

GIST over SCTP

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Open issue 1: Why SCTP

- GIST supports multi-transport
- Add SCTP as transport protocol for GIST and benefit from the rich transport features desired by signaling protocols:
 - Multi-streaming, multi-homing: if multiple sessions have different reliability requirements they can be allocated to different streams, or even allow load sharing for different sessions in multi-homed environments
 - Avoiding HOL blocking
 - A same GIST MA may be reused by multiple sessions
 - When using TCP as transport, GIST signaling messages belonging to different sessions may be blocked if another message is dropped
 - Partial-reliability

Changes since 01-version

- Added some explanations on SCTP benefits
- Updated security considerations

Open Issue: security

- Option 1: using *TLS over SCTP* (RFC3436, Dec 2002)
 - Implemented, works well
 - Aka SIP's uses of TLS over SCTP (RFC4168, Oct 2005)
 - Open issue: PR-SCTP unsecured (cannot use TLS)
- Option 2: using DTLS directly (RFC4347, Apr 2006)
 - Introduce a DTLS for GIST document (like GIST over SCTP)
 - Clean approach while enabling all SCTP nice features
 - No dependence to base on DTLS over SCTP proposal (draft-tuexen-dtls-for-sctp-02, Nov 2007)