

User Manual of Information System



Client station configuration

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20.12.2016	SafeNet SW and eTokens update
5.1.2017	Add configuration for new web browsers (Google Chrome, Microsoft Edge)
8.3.2018	Removal of outdated information obout OTECA, OTECATEST certificates
15.3.2018	Instalation and advanced settings for OTE PKi Client used for access to CS OTE
22.5.2018	Installing new component OTE PKI + setting up for several web-browsers
20.9.2018	Update of Acces over OTE-COM application
27.11.2018	Update of Mozilla Firefox settings for using PKI component
26.2.2019	Another possibility of gaining certification authority file oteca.pem
6.5.2019	Insertion of paragraph about local storage from document Registration
26.6.2023	Update of compatible configuration and update of OTE-COM download
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1 Workstation configuration

Compatible web browsers:

- Mozilla Firefox
- Google Chrome
- Microsoft Edge (without compatible mode)

Compatible operating systems:

- Windows 10
- Windows 11

We recommend to use security updates from http://windowsupdate.microsoft.com.

Logging into the secure CS OTE portal is possible in two ways:

- 1) **OTE PKI Client** (enables the use of certificates already installed on the computer) chapter 2 OTE PKI client for access to CS OTE
- 2) **Local certificate storage**(uploading new certificates into local storage) chapter 3 Local certificate storage



2 OTE PKI client access to CS OTE portal

2.1 Installation of Component OTE PKi Client for access to CS OTE

Link for downloading installation file is located on web page: http://www.ote-cr.cz/registration-and-agreements/access-to-cs-ote/konfigurace-pc?set_language=en in the table A – Access to CS OTE through a web browser (links for installation packages for IE and for other supported browsers 32-bit, 64-bit OS).

To start installation open the downloaded file:

1) You will be asked to choose the language of installation



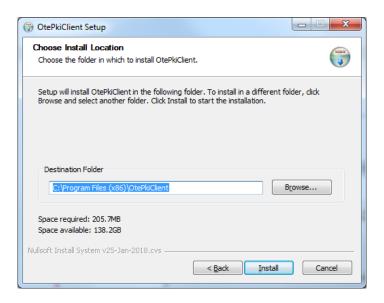
2) In next step, according to used browser, decide if to install OtePkiClient just for you or for anyone using this PC



- Choosing "Install for anyone ..." will locate installation into Program Files

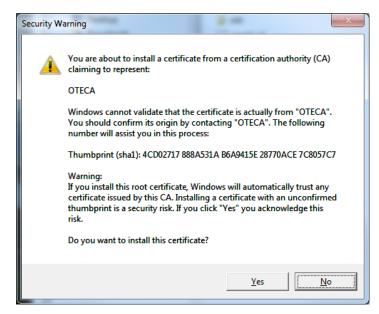


- Choosing "Install just for me" will locate installation into User's Folder
- 3) Now, it is possible to modify the location manually



4) Is there OTECA Authority installed in Trusted Root Athorities on this PC?

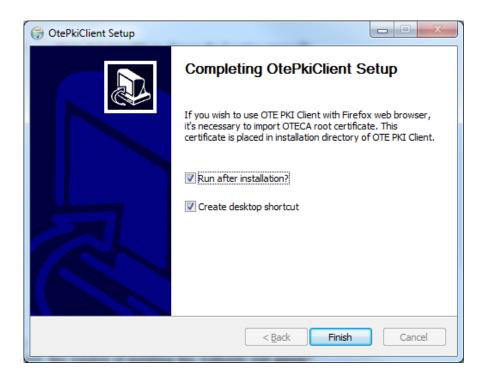
If this authority is in the system not installed yet, following window with information about installing this Authority will appear:



Pressing YES the instalation will continue. Installed Authority is valid for all supported web browsers except Mozilla Firefox. Process of installing for this browser is decribed in the chapterr 2.3.

5) Now we choose if to run OtePkiClient after Installation and if to create the Shortcut on Desktop.





2.2 Post-install configuration

If using another web-browser then Mozilla Firefox, please see the chapter 2.5.

2.2.1 Importing OTECA authority into Mozilla Firefox browser

In the case of using OtePikiClient with this web-browser it is necessary to install OTECA authority into the browser manually:

- a) Download the file oteca.pem from the link https://www.ote-cr.cz/cs/registrace-a-smlouvy/pristup-do-cs-ote/files-konfigurace-pc/oteca.pem and install it into the browser. or
- b) Copy the text shown below into file called OTECA.pem and use this file for installing into web browser:



----BEGIN CERTIFICATE----

MIIFpDCCA4ygAwIBAgIKAq9tFwPoO3XI5TANBgkqhkiG9w0BAQsFADA/MQswCQYD VQQGEwJDWjESMBAGA1UECqwJT1RFLCBhLnMuMQwwCqYDVQQLDANQS0kxDjAMBqNVBAMMBU9URUNBMB4XDTE4MDMwNTE3NDqwM1oXDTI4MDMwNTE3NDqwM1owPzELMAkGA1UEBhMCQ1oxEjAQBqNVBAoMCU9URSwqYS5zLjEMMAoGA1UECwwDUEtJMQ4wDAYD VQQDDAVPVEVDQTCCAiIwDQYJKoZIhvcNAQEBBQADggIPADCCAgoCggIBANrqtnuv5zS9byhArdH2sTE+dAGSYT85RT71+ElkoCwpYbOsGsR3/7LzbQT0R7dn8iSDPR5a hh0B8mdcWLYXOV0croBFs0WpGUiOSiwpKLFr+aXMtVNBfX5qF+GZWRj+G+NfhYgr zARTN2Ws0MnQGZbXY0GuIWOwYItj9EA15qTE3IN/ereSzwkSwx3Fd2AiqxL7V6Yw pxU+rWe39MFH8prTPw6TI0xvPconZwObaIoHG54P4wRqEeuKnzaW4vZeinGvIXpn 5MamU2tQrMUGCMOEeycASPMEubSK8z6IyJ35ZQ31aeUk31wrzp0CJZVFsZtThn8T 9e1ZiPHxD3LbW5bGT7hSVqe7qe1qwdomYItQrRLJZ17YMBEA8vfqZHwjcjaO7QfX ljYdUirnujTDgHqcu6RXVkhPvVbdFNcRe1o34+8TzmDXQOVOTSzjEOdGcB++Rvcp +pxbbQUFM4ja3BH3Y9hV2GWSPtET/FhY028gG2KkFpXAz7HzpnLjm27dvSH4RU3S AYKm+cd/btgDI2fGzaKtVt50+trB2Wj1+GipsRkw2VmOdBDO++T28NcrOu7HNVBF xNzpvHchoVOonWLbghxzqVDux+BWEriOIJYSebBbQdn0Vic5xB0+kcGMHMfnJ6Dz 7sOh1ZqH3h3rYq7G88JxGVGbxFGZHMTYyamhAqMBAAGjqaEwqZ4wDwYDVR0TAQH/ BAUwAwEB/zALBqNVHQ8EBAMCAQYwHQYDVR00BBYEFOpk3trCPeD1q01UhNqqi73M 7xMVMB8GA1UdIwQYMBaAFOpk3trCPeD1gOlUhNgqi73M7xMVMB4GA1UdEQQXMBWB E290ZWNhLmN6QGxvZ21jYS5jb20wHqYDVR0SBBcwFYETb3R1Y2EuY3pAbG9naWNh LmNvbTANBqkqhkiG9w0BAQsFAAOCAqEAXL8eTcjeG0Yb341YzErb+KGm6S2qWAqk eBbrVtVJ6uq41UYVuQ2radrN26ZMSedTyeCzmuq2bK3wLchBcQkeC/FY4qvDUVE5 nz310n4Ze6Q14r6Zqck1DWEymO+OvHKaaLuheOkRTYx2+EVoTIWI/44zqZ15moQB DKSdTENQNRSTxp1pRE1TpCYxd28Ssv0S0fQpeX1vOP1fQZ363AUVr8FnKnMb3CHY 5ua45Chal3MzoiEIFz3AIo6o5AwMqs+vTTTzAM7Y5qEfurEOPWw08Pqv6IoxKIFv 5P7BEbwlOha8kJpncAnoLmhucZoPH774a4XHdVdT1678CWdOf+JCDGOFFVtaXkKV aUBHuw5vojEiPXZ7VGysiApZ0EM1FJ5IuZYo3kjJ60q4Rj3I+436cd0k7PlSlBiQ R0KrZmUPlChCwW42LVaIzh0//WlagXJ/2Il2bKI1qzTkixSYk0V3t+OewfLmBBM/ ${\it nmLoDdKfrmkWaEkURL81911YhDgh2fwOn5cLwedq0XNzVGqnJW/knSjesf11t1Lv}$ 79uUfXv6Yx3fXmG4Q6PVa++G4MXoccjEwndr83XrG7rTZ1nF1qUrQGYjZduLiT8M q7wCPGLXADYuDhV4ewN/SLlvfSR2oohcpbJ1f+a4eSXDbeq0jcN8YbT7+geY0tKc iXTuTVuPZSI =

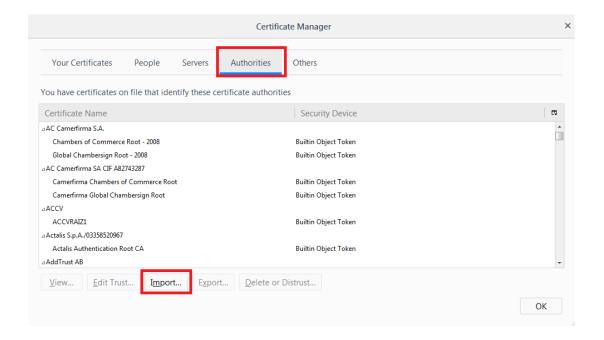
----END CERTIFICATE----



Actual installation in Mozilla Firefox browser:

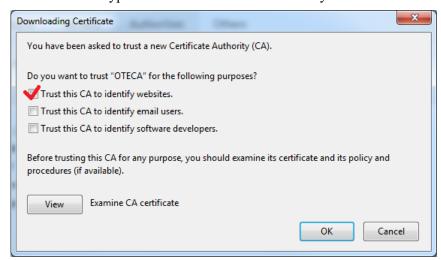
Menu -> Options -> Privacy & Security -> Certificates - View certificates ...

Choosing the tab Authorities and pressing Import



In displayed window "Open file" select the file OTECA.pem.

Next step is to choose what type of identification is this Authority valid for:



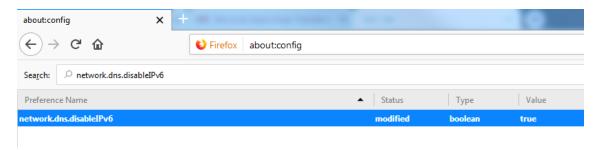
- Marking the first checkbox – *Trust this CA to identify websites*, and pressing OK will finish the import.



2.2.2 Dissabling IPV6 DNS in Mozilla Firefox browser

In some specific configuration e.g. company network using WPAD, PKI component could not work more. Even after the above stated import of authority it is not possible to detect PKI component. Then, you need to change the browser's system settings by disabling searches of IPv6 in DNS.

The procedure is only recommended for experienced users because you need to change the settings in the Firefox system editor:



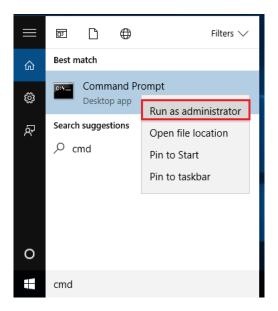
- 1) In address bar of the browser, type *about: config* and press *Enter*.
- 2) Accept an entry warning only for experienced users
- 3) Find "*network.dns.disableIPv6*" and double-click this item to change the value from *false* to *true*.
- 4) The bookmark can be closed, the settings are saved.

2.2.3 Configuring web browser Microsoft Edge

In the case of problems with detection of installed OTE PKi Klient in the browser Microsoft Edge (forbidden communication web applications and local programs), run the Command line as administrator:

- Windows MENU Search programs and file type in CMD
- Consequently pressing right button of the mouse on cmd.exe and choosing *Run as administrator* will open window with command line. Type in following text:





- Choose Run as administrator, type admin Login and Password
- into new CMD window type this structure:

CheckNetIsolation LoopbackExempt -a -n="Microsoft.MicrosoftEdge_8wekyb3d8bbwe"

- pressing enter will execute modifications and the browser is now ready to use

2.2.4 Configuration of CS OTE portal

Communication CS OTE portal with OTE PKi Client is done through Local Storage. If it is forbidden to save *Browsing history*, it is necessary to perform the steps below every time launching the browser.

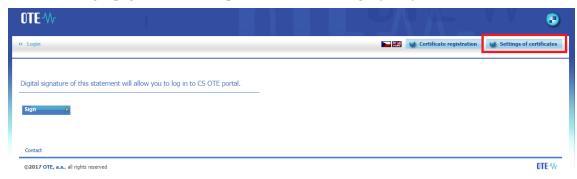
If the case the Local Storage was initialized for usage with certificates PKCS#12 (software cer.), it is necessary to deconfigure it first.

All the settings stated below must be performed for every web-browser and/or every user profile in operating system.

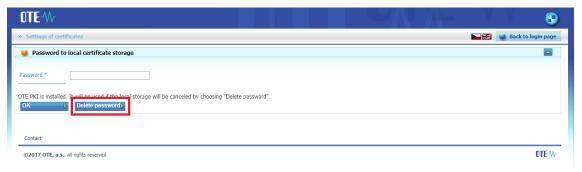


2.2.5 Deleting already initialized Local Storage for SW certificates

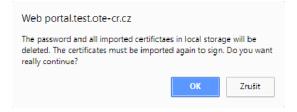
- login page to CS OTE - press the button Settings of certficates



- page Settings of certificates – press the button *Delete password*



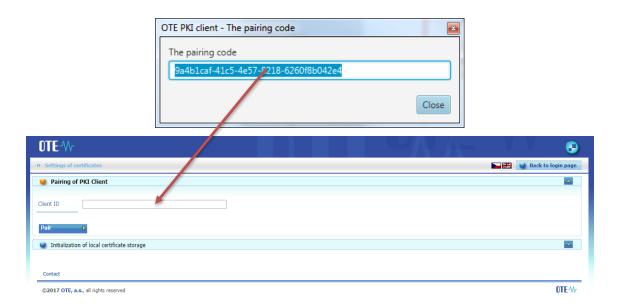
- in continuity to finish installation confirm the dialog box informing about deleting the Local Storage



2.2.6 Pairing web application and the component

After entering *Settings of certificates*, if the Local Storage is not used, automatically appears **Pairing dialog** (OTE PKI Client). In the web browser is shown section **Pairing PKi Client**, where the pairing code should be copied to.





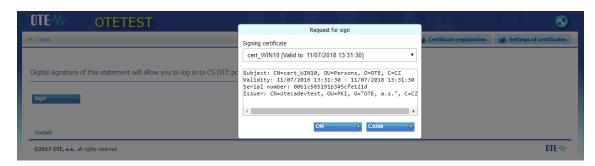
Inserting pairing code and pressing **Pair** will open web page with overview of all certificates in the Storage of operation system.

Activation process of OTE PKi Client is done.

In the case of not viewing **Pairing dialog** automatically, it is possible to open it manually: in Taskbar do right click (of the mouse) on the icon OTE PKI Client and choose **Open pairing dialog**.



Pressing *Back to login page* and *Sign* enable to access CS OTE Portal.



Local Storage is not used and OTE PKi Client is already installed. Before you pair web-browser with OTE PKi Client pressing **Sign** will evoke viewing window:



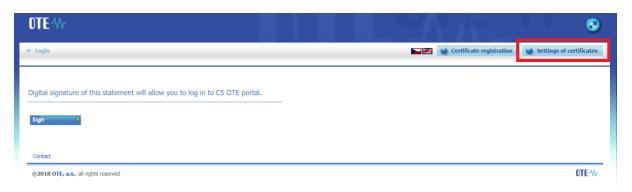
Web portal.test.ote-cr.cz

Before using PKI Client service is necessary to pair the service in Certificate settings.

OK

2.2.7 Switchover from OTE PKI component to local certificate storage

a) On the CS OTE portal login page, select the **Settings of certificates** button:



The existing certificates in the operating system store are displayed:





At the bottom is the *Initialization of local certificate storage* bar. Clicking this bar, entering and repeating the password will activate Local certificate storage. On the next page we are asked to add a certificate to the certificate storage.



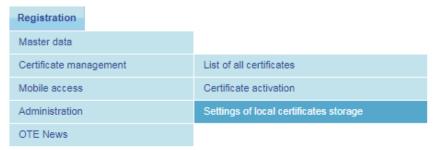


3 Settings of local certificates storage

Local certificates storage preserves certificates for data signing. Storage is primarily for users who use modern web browser (Google Chrome, Microsoft Edge) for data signing and do not have the signature component installed – chapter 2.1 Installation of Component OTE PKi Client for access to CS OTE.

3.1.1 Management of local certificates storage

Press "Registration" item in menu, then "Certification management", "Settings of local certifications storage".

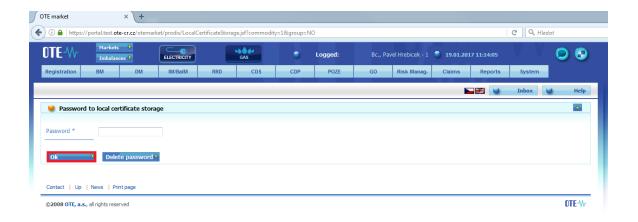


If you are log in for the first time, enter your password which you want to use for local certificate storage access. Press "Save" button, then you will be redirected to local certificates storage.



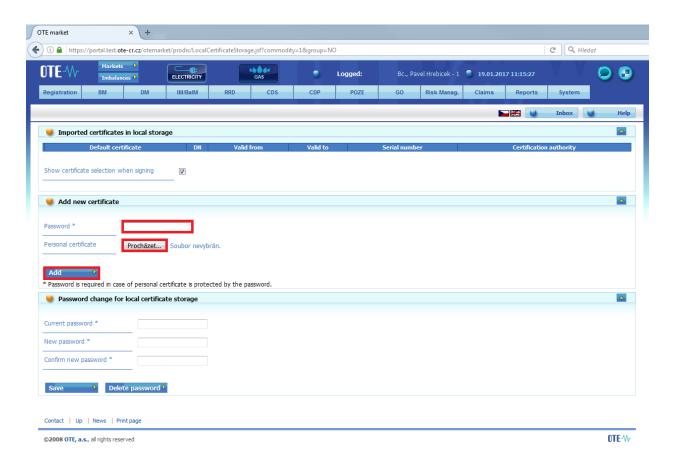
If you already have your password to the local certificates storage, just enter the password. Press "Ok" button, then you will be redirected to local certificates storage.





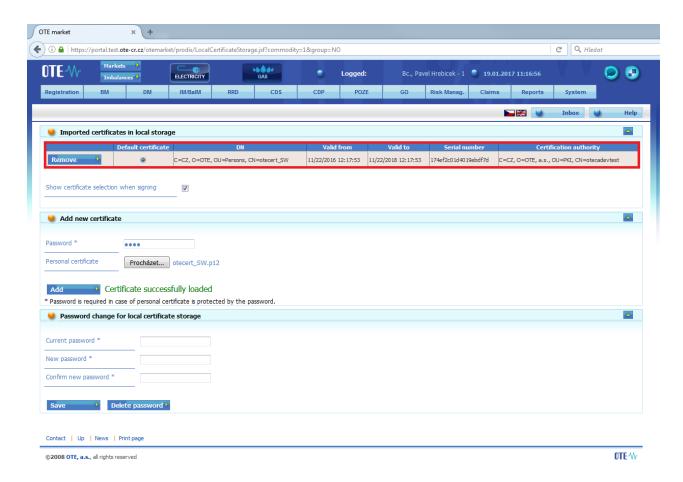
3.1.2 Insert certificate to local certificates storage

Press "Procházet" button and choose certificate which you want to import to local certificates storage. Then enter password which is provided with a certificate and press "Add" button.





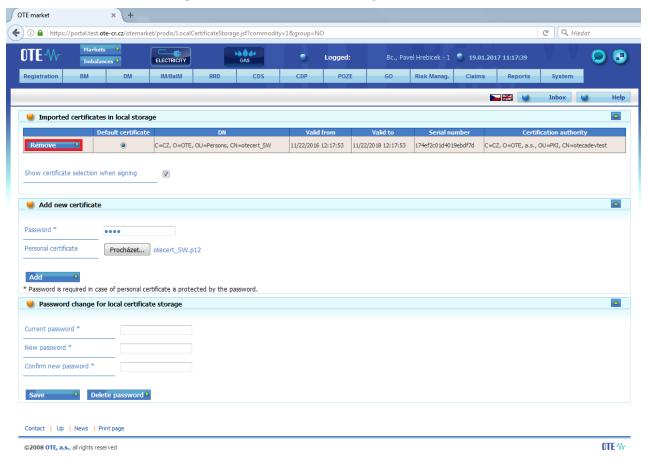
If an import was successful, you should see your certificate in "Imported certificates in local storage" section.





3.1.3 Remove certificate from local certificates storage

Press "Remove" button in "Imported certificates in local storage" section.



Press "OK" button

Do you realy want to delete the certificate from local storage?



If deleting certificate was successful, you shouldn't see your certificate in "Imported certificates in local storage" section.



3.1.4 Removing expired certificates from local storage

Clicking on login page to CS OTE cause running detection of expired certificates. In the case your Local Storage contain some expired certificate the system will announce it by displaying the window:

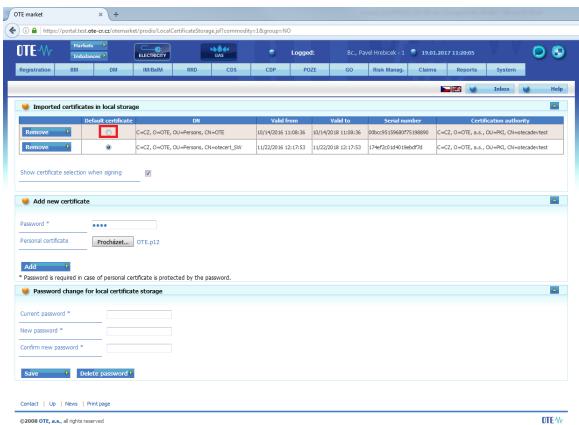


Clicking "Yes" we might remove expired from local storage directly. Choosing "No" will not perform any action.

After that content of local storage is normally displayed.

3.1.5 Choose primary certificate

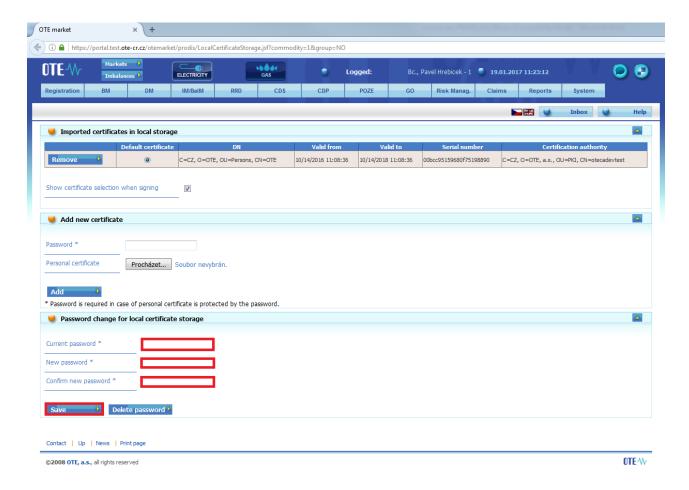
If you have more than one certificate in your local certificates storage, you should choose your primary certificate. This certificate will be used for data signing, when you uncheck "Show certificate selection when signing" option.





3.1.6 Change password for local certificates storage access

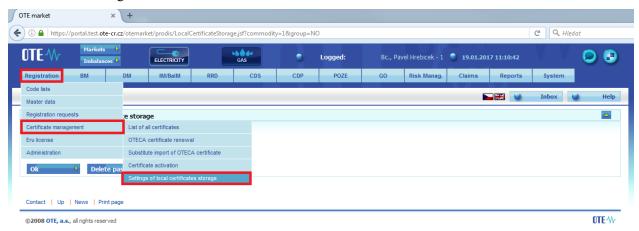
Enter your current password in "Password change for local certificate storage section. Then enter your new password and confirm this password. Press "Save" button. If change password was successful, you should see Password successfully changed.



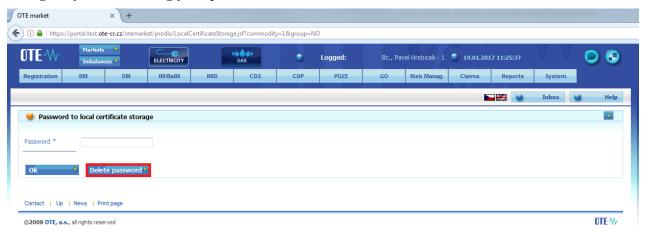


3.1.7 Forgotten password for local certificates storage access

Press "Registration" item in menu, then "Certification management", "Settings of local certifications storage".

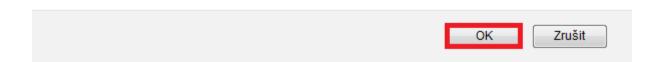


Press "Delete password" button. All your certificates will be deleted from local certificates storage, if you are deleting your password!



Press "OK" button.

When you delete the password also all stored certificates will be deleted. Do you realy want to delete it?



Then you will be redirected to screen, where you enter your new password for local certificates storage access. Press "Save" button and then you will be redirected to local certificates storage.

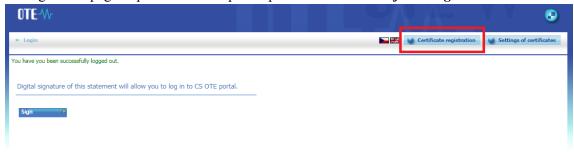


4 Re-registering the Certificate after validity expires

Accessing CS OTE portal after validity end-date of Certificate with company ID

1) New certificate with the same company ID, as expired one, upload into *Local Machine Store*, respectively into *) *Certificate Manager* of used web-browser.

2) On login web-page to portal CS OTE please press the button *Certificate registration*:



- pressing **Sign** on the next page will continue in re-registration process
- dialog box "Request for sign" is shown. All sign certificates registered in Local Machine Store are visible there. Choosing the new one and pressing **OK** will result in new web page with information about User and Certificate.
- If all viewed information is correct, we can finish re-registration process by pressing

Viewing notice on the next page - *The certificate was successfully registered.* informs about ending the process correctly.

Now i tis possible to use this certificate as usual.

^{*)} web. browser: MENU – Settings – Certificates – Manage certificates – Personal cert. – upload new certificate



5 Instruction for the first access to the production environment of OTE-COM application

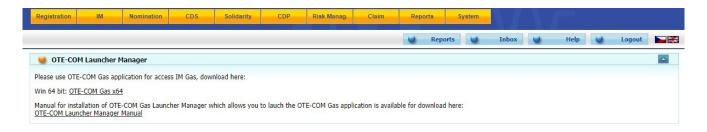
Access to the OTE-COM production environment is possible by following two ways:

- 1. Application OTE- COM (Fat client)
- 2. Direct access to AMQP server from market participant's server (Automatic communication)

5.1 Application OTE-COM Launcher Manager

First, it is necessary to download and install the production version of OTE-COM Launcher Manager (LM) for Electricity (A) or for Gas (B) which allows run of the production version of OTE-COM application.

- OTE-COM Gas x64 can be downloaded in IM section under the tab OTE-COM Launcher Manager



 OTE-COM Electricity x64 can be downloaded in IM section under the tab OTE-COM Launcher Manager



- Manual for installation of OTE Launcher Manager can be downloaded here.
- Communication of the application goes through http/https protocol which in normal cases
 does not cause any trouble. However, complications may occur if market participants use the
 proxy server. In this case it is necessary in the OTE-COM Launcher Manager settings
 (clicking the button O) set the HTTP proxy and allow access to http://www.ote-cr.cz and
 https://portal.ote-cr.cz, respectively contact your IT department and ask them about settings.
- Please note that it may be needed to allow direct access to URL amqp.ote-cr.cz (IP 91.209.101.43), port 5671 in the infrastructure of the market participant.



- Each participant, who is accessing CS OTE Portal with the personal certificate, has the access to applications OTE-COM (through LM) with same certificate. In terms of personal certificates, there is no need to change anything on the market participants' side.
- Information about installation of the root certificates, that has to be installed to access the OTE- COM application, can be found in the manual of OTE Launcher Manager.

5.2 Access to AMQP server from market participant's server (Automatic communication)

- Communication for OTE-COM LM:
 - Electricity (A) goes through URL amqp.ote-cr.cz (91.209.101.43), port 5671, virtualhost = market.
 - GAS (B) goes through URL amqp.ote-cr.cz (91.209.101.43), port 5671, virtualhost = marketGAS
- Supported TLS interface: version 1.2.
- For this type of communication is necessary for market participants to implement appropriate interface according the <u>specification</u>. Templates for OTE-COM messages are available <u>here</u>. In this case it is not used functionality of the proxy.
- For this communication is used AMQP protocol, which does not support HTTP / SOCKS
 proxy configuration on the market participant side. In this case it is necessary to ask IT
 department.
- Each participant, who is accessing CS OTE Portal with the personal certificate, has the access to AMQP server (through Automatic communication) with same certificate. In terms of personal certificates, there is no need to change anything on the market participants' side.
- Information about installation of the root certificates, that has to be installed to access the OTE- COM application, can be found in the manual of OTE Launcher Manager.