

# Startup Denmark API

Startup Denmark Team

# Table of Contents

1. General .....	1
1.1. Prerequisites .....	1
1.2. Encoding .....	1
1.3. baseURL .....	1
1.4. HTTP status codes .....	1
1.5. Specific Error handling and communication .....	1
2. Security .....	2
2.1. Certificates .....	2
3. Outgoing calls .....	2
4. System calls .....	3
4.1. Create application request fields .....	3
4.2. Create application response fields .....	4
4.3. Create application example .....	4
4.4. Unsubmit application example .....	7
4.5. Evaluation application request fields .....	8
4.6. Evaluation application response fields .....	8
4.7. Evaluation application example .....	8

# 1. General

## 1.1. Prerequisites

This is a detailed description of the Startup Denmark API. The reader should be familiar with the concepts HTTP, REST, and JSON.

## 1.2. Encoding

All content must be encoded in UTF-8.

## 1.3. BaseURL

Baseurl for Startup Denmark webservice environments:

### 1.3.1. Test

<https://ersttest.virk.dk/sud-ws/>

### 1.3.2. Preprod

<https://erstpreprod.virk.dk/sud-ws/>

### 1.3.3. Production

<https://erst.virk.dk/sud-ws/>

## 1.4. HTTP status codes

The StartUp Denmark API is using HTTP. The following general rules about status codes apply:

- Status codes in the 2xx segment indicate general success.
- Status codes in the 3xx segment indicate redirection.
- Status codes in the 4xx segment indicate errors on the client-side (The API-user.)
- Status codes in the 5xx segment indicate errors on the server side.

## 1.5. Specific Error handling and communication

In case of errors a more specific code and/or message will be used where appropriate.

*Currently used codes*

### 200

Used when an action was successfully executed.

## **201**

Used when applications are sent to the system. Indicates that the creation was successful.

## **204**

Used when applications are unsubmitted. Indicates that the unsibmission was successful.

## **400**

If any error occurs while validating the input parameters. A more specific description is included in the error message.

## **409**

Conflict, application with applicationId allready exists

## **412**

Precondition failed, the application has the wrong state. Fx. sending the evaluations before the application has been approved for evaluation (Superscreening).

## **500**

Any internal server error. This is an application error.

## **503**

Specifically used when the application is unavailable.

# **2. Security**

The API will be protected by a mutual SSL approval.

## **2.1. Certificates**

The certificates to be used must be generated by each party. For the caller to get a certificate approved it must be sent to the application manager of the application.

For web service authentication an RSA SSL certificate with extended validation is required. The certificate must contain all necessary attributes, such that revocation checks can be performed via OCSP. Furthermore a Certificate Authority chain (ca-bundle) must be provided for the certificate.”

We will be using separate certificates for testing and production.

# **3. Outgoing calls**

All applications are screened in the Startup Denmark system where some of the applications are screened out.

To communicate the result of this screening we suggest the following fields.

Path	Type	Description
applicationId	String	Reference ID unique to the application. Example format: 3d63e249-6a9c-4ae1-80bf-713b1908132b
result	Boolean	The screening result, true if the application can be sent to evaluation.
comment	String	An optional comment.

## 4. System calls

### 4.1. Create application request fields

Below is a description of the application fields:

Path	Type	Description
applicationId	String	Reference given by external system.
productType	String	The product type of the application idea (one of SOFTWARE,SERVICE,PHYSICAL_PRODUCT,OTHER)
companyName	String	The company name of the application idea.
applicationReceived	String	The date of receipt in the external system (Format 2018-12-30).
supplement	String	The supplement to the application is one of the following formats: PDF, JSON, GIF, PNG, JPEG, EXCEL, EXCEL 2007, POWERPOINT, POWERPOINT 2007, WORD or WORD 2007 in URL encoded Base64.
application	String	The application as a PDF in URL encoded Base64.
applicants[].applicantId	String	Reference to the applicant given by external system.
applicants[].name	String	Name of the applicant
applicants[].email	String	Email-address of the applicant
applicants[].appliedBefore	Boolean	Whether or not the applicant has applied before

Path	Type	Description
applicants[].contactAllowed	Boolean	Whether or not the applicant is allowed to be contacted.
applicants[].countryOfResidence	String	The current country of residence of the applicant (ISO-3166-1 alpha 2 country codes).
applicants[].countryOfNationality	String	The nationality of the applicant (ISO-3166-1 alpha 2 country codes).

## 4.2. Create application response fields

Below is a description of the response fields

Path	Type	Description
caseId	String	The Id of the application case.
status	Number	Status code of the action.
errorMessage	String	An optional description of the error

## 4.3. Create application example

### 4.3.1. curl

```

$ curl 'https://ersttest.virk.dk/sud-ws/application' -i -X POST \
-H 'Accept: application/json, application/javascript, text/javascript, text/json'
\ 
-H 'Content-Type: application/json; charset=UTF-8' \
-d '{
  "applicationId" : "22e26caa-6d15-4cae-b009-f2627388ddb5",
  "productType" : "SOFTWARE",
  "companyName" : "Horses'r'us",
  "applicationReceived" : "2018-01-01",
  "supplement" :
    "JVBERi0xLjEKJcKlwrHDqwoKMSAwIG9iagogIDw8IC9UeXB1IC9DYXRhbG9nCiAgICAgL1BhZ2VzIDIgMCBSC
    iAgPj4KZW5kb2JqCgoyIDAcb2JqCiAgPDwgL1R5cGUgL1BhZ2VzCiAgICAgL0tpZHMgWzMgMCBSXQogICAgIC9
    Db3VudCAxCiAgICAgL01lZGlhQm94IFswIDAgnMzAwIDE0NF0KICA%2BPgp1bmRvYmoKCjMgMCBvYmoKICA8PCA
    gL1R5cGUgL1BhZ2UKICAgICAgL1BhcmVudCAyIDAgnUgogICAgICAvUmVzb3VY2VzCiAgICAgICA8PCAvRm9ud
    AogICAgICAgICAgIDw8IC9GMQogICAgICAgICAgICA8PCAvVHlwZSAvRm9udAogICAgICAgICAgICA
    gICAvU3VidHlwZSAvVHlwZTEKICAgICAgICAgICAgL0Jhc2VGb250IC9uaW1lcY1Sb21hbogogICAgI
    CAgICAgICAgICA%2BPgogICAgICAgICA%2BCiAgICAgICA%2BPgogICAgICAvQ29udGVudHMgNCAwIFIKI
    CA%2BPgp1bmRvYmoKCjQgMCBvYmoKICA8PCAvTGVuZ3RoIDU1ID4%2BCnN0cmVhbQogIEJUCiAgICAvRjEgMTg
    gVGYKICAgIDAgMCBUZAoAgICAgKEhbGxvIFdvcmxkKSBUagogIEVUCmVuZHN0cmVhbQp1bmRvYmoKCnhyZWyKM
    CA1CjAwMDAwMDAwMDAgNjU1MzUgZiAKMDAwMDAwMDAxOCAwMDAwMCBuIAowMDAwMDAwMDc3IDAwMDAwIG4gCjA
    wMDAwMDAxNzggMDAwMDAgbiAKMDAwMDQ1NyAwMDAwMCBuIAp0cmFpbGVyCiAgPDwgIC9Sb290IDEgMCBSC
    iAgICAgIC9TaXplIDUKICA%2BPgpzdGFydHhyZWyKNTY1CiUlRU9GCg%3D%3D",
    "application" :
      "JVBERi0xLjEKJcKlwrHDqwoKMSAwIG9iagogIDw8IC9UeXB1IC9DYXRhbG9nCiAgICAgL1BhZ2VzIDIgMCBSC
      iAgPj4KZW5kb2JqCgoyIDAcb2JqCiAgPDwgL1R5cGUgL1BhZ2VzCiAgICAgL0tpZHMgWzMgMCBSXQogICAgIC9
      Db3VudCAxCiAgICAgL01lZGlhQm94IFswIDAgnMzAwIDE0NF0KICA%2BPgp1bmRvYmoKCjMgMCBvYmoKICA8PCA
      gL1R5cGUgL1BhZ2UKICAgICAgL1BhcmVudCAyIDAgnUgogICAgICAgICA8PCAvVHlwZSAvRm9udAogICAgICAgICAgICA
      gICAvU3VidHlwZSAvVHlwZTEKICAgICAgICAgICAgL0Jhc2VGb250IC9uaW1lcY1Sb21hbogogICAgI
      CAgICAgICAgICA%2BPgogICAgICAgICA%2BCiAgICAgICA%2BPgogICAgICAvQ29udGVudHMgNCAwIFIKI
      CA%2BPgp1bmRvYmoKCjQgMCBvYmoKICA8PCAvTGVuZ3RoIDU1ID4%2BCnN0cmVhbQogIEJUCiAgICAvRjEgMTg
      gVGYKICAgIDAgMCBUZAoAgICAgKEhbGxvIFdvcmxkKSBUagogIEVUCmVuZHN0cmVhbQp1bmRvYmoKCnhyZWyKM
      CA1CjAwMDAwMDAwMDAgNjU1MzUgZiAKMDAwMDAwMDAxOCAwMDAwMCBuIAowMDAwMDAwMDc3IDAwMDAwIG4gCjA
      wMDAwMDAxNzggMDAwMDAgbiAKMDAwMDQ1NyAwMDAwMCBuIAp0cmFpbGVyCiAgPDwgIC9Sb290IDEgMCBSC
      iAgICAgIC9TaXplIDUKICA%2BPgpzdGFydHhyZWyKNTY1CiUlRU9GCg%3D%3D",
    "applicants" : [ {
      "name" : "Horsey McHorseface",
      "applicantId" : "42",
      "email" : "horse@horse.horse",
      "appliedBefore" : true,
      "contactAllowed" : true,
      "countryOfResidence" : "MX",
      "countryOfNationality" : "PE"
    } ]
}

```

### 4.3.2. HTTP-request

```
POST /sud-ws/application HTTP/1.1
Accept: application/json, application/javascript, text/javascript, text/json
Content-Type: application/json; charset=UTF-8
Host: ersttest.virk.dk
Content-Length: 2468
```

```
{  
    "applicationId" : "22e26caa-6d15-4cae-b009-f2627388ddb5",  
    "productType" : "SOFTWARE",  
    "companyName" : "Horses 'r' us",  
    "applicationReceived" : "2018-01-01",  
    "supplement" :  
        "JVBERi0xLjEKJcKlwrHDqwoKMSAwIG9iagogIDw8IC9UeXB1IC9DYXRhbG9nCiAgICAgL1BhZ2VzIDIgMCBSC  
iAgPj4KZW5kb2JqCgoyIDAzb2JqCiAgPDwgL1R5cGUgL1BhZ2VzCiAgICAgL0tpZHMgWzMgMCBSXQogICAgIC9  
Db3VudCAxCiAgICAgL01lZGlhQm94IFswIDAgnIDE0NF0KICA%2BPgplbmRvYmoKCjMgMCBvYmoKICA8PCA  
gL1R5cGUgL1BhZ2UKICAgICAgL1BhcmVudCAyIDAgUgogICAgICAvUmVzb3VyY2VzCiAgICAgICA8PCAvRm9ud  
AogICAgICAgICAgIDw8IC9GMQogICAgICAgICAgICA8PCAvVHlwZSAvRm9udAogICAgICAgICAgICA  
gICAvU3VidHlwZSAvVHlwZTEKICAgICAgICAgICAgL0Jhc2VGb250IC9UaW1lcyclSb21hbgogICAgI  
CAgICAgICAgICA%2BPgogICAgICAgICAgID4%2BCiAgICAgICA%2BPgogICAgICAvQ29udGVudHMgNCawIFIKI  
CA%2BPgplbmRvYmoKCjQgMCBvYmoKICA8PCAvTGVuZ3RoIDU1ID4%2BCnN0cmVhbQogIEJUCiAgICAvRjEgMTg  
gVGYKICAgIDAgnCBUZAoqICAgKEhlbgxvIFdvcmxkKSBUagogIEVUCmVuZHN0cmVhbQplbmRvYmoKCnhyZWyKM  
CA1CjAwMDAwMDAwMDAgNjU1MzUgZiAKMDAwMDAxOCAwMDAwMCBuIAowMDAwMDAwMDc3IDAwMDAwIG4gcja  
wMDAwMDAxNzggMDAwMDAgbiAKMDAwMDQ1NyAwMDAwMCBuIAp0cmFpbGVyCiAgPDwgIC9Sb290IDEgMCBSC  
iAgICAgIC9TaXplIDUKICA%2BPgpzdGFydHhyZWyKNTY1CiULRU9Gcg%3D%3D",  
    "application" :  
        "JVBERi0xLjEKJcKlwrHDqwoKMSAwIG9iagogIDw8IC9UeXB1IC9DYXRhbG9nCiAgICAgL1BhZ2VzIDIgMCBSC  
iAgPj4KZW5kb2JqCgoyIDAzb2JqCiAgPDwgL1R5cGUgL1BhZ2VzCiAgICAgL0tpZHMgWzMgMCBSXQogICAgIC9  
Db3VudCAxCiAgICAgL01lZGlhQm94IFswIDAgnIDE0NF0KICA%2BPgplbmRvYmoKCjMgMCBvYmoKICA8PCA  
gL1R5cGUgL1BhZ2UKICAgICAgL1BhcmVudCAyIDAgUgogICAgICAvUmVzb3VyY2VzCiAgICAgICA8PCAvRm9ud  
AogICAgICAgICAgIDw8IC9GMQogICAgICAgICAgICA8PCAvVHlwZSAvRm9udAogICAgICAgICAgICA  
gICAvU3VidHlwZSAvVHlwZTEKICAgICAgICAgICAgL0Jhc2VGb250IC9UaW1lcyclSb21hbgogICAgI  
CAgICAgICAgICA%2BPgogICAgICAgICAgID4%2BCiAgICAgICA%2BPgogICAgICAvQ29udGVudHMgNCawIFIKI  
CA%2BPgplbmRvYmoKCjQgMCBvYmoKICA8PCAvTGVuZ3RoIDU1ID4%2BCnN0cmVhbQogIEJUCiAgICAvRjEgMTg  
gVGYKICAgIDAgnCBUZAoqICAgKEhlbgxvIFdvcmxkKSBUagogIEVUCmVuZHN0cmVhbQplbmRvYmoKCnhyZWyKM  
CA1CjAwMDAwMDAwMDAgNjU1MzUgZiAKMDAwMDAxOCAwMDAwMCBuIAowMDAwMDAwMDc3IDAwMDAwIG4gcja  
wMDAwMDAxNzggMDAwMDAgbiAKMDAwMDQ1NyAwMDAwMCBuIAp0cmFpbGVyCiAgPDwgIC9Sb290IDEgMCBSC  
iAgICAgIC9TaXplIDUKICA%2BPgpzdGFydHhyZWyKNTY1CiULRU9Gcg%3D%3D",  
    "applicants" : [ {  
            "name" : "Horsey McHorseface",  
            "applicantId" : "42",  
            "email" : "horse@horse.horse",  
            "appliedBefore" : true,  
            "contactAllowed" : true,  
            "countryOfResidence" : "MX",  
            "countryOfNationality" : "PE"  
        } ]  
}
```

### 4.3.3. HTTP-response

```
HTTP/1.1 201 Created
Set-Cookie: JSESSIONID=C2547D94CD8034F2BB7F17E520153507; Path=/; HttpOnly
X-Application-Context: sud-ws:test:8090
Date: Thu, 21 Mar 2019 15:05:33 GMT
P3P: CP="IDC DSP COR ADM DEVi TAIi PSA PSD IVAi IVDi CONi HIS OUR IND CNT"
Content-Type: application/json; charset=UTF-8
Transfer-Encoding: chunked
Content-Length: 49

{
    "status" : 201,
    "caseId" : "X19-AW-89-ME"
}
```

## 4.4. Unsubmit application example

Unsubmitting an application is done by using DELETE.

### 4.4.1. curl

```
$ curl 'https://ersttest.virk.dk/sud-ws/application/22e26caa-6d15-4cae-b009-
f2627388ddb5' -i -X DELETE \
-H 'Accept: application/json, application/javascript, text/javascript, text/json'
\
-H 'Content-Type: application/json; charset=UTF-8'
```

### 4.4.2. HTTP-request

```
DELETE /sud-ws/application/22e26caa-6d15-4cae-b009-f2627388ddb5 HTTP/1.1
Accept: application/json, application/javascript, text/javascript, text/json
Content-Type: application/json; charset=UTF-8
Host: ersttest.virk.dk
```

### 4.4.3. HTTP-response

```
HTTP/1.1 204 No Content
Set-Cookie: JSESSIONID=41DCF35846CB696E2FE653E71EB4C204; Path=/; HttpOnly
X-Application-Context: sud-ws:test:8090
Date: Thu, 21 Mar 2019 15:05:36 GMT
P3P: CP="IDC DSP COR ADM DEVi TAIi PSA PSD IVAi IVDi CONi HIS OUR IND CNT"
Content-Type: application/json; charset=UTF-8
```

## 4.5. Evaluation application request fields

Below is a description of the request fields:

Path	Type	Description
applicationId	String	Reference given by external system (optional).
evaluations[].innovation	Number	The innovation score. (Integer from 1-5)
evaluations[].attractiveness	Number	The attractiveness score. (Integer from 1-5)
evaluations[].teamCapability	Number	The team capability score. (Integer from 1-5)
evaluations[].scalability	Number	The scalability score. (Integer from 1-5)
evaluations[].recommendation	Number	The recommendation score. (Integer from 1-5)
evaluations[].judgeId	String	Reference to the judge from the external system.

## 4.6. Evaluation application response fields

Below is a description of the response fields:

Path	Type	Description
status	Number	Status code of the action.
errorMessage	String	An optional description of the error

## 4.7. Evaluation application example

### 4.7.1. curl

```
$ curl 'https://ersttest.virk.dk/sud-ws/application/evaluation/22e26caa-6d15-4cae-b009-f2627388ddb5' -i -X POST \
-H 'Accept: application/json, application/javascript, text/javascript, text/json'
\ 
-H 'Content-Type: application/json; charset=UTF-8' \
-d '{
"applicationId" : "22e26caa-6d15-4cae-b009-f2627388ddb5",
"evaluations" : [ {
"innovation" : 3,
"attractiveness" : 3,
"teamCapability" : 3,
"scalability" : 3,
"recommendation" : 3,
"judgeId" : "40001001"
}, {
"innovation" : 3,
"attractiveness" : 3,
"teamCapability" : 3,
"scalability" : 3,
"recommendation" : 3,
"judgeId" : "40001002"
}, {
"innovation" : 3,
"attractiveness" : 3,
"teamCapability" : 3,
"scalability" : 3,
"recommendation" : 3,
"judgeId" : "40001003"
} ]
}'
```

#### 4.7.2. HTTP-request

```

POST /sud-ws/application/evaluation/22e26caa-6d15-4cae-b009-f2627388ddb5 HTTP/1.1
Accept: application/json, application/javascript, text/javascript, text/json
Content-Type: application/json; charset=UTF-8
Host: ersttest.virk.dk
Content-Length: 555

{
  "applicationId" : "22e26caa-6d15-4cae-b009-f2627388ddb5",
  "evaluations" : [ {
    "innovation" : 3,
    "attractiveness" : 3,
    "teamCapability" : 3,
    "scalability" : 3,
    "recommendation" : 3,
    "judgeId" : "40001001"
  }, {
    "innovation" : 3,
    "attractiveness" : 3,
    "teamCapability" : 3,
    "scalability" : 3,
    "recommendation" : 3,
    "judgeId" : "40001002"
  }, {
    "innovation" : 3,
    "attractiveness" : 3,
    "teamCapability" : 3,
    "scalability" : 3,
    "recommendation" : 3,
    "judgeId" : "40001003"
  } ]
}

```

#### 4.7.3. HTTP-response

```

HTTP/1.1 200 OK
Set-Cookie: JSESSIONID=FE6620A2E07B6E8E1E0CB2AFCFEC5807; Path=/; HttpOnly
X-Application-Context: sud-ws:test:8090
Date: Thu, 21 Mar 2019 15:05:36 GMT
P3P: CP="IDC DSP COR ADM DEVi TAIi PSA PSD IVAi IVDi CONi HIS OUR IND CNT"
Content-Type: application/json; charset=UTF-8
Transfer-Encoding: chunked
Content-Length: 20

{
  "status" : 200
}

```