

# Symbian Developer Certificate Request Process

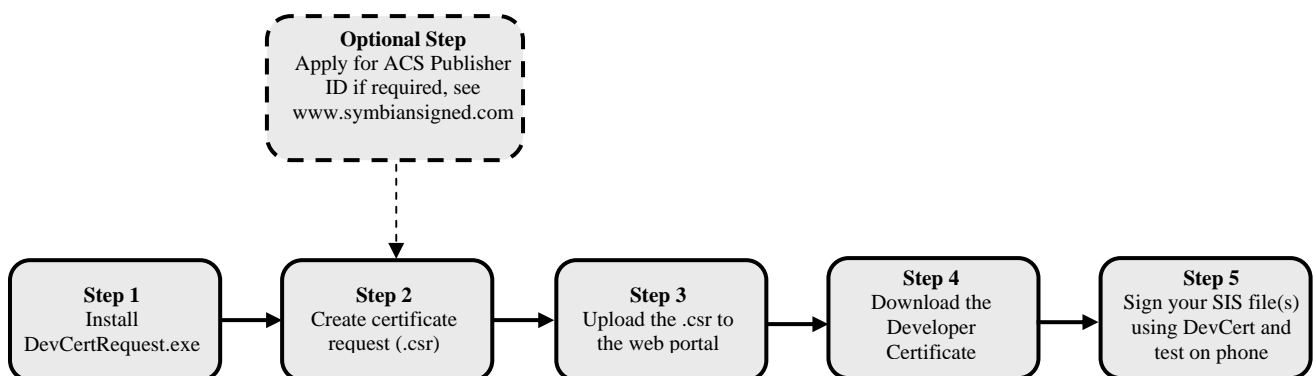
## 1. Introduction

A Symbian Developer Certificate is used to facilitate testing during the development phase on Symbian OS based phones. The certificate is used as a precursor to fully certifying an application through Symbian Signed.

This document outlines in detail the necessary steps to apply for and use Symbian Developer Certificates. The reader is guided through each step from creating the certificate request file to using it in order to request actual certificates through the Symbian Signed portal.

## 2. Process Overview

Symbian Developer Certificates are only used in the context of Symbian OS v9 based phones. Developer Certificates are not required (and not used) with earlier versions of Symbian OS. Applying for a Symbian Developer Certificate involves the following steps:



The above diagram shows the end-to-end process when applying for and using a Symbian Developer Certificate. The process aims to generate Symbian Developer Certificates as quickly as possible but there may be a delay of up to 10 seconds while the data uploaded is being processed. The need for using an ACS Publisher ID during the process of applying for a Developer Certificate is dependent on the capability access required and the number of IMEIs required (please see table in following section). Although you have to pay to obtain an ACS Publisher ID, owning one brings the following advantages:

- The private key of the ACS Publisher ID can be used to sign the certificate request (.csr) files. This limits the number of private keys and passwords.
- The ACS Publisher ID uniquely and securely identifies you. This gives a higher degree of confidence when authenticating the application and therefore allows more than 1 and a maximum of 20 IMEIs to be selected.
- Owning an ACS Publisher ID builds a trusted relationship with operators and channels who have confidence in knowing the source of applications that are released.

- Owning an ACS Publisher ID allows you to submit your applications through the complete Symbian Signed process directly, instead of using a Publisher Certifier or other route to market.

Note that you must be registered with Symbian Signed to request new Symbian Developer Certificates. If you are not yet registered please do so [here](#). The following sections describe the step by step process for requesting a Symbian Developer Certificate. Please refer to the [FAQ](#) document for any specific Symbian Developer Certificate questions.

### 3. Capabilities in Symbian Developer Certificates

Certification status is divided into two areas; those with an ACS Publisher ID and those without an ACS Publisher ID. The ACS Publisher ID service is provided by Verisign and enables developers and software publishers of native Symbian OS applications to secure their products for trusted installation on Symbian OS phones. Developers should be aware that there is a cost incurred when applying for an ACS Publisher ID. More information can be found on the [Verisign](#) website.

Symbian OS APIs are classified using 'capabilities'. In order to make use of extra API functionality provided by the OS, an ACS Publisher ID and/or permission from a phone manufacturer is required. Capabilities are grouped into categories so that they can be referred to and controlled more easily. The groups have no direct code mapping to the capability set defined in the operating system itself. Depending on what certification status you hold, different capabilities will be available to you.

The capabilities are grouped into 3 categories based on the number of IMEIs required in the certificate:

- **1 IMEI:** No ACS Publisher ID  
These are the capabilities that all developers can access and use if they wish with a developer certificate. The developer does not need an ACS Publisher ID although the developer certificate will only work on one device.
- **1 – 100 IMEIs:** ACS Publisher ID present  
If an ACS Publisher ID is present the developer can use a developer certificate on up to 100 devices.
- **Other:** Phone Manufacturer Approved  
Access to these capabilities is controlled by the manufacturer of the device the developer is targeting. These are powerful capabilities that require special dispensation by the manufacturer and it is likely that most developers will not need to access them. The requirement for an ACS Publisher ID is also determined by the manufacturer in question. Symbian has incorporated the mechanism for requesting Phone Manufacturer approved DevCerts as part of the [www.symbiansigned.com](http://www.symbiansigned.com) portal. To request a Phone Manufacturer DevCerts, follow these steps:
  - a. Login at [www.symbiansigned.com](http://www.symbiansigned.com) with your username and password.
  - b. From the left navigation bar, follow the 'Request DevCert' link.
  - c. From this page click on the 'Request Phone manufacturer Approved DevCert'. This link will take you through a different workflow compared to when requesting other types of DevCerts.

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To request a Developer Certificate that has more than 20 IMEIs or provides access to the 7 most sensitive capabilities you must first get permission from a phone manufacturer. You can request permission by using the following request form. [Request Phone Manufacturer Approved DevCert](#)

- d. Select the Phone Manufacturer type from the drop-down list and supply the necessary details requested in the subsequent pages.
- e. The Phone Manufacturer will be notified of the request after you submit the .csr file.
- f. Once the Phone Manufacturer approves your request, you can download the DevCert from your Symbian Signed account using the 'View DevCerts >> View Phone Manufacturer Approved DevCerts' link.

Specific capabilities come under categories and these are outlined in the following section.

Number of IMEIs	1	1 - 100	Phone Manufacturer Approved
<b>Identity Requirements</b>	<ul style="list-style-type: none"> <li>• Registration</li> <li>• IMEI</li> </ul>	<ul style="list-style-type: none"> <li>• Registration</li> <li>• IMEIs</li> <li>• ACS Publisher ID<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Registration</li> <li>• IMEIs</li> <li>• ACS Publisher ID<sup>1</sup></li> <li>• Phone Manufacturer Approved</li> </ul>
Local Services	✓	✓	✓
Location	✓	✓	✓
Network Services	✓	✓	✓
Power Management	✓	✓	✓
ProtServ	✓	✓	✓
Read User Data	✓	✓	✓
Surroundings DD	✓	✓	✓
SW Event	✓	✓	✓
User Environment	✓	✓	✓
Write User Data	✓	✓	✓
Read Device Data	✓	✓	✓
Trusted UI	✓	✓	✓
Write Device Data	✓	✓	✓
All Files			✓
CommDD			✓
Disk Admin			✓
DRM			✓
MultimediaDD			✓
Network Control			✓
TCB			✓

1. ACS Publisher ID is a class 3 certificate, obtainable by organizations and currently costing USD350 per annum.

In order to verify which capabilities are being used by their application, the developer should refer to the [Symbian Developer Network](#) for documentation on the capabilities in general and which APIs are protected by which capabilities specifically. Applications requiring certain capabilities should declare them in the appropriate .mmp file. Capabilities are set during compile time for each binary used in the application. When applying for a Developer Certificate, request the correct capabilities – otherwise your application might not install and/or run correctly on your target phone.

The reader should be made aware that having access to phone manufacturer approved capabilities **may** incur a cost. The value of which is at the discretion of the phone manufacturer.

## 4. Symbian Developer Certificate Process Steps

The following section outlines how to create a CSR file and use it to request a Symbian Developer Certificate.

### 4.1. Step 1: How to create the CSR to upload to the portal

Symbian Signed have created a tool called DevCertRequest which is used to create the CSR. This is a Microsoft Windows® based application wizard used as a first step for requesting a Symbian Developer Certificate. This GUI application creates the PKCS#10 certificate request from which the Developer Certificate is signed and created by the portal. It is currently only available via the [Symbian Signed](http://www.symbiansigned.com) website and does not ship with any phone manufacturers' v9 SDKs at the time of writing.

1. Login at [www.symbiansigned.com](http://www.symbiansigned.com) with your username and password. Access to the application is restricted and only available to registered users. If you are not yet registered please do so [here](#)
2. If not installed previously or a newer version is available, download and save the application zip file locally on your PC
3. Extract the zip contents to a local directory
4. Run setup.exe to start installation. This should overwrite any previously installed DevCertRequest
5. Follow the installation instructions, and preferably complete the installation with the pre-selected default options

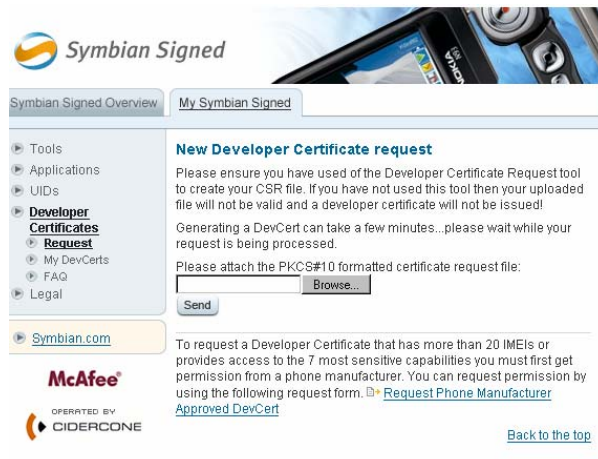
A user guide for DevCertRequest is included with the installation and the reader is advised to read this document prior to using the application. Its use will not be covered in this document.

### 4.2. Step 2: Request a Developer Certificate on the portal

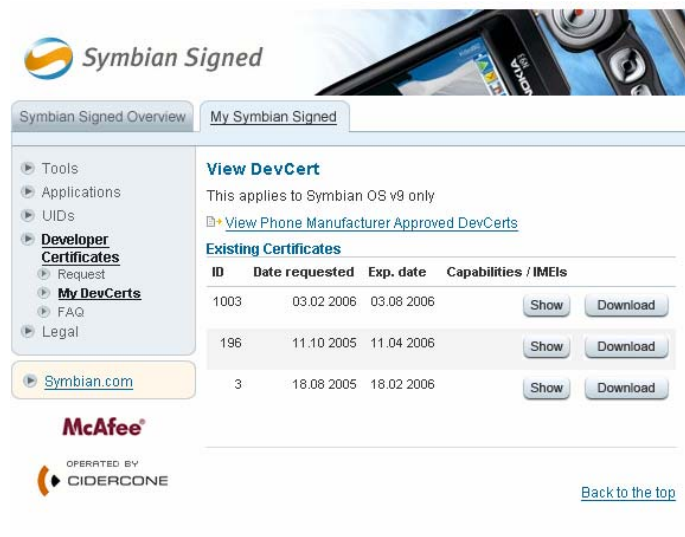
A Developer Certificate can only be requested from the Symbian Signed portal using a certificate request file. Only one Developer Certificate can be requested for a single .csr file. Once the .csr file is uploaded, the Symbian Signed portal verifies the certificate request file and generates a new Symbian Developer Certificate based on the .csr information. The Symbian Developer Certificate is saved on the portal for later use.

1. Login at [www.symbiansigned.com](http://www.symbiansigned.com) with your username and password. As with downloading the tool in step 1, requesting Symbian Developer Certificates is only available to registered users.
2. Proceed to the Developer Certificate site [here](#)

Upload the desired certificate request file (.csr).



3. A new Symbian Developer Certificate is generated if the .csr and credit verification succeeds. Refer to the [FAQ](#) document on troubleshooting any problems.
4. Check if the Symbian Developer Certificate has been created successfully and with the correct IMEI/ESNs, capability set and expiry date.



### 4.3. Step 3: Download your Symbian Developer Certificate

The portal maintains all the Symbian Developer Certificates created per user. Expired certificates are archived for reference.

1. Login at [www.symbiansigned.com](http://www.symbiansigned.com) with your username and password.
2. Download the correct Symbian Developer Certificate from within your user account area. If the one you require has expired please select another or request a new one.
3. Ensure that you have the private key associated with the Symbian Developer Certificate.

4. Save the certificate in a single directory for ease of access, preferably where the matching key was stored when using DevCertRequest.exe.

And that's it! You are ready to use your new Symbian Developer Certificate to sign and install applications on Symbian OS v9 phones. For in depth information on how to sign and install your SIS file with the Developer Certificate and the SignSIS tool, please refer to the developer library documentation.

## 5. Developer Certificate Restrictions on Usage

### 5.1. Non Commercial Usage

Developer Certificate signed applications must not be distributed commercially. If an application needs to be signed to access capabilities then you should go through [Symbian Signed](#) to distribute your application commercially.

### 5.2. Installation Warning

Upon installation of an application that has been signed with a Developer Certificate the user may be presented with a screen to advise that the application is for developer use only (i.e. not commercial use).

### 5.3. Legal terms

You can find details relating to your legal rights associated with getting and using a Developer Certificate in your Terms and Conditions for application developers. Key elements of the agreement include:

- You have used reasonable care to ensure your Applications are free from viruses and do not cause harm to data, software, or systems of Symbian-OS based devices.
- You will co-operate with Symbian in investigating and resolving any security or operational issues.
- You will only use Developer Certificates for development and testing purposes.

## 6. Further Information

1. For Symbian OS information <http://www.symbian.com>.
2. <http://www.symbiansigned.com> portal.
3. Symbian OS (and Symbian Signed) related [FAQ](#) knowledgebase.
4. See the Symbian Developer Certificate FAQ [document](#).