

# TaxCore.Api

## Introduction

TaxCore.API is designed to expose its functionalities to all external systems.

It enables integration of POSes, E-SDCs, accreditation tools and other clients that makes TaxCore ecosystem.

API documentation design is based on OpenAPI-Specification V2 (<https://github.com/OAI/OpenAPI-Specification>). You can use OpenAPI-Specification code generators (e.g. <https://swagger.io/tools/swagger-codegen>) to quickly build a proxy library for almost any programming language and platform.

### NOTE:

Development, testing and technical review are all done in the Sandbox environment. The next step is the administrative review process which enables getting accreditation for a specific country. Different countries have different system names, and every environment has its own URL.

## Content

1.

### [Obtain a URL of the TaxCore.API Service from Digital Certificate](#)

TaxCore.API service provides the configuration information of the current environment. In order to access it, one must obtain URL of the TaxCore.API service from Secure Element digital certificate. This procedure applies to any type of Secure Element.

2.

### [Configuration](#)

Every TaxCore.API instance provides services anyone can use to gather information about current environment and all available environments from the current node.

## Obtain a URL of the TaxCore.API Service from Digital Certificate

## Introduction

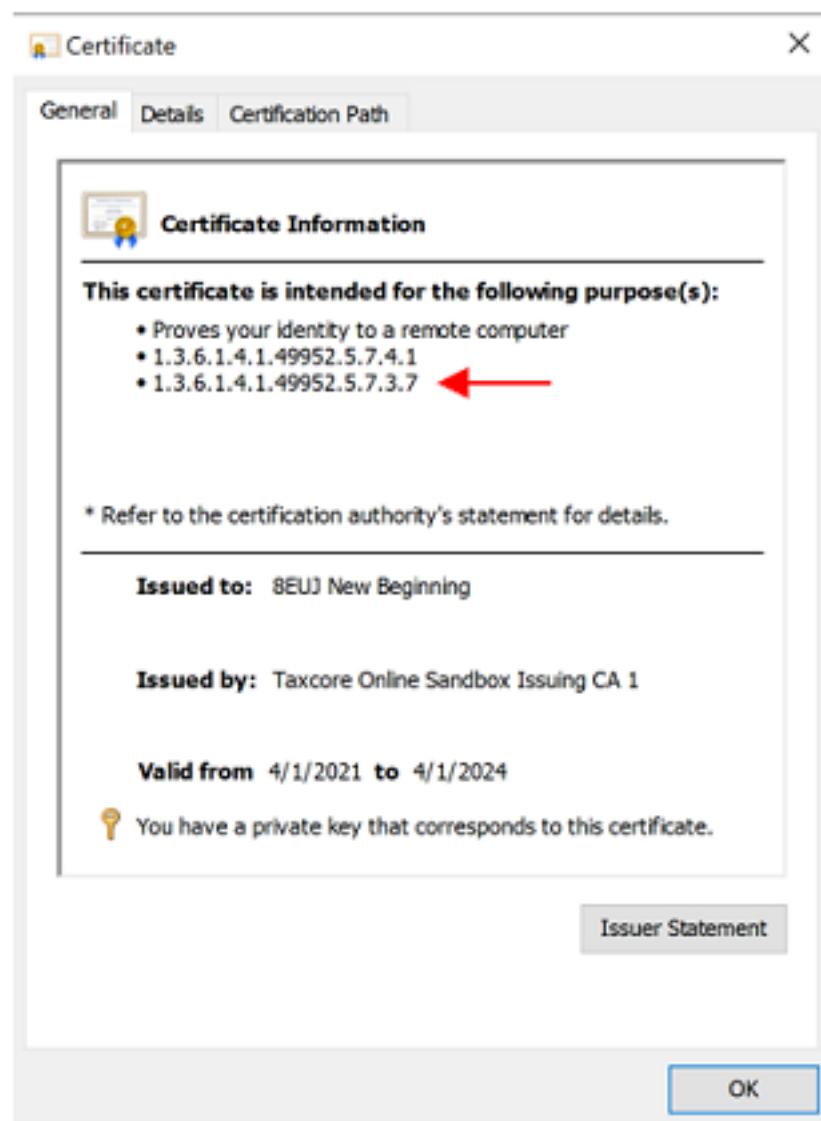
TaxCore.API service provides the configuration information of the current environment. In order to access it, one

must obtain URL of the TaxCore.API service from Secure Element digital certificate. This procedure applies to any type of Secure Element.

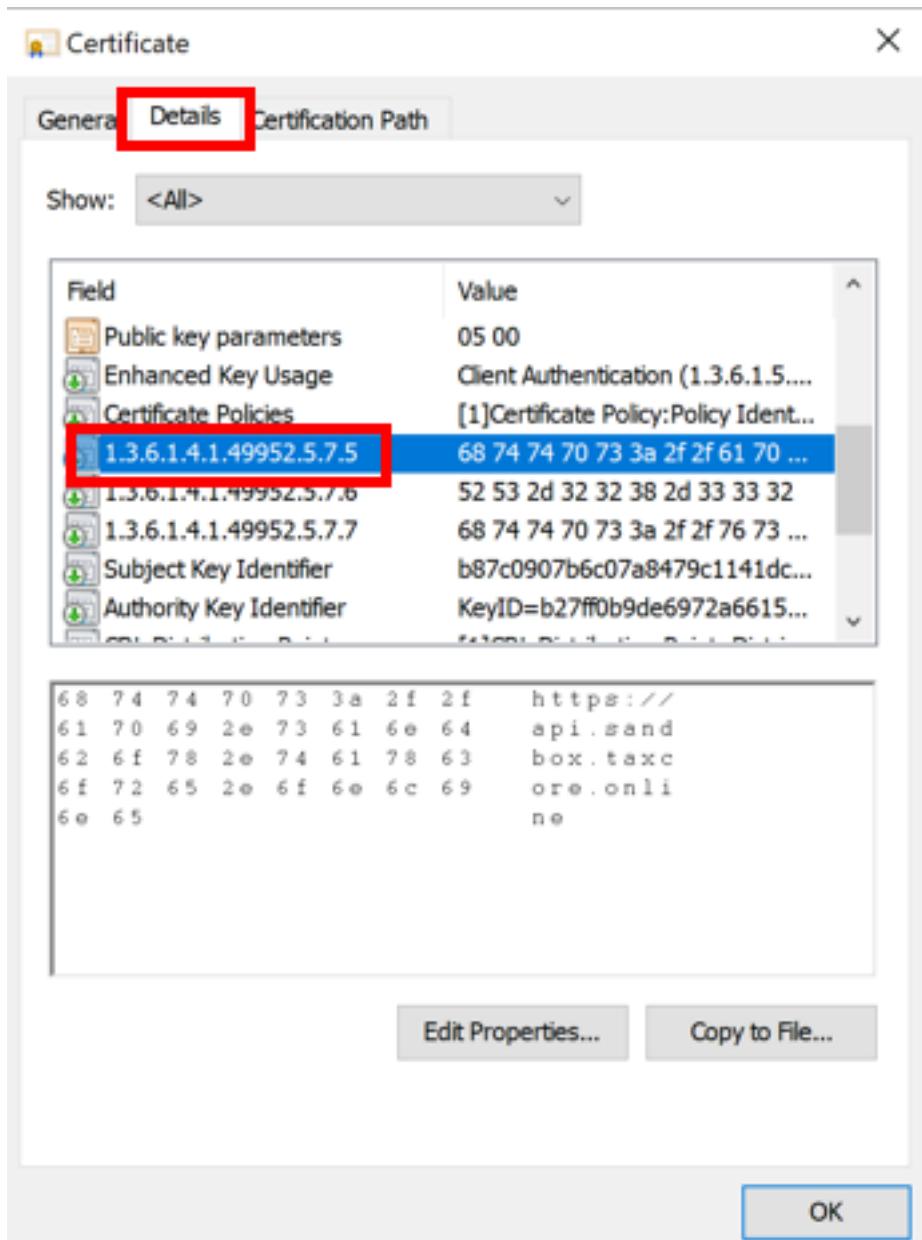
## How to obtain TaxCore.API URL

TaxCore.API URL is stored in a digital certificate of Secure Element as the value of OID. OID is dynamically created when Secure Element is issued and depends on the target environment. For example, Test and Production environments will have different OIDs, so that digital certificate issued for one environment cannot be used for any purpose in another environment. Follow the steps to read the OID value from the digital certificate installed on your computer:

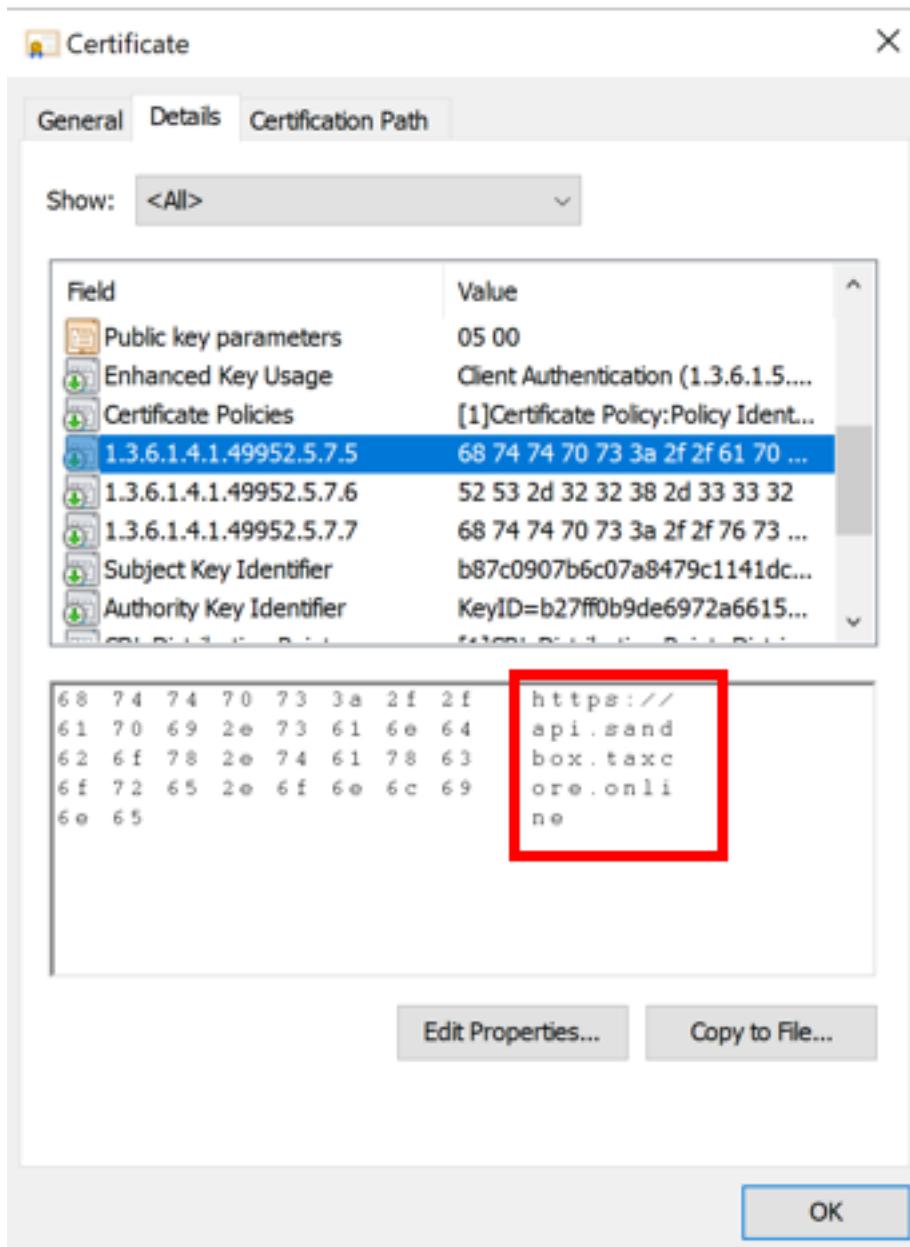
1. Open the certificate installed on your computer
2. In the **General** tab, your certificate should have OID in this format **1.3.6.1.4.1.49952.X.Y.3.7**
3. **X and Y parameters identify the environment and their values change according to each environment.**



4. Click on the **Details** tab and find the line with an OID in this format - **1.3.6.1.4.1.49952.X.Y.5**



5. Again, **X and Y parameters identify the environment**, and the **values will vary according to different environments**, but they will be the same as on the **General** tab
6. Number **5** at the end identifies the TaxCore.API URL
7. Read the value of this OID containing root URL of TaxCore.API Service



In case Secure Element is in Smart Card format, URL of TaxCore.API services can be obtained at runtime using [Export Certificate APDU command](#), which returns digital certificate in DER format.

## Configuration

### Introduction

Every TaxCore.API instance provides services anyone can use to gather information about current environment and all available environments from the current node.

These services should be used by all POS and E-SDC implementations to gather environment information and to simplify technical review, accreditation, deployment and usage in various jurisdictions.

### Content

1.

### [Configuration](#)

This service returns information about environment configuration.

2.

### [Tax Rates](#)

This service returns information about defined tax rates for the environment.

3.

### [Environments](#)

This service returns a list of all available environments from the TaxCore.API.

4.

### [Encryption Certificate](#)

This service returns the public key of the TaxCore.API which can be used for encryption.

# Configuration

This service returns information about environment configuration.

#### **NOTE:**

The same parameters can also be obtained from any SDC device (E-SDC or V-SDC) which is the preferred option for obtaining this information - see [POS to SDC Protocol](#).

## Endpoint

Endpoint	Example
<TaxCore_API_URL_obtained_from_certificate_as_explained <a href="#">here</a> >/api/v3/configuration	<a href="https://api.sandbox.suf.poreskaupravars.com/api/v3/configuration">https://api.sandbox.suf.poreskaupravars.com/api/v3/configuration</a>

#### **NOTE:**

Development and production environments, as well the environments in different countries, have different URLs. For this reason, URLs and names in your documentation, code and UI should not be hardcoded but configurable or extracted from a digital certificate.

## HTTP Method

GET

# Authentication

## No authentication

# Response

Field	Description
<b>organizationName</b>	Name of the tax authority organization
<b>serverTimeZone</b>	Time zone of the server location
<b>street</b>	Tax authority street address
<b>city</b>	Tax authority city
<b>country</b>	Tax authority country
<b>endpoints</b>	List of available endpoints
<b>environmentName</b>	Name of the environment
<b>logo</b>	Link to the tax authority's official logo
<b>ntpServer</b>	NTP server used for time synchronization
<b>supportedLanguages</b>	List of language-culture strings supported by TaxCore

## Example

```
{  
    "organizationName": "Data Tech International",  
    "serverTimeZone": "Fiji Standard Time",  
    "street": "Kruzni put 7",  
    "city": "Belgrade",  
    "country": "RS",  
    "endpoints": {  
        "taxpayerAdminPortal": "https://tap.sandbox.taxcore.dti.rs:443/",  
        "taxCoreApi": "https://api.sandbox.taxcore.dti.rs:443/",  
        "vsdc": "https://vsdc.sandbox.taxcore.dti.rs:443/",  
        "root": "https://frontendui.sandbox.taxcore.dti.rs:443/v/?vl="  
    },  
    "environmentName": "SANDBOX",  
    "logo": "https://i.imgur.com:443/tg5ad60.png?hash=69417669",  
    "ntpServer": "http://0.europe.pool.ntp.org:80/",  
    "supportedLanguages": [  
        "en-US",  
        "sr-SP",  
        "sr-LA",  
        "sr-Cyrl",  
        "sr-Cyrl-SP",  
        "sr-Cyrl-LA",  
        "sr-Cyrl-CP1251",  
        "sr-Cyrl-CP1251-SP",  
        "sr-Cyrl-CP1251-LA",  
        "sr-Cyrl-CP1251-CP1251",  
        "sr-Cyrl-CP1251-CP1251-SP",  
        "sr-Cyrl-CP1251-CP1251-LA",  
        "sr-Cyrl-CP1251-CP1251-CP1251",  
        "sr-Cyrl-CP1251-CP1251-CP1251-SP",  
        "sr-Cyrl-CP1251-CP1251-CP1251-LA",  
        "sr-Cyrl-CP1251-CP1251-CP1251-CP1251"  
    ]  
}
```

```
        "en-US",
        "sr-Cyrl-RS"
    ]
}
```

# Tax Rates

This service returns information about defined tax rates for the environment.

## NOTE:

The same parameters can also be obtained from any SDC device (E-SDC or V-SDC) which is the preferred option for obtaining this information - see [POS to SDC Protocol](#).

## Endpoint

Endpoint	Example
<TaxCore_API_URL_obtained_from_certificate_as_explained <a href="#">here</a> >/api/v3/tax-rates	<a href="https://api.sandbox.suf.poreskaupravars.com/api/v3/tax-rates">https://api.sandbox.suf.poreskaupravars.com/api/v3/tax-rates</a>

## NOTE:

Development and production environments, as well the environments in different countries, have different URLs. For this reason, URLs and names in your documentation, code and UI should not be hardcoded but configurable or extracted from a digital certificate.

## HTTP Method

GET

# Authentication

No authentication

## Response

Field	Description
<b>currentTaxRates</b>	The currently active tax rate group.

**allTaxRates**

All tax rate groups ever used for the environment - can be used for reference when issuing refunds. Also includes all approved future tax rate groups, with the date of their activation.

## Example

```
{  
  "currentTaxRates": [  
    {  
      "validFrom": "2020-08-03T12:56:56",  
      "groupId": 2,  
      "taxCategories": [  
        {  
          "name": "ECAL",  
          "categoryType": 0,  
          "taxRates": [  
            {  
              "rate": 5,  
              "label": "D"  
            },  
            {  
              "rate": 11,  
              "label": "F"  
            }  
          ],  
          "orderId": 1  
        },  
        {  
          "name": "N-TAX",  
          "categoryType": 0,  
          "taxRates": [  
            {  
              "rate": 0,  
              "label": "N"  
            }  
          ],  
          "orderId": 2  
        },  
        {  
          "name": "PBL",  
          "categoryType": 2,  
          "taxRates": [  
            {  
              "rate": 0.5,  
              "label": "P"  
            }  
          ],  
          "orderId": 3  
        },  
        {  
          "name": "STT",  
          "categoryType": 0,  
          "taxRates": [  
            {  
              "rate": 6,  
              "label": "E"  
            }  
          ],  
          "orderId": 4  
        },  
        {  
          "name": "VAT",  
          "categoryType": 0,  
          "taxRates": [  
            {  
              "rate": 20,  
              "label": "V"  
            }  
          ],  
          "orderId": 5  
        }  
      ]  
    }  
  ]  
}
```

```
"taxRates": [
    {
        "rate": 9,
        "label": "A"
    },
    {
        "rate": 0,
        "label": "B"
    }
],
"orderId": 5
},
{
    "name": "VAT-EXCL",
    "categoryType": 1,
    "taxRates": [
        {
            "rate": 0,
            "label": "C"
        }
    ],
    "orderId": 6
}
],
]
},
"allTaxRates": [
{
    "validFrom": "2020-08-02T21:04:00",
    "groupId": 1,
    "taxCategories": [
        {
            "name": "ECAL",
            "categoryType": 0,
            "taxRates": [
                {
                    "rate": 5,
                    "label": "D"
                },
                {
                    "rate": 11,
                    "label": "F"
                }
            ],
            "orderId": 1
        },
        {
            "name": "N-TAX",
            "categoryType": 0,
            "taxRates": [
                {
                    "rate": 0,
                    "label": "N"
                }
            ],
            "orderId": 2
        },
        {
            "name": "PBL",
            "categoryType": 2,
            "taxRates": [
                {
                    "rate": 0.2,
                    "label": "P"
                }
            ],
            "orderId": 3
        }
    ]
}]]
```

```
"orderId": 3
},
{
  "name": "STT",
  "categoryType": 0,
  "taxRates": [
    {
      "rate": 6,
      "label": "E"
    }
  ],
  "orderId": 4
},
{
  "name": "VAT",
  "categoryType": 0,
  "taxRates": [
    {
      "rate": 9,
      "label": "A"
    },
    {
      "rate": 0,
      "label": "B"
    }
  ],
  "orderId": 5
},
{
  "name": "VAT-EXCL",
  "categoryType": 1,
  "taxRates": [
    {
      "rate": 0,
      "label": "C"
    }
  ],
  "orderId": 6
}
]
},
{
  "validFrom": "2022-01-01T00:00:00Z",
  "groupId": 3,
  "taxCategories": [
    {
      "name": "ECAL",
      "categoryType": 0,
      "taxRates": [
        {
          "rate": 10,
          "label": "F"
        }
      ],
      "orderId": 5
    },
    {
      "name": "PB",
      "categoryType": 2,
      "taxRates": [
        {
          "rate": 0.1,
          "label": "P"
        }
      ],
      "orderId": 6
    }
  ]
}
```

```

},
{
  "name": "STT",
  "categoryType": 0,
  "taxRates": [
    {
      "rate": 1,
      "label": "E"
    }
  ],
  "orderId": 2
},
{
  "name": "VAT",
  "categoryType": 0,
  "taxRates": [
    {
      "rate": 9,
      "label": "A"
    }
  ],
  "orderId": 1
}
]
}
]
}
}

```

## Environments

This service returns a list of all available environments from the TaxCore.API.

**NOTE:**

The same parameters can also be obtained from any SDC device (E-SDC or V-SDC) which is the preferred option for obtaining this information - see [POS to SDC Protocol](#).

## Endpoint

Endpoint	Example
<TaxCore_API_URL_obtained_from_certificate_as_explained <a href="#">here</a> >/api/v3/environments	<a href="https://api.sandbox.suf.poreskaupravars.com/api/v3/environments">https://api.sandbox.suf.poreskaupravars.com/api/v3/environments</a>

**NOTE:**

Development and production environments, as well the environments in different countries, have different URLs. For this reason, URLs and names in your documentation, code and UI should not be hardcoded but configurable or extracted from a digital certificate.

## HTTP Method

GET

## Authentication

No authentication

## Response data

Field	Description
<b>name</b>	Name of the TaxCore environment
<b>url</b>	Root Url of the TaxCore environment. You can construct other well-knownUrls using this value. For Example, <code>api.sandbox.taxcore.online</code> and <code>vsdc.sandbox.taxcore.online</code>
<b>description</b>	Description of the environment. For example, "for accreditation purposes only"
<b>environmentName</b>	For internal use only

## Example (not specific for any environment)

```
[  
  {  
    "name": "Sandbox",  
    "url": "sandbox.taxcore.online",  
    "description": "",  
    "environmentName": "SANDBOX"  
  }  
]
```

## Encryption Certificate

This service returns the public key of the TaxCore.API which can be used for encryption.

## Endpoint

Endpoint	Example
<TaxCore_API_URL_obtained_from_certificate_as_e>	<code>https://api.sandbox.suf.poreskaupravars.co</code>

**NOTE:**

Development and production environments, as well the environments in different countries, have different URLs. For this reason, URLs and names in your documentation, code and UI should not be hardcoded but configurable or extracted from a digital certificate.

## HTTP Method

GET

# Authentication

No authentication

## Response data

Response contains Base64 encoded raw data of TaxCore.API X509 public key certificate used for encryption.

## Example

```
"MIIFF8TCCBNmgAwIBAgIOH2Jcu+Xv118AAAAAJN4wDQYJKoZIhvCNQELBQAwp  
jELMAkGA1UEBhMCU1MxDAAKBgNVBAoTA0RUSTehMB8GA1UEAxMYVGF4Q29yZSB  
JQ0ExIERldmVsb3BtZW50MB4XDTIwMDYxNzA4MjAxNv0XTIzMDYxNzA4MzAxN  
VowczELMAkGA1UEBhMCU1MxDzANBgNVBAgTB1N1cmJpYTERMA8GA1UEBxMIQmV  
sZ3JhZGUxDDAKBgNVBAoTA0RUSTENMasGA1UECxMEQ29yZTERMA8GA1UEBRMIZ  
mYnN2R1lMGYxEDAOBgnVBAMTB1RheENvcmUwggEiMA0GCSqGSIb3DQEBAQUAA4I  
BDwAwggEKAoIBAQC6DtItC7kP3EwPwES6xjPD7Yn2S0mUzTy2vAsHmSeW4iHs  
ZfSY24kz1EpUKqHJhukmg7tJwT+L4IJDaQzFdK+Px1gYAFiOGeAu+WS3Ka1dY0  
2/bS+rFvzLbuh29Jhd5ESPqP39X7DSA9fSB8bms/SmaI0h5qt3NWl7leU9tiG/  
77srpVhzPP4/CI+oXYQ5V7MvztGUXjsRJBcg8o2nHJa4nDzz4kuyY5Mb4k6Nr  
OTPMcTs8HgR2HE1NTIp1KEA46R8Rv9QD415oBXmL+bEiKR68xxjoAxbBLJcEfV  
CTIkFU0ImuyHK1RRV3JCSbg1fdRWcqIbkeCEYdeRE0HPMABAgMBAAGjggK2MII  
CsjAOBgNVHQ8BAf8EBAMCBDAwDwYDVR0TAQH/BAUwAwIBADAXBgnVHSUEDAOB  
gwrBgeEAYOGIAEBAwYwggGJBgNVHSAEggGAMIIBfDCBuwYMKwYBBAGDhiABAQQ  
BMIGqMC4GCCsGAQUFBwIBFiJodHRwOi8vcGtpLnRlc3QudGF4Y29yZS5kdGkuc  
nMvcGtpMHgGCCsGAQUFBwICMGweagBEAFQASQAgAFQAYQB4AEMAbwByAGUAIA  
pAG4AdAB1AHIAbgbhAGwAVQbzAGUAIAbwAEsASQBUAGUAcwB0ACAAaQBzAHMAd  
QBhAG4AYwB1AFAAbwBsAGkAYwB5ACAAYwBsAGEAcwBzADEwgbGDCsGAQQBg4Y  
gAQEEATCBqjAuBgggrBgfFBQcCARYiaHR0cDovL3BraS50ZXN0LnRheGNvcmUuZ  
HRpLnJzL3BraTB4BgggrBgfFBQcCAjBsHmoARABUAkAIABUAGEAeABDAG8Acb  
1ACAAaQBuAHQAZQByAG4AYQbsAFUAcwB1ACAAcABLAEkAVAB1AHMAdAAgAGkAc  
wBzAHUAYQBuAGMAZQBAG8AbAbpAGMAeQAgAGMABAbhAHMACwAxMB0GA1UdDgQ  
WBBCQCMogZokiv0fsLYwd+h2HFU9SBejAfBgnVHSMEGDAwqBR96opdCPQ+1APgN  
GyM3NFn5WwubjBOBgnVHR8ERzBFMEOgQaA/hj1odHRwOi8vcGtpLnRlc3QudGF  
4Y29yZS5kdGkucnMvcGtpL1RheENvcmVJQ0ExRGV2ZWxvcG11bnQuY3JsMFkGC  
CsGAQUFBwEBBE0wSzBjBgggrBgfFBQcAoY9aHR0cDovL3BraS50ZXN0LnRheGN  
vcmUuZHRpLnJzL3BraS9UYXhDb3J1SUNBMUR1dmVsb3BtZW50LmN1cjANBjkqh  
kiG9w0BAQsFAAOCAQEAI9pj/BFcQ7i1i/577kcp2/0W8hi3Wr07UyEsVsN+z7  
5jdBG1r1v3tkSswqYhoQmzsDifuvio2cnSET0QOyyBTUYS499xsibGVZVzuEop  
nFzqsgytarPtITHo4DeLCnjtollxVh9PPzAT1fsz7xXHqfaex6x+HCkWFkUuFE  
bze59ib5MJoiz5zE9WxYZwdXy7m0xgdjyjTaNQTGReqDWeT1bA219/UZxHGBpr  
TALfU7uAxndnCexPxim24sDkO3/ZsvLqhRFPuTFqlEY8K9YY9L9aWxIWFuJFKsh
```

rHc3fQND9BzjT5Hj6T2CxqfEUUxgUkpFPkeOYEtmvE/rm03jSvA=="