



ThinVNC Access Point

HTML5 Remote Access

User's and Administrator's guide

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1 About this document

On this help file you will find information about ThinVNC Access Point. This document is intended for administrators to set up and configure this tool and has also a section called User's Guide, that was designed to help with the regular use of the application.

Check the "Getting started" section and follow the instructions to quickly install and configure ThinVNC Access Point.

About us:

Cybele Software is a leading provider of software solutions that enable companies to extend their existing technology foundation by integrating with trend-setting technology innovations. Whether you want to improve the user interface for a mainframe application or need to enable remote Web access to Windows desktop applications, Cybele Software has a solution for you.

Since 2004, we have enabled companies to bridge the gap between cutting-edge technologies and proven client/server and mainframe systems. Our team of experienced developers strives to deliver flexible software solutions that increase the efficiency of and usability of legacy systems and data.

Cybele Software products are designed to provide the simplest implementation pathways possible, while ensuring the integrity and security of your existing environment. Our track record of delivering on these commitments is evidenced through our rapidly-expanding, global customer base.

You can find out more about our products and our company on our website at www.cybelesoft.com

2 Introduction

ThinVNC Access Point is a Multi-protocol Remote Desktop Gateway that enables access to remote desktops using RDP and ThinVNC protocols, through a single IP address and port. It also allows organizations to securely publish PC desktops for remote use in scenarios such as telecommuting, VDI delivery and remote PC administration.

Why Access Point?

1. ThinVNC Access Point enables secure access to any LAN/WAN PC through a single public IP address.
2. Makes it easier to IT Administrators with features like remote Installing, Wake-on-LAN, easy Web user administration and much more.
3. You can access it from an iPhone, iPad, Android tablet, ChromeBook or any other device with a HTML5 compliant browser.

Technology details:

The application takes advantage of the **HTML5** technology and interoperate with almost every platform and browsers.

ThinVNC Access Point does not require Flash, Java, ActiveX, Silverlight or any other setup on the end-user side and can be used from almost any device.

Thanks to ThinVNC Access Point's cross-browser, cross-platform capability, Windows, Mac OS X, Linux, Android and iOS users can remote get into Windows desktops and work with single applications through their favorite browser. The application supports Internet Explorer 9, Firefox, Chrome, Safari, and other HTML5 capable web browsers. IE8 and earlier versions may be enhanced with HTML5 features by the addition of the Chrome Frame plug-in.

See more:

[Architecture](#)

[Security](#)

[Getting Started](#)

[Administrating Access Point](#)

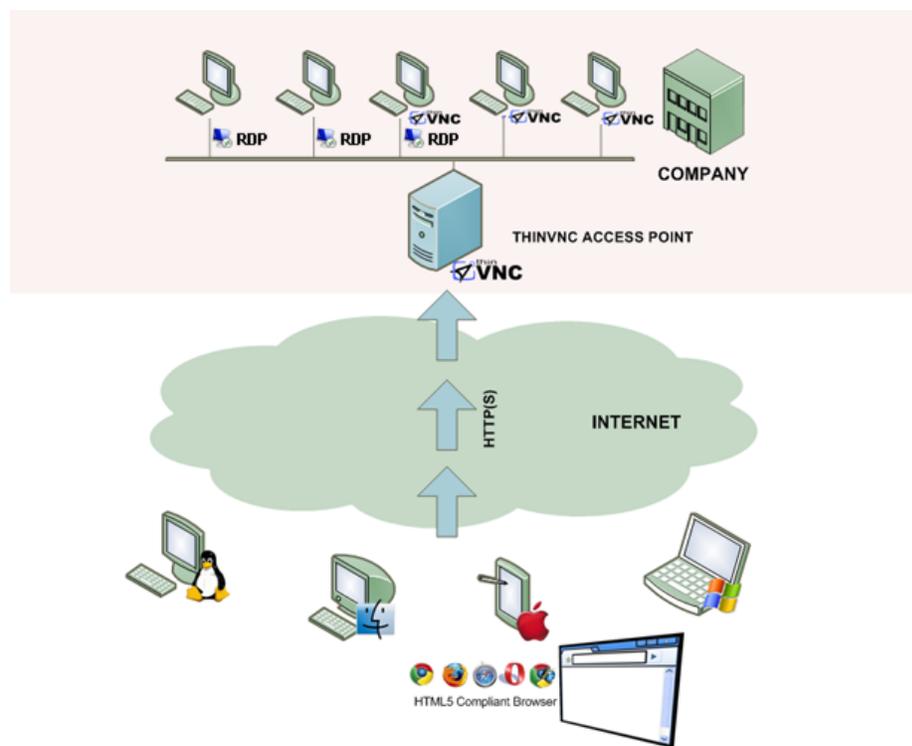
[User's guide](#)

[Command line tool](#)

2.1 Architecture

ThinVNC Access Point is composed of a pure HTML5 based client connecting via HTTP/s to a server. The server could be ThinVNC FREE, ThinVNC PRO or any RDP server, including xRDP for Linux.

The web client connects to the listening port and displays the desktop using JSON and JPEG image encoding. The communication is authenticated using Digest method and the connection can be made through HTTP or HTTPS.



Requirements:

Server:

Any PC with Windows XP and up:

- Windows XP 32/64-bit
- Windows Vista 32/64-bit
- Windows 7 32/64-bit
- Windows Server 2008 32/64-bit

LAN PC:

- ThinVNC running on any PC with Windows XP and up.
- For RDP access, any Windows PC with Remote Desktop service configured.
- Any Linux running XRDP or any other RDP server

Client:

Any PC, Chromebook, Mac, or tablet with a HTML5-Compliant Web Browser.
ie. IE 9, Google Chrome, Firefox, Safari, Opera, etc.

2.2 Security

Security and privacy are essential when accessing remote desktops through the Internet. ThinVNC Access Point provides a reliable, state-of-the-art security that keeps the exchanged information safe.

Secure connections

All the connections to ThinVNC Access Point from the browser are performed over HTTPS. ThinVNC Access Point provides you with the means to install your own 256-bit SSL certificate.

Authentication levels

ThinVNC Access Point allows you to personalize the users and their set of permissions to access the application and its resources. You can create a new User account specifying your own credentials, or integrating it with the Active Directory, which will enable you to authenticate against Windows local or domain users.

3 Getting Started

Use this section to cover the fundamental aspects of ThinVNC Access Point in order to get started.

You will learn to install and use the basics functionalities of ThinVNC Access Point:

1. [Installing ThinVNC Access Point](#)
2. [Verifying the communication Settings](#)
3. [Using Access Point for the first time](#)

Find a more exhaustive reference of the available options here:

1. [Administrating Access Point](#)
2. [User's guide](#)
3. [Command line tool](#)

3.1 Installing

ThinVNC Access Point is simple to deploy. All you need to do is install it on the machine where the service will be provided.

This machine will act as a gateway between the Web connections and the local LAN machines to be accessed.

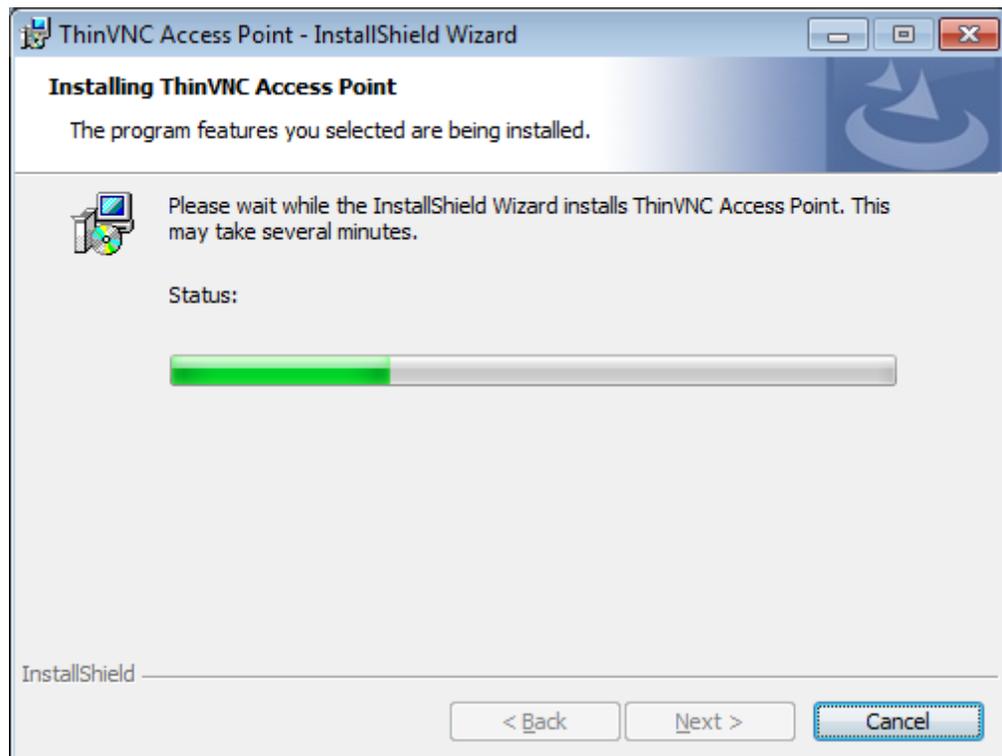
1. Download the installer from this link:

<http://www.cybelesoft.com/downloads/ThinVNCAccessPointSetup.exe>

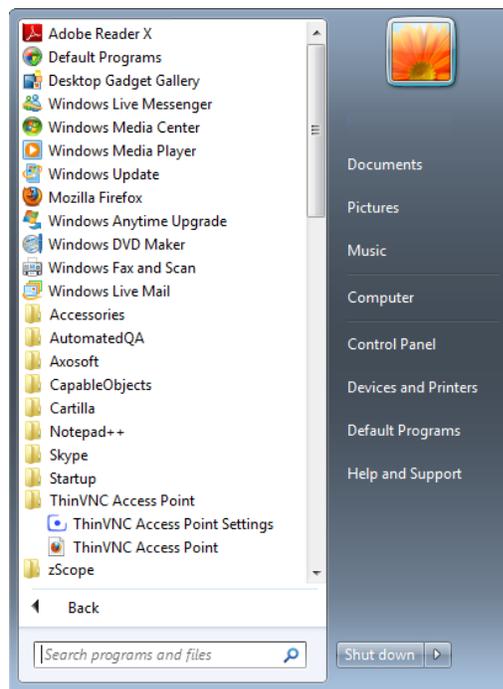
or the zipped file, under the link:

<http://www.cybelesoft.com/downloads/ThinVNCAccessPointSetup.zip>

2. Execute the installer on the target machine.



3. Look for the "*ThinVNC Access Point*" in the Start Menu.



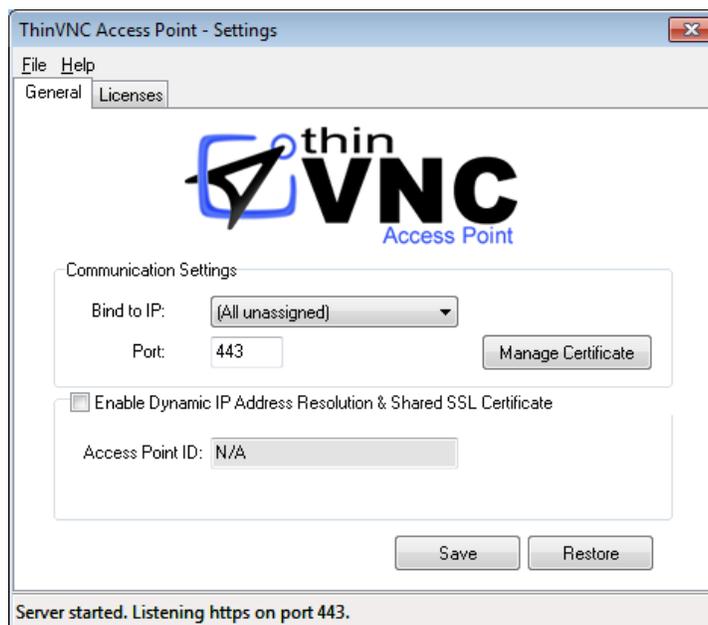
3.2 Verifying the communication Settings

ThinVNC Access Point listens on port 443 by default. If you are not using this port yet it won't be necessary to change the port.

Check whether Access Point is running, by looking at the status message of the "General" tab, located on the bottom of the window. It should say "Server started. Listening https on port...".

If you see the message "Could not bind socket. Address and port are already in use", it means that you will have to use another port since this one is already in use by another application.

1. Identify a port number that is not used yet in the computer where you have installed ThinVNC Access Point.



2. Change the port number on the ThinVNC Access Point Manager General tab.
3. Press "Save".
4. Verify whether ThinVNC Access Point is running in the status message of the "General" tab, located on the bottom of the window. It should say "Server started. Listening https on port...".

3.3 Using for the first time

Follow the next steps and learn how to use ThinVNC Access Point in a few steps:

1. Log in:

- a. Open your preferred web browser.
- b. Type into the address bar <https://127.0.0.1:443/> . You can also change the 127.0.0.1 part with the server IP address or DNS name where Access Point was installed.
- c. Enter the credentials admin/admin
- d. Press the "Log in" button.

2. Create your first user:

- a. Click on "Users" on the upper right menu.
- b. Click on the red plus (+) symbol
- c. Enter the User ID, Name and Password values.
- d. Click on the bottom "Save" button.

3. Create a PC to be accessed and give the user permission:

- a. Click on "All PC's" on the upper right menu.
- b. Click on the red plus (+) symbol
- c. Enter the IP Address and check the RDP option.
- d. Select the created user on the "Available" list.
- e. Move the user to the "Assigned" list, by clicking the right-left arrow.
- f. Press the "Save" button.

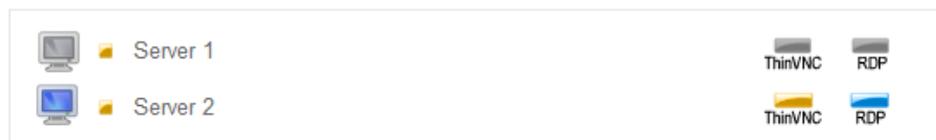
4. Log in with the created user:

- a. Press the "Log out" option on the upper right menu.
- b. Enter the new user "User Name" (User ID) and Password.
- c. Press the Log in button

5. Connect using ThinVNC:

- a. On the list of PC's available to be connected, press the ThinVNC button of the PC line you want to connect to :

- a1. If the button looks gray, it is because the remote machine does not have ThinVNC service on, or the port is not configured correctly.
- a2. If the button is yellow it is because you can connect to the remote machine, through ThinVNC. Click it and enjoy the connection!



6. Connect using RDP:

a. On the list of PC's available to be connected, press the RDP button of the PC line you want to connect to :

a1. If the button looks gray, could be because the RDP connections are not enabled on the remote machine.

a2. If the button is blue it is because you can connect to the remote machine, through RDP. Click it and enjoy the connection!

4 Administrating Access Point

ThinVNC Access Point has two administrative interfaces: The ThinVNC Access Point "Manager Tool" and an "Admin" Profile that gives access to a Web Administrative Interface.

The "Admin" profile comes with the default user (admin/admin) and may also be assigned to any other user, by changing the "Administer" setting to "Full Admin". The Web interface with administrative permissions will allow you to:

1. [Manage users and its permissions](#)
2. [Manage PC's and its permissions](#)
3. [Install ThinVNC on remote machines](#)
4. [Turn on machines remotely](#)

The "ThinVNC Access Point Manager", on the other hand, allows the administrator to:

1. [Enable internet access](#)
2. [Set up dynamic DNS and certificate sharing](#)
3. [Manage the SSL certificate](#)
4. [Licenses](#)

4.1 Users

With ThinVNC Access Point you can define users accounts and assign their permissions to connect to remote computers.

The user accounts should be used to log into the application and access their remote connections from there.

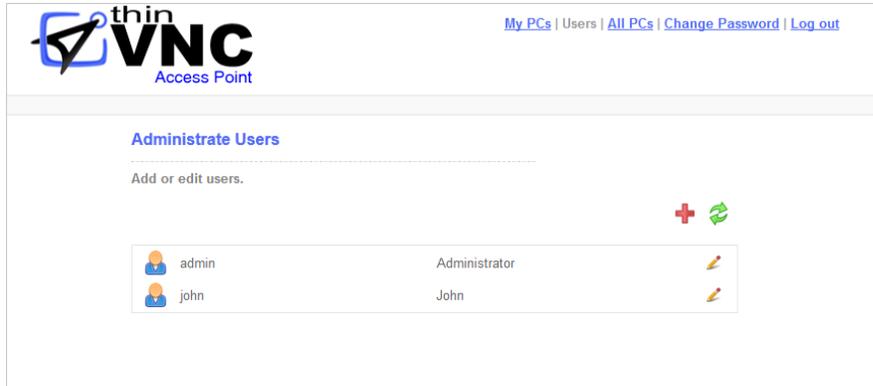
Only users with administrative permissions will be able to manage the user accounts.

Learn how to manage them by:

1. [Adding](#)
2. [Editing and assigning permissions](#)
3. [Removing](#)

4.1.1 Adding

1. Click on the "Users" option in the top-right corner menu.
 ** If you don't see the "Users" options in the menu, it is probably because you have logged in w ith a non "Admin" user account.
2. You will see here a list of the users you have added. To add a new user, click on the red plus symbol (add button):



3. Complete the form:

Add User

Edit the user's information and assigned PCs

User ID:

Name:

Permissions: Administrator Nothing Show protocol links

Windows Logon Password:

Disabled

Remote access disabled

The fields explanation are listed below:

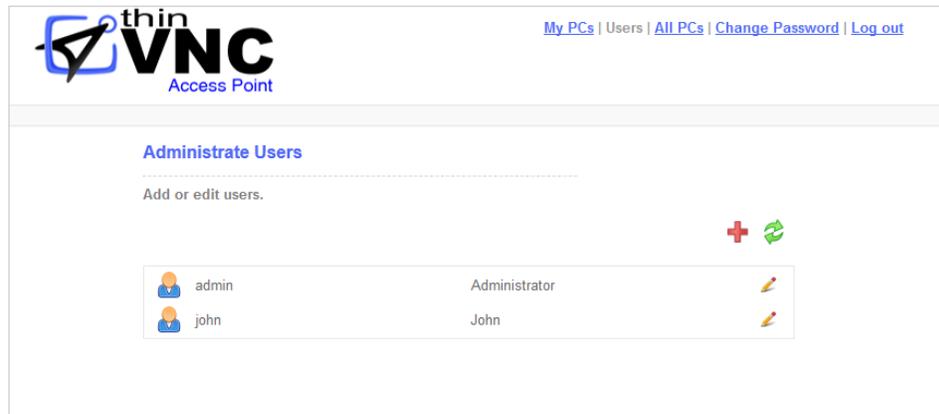
User ID	Enter the user's ID. You can choose to enter the user's Windows ID and then check the 'Use Windows Logon' option or you can create a new username for ThinVNC Access Point.
Name	Enter a descriptive name for this person.

Administer	<p>Choose the permission level for this user:</p> <ul style="list-style-type: none"> • Nothing: Choose this option if you want the user to only be allowed to access the computers an administrator selects for them. • Full Admin: Choose this option if you want the user to be able to add, remove and assign other users and computers.
Show protocol links	<p>Choose this option if you would like to provide the user with the possibility of accessing through RDP or ThinVNC, if available. When unchecked, the user will only access each PC through its default protocol.</p>
Windows Logon	<p>Check this option if you want the user to enter their Windows credentials to log into ThinVNC Access Point. Remember that for this option to work you need to enter a valid Windows username in the 'User ID' field, including the domains.</p>
Password	<p>If you haven't selected the 'Use Windows Logon' option, choose a password for the user.</p>
Disabled	<p>Choose this option to disable the user. You can enable the user again by un-checking the option.</p>
Remote access disabled	<p>Choose this option to restrict the user to access ThinVNC Access Point only locally: only from the computer where ThinVNC Access Point is installed.</p>

4. When you are done, press "Save".
5. You can assign the computer connection permissions to the user, right after saving it.
 - a. Select the computer you want to assign permission from the "Available" list
 - b. Move it to the "Assigned" list to grant the user permission to access the computer. Use the arrows to move it from one list to another.

4.1.2 Editing and assigning permissions

1. Click on the "Users" option in the top-right corner menu.
** If you don't see the "Users" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of the users you have added already.



3. To edit one of these users, click on pencil symbol (edit button), located by the side of the user you want to modify.

The 'Add User' form is titled 'Edit the user's information and assigned PCs'. It contains the following fields and options:

- User ID: john
- Name: john
- Permissions: Administer **Nothing** (dropdown menu) Show protocol links
- Windows Logon
- Disabled
- Remote access disabled
- Password: ●●●●

Below these fields is the section 'Grant Access to the following PCs'. It features two lists: 'Assigned' (empty) and 'Available' (containing 'Server 1' and 'Server 2'). Between the lists are '<<' and '>>' buttons. At the bottom are three buttons: 'Back' (with a green arrow), 'Save' (with a floppy disk icon), and 'Delete' (with a red X icon).

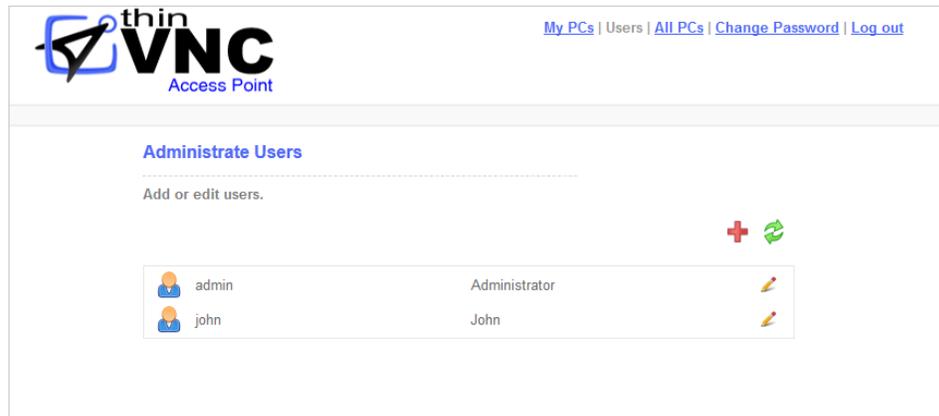
4. Modify the information you want to change. Find below an explanation to each one of the forms field.

User ID	Enter the user's ID. You can choose to enter the user's Windows ID and then check the 'Use Windows Logon' option or you can create a new username for ThinVNC Access Point.
Name	Enter a descriptive name for this person.
Administer	Choose the permission level for this user: <ul style="list-style-type: none"> • Nothing: Choose this option if you want the user to only be allowed to access the computers an administrator selects for them. • Full Admin: Choose this option if you want the user to be able to add, remove and assign other users and computers.
Show protocol links	Choose this option if you would like to provide the user with the possibility of accessing through RDP or ThinVNC, if available. When unchecked, the user will only access each PC through its default protocol.
Windows Logon	Check this option if you want the user to enter their Windows credentials to log into ThinVNC Access Point. Remember that for this option to work you need to enter a valid Windows username in the 'User ID' field, including the domains.
Password	If you haven't selected the 'Use Windows Logon' option, choose a password for the user.
Disabled	Choose this option to disable the user. You can enable the user again by un-checking the option.
Remote access disabled	Choose this option to restrict the user to access ThinVNC Access Point only locally: only from the computer where ThinVNC Access Point is installed.

5. You can assign the computer connection permissions to the user right after saving it.
 - a. Select the computer you want to assign permission from the "Available" list
 - b. Move it to the "Assigned" list to grant the user permission to access the computer. Use the arrows to move it from one list to another.
6. When you are done, press "Save". If you don't want to save the changes, press "Back".

4.1.3 Removing

1. Click on the "Users" option in the top-right corner menu.
** If you don't see the "Users" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of the users accounts you have create. To remove one of these users, click on pencil symbol (edit button), located by the side of the user you want to remove.



3. Press the "Delete" button, located on the bottom toolbar. Be careful: this operation can not be undone.

The 'Add User' form is titled 'Edit the user's information and assigned PCs'. It contains the following fields and options:

- User ID: john
- Name: john
- Permissions: Administer (Nothing) [dropdown], Show protocol links [checkbox]
- Windows Logon
- Disabled
- Remote access disabled
- Password: [masked]

Below the form, there is a section 'Grant Access to the following PCs' with two lists: 'Assigned' (empty) and 'Available' (Server 1, Server 2). Navigation arrows (<< and >>) are between the lists. At the bottom, there are three buttons: 'Back' (green arrow), 'Save' (blue floppy disk), and 'Delete' (red X).

4.2 PC's

The PC's are the remote computers you will to give access to. Once a PC is created and assigned to a user, it will be listed on the user "My PCs" page and the user will be able to connect to this computer though the enabled protocols.

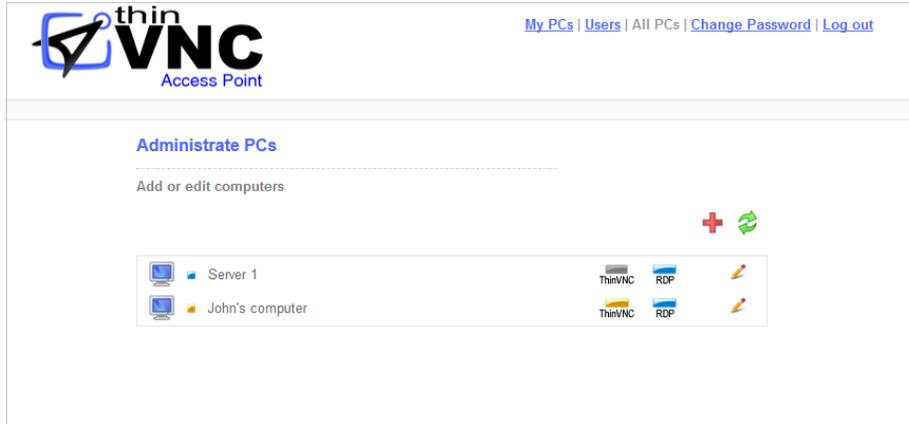
The PC's connection settings can only be managed by an administrative user account, through the the Access Point Web Interface.

Learn how to manage them by:

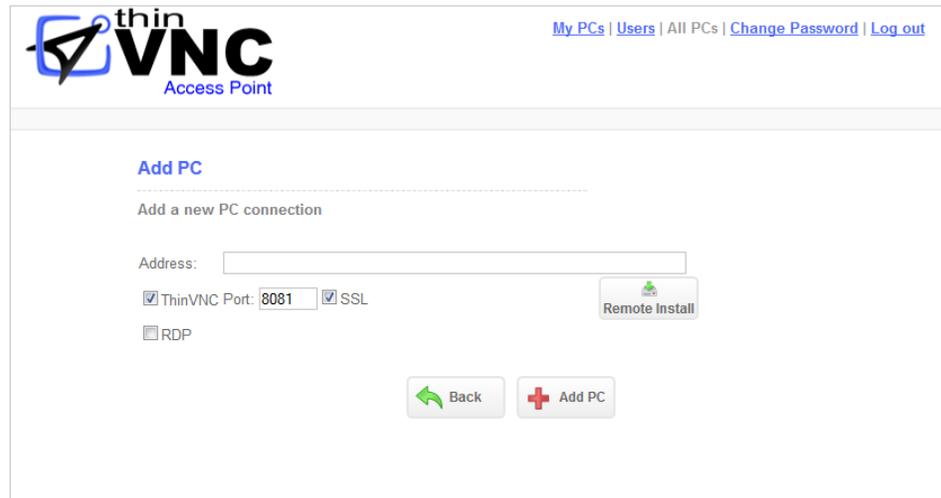
1. [Adding](#)
2. [Editing and Assigning Permissions](#)
3. [Removing](#)
4. [Testing the connections](#)

4.2.1 Adding

1. Click on the "All PCs" option in the top-right corner menu.
 ** If you don't see the "All PCs" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of all PC's you have defined. To add a new PC, click on the red plus symbol (add button):



3. Enter the PC Address and configure the other connection settings:



Address	Enter the address of the PC you want to add to ThinVNC Access Point.
ThinVNC	Check this option if the computer has a ThinVNC server. Complete the port number and check the SSL option if it's an https connection.

RDP	Check this option if the computer has RDP accessibility. Complete the port number.
Advanced Options	Click to expand and see more options. You can also edit them later.
Keyboard	Disable Unicode Keyboard for XRDP connections.
Start Program	Choose this option to have a program start when you connect through RDP to the remote desktop. Only available to connect to Windows server versions.
File Name	Complete the name of the executable file that launches the program.
Working Directory	Specify the directory where the executable file is placed.
Remote Install	Use this option to install ThinVNC in a LAN computer.

3. Press "Add PC".

4. The complete settings form will be presented to you. Configure the other PC settings:

Edit PC's general settings

Edit a PC's general settings, assign users or perform a Remote Install

Address:

Name:

Description:

ThinVNC Port:
 SSL
 Default link
 Remote Install

RDP
 Enable Wake-On-LAN.

Grant Access to the following users

Assigned

Available

john

user1

Name	Choose a name for the computer. By default it will be auto completed with the address.
Description	Enter a description for the computer.
Default Link	Choose whether the default link for this PC will be ThinVNC or RDP. The user can still access both ways when its account has the "Show protocol links" checked. If this option is unchecked, the user will only be able to connect using the PC selected "Default link".
Enable Wake-on-LAN	Enable Wake-On-LAN if you want to turn on this remote PC from ThinVNC Access Point. You need to complete the MAC Address information.
Mac Address	Inform the Mac Address to enable the "Wake-on-LAN" feature. The button by the side the Mac Address field ("Refresh" button) will retrieve the MAC Address from the PC automatically.

4. You can grant the users access to this PC:

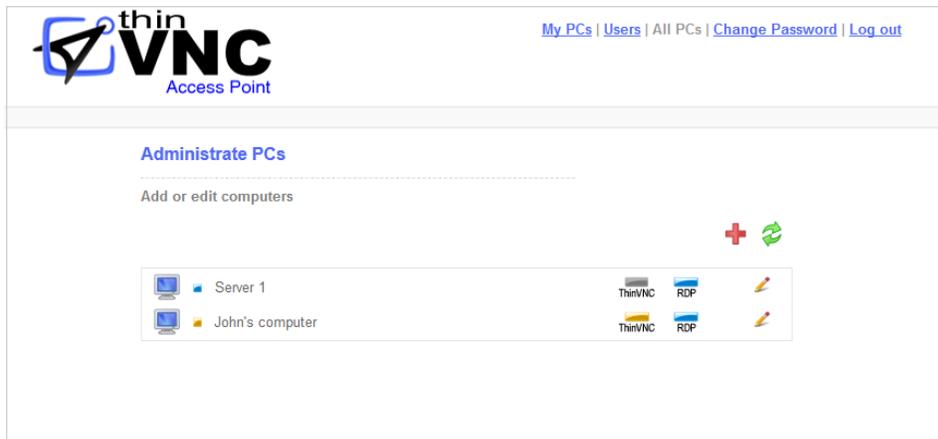
- a. Select the user from the "Available" list
- b. Move the user to the "Assigned" list to grant him/her permission to access this computer.

Use the arrows to move it from one list to another.

5. When you are done, press "Save".

4.2.2 Editing and granting permissions

1. Click on the "All PCs" option in the top-right corner menu.
** If you don't see the "All PCs" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of all PC's you have defined. Click on pencil symbol (edit button), located by the side of the PC you want to modify.



3. Modify the information you were planning to change. Take a look on the fields descriptions below:

The screenshot shows the "Edit PC's general settings" form. The title is "Edit PC's general settings" and the subtitle is "Edit a PC's general settings, assign users or perform a Remote Install". The form contains the following fields and options:

- Address:
- Name:
- Description:
- ThinVNC Port: SSL Default link Remote link
- RDP
- Enable Wake-On-LAN.

Below these fields is the "Grant Access to the following users" section. It has two lists: "Assigned" (empty) and "Available" (containing "john" and "user1"). Between the lists are two arrow buttons: "<<" and ">>". At the bottom of the form are three buttons: "Back" (with a green arrow), "Save" (with a floppy disk icon), and "Delete" (with a red X icon).

Address	Enter the address of the PC you want to add to ThinVNC Access Point.
Name	Choose a name for the computer. By default it will be auto completed with the address.
Description	Enter a description for the computer.
ThinVNC	Check this option if the computer has a ThinVNC server. Complete the port number and check the SSL option if it's an https connection.
RDP	Check this option if the computer has RDP accessibility. Complete the port number.
Default Link	Choose whether the default link for this PC will be ThinVNC or RDP. The user can still access both ways when its account has the "Show protocol links" checked. If this option is unchecked, the user will only be able to connect using the PC selected "Default link".
Advanced Options	Click to expand and see more options. You can also edit them later.
Keyboard	Disable Unicode Keyboard for XRDP connections.
Start Program	Choose this option to have a program start when you connect through RDP to the remote desktop. Only available to connect to Windows server versions.
File Name	Complete the name of the executable file that launches the program.
Working Directory	Specify the directory where the executable file is placed.
Remote install	Use this option to install ThinVNC in a LAN computer.
Enable Wake-on-LAN	Enable Wake-On-LAN if you want to turn on this remote PC from ThinVNC Access Point. You need to complete the MAC Address information.

Mac Address	Inform the Mac Address to enable the "Wake-on-LAN" feature. The button by the side the Mac Address field ("Refresh" button) will retrieve the MAC Address from the PC automatically.
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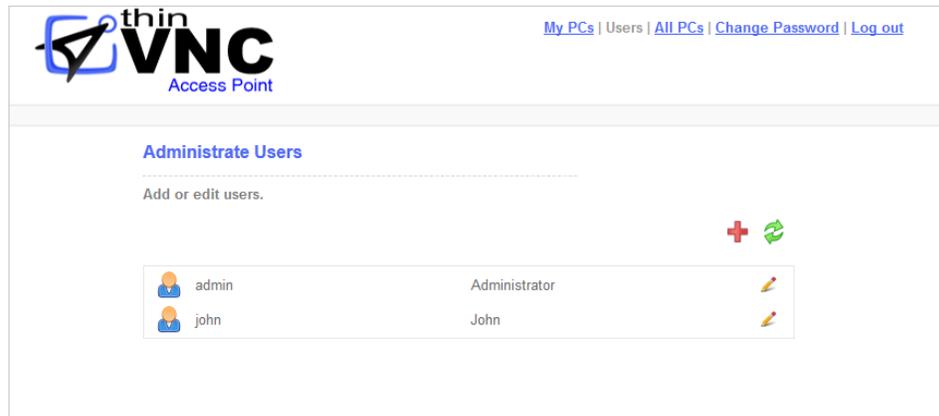
4. You can grant the users access to this PC:

- a. Select the user from the "Available" list
 - b. Move the user to the "Assigned" list to grant him/her permission to access this computer.
- Use the arrows to move it from one list to another.

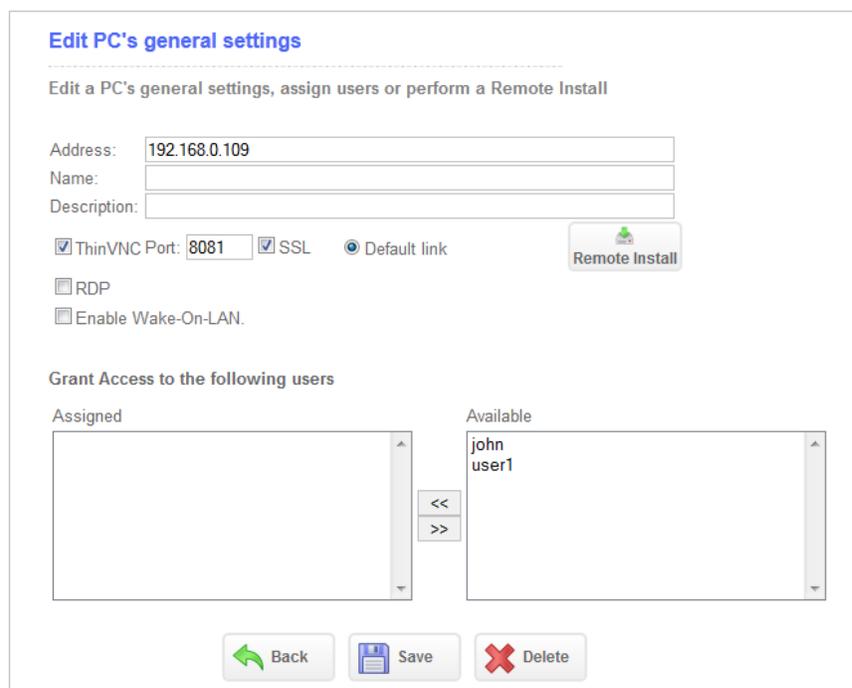
5. When you are done, press "Save".

4.2.3 Removing

1. Click on the "Users" option in the top-right corner menu.
** If you don't see the "Users" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of all PC you have defined. To remove one of these PC's, click on pencil symbol (edit button), located by the side of the PC you want to remove.



3. Press the "Delete" button, located on the bottom toolbar. Be careful: this operation can not be undone.

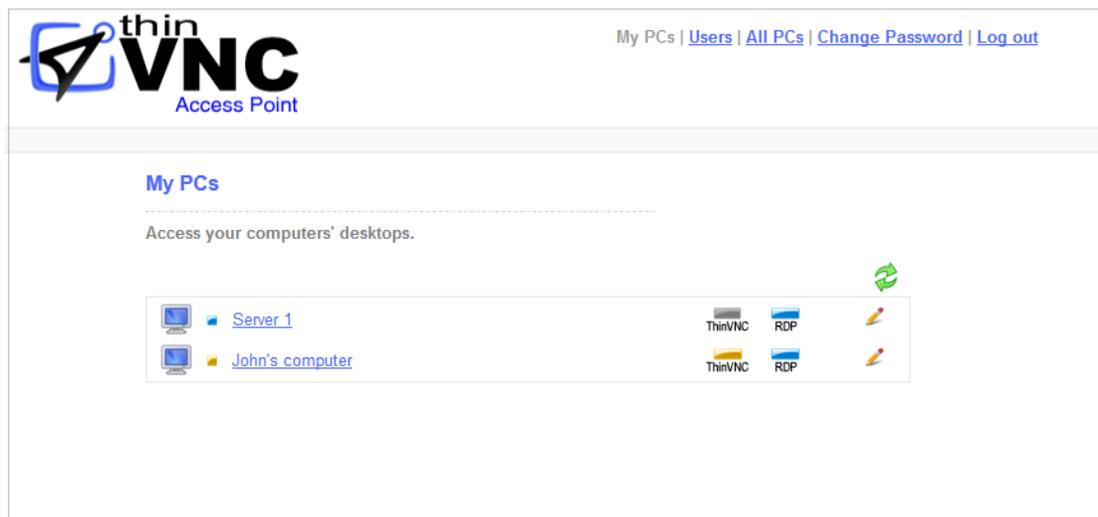


4.2.4 Testing the connections

Once you have configured the ThinVNC and RDP settings, you can test if the computers can be accessed from ThinVNC Access Point.

**The default built-in "admin" user can only access administrative features. That is why you can not test a connection when logged in with the built-in "admin" user.

1. Log into the application with the user you have grant the PC's accesses.
2. You will be directed to the "My PC's " page:



3. If ThinVNC button is yellow and RDP button is blue, it means the connection is configured right. Click on them and the browser will open a new tab with the connection you clicked.

4. Take a look on the table below and understand each one of the connections status and learn how to solve connection problems.

	Status	What to do?
	ThinVNC connection is active	Enjoy the ThinVNC Screen Sharing connection.
	RDP connection is active	Enjoy the Remote Desktop connection.

	<p>ThinVNC connection is unavailable</p>	<ol style="list-style-type: none"> 1. Check if ThinVNC is installed on the remote computer and if its service is on. Test the connection directly to the ThinVNC service from other browser tab (http(s)://ThinVNV_server_IP:ThinVNV_Port). 2. Verify whether the port you configured to the ThinVNC connection on the Access Point PC matches the one ThinVNC is listening on. 3. Verify whether the protocol matches. <ul style="list-style-type: none"> ThinVNC set to HTTPS - Check the SSL field on the PC ThinVNC set to HTTP - Uncheck the SSL field on the PC
	<p>RDP connection is unavailable</p>	<ol style="list-style-type: none"> 1. Verify if the Windows "Allow Remote Connections" setting is enabled. Test it, by accessing the remote computer from the Windows RDP client. 2. Verify whether the port you configured to the RDP connection on the Access Point PC matches the RDP port on the remote computer (the default is 3389). 3. If you use the "Start Program" advanced options, test these options also from the regular Windows RDP client. Remember this feature is only available on Windows Server editions.

4.3 Installing ThinVNC remotely

ThinVNC Access Point allow you to perform a ThinVNC Remote Installation on the LAN PC's. This feature can be very useful when you have many computers to install in the LAN, since you don't have to go physically to each one of the computers in order to have ThinVNC installed on them.

1. Click on the "All PCs" option in the top-right corner menu.
** If you don't see the "All PCs" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of all PC's you have defined. Click on pencil symbol (edit button), located by the side of the PC you want to install ThinVNC on.
3. Click on the "Remote Install button".

Remote Installation

<p>Remote Installation Parameters</p> <p>Enter the remote PC ip address or Host name.</p> <p>Address: <input style="width: 100%;" type="text" value="192.168.0.4"/></p> <p>Enter credentials for an account with administrative privileges on the remote system.</p> <p>Username: <input style="width: 100%;" type="text"/></p> <p>Password: <input style="width: 100%;" type="password"/></p>	<p>ThinVNC Parameters</p> <p>Specify the authentication method:</p> <p> <input type="radio"/> None <input checked="" type="radio"/> Digest <input type="radio"/> NTLM </p> <p>User: <input style="width: 100%;" type="text" value="admin"/></p> <p>Password: <input style="width: 100%;" type="password" value="•••••"/></p> <p>Specify the communication parameters:</p> <p>Protocol: <input style="width: 100%;" type="text" value="HTTPS"/></p> <p>Port: <input style="width: 100%;" type="text" value="8081"/></p> <p>UPnP: <input checked="" type="checkbox"/></p>
---	--

4. Enter the Remote Installation Parameters. Access Point will use this information to connect itself with the remote computer in order to install ThinVNC.

Address	Enter the address of the PC you want install ThinVNC.
UserName	Enter the username credential for an account with administrative privileges on the remote system.
Password	Enter the password for the account informed on the username field..

5. The ThinVNC Parameters on the right column are presented with the default parameters. If you want the remote ThinVNC installation to work differently from the defaults, you can set them up before the installation starts. You can later on configure these same parameters through the remote computer ThinVNC settings tool.
6. Click on the "Install" button and wait the installation to finish.
7. After that, [Test the ThinVNC connection](#).

4.4 Enabling RDP Connections

In order to make Remote Desktop connections through ThinVNC Access Point you will have to enable the Windows RDP connections on the remote machines:

For Windows 7 or Vista:

1. Click the Windows "Start" button (Orb).
2. Right click on "Computer" and go to "Properties"
3. In the left column search for "Remote Settings"
4. A new window will pop-up
5. In the "Remote Desktop" section you have options to enable RDP
6. Choose the correct option and click "Apply - OK"

For Windows XP or 2000:

1. Click the Windows "Start" button
2. Right click on "Computer" and go to "Properties"
3. A window will pop-up
4. Go to the "Remote" Tab
5. In the "Remote Desktop" section enable the checkbox to allow users to connect remotely.
6. Click "Apply - OK"

4.5 Enabling Internet Access

After you verified that [ThinVNC Access Point is running inside the LAN](#), you can make it available from the internet. If you have a static IP/domain, you might prefer providing internet access through your own external IP.

1. Test the access

Test the internet access by typing into a browser the following url:

[http\(s\)://external-ip:port](http(s)://external-ip:port)

or

[http\(s\)://your-domain:port](http(s)://your-domain:port)

2. Configuring the router:

Providing access to the internet through the external IP/domain, will require you to forward the port manually:

2.1. Port Forwarding:

- a. Access the router by typing into a web browser the IP for the Default Gateway.
- b. Authenticate with the router credentials.
- c. Go to the port forwarding section and pick a port for internet access. It can be the same port number as the one ThinVNC Access Point is running on, or a different one.
- d. Forward the internet port to the machine internal IP where you have installed ThinVNC Access Point and the port where it's running.
- e. Save the changes.

If you need help configuring the router, contact us at support@cybelesoft.com

4.6 Turn on the machines remotely

Configuring:

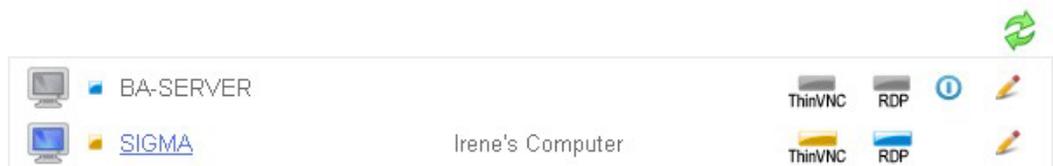
1. Click on the "All PCs" option in the top-right corner menu.
** If you don't see the "All PCs" options in the menu, it is probably because you have logged in with a non "Admin" user account.
2. You will see here a list of all PC's you have defined. Click on pencil symbol (edit button), located by the side of the PC you want to configure.
3. Check the option "Wake-on-LAN".
4. Click on the button "Refresh" located by the side of the "Mac Address" field. This action will fill the Mac Address automatically, if the PC's connection parameters are set correctly.

Waking-up the remote computers:

1. Click on the "All PCs" option in the top-right corner menu.
2. The PC you have configured to turn-on remotely, should now have a turn-on button (blue circle with a line inside), located by the side of the RDP connection button. On the image below you can see the turn-on button on the first listed computer.

My PCs

Access your computers' desktops.



3. Turn-off the remote computer and you can test now the "Wake-on-LAN" feature.

4.7 Dynamic DNS and Certificate Sharing

ThinVNC Access Point provides a Dynamic DNS service to link your local and public machine IP with a subdomain under thinvc.net domain. ThinVNC DNS service gives you a PIN code to identify your installed ThinVNC Access Point server uniquely.

By using this option, you will be also able to use a wildcard SSL certificate provided under thinvc.net domain.

Follow the next topics, so you can learn how to configure and access ThinVNC Access Point with the "Dynamic DNS and Certificate Sharing" option.

[Configuring PIN resolution](#)

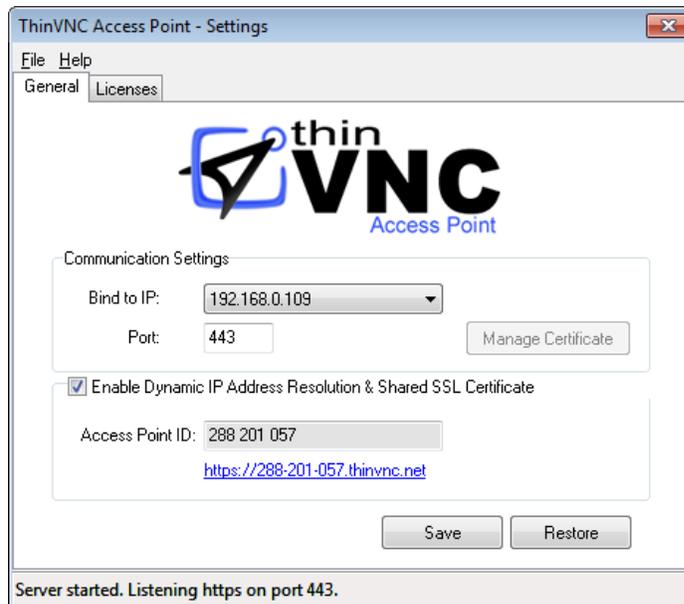
[Accessing through thinvc.net](#)

Note: If you use this option ThinVNC will use its [embedded certificate](#), even when the user have already configured another certificate.

4.7.1 Configuring PIN resolution

1. Setting up:

Go to the ThinVNC Access Point Manager "General" tab and mark the "Enable Dynamic IP Address Resolution & Shared SSL Certificate" option. This will generate your own thinvc.net public address, similar to the blue link shown on the figure below and will generate also a PIN number:



You can then, distribute this address to provide internet access to the LAN desktops and applications.

2. Configuring the router:

If you have UPnP, enabling *Dynamic IP Address Resolution & Shared SSL Certificate* can automatically open the port for you on the router.

In order to test if this option did opened the port, access ThinVNC Access Point through the provided address (https://pin_number.thinvc.net). If it connect to the application normally it means the port is already opened and you are all ready to go. If you get an "Invalid parameters" message, it means you will need to forward the port manually, as follows:

2.1. Port Forwarding:

- a. Access the router by typing into a browser the IP for the Default Gateway.
- b. Authenticate with the router credentials.
- c. Go to the port forwarding section and pick a port for internet access. It can be the same port number as the one ThinVNC Access Point is running on, or a different one.
- d. Forward the internet port to the machine internal IP where you have installed ThinVNC Access Point and the port where it's running.
- e. Save the changes.

If you need help configuring the router, contact us at support@cybelesoft.com

4.7.2 Accessing through thinvnc.net

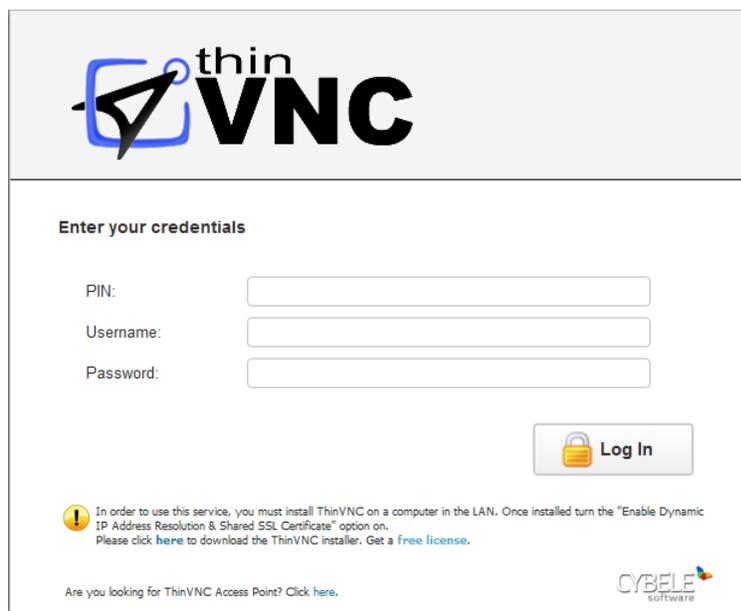
There are two ways of accessing ThinVNC through the generated Dynamic IP Address:

1. Use the whole address:

- a. Click on the address generated on the ThinVNC Access Point manager General tab or copy it and paste it on browser address bar, and press enter. This will direct you into the Access Point Application located inside your LAN. Observe that the field PIN comes filled and you only have to fill "Username" and "Password".

2. Use the PIN Number only:

- a. Type in <https://www.thinvnc.net/> on a web browser address bar. The screen below will be presented:



thinVNC

Enter your credentials

PIN:

Username:

Password:

 **Log In**

 In order to use this service, you must install ThinVNC on a computer in the LAN. Once installed turn the "Enable Dynamic IP Address Resolution & Shared SSL Certificate" option on. Please click [here](#) to download the ThinVNC installer. Get a [free license](#).

Are you looking for ThinVNC Access Point? Click [here](#).

CYBELE
software

- b. Enter the pin number (also located on General tab) and the credentials in order to access the ThinVNC Access Point application.

4.8 Managing the SSL Certificate

An SSL certificate is an effective way to secure a website against unauthorized interception of data. At its simplest, an SSL Certificate is used to identify the website and encrypt all data flowing to and from the Certificate holder's Web site. This makes all exchanges between the site and its visitors 100 percent private.

A valid SSL certificate is included with the ThinVNC Access Point installation and all communications are already encrypted with the product's default certificate. You may want to create your own certificate to identify your company better.

Managing the SSL Certificate:

1. There are two forms of creating your own SSL certificate:
 - a. Create [A self-signed certificate](#)
 - b. Use [A CA Certificate](#)
2. Once you already have your certificate files, go to ThinVNC Access Point manager's "General tab".
3. Click on the "Manage Certificate" option. If it is disabled, read the following subtopic "[Dynamic DNS and Certificate Sharing](#)".
4. On this screen you should inform the location of the certificate files, as follows:
 - a. **Certificate File:** Inform the path to the certificate file.
 - b. **CA File:** If the certificate is issued by a unknown CA, you should inform here the pathname to the CA certificate.
 - c. **Private Key:** You should inform the pathname to the certificate private key file.
 - d. **PassPhrase:** Inform the password, if there is any, used when the private key was generated.

Note: The path names can be absolute (C:\MyCertPath\UserThisCert.pem) or relative to the path where ThinVNC Access Point is installed (\cert\UserThisCert.perm).

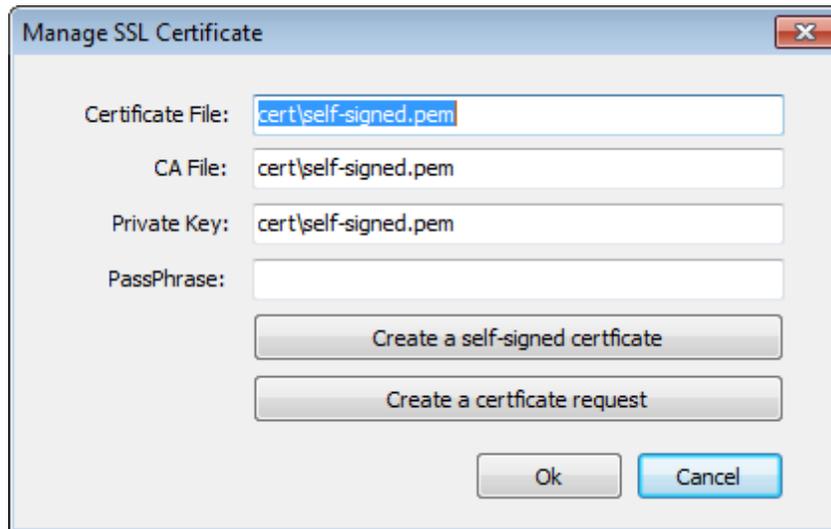
Using Dynamic DNS and Certificate Sharing:

When the "[Enable Dynamic IP Address Resolution & Shared SSL Certificate](#)" option is marked, it means that you are going to have a shared SSL Certificate provided by the <https://www.thinvnc.net/> service. In this mode, you will not be able to manage your own SSL Certificate. And for this reason the "Manage Certificate" button located on "Security Tab" will be disabled.

4.8.1 The default embedded certificate

Along with the ThinVNC Access Point installation, goes a certificate called "self-signed.pem". You will find it inside the \cert directory, located inside the ThinVNC Access Point application path.

If you want to use this default certificate you should have the files set as the image below:



Note: Once this certificate is not issued by a known Certificate Authority (CA), the web browsers will warn you they can not verify its authority.

4.8.2 A self-signed certificate

This option is used to create your own self-sign certificate.

1. Go to the ThinVNC Access Point manager's "General tab" and press "Manage Certificate".
2. Press the "Create a self-signed certificate" button.
3. Fill in the form below with your organization data:



Create self-signed certificate and private key

Certificate Properties

Country Code:

State:

Locality:

Organization:

Organizational Unit:

Common Name:

E-Mail address:

Bits: >= 512

Certificate and private key are written to the same file.
Private key will not be password protected.

Create Close

4. The "Common Name" field should be filled with the server+domain that will be used to access the ThinVNC Access Point server (accesspoint.mycompany.com).
5. Press Create.
6. Select the location where you want the certificate to be stored.
7. The application will start using this self-signed certificate just created by you.

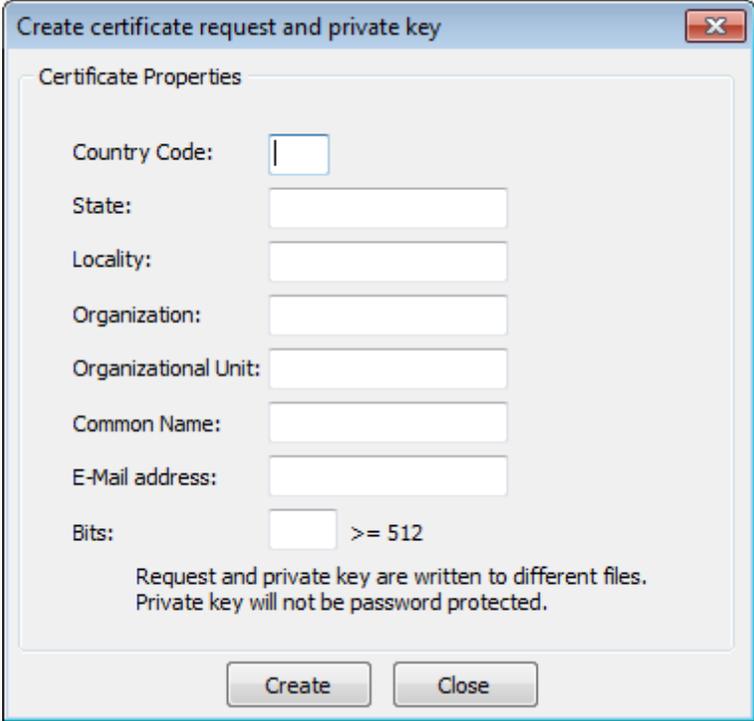
Note: Once this certificate is not issued by a known Certificate Authority (CA), the web browsers will warn you they can not verify its authority.

4.8.3 A CA certificate

In order to use this option you will have to get a certificate from a known Certificate Authority (CA). Some CA examples are GoDaddy, VeriSign, Thawte, GeoTrust and Network Solutions.

The CA will ask you for a "certificate request". Create one following the next steps:

1. Go to the ThinVNC Access Point manager's "General tab" and press "Manage Certificate".
2. Click on the "Create a certificate request" button.
3. Fill in the form below with your organization data:



Country Code:

State:

Locality:

Organization:

Organizational Unit:

Common Name:

E-Mail address:

Bits: >= 512

Request and private key are written to different files.
Private key will not be password protected.

Create Close

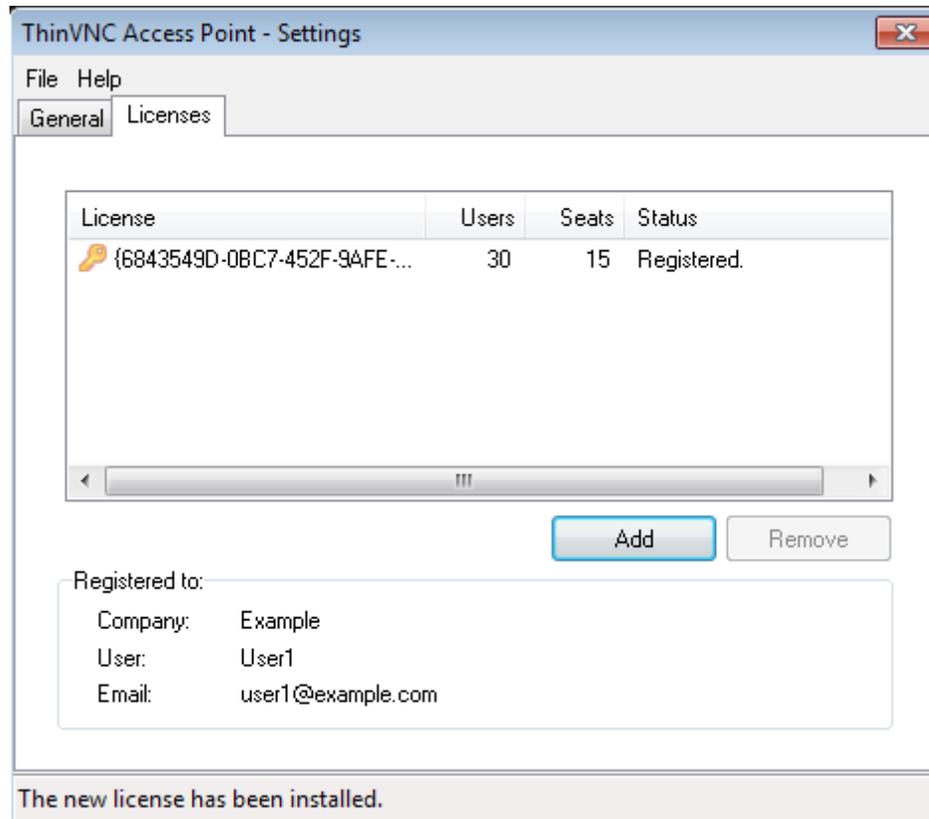
4. The "Common Name" field should be filled with the server+domain that will be used to access the ThinVNC Access Point server (accesspoint.mycompany.com)
5. Press "Create" and the application will generate two files.
6. The first window will ask you a location to keep the private key file: "Where do you want the private key file to be stored".
 - a. Inform a name for your private key.
 - b. Select a place to keep it safe.
 - c. Press the "Save" button.
7. The second window will ask you a location to keep the request file: "Where do you want the request file to be stored."

- a. Inform a name for the request file.
 - b. Select a directory where you can find the file later on to send to the CA.
 - c. Press the "Save" button.
8. The first file is the certificate private key. It should always be kept safe with you.
 9. Send only the request file to the CA.

After the CA validation process, place the certificate they sent to you on ThinVNC Access Point cert directory and inform the path to the files on ThinVNC Access Point [Manage Certificate](#) option (Certificate file, CA file and Private Key).

4.9 Licenses

The Licenses tab shows the following information:



You can trial ThinVNC Access Point Server for 30 days.

Add new licenses by loading xml file licenses with this button.

Remove the selected license(s).

5 User's guide

This guide was designed to help Systems Administrators to configure and administrate each one of the Access Point features.

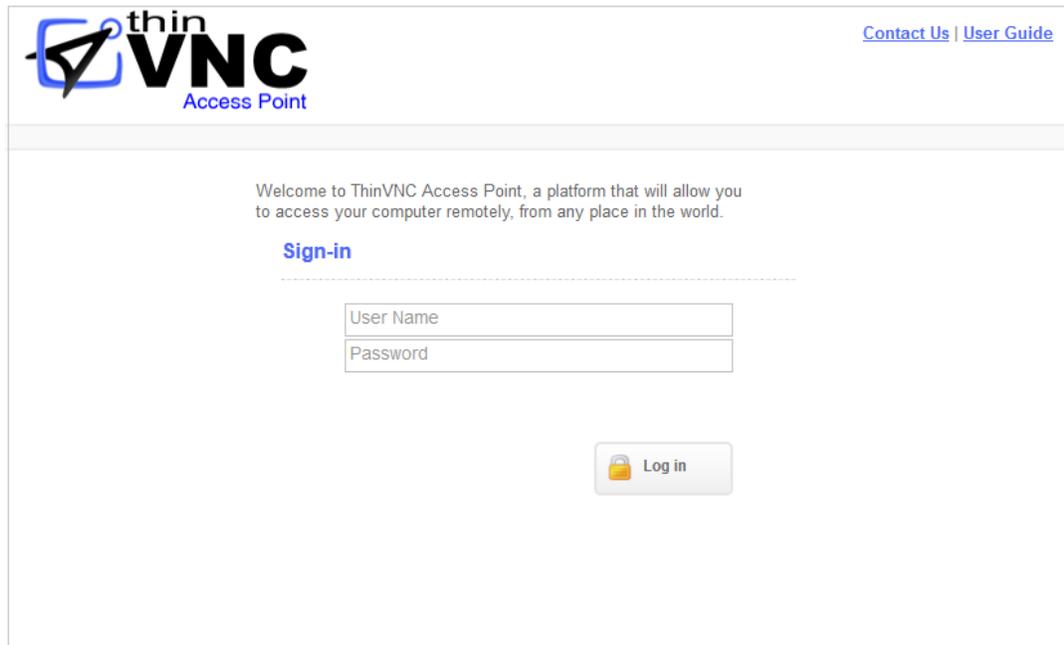
This section is focused focused on the regular use of Access Point, that is why we called it User's guide.

It may be used to teach users how to use Access Point in a few and quick steps.

1. [Logging In](#)
2. [Connecting through ThinVNC](#)
3. [Connecting through RDP](#)
4. [Changing the password](#)
5. [Logging out](#)

5.1 Logging In

1. Open your preferred web browser.
2. Type into the address bar [http\(s\)://access_point_server:access_point_port/](http(s)://access_point_server:access_point_port/).

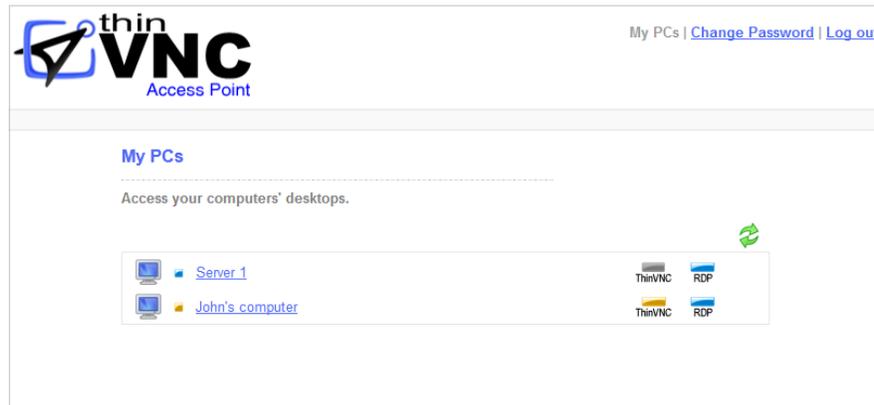


The screenshot shows the ThinVNC Access Point login interface. At the top left is the logo for ThinVNC Access Point, which includes a blue square with a white cursor icon and the text "thin VNC Access Point". At the top right are links for "Contact Us" and "User Guide". Below the header is a welcome message: "Welcome to ThinVNC Access Point, a platform that will allow you to access your computer remotely, from any place in the world." Underneath this is a "Sign-in" section with a dashed line separator. It contains two input fields: "User Name" and "Password". Below the fields is a "Log in" button with a yellow padlock icon.

3. Enter your credentials (username and password) provided by the system administrator.
4. Press the "Log in" button.

5.2 My PC's

Once you have logged into the application, you will be presented with the list of computers your user account has available to access remotely (My PC's).



The table below will describe what each element on the computer's list means, and what actions you can take with it:

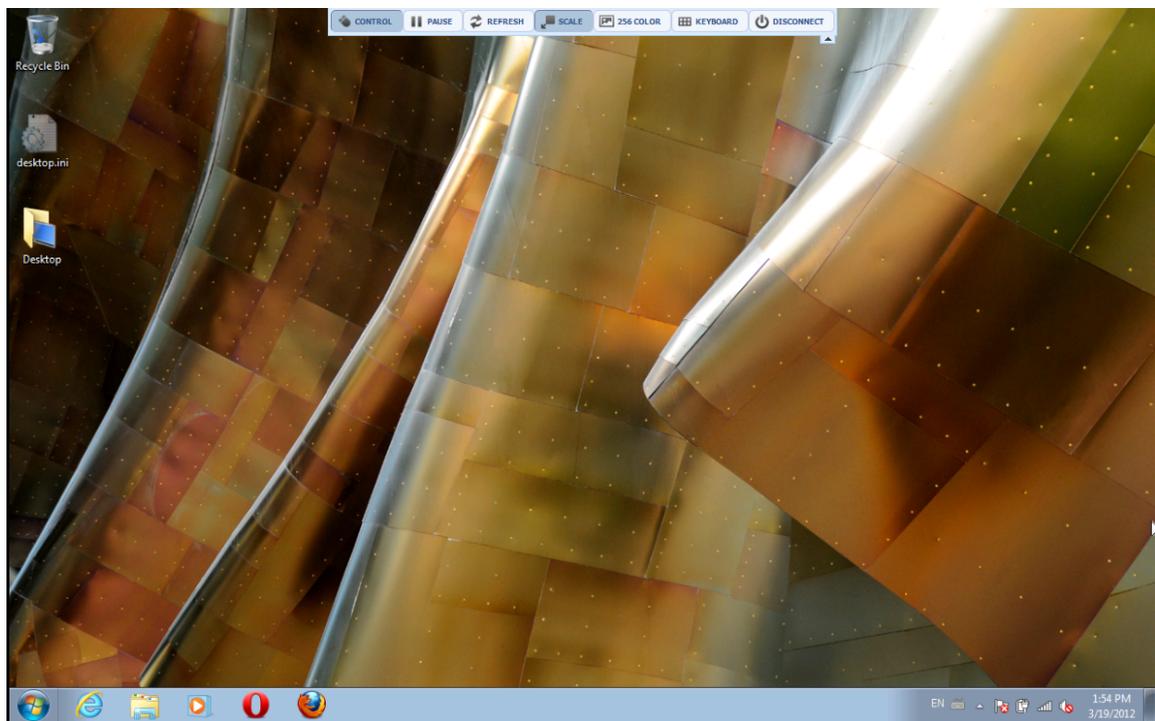
	Meaning	Possible actions
	Computer default connection is available	Click on the computer description (eg.: "Server 1" or "John's computer") and Access Point will connect you to the remote computer using the default connection.
	Computer default connection is unavailable	The computer's description won't link to the default connection, since it is unavailable.
	ThinVNC is the default connection to the computer	When ThinVNC is available, the computer description on the list will be a link to access the remote computer through ThinVNC protocol.
	RDP is the default connection to the computer	When RDP is available, the computer description on the list will be a link to access the remote computer through RDP protocol.
	ThinVNC connection is active	Click on this button to connect to the remote machine using ThinVNC.
	RDP connection is active	Click on this button to connect to the remote machine using RDP.
	ThinVNC connection is unavailable	Talk to the system administrator find out why the connection is unavailable at this moment.
	RDP connection is unavailable	Talk to the system administrator find out why the connection is unavailable at this moment.

5.3 Connecting through ThinVNC

1. Click on the "My PCs" option in the top-right corner menu.
2. Find the remote computer you want to access on the PC's list.
3. Click on the ThinVNC button located by the side of the remote computer you want to access, [if available](#).



4. Enjoy the ThinVNC Connection.



5.3.1 Toolbar



Once connected, you will find a toolbar that looks like the one above on the top of the ThinVNC connection. Find the behaviour of each one of the toolbar options on the table below:

Control	Press it to gain control over the remote machine.
Pause/Resume	Pause the connection while you don't use it to ease network traffic. Resume in any moment just by pressing a button and accessing to the current remote PC's screen.
Refresh	Request a screen refresh.
Scale	Toggle between scaling the remote screen to fit the browser's size or keeping the remote screen size.
256 color/Full color	256 color option for slower connections.
Keyboard	Use this button to send "Ctrl + Alt + Del" or "Ctrl + Esc". See more information regarding additional keys on Shortcut keys . Also enable the use of the Remote Keyboard Layout.
Disconnect	Disconnect and go back to the starting screen.

5.3.2 Shortcut keys

Here is a list of the shortcut keys available on ThinVNC connections:

ALT+PAGE UP: Switches between programs from left to right.

ALT+PAGE DOWN: Switches between programs from right to left.

ALT+INSERT: Cycles through the programs using the order in which they were started.

ALT+HOME: Displays the Start menu.

CTRL+ALT+BREAK: Switches the client between full-screen mode and window mode.

CTRL+ALT+END: Brings up the Windows Security dialog box.

ALT+DELETE: Displays the Windows menu.

CTRL+ALT+MINUS SIGN (-): Places a snapshot of the active window, within the client, on the server clipboard (provides the same functionality as pressing ALT+PRINT SCREEN on the local computer).

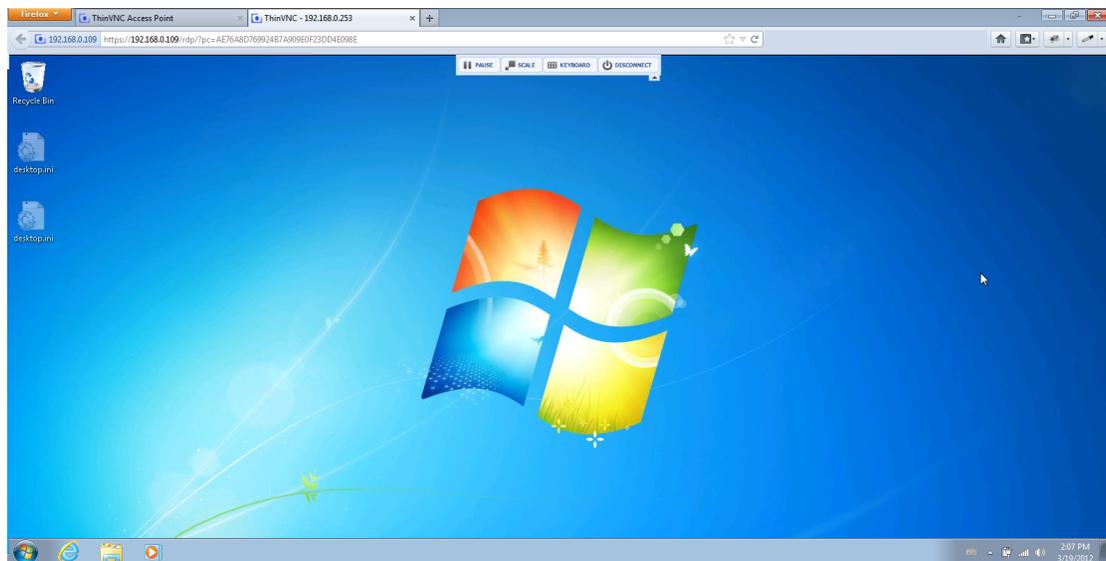
CTRL+ALT+PLUS SIGN (+): Places a snapshot of the entire client windows area on the server clipboard (provides the same functionality as pressing PRINT SCREEN on the local computer).

5.4 Connection through RDP

1. Click on the "My PCs" option in the top-right corner menu.
2. Find the remote computer you want to access on the PC's list.
3. Click on the RDP button located by the side of the remote computer you want to access, [if available](#).



4. Enjoy the Remote Desktop Connection.



5.4.1 Shortcut keys

Here is a list of the shortcut keys available on RDP connections:

ALT+PAGE UP: Switches between programs from left to right.

ALT+PAGE DOWN: Switches between programs from right to left.

ALT+INSERT: Cycles through the programs using the order in which they were started.

ALT+HOME: Displays the Start menu.

CTRL+ALT+BREAK: Switches the client between full-screen mode and window mode.

CTRL+ALT+END: Brings up the Windows Security dialog box.

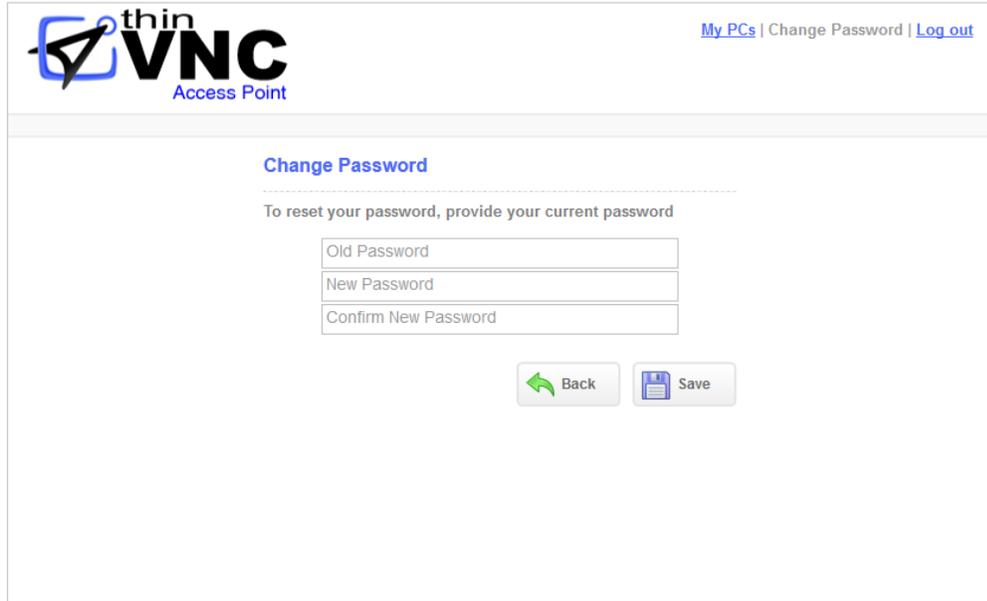
ALT+DELETE: Displays the Windows menu.

CTRL+ALT+MINUS SIGN (-): Places a snapshot of the active window, within the client, on the server clipboard (provides the same functionality as pressing ALT+PRINT SCREEN on the local computer).

CTRL+ALT+PLUS SIGN (+): Places a snapshot of the entire client windows area on the server clipboard (provides the same functionality as pressing PRINT SCREEN on the local computer).

5.5 Changing Password

1. Click on the "Change Password" option in the top-right corner menu.



The screenshot shows the "Change Password" page of the thinVNC Access Point interface. At the top left is the thinVNC logo with "Access Point" below it. At the top right are navigation links: "My PCs", "Change Password", and "Log out". The main heading is "Change Password". Below it is the instruction: "To reset your password, provide your current password". There are three input fields: "Old Password", "New Password", and "Confirm New Password". At the bottom right are two buttons: "Back" (with a green arrow icon) and "Save" (with a blue floppy disk icon).

2. Enter the current Password on the field that says "Old Password".
3. Enter the new Password.
4. Confirm the new Password.
5. Press Save when you are done. If you change your mind, press the Back button.

5.6 Logging out

1. Click on the "Log out" option in the top-right corner menu.
2. You will be redirected back to the login page.

6 Command Line Tool

The Command Line Tool is an application that can be installed along with Access Point and enables some actions to be executed by command line.

This tool is only recommended to advanced users, since it manages the application database directly and offers risk of corrupting ThinVNC Access Point database. If want to download and use the command line tool, contact us at contact us at support@cybelesoft.com.

With the command line tool you will be able to:

1. Retrieve information about Users and PC's
2. Add and Remove Users and PC's
3. Grant Users permissions to access PC's
4. Install ThinVNC remotely

On the next topics you will learn how to use the Command Line tool and the structure of each available command.

[Executing a command](#)

[User Management Commands](#)

[PC Management Commands](#)

6.1 Executing a command

1. Open the Command Prompt (MSDOS Prompt).
2. Go to the directory where the application is located.
3. Type the exe name followed by the ThinVNC Access Point credentials and finally the command you want to execute.

```
ThinVncAPCmd.exe AdminUserName AdminPassword COMMAND
```

`AdminUserName` Specifies an administrator account of ThinVNC Access Point.

`AdminPassword` Specifies the password for the same administrator account.

4. Find on the next topics the explanation to each available command:

[User Management Commands](#)

[PC Management Commands](#)

5. To display this help one screen at any time use the command `MORE .COM`. For additional help please contact us at support@cybelesoft.com.

6.2 User Management Commands

Adding:

```
ADD USER username "/name=John Doe" /password=secret [/admin] [/disabled]
```

username	Specifies the username that will identify the new user
name	Specifies the Full Name for the new user
password	Specifies the Password for a non-WinLogon user
admin	User can administrate ThinVNC
disabled	User can not login in ThinVNC

```
ADD USER MyDomain\userName "/name=John Doe" [/admin] [/disabled]
```

username	Specifies the username that will identify the new user
name	Specifies the Full Name for the new user
admin	User can administrate ThinVNC Access Point
disabled	User can not login in ThinVNC Access Point

Listing:

```
LIST USER [username/*]
```

username	Specifies the username of the user to be listed
----------	---

Deleting:

```
DELETE USER [username/*]
```

username	Specifies the username of the user to be deleted
----------	--

Grating Permissions to access PC's:

```
GRANT USER username Computer1 Computer2 ... ComputerN
```

username	Specifies the username to be granted with the permissions
computer(1..N)	Specifies the allowed computers, replacing the old ones

IMPORTANT: If you don't specify any computer with this command, the user permissions will be set to none.

6.3 PC Management Commands

Adding:

```
ADD COMPUTER computerIP [/port=8081] ["/desc=John Doe's
PC"] [/WOL]
    [/rdp=3389] ["/rdpcmd=c:\windows\notepad.exe"] ["/
rdpdir=c:\users"]
    [rdpukbd=True|False]
```

computerIP	Specifies the computer IP
port	Specifies the port for ThinVNC. Inform zero if ThinVNC is disabled
desc	Specifies the Description for the new computer
wol	Specifies if WakeUp-On-LAN is enabled for this computer
rdp	Specifies the port for RDP. Inform zero if RDP is disabled
rdpcmd	Starts this program on connection (only for Windows Server versions)
rdpdir	Starts the program on this folder
rdpukbd	Specifies the Unicode Keyboard option for this computer

Listing:

```
LIST COMPUTER [computerName/*]
```

computerName Specifies the name of the computer to be listed

Deleting:

```
DELETE COMPUTER [computerName/*]
```

computerName Specifies the name of the computer to be deleted

Granting Users to access a PC:

```
GRANT COMPUTER computerName Computer1 Computer2 ...
ComputerN
```

computerName	Specifies the name of the computer to give access to
user(1..N)	Specifies the usernames that will have access to this PC

IMPORTANT: If you don't specify any user with this command, the computer permissions will be cleared.

Installing ThinVNC on a remote computer:

```
INSTALL COMPUTER ComputerName [/ssl=True] [/port=8081] [/upnp=True]
[/remoteuser=MyDomain\AdminAccount /remotepassword=adminpassword]
[/auth=Digest /user=admin /password=admin]
[/auth=NTLM "/users=MyDomain\JDoe;MyDomain\JSmith"]
```

`computerName` Specifies the name of the computer to be installed.
`ssl` Specifies if ThinVNC will use the HTTPS protocol.
`port` Specifies the ThinVNC port.
`upnp` Specifies if UPnP will be enabled for this computer.

`remoteuser` and `remotepassword` are required for remote install. These credentials must be valid in the remote computer.

`auth` "Digest" | "NTLM" | "None". The default is None.
When Digest: specify the user and password needed to login to this computer.
When NTLM : specify the users that can login to this computer.

7 Customizing the Web Interface

ThinVNC Access Point allows you to modify the web interface and tailor it to your branding scheme.

[Customizing the application logo](#) and other image files can be very simple, once it only requires you to have the new image file and tell the application where it is located.

[Customizing the structure and style](#) of the application may be a little bit more complex. These kind of customizations have to be done at a programming level (HTML and CSS).



Read also how to protect the customized web files in the [Files Location](#) topic.

7.1 Changing the logo

Modifying the application logo can be as simple as copying the new logo image and telling ThinVNC Access Point application where it is located:

1. Create a folder called "BrandingFiles", if it doesn't exist yet, under the folder webap located inside the ThinVNC Access Point installation directory.
(e.g.: C:/Program Files/ThinVNC Access Point/webap)
2. Copy your own logo image file to the "BrandingFiles" folder.
3. Create the WebAliases.ini file and configure it:
 - a. Create a file called "WebAliases.ini" in the installation directory (e.g.: C:/Program Files/ThinVNC Access Point/WebAliases.ini). If the file already exists, only append the lines to it.
 - b. Configure the redirection of the logo files you want to substitute, following the two examples below (ThinVNC.png and favicon.ico):

```
[Alias]

;=====
;Main logo
;=====
/images/ThinVNC.png=BrandingFiles\MyLogo.png

;=====
;Favicon
;=====
/favicon.ico=BrandingFiles\MyFavicon.ico
```

- c. Save it.
4. Open the application to see the changes.

Take into account:

- a. Any line in the "WebAliases.ini" file starting with a semicolon will not be considered by the application. It can be used to leave comments in the file.
- b. You can substitute any interface image or file, by following the same steps described above.
- c. Sometimes the favicon is not shown right the way, because the browser keeps history of the images. In that case, you should clean the browser cache before trying out the changes.

7.2 Customizing the web files

To customize the web files, you should:

1. Create a folder called "BrandingFiles", if it doesn't exist yet, under the folder webap located inside the ThinVNC Access Point installation directory. (e.g.: C:/Program Files/ThinVNC Access Point/webap)
2. Make copies of the original web files that you want to modify to the "BrandingFiles" folder. Copy only the files to be modified without their associated folder structure.
3. Customize the files (html, css, etc) as you prefer.
4. Create the WebAliases.ini file and configure it:
 - a. Create a file called "WebAliases.ini" in the installation directory (e.g.: C:/Program Files/ThinVNC Access Point/WebAliases.ini). If the file already exists, only append the lines to it.
 - b. Configure the redirection to the files you have modified, by adding a line similar to the examples below for each modified file:

```
[Alias]

/index.html=BrandingFiles\my_index.html
/css/index.css=BrandingFiles\my_index.css
```

- c. Save it.
5. Open the application and check out the changes.

Take into account:

- a. Any line in the "WebAliases.ini" file that starts with a semicolon will not be considered by the application. It can be used to leave comments.
- b. The paths located in the HTML, CSS, and other contents will be kept relative to the original file location. This means that you won't have to change the content paths when customizing this files.

7.3 Files Location

We recommend that you to create a new folder in order to keep the customized files instead of leaving it all together with the original ones. On doing so, you will:

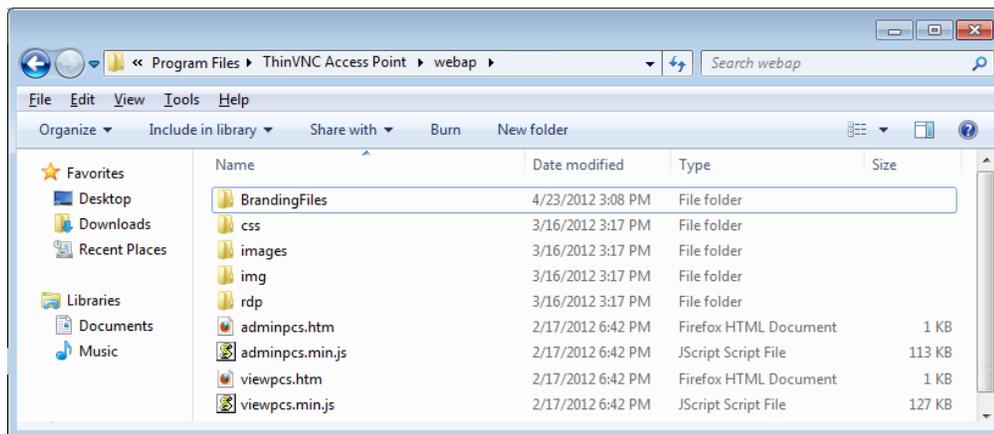
- a) Have the possibility to get back to the original interface configuration, at anytime
- b) Make sure that your files will be safe after a version upgrade.

You can also choose whether to place the files inside or outside the webroot structure. Read next, how each option will behave differently.

Inside the webroot :

When the directory that will keep the customized files is created inside the webroot directory:

- 1) The files will be accessible externally from a URL similar to: `https://127.0.0.1/BrandingFiles/customizedFile.html`
- 2) The paths to the files, indicated in the "WebAliases.ini", can be relative to the webroot directory. (e.g. `/img/ThinVNC.png=BrandingFiles\MyLogo.png`). You will find other relative path examples on the topics [Changing the logo](#) and [Customizing the web files](#).



Outside the webroot :

The customized files, can also be placed in any other disk location. In that case:

- 1) The files will be protected, because it won't be possible to access the customized files from an URL.
- 2) The paths to the files, indicated in the "WebAliases.ini", have to be absolute, as the example below:

```
[Alias]

/index.html=c:/BrandingFiles/my_index.html
/images/ThinVNC.png=c:/BrandingFiles/MyLogo.png
```

