sl Module

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Revision History

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1.1. Overview

The SL module allows ser to act as a stateless UA server and generate replies to SIP requests without keeping state. That is beneficial in many scenarios, in which you wish not to burden server's memory and scale well.

The SL module needs to filter ACKs sent after a local stateless reply to an INVITE was generated. To recognize such ACKs, ser adds a special "signature" in to-tags. This signature is sought for in incoming ACKs, and if included, the ACKs are absorbed.

To speed up the filtering process, the module uses a timeout mechanism. When a reply is sent, a timer us set. As time as the timer is valid, The incoming ACK requests will be checked using TO tag value Once the timer expires, all the ACK are let through - a long time passed till it sent a reply, so it does not expect any ACK that have to be blocked.

The ACK filtering may fail in some rare cases. If you think these matter to you, better use stateful processing (tm module) for INVITE processing. Particularly, the problem happens when a UA sends an INVITE which already has a to-tag in it (e.g., a re-INVITE) and SER want to reply to it. Than, it will keep the current to-tag, which will be mirrored in ACK. SER will not see its signature and forward the ACK downstream. Caused harm is not bad--just a useless ACK is forwarded.

1.2. Dependencies

1.2.1. SER Modules

The following modules must be loaded before this module:

- *No dependencies on other SER modules*.

1.2.2. External Libraries or Applications

The following libraries or applications must be installed before running SER with this module loaded:

- *None*.

1.3. Exported Functions

1.3.1. `sl_send_reply(code, reason)`

For the current request, a reply is sent back having the given code and text reason. The reply is sent stateless, totally independent of the Transaction module and with no retransmission for the INVITE's replies.

Meaning of the parameters is as follows:

- *code* - Return code.
- *reason* - Reason phrase.

Example 1-1. `sl_send_reply` usage

```
...
sl_send_reply("404", "Not found");
...
```

1.3.2. `sl_reply_error()`

Sends back an error reply describing the nature of the last internal error. Usually this function should be used after a script function that returned an error code.

Example 1-2. `sl_reply_error` usage

```
...
sl_reply_error();
...
```

Chapter 2. Developer's Guide

The module does not provide any sort of API to use in other SER modules.

Chapter 3. Frequently Asked Questions

1. Where can I find more about SER?

Take a look at http://iptel.org/ser.

2. Where can I post a question about this module?

First at all check if your question was already answered on one of our mailing lists:

- http://mail.iptel.org/mailman/listinfo/serusers
- http://mail.iptel.org/mailman/listinfo/serdev

E-mails regarding any stable version should be sent to `<serusers@iptel.org>` and e-mail regarding development versions or CVS snapshots should be send to `<serdev@iptel.org>`.

If you want to keep the mail private, send it to `<serhelp@iptel.org>`.

3. How can I report a bug?

Please follow the guidelines provided at: http://iptel.org/ser/bugs