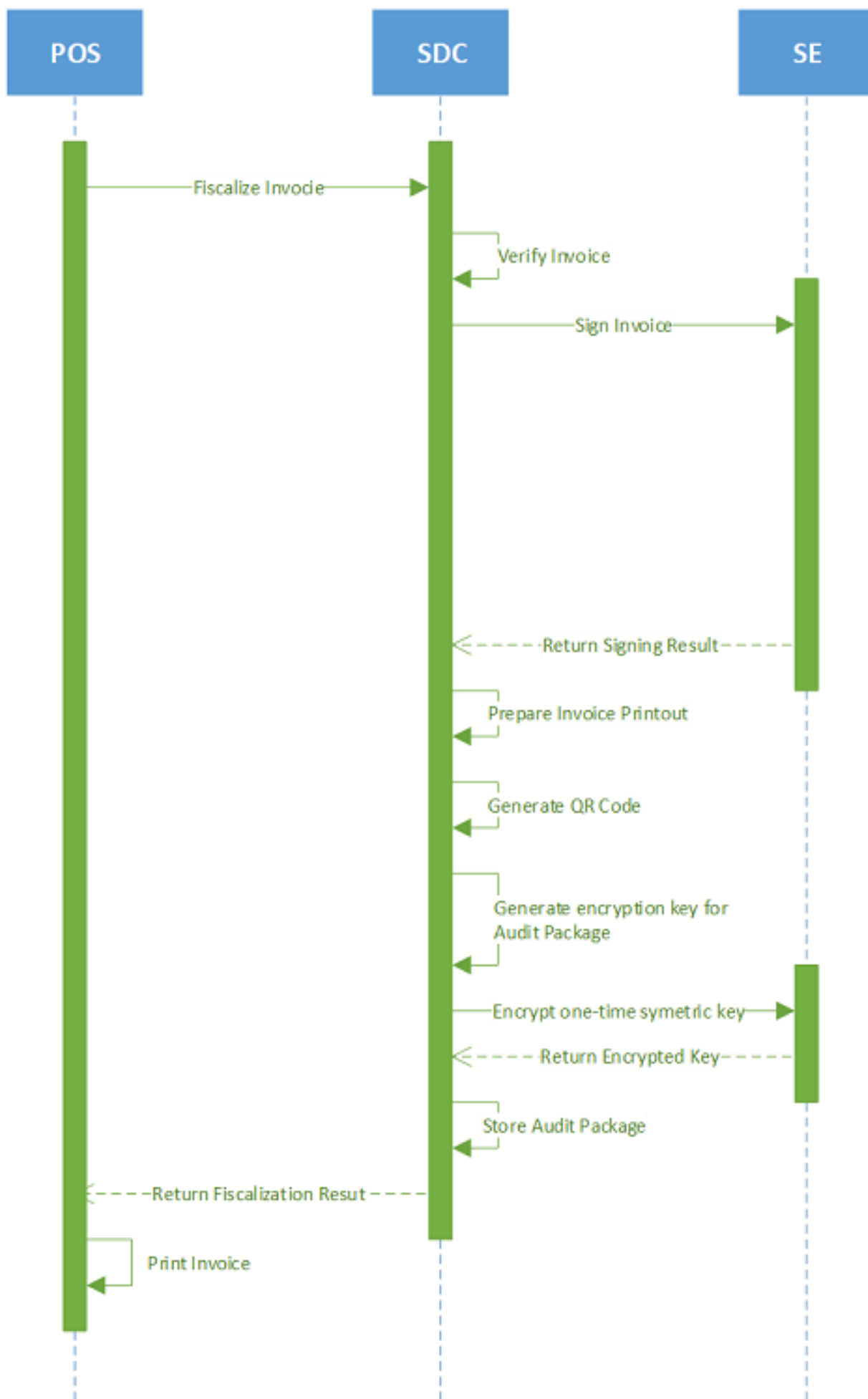# Fiscalization of an Invoice

Introduction

Invoice fiscalization is the main function of an E-SDC. Fiscalization is the process of handling an invoice request from an accredited invoicing system to produce [fiscal invoices](#).

Process

The following steps are executed by the E-SDC once an invoice request data is received from an Accredited POS:

1.
   POS generates a request data and sends it as an invoice request to the E-SDC;
2.
   E-SDC verifies the format and content of the invoice request;
3.
   E-SDC verifies the current E-SDC date and time value is smaller than the smart card certificate expiration date;
4.
   E-SDC determines which tax rate group to use based on the value of invoice type, ReferentDocumentNumber and ReferentDocumentDT fields;
5.
   E-SDC calculates taxes based on the selected tax rates group;
6.
   E-SDC sends the invoice data to the Secure Element for fiscalization providing the current date and time and PIN code/password if required;
7.
   Secure element signs the invoice and returns the data to the E-SDC;
8.
   E-SDC produces a journal – a textual representation of an invoice;
9.
   E-SDC generates a verification URL;
10.
   [optionally] E-SDC creates a QR Code – a graphical representation of a verification URL;
11.
   E-SDC creates an invoice with all mandatory elements (receipt data, previously generated signature, verification URL and journal), generates a one-time key and encrypts the invoice using a symmetric algorithm. The E-SDC encrypts a one-time symmetric key using the tax authority's system public key and adds it to the package so the tax authority's system decrypts the symmetric key and access the package content once it arrives in the Service's system.
12.
   E-SDC returns a response to the POS and optionally generates journal data.

The process is illustrated in the figure below.

Fiscalization of An Invoice – Image of the fiscalization process

Content

1.
   ## Calculate Taxes
   Taxes are calculated by an E-SDC after a POS has sent a valid request. The tax amount for particular items on an invoice is defined by the tax labels associated with an item.

2.
   ## Create Verification URL
   Verification URL is created based on values submitted by a POS to an E-SDC and values returned to the E-SDC from APDU commands as follows:

3.
   ## Create a QR Code
   QR code contains a Verification URL that is described created in the section Create Verification URL.

4.
   ## Create a Textual Representation of an Invoice
   A textual representation of a Receipt shall be created as described in the chapter Anatomy of a Fiscal Receipt. One row on a receipt is 40 characters long to fit 2.25 inch / 58 mm wide paper roll commonly used in thermal printers.

5.
   ## Creating an Audit Package
   Once an invoice is created (`InvoiceRequest` and `InvoiceResult`) the E-SDC is ready to create an audit package and store it in the non-volatile memory. In order to achieve that, follow these steps: