

DICOM Viewer 2.0

- ...including
- DICOM Communication
 - DICOM Anonymizer
 - DICOM Parser
 - DICOM DVD Burner
 - Waveform viewer
 - IVUS Longitudinal viewer

Network/Floating License Installation Instructions for the USB Key license

Installation steps:

On the Windows computer that will act as License Manager (**SERVER**):

1. Install Gemalto/Sentinel Run-time environment, SERVER
2. Plug in the red USB hardware key, SERVER
3. Setup the Gemalto/Sentinel License Manager, SERVER

On the **CLIENT** computer:

1. Install the DICOM Viewer and Gemalto/Sentinel environment, CLIENT
2. Setup the Gemalto/Sentinel License Manager, CLIENT
3. Open port 1947 in the firewall(s)

General information:

- What to distribute to the client PC's
- Setup a different server IP address, CLIENT
- Registration / Activation window is displayed

See the next pages..

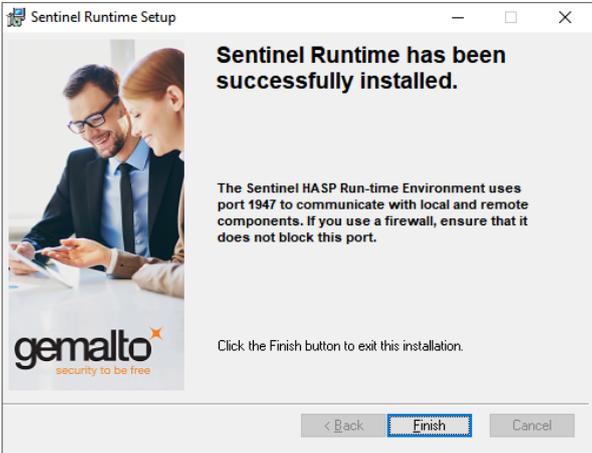
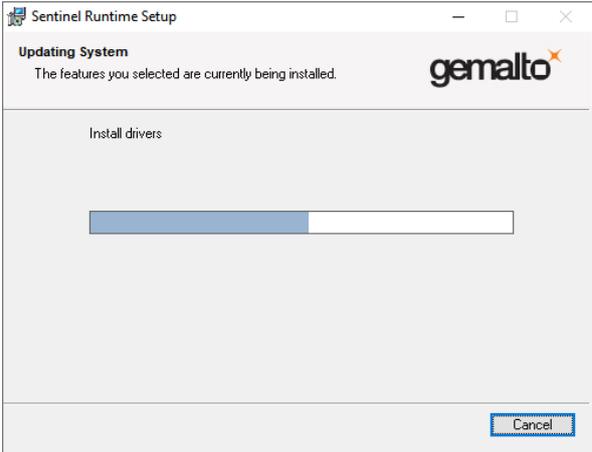
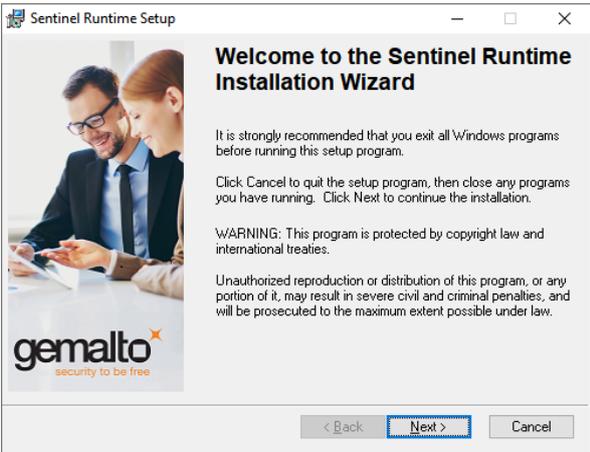
These instructions apply to DICOM Viewer 2.0, build 6553 or later. The latest versions of the Gemalto/Sentinel/HASP Run-time environment and Drivers can be downloaded from our website:

www.rubomedical.com/download.

Install Gemalto/Sentinel Run-time environment, SERVER

You must have administrator privileges to install the Gemalto/Sentinel Run-time environment.

Download 'HASPUUserSetup.exe' from our website: www.rubomedical.com/sentinel. Run it to install the Gemalto/Sentinel Run-time environment. Click through all the setup screens and wait for the 'successfully installed' message. See images below.



Communication is routed through port 1947. Make sure that this port is not blocked.

Plug in the red USB hardware key, SERVER

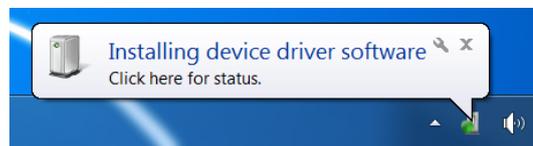
The red USB hardware key is programmed with the number of simultaneous users you have ordered. This key must be attached to the server PC at all times to enable clients to logon and use the DICOM Viewer.



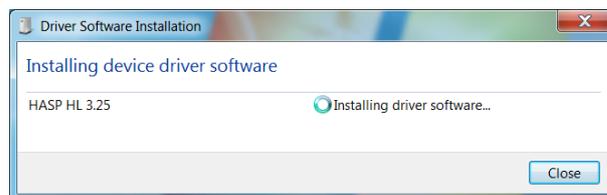
USB hardware key

After you have installed the Gemalto/Sentinel Run-time environment, plug in the USB hardware key in any USB port of your appointed server PC. The device driver software will now be installed.

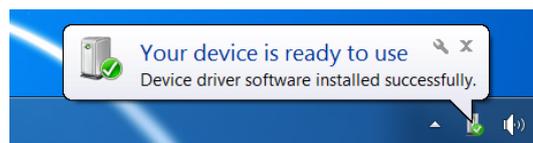
The light in the USB key will switch on and wait for the message 'Your device is ready to use'. This will take a few minutes. See the images below.



Key plugged in



Click on the driver installation tray icon to view the progress



Installation is finished

Setup the Gemalto/Sentinel License Manager, SERVER

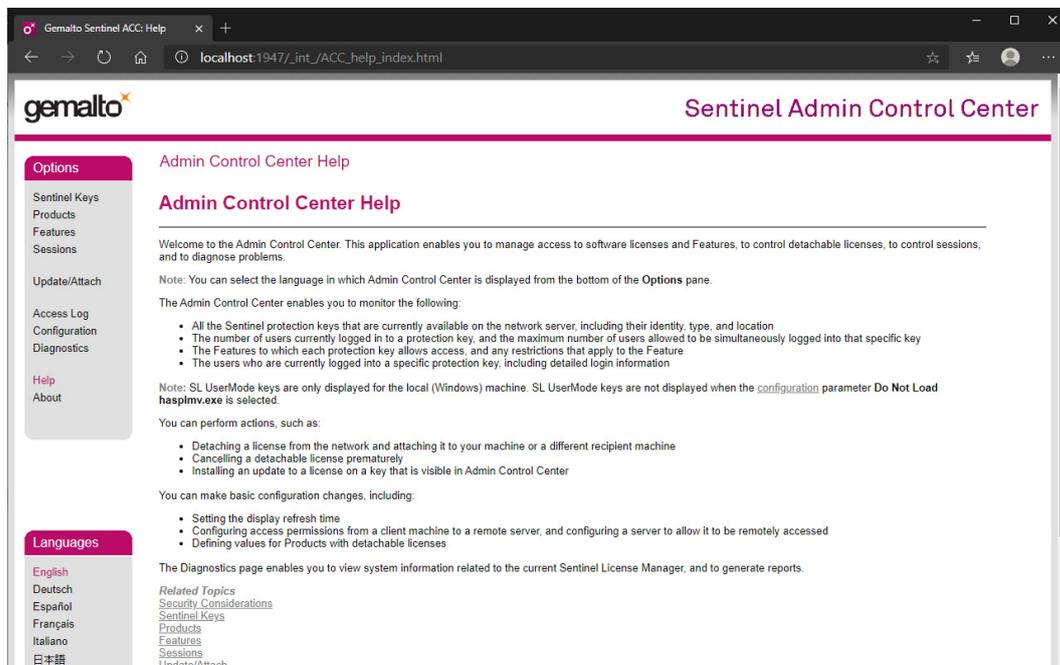
Open the internet browser to setup the Gemalto/Sentinel License Manager. In the address field type: '<http://localhost:1947>' and press enter. The Gemalto/Sentinel License Manager Admin Control Center' will show (*image 1*).

The menu on the left, under Options, shows 'Configuration'. Click it and next click on tab 'Access from Remote Clients' (*image 2*).

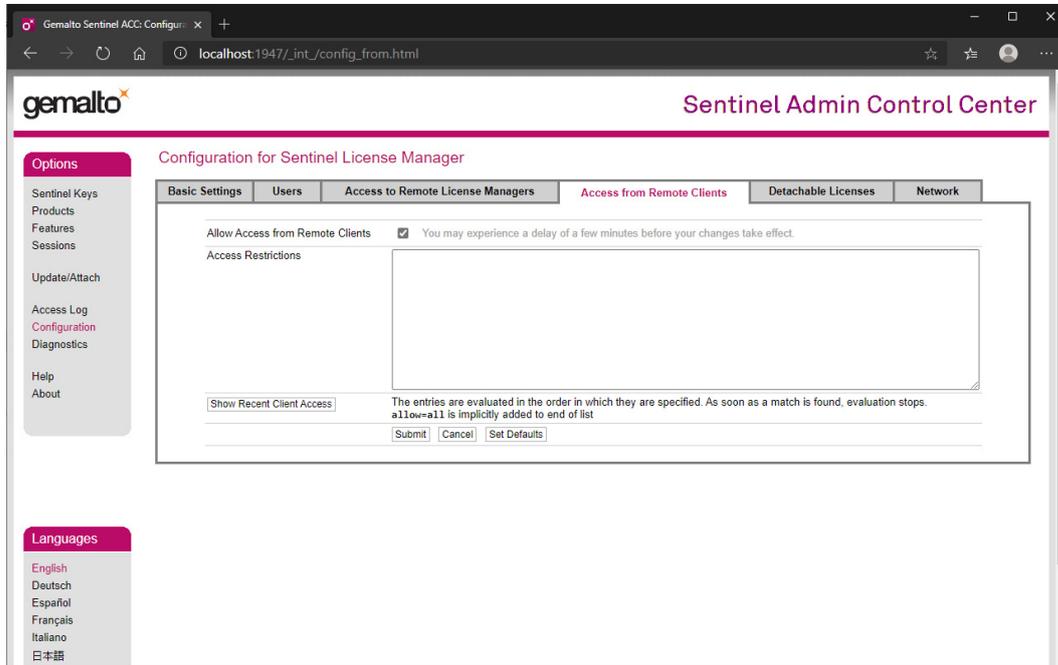
Make sure that 'Allow access from Remote Clients' is checked. In the 'Access Restrictions' box, enter the line 'allow=all' and click 'Submit' (*image 3*).

You now allow all client PCs to access the License Manager, asking permission to start the DICOM Viewer.

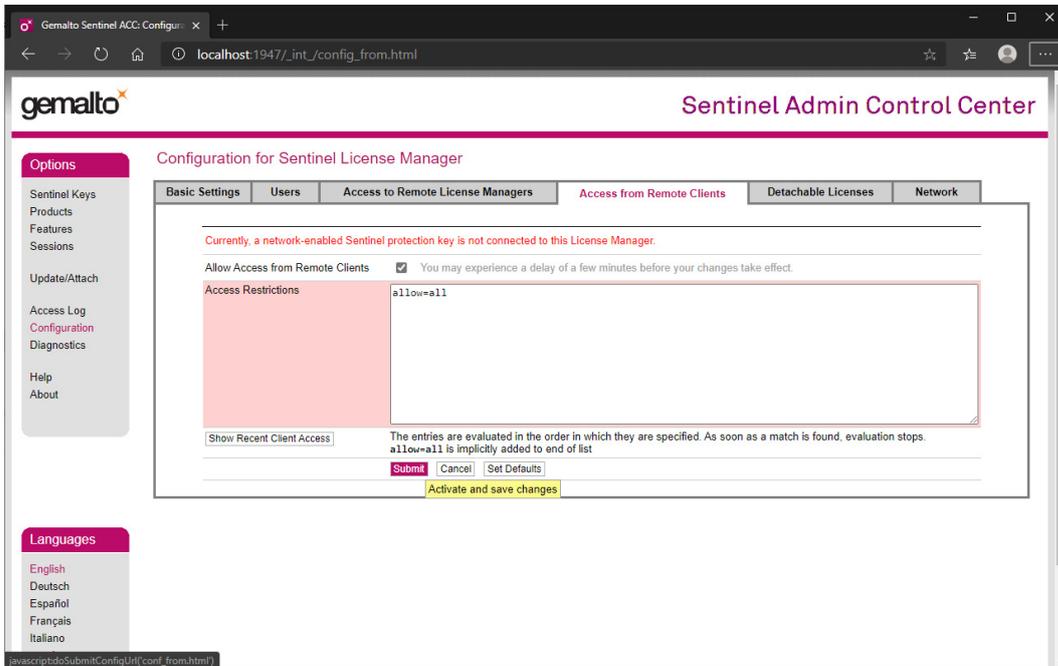
The settings are stored in a file called 'hasplm.ini', the exact location is shown below all the setting options. See *image 2* and *3*.



1. Admin Control Center



2. Configuration / Access from Remote Clients



3. Set the Access Restrictions

Install the DICOM Viewer and Gemalto/Sentinel environment, CLIENT

The installation of the DICOM Viewer and the Gemalto/Sentinel Run-time environment is fully automated. The user only has to click through the setup screens.

The user must have administrator privileges to install.

It is important to pass the IP address of the server PC to the client installation process. At every startup of the DICOM Viewer, the viewer will search for the server/PC to which the USB key is attached. To speed up the search, the IP address of the server should be set in the run-time configuration file.

For each client, start the DICOM Viewer installation by passing the IP address to 'DicomViewerSetup32.exe' via the command line parameter '-IP:' as follows:

```
D:\>DicomViewerSetup32.exe -IP:192.168.2.101
```

Example IP address 192.168.2.101

Accept the end-user license agreement and click 'Next'. On the next pages, choose to install the offline help files and make sure that 'USB Hardware Key Drivers' is checked.

You can also choose to install the DICOM Viewer on the server and make it accessible to every client. However, it's then still necessary to install the Gemalto/Sentinel Run-time environment on each client PC. See 'Install Gemalto/Sentinel Run-time environment, SERVER' to install the environment and 'Setup the Gemalto/Sentinel License Manager, CLIENT' or 'Setup a different server IP address, CLIENT' to setup the servers IP on the client PC

The DICOM Viewer setup file is available here: www.rubomedical.com/download.

To set up or change the IP address manually *after* installation of the environment, see 'Setup the License Manager, CLIENT'.

Setup the Gemalto/Sentinel License Manager, CLIENT

You can skip this if the server PC is located on your local network. The default settings apply and a broadcast will be used to find the server.

You can skip this if the installation of the DICOM Viewer and Gemalto/Sentinel environment succeeded and the server IP address was set as command-line argument of the setup file. See 'Install the DICOM Viewer and Gemalto/Sentinel environment, CLIENT'.

Open a internet browser to setup the Gemalto/Sentinel License Manager. In the address field type: <http://localhost:1947> and press enter. The 'Gemalto/Sentinel Admin Control Center' will open.

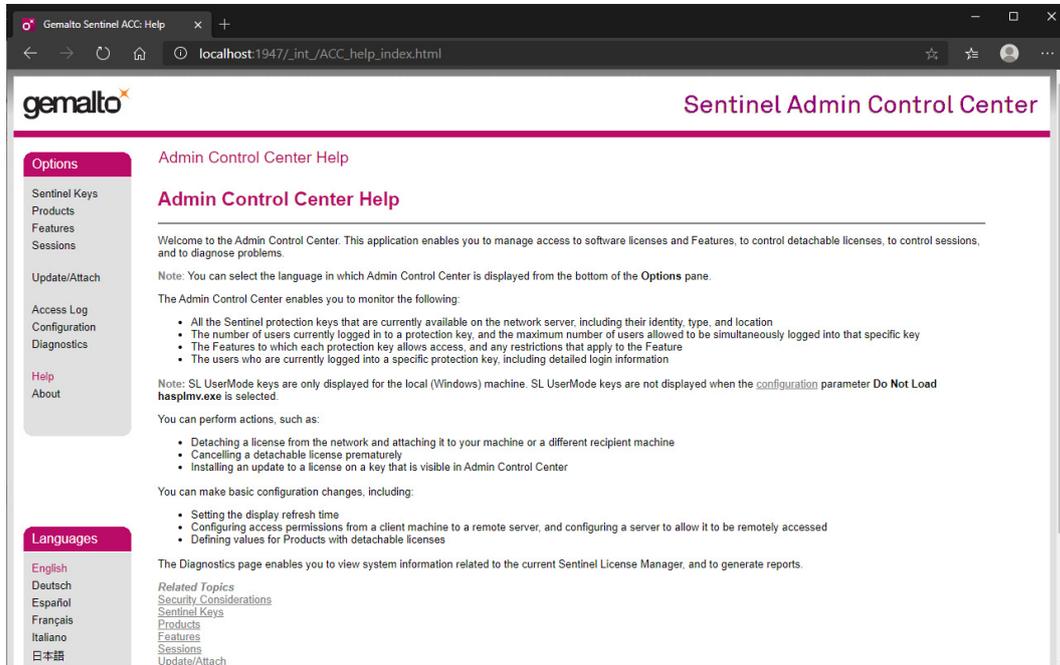
The menu on the left, under Options, shows 'Configuration'. Click it and next click on tab 'Access to Remote License Managers'. Make sure that 'Allow Access to Remote Licenses' is checked (*image 2*).

If you do not know the IP address of the server PC with the License Manager -or- the server PC is located on your local network, check 'Broadcast Search for Remote Licenses' (*image 2*). These settings should be checked by default.

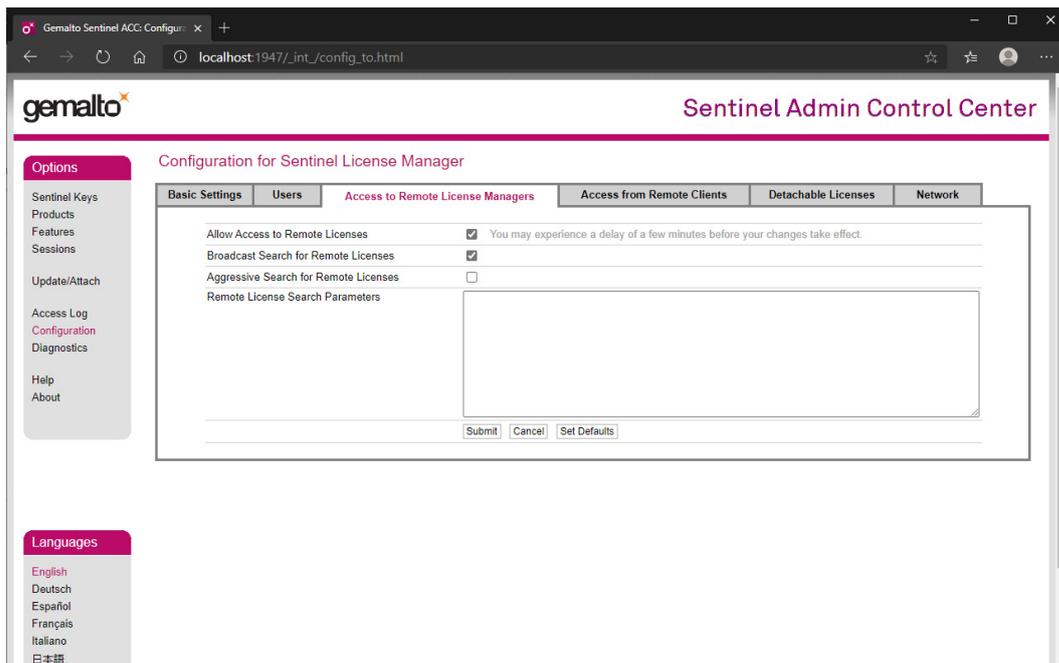
If you do know the IP address of the server PC and/or it is located outside your local network, please do the following: **UN**check 'Broadcast Search for Remote Licenses' and check 'Aggressive Search for Remote Licenses'. In the 'Remote License Search Parameters' list, enter the IP address of the server PC (*image 3*).

Press 'Submit' to save the changes. The changes are now stored but you may need to **restart** your PC (or restart the Gemalto/Sentinel service) for the changes to take effect.

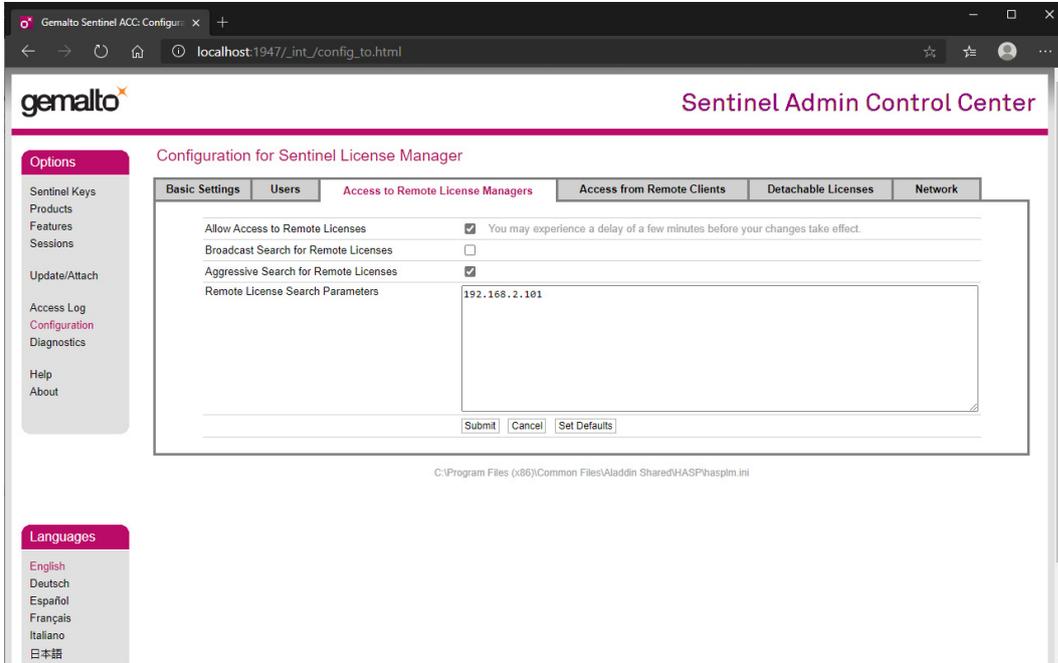
The settings are stored in file 'hasplm.ini', the exact location is shown below all the setting options. You can distribute this file to all client PC's to prevent you from configuring each client individually.



1. Admin Control Center



2. Set the access parameters for local search



3. Set the access parameters, search outside your local network

Open port 1947 in the firewall(s), XP and Vista

The communication between the client PCs and server is routed through port 1947. Your Windows Firewall should be open to port 1947, TCP and UDP.

To open port 1947, TCP and UDP, do the following:

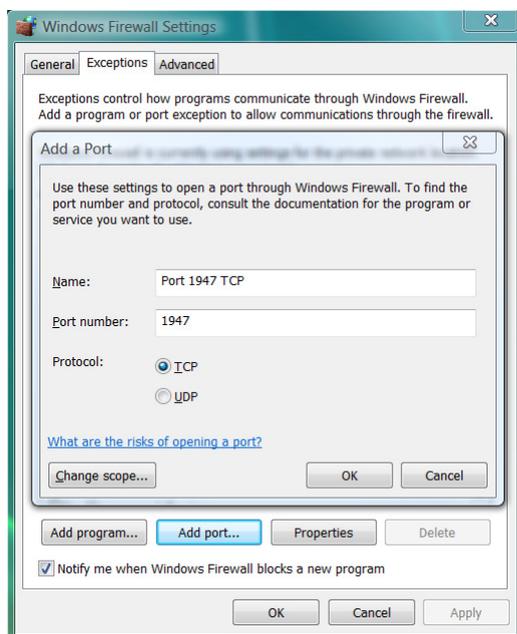
Windows XP:

1. Go to the Control Panel
2. Click 'Security Center'
3. Click 'Windows Firewall'
4. Go to the tab 'Exceptions'

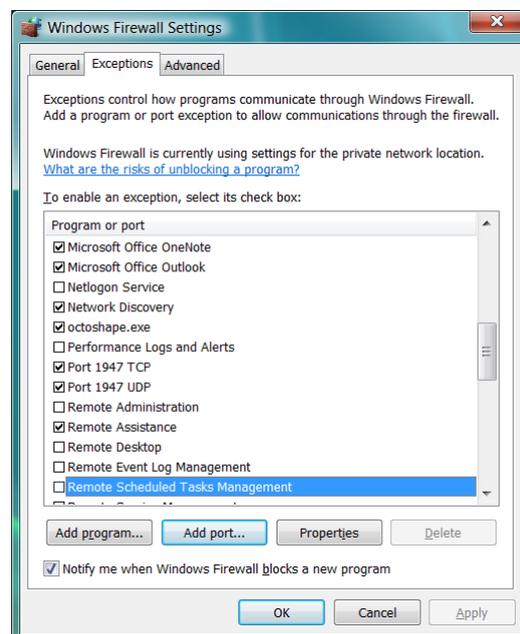
Windows Vista:

1. Go to the Control Panel
2. Click 'Windows Firewall'
3. Click 'Change Settings'
4. Go to the tab 'Exceptions'

Press 'Add port...' and add TCP port number 1947, as shown below, and press 'OK'. Do the same for UDP port 1947.



Add port 1947, UDP and TCP



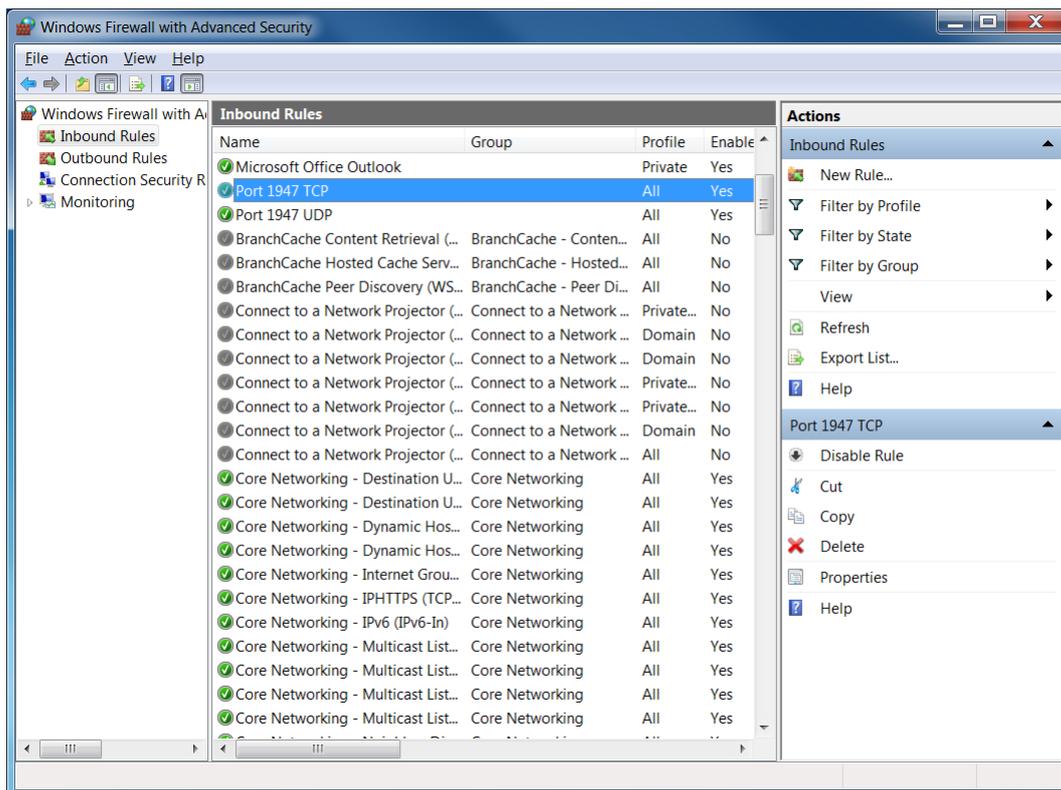
Exceptions added to the list

This is your Windows software firewall. If you are connected to a router, refer to the documentation of your router how to open port 1947, UDP and TCP.

Open port 1947 in the firewall(s), Windows 7 and up

Do the following to open port 1947 when using Windows 7 and up:

1. Go to the Control Panel, System and Security section
2. Open 'Windows Firewall'
3. Click 'Advanced Settings'
4. Go to 'Inbound Rules' and click 'New Rule...'
5. Choose 'Port' as the new rule type
6. Select 'TCP' as protocol
7. Enter 1947 as specific local port
8. Click 'Next' a few times to enter a name for the inbound rule
9. Press Finish
10. Now add the same rule for the 'UDP' protocol



Both TCP and UDP inbound rules are added

This is your Windows software firewall. If you are connected to a router, refer to the documentation of your router how to open port 1947, UDP and TCP.

What to distribute to the client PC's

Scenario 1: each client installs the DICOM Viewer on their own PC.

Distribute the file 'DicomViewerSetup32.exe' to each client including a created batch file with the servers IP address as a command-line argument.

Download the installation file of the DICOM Viewer here:

www.rubomedical.com/download

See '**Install the DICOM Viewer and Gemalto/Sentinel environment, CLIENT**'.

Scenario 2: each client has access to the DICOM Viewer which is installed on the server PC only.

Distribute the file 'HASPUserSetup.exe' to each client. Download the Gemalto/Sentinel driver installation file here:

www.rubomedical.com/sentinel

See '**Setup the Gemalto/Sentinel License Manager, CLIENT**' for manual installation of the server IP address.

—or—

See '**Setup a different server IP address, CLIENT**' for automatic installation.

Setup a different server IP address, CLIENT

When the IP address of the server PC has changed, all client PCs have to be setup again. There are several ways of doing this:

1. Add the IP address as described in 'Setup the Gemalto/Sentinel License Manager, CLIENT' on a single client PC. Submit the changes and copy the new configuration file 'hasplm.ini' to every other client PC. The location of the configuration file is displayed just below the 'Submit' button.
2. Reinstall the DICOM Viewer on all clients as described in '**Install the DICOM Viewer and Gemalto/Sentinel environment, CLIENT**'.

Registration / Activation window is displayed

When the Registration / Activation window is displayed at start-up, the DICOM Viewer could not find a USB hardware key on the network or on the local PC. The software has now switched to software key (Activation Key) licensing.

Force the DICOM Viewer on the client PC to check for the USB hardware key license by either:

1. Plugging in *any* USB device in the client PC when the Registration / Activation window is displayed. Within a few seconds, the software will try to find the USB hardware key. If successful, a pop-up window will ask if this license must be used. Choose 'Yes' and a restart of the DICOM Viewer is required.
2. Start the DICOM Viewer with argument '-hkey'. This will force a USB hardware key check at start-up just once. If not found, the software will again switch to software key (Activation Key) licensing. Repeat this step to force the USB hardware key check.
Example: 'DICOMViewer.exe -hkey'.

After a successful USB hardware key license check and start of the DICOM Viewer, the next start will automatically check for the USB key.

The USB hardware key may not be found when:

1. The USB hardware key drivers (www.rubomedical.com/download) are not installed. Download the drivers and install them or run the DICOM Viewer setup application and make sure that 'USB Hardware Key Drivers' is checked on the 'Set Additional Tasks' page of the installation process.
2. The USB hardware key is not plugged in to the local PC or network server.
3. The client PC cannot find the USB hardware key on the network.
On the client side, check the configuration settings as described in section 'Setup the Gemalto/Sentinel License Manager, CLIENT' of this document.
On the server side, check installation of the USB hardware key drivers, check port 1947 is open and that the USB key is plugged in.