

A Mechanism for Transporting User to User Call Control Information in SIP

draft-johnston-cuss-sip-uui-00

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History

- Initial version draft-johnston-sipping-cc-uui-00 was submitted in 2006.
- Most of the text adopted from draft-johnston-sipping-cc-uui-09.
- Revised as draft-johnston-cuss-sip-cc-uui-00 after formation of CUSS WG
 - Added James Rafferty as co-author
- No revision since September interim

Mechanism Background

- Based on the requirements and use cases in draft-ietf-cuss-cc-uui-reqs-00
- Why INFO is not used
 - INFO can only be sent in a dialog
 - Call control UUI needs to be transported at time of dialog establishment
- Why Other Protocol Encapsulation Not Used
 - Some protocols (ISDN, NSS, etc.) have UUI transport
 - If these protocols are being encapsulated, there is no need for a native SIP UUI mechanism
 - However, it is unreasonable to implement one of these protocols just to get UUI transport

Discovery Mechanism

- To meet REQ-8, a SIP option tag is proposed
 - Allows for routing to a SIP/ISDN gateway that supports the UUI mechanism
 - E.g. Supported: uui
- To meet REQ-10, SIP feature tags are proposed
 - Feature tags defined for each application that uses UUI (e.g. each purpose value)
 - Allows for discovery and preferential routing to UAs that understand the UUI application
 - E.g. Contact: <gw@isp.example.com>;sip.uui-isdn

Transport Mechanism Options

- MIME body
- Header field

MIME Body

- SIP can carry any body without any extensions
- Bodies are difficult to work with in redirection and REFER scenarios (REQ-3)
- Bodies can not be removed by proxies (REQ-9)
- Bodies for UUI will require Multipart MIME when SDP is present
- Escaping MIME body into SDP has similar problems (REQ-3 difficult, REQ-9 not met), but does not require Multipart MIME

Header Field

- Similar to Call-Info header field, but without URL to dereference
- Meets all requirements
- Multiple instances of deployed running code today

Security Comparison

- Security Requirements draft-ietf-cuss-sip-uu are TBD
- Body security
 - S/MIME RFC 3261 Section 23.3 Securing MIME bodies
 - RFC 4474 integrity protection
- Header
 - S/MIME RFC 3261 Section 23.4 SIP Header Privacy and Integrity using S/MIME: Tunneling SIP
 - Header is effectively carried as a body
 - No RFC 4474 integrity protection
 - Could possibly be added

Proposed Mechanism

- A header field “User-to-User” to transport UUI
- Define parameters for
 - Encoding - encoding method (hex, IA5, etc)
 - Content - actual contents of UUI if known
 - Purpose - application generating and consuming UUI
- Create IANA registry for these parameters
- Each new purpose would require a standards track RFC

Next Steps

- Come to consensus on header vs. body
- WG adoption of a mechanism draft to meet the requirements