Aqua Connect Remote Desktop Services 3.7 User Manual

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About Aqua Connect Remote Desktop Services

Aqua Connect Remote Desktop Services (ACRDS) enables OS X server software and applications on that server to be accessed by diverse desktop hardware remotely. Aqua Connect uses proprietary remote access technology to stream the complete Mac OS X desktop experience over the network to your end users using a single installation of OS X server.

ACRDS delivers the Macintosh® experience via OS X server to diverse hardware and software platforms and mobile devices using graphically enhanced remote access technology. Aqua Connect Remote Desktop Services incorporates Microsoft's Remote Desktop Protocol (RDP), the Remote Frame Buffer Protocol (VNC) and the Aqua Accelerated Protocol (AAP). Aqua Connect Remote Desktop Services makes it possible for diverse workstations and RDP, AAP or VNC-enabled mobile devices to function as thin clients of an OS X server. All applications published by ACRDS are executed on the OS X server hosting the ACRDS software. All client inputs such as keyboards and mice are processed at the OS X server hosting the ACRDS software. Both the client platform and the OS X server hosting the ACRDS software process all of the client's outputs.

This product is protected by one or more Patents, including U.S. Patent No. 8,549,093.

Features

Below is a list of all the features that Aqua Connect Remote Desktop Services 3.7 offers.

- Remote sound
- Remote printing
- User auditing
- CPU prioritization
- Active Directory integration
- Open Directory integration
- LDAP integration
- Apple's Workgroup Manager integration
- User session logs
- Remote ACAdminTool monitoring
- Data loss prevention
- Enhanced multimedia capability
- Enhanced OpenGL support
- Enhanced application compatibility
- Real-time video and audio processing
- Universal printing

System Requirements

Hardware

- Intel based Xserve, Mac mini server or Mac Pro system
- 2 GB of memory minimum for Operating System
- 96 MB of memory per remote ACRDS user without any significant applications running and running at 1024 x 768 screen resolution
- 500 MB of available disk space on system volume
- 150 MB of available disk space per remote ACRDS user without any significant applications running
- Free space for applications
- Free space for temporary storage of application operating data
- Extra memory for each active user based on applications and data usage

Software

- Aqua Connect Remote Desktop Services 3.7 (Build 4999 or higher)
- Apple Mac OS X v.10.7.4+ or Apple OS X v.10.8.2+
- Apple Mac OS X Server or Apple OS X Server

Getting Ready

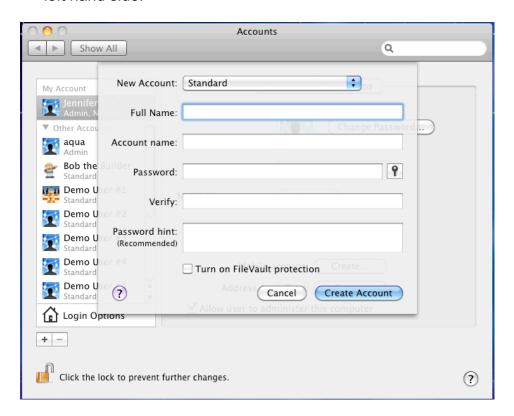## Preparing Your Network and Internet Connection

Before installing Aqua Connect Remote Desktop Services, there are 6 items pertaining to your network and Internet connection that must be setup properly. Listed below are those items along with details of how they should properly be setup.

1. **Physically Connected:** ACRDS requires a stable wired network connection to your local area network. Running a server via Wireless networking is not supported.

2. **IP Address:** A constant non-changing IP address is required by ACRDS either by assigning a static IP address or by using a DHCP reservation.

3. **Web Proxy:** The server must be able to connect to a https server on the Internet using one of these methods:
   a. Directly
   b. NAT
   c. Firewall
   d. System wide proxy server setting (no user authentication)

4. **DNS:** ACRDS requires:
   a. The Server's Fully Qualified Domain Name (FQDN) must be resolvable by both a forward lookup and a reverse lookup.
   b. The server's Domain Name must have a consistent zone record, which is acceptable either by direct or indirect queries.

5. **Time:** All servers that will interact with one another in some fashion should have the same time source. Some examples of servers that may interact with your Apple Server would be Open Directory Server, Active Directory Server, File Server, LDAP Server, etc.

6. **If Using Directory Services:** The Directory Servers names, forests, domains and associated records must be resolvable by both forward and reverse lookups. The forests and domains must not contain the ".local" top level name.
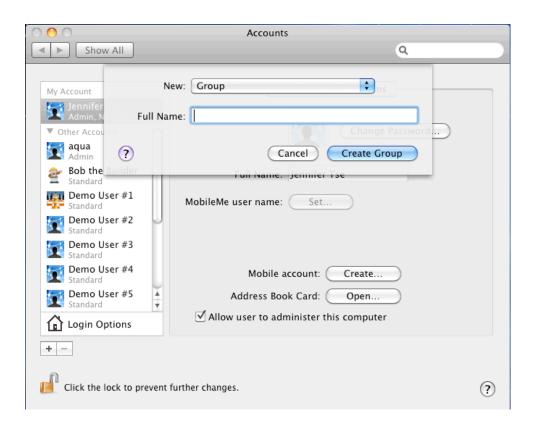
Deciding How to Create and Manage Users and Groups

When configuring and managing your Aqua Connect Remote Desktop Services users, there are many options that are available. Below is a non-authoritative list containing details about setting up and managing Local, Open Directory and Active Directory users and groups. In situations where the options described in this list is not applicable, contact Aqua Connect support for further information.
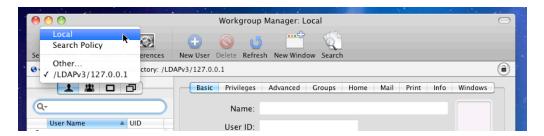
1. **Local Users and Groups:** Local Aqua Connect Remote Desktop Services Users and Groups can be setup via System Preferences or Workgroup Manager but NOT Server Preferences.
    a. In order to create users within System Preferences, launch Finder and then launch System Preferences. Click on Accounts and Unlock it if necessary. Then add a new user by selecting the + button on the bottom left hand side.
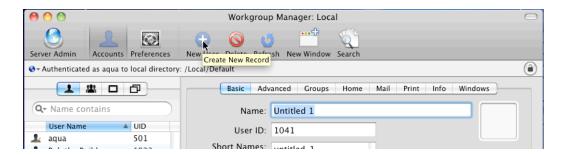

To group your System Preferences users, select the + button on the left hand side. From the drop down list, select add a new Group. After creating the group, you will see a list of all your local user accounts and can select which users you would like to apply to the newly created group.
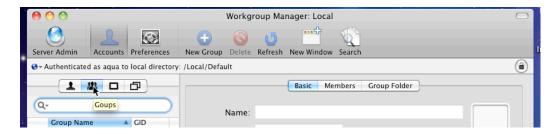
b. In order to create Local Users within Apple's WorkGroup Manager, Open the Server folder within Applications and launch WorkGroup Manager. Enter in your credentials. Once you are logged in, select Local from the top left hand side. If you do not already have WorkGroup Manager installed on your server, you will need to download directly it from Apple.

After authenticating and connecting to the Local Directory, select the + New User button on the top. Now you may go ahead and add users. Keep in mind that ALL users MUST have Home Folders in order to be able to connect to the Aqua Connect Remote Desktop Services.

In order to create Groups with Workgroup Manager, select the image of a Group on the left hand side.

Then at the top, select the + New Group button.

After creating a group, you will need to add the newly created users into it. Highlight the new group on the left hand side, select Member in the center and hit the + button to the left.

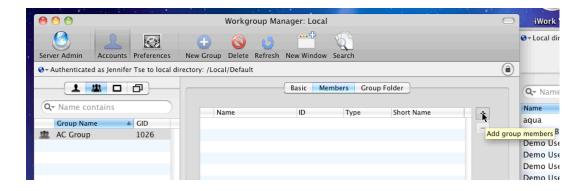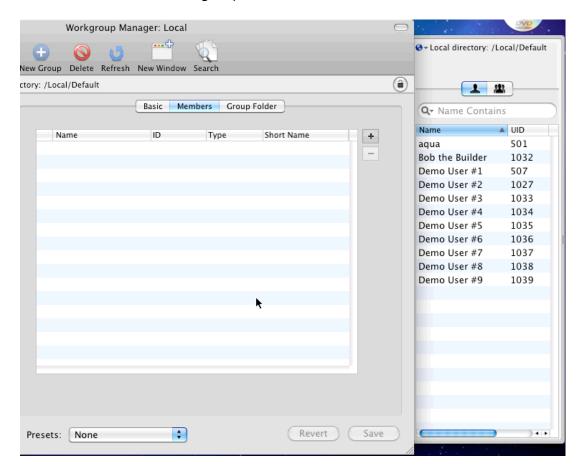Once you have selected to + the group members, a side bar will pop out. Here is where you would highlight and then drag and drop the users you would like to add into the group.

Note: Do not forget to be sure to save your changes before exiting.

2. **Open Directory Users and Groups:** Aqua Connect Remote Desktop Services can be easily integrated into your Open Directory environment whether it is on the same server as ACRDS or on an entirely separate server. Please see our Advanced User Manual for further instructions.

3. **Active Directory Users and Groups:** Aqua Connect Remote Desktop Services can be easily integrated into your Active Directory environment. Please see our Advanced User Manual for further instructions.

Installing

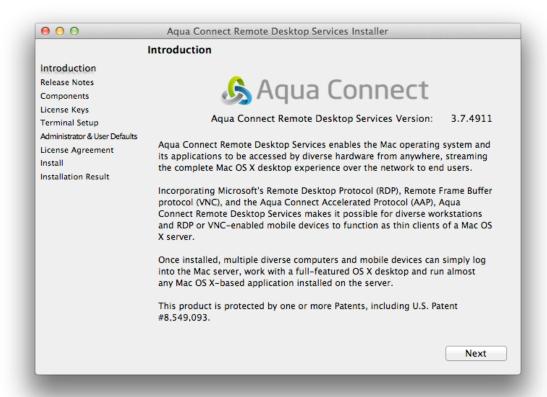## Retrieving Installation Files and Keys

Aqua Connect Installation Files can be retrieved from Aqua Connect's website. Please contact your sales or support representative if you require the link to the download page. Aqua Connect Remote Desktop Services License Keys can be obtained only through an authorized sales representative. Please contact them if you require assistance.

During the installation process, no other applications should be running and no other users should be logged in. If you have previously installed Aqua Connect Remote Desktop Services, use that version's uninstall feature prior to installing the newer version. If Aqua Connect Remote Desktop Services 3.7 detects a prior installation, you will now be given the option to either uninstall your previous version or copy over the new pieces to your old installation. Instructions on how to uninstall previous versions will be supplied at the end of this documentation. When the installation process is complete, the server will prompt you to restart. Failing to restart after the installation process will yield a very unstable system that may cause data corruption or even data loss.

Once downloaded, open the disk image container by launching it. This will mount the disk image revealing the installer, "Aqua Connect Installer." Double-click the installer to install Aqua Connect Remote Desktop Services.

The disk image also contains ACUninstaller, for uninstalling and ACAdminTool for administering Aqua Connect Remote Desktop Services. The Installer will install both of these. To uninstall, you can use either the ACUninstaller that was installed or the one on the disk image. You can copy the ACAdminTool from the disk image onto any Macintosh running Mac OS X Version 10.5, 10.6, 10.7, 10.8 or 10.9.
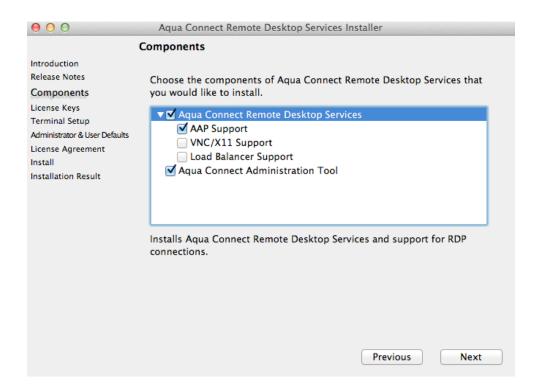
Installation

(Introduction Screen - Figure 1)

The installer will display a welcome and introduction screen. The version number of the product that you will be installing can be found at the top of the screen. Proceed by pressing Next.

You will then be presented with a screen giving you information about this version of Aqua Connect Remote Desktop Services. Read through this information to see if it applies to you and then press Next.

You should now see the Components panel which will allow you to choose which components of Aqua Connect Remote Desktop Services you would like to install. By default, it will choose Aqua Connect Remote Desktop Services, AAP Support and the Aqua Connect Administration Tool. You can also choose to install VNC & X11 support and Load Balancer Support at this panel.
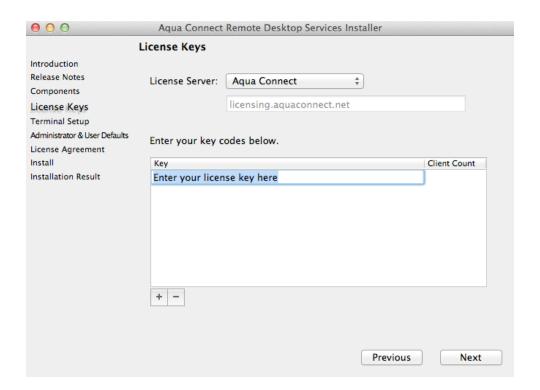
(Components Panel - Figure 2)

The next screen will prompt you to enter in the license key you were given by your sales representative. First, you will need to choose a License Server to connect to. By default, the software will choose the "Aqua Connect" option as your License Server and automatically enter the address of licensing.aquaconnect.net. If you have purchased an Aqua Connect License Manager for use in a closed network environment, you should pick "Other" from the dropdown menu and type in the Internet address of your License Manager in the available text field.

Double click on the "Enter your license key here" text and enter the license key. Please remember that all keys are case sensitive. If your key is invalid, you will see a small red 'X' (⊗) in the client count field. Hover the mouse over the 'X' to see the reason for the error.

If you wish to enter more than one license key, press the "+" button and enter another license key. If you wish to remove a license key, press the "–" button. When all of your license keys and been entered and there are no errors, click the Next button to move on to the next screen (See Figure 3).
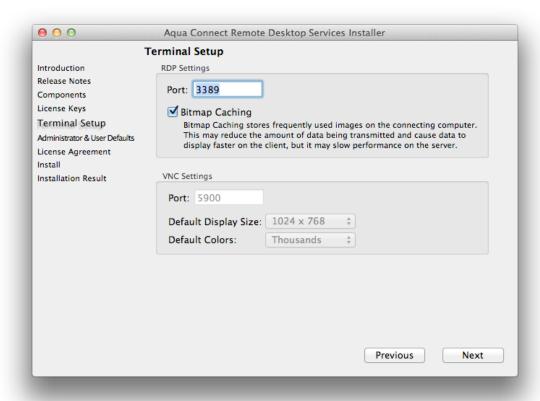
(Entering in a License Key - Figure 3)

You will now see the Terminal Setup pane (Figure 4). This allows you to configure settings for the protocols your server uses for connections (i.e. RDP and VNC).

Under RDP settings, choose the port you would like to use. The default value entered, 3389, is the default port for RDP. If you change this, you will have to make certain that your clients use the new port number when connecting to the server. You can also choose whether to use bitmap caching on your server. Bitmap caching stores frequently used images on the client computer. This can reduce the amount of data the server must send to the client, but it can also adversely affect server performance and it may exacerbate performance issues on slower networks.

Under VNC settings, you should choose the port you would like to use. The default value, 5900, is default port for VNC. It is more likely that you will need to change this than change the RDP port, as various Apple services such as screen-sharing and Apple Remote Desktop use VNC to send screen images. If you are using either of those two services, you must choose a different port for VNC. You must also choose a size and bit-depth for the VNC screen. This is the screen size and bit-depth that will be sent to all VNC users.

By default, the AAP port is set to 310. If you would like to change it, you will need to do so in the Aqua Connect Admin Tool. You can find the option under the "Terminal" tab.

When finished, press the Next button.

(Terminal Setup - Figure 4)

The next panel (Figure 5) will allow you to set up your Aqua Connect Remote Desktop Services Administrator account and set defaults for users.
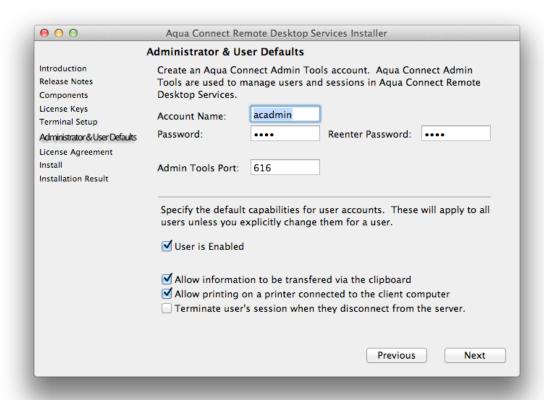
First, set up your Aqua Connect Remote Desktop Services Administrator. This is the name and password you will use in the Aqua Connect Remote Desktop Services Admin Tool. By default, the name is set to "acadmin" and the password is set to "pass." It is recommended that you change this. You can either do it at installation time, in the

Installer, or later via the ACAdminTool. You can also choose a port to use, if the default one conflicts with a port the server is already using.

Next, you can set up default settings for your users. You can choose to enable or disable users. By default, all users are enabled. This means that any user who has an account on the server may connect. If you have a large number of users with accounts—for example, if your server is bound to an Active Directory or Open Directory server—you may decide to make all users disabled by default and just enable the users you would like to allow to log in to the server. Note that if you disable all users by default, no users will be able to log in until you allow them. If you intend to use the ACAdminTool installed on the server to do this, make sure that you have access to the console screen (via ARD, screen-sharing or physically) in order to run the ACAdminTool. If you don't, you will not be able to log in via Aqua Connect Remote Desktop Services in order to do so.

You can also define whether users can use the clipboard to transfer data to and from the server, whether users can print to printers attached to their client computers, and whether their sessions should be terminated when they disconnect.

When you have set this up, press the Next button.

(Administrator and User Defaults - Figure 5)

The next panel will display the Software License Agreement. Please read the Software License Agreement as you are bound to it if you agree to it. Failing to read the agreement does not preclude you from the terms of the agreement. After reading the Software License Agreement, press the Next button. You will be prompted to either agree or not agree to the Software License Agreement. If you agree, press the Agree button. If you do not agree, press the Do Not Agree button and quit the Installer.

After agreeing to the Software License Agreement, the installation of Aqua Connect Remote Desktop Services will begin. You will probably be asked to enter your Mac OS X Server credentials. Enter your credentials in order to install Aqua Connect Remote Desktop Services. When the installation has finished, you will see a panel telling you that the installation has finished (Figure 6). Press the Restart button to restart the server. After the server has restarted, you will be ready to connect to your server via Aqua Connect Remote Desktop Services.
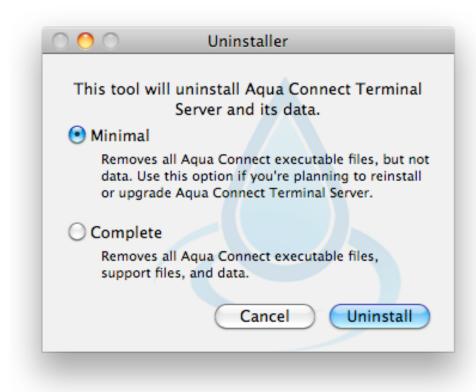

(Installation Result - Figure 6)

Uninstallation

If you need to uninstall Aqua Connect Remote Desktop Services, you can use the ACUninstaller application. This application is installed in Server folder located in the Applications folder and is also available on the disk image with the Installer.

To uninstall, launch the ACUninstaller application (Figure 7). You will see two uninstall options: Minimal and Complete. The Minimal option will remove all Aqua Connect Remote Desktop Services program files but will leave individual users settings. This can be useful if you have made extensive changes to user settings and wish to uninstall Aqua Connect Remote Desktop Services before installing an up-to-date version. If you wish to completely remove Aqua Connect Remote Desktop Services, choose a Complete uninstall. When you have made your choice, press the Uninstall button.

ACUninstaller will disconnect all users before uninstalling. Once all users have been disconnected, Aqua Connect Remote Desktop Services will be removed from the server. It is advised that you restart your server after removing ACRDS in order to ensure a clean uninstallation. If you wish to install a newer version of Aqua Connect Remote Desktop Services, you may do so when it has finished.

(Uninstaller - Figure 7)

Establishing Connections

Since Aqua Connect Remote Desktop Services supports multiple clients, the first thing to do is to decide which protocol you would like to use to establish a connection. Aqua Connect Remote Desktop Services supports RDP, AAP, VNC and X11, which all have their own benefits. Below is a list of all of the clients that Aqua Connect has tested.

Recommended RDP Client Software

Windows®
- Remote Desktop Connection for Windows

Unix®
- rdesktop

Mac®
- Remote Desktop Connection for Mac

iPhone®/iPad®
- iTap RDP
- iRdesktop
- Microsoft Remote Desktop
- Remoter VNC (with RDP add-on)
- WinAdmin
- Wyse Pocket Cloud

Recommended VNC Client Software

Windows®
- TightVNC
- RealVNC

Unix®
- KRDC
- X11VNC

Linux
- Red Hat Linux VNC
- Any Linux-native VNC utility

Mac®
- Chicken of the VNC
- Vine Viewer
- JollysFastVNC

iPhone®/iPad®
- iTap VNC
- Remoter VNC

Recommended X11 Client Software

Windows®
- Xming
- Cygwin
- X-Win 32

Mac®/Unix®/Linux
- Xephyr (built into the operating system)

Recommended AAP Client Software

Windows®, Mac®, and iOS® clients are available directly from Aqua Connect at:
http://www.aquaconnect.net/aqua-accelerated-protocol-client-downloads.php

Note: Contact the developer of any program listed above for details about acquiring and installing the software. For other handheld devices, contact the manufacturer for a specific device to inquire whether that device is RDP, X11 or RFB-compatible or can be so configured.

For the most up-to-date list of compatible clients, please visit our client compatibility list that is posted on the website (http://www.aquaconnect.net/client-software-compatibility.php).
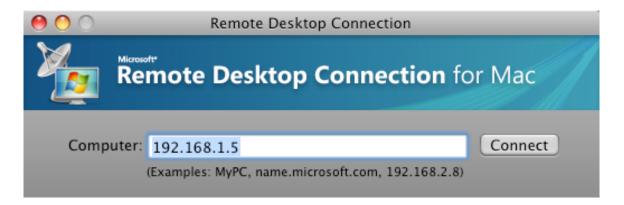
Client Connection Examples

Since Aqua Connect Remote Desktop Services works with many types of different client software, we have included some examples of how to connect using the most widely used programs. Below you will find examples of how to use Remote Desktop Connection for Mac, Remote Desktop Connection for Windows, iTap RDP, Chicken of the VNC, AAP for Mac and AAP for Windows.
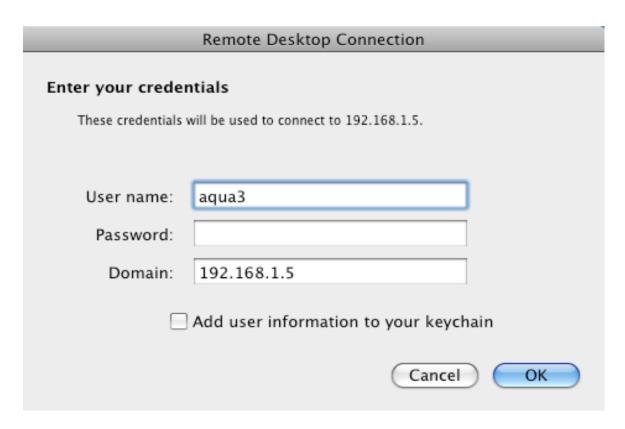
Remote Desktop Protocol Notes

With the RDP Login Window, you can log in to your Aqua Connect user session without saving your credentials in the Remote Desktop Connection software. This provides greater security for customers who are concerned about saving their credentials in the client. If you would like to save your credentials in the Remote Desktop Connection (RDC), simply enter and save the correct credentials and the user will login without the RDP Login Window being prompted. If you hit "connect" on RDC with the wrong credentials saved in RDC or no credentials entered, then you will be prompted with the RDP Login Window which has the same appearance as the OS X login screen.

Remote Desktop Connection for Mac

Once installed, launch RDP simply by clicking on its icon. The initial display will prompt for the Computer to connect to. Enter the address of the Aqua Connect server. Click the Connect button.

After clicking the Connect button, RDP will prompt for a User name and Password. You must enter values that are recognized by the Aqua Connect Remote Desktop Services.
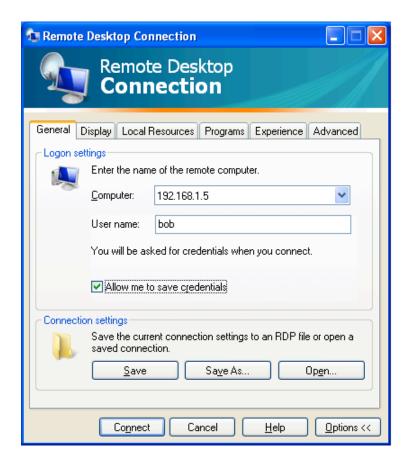
At this point a connection is established with the server and the remote desktop appears.

Note: If your keyboard shortcuts do not seem to be working correctly, you will need to set them up in order to have them work. A detailed explanation on how can be found here:

http://wiki.aquaconnect.net/index.php/AC_PUBLIC:130524-1

Remote Desktop Connection for Windows

Most Windows computers come with the Remote Desktop Connection already installed. At most, you may need to update the version to make it compatible with the Aqua Connect Remote Desktop Services. You can find the program by going to the Start button, clicking on All Programs, Accessories, Communications and then Remote Desktop Connection. Launch RDC simply by clicking on its icon. The initial display will prompt for the Computer to connect to and the User name. Enter the address of the Aqua Connect server and User name. Click the *Allow me to save credentials* checkbox. This will force RDC to prompt for a user-name and password to use for login. Click Connect.

After clicking the Connect button, RDP will prompt for a User name and Password. You must enter values that are recognized by the Aqua Connect Remote Desktop Services. It is recommended that you uncheck the *Remember my password* checkbox before clicking the OK button. At this point a connection is established with the server and the remote desktop appears.
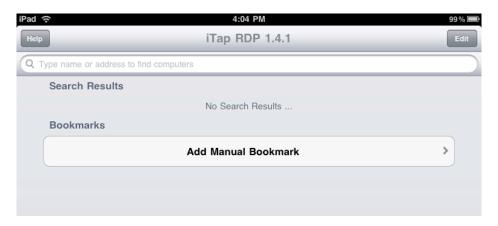

Note: If your keyboard shortcuts do not seem to be working correctly, you will need to set them up in order to have them work. How to do so and other Windows RDP notes can be found here:
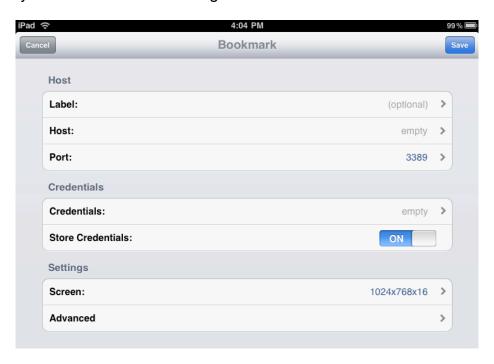
http://wiki.aquaconnect.net/index.php?title=AC_PUBLIC:Windows_RDP_Client_Notes
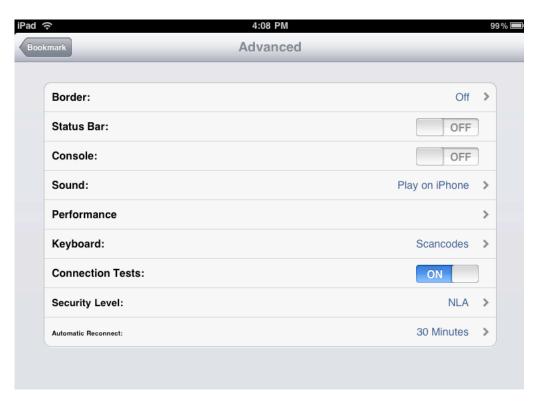
iTap RDP (iPad/iPhone)

Click on the iTap software to open it. If you have not already setup your server as a place to connect to, you will need to hit "Add Manual Bookmark".

You will then come to a screen where you have to fill out your information. In the Host section, you will need to enter in the static IP address of the server and the port you will be connecting through. In the Credentials section, you can put in the user name and password of the account you would like to connect to or choose to connect without credentials and go in through our login window instead. You can also choose the screen size you would like in the Settings section.

In order to setup the keyboard to work correctly in RDP, you will need to go into the Advanced Settings section. Near the bottom, you will see an option for Keyboard. It defaults to "Automatic" but make sure to set it to "Scancodes" or the keyboard in your session will not work.
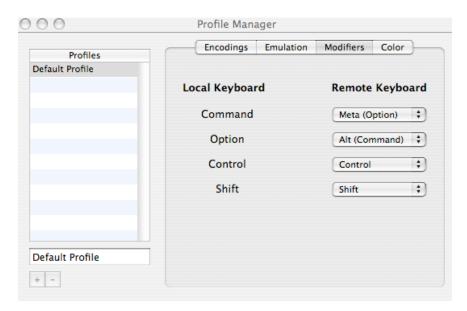

After you save all of your settings, go back to the bookmark menu. Click on the new server that you made. You will then come to a screen asking for your credentials (if you chose that option). When you are ready, click "Logon". You will be sent to another screen as it is trying to connect to ACRDS. It will show you the instructions on how to use gestures on your client screen. When it connects, it will show you a green arrow. Touch it and you should then see your ACRDS desktop.

Chicken of the VNC (Mac)

Once installed, launch Chicken of the VNC simply by clicking on its icon. The initial display will prompt for the Host to connect to. Enter the address of the Aqua Connect server. A Display value must also be entered. This value corresponds to the Port number to use. The default value is 0. Should Port 5900 be in use on the server, enter a value of 1. This will switch the VNC connection to Port 5901. Click the Connect button.

Note: To enable your keyboard shortcuts to work, click on the Connection tab and click Connection Profiles. When the Profile Manager appears, click on the Modifiers tab. Change the Command Key to Meta (Option) and the Option Key to Alt (Command). Close the Profile Manager.

Aqua Accelerated Protocol Notes

Since Aqua Accelerated Protocol was designed for use on several different platforms, users have a wide variety of choices for clients. For the most up-to-date list of versions available, please visit our AAP downloads page that is posted on the website:
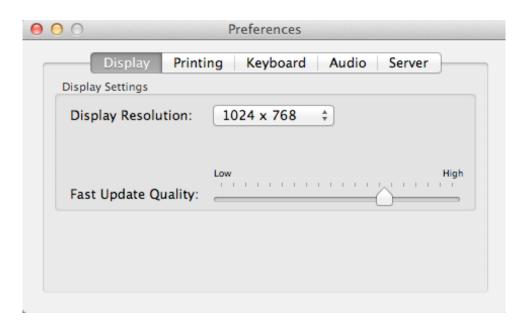
http://www.aquaconnect.net/downloads

For more detailed information about the AAP client, please check the AAP Manual available on our website.
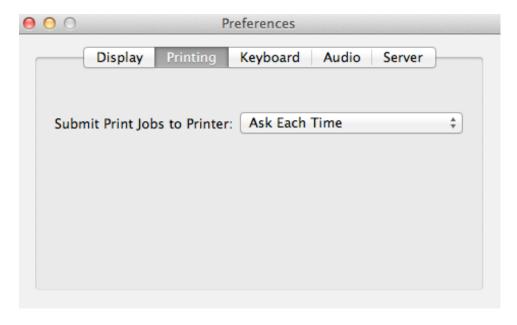
Aqua Accelerated Protocol for Mac

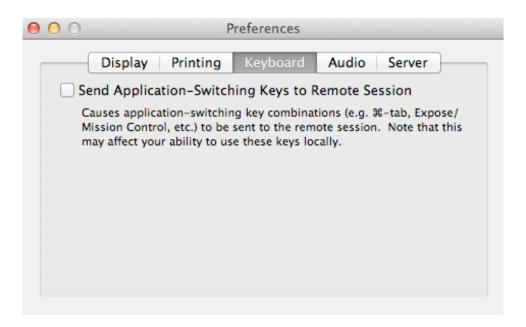Open up the client application. You will first see the login window that looks like this:

Prior to putting in your server address, username and password, you will need to adjust your preferences. The first time the AAP client is launched, the Preferences Pane will appear automatically.
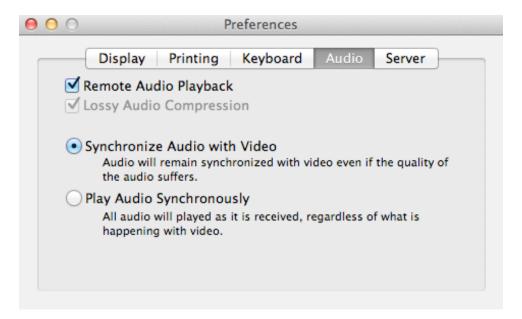
First you will need to set your display resolution. Currently it offers 800x600, 1024x768, 1280x1024, 1680x1050, Other and Full Screen. Additional screen size choices will be added later. If you choose Other and put in a number that is not supported by AAP, the client will attempt to choose a supported sized that is as close as possible.

On the Printing tab, you will be given the choice on how you would like your print jobs to be submitted to the printer. You can choose to either Ask Each Time you print or pick from a list of available printers which one you would like to default to.

On the Keyboard tab, you can choose to send application-switching key combinations to your remote session.

By default, the client will support Remote Audio Playback. To improve performance, you may want to turn it off on the AAP client. Just muting the sound on your client hardware will not turn the sound off in the AAP client and will not provide any data savings. If you want the data savings that not supporting Remote Audio Playback will provide, you will need to toggle this switch to the off position.

The Lossy Audio Compression toggle works for high bandwidth/low latency sessions. By default, it is turned on for low bandwidth sessions. If you toggle this off, you are

requesting that your audio not be compressed and be exactly as the application sent it as long as you have enough bandwidth for it. You can also choose whether you would prefer to synchronize the audio with the video or just play the audio without syncing it to the video.

In the Server tab, you can choose whether to compress and encrypt the data sent to and from the server. Both options are turned on by default.
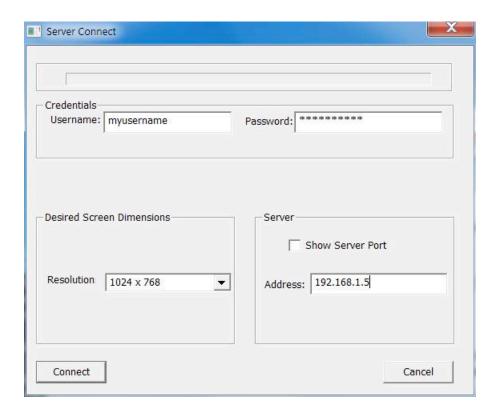
Once you make your changes, close the Preferences section. It will automatically save your changes.

Put in the Server Address, User Name and Password of the user you wish to connect with. The AAP client will remember up to five previous server addresses. Please make sure that you are not logging into the user that is already logged on at the console (if there is a user) or the server will not log you in remotely. If you would like to save your User Name and Password, check the box. Hit Connect.

After a few seconds, your session will appear. When you want to leave the session, you can either disconnect or log out.

Aqua Accelerated Protocol for Windows

Open up the client application. You will first see the login window that looks like this:

Prior to putting in your username and password, you will need to adjust your preferences. First you will need to set your display resolution. Currently, it offers 800x600, 1024x768, 1280x1024, Full Screen and Other. Additional screen size choices will be added later. If you choose Other and put in a number that is not supported by AAP, the client will attempt to choose a supported sized that is as close as possible.

Next you would put in the IP Address of your AAP Server and the port it will connect to. By default the AAP Server port is 310. You can check the checkbox if you would like it to show your port.

Put in the User Name and Password of the user you wish to connect with. Please make sure that you are not logging into the user that is already logged on at the console (if there is a user) or the server will not log you in remotely. Hit Connect.

After a few seconds, your session will appear. When you want to leave the session, you can either disconnect or log out.

Aqua Connect Remote Desktop Services AdminTool

Introduction

The Aqua Connect Remote Desktop Services Administration Tool (ACAdminTool) is designed to monitor and manage various aspects of ACRDS, including live sessions, users, user audit trails, ACAdminTool administrators, protocol settings, server information and group filters. Use ACAdminTool with standard Apple administration tools, such as Workgroup Manager, Directory Utility and Server Administrator.

ACAdminTool will automatically alert the user whenever a more recent version of Aqua Connect Remote Desktop Services is available. You are encouraged to visit Aqua Connect's website at www.aquaconnect.net to download the latest version as well as find information about new features and options available in the product.

Default Administrator

During installation, you were given the option to specify the Aqua Connect Administrator account. If you did not change these parameters, the default administrator name is "acadmin" and the default administrator password is "pass."

Note: Aqua Connect Administrators cannot login to the server. It is not a user account. There is no overlap with system or network administrators. Its sole purpose is to prevent unauthorized use of the ACAdminTool application.

If you did not change the Aqua Connect Administrator account at installation time, you should immediately add one or more new Administrator accounts and remove the default.

This capability is offered within the Admins tab of ACAdminTool.

Launching ACAdminTool

From The Finder, open the Server folder in Applications.
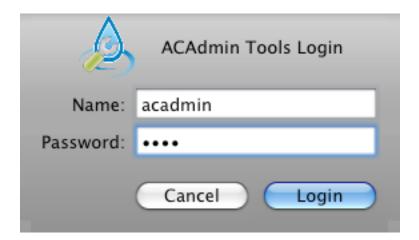Launch the ACAdminTool application by double-clicking the icon.

ACAdminTools

Host Connection

Once ACAdminTool is launched, the application requires a host address and the name and password of an authorized ACAdminTool administrator before the application is enabled for use.

The host address must correspond to a server that has been installed with the Aqua Connect Remote Desktop Services. Enter "localhost" if you are running from the console or via Aqua Connect Remote Desktop Services. Otherwise, enter the name or address of the Aqua Connect Remote Desktop Services you would like to administer.
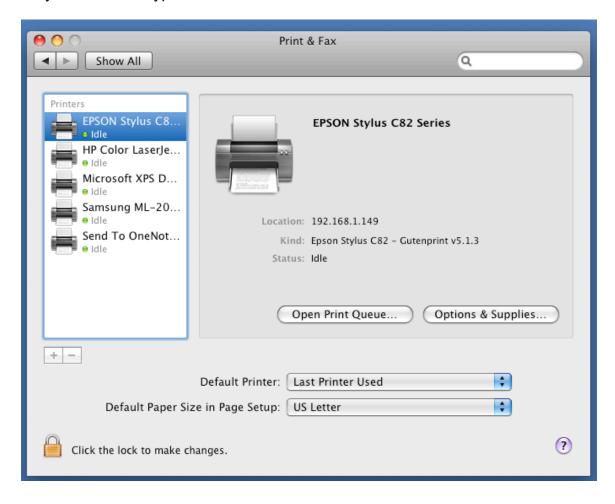
Administrator Credential

When a connection has been established, ACAdminTool will ask you for a valid name and password of an Aqua Connect Administrator. Enter the name and password that you specified at installation time. If you did not specify anything, the account name is "acadmin" and the password is "pass". At this point, ACAdminTool is available for use.
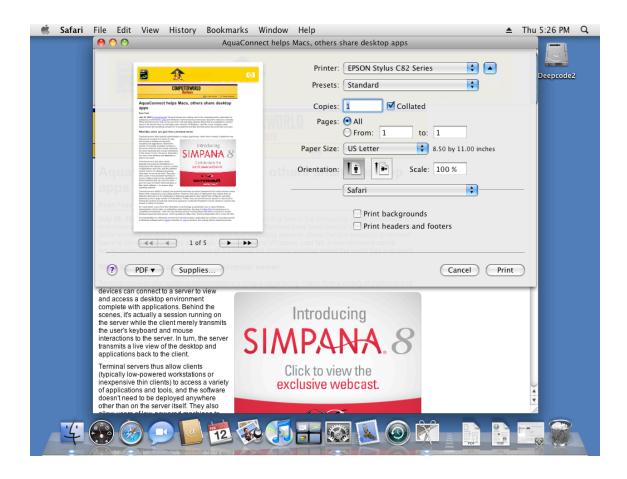
Setting Up Local Printing and Audio

Printing

Aqua Connect Remote Desktop Services supports local printing for client computers using RDP. These printers will show up in your ACRDS session and you will be able to print documents on the printer attached to your computer or on your personal network. Below you can see a typical connection from a Windows XP client to ACRDS.

Aqua Connect Remote Desktop Services will set the location to be the connecting computer's IP address. ACRDS also will attempt to match the appropriate Mac OS X printer driver with your printer based upon information that your RDP client sends about your printer. In the above example, ACRDS has found an Epson Stylus C82 printer driver. You can now print to it just like you would print to any other printer.
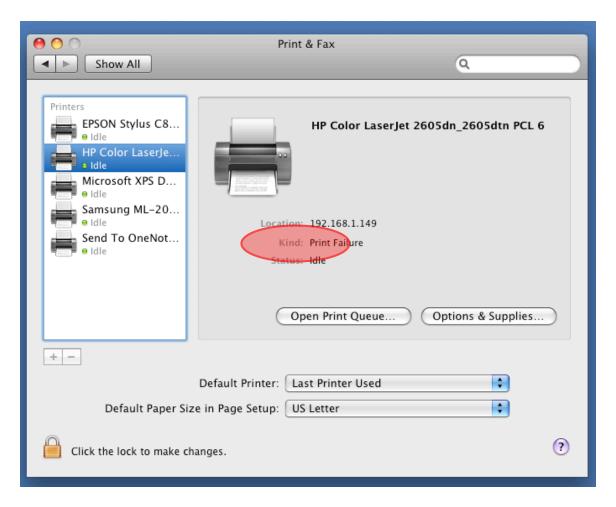
Setting the Printer Driver

It is possible that Aqua Connect Remote Desktop Services will not be able to find an appropriate printer driver for the printer. The reasons for this are:

- There is no printer driver installed for that printer. You must have a printer driver installed on the Mac OS X server that supports your printer.
- ACRDS was unable to find the matching printer driver for your printer.

Note: Please make sure that all users who will be printing are made part of the _lpadmin group in case they need to set up their printer drivers.

In the below example, ACRDS was unable to find a printer driver for the HP Color LaserJet.

You can tell that this is the case because the "Kind" of printer shows up as "Print Failure." Attempts to print to this printer will generate an error message stating that Aqua Connect Remote Desktop Services was unable to find an appropriate driver for this printer.

To set the driver for this printer, open the printer's print queue by clicking on "Open Print Queue." When you see the print queue, choose the info button in the toolbar at the top of the window. Select the driver tab.
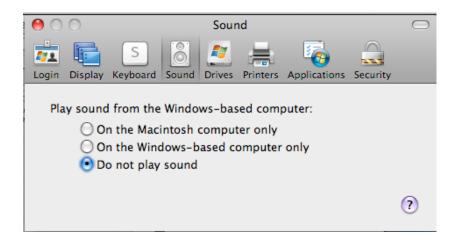
You can now choose a driver from the "Print Using" menu.

Aqua Connect Remote Desktop Services will remember to use the new printer driver the next time the user connects with that kind of printer attached, so it is only necessary to do this once.
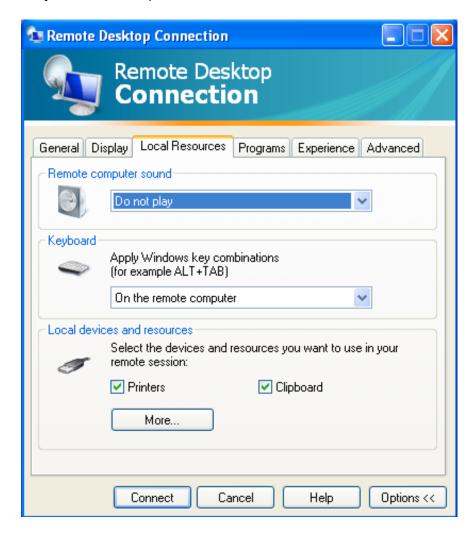
Audio

Aqua Connect Remote Desktop Services supports audio for client computers using RDP. By default, audio is turned on. If you would like to turn audio off, by doing so with the ACAdminTool it will only turn it off server wide. This means that if you uncheck the audio button, it will be turned off for all users connecting to that server. If you would like to turn audio off on a user basis this must be done on the client software.

In Remote Desktop Connection for Mac within Preferences you will find a Sound tab. In order to turn the remote computer sound off, just select the "Do Not Play Sound" option.

In Remote Desktop Connection for Windows within Options you will find a Local Resources tab. In order to turn the remote computer sound off, just select the "Do Not Play" from the dropdown.

Optimization

If you feel as though your Aqua Connect Remote Desktop Services environment using RDP is not performing as it should, there are some steps you may take to optimize ACRDS. Below is a list of different optimization options available for you to implement. Before applying all the optimization options, please test each one separately to see which will yield you the best results.

1. Session Background: If you are using an image for your session's desktop background, this will slow your performance down. We suggest changing it to a solid color such as blue or gray to reduce the amount of data that will need to be sent to a client each time the screen is updated. To change the session background, choose Desktop within System Preferences in your session.

2. Screen Resolution: By reducing your screen resolution, it will reduce the amount of screen "real estate" that needs to be updated each time you are doing something. Although more data is not being sent when you use a larger screen size, reducing the size will make things seem faster. To reduce the resolution of your session, you will need to adjust the client software you are using. In most clients, this option can be found under Display within Preferences.

3. Display Colors: If the display color is of little importance, you may try reducing it to 16-bit color or less. In most clients, this option can be found under Display within Preferences.

4. Color Compression: Within the RDP subtab in the Protocol Options tab you will find a Color Compression slider that you may adjust. Slide it from left to right to find your desired color accuracy. The less accurate the color compression, the better your performance will be.

5. Bitmap Caching: Also within the RDP subtab in the Protocol Options tab you will find a check box to enable and disable Bitmap Caching. By default, Bitmap Caching is turned on. In some environments with very low bandwidth, we have seen an increase in performance by disabling Bitmap Caching.

6. Animation: In order to increase performance you may also want to try turning animation off for things like the Dock or minimizing applications. This can be done within System Preferences.

If none of these optimization tactics have yielded the results you would like, you may want to try connecting via a VNC or AAP client as they compress data differently. In addition, you may want to look into increasing your bandwidth.