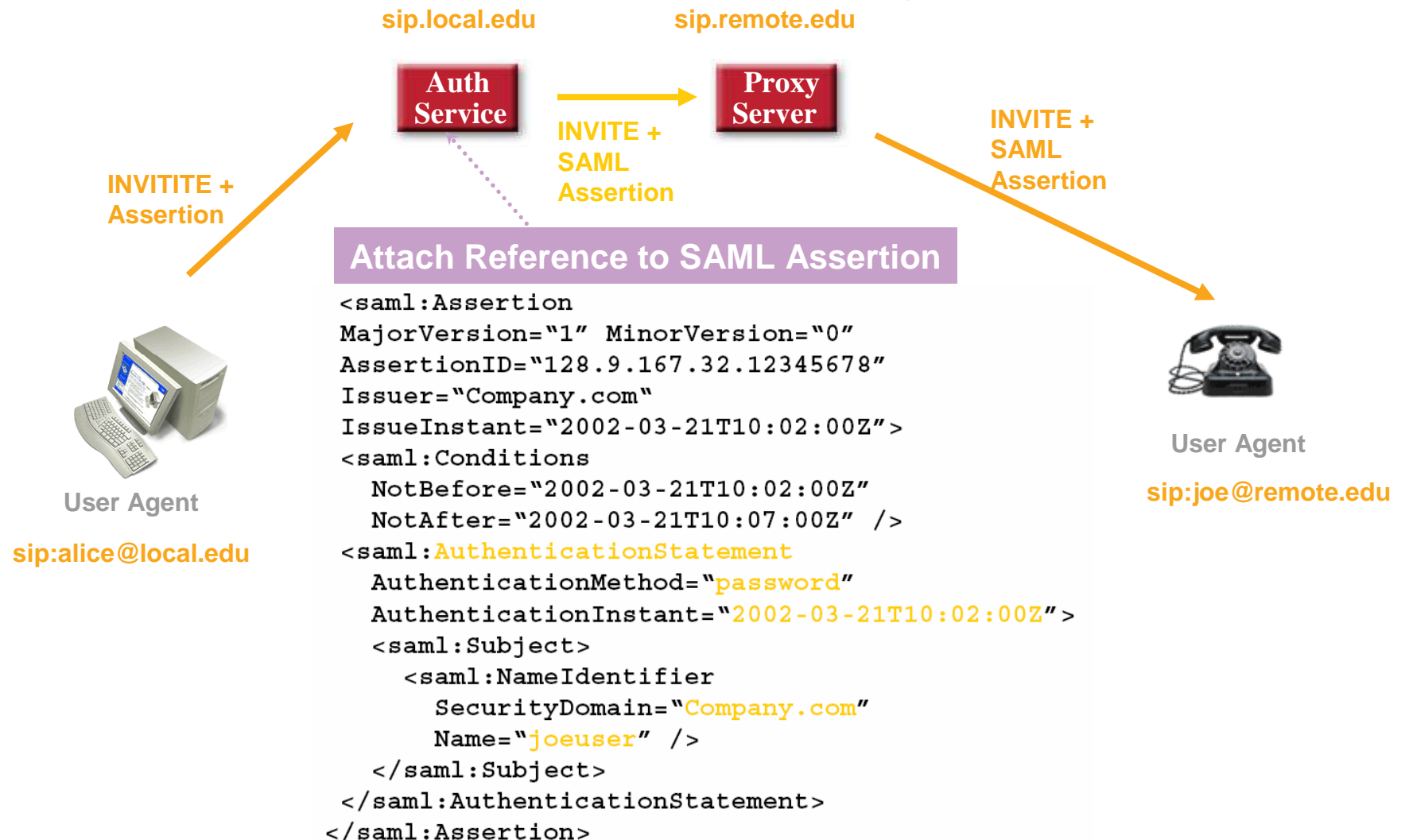
# Wrong Assumptions or Deployment Problems

- Initial assumption: E2E security via S/MIME or similar mechanisms
- Example: SIP Identity



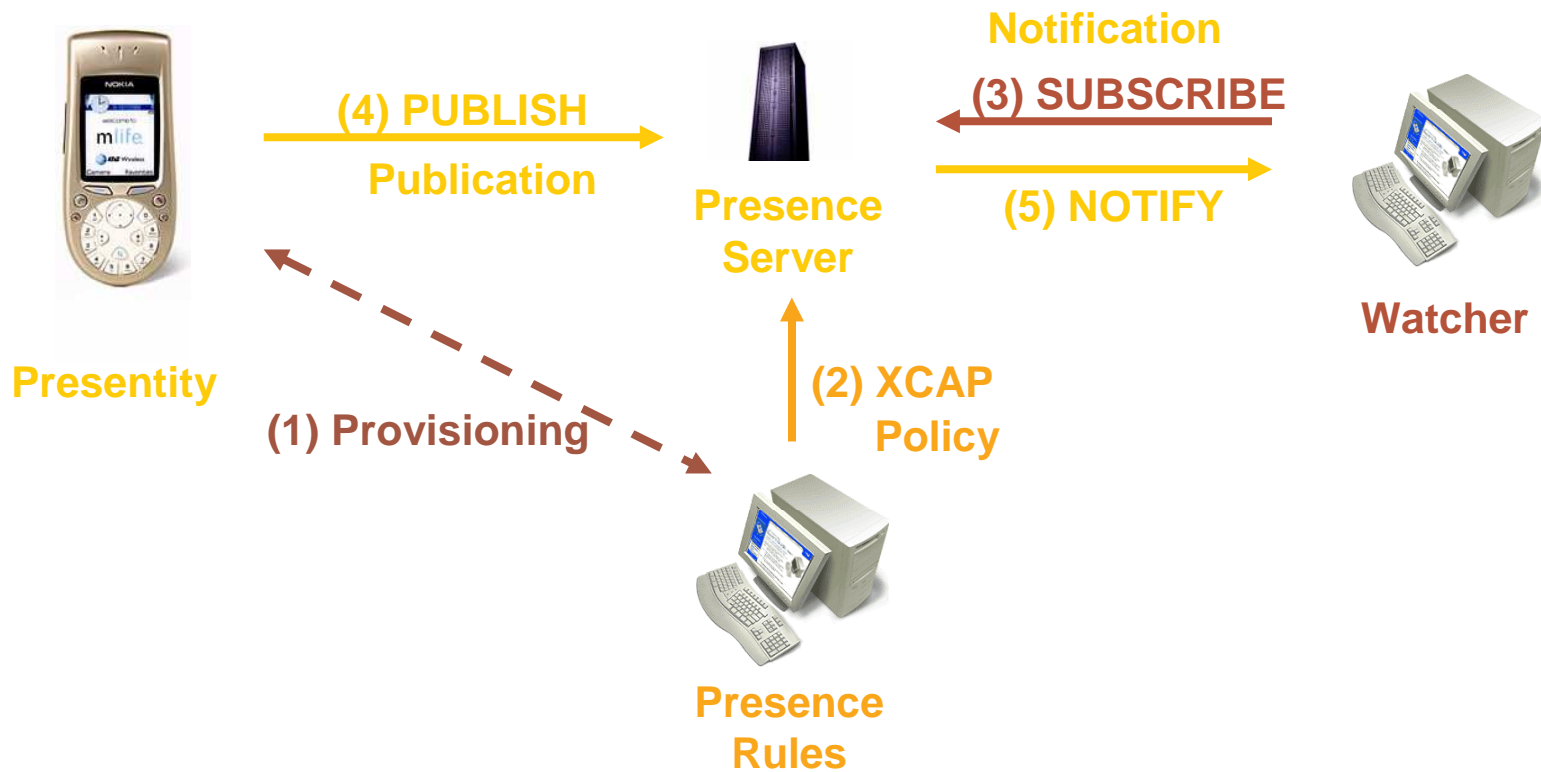
# New Security Functionality

## Example: SIP SAML, SIP Payment

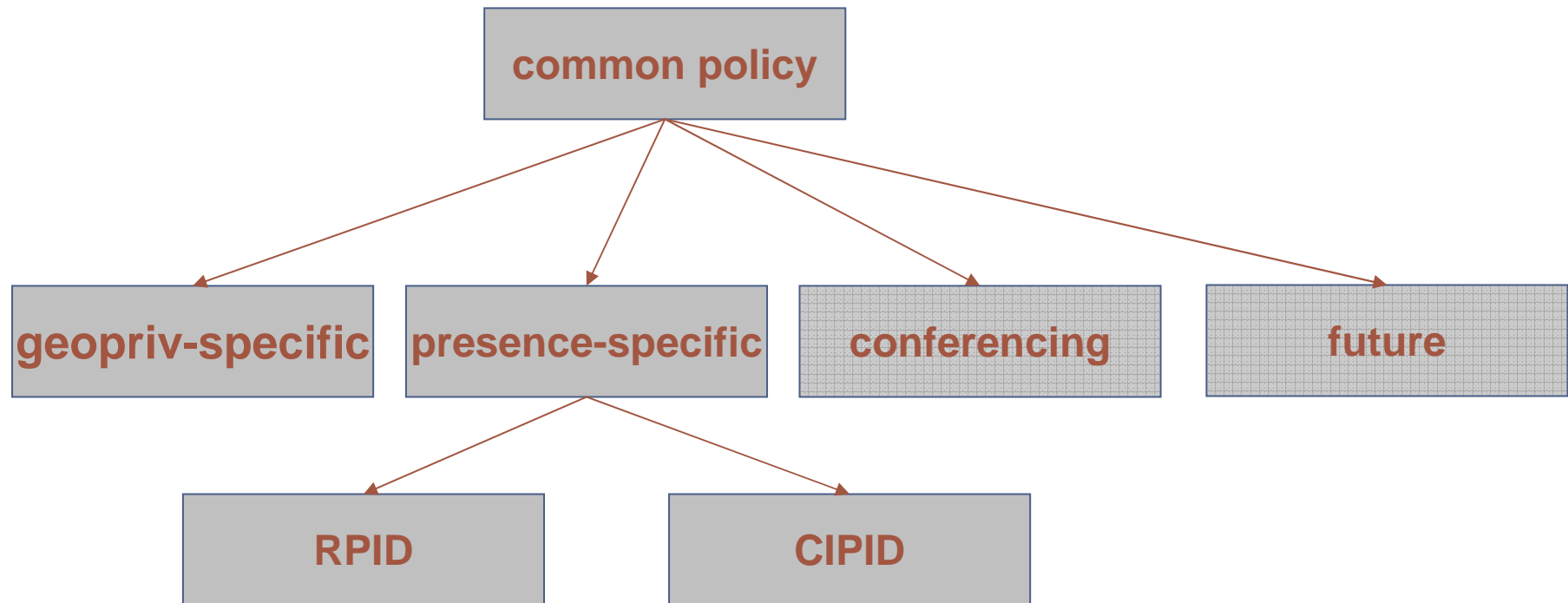


# Non-Security Work Requires Security

## Example: Presence and Geopriv



# Privacy Policy Document Relationships



RPID: Rich Presence Extensions to the PIDF

CIPID: Contact Information in PIDF

# Applying Protocols to a New Environment

- **Example: IMS**

- With the ETSI TISPAN IMS work the security solution for SIP UA to P-CSCF developed for the IMS was revisited.
- 3GPP IMS: IPsec protection between SIP UA to P-CSCF
- TISPAN: NAT traversal capability for IPsec protection added

- **Example: P2P SIP**

- SIP used in an environment with no-proxies\*

\* or whatever your understanding of P2P SIP is.

# Business/Operational Environment

- **Discussion focused on**
  - Firewalling (SBCs)
  - SPIT
  - Intrusion Detection
  - Code testing
- **Many of the discussed problems are due to**
  - implementation flaws
  - non-implemented/non-used security mechanisms or
  - misconfiguration

# Universities and Research Institutes

- **Personal opinion: I don't really know.**

# Conclusion

- **VoIP security is still an important topic in standardization**
- **It takes a long time until we see the standardization results in products.**
- **Feedback loop: Usability and deployment problems with product features lead to new security work.**
- **Many discussions in the business environment are artificial or marketing driven.**