**Stunnel Client Configuration for Aleph Customers**

**Introduction**: For institutions whose self-check machines and Aleph servers are in different networks, it’s important to have a way to secure the SIP2 communication between the self-check machines and Aleph. For this purposes, we’ve certified stunnel, an application which encrypts communications between two servers with SSL/TLS.

**Instructions for customer use**:

1. Download and install stunnel onto the relevant computer, either the self-check machine itself or a computer that currently redirects SIP traffic from the self-check machine to Aleph. For the purposes of this document, we are assuming that this is a Windows PC. Stunnel should be downloaded from <https://www.stunnel.org/downloads/stunnel-5.29-installer.exe>.
2. Ex Libris will send you a certificate file, called stunnel.pem, for the Aleph server. Save this file under the configuration directory within the path where stunnel is installed, e.g. C:\Program Files (x86)\stunnel\config
3. Open stunnel, choose Configuration > Edit Configuration from the menu, and add the following section to the configuration file:

[SIP2]

key = stunnel.pem

cert = stunnel.pem

client = yes

accept = 127.0.0.1:5331

connect = **<Aleph server>**:6443

TIMEOUTclose = 0

TIMEOUTconnect = 200

 Change **<Aleph server>** to the hostname/IP of your Aleph server.

 Make sure that

1. Reload the configuration by choosing Configuration > Reload Configuration from the menu.
2. Optional: Install a SIP emulator, such as the one from <https://siptool.clcohio.org/setup.exe>, for testing without making changes to the actual SIP machine. Set up the connection information and login information as follows:
	1. **SIP Server**: localhost
	2. **SIP Port**: 5331

Any other fields can be filled out according to your testing preferences.

1. When you’re ready to go live, change the settings in your SIP machine so that the SIP server it connects to is no longer the Aleph server, but rather the localhost (or the machine where stunnel is installed, if they’re on separate machines).