

# Grid Certificate API Documentation

1. Introduction
2. Grid Host Certificate Management
3. Grid Client Certificate Management
4. Log Management
5. Error Responses and Error Codes
6. Example Code
7. Troubleshooting

## 1. Grid API: Introduction

The **DigiCert Grid Certificate API** provides a accessible and secure way to manage certificates through a scripted or semi-automated system.

### Documentation Outline

The API Documentation is organized into five main sections:

- **Introduction**  
Introduces how the API accepts requests and gives a brief overview of how it responds
- **Host Certificate Management**  
Details how to request, approve, reject, revoke, and retrieve Grid Host Certificates using the API.
- **Client Certificate Management**  
Details how to request and retrieve Grid Client Certificates using the API.
- **Log Management**  
Shows how to retrieve data about activity from our account logs through the API.
- **Error Responses and Error Codes**  
Shows how errors are communicated in the response and provides a comprehensive list of error codes

There are some additional supplementary sections at the end where you can find some example code and some information on troubleshooting.

### API Basics

All API requests are submitted through an HTTP POST to the specified URLs. The POST data will be accepted through port 443, which is the default port for SSL. To ensure a well-formed request, make sure that the “User-Agent” and “Content-Length” headers are specified in the HTTP POST.

The API returns either an XML or JSON response depending on what format has been requested in the POST parameters. The response contains a **result** value that will contain either the word **success** or **failure**. If the

result is successful then the response will also contain a ***return*** data set with the results of your request. If the result is failure, the response will contain an ***error\_codes*** data set with information about the error that occurred.

	Request Succeeded Response	Request Failed Response
XML	<pre>&lt;?xml version="1.0"?&gt; &lt;response&gt;   &lt;result&gt;success&lt;/result&gt;   &lt;return&gt;     [...]   &lt;/return&gt; &lt;/response&gt;</pre>	<pre>&lt;?xml version="1.0"?&gt; &lt;response&gt;   &lt;result&gt;failure&lt;/result&gt;   &lt;error_codes&gt;     [...]   &lt;/error_codes&gt; &lt;/response&gt;</pre>
JSON	<pre>{"response": {"result":"success","return":{}}}</pre>	<pre>{"response": {"result":"failure","error_codes":[]}}</pre>

## 2. Grid API: Host Certificate Management

### Request a Grid Host Certificate

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_request\\_host\\_cert](https://www.digicert.com/enterprise/api/?action=grid_request_host_cert)

You may request a new Grid Host Certificate by supplying the Common Name to be secured by the certificate (example.com) and a certificate signing request or CSR that you have generated on your server. You may optionally include a Service Name, Subject Alternative Names (SANs) to be included on the certificate, a numeric Server Type, and a comment.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Request Grid Host Certificate POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
common_name	Required	[string]		The name to be secured in the certificate. A sample common name: example.com
csr	Required	[string]		Certificate Signing Request. To create a CSR from your server, visit DigiCert's website at <a href="http://www.digicert.com/csr-creation.htm">http://www.digicert.com/csr-creation.htm</a> for more information.
service_name	<i>Optional</i>	[string]	[blank]	Kerberos style common name prefix, example: 'sams' would make the common name 'sams/example.com'.
sans	<i>Optional</i>	[string]	[decoded from csr]	Subject Alternative Names. A comma delimited list of names to be secured in the certificate. Adding sans names incurs additional cost.
server_type	<i>Optional</i>	[number, see appendix A]	-1	Server platform. Defaults to 'Other'.
comments	<i>Optional</i>	[string]	[blank]	Comments about this request for the approver to see.

### Return Values

Parameter Name	Data Type	Description
request_id	[integer]	The unique identifier of the request that can be used to approve or reject the requested action

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <request_id>12776</request_id>
  </return>
</response>
```

## Request a Grid Host Certificate be Revoked

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_request\\_host\\_revoke](https://www.digicert.com/enterprise/api/?action=grid_request_host_revoke)

To request that a Grid Host Certificate that has already been issued be revoked you will need to pass either the order id of the certificate or its serial number. You may also include an optional comment explaining the reason for the revocation. The revocation request will be added to the approval queue where it will need to be either approved before it will be revoked or rejected.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Request Grid Host Certificate Revoke POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
order_id	Required	[numeric]		The order_id of the issued certificate to be revoked. <i>Either the order_id or the serial number is required.</i>
serial		[string]		The serial number of the issued certificate to be revoked. <i>Either the order_id or the serial number is required.</i>
comments	<i>Optional</i>	[string]	[blank]	Comments about this request for the approver to see.

### Return Values

Parameter Name	Data Type	Description
request_id	[integer]	The unique identifier of the request that can be used to approve or reject the requested action

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <request_id>12762</request_id>
  </return>
</response>
```

## List Pending Grid Host Certificate Requests

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_list\\_pending\\_requests](https://www.digicert.com/enterprise/api/?action=grid_list_pending_requests)

To retrieve a list of Grid Host Certificate requests that have not yet been approved, just pass your normal authentication parameters to this URL. No additional parameters are needed.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### List Pending Grid Host Certificate Requests POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
No action specific parameters				

### Return Values

Parameter Name	Data Type	Description
requests	[collection]	An collection that contains on or more pending requests
request	[data set]	A data set containing information about a specific request
request_details	[data set]	A data set containing information about the type and status of the request
request_id	[integer]	The unique identifier for the request
status	[string]	The status of the request: pending, approved, rejected
request_type	[string]	The type of request: issue, revoke
comments	[string]	The comment submitted with the request by the requester
request_date	[datetime]	The date and time the request was made. Format:d-M-Y g:i a Example: 19-JAN-2011 5:05 PM
submitted_details	[data set]	A data set containing information about about the certificate that will be effected by the requested action
product_name	[string]	The product name of the certificate
server_type	[string]	There server software type of the certificate
validity	[string]	The length of time for which the certificate is valid. Example: 1 Year(s)
org_unit	[string]	The organization unit of the certificate
common_name	[string]	The common name of the certificate
sans	[data set]	A data set of Subject Alternative Names (SANs) on the certificate
san	[string]	A Subject Alternative Name included on the certificate

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
```

```
<return>
  <requests>
    <request>
      <request_details>
        <request_id>1007</request_id>
        <status>pending</status>
        <request_type>issue</request_type>
        <comments>This is a comment.</comments>
        <request_date>19-JAN-2011 5:05 PM</request_date>
      </request_details>
      <submitted_details>
        <product_name>Grid Host</product_name>
        <server_type>Apache</server_type>
        <validity>1 Year(s)</validity>
        <org_unit>Accounting</org_unit>
        <common_name>test.example.com</common_name>
        <sans>
          <san>testing.example.com</san>
        </sans>
      </submitted_details>
    </request>
    <request>
      <request_details>
        <request_id>12761</request_id>
        <status>pending</status>
        <request_type>revoke</request_type>
        <comments/>
        <request_date>19-JAN-2012 2:18 AM</request_date>
      </request_details>
      <submitted_details>
        <product_name>Grid Host</product_name>
        <server_type>OTHER</server_type>
        <validity>1 Year(s)</validity>
        <org_unit/>
        <common_name>example.com</common_name>
        <sans/>
      </submitted_details>
    </request>
  </requests>
</return>
</response>
```

## Approve a Grid Host Certificate Request

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_approve\\_request](https://www.digicert.com/enterprise/api/?action=grid_approve_request)

If your account permits certificate request approvals through the API you can approve a pending requests and revocations by passing the request id to the `grid_approve_request` URL. The request id is returned in the response to the original Grid Host Certificate Request or can be retrieved using the List Pending Grid Host Certificate Requests call above. You may optionally include an approval comment as well.

Approving a certificate request generates an `order_id`, which is returned in the response. There may be a delay between the time you approve the certificate and generate an order id and when the certificate is actually issued, assigned a serial number, and available, so the API cannot return the serial number immediately.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Approve Grid Host Certificate Request POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
request_id	Required	[numeric]		To approve a revocation, use the request_id returned from <a href="#">grid_request_host_revoke</a> . To approve of certificate issuance, use the request_id returned from API call <a href="#">grid_request_host_cert</a> .
comments	<i>Optional</i>	[string]	[blank]	Comments about this request for the approver to see.

### Return Values

Parameter Name	Data Type	Description
order_id	[integer]	The identifier of the order that uniquely identifies the certificate that has been approved.
success_message	[string]	A human readable confirmation message that the request has been approved and an order created

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <order_id>00276176</order_id>
    <success_message>The request has been approved.  An approved order has been
created.</success_message>
  </return>
</response>
```

## Reject a Grid Host Certificate Request

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_reject\\_request](https://www.digicert.com/enterprise/api/?action=grid_reject_request)

If your account permits certificate request approvals through the API you can reject a pending request by passing the request id and an explanatory comment to the `grid_reject_request` URL. The request id is returned in the response to the original Grid Host Certificate Request or can be retrieved using the List Pending Grid Host Certificate Requests call above. For rejections the comment parameter is REQUIRED.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Reject Grid Host Certificate Request POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
request_id	Required	[numeric]		Use the request_id returned from calls to either <a href="#">grid_request_host_revoke</a> or <a href="#">grid_request_host_cert</a> .
comments	Required	[string]		An explanatory comment about why the request is being rejected

### Return Values

Parameter Name	Data Type	Description
success_message	[string]	A human readable confirmation message that the request has been rejected

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <success_message>Rejected certificate request for
example.com</success_message>
  </return>
</response>
```



## Retrieve a Grid Host Certificate

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_retrieve\\_host\\_cert](https://www.digicert.com/enterprise/api/?action=grid_retrieve_host_cert)

To retrieve a Grid Host Certificate that has already been issued you will need to pass either the order id of the certificate or its serial number. The API will return the certificate, the intermediate certificate, the root certificate, and the certificates in PKCS7.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Retrieve Grid Host Certificate POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
order_id	Required	[numeric]		The order_id is found in the response to the API call <a href="#">grid_approve_request</a> . <i>Either the order_id or the serial number is required.</i>
serial		[string]		The serial number of the certificate. <i>Either the order_id or the serial number is required.</i>

### Return Values

Parameter Name	Data Type	Description
order_id	[integer]	The identifier of the order that uniquely identifies the certificate
serial	[string]	The serial number of the certificate
certs	[data set]	A data set containing the certificates
certificate	[text]	The certificate
intermediate	[text]	The intermediate certificate
root	[text]	The root certificate
pkcs7	[text]	PKCS7 of the certificates

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <order_id>00276176</order_id>
    <serial>07C2EDE40FEEA2AA03C0615F32D3A26D</serial>
    <certs>
      <certificate>
        -----BEGIN CERTIFICATE-----
        MIIFMDCCBBigAwIBAgIQB8Lt5A/uoqoDwGFfMtOibTANBgkqhkiG9w0BAQUFADBu
        MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
        [...]
        +KBK5AAZ7S8N4t3xL4Xgd8Z5QTiwlCj4iYETgC+e6ypRx1EnwkwPTM+v/a3qBAh8
```

```
gErk3blCmLLK4ToULBp7R4/fZlYl4hteJyDULMSLexKdA+AJ
-----END CERTIFICATE-----
</certificate>
<intermediate>
-----BEGIN CERTIFICATE-----
MIIE4zCCA8ugAwIBAgIQByZq8O6ulHhZsthDZLeKTTANBgkqhkiG9w0BAQUFADBx
MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
[...]
MdK3Empl2nll0vkxKKckM/6gl/zotmUC/L+rCw+75nlYYDN4EhN+2hqN0H7ekiMI
BuUMrn/zOOCE/T51TFmQmVKYhw8mnF6HTeoNqSxiHYsQGDQodFA9847E7puXKWC7
v2w7v6F5aA==
-----END CERTIFICATE-----
</intermediate>
<root>
-----BEGIN CERTIFICATE-----
MIIDzzCCAreAwIBAgIQAb1XTWj/ZrPV05Rb6HjP2TANBgkqhkiG9w0BAQUFADBx
MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
[...]
ijD+28PMnpMH6xOUsJHxpviYGF1Ph2aZvuILgnMGMqAwGp/bdJrHSoyta7CMhNuX
Wg3SKbaUKKz/uA3rMEHFAJ9C4w==
-----END CERTIFICATE-----
</root>
<pkcs7>
-----BEGIN PKCS7-----
MIIIOGQYJKoZIhvcNAQcCoIIOCjCCDgYCAQExADALBgkqhkiG9w0BBwGggg3uMIIIF
MDCCBBigAwIBAgIQB8Lt5A/uoqoDwGFfMtOibTANBgkqhkiG9w0BAQUFADBUMRMw
[...]
ik9Be/i+DFEZQMy7ZfHGEtUx7BuYoNN88eWJfHg5QvbyVd7LwS3LYoow/tvDzJ6T
B+sTlLCR8ab4mBhdT4dmmb7iC4JzBjKgMBqf23Sax0qMrWuwjITbl1oN0im2lCis
/7gN6zBBxQCfQuMxAA==
-----END PKCS7-----
</pkcs7>
</certs>
</return>
</response>
```

## Retrieve Grid Host Certificate Details

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_certificate\\_details](https://www.digicert.com/enterprise/api/?action=grid_certificate_details)

To retrieve the details of a Grid Host Certificate that has already been issued you will need to pass either the order id of the certificate or its serial number. The API will return information about the certificate including its expiration date, status, and the certificate itself.

This call can also be used as a convenient way to look up the corresponding order id for a specified serial number or the serial number for a specified order id.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Retrieve Grid Host Certificate Details POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
order_id	Required	[numeric]		The order_id is found in the response to the API call <a href="#">grid_approve_request</a> . <i>Either the order_id or the serial number is required.</i>
serial		[string]		

### Return Values

Parameter Name	Data Type	Description
order_details	[data set]	A data set containing information about the order for the certificate
status	[string]	The status of the certificate: issued
order_id	[integer]	The identifier that uniquely identifies the order for the certificate
certificate_details	[data set]	A data set containing information about the certificate
product_name	[string]	The name of the certificate
server_type	[string]	The server platform of the certificate
validity	[string]	The length of time for which the certificate is valid. Example: 1 Year(s)
org_unit	[string]	The organization unit of the certificate
common_name	[string]	The common name of the certificate
sans	[data set]	A data set of Subject Alternative Names (SANs) on the certificate
san	[string]	A Subject Alternative Name included on the certificate
serial_number	[string]	The serial number of the certificate
valid_from	[date]	The start date of the certificate's validity Format: d-M-Y Example: 19-JAN-2012
valid_till	[date]	The end date of the certificate's validity Format: d-M-Y Example: 19-JAN-2013

Parameter Name	Data Type	Description
certificate	[text]	The certificate

## Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <order_details>
      <status>issued</status>
      <order_id>00276176</order_id>
    </order_details>
    <certificate_details>
      <product_name>Grid Host</product_name>
      <server_type>OTHER</server_type>
      <validity>1 Year(s)</validity>
      <org_unit/>
      <common_name>example.com</common_name>
      <sans>
        <san>test.example.com</san>
      </sans>
      <serial_number>07C2EDE40FEEA2AA03C0615F32D3A26D</serial_number>
      <valid_from>19-JAN-2012</valid_from>
      <valid_till>23-JAN-2013</valid_till>
      <certificate>
        -----BEGIN CERTIFICATE-----
        MIIFMDCCBBigAwIBAgIQB8Lt5A/uoqoDwGFfMtOibTANBgkqhkiG9w0BAQUFADBu
        MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
        [...]
        +KBK5AAZ7S8N4t3xL4Xgd8Z5QTIwlCj4iYETgC+e6ypRx1EnwkwPTM+v/a3qBAh8
        gErk3blCmLLK4ToULBp7R4/fZlyl4htejyDULMSLexKdA+AJ
        -----END CERTIFICATE-----
      </certificate>
    </certificate_details>
  </return>
</response>
```

### 3. Grid API: Grid Client Certificate Management

#### Request a Grid Client Certificate

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_request\\_email\\_cert](https://www.digicert.com/enterprise/api/?action=grid_request_email_cert)

You can request a Grid Client Certificate by passing the full name and email address of the person for whom the certificate is being requested and a certificate signing request or CSR. You may also pass in an optional organizational unit (OU) to be included in the certificate. The client cert is generated immediately and the response will include the client certificate id and serial number, as well as the certificate itself, the intermediate certificate, the root certificate, as well as the certificates in PKCS7.

#### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

#### Request Grid Client Certificate POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
full_name	Required	[string]		First name and last name of the end user.
email	Required	[string - valid email address]		The active valid email address of the end user.
csr	Required	[string]		Visit <a href="http://www.digicert.com/csr-creation.htm">http://www.digicert.com/csr-creation.htm</a> to learn how to create a Certificate Signing Request.
org_unit	<i>Optional</i>	[string]	[blank]	Usually blank, the OU certificate field may be used for internal purposes in your organization.

#### Return Values

Parameter Name	Data Type	Description
client_id	[integer]	Uniquely identifies the client certificate
serial	[string]	The serial number of the certificate
certs	[data set]	A data set containing the certificates
certificate	[text]	The certificate
intermediate	[text]	The intermediate certificate
root	[text]	The root certificate
pkcs7	[text]	PKCS7 of the certificates

#### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <client_id>3405</client_id>
    <serial>08104DA868D168D102B4906F9ABB1C3E</serial>
    <certs>
```

```
<certificate>
  -----BEGIN CERTIFICATE-----
  MIIFODCCBCCgAwIBAgIQCBBNqGjRaNECtJBvmrscPjANBgkqhkiG9w0BAQUFADBu
  MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
  [...]
  wTSbH+OQ/c6K7ChubZLtjAz4+1L4+1FxDoLiHAeck5ckSkZqH/sWoXb/VHMmdYk1
  NVu4BySTF48aobw6/eVkWQDk0MqJOrP2q3gkU2c6xM9RLOBh8MzLZmdND9Y=
  -----END CERTIFICATE-----
</certificate>
<intermediate>
  -----BEGIN CERTIFICATE-----
  MIIE4zCCA8ugAwIBAgIQByZq8O6ulHhZsthDZLeKTTANBgkqhkiG9w0BAQUFADBx
  MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
  [...]
  MdK3Empl2nll0vkxKKckM/6g1/zotmUC/L+rCw+75nlYYDN4EhN+2hqN0H7ekiMI
  BuUMrn/zOOCE/T51TFmQmVKYhw8mnF6HTeoNqSxiHYsQGDQodFA9847E7puXKWC7
  v2w7v6F5aA==
  -----END CERTIFICATE-----
</intermediate>
<root>
  -----BEGIN CERTIFICATE-----
  MIIDzzCCAreAwIBAgIQAb1XTWj/ZrPV05Rb6HjP2TANBgkqhkiG9w0BAQUFADBx
  MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
  [...]
  ijd+28PMnpMH6xOUsJHxpviYGF1Ph2aZvuILgnMGMqAwGp/bdJrHSoyta7CMhNuX
  Wg3SKbaUkkz/uA3rMEHFAJ9C4w==
  -----END CERTIFICATE-----
</root>
<pkcs7>
  -----BEGIN PKCS7-----
  MIIIOIQYJKoZIhvcNAQcCoIIIOEjCCDg4CAQExADALBgkqhkiG9w0BBwGggg32MIIF
  ODCCBCCgAwIBAgIQCBBNqGjRaNECtJBvmrscPjANBgkqhkiG9w0BAQUFADBuMRMw
  [...]
  O3wy97iVZpaKT0F7+L4MURlAzLtl8cYS1THsG5ig03zx5Yl8eDlC9vJV3svBLcti
  ijd+28PMnpMH6xOUsJHxpviYGF1Ph2aZvuILgnMGMqAwGp/bdJrHSoyta7CMhNuX
  Wg3SKbaUkkz/uA3rMEHFAJ9C4zEA
  -----END PKCS7-----
</pkcs7>
</certs>
</return>
</response>
```

## Retrieve a Grid Client Certificate

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_retrieve\\_email\\_cert](https://www.digicert.com/enterprise/api/?action=grid_retrieve_email_cert)

To retrieve a Grid Client Certificate that has already been issued you will need to pass either the client certificate id or the certificate's serial number, both of which are returned in the response to a successful Request for a Grid Client Certificate. The API will return the certificate, the intermediate certificate, the root certificate, and the certificates in PKCS7.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Retrieve Grid Host Certificate POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
client_id	Required	[integer]		The client certificate id is found in the response to the API call <code>grid_request_email_cert</code> . <i>Either the client_id or the serial number is required.</i>
serial		[string]		The serial number of the certificate. <i>Either the client_id or the serial number is required.</i>

### Return Values

Parameter Name	Data Type	Description
client_id	[integer]	Uniquely identifies the client certificate
serial	[string]	The serial number of the certificate
certs	[data set]	A data set containing the certificates
certificate	[text]	The certificate
intermediate	[text]	The intermediate certificate
root	[text]	The root certificate
pkcs7	[text]	PKCS7 of the certificates

### Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <client_id>3405</client_id>
    <serial>08104DA868D168D102B4906F9ABB1C3E</serial>
    <certs>
      <certificate>
        -----BEGIN CERTIFICATE-----
        MIIFODCCBCCgAwIBAgIQCBBNqGjRaNECtJBvmrscPjANBgkqhkiG9w0BAQUFADBu
        MRMwEQYKCZImiZPyLGQBGRYDY29tMR0wGwYKCZImiZPyLGQBGRYNRGlnaUNlcnQt
        [...]
```

```
wTSbH+OQ/c6K7ChubZLtjAz4+1L4+1FxDoLiHAeck5ckSkZqH/sWoXb/VHMmdYk1
NVu4BySTF48aobw6/eVkWQDk0MqJOrP2q3gkU2c6xM9RLOBh8MzLZmdND9Y=
-----END CERTIFICATE-----
</certificate>
<intermediate>
-----BEGIN CERTIFICATE-----
MIIE4zCCA8ugAwIBAgIQByZq8O6ulHhZsthDZLeKTTANBgkqhkiG9w0BAQUFADBx
MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
[...]
Mdk3Empl2nll0vkxKKckM/6g1/zotmUC/L+rCw+75nlYYDN4EhN+2hqN0H7ekiMI
BuUMrn/zOOCE/T51TFmQmVKYhw8mnF6HteoNqSxiHYsQGDQodFA9847E7puXKWC7
v2w7v6F5aA==
-----END CERTIFICATE-----
</intermediate>
<root>
-----BEGIN CERTIFICATE-----
MIIDzzCCAregAwIBAgIQAbLXTWj/ZrPV05Rb6HjP2TANBgkqhkiG9w0BAQUFADBx
MRMwEQYKCZImiZPyLGBGRYDY29tMR0wGwYKCZImiZPyLGBGRYNRGlnaUNlcnQt
[...]
ijD+28PMnpMH6xOUsJHxpviYGF1Ph2aZvuILgnMGMqAwGp/bdJrHSoyta7CMhNuX
Wg3SKbaUkkz/uA3rMEHFAJ9C4w==
-----END CERTIFICATE-----
</root>
<pkcs7>
-----BEGIN PKCS7-----
MIIOIQYJKoZIhvcNAQcCoIIIEjCCDg4CAQExADALBgkqhkiG9w0BBwGggg32MIIF
ODCCBCCgAwIBAgIQCBBNqGjRaNEctJBvmrscPjANBgkqhkiG9w0BAQUFADBUMRMw
[...]
O3wy97iVZpaKT0F7+L4MURlAzLtl8cYS1THsG5ig03zx5Yl8eDlC9vJV3svBLcti
ijD+28PMnpMH6xOUsJHxpviYGF1Ph2aZvuILgnMGMqAwGp/bdJrHSoyta7CMhNuX
Wg3SKbaUkkz/uA3rMEHFAJ9C4zEA
-----END PKCS7-----
</pkcs7>
</certs>
</return>
</response>
```



## 4. Grid API: Log Management

### Retrieve Account Logs

URL: [https://www.digicert.com/enterprise/api/?action=grid\\_retrieve\\_logs](https://www.digicert.com/enterprise/api/?action=grid_retrieve_logs)

You can retrieve the activity logs for your account through this API call. By default it returns your most recent log entries in reverse chronological order (newest first).

Optionally you can filter for logs between specific start or end dates, log entries by a specific user or ip address, a specific kind of event action, and whether or not the action was successful or failed.

### API Authentication & Response POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
customer_name	Required	[account number]		Your DigiCert account number (e.g., '012345')
customer_api_key	Required	[string]		Your DigiCert API Key. To setup, contact DigiCert.
response_type	<i>Optional</i>	'json' or 'xml'	'json'	The response format to receive back from the API.

### Retrieve Account Logs POST Parameters

Parameter Name	Req/Opt	Allowed Values	Default	Description
date_start	<i>Optional</i>	[string]	[blank]	The start date in the format YYYY-MM-DD by which the logs should be filtered . Month and Day are optional.
date_end	<i>Optional</i>	[string]	[blank]	The end date in the format YYYY-MM-DD by which the logs should be filtered . Month and Day are optional.
event_user_id	<i>Optional</i>	[string]	[blank]	Filter logs to show only those entries by the specified user. User ids are shown in the log response.
event	<i>Optional</i>	[string]	[blank]	Filter logs for the specified event action (eg. Login).
status	<i>Optional</i>	[string]	[blank]	Filter logs for only those events with a certain status (valid values are: successful, failed)
ip_address	<i>Optional</i>	[string]	[blank]	Filter the logs to show only those entries by the specified ip address.
origin	<i>Optional</i>	[string]	[blank]	Filter the logs to show only those entries that originated from the API or from the Web User Interface. Values: api, ui

### Return Values

Parameter Name	Data Type	Description
logs	[data set]	A data set containing log entries
log	[data set]	A data set containing information about an individual log entry
date_time	[datetime]	The date and time that the logged event occurred Format: YYYY-MM-DD HH:MM:SS
user_id	[integer]	The unique identifier of the user that performed the logged action
user_name	[string]	The name of the user who performed the logged action

Parameter Name	Data Type	Description
ip_address	[string]	The ip address from which the logged action was initiated
ip_country	[string]	The country code for the ip_address if available
status	[string]	Whether the action being attempted was successful or not. Values: successful, failed
event	[string]	The action that was being logged
message	[string]	A message containing further information about the action

## Example Response

```
<?xml version="1.0"?>
<response>
  <result>success</result>
  <return>
    <logs>
      <log>
        <date_time>2012-01-18 17:24:44</date_time>
        <user_id>12345</user_id>
        <user_name>Joe Bloggs</user_name>
        <ip_address>64.78.193.228</ip_address>
        <ip_country>us</ip_country>
        <status>successful</status>
        <event>make request</event>
        <message>Certificate for names: example.com, Years: 1</message>
      </log>
      <log>
        <date_time>2012-01-18 17:23:54</date_time>
        <user_id>12345</user_id>
        <user_name>Joe Bloggs</user_name>
        <ip_address>64.78.193.228</ip_address>
        <ip_country>us</ip_country>
        <status>successful</status>
        <event>login</event>
        <message/>
      </log>
      <log>
        <date_time>2011-11-03 11:08:53</date_time>
        <user_id>54321</user_id>
        <user_name>Jane Bloggs</user_name>
        <ip_address>64.78.193.228</ip_address>
        <ip_country>us</ip_country>
        <status>successful</status>
        <event>approve request</event>
        <message>Certificate with common names: localhost</message>
      </log>
    </logs>
  </return>
</response>
```



## 5. Grid API: Error Responses and Error Codes

As mentioned in the introduction, if an error occurs with your request the response *result* value will be **failure** and instead of a *return* section the response will contain an *error\_codes* section.

```
<?xml version="1.0"?>
<response>
  <result>failure</result>
  <error_codes>
    [...]
  </error_codes>
</response>
```

### Error Return Values

Parameter Name	Data Type	Description
result	[string]	failure
error_codes	[data set]	A data set containing one or more error codes
error_code	[data set]	A data set containing information about a specific error
code	[string]	An error code that identifies the error that occurred
description	[string]	A human readable description of the error
errors	[data set]	DEPRECATED – A data set containing human readable error messages. Included for backward compatibility.
error	[string]	DEPRECATED – A human readable error message. Included for backward compatibility.

### Example Error Response

```
<?xml version="1.0"?>
<response>
  <result>failure</result>
  <error_codes>
    <error_code>
      <code>required_param:common_name</code>
      <description>common_name is a required parameter.</description>
    </error_code>
    <error_code>
      <code>serial_or_order_id_required</code>
      <description>The serial number or the order id is required for this
action.</description>
    </error_code>
  </error_codes>
  <errors>
    <error>common_name is a required parameter.</error>
    <error>The serial number or the order id is required for this action.</error>
  </errors>
</response>
```

## Error Codes

The following table contains the error codes you could potentially receive while posting requests to the API and a description of what each one means.

Error Code	Description
api_cert_unavailable	Unable to perform the requested action for the selected certificate, it may not have been issued yet or has been revoked.
api_request_action_unavailable	Unable to process requests for the specified action through the API at this time.
api_request_domain_company_conflict	The request may have multiple domains that may not all be owned by the same organization.
api_request_not_available	The specified request is unavailable, it may have already been rejected or approved.
api_request_org_error	Unable to associate an organization with this request.
api_request_product_unavailable	Unable to process requests for the specified product through the API at this time.
cert_unavailable_processing	The certificate has not yet been issued and will be available as soon as it has been issued
cert_unavailable_revoked	The certificate has been revoked and is no longer available
csr_invalid_cannot_parse	The CSR cannot be decoded
csr_invalid_key_debian_weak	Th CSR uses a weak key generated on a vulnerable Debian based Linux system. Please patch the system which created this CSR, and regenerate both the private key and CSR. You need to patch OpenSSL as well as OpenSSH-server and OpenSSH-client.
csr_invalid_key_size	The CSR uses an unsupported key size, please generate a new CSR.
csr_invalid_key_size_weak	The CSR you have posted uses an unsupported key size, please generate a new CSR with a key size of at least 2048 bits
csr_invalid_key_type_dsa	DSA keys are not supported, please generate a new CSR with an RSA key.
csr_invalid_signature	The CSR has an invalid signature
email_not_valid_email_format	The email parameter you have posted does not validate as a proper email address format
generic_error	An error has occurred processing your request.
internal_error	An Internal System Error has occurred. Please contact the DigiCert Development Department.
invalid_chars:common_name	The common_name parameter you have posted contains invalid characters
invalid_chars:full_name	The full_name parameter you have posted contains invalid characters
invalid_chars:order_id	The order_id parameter you have posted contains invalid characters
invalid_chars:sans	The sans parameter you have posted contains invalid characters
invalid_format:date_end	The end_start is not in a date format that the API can parse
invalid_format:date_start	The date_start is not in a date format that the API can parse
invalid_format:ip_address	The ip_address parameter was not properly formatted as an ip address
invalid_format:service_name	The service_name parameter you have posted contains invalid characters
invalid_value:origin	The origin parameter must be either api or ui
invalid_value:status	The status parameter must be either successful or failed
not_found_in_account:client_id	The client_id specified was not found in your account.
not_found_in_account:order_id	The order_id specified was not found in your account.
not_found_in_account:request_id	The request_id specified was not found in your account.
not_found_in_account:serial	The serial specified was not found in your account.

required_param:common_name	The common_name parameter is required for the API request you are making
required_param:csr	The csr parameter is required for the API request you are making
required_param:csr	The csr parameter is required for the API request you are making
required_param:email	The email parameter is required for the API request you are making
required_param:full_name	The full_name parameter is required for the API request you are making
required_param:note	The comments parameter is required for the API request you are making
required_param:order_id	The order_id parameter is required for the API request you are making
required_param:request_id	The request_id parameter is required for the API request you are making
serial_or_order_id_required	The serial parameter or the order_id parameter is required for the requested action.

## 6. Grid API: Example Code

Here is an example of how to use the API to request a certificate using server side PHP code.

```
<?php
function_exists('http_build_query') or die('Error: Install PHP Version 5 or more');
function_exists('curl_exec') or die('Error: Install the cURL extension for PHP');

$fields = array(
    'customer_name' => '001007',
    'customer_api_key' => 'someapikey',
    'server_type' => '2',//apache
    'common_name' => 'worldcup.digicert.com',
    'sans' => 'a.digicert.com,b.digicert.com,c.digicert.com',
    'service_name' => 'sams',
    'comments' => 'server certificate for james jackson on floor 4',
    'csr' => '-----BEGIN CERTIFICATE REQUEST-----
MIICvjCCAaYCAQAwEgELMAkGA1UEBhMCVVMxDTALBgNVBAgTBFBV0YWgxZDZANBgNV
BAcTBkxpbmRvbWJEWMBQGA1UEChMNRGlnaUNlcnQgSW5jLjESMBAGA1UECzMJVGVz
dCBVbml0MR4wHAYDVQQDExV3b3JsZGN1cC5kaWdpY2VydC5jb20wggeiMA0GCSqG
SIB3DQEBAQUAA4IBDwAwggEKAoIBAQDEdXlLkAUdZZco3F+ynDfpOls8A9Dqw8he
ZWNtIttNdtuXqtwcEmulHd3b3+Q9I2k9kUKQtuWpALYzEqOnB4miwGzIZ8a6mPl
IdtVscCsd8WvSciJ460opTv6njP5EJ9JFUwOI561DNo8O+JARhQ7aOdrnZoqSf/f
L0WC1XEep8zPGim2iVDvzlzV2vlBBqFADbLPubg4VAg/xzoD3qbDk+j8nOdHjWvz
SB/NQgsT1+D5MQkPaOSElggz/2AU/KGxNg3cyrV807ySeQXdn7mQKrPpEY5Dwi0
+CtuGK3gPU3FSHqdSxtrdgMRFAvR/6VbXmf3EPmw30uwjBf2cyB1AgMBAAGgADAN
BgkqhkiG9w0BAQUFAAOCAQEAswQCHwFgND7Oa3ALP89wtLiGLq4JCqGscE+Thwr
3ahCMYxnhMdZEr4wAXA+SP6XA1HSK93y+8cNQVeILNU3oXPakwjYgFgNG0YY77Mx
MHmXIirESIWm59yzsEOx7BVfYpIwdPjY5/R1NTqCeugxsoefanAyxoIc3wmBY6Wz
ZrR80JHOZcNQS4iQj2xFDLXMLz34hWKCh6DmiY/iTRb7/ahija3nsGFVoAlorYNb
lLWm7e+sqSr7gwNjaDUo1Bot5GIns4sUnsk1KOJPMdhsakNtbu07f06tePPoYXKb
w+txKKXReSEP9LcsLynlHEaS3jL/XNi7v9J8z34WFZFbw==
-----END CERTIFICATE REQUEST-----');

$post_fields = http_build_query($fields);

$url = "https://www.digicert.com/enterprise/api/?action=grid_request_host_cert";
$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, $url);
curl_setopt($ch, CURLOPT_POST, 1);
curl_setopt($ch, CURLOPT_POSTFIELDS, $post_fields);
```

```
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
curl_setopt($ch, CURLOPT_SSL_VERIFYHOST, '2');
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, '1');
curl_setopt($ch, CURLOPT_SSLVERSION, 3);
curl_setopt($ch, CURLOPT_USERAGENT, "DigiCertAPIClient/0.1 (digicert.com/pki-
solutions.htm)");
$result = curl_exec($ch);
if(curl_errno($ch) > 0)
{
    echo "Curl Error Code: " . curl_errno($ch) . "\n";
    echo "Error Message: " . curl_error($ch) . "\n";
    exit(0);
}
curl_close($ch);

print_r(json_decode($result,$is_assoc=true));
?>
```



## 7. Grid API: Troubleshooting

### HTTP 400 Error

If you get an HTTP 400 Error, make sure that your HTTP POST request header has **Content-Length** and a **USER-AGENT** string set in your request. Also make sure that you are making an HTTPS request (not just HTTP) on port 443.