

# Report on Certificate Tools

Oliver Bodnár

August 2016

# Contents

<b>I</b>	<b>Overview</b>	<b>2</b>
<b>1</b>	<b>Overview Tables</b>	<b>3</b>
1.1	General . . . . .	3
1.1.1	Type . . . . .	3
1.1.2	View and information . . . . .	3
1.1.3	License . . . . .	3
1.2	Generation and signing of certificates . . . . .	3
1.2.1	Keys, certificates and basic constraints . . . . .	3
1.2.2	Specifications . . . . .	4
1.3	Conversions . . . . .	4
<b>II</b>	<b>Tools</b>	<b>5</b>
<b>2</b>	<b>Keygen</b>	<b>6</b>

# Part I

## Overview

# Chapter 1

## Overview Tables

### 1.1 General

Table 1.1: Overview General

Tools	General		
	Type	View and information	License
OpenSSL	PKCS12	Yes	Public
Keygen	JKS		

#### 1.1.1 Type

Sample text for defining what Type means

#### 1.1.2 View and information

Sample text for definition.

#### 1.1.3 License

Sample text for definition.

## 1.2 Generation and signing of certificates

### 1.2.1 Keys, certificates and basic constraints

Table 1.2: Generation of keys and certificates and basic constraints

Tool	Generate keys				Basic Constraints	
	+ self-signed certificate	+ CSR	Specify length	Specify algorithm	Specify Type	Specify path length
OpenSSL	Yes	Yes	Yes	Yes	Yes	Yes
Keygen						

#### Generate keys

**Self-signed certificate** Some sample text.

**Certificate Signing Request** More sample text.

**Specify length** Even more sample text.

**Specify algorithm** You guessed it! More sample text.

#### Basic Constraints

**Specify Type** Not even trying to come up with sample text.

**Specify path length** Path length is long as long you wish it.

### 1.2.2 Specifications

Table 1.3: Specifications

Tool	CSR signing	Privkey + signed chain	Specify certificate validity	SAN for end certificates	Support for CSP
OpenSSL	Yes	Yes	Yes	Yes	Yes
Keygen					

**Certificate Signing Request signing** Some random text.

**Create combination of private key and signed chain** Some random text.

**Specify certificate validity** Some random text.

**Setting Subject Alternative Name for end certificates** Some random text.

**Support for Cryptographic Service Provider** Some random text.

## 1.3 Conversions

Table 1.4: Conversions

Tools	Exporting		Direct JKS and PKCS12	Import certificate and private key into a file
	Certificate/chain only from file	Private key only		
OpenSSL	Yes	Yes	No	Yes
Keygen				

### 1.3.1 Exporting

#### Certificate or certificate chain from a file

Some random text.

#### Private key only

Some random text.

### 1.3.2 Direct conversion between Java Keystore and PKCS#12 file

Some random text.

### 1.3.3 Importing of certificates and keys into storage files

Some random text.

# **Part II**

## **Tools**

## Chapter 2

# Keygen