



User Guide

AppAnywhere

Spectra AppAnywhere product range is the greatest offering of the world market today! It is a powerful and the easiest way to publish any of your Windows application on a LAN or a WAN.

| | Features | Benefits |
|-------------------------------------|---|--|
| <input checked="" type="checkbox"/> | 5, 10, 20 or Unlimited concurrent users | Adding “server technology” to an existing XP, VISTA, W7, 2003 SBS, 2008 SBS system (32 or 64 bits) |
| <input checked="" type="checkbox"/> | Universal Printer | Enable to print document wherever you are |
| <input checked="" type="checkbox"/> | Application Publishing | Without the Microsoft Remote Desktop background |
| <input checked="" type="checkbox"/> | Application control | Per user or per group of users, using a amazing Drag & Drop wizard, Per user or Per Groups wizards |
| <input checked="" type="checkbox"/> | Load balancing and failover | Up to 10 servers for a wide deployment scalability (which means up to 1.000 concurrent users per farm) |
| <input checked="" type="checkbox"/> | AppAnywhere user remote Task Bar | A nice looking alternative shell to Microsoft Remote Desktop |

AppAnywhere for XP: after installation of AppAnywhere for XP onto Windows XP, you will get a fully featured and powerful “server” with unbelievable freedom to remotely access and control your application publishing requirements.

AppAnywhere for VISTA and Windows 7: delivering the same capabilities for VISTA and Windows 7 (Professional and Ultimate), this solution is less powerful as XP because VISTA is a resource hungry system.

AppAnywhere for 2003 / 2008 SBS and Servers: If you already own a Microsoft 2003/2008 SBS server, no more need to purchase an other server to run 5, 10 or 20 remote accesses. Just install AppAnywhere.



1. Pre-requisites

Hardware

AppAnywhere could work on your PC and here is the minimal recommended hardware.

| Number of users | Equipment for XP | 2003/2003 SBS | VISTA/W7/2008 |
|------------------------|---|---|--|
| 3 - 5 | <i>512 MB, DDR 2 ONE CPU</i> | <i>1 GB, DDR 2 ONE CPU</i> | <i>Dual core 2 GB, DDR 3 One CPU 2 GHZ</i> |
| 10 | <i>1 GB, DDR2/3 One CPU 2 GHZ Dual core</i> | <i>2 GB, DDR2/3 One CPU 2.5 GHZ Dual Core</i> | <i>Quad core 4 GB, DDR2/3 One CPU 2 GHZ</i> |
| 25 | <i>2 GB, DDR2/3 One CPU 2.5 GHZ Dual Core or Quad Core</i> | <i>4 GB, DDR 2/3 Two CPUs 2.5 GHZ Dual Core/ Quad Core</i> | <i>Quad Core 4 GB, DDR 2/3 Two CPUs 2.5 to 2.9 GHZ</i> |
| 50 | <i>8 GB, DDR 2/3 2 CPUs 2.5 to 2.9 GHZ Dual Core with HT or Quad Core</i> | <i>8 GB, DDR 2/3 2 CPUs 2.5 to 2.9 GHZ Dual Core with HT or Quad Core</i> | <i>8 GB, DDR 2/3 2 CPUs 2.5 to 2.9 GHZ Quad Core</i> |
| 100 | <i>16 GB, DDR 3 2 CPUs 2.5 to 2.9 GHZ Quad Core with HT</i> | <i>16 GB, DDR 3 2 CPUs 2.5 to 2.9 GHZ Quad Core with HT</i> | <i>16/24 GB, DDR 3 2 CPUs 2.5 to 2.9 GHZ Quad Core with HT</i> |
| Over 100 | <i>Farm of servers</i> | <i>Farm of servers</i> | <i>Farm of servers</i> |

Operating system

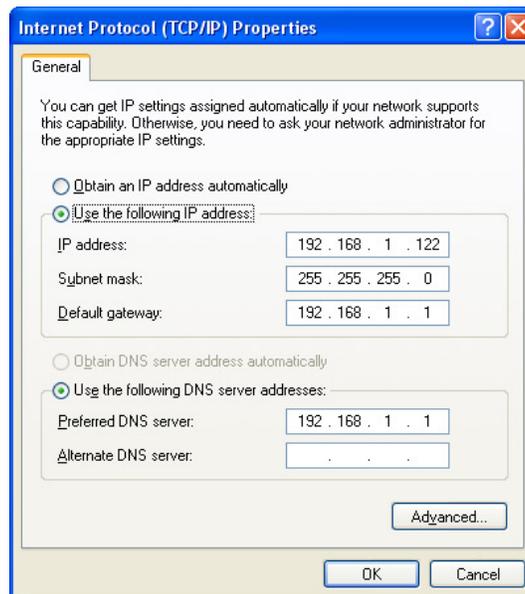
Your hardware must use one of the operating systems below:

- **AppAnywhere for XP:** Windows XP Professional or Windows XP Home.
- **AppAnywhere for VISTA and Windows 7:** Windows Vista Professional, Corporate or Ultimate Edition
- **AppAnywhere for 2003 or 2003 SBS**
- **AppAnywhere for 2008 or 2008 SBS**

32 and 64 bits are supported.

Network parameters

The AppAnywhere “server” must have a fixed IP address



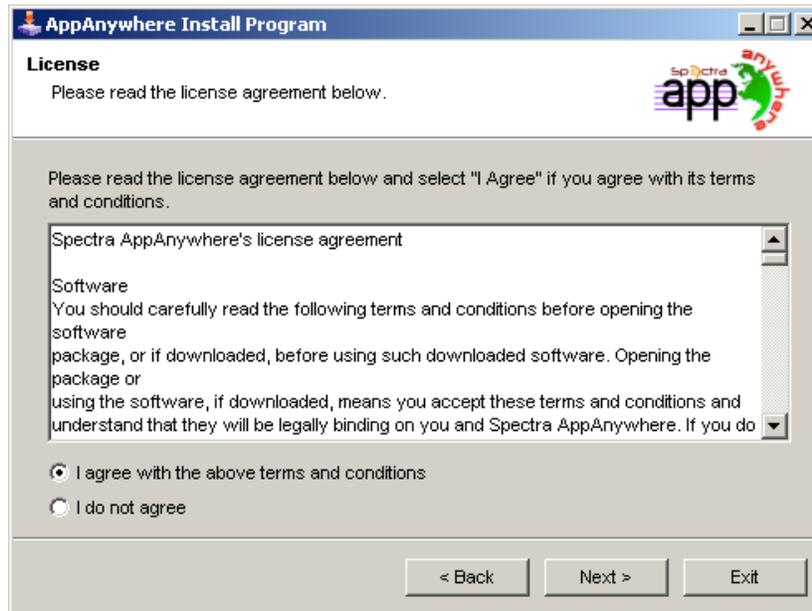
Remote access (from Wide Area Network – WAN)

- A DSL connection is recommended as well as a public fixed address. Without fix IP address, you should install a dynamic DNS service like DynDNS.org.
- The TCP RDP port (by default 3389) must be opened both ways on your firewall.



2. Installation of AppAnywhere

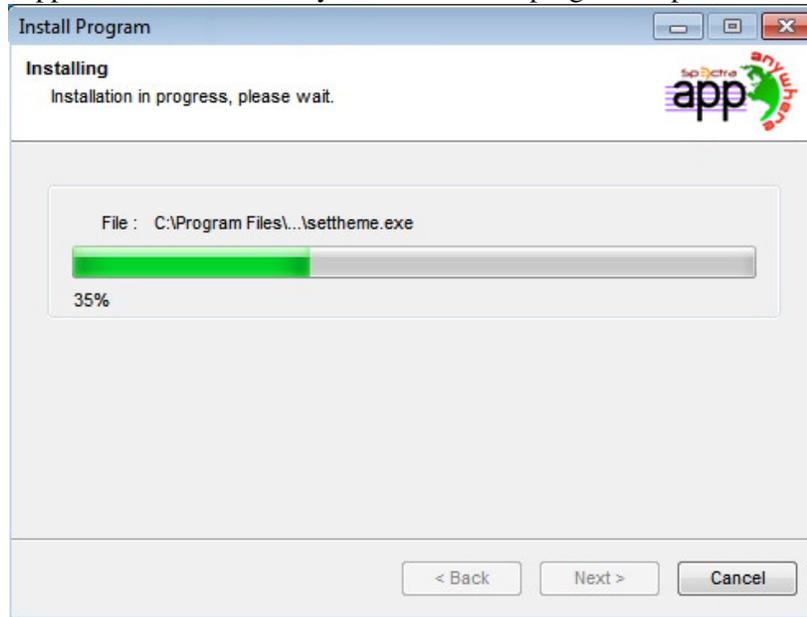
1. Run Setup-AppAnywhere.exe file and then follow the installation steps.



2. Click on I agree to the license.

A message appears then to ask you to confirm the AppAnywhere files creation on C:
The installation path is mandatory :
%ProgramFiles%\AppAnywhere

The progress bar appears then and allows you to follow the progress of process.



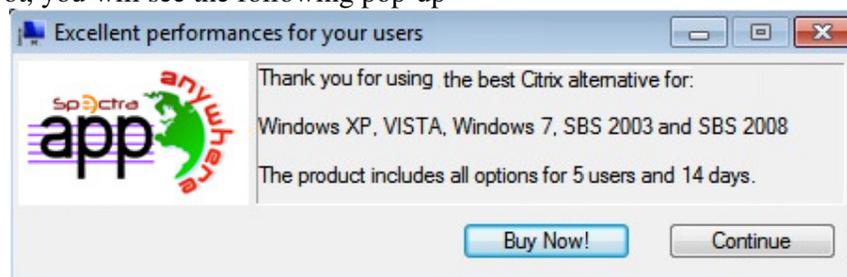
Once this first file copy installation step ended, the following window asks you to confirm the starting of the next step.

A progress bar is displayed to point out the progress of the installation of the AppAnywhere Universal Printer



Once the installation terminated, a window informs you about it. To use AppAnywhere, you must start again your PC.

After the reboot, you will see the following pop-up



The trial periods delivers a full product for 15 days and 5 concurrent users.

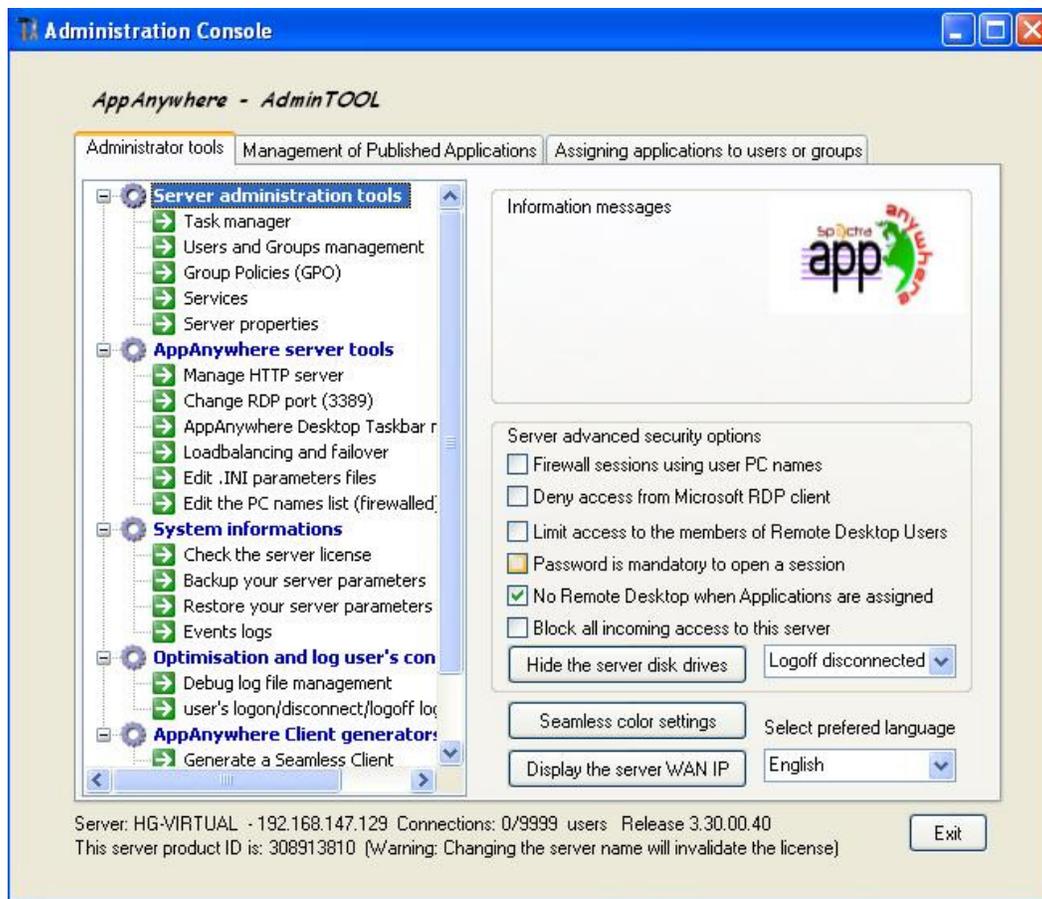
If you wish to extend the number of users, or for any question, please send us a mail to sales@appanywhere.co.in

3. Customization and parameters settings

The AppAnywhere server is now ready to go. However, you can customize all of the system parameters with a powerful administrator tool.



1. Click on the icon created on your Desktop.



All users can open a remote session

Specify if users must be members of the Remote Desktop Users group or not. By default, everyone can open a session.

Password Control

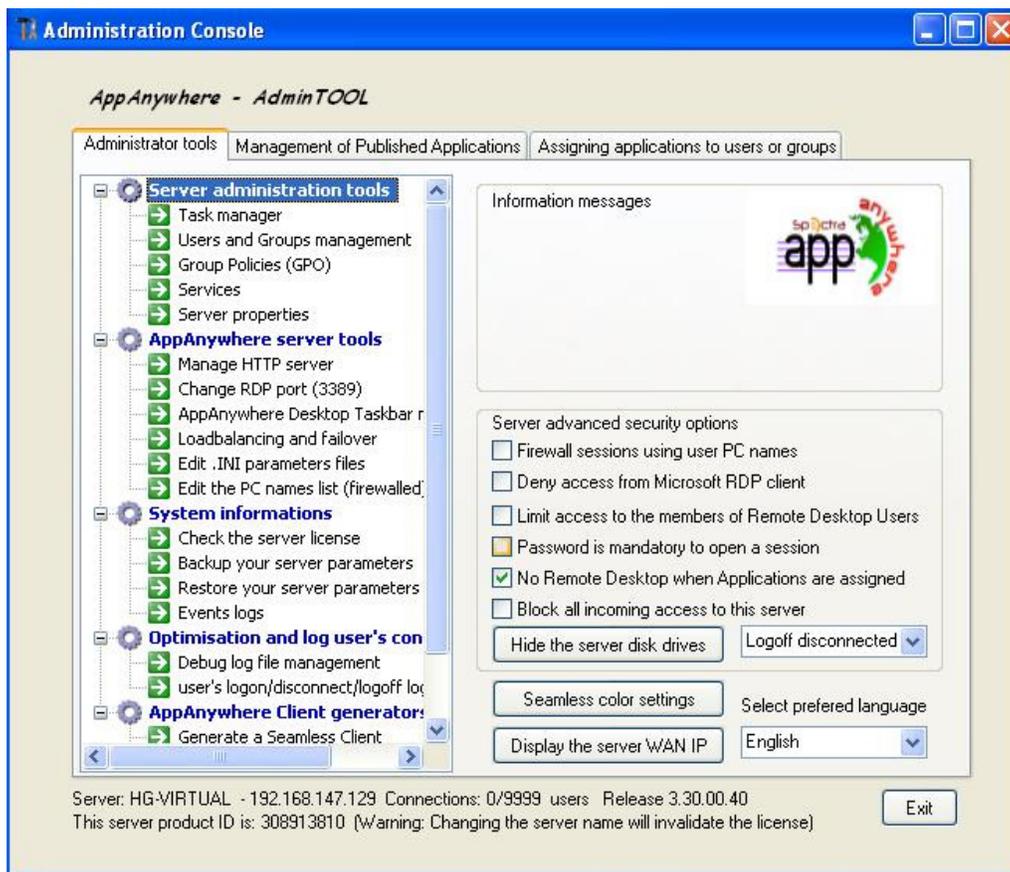
Specify if users must have a password or not.

Using Windows Shell

Select an alternate shell (recommended) or restaure Windows default one.

 *Server Administration tools*

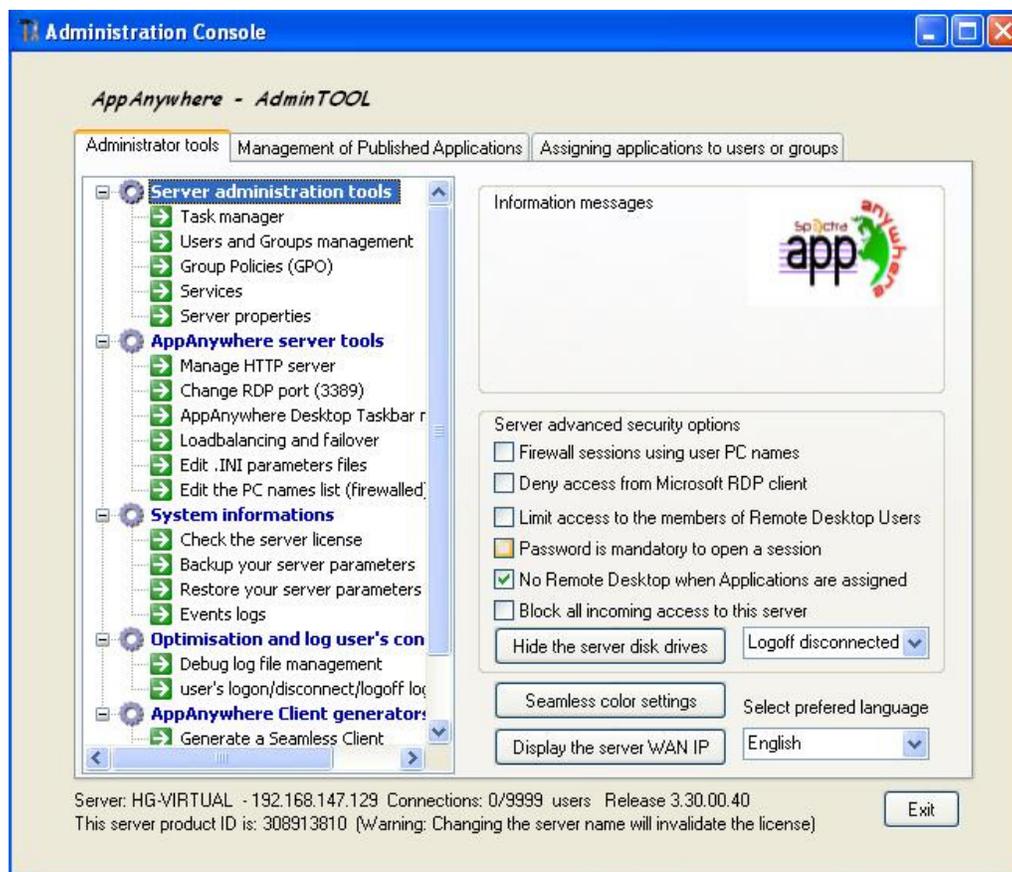
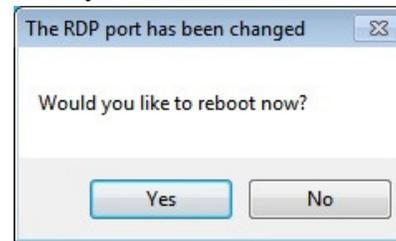
- **Task Manager:** to monitor process and user sessions
- **Users & Groups Management:** to create new users and new groups
- **Group policies:** to modify the server policies
- **Services:** to check the server services
- **Server properties:** to enter the server in a domain



 *AppAnywhere server tools*

- **Start service:** to start or re-start the Terminal Service for XP service
- **Stop Service:** to stop the Terminal Service for XP service
- **Setting up the Web Server:** to specify the web server parameters
- **Activate the Web server:** to start the Web Server

- **Change RDP port:** Default number is 3389 and you can choose a different one.

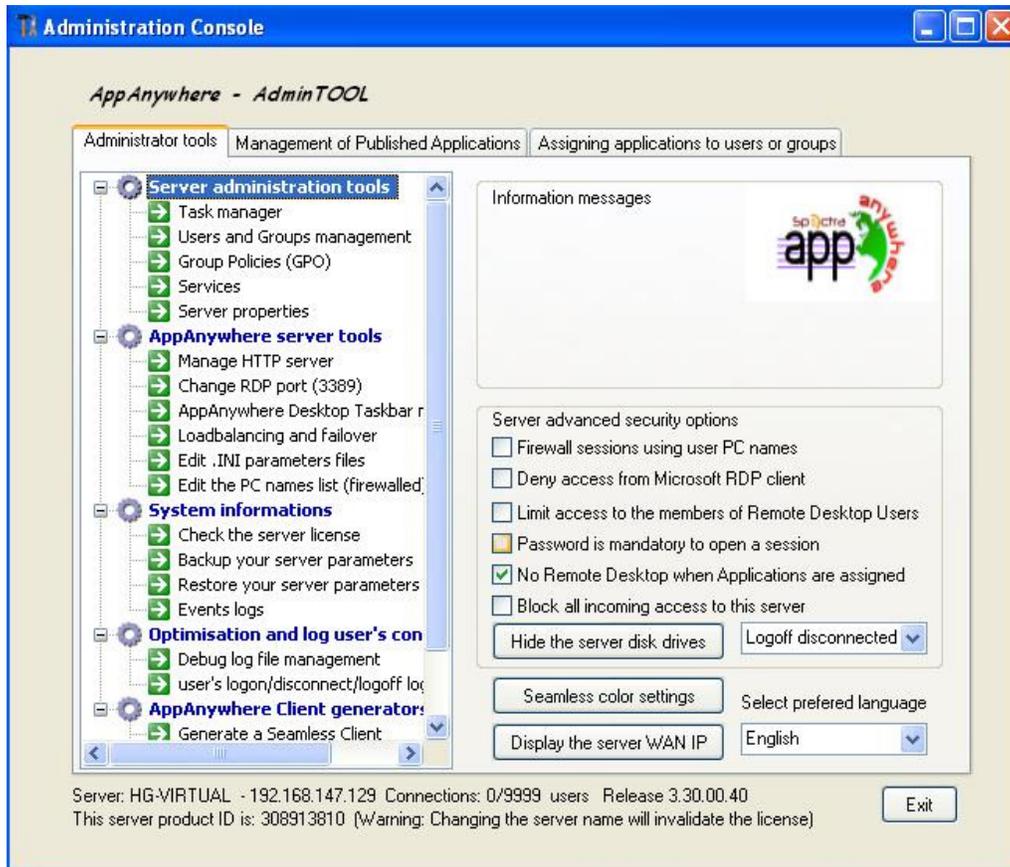


System information

- **Check license:** to verify the current license settings
- **Backup & Restore server parameters:** backups your license and our server settings
- **Event log:** to review the system logs

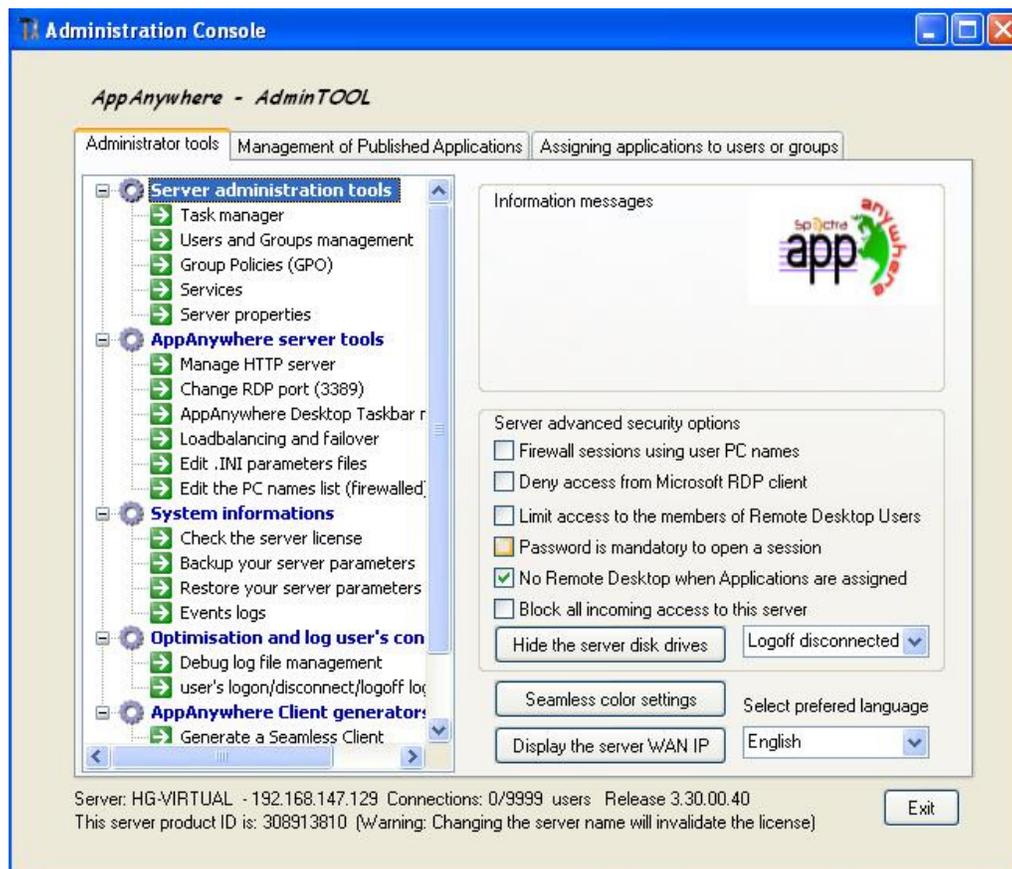


Changing the server name will disable the license and it is will required asking for a new one.

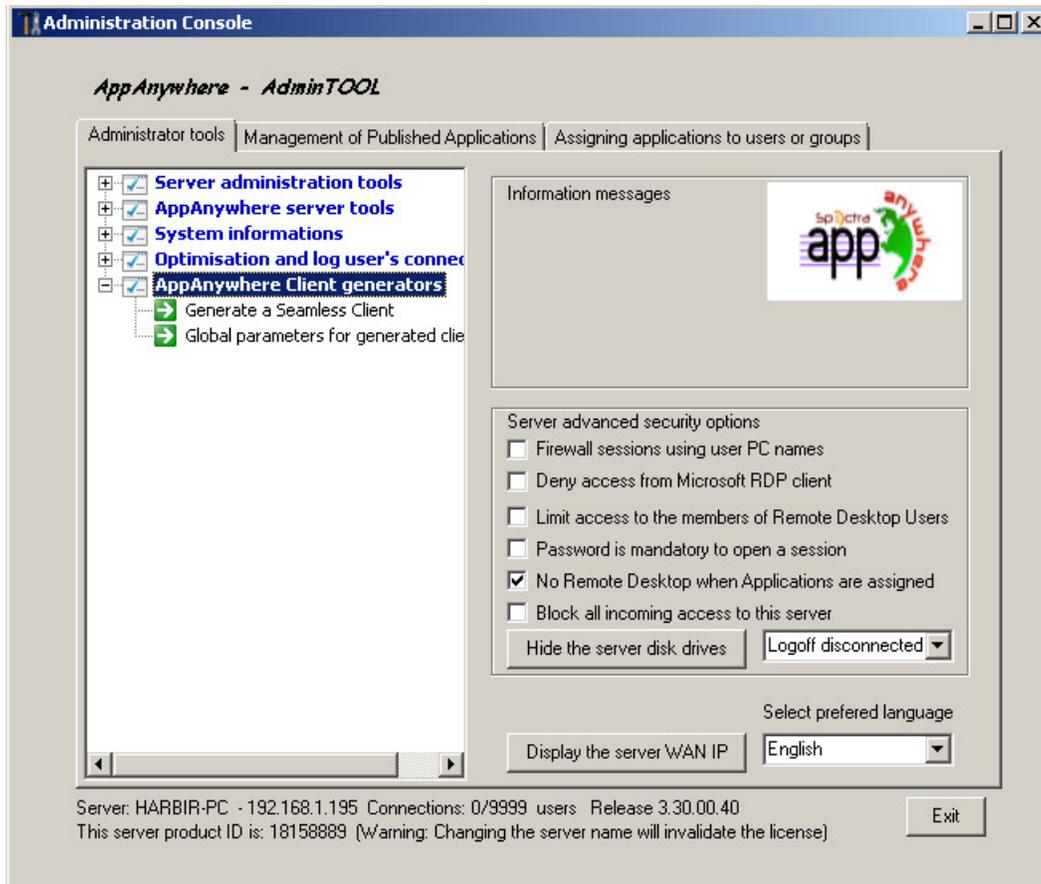


Server Optimization options

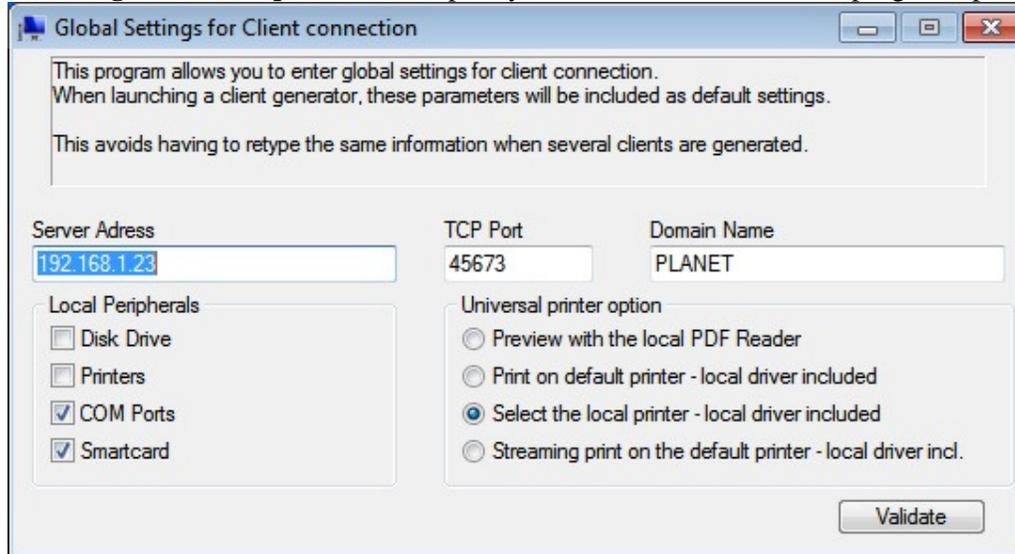
- **Debug log file management:** to create/review a detailed connection log file
- **User's logon/disconnect/logoff:** define an expiration limit for disconnected sessions; disconnected sessions will be logged off at the scheduled delay.



- AppAnywhere Client generators



- **Default global client parameters:** specify once the connection client programs parameters.

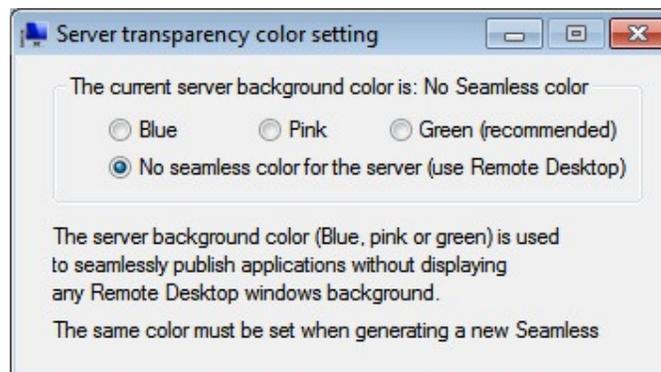


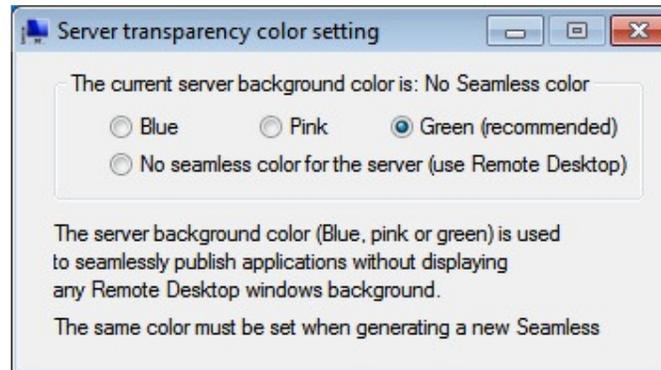
- **Selecting your seamless client color:** If you want to seamlessly publish applications you must select a transparency color (green, blue or pink)

The Seamless Client is based one transparency color selected by the Administrator. As the Remote Desktop background color is paint with the selected transparent color, the Microsoft Remote Desktop is not displayed anymore and the user will just see his published applications.



Installation default is NO TRANSPARANCY. We offer you the choice between 3 transparency colors: Pink, Green and Blue. Warning: Off course, the server and the connection clients must use the same color.



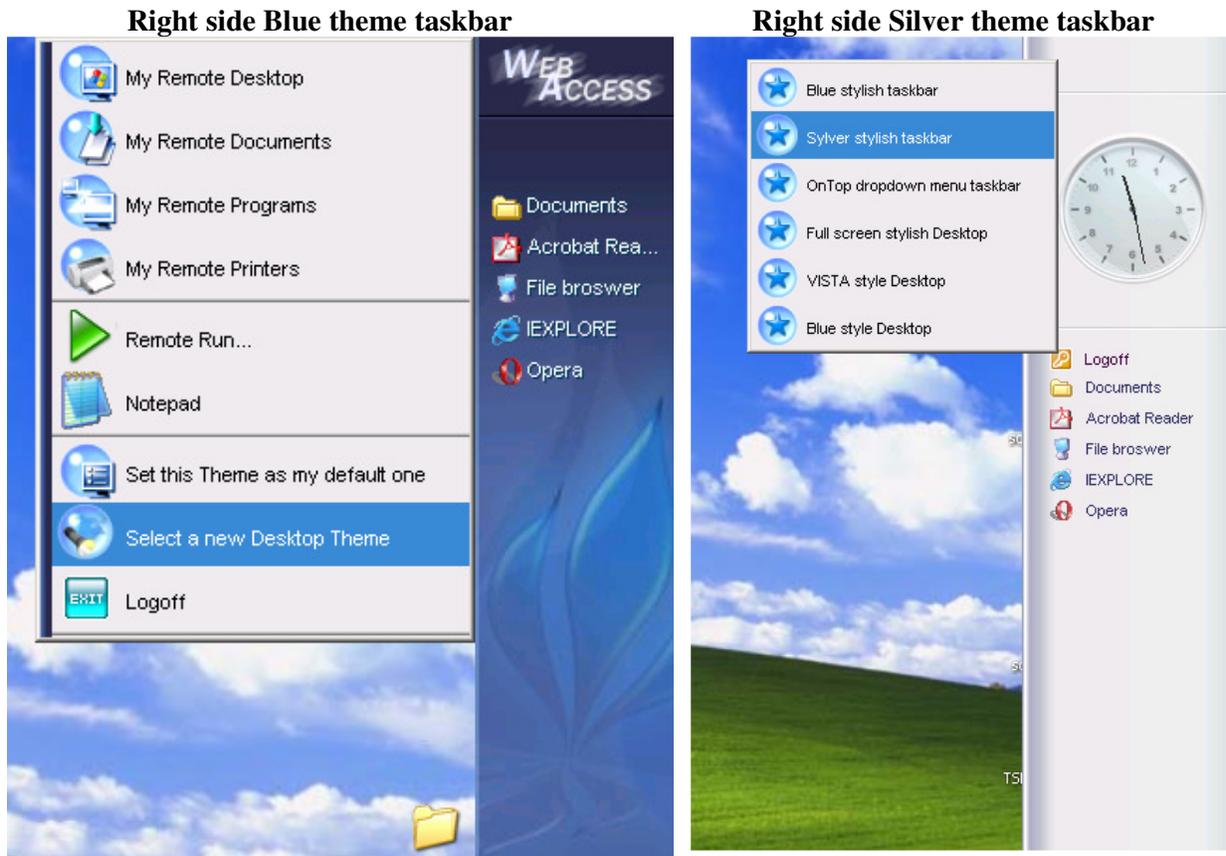


A reboot is mandatory after setting a transparency color on the server.

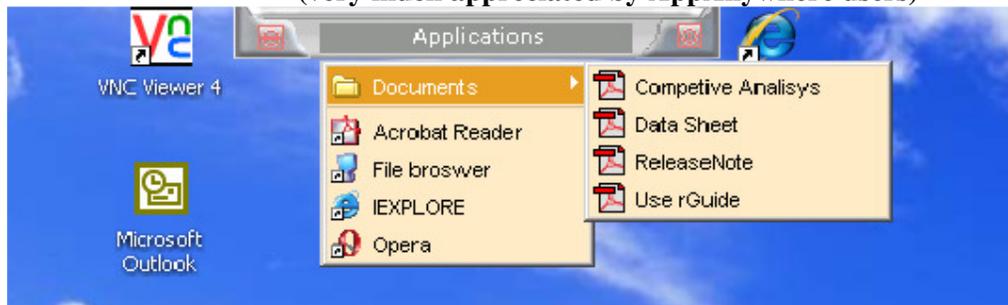


Seamless connection program:

The administrator can select 3 different styles of Remote Desktop AppAnywhere Taskbar. The AppAnywhere Taskbar is extremely useful when a session is run with the Seamless AppAnywhere connection program. The user can launch remote applications with one click on the AppAnywhere taskbar and still have the full local Desktop available.



Top of the user screen: The mini dropdown list taskbar (very much appreciated by AppAnywhere users)



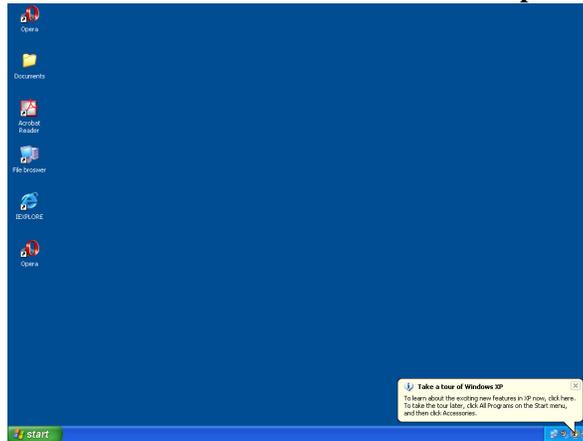
Thin-client or any RDP based connection program

The administrator can select 3 different styles of full screen Remote Desktop. The standard Microsoft Remote Desktop can also be used if preferred.

Because these AppAnywhere Desktops are full screen, it fills the user display when a session is opened from dedicated thin-clients, any RDP based client, or accessed from a web page or AppAnywhere Remote Desktop clients.

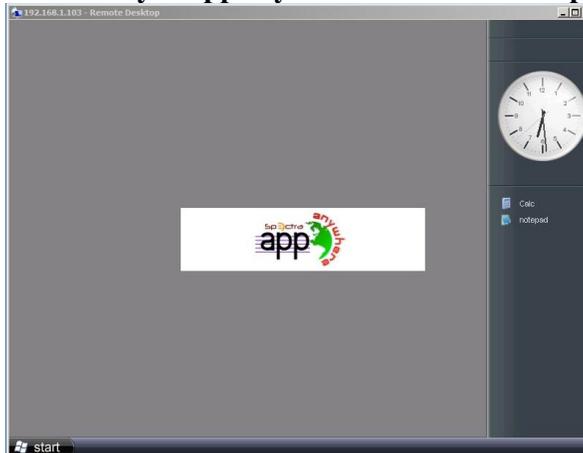
There are benefits over a standard Remote Desktop. It enhances the server security (no START button neither full control of the Desktop). The Administrator can also customize the desktop background by replacing with your corporate logo.

Standard Microsoft Remote Desktop



The user has a complete desktop including Start Button and full control of the desktop
To assign to complete desktop, just use the AdminTool application named
Microsoft Remote Desktop

VISTA style AppAnywhere Remote Desktop



To customize, the Administrator can change the desktop to display the Corporate logo

Administrator tools on the server

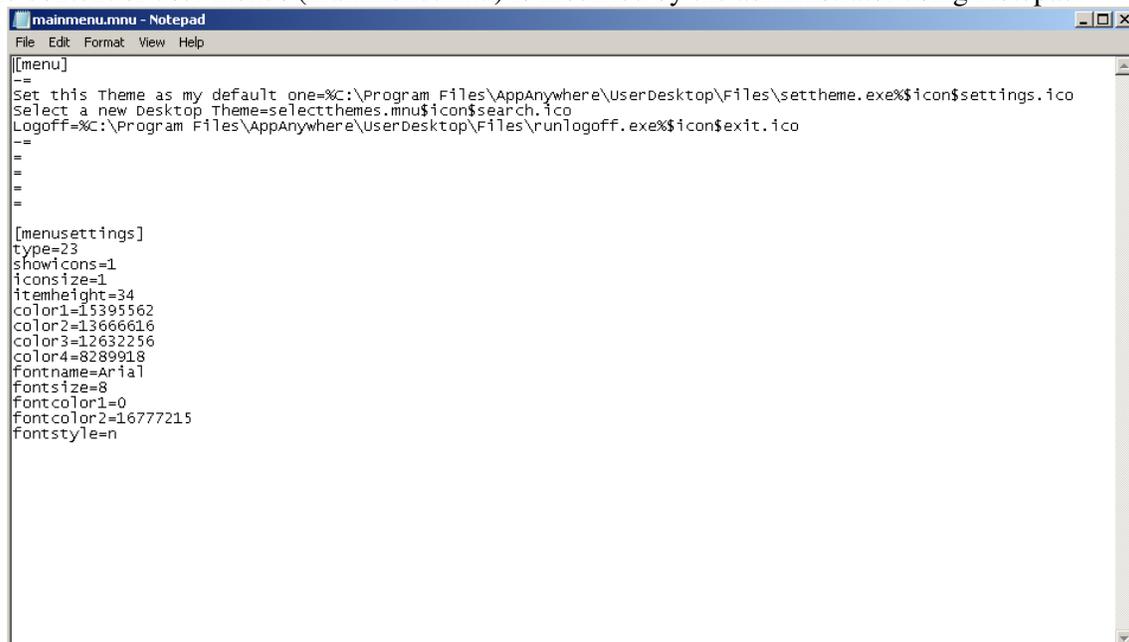
With the AdminTool, the Administrator can easily decide what will be the default Remote Desktop theme the user will see when opening a session.



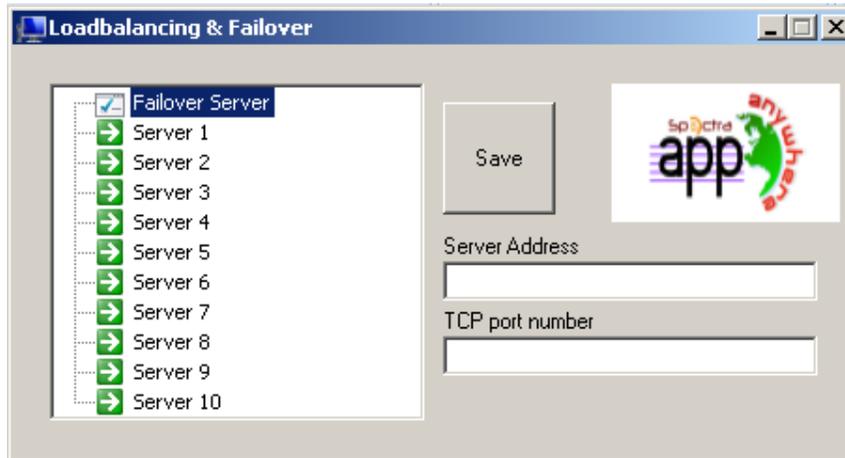
With the standard settings the user can choose a different default theme. The Administrator can restrict users from changing themes.

By editing the users menu, the Administrator can add/suppress applications and functionality. Customization of the users menu is easy. My Remote Desktop=... could be replaced by Desktop Folder=... or can be localized with the country language.

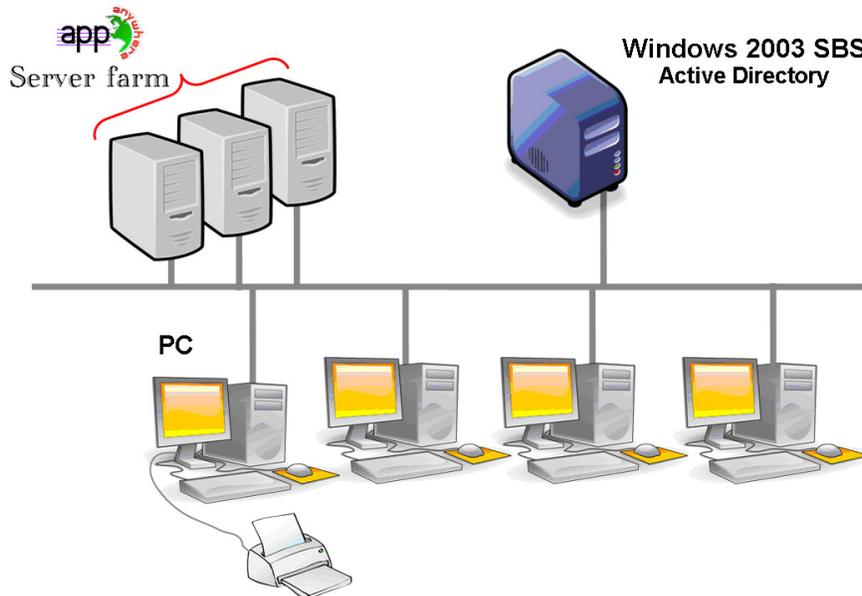
The content of user menus (mainmenu.mnu) is modified by the administrator using Notepad



- **Load balancing/Failover settings:** to specify loadbalancing/Failover parameters



The system enables to use up to 10 servers with load balancing and to have one backup server to be used as failover equipment. This very powerful and advanced capability is to be used when a large number of users/servers have to be deployed.

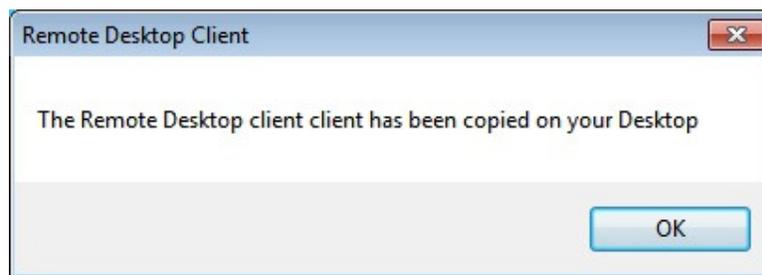
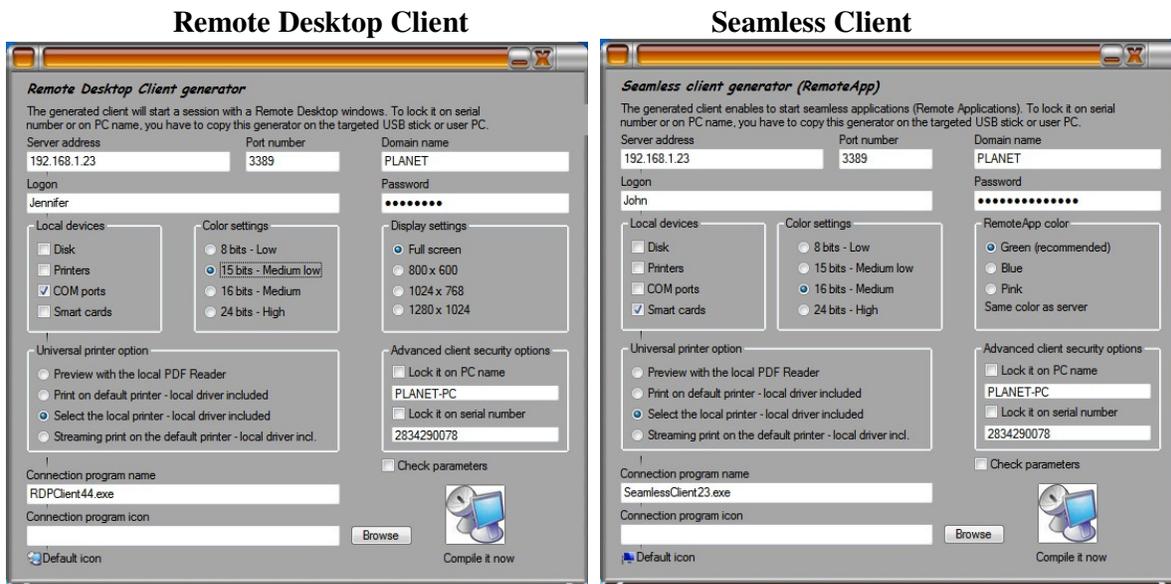


Usually we recommend to use one server for 75 concurrent users. For standard commercial application written in VB, C, C++, Delphi etc. you can go up to 150 concurrent user. If you decide to use XP 64 bits which is, according to our experience is the best operating system delivered by Microsoft. XP 64 bits outstand far away Vista, Windows 7 and it is a much more compatible and stable operating system.

 Client connection Generators

- **Seamless Client:** to seamlessly run applications (no Remote Desktop background)
- **RDP client:** to run application within a Remote Desktop background

 Connection client generators



The program allows changing the icon and the connection client program name.

Server Address: Enter the IP address of the server to which the client must be connected.

Port Number: Enter the server port number

Domain name: Enter a domain name if any

User and Password: If you enter a user/password, the client program will not ask to retype it at each session. If you type *SSO in the user name field, the client program will just ask once the logon/password at the very first connection and will save this information on the user's workstation



so that the user doesn't have to identify himself ever again. To reset this logon/password saving, you must create and edit a shortcut of the Remote Desktop Client and add *-reset on* switch at the end of the target field.



Advanced printing option: Universal Printer

The AppAnywhere Universal Printer offers you a great capability: to print documents from any PCs. When selecting this printer, the document to print is automatically converted into a PDF format file. This PDF file is automatically pushed to the local Acrobat Reader of the user workstation.

You can choose from 4 printing options:

- **Acrobat Reader preview:** the document will be pushed and the local Acrobat Reader will be open with the generated PDF file. The user can print it, or save a copy on his local disk drive
- **Print on the user default printer:** the document will be automatically pushed to the default user printer (the local printing driver is included into the AppAnywhere connection client).
- **Select a local printer:** The user can select one of his local printer (the local printing driver is included into the AppAnywhere connection client).
- **Streaming mode on the default printer:** for large documents, the PDF file is splitted into 2 pages per 2 pages transfer / print process (the local printing driver is included into the AppAnywhere connection client).

The Seamless client is compatible with any PC with XP, 2003, Vista, Windows 7 and Windows 2008. Windows 95/98, NT and 2000 are not supported.

The RDP and USB are compatible with any Windows platform. It is why it must be used in any deployment where old PC could be used to open a session.

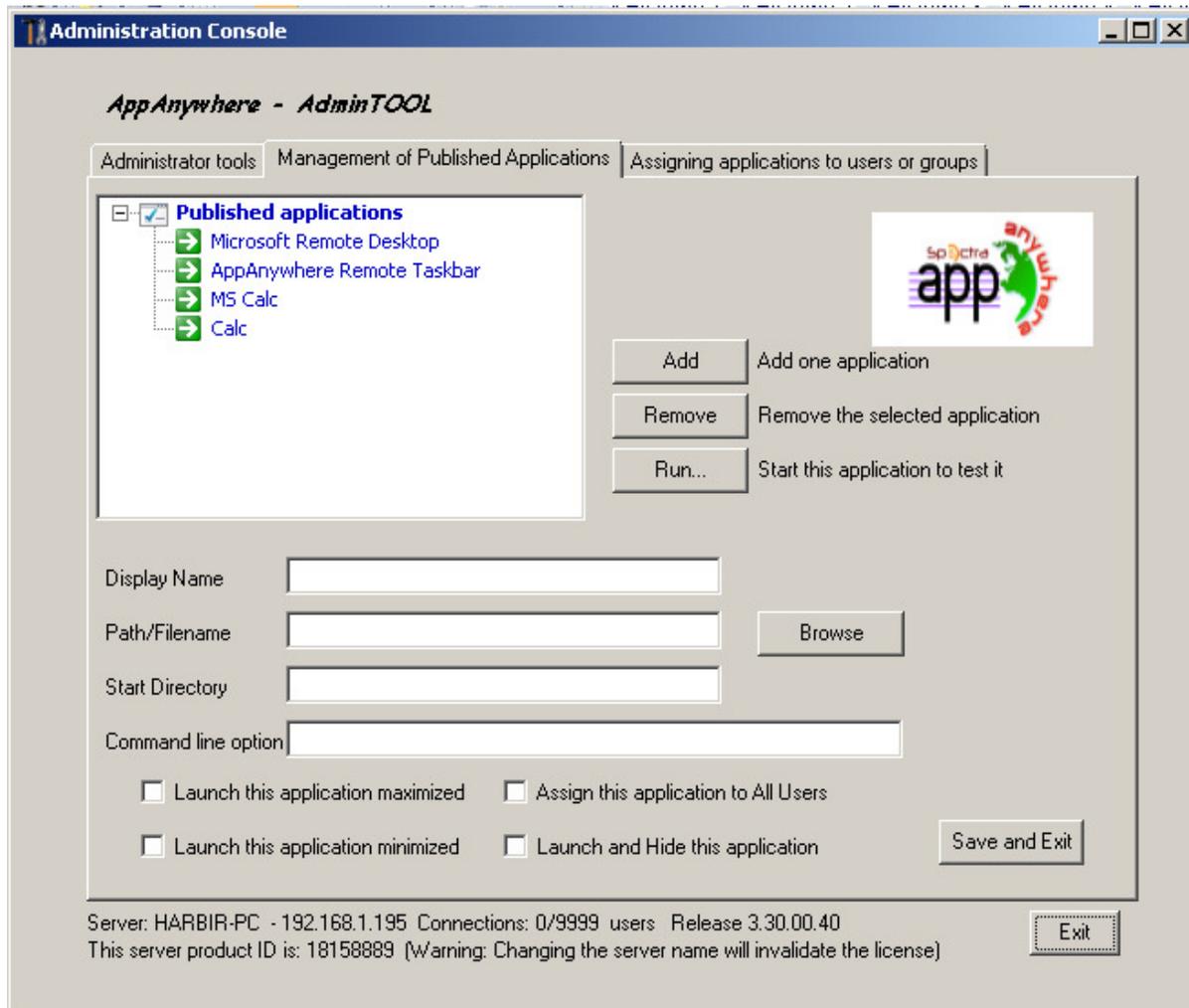
Application publishing

AppAnywhere supports 3 different kinds of Application Publishing

- Microsoft Remote Desktop. The user will see the full Windows Remote Desktop in the session. Application Control is not easy.
- AppAnywhere Taskbar. Any application, folder, shortcuts, documents... copied in the user Desktop folder will be published with the AppAnywhere Remote. In this case, the user does not have any access to applications other than that decided by the administrator. Application Control is much finer-grained.
- Assign one, two, three, or more specific applications to a user/group. In this case the user will only see their assigned applications when opening a session.

There is a priority rule to remember: The Microsoft Remote Desktop has the highest priority, then the AppAnywhere Taskbar, then specific applications. If a user has a specific application assigned and AppAnywhere taskbar or Microsoft Remote Desktop, they will not see the specific application because they have a lower priority.

You will add or delete applications using the AdminTool.



1. Calc is published as one example.
2. After declaring a new application, we recommend to use the Test it button to check that the application is correctly started.
3. For each new application, you can specify if this application must start maximized, minimized or hidden. You can also tell the system to apply this application to all users.
4. You must click on the button Save and Exit to store any modification.

 At installation, the default setting is: Any RDP user will see the complete Microsoft Remote Desktop. Any Seamless users will have the AppAnywhere Remote Taskbar.

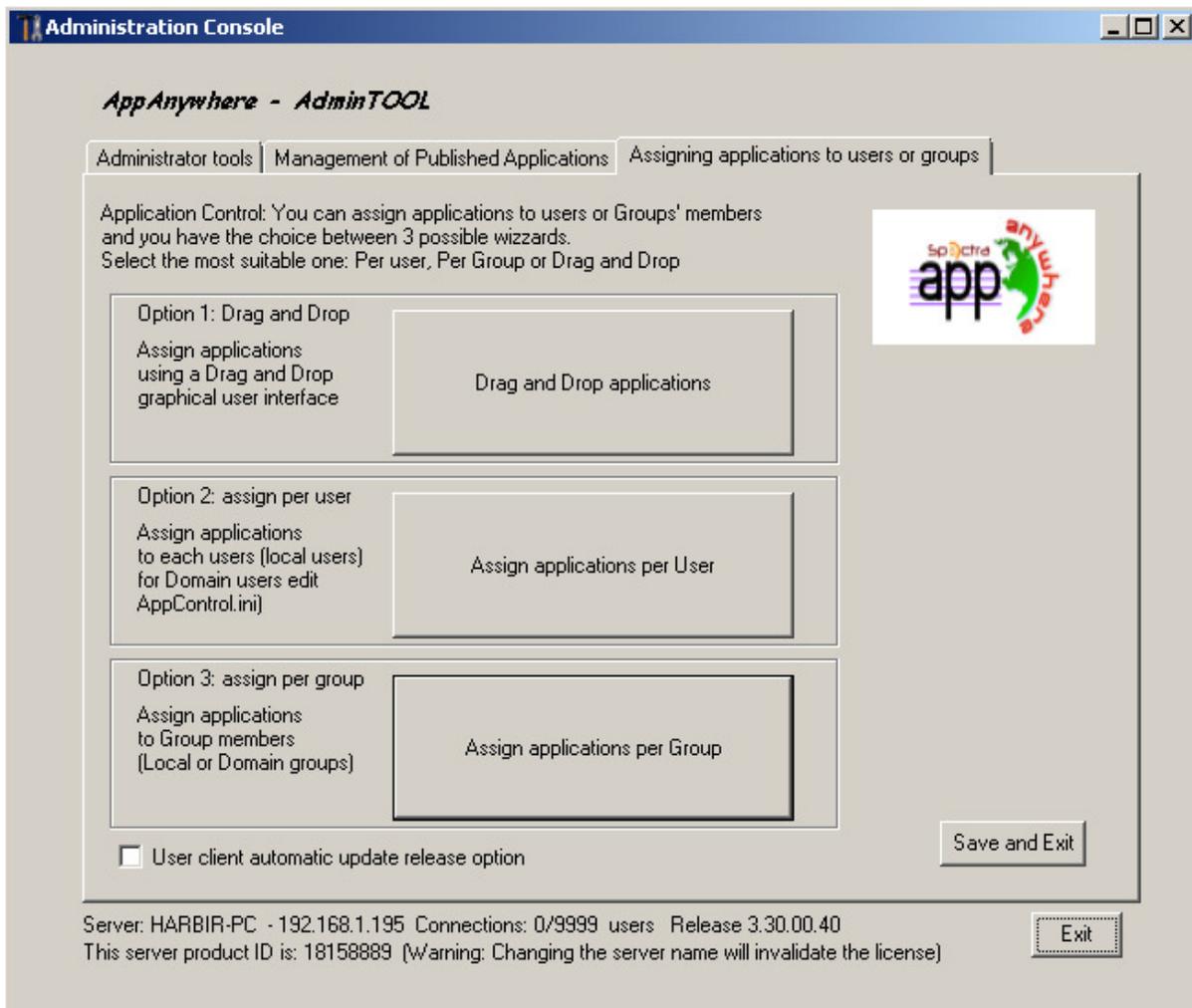
 The AppAnywhere Taskbar publishes all shortcuts copied in the Desktop folder of the user. When selecting *AppAnywhere Taskbar*, you can request to automatically copy any of the



shortcuts available in the All Users Desktop folder and/or, to automatically create shortcuts from applications assigned to the users with Application Control.

Assigning Applications To Users Or Groups

The third section of the AdminTool has been greatly improved with version 3.20 to make Application Control easier and very efficient.



The administrator has 3 possible methods of publishing applications and assigning them to a user or group members:

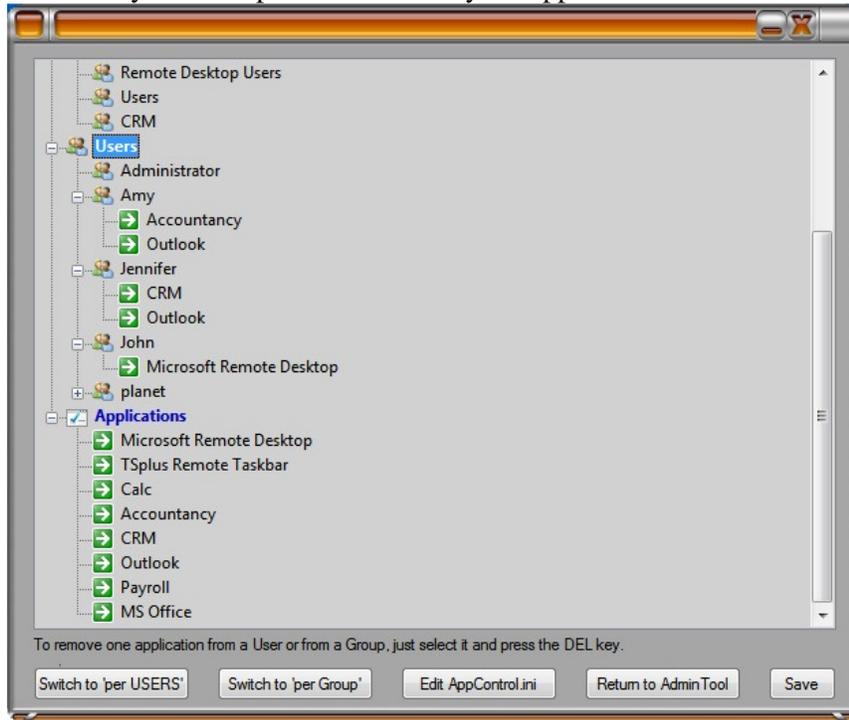
Option 1: Drag and Drop: Drag an application and drop it to a user or a group. This is a good method when there are only a few applications, users or groups. It is also a quick way to visually check the current application assignments.

Option 2: Assign Per User: Select/unselect listed applications on a per user basis.

Option 3: Assign Per Group: Select/unselect listed applications on a per group basis.

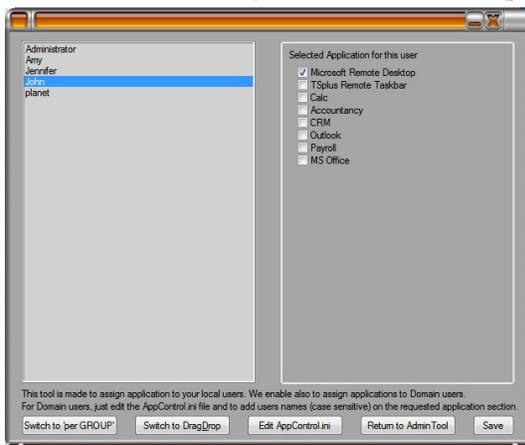
Option 1: Drag & Drop wizard

In this example, the user Elizabeth will start the Payroll application when opening her session. Any members of the Payroll Group will start the Payroll application and MS Office.



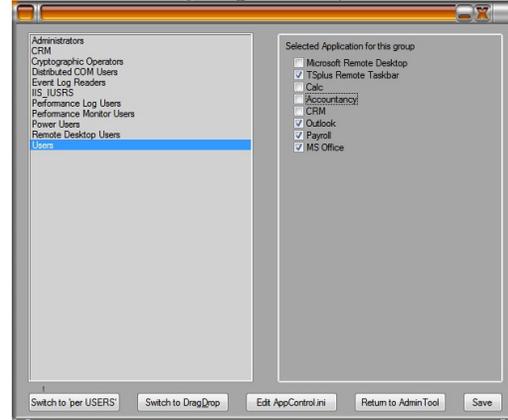
Option 2: Per User wizard

The user John has only the Remote Desktop application



Option 3: Per Groups wizard

The users group has Payroll and office



Note when using AppAnywhere Seamless Client: With the AppAnywhere Seamless Client, the users will not display the Microsoft Remote Desktop windows. The applications sit on the local desktop as if they were native local applications. Users will see only the applications assigned to them by the administrator.

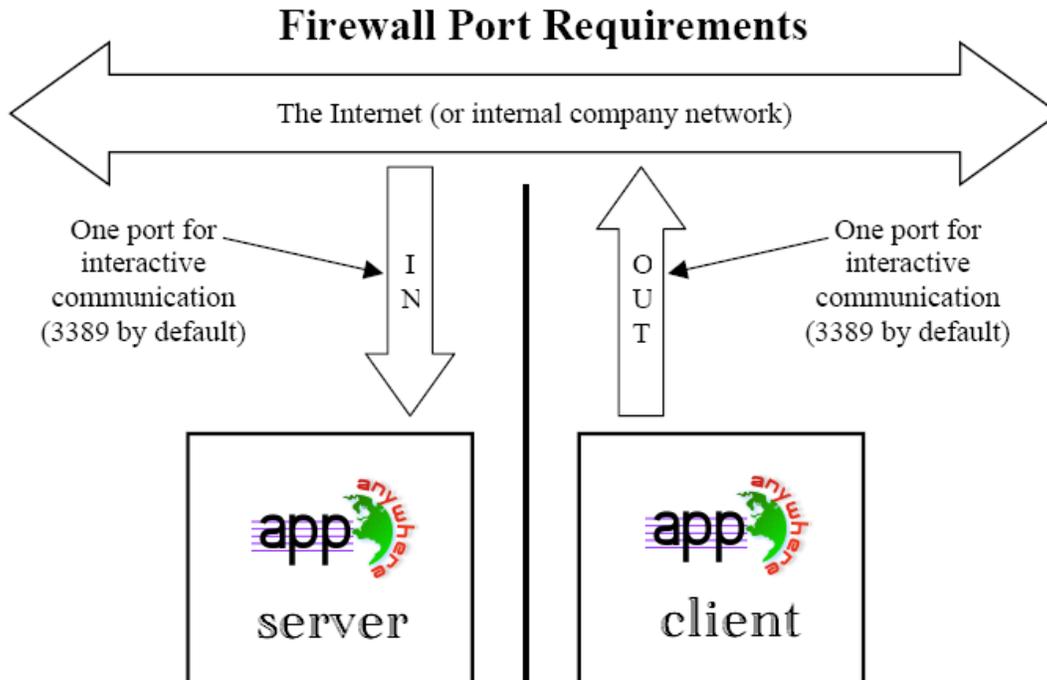


- If a user has the right to use the default Microsoft Remote Desktop, the Seamless Client will display a background color to avoid having both the Remote and the Local Desktop icons piled on the screen.
- The Seamless Client session is held open only when an application is running and being pushed through to the local client. If no application has been assigned to this user, AppAnywhere will automatically use the AppAnywhere Taskbar.
- If a user has specific applications assigned, they will seamlessly see these applications when the session is opened. When the last application is closed the session ends.

Other comments:

- If no application is assigned to one user, he will see the *Microsoft Remote Desktop* which will display the shortcuts of the Desktop folder.
- If one user has several allocations plus the *Microsoft Remote Desktop*, he will see a remote desktop.
- If a user has several applications plus the *AppAnywhere TaskBar*, he will see the TaskBar which displays the shortcuts of his Desktop folder.
- It is also possible to assign one specific application to one specific user of a Domain. To do so, just edit the AppControl.ini file and type the user name (JohnD for example) in the “users=” field of the application paragraph.
- If you want to start a script when the session open, you must make it LOGON.BAT or LOGON.CMD and copy this script:
 - In the Application Data folder of All Users if this script applies to all users,
 - In the Application Data of the user if this script applies to this user.
- If you want to start a script on the client side when a session is opening, you just have to name a program STARTUP.EXE and to copy it at the home drive of the user PC (C:\startup.exe).
- If you want a program to be started as a service when the AppAnywhere server reboots you have to name this program STARTUP.EXE and to copy it in the folder C:\Program Files\AppAnywhere\UserDesktop\Files\

Firewalls: Please remember that in most cases connection trouble are due to a firewall rule on the server side, on the network, or on the client side.



Advanced Security options included in AppAnywhere

Securing any server is a never-ending story where every expert could add yet another chapter.

AppAnywhere benefits from and is compatible with existing security infrastructure in a company (Active Directory, GPOs, HTTPS servers, SSL or SSL telecommunication systems, VPN, access control with or without ID cards, etc, etc).

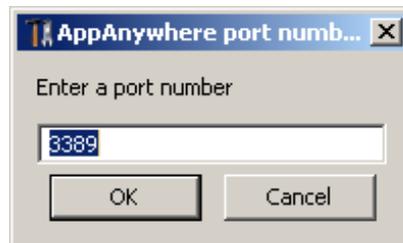
For customers who want to easily secure their server, AppAnywhere offers a set of simple and relatively effective ways to enforce good levels of security.

Changing the RDP port number and setting up the firewall:

With the AdminTool, you can select a different TCP/IP port number for the RDP service to accept connections on. The default one is 3389. If you wish to use your server for normal users, we recommend changing it to 443 because this port is usually open for outgoing traffic on firewalls.

You can choose any arbitrary port, assuming that it is not already used on your network and that you set the same port number on your firewalls and on each AppAnywhere user access programs.

If users will be accessing your AppAnywhere server from outside of your network, you must ensure all incoming connections on the port chosen are forwarded to the AppAnywhere server.



Server side security options:

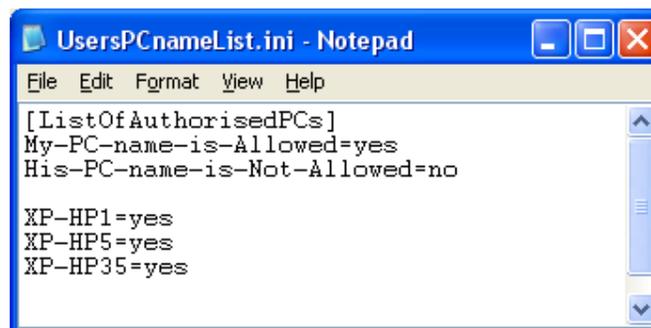
The AdminTool allows you to deny access to any user that is not using a AppAnywhere connection program generated by the administrator. In this case, any user that would attempt to open a session with any Remote Desktop client other than the AppAnywhere one (which assumes having the correct server address, the port number, a valid logon and a valid password) will be disconnected automatically.

The administrator can decide that only members of the Remote Desktop User group will be allowed to open a session.

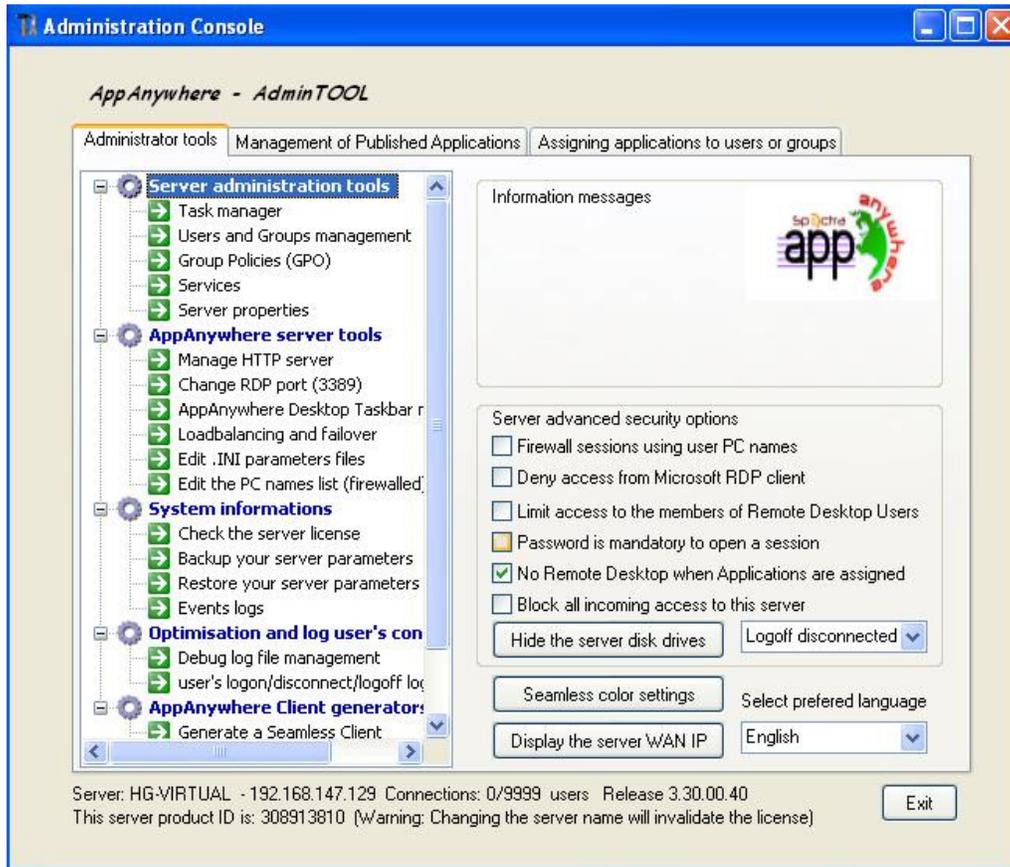
The administrator can decide that a password is mandatory to open a session.

Through setting the applicable local Group Policy, the administrator can specify whether to enforce an encryption level for all data sent between the client and the remote computer during a Terminal Services session. If the status is set to Enabled, encryption for all connections to the server is set to the level decided by the administrator. By default, encryption is set to High.

The administrator can decide to set a firewall on the user PC names. One the PC that are listed in a .ini file can be able to open a session. Any other, even with a valid logon/password, will be rejected.

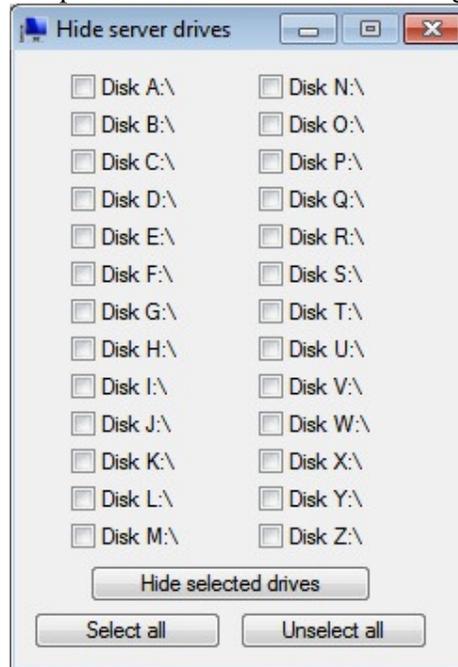


The administrator can also set as a rule that only users with a AppAnywhere connection client will be able to open a session. Any incoming access with a standard RDP or WEBTS access will be automatically rejected.



Hiding the server disk drives:

The AdminTool includes a tool that enables hiding the server disk drives to prevent users from accessing folders through My Computer or standard Windows dialog boxes.



The tool works globally. This means that even the administrator will have no normal access to drives after the settings have been applied.

Notes:

The tool flags the disks drives as hidden, but it also adds the **HIDDEN** property to all of the root folders and users list in Document and Settings. If the administrator wants to see these files he must:

1. Type the disk drive letter. For example: **D:\<ENTER>** which will take you to the D: drive.
2. Turn on **SHOW HIDDEN FILES AND FOLDERS** in the folder view properties.

AppAnywhere access program security options:

The AppAnywhere client generator gives the capability to lock the AppAnywhere client to:

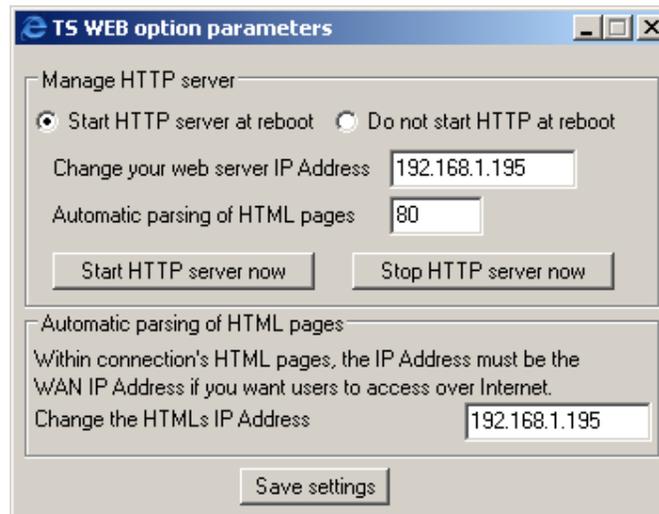
A specific PC name. It means this program will not be able to start from any other PC.

A physical drive serial number (PC HDD or USB stick). This is a very easy and powerful way to set a high level of security. The only way to connect is with a specific client, and this specific client can start only on a specific USB stick or PC HDD. Some of our customers are delivering fingerprint reading USB sticks to each of their users and each generated program is locked to the device serial number. In this manner they can restrict access to the client program itself, as well as ensuring the client program cannot be copied off the USB stick and used elsewhere.

HTTP access to the AppAnywhere server

AppAnywhere includes major enhancements to access the server using web browsers like Internet Explorer, Opera, Netscape or Mozilla.

On XP or Vista servers, the AppAnywhere web server is started automatically at each reboot. The AdminTool allows you to start/stop the AppAnywhere web server and to turn off the automatic startup at reboot.



A very useful set of HTML pages has been created to deliver “out-of-the-box”, ready to use web access to the server.

These pages are automatically created when the HTTP server is first started and will automatically set the current AppAnywhere IP address and port number. You can test it using Internet Explorer with a URL like <http://<serverip>> (insert the IP of your AppAnywhere server). If you change your server IP address you MUST change each HTML page to reflect this.

The HTML pages provided are samples that your Webmaster/Administrator can use and edit to make their own application portal links. This is a useful and powerful web based tool. Each example includes the HTML code, which interrogates the user browser and starts either the Internet Explorer code or the Netscape compatible plug-in.

Fast and easy file transfer between the user and the server

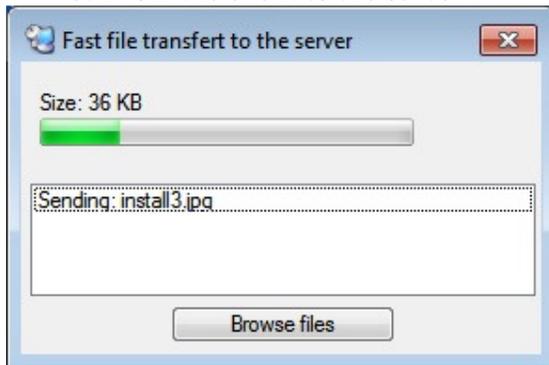
AppAnywhere includes a unique method of transferring files:

- F8** function key: From the local user workstation → to the user Remote Desktop
- Or
- Shift F8** function key: From the AppAnywhere server → to the local user Desktop

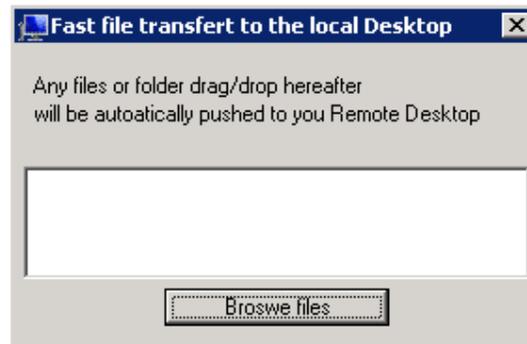
Because the file transfers are based on a Virtual Channel, it is 10 times faster than a file copy, and it can be done even when the local user disk drives are not mapped.

Transferring files or folders is easy: just drag & drop

F8: From the client to the server

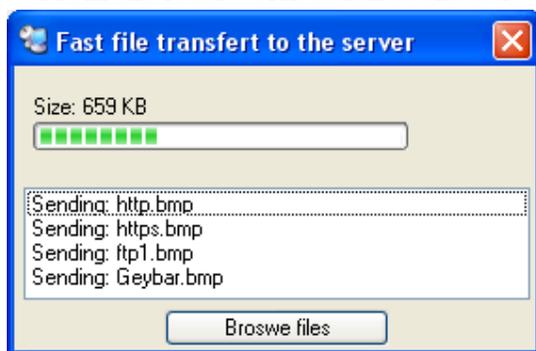


Shift F8: From the server to the client

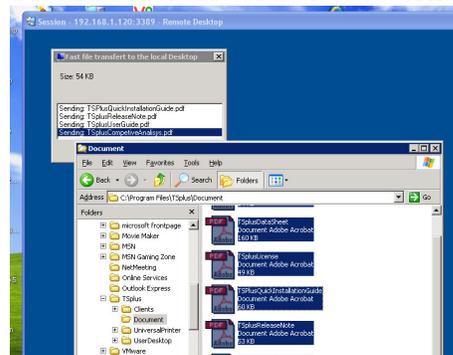


Drag & drop files or folders is just a drag & drop action

From the local workstation to the Server



From the Server to the local workstation



The administrator can change the function key (F8 as default) assigned by AppAnywhere to start the file transfer user wizards. To do this, you have to add one paragraph to loadbalancing.ini file. In the following example we set F10 as function key to do file transfer.

```
[FileTransfer]
hotkeyFTP=F10
```



And do the same in AppControl.ini for the transfer from the server to the client.

[Security]

hotkeyFTP=F10

Updating the client version automatically from the server

Our customers wanted to be able to update all of the generated client programs without having to generate a new client program for each workstation.

If AppAnywhere on the server side is update to a new release, the users will be prompted to recommend them to update automatically their connection client from the server.

Also, we store the client parameters locally and we offer the capability for the administrator to edit locally these parameters on a specific workstation if needed.

