

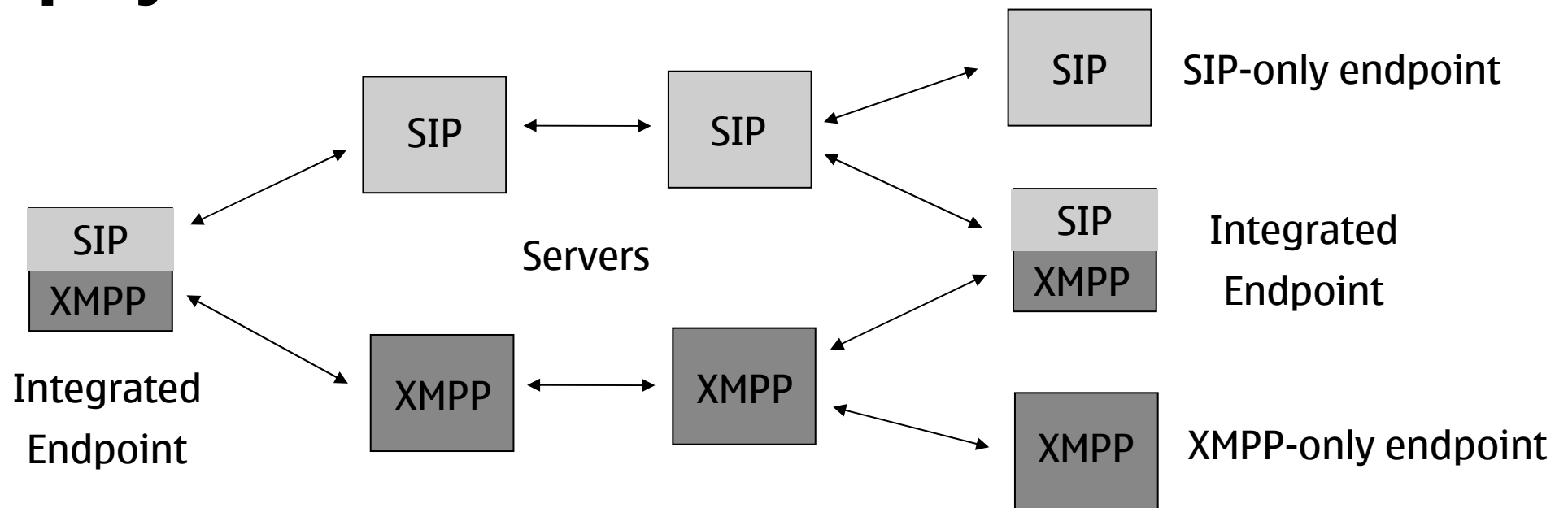
# **SIP and XMPP Combined Use Motivation and Use Cases**

**[markus.isomaki@nokia.com](mailto:markus.isomaki@nokia.com)**

# Motivation

- SIP is the dominant open standard for telephony
  - PSTN interconnect and interworking (forward, transfer, ...)
  - Emergency calling
- XMPP is widely deployed for Presence and IM
  - Interdomain
  - Extensible platform for new services
- Many people have separate accounts for SIP voice and XMPP presence & IM
  - Typically from different providers
  - Often run in the same device (laptop, mobile)
- It should be possible to combine the two in the client in a consistent manner
  - Offer the union of features: telephony, video, IM, presence
- This is not interworking between SIP and XMPP

# Deployment Model



## • Scenario

- An endpoint that integrates SIP User Agent and XMPP client functionality
- SIP is used for voice and video, XMPP for presence and IM
- Want to provide a seamless user experience
- No changes to existing SIP or XMPP servers or deployments

draft-veikkolainen-sip-voip-xmpp-im

# Use Cases for a Combined Client

- “Off-line” (for future use)
  - User A knows User B’s XMPP JID. Wants to learn User B’s SIP AoR (or E.164 number) for calling her.
  - User A knows User B’s SIP AoR. Wants to learn User B’s XMPP JID for presence subscription or IM conversation.
- “On-line” (during communication)
  - User A is subscribed to User B’s XMPP presence. Wants to see User B’s SIP voice (and video) status (available, on the phone, ...) to determine whether to call.
  - User A is having an XMPP IM conversation with User B. At some point wants to add a SIP voice (or video) call in parallel.
  - User A is having a voice (or video) call with User B. At some point wants to add an XMPP IM conversation in parallel.

# Requirements (as in the current draft, covering only the “on-line” use cases)

- REQ-1: It must be possible for the sender of an XMPP message to include its SIP contact information within the message. The contact information must allow the recipient to establish the SIP session such that the session is routed to the same endpoint which is hosting the XMPP conversation. As including the same information in every message would create some overhead, it is desirable to be able to convey the contact only once per IM conversation/thread.
- REQ-2: It must be possible for the caller to convey in the SIP session initiation information which allows the callee to correlate the session with an ongoing XMPP conversation.
- REQ-3: It must be possible for the SIP User Agent Client and User Agent Server that establish a real-time media session to exchange their XMPP contact information so that either endpoint can at any time send XMPP messages to the other endpoint.
- REQ-4: It must be possible for the sender to convey in the XMPP message information which allows the recipient to correlate the message with an ongoing SIP session.
- REQ-5: It must be possible to include SIP real-time media related contact and status in XMPP presence information. The information must contain at least SIP contact address to identify a user or a user agent instance, media capabilities and general availability status