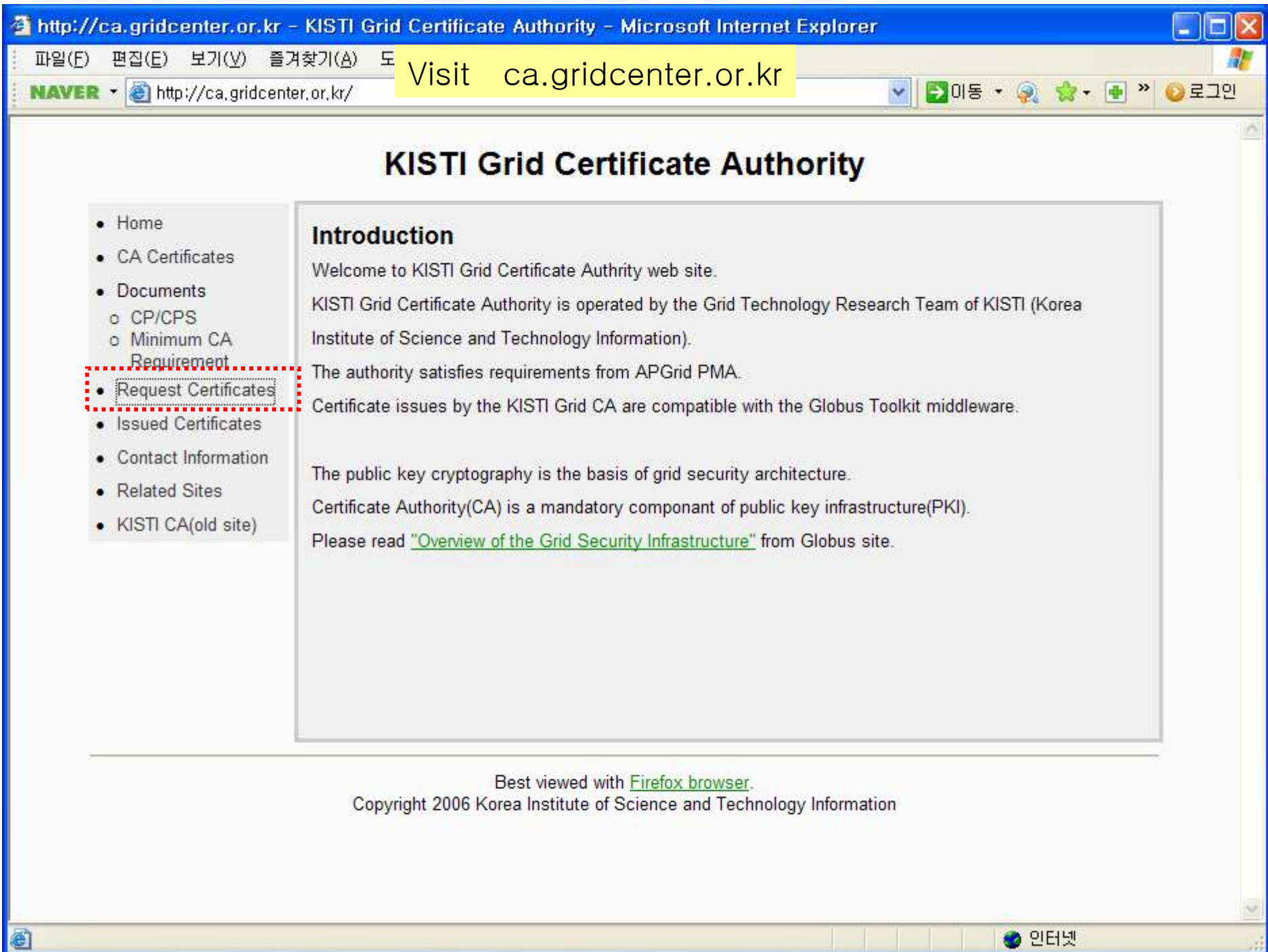


# How to Request Host Certificate

호스트 인증서 신청 방법

2007.10.01



http://ca.gridcenter.or.kr - KISTI Grid Certificate Authority - Microsoft Internet Explorer

파일(F) 편집(E) 보기(V) 즐겨찾기(A) 도 Visit ca.gridcenter.or.kr

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# KISTI Grid Certificate Authority

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  - Minimum CA Requirement
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## Introduction

Welcome to KISTI Grid Certificate Authrity 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.

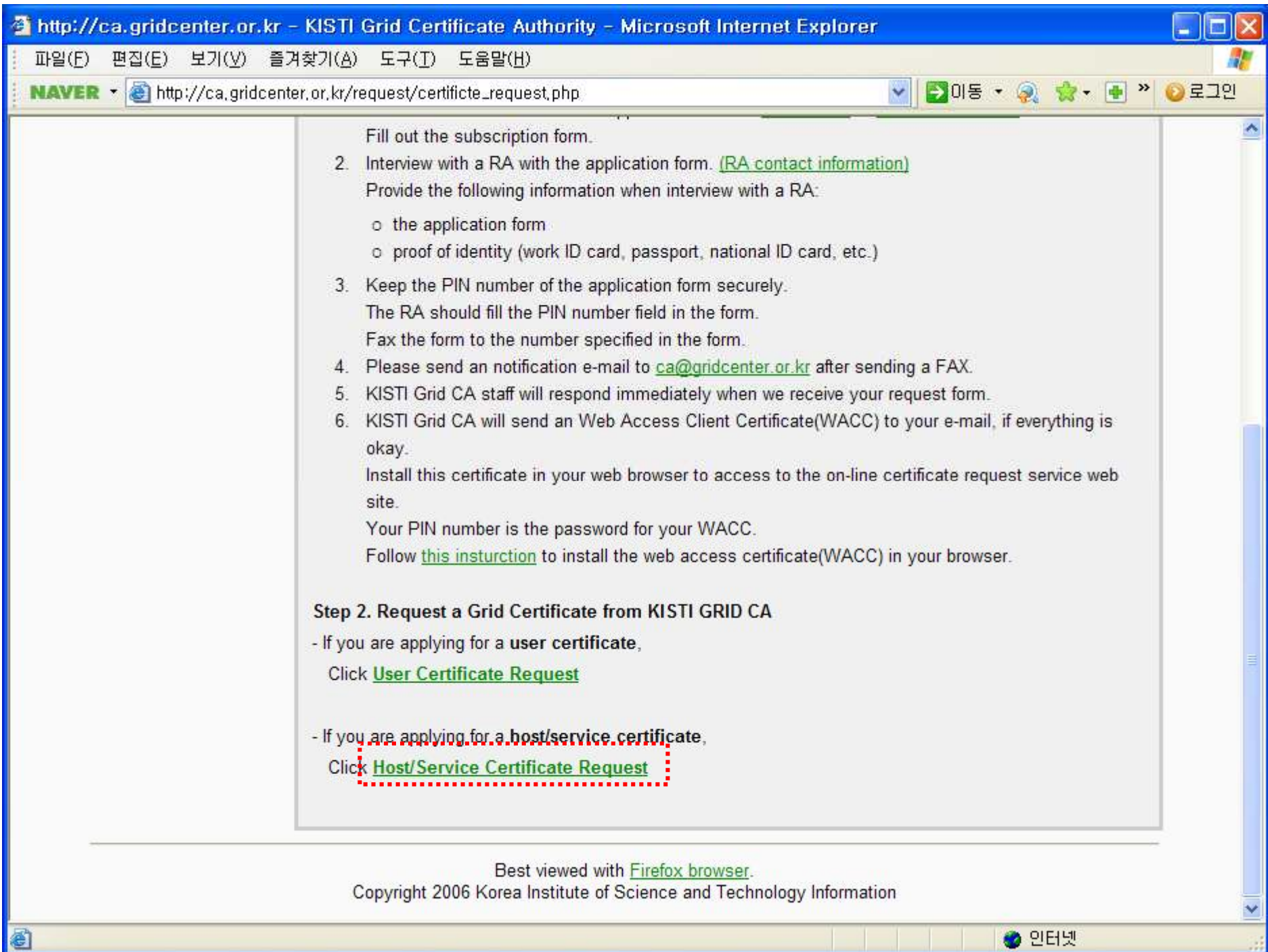
Certificate Authority(CA) is a mandatory componant of public key infrastructure(PKI).

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

Best viewed with [Firefox browser](#).

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### 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

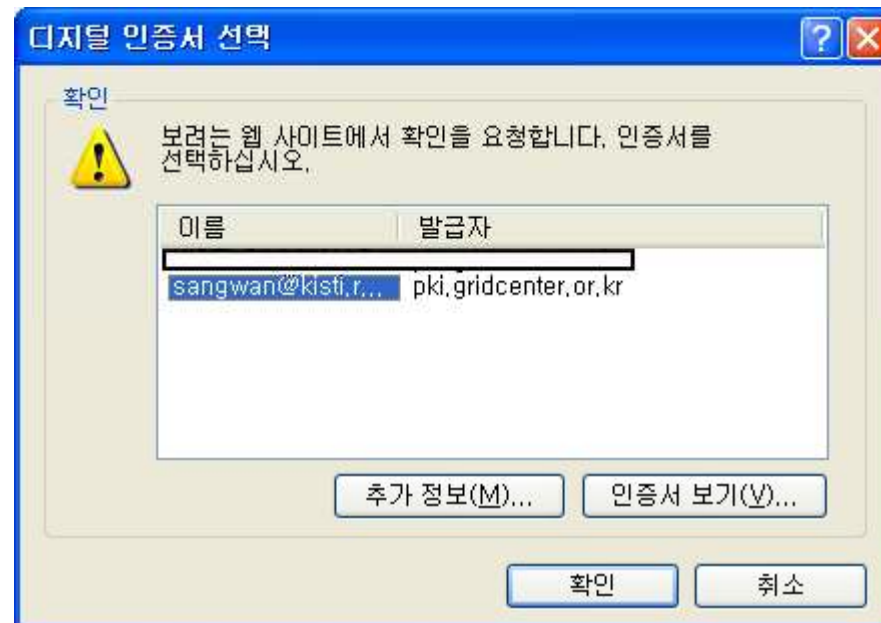
[Click here to request service or host certificate in the Online Request Service.](#)

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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Connect to “Online Request Service” using your WACC certificate.





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## KISTI Grid Certificate Authority

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- 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
Organization:	KISTI
Organization:	GRID
Organization:	<input type="text"/>
Host FQDN:	<input type="text"/> (max. 30 characters) e.g) hostname.example.co.kr
CSR:	<div>Copy and paste your CSR block below:</div> <div>This CSR input textarea.</div>

Upload CSR

Select Your Organization and input the FQDN of the host for which you want to get a certificate.

Copy and paste your CSR block below:

This CSR input textarea.

## How to generate CSR with **OpenSSL**

Using RSA 1024-bit and  
do not encrypt the key using DES.

```
openssl req W  
-new -sha1 -newkey rsa:1024 -nodes W  
-keyout hostkey.pem W  
-out hostcert_request.pem W  
-subj "/C=KR/O=KISTI/O=GRID/O=ORGANIZATION/CN=hostW/grid.example.com"
```

This is common for every certificate issued by KISTI CA

Replace this your own organization and hostname.

If you use globus software, for host certificate 'host/' is prefied in the CN.

If successful, the hostkey.pem and hostcert\_request.pem files are generated.

## How to generate CSR with **OpenSSL**

EX) a user in KISTI request a host certificate with the name 'test.kisti.re.kr'

Run like this,

```
openssl req W  
-new -sha1 -newkey rsa:1024 -nodes W  
-keyout hostkey.pem W  
-out hostcert_request.pem W  
-subj "/C=KR/O=KISTI/O=GRID/O=KISTI/CN=hostW/test.kisti.re.kr"
```



Check the generated CSR.

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

Certificate Request:

Data:

Version: 0 (0x0)

Subject: C=KR, O=KISTI, O=GRID, O=KISTI, CN=host/test.kisti.re.kr

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

RSA Public Key: (1024 bit)

Modulus (1024 bit):

00:c0:c0:8a:0d:90:3d:f2:df:d1:a3:2d:0e:79:cf:  
27:10:1e:9c:ab:6c:e6:cb:d7:55:3e:9d:2e:a0:88:  
73:6a:e9:76:cc:03:6c:a1:22:67:da:30:12:3d:98:  
9a:20:7e:8a:ae:68:f6:25:ab:60:7d:99:4f:4a:d8:  
d2:c4:77:70:d0:9a:5b:aa:7b:6b:2b:a2:48:74:54:  
b4:a3:a1:fc:b6:3d:0a:df:95:4b:ae:e8:80:0a:8f:  
9d:76:f5:91:83:21:0b:10:1d:b9:27:5c:af:63:81:  
b0:fe:3a:f4:f1:8f:1d:3a:07:34:cf:42:08:4b:52:  
03:41:2d:51:d0:1e:2c:36:cb

Exponent: 65537 (0x10001)

Attributes:

a0:00

Signature Algorithm: sha1WithRSAEncryption

b0:bd:15:d6:69:6d:36:72:ce:55:41:dd:21:da:dc:03:8b:2e:  
d3:21:82:11:e5:e2:3c:04:2e:47:57:bf:3f:cb:75:e3:6d:8f:  
c4:98:fd:3a:79:ac:62:f9:cc:23:a0:f8:a4:35:51:eb:c3:10:  
93:a3:65:06:69:cc:1a:ed:ce:ea:4a:17:58:ee:b7:cc:93:5b:  
be:6c:7b:d5:2d:d0:43:9a:a3:45:c8:30:07:b1:90:2e:f8:6d:  
5f:c2:5b:83:e0:d7:c4:e8:6c:74:df:64:cd:41:d5:4f:09:e3:  
21:e6:d3:53:bf:62:77:3c:30:cf:0c:1b:03:ad:c2:9c:c9:55:  
cc:a6

Check the subject of the CSR

Check the RSA key size.

If the CSR have no problem,  
You can input the CSR text block in the previous step.

Copy the content of the hostcert\_request.pem file.

```
5f:c2:5b:83:e0:d7:c4:e8:6c:74:df:64:cd:41:d5:4f:09:e3:
21:e6:d3:53:bf:62:77:3c:30:cf:0c:1b:03:ad:c2:9c:c9:55:
cc:a6
[sangwan@gridnew ~/x]$ more hostcert_request.pem
-----BEGIN CERTIFICATE REQUEST-----
MIIBnDCCAQUCAQAwxDELMAkGA1UEBhMCS1IxZjAMBgNVBAoTBUTJU1RJMQUwCwYD
VQKKEwRHUK1EMQ4wDAYDVQQKEwVLSUNUSTEeMBwGA1UEAxMVaG9zdC90ZXN0Lmtp
c3RpLnJlLmtyMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDAwIoNkD3y39Gj
LQ55zycQHpyrb0bL11U+nS6giHNq6XbMA2yhImFaMBI9mJogFoquaPY1q2B9mU9K
2NLEd3DQmLuqe2srokh0VLSjofy2PQrf1Uuu6IAKj5129ZGDIQsQHbknXK9jgbD+
0vTxjx06BzTPQghLUgNBLVHQHiw2ywIDAQABoAAwDQYJKoZIhvcNAQEFBQADgYEA
sL0U1mltNnLOVUHDIdrcA4su0yGCEeXiPAQuR1e/P8t1422PxJj90nmsYvnMI6D4
pDUR68MQk6N1BmnMGU306koXW063zJNbvmx71S3QQ5qjRcgwB7GQLvhtX8Jbg+DX
x0hsdN9kzUHVUtnjIebTU79idzwwzwwbA63CnM1UzKY=
-----END CERTIFICATE REQUEST-----
[sangwan@gridnew ~/x]$
```

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

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

Country:	KR
Organization:	KISTI
Organization:	GRID
Organization:	KISTI
Host FQDN:	test.kisti.re.kr (max. 30 characters) e.g) hostname.example.co.kr
CSR:	<div>Copy and paste your CSR block below: -----BEGIN CERTIFICATE REQUEST----- MIIBnDCCAQUCAQAwXDELMakGA1UEBhMCS1IxJjAMBgNVBAoTB UkJU1RJMq0wCwYD VQQKEWRHUKlEMQ4wDAYDVQQKEwVLSVNUSTeMBwGA1UEAxM Paste the copied CSR text block. Aw10NkU3y39Gj LQ55zycQHpyrbObL11U+nS6giHNq6XbMA2yhImfaMBI9mJogfoqu aPYlq2B9mU9K 2NLEd3DQmluqe2srokh0VLSjofy2PQrflUuu6IAKj5129ZGDIQsQHb</div>
	Upload CSR

Select Organization  
and input the Host FQDN.

If the information in the  
request form is not  
correct, the issuance  
of the certificate can be  
rejected.

Finally, press the Upload button.



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## KISTI Grid Certificate Authority

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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]

Request CSR information is shown in the left size menu 'My CSR List'

KISTI Grid Certificate Authority

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After finishing CSR upload process,  
for notification, please send an email to ca@gridcenter.or.kr  
containing the following message.

To KISTI CA manager,

I have uploaded my host certificate request,  
please sign the CSR.

FROM: Your Name