

# 호스트 인증서 신청 방법

## How to Request Host Certificate

2007.10.01  
2017.05.25(Update)

## KISTI Grid Certificate Authority

- Home
- CA Certificates
- Documents
  - CP/CPS
  - Minimum CA Requirement
- Request Certificates
- Issued Certificates
- Contact Information
- Related Sites
- KISTI CA(old site)

### Introduction

Welcome to KISTI Grid Certificate Authority web site.

KISTI Grid Certificate Authority is operated by the Grid Technology Research Team of KISTI (Korea Institute of Science and Technology Information).

The authority satisfies requirements from APGrid PMA.

Certificate issues by the KISTI Grid CA are compatible with the Globus Toolkit middleware.

The public key cryptography is the basis of grid security architecture.

Certificate Authority(CA) is a mandatory component of public key infrastructure(PKI).

Please read "[Overview of the Grid Security Infrastructure](#)" from Globus site.

Best viewed with [Firefox browser](#).

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Fill out the subscription form.

2. Interview with a RA with the application form. ([RA contact information](#))

Provide the following information when interview with a RA:

- o the application form
- o proof of identity (work ID card, passport, national ID card, etc.)

3. Keep the PIN number of the application form securely.

The RA should fill the PIN number field in the form.

Fax the form to the number specified in the form.

4. Please send an notification e-mail to [ca@gridcenter.or.kr](mailto:ca@gridcenter.or.kr) after sending a FAX.

5. KISTI Grid CA staff will respond immediately when we receive your request form.

6. KISTI Grid CA will send an Web Access Client Certificate(WACC) to your e-mail, if everything is okay.

Install this certificate in your web browser to access to the on-line certificate request service web site.

Your PIN number is the password for your WACC.

Follow [this insturction](#) to install the web access certificate(WACC) in your browser.

## Step 2. Request a Grid Certificate from KISTI GRID CA

- If you are applying for a **user certificate**,

Click [User Certificate Request](#)

- If you are applying for a **host/service certificate**,

Click [Host/Service Certificate Request](#)

Best viewed with [Firefox browser](#).

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### Instruction for requesting an Host or Service Certificate

By requesting a certificate, you indicate that you accept the [Certificate Policy and Certificate Practice Statement](#) and that you agree to the [Subscriber Obligation](#) specified in the document.

#### Step 1. Enroll KISTI CA

Before requesting user certificate from KISTI GRID CA, you are required to enroll KISTI GRID CA.

#### Step 2. On-line Certificate Request

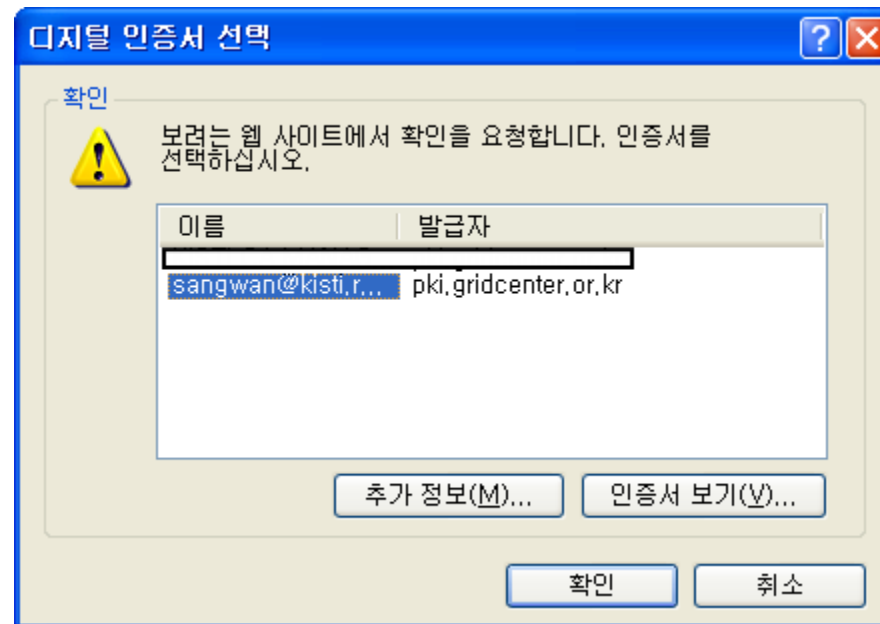
[Click here to request service or host certificate in the Online Request Service.](#)

If you don't have a WACC in your browser, the access to the web page is not permitted.

Best viewed with [Firefox browser](#).

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WACC 인증서를 이용하여 Online Request Service 에 접속합니다.




## KISTI Grid Certificate Authority

- Home
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- My CSR List
- KISTI CA Home

### Request Host Certificate

**Step 1.** Generate a CSR for your host.

**Step 2.** Upload the CSR using the following form.

Country:	KR	기관을 선택하고 Host FQDN을 입력합니다.
Organization:	KISTI	
		
Organization:	<input type="text"/>	
Host FQDN:	<input type="text"/> (max. 30 characters) e.g) hostname.example.co.kr	
CSR:	<p>Copy and paste your CSR block below:</p> <div><p>CSR을 생성하여 입력하는 부분입니다.</p></div>	
<input type="button" value="Upload CSR"/>		

## OpenSSL을 이용한 CSR 생성방법

RSA 2048 비트키로 DES로 암호화 하지 않습니다.

```
openssl req W  
-new -sha256 -newkey rsa:2048 -nodes W  
-keyout hostkey.pem W  
-out hostcert_request.pem W  
-subj "/C=KR/O=KISTI/O=ORGANIZATION/CN=hostW/grid.example.com"
```

KISTI CA가 발급하는 인증서에 공통적 입니다.

신청자 본인의 기관명과 호스트명으로 바꾸십시오.

globus 소프트웨어의 경우 호스트 인증서는 'host/' 가 호스트명 앞에 붙습니다.

성공적으로 실행이되면 hostkey.pem 와 hostcert\_request.pem 파일이 생성됩니다.

## OpenSSL을 이용한 CSR 생성방법

예를 들어 KISTI 사용자가 test.kisti.re.kr 라는 호스트의 호스트인증서를 신청할 때

```
openssl req W  
-new -sha256 -newkey rsa:2048 -nodes W  
-keyout hostkey.pem W  
-out hostcert_request.pem W  
-subj "/C=KR/O=KISTI/O=KISTI/CN=hostW/test.kisti.re.kr"
```

성공적으로 실행이되면 hostkey.pem 와 hostcert\_request.pem 파일이 생성됩니다.  
hostkey.pem 파일은 인증서와 쌍을 이루는 개인키 정보를 담고 있으므로,  
잘 보관하시기 바랍니다.



생성된 CSR을 확인합니다.

```
openssl req -in hostcert_request.pem -text -noout
```

```
Certificate Request:
Data:
  Version: 0 (0x0)
  Subject: C=KR, O=KISTI, O=KISTI, CN=host/test.kisti.re.kr
  Subject Public Key Info:
    Public Key Algorithm: rsaEncryption
    RSA Public Key: (2048 bit)
      Modulus (2048 bit):
        00:ce:e1:6a:bf:1e:28:1a:00:ee:8e:55:5f:37:5f:
        c0:98:37:c8:63:85:1a:ce:b6:52:88:41:3c:bf:eb:
        8c:fb:0b:31:7a:ec:e4:e6:fd:57:5c:5c:04:bb:74:
        03:cd:2b:c5:25:4b:b6:b2:21:d3:3c:c6:ee:db:14:
        d3:0f:ba:74:5d:ea:e0:d6:3a:a4:fa:c8:79:5b:59:
        ea:e2:32:a3:fe:79:37:3e:9b:9f:55:ec:4e:c0:32:
        98:f0:1b:aa:01:2c:42:b7:43:70:e7:3f:6b:f0:b5:
        b3:38:b8:37:16:6a:a9:32:e8:21:10:67:29:d5:f7:
        d7:1f:9f:96:26:61:6f:eb:21:6b:32:1e:9b:13:80:
        37:14:ce:97:74:e6:98:2d:2c:0c:e0:d1:e2:be:37:
        90:67:28:f5:79:2a:b6:05:3b:7c:11:ee:5b:be:ec:
        be:15:d7:5f:83:e5:12:d7:d5:01:e0:08:a8:ac:1c:
        a0:fc:c9:95:4b:b3:f7:c0:6e:1d:a9:5f:04:9b:8e:
        34:4d:b1:31:cb:ce:50:0d:3e:1a:40:fa:f7:34:de:
        11:9b:ad:d3:e5:26:b9:62:13:34:3d:98:d7:90:17:
        42:9b:ba:97:aa:11:be:15:78:e8:2e:5f:50:55:7c:
        4d:3c:20:cf:c5:ad:ef:96:0b:fe:c0:90:a5:6b:90:
        f6:0f
      Exponent: 65537 (0x10001)
  Attributes:
    a0:00
  Signature Algorithm: sha256WithRSAEncryption
    a1:a6:d0:21:b7:f3:8c:72:e6:3d:cb:c6:b8:77:56:bf:74:ed:
    61:68:d2:28:8c:e5:01:46:e1:7e:be:d7:1d:1b:8a:6a:85:0f:
```

CSR의 subject를 확인하십시오.

RSA 키 사이즈를 확인하십시오.

생성된 CSR에 문제가 없다면,  
앞 단계에서 홈페이지 입력 폼에 CSR 정보를 입력합니다.

hostcert\_request.pem 파일의 내용을 복사해 두십시오.

```
K0840P2:igtf-policy-installation-bundle-1.83 sahn$ more hostcert_request.pem
-----BEGIN CERTIFICATE REQUEST-----
MIICKjCCAXoCAQAwTTElMAkGA1UEBhMCS1IxZDjAMBgNVBAoTBUTtJU1RJMjQ4wDAYD
VQQKEwVLSVNUSTEEeMBwGA1UEAxMVaG9zdC90ZXN0Lmtpc3RpLnJlLmtyMIIBiJAN
BgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAzuFqvX4oGgDujlVfN1/AmDfIY4Ua
zrZSiEE8v+uM+wsxeuzk5v1XXFwEu3QDzSvFJUu2siHTPMbu2xTTD7p0Xerg1jqk
+sh5W1nq4jKj/nk3PpufVexOwDKY8BuqASxCt0Nw5z9r8LWzOLg3FmqpMughEGcp
1ffXH5+WJmFv6yFrMh6bE4A3FM6Xd0aYLSwM4NHivjeQZyj1eSq2BTt8Ee5bvuy+
Fddfg+US19UB4AiorByg/MmVS7P3wG4dqV8Em440TbExy85QDT4aQPr3NN4Rm63T
5Sa5YhM0PZjXkBdCm7qXqHg+FXjoL19QVXxNPCDPxa3vlgv+wJCla5D2DwIDAQAB
oAAwDQYJKoZIhvcNAQELBQADggEBAKGM0CG384xy5j3Lxrh3Vr907WFO0iiM5QFG
4X6+1x0bimqFD5Tu0EtKhhdUn9f+8mhGj53FhBpAPIQtHgbdvUkktzji+56Hjf4Q
B62dtW1X6vlsILDrB6MHuDpsiaksCXRcHP+9u1e6F1WgQKHT+/7oK21yd3Rc+1VW
Ox5N65pchBNtFqmNhFem2rB9Qm11+z/4HP7bnM7GWF8tvLd8dQpdTPKNUU3hMOQC
PUsEaJWUEqIMBnHpsv6Hln3SMFNsznHroqrEfGygTGhectBgRupPGOWMUcJzm+ss
YNC9L19CakFj0U5eya8v8giq21+M0N8cNxExt0smSSQgwCOvtxI=
-----END CERTIFICATE REQUEST-----
K0840P2:igtf-policy-installation-bundle-1.83 sahn$
```

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**Step 2.** Upload the CSR using the following form.

Country:	KR
Organization:	KISTI
Organization:	KISTI
Host FQDN:	test.kisti.re.kr (max. 30 characters) e.g) hostname.example.co.kr
CSR:	<p>Copy and paste your CSR block below:</p> <pre>-----BEGIN CERTIFICATE REQUEST----- MIIBnDCCAQAQAwwXDELMAkGA1UEBhMCN1IxDjAMBgNVBAoTB U1JU1RJM0wCwYD VQKKEwRHUKIEMQ4wDAYDVQKKEwVLSVNUSTEeMBwGA1UEAxM Aw10K0D3y39Gj LQ55zycQHpyrbObL11U+nS6giHNq6XbMA2yhImfaMBI9mJogfoqu aPYlq2B9mU9K 2NLEd3DQmluqe2srokh0VLSjofy2PQrflUuu6IAKj5129ZGDIQsQHb</pre> <p>복사한 CSR 블록을 붙여넣기하십시오.</p>
	Upload CSR

기관을 선택하고  
Host FQDN을 정확히 입력합니다.

입력한 정보가  
정확하지 않을 경우  
발급이 거절될 수  
있습니다.

최종적으로 Upload 버튼을 클릭하십시오.

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Your CSR has been requestd to KISTI CA.

KISTI CA will review your CSR, before issuing your certificate.

Your CSR is sent to your email **sangwan@kisti.re.kr**.

After KISTI CA issue your certificate, a notification e-mail will be sent to you.

CSR 정보 입력이 완료되었고, 이메일로 안내메시지가 전송되었다고 알려줍니다.

KISTI Grid Certificate Authority

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- My CSR List
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### My Certificate Signing Request List

ID	Type	Form Information	Date	Status	View
1	user	<a href="#">O=KISTI</a> <a href="#">CN=80864141 Sangwan Kim</a>	2007-07-21 15:44:39	issued	[show] / [hide]
14	host	<a href="#">O=KISTI</a> <a href="#">CN=test.kisti.re.kr</a>	2007-10-02 11:25:03	upload	[show] / [hide]

신청하신 CSR 목록은 왼쪽 메뉴 My CSR List 를 보시면 됩니다.

이상 CSR 업로드 과정을 마치셨다면,  
확인을 위해 [kisti-grid-ca@kisti.re.kr](mailto:kisti-grid-ca@kisti.re.kr) 로 아래와 같은 내용의 메일을  
전송해 주십시오.

KISTI CA 관리자님,

호스트인증서 요청을 하였으니 승인해 주시기 바랍니다.

FROM: \_\_\_\_\_