Aqua Connect Terminal Server 3.1 Installation Guide

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System Requirements

Hardware
- Intel based Xserve or Intel based MacPro system
- 512MB of Memory minimum for Operating System
- 64MB of Memory minimum per active user
- 500MB of free storage space on system volume
- 40MB of free storage space per user, active or not
- 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
- One or more clients

Software (Base)
- Apple Mac OS X Server Unlimited version 10.5.4 or higher
- Aqua Connect Terminal Server 3.1.2857 or higher
- Apple Mac OS X Server Admin Tools

Software (RDP Support)
- None, everything is built into Aqua Connect Terminal Server 3.1.2857 or higher

Software (X11 Support)
- Aqua Connect Terminal Server 3.1.2857 or higher
- Aqua Connect Terminal Server with Mac OS X X11 support installed
- One or more XDMCP X11 enabled clients and/or VNC clients

Software (VNC Support)
- Aqua Connect Terminal Server 3. 1.2857 or higher
- Aqua Connect Terminal Server with Mac OS X X11 support installed

Licensing
- Valid Aqua Connect Terminal Server 3.1 License Key
- Access to the internet with HTTPS support or access to a license key server

Prerequisites

Operating System
- Mac OS X Server 10.5 with 10.5.4 updates or higher
- Mac OS X Server Admin Tools
- Either local home folders for each user or access to a network home folder for each user
- Local user accounts or Directory Service accounts with a bounded server
- If using Directory Services, access to a Directory Service Replica
- If using Directory Services, a properly configured Directory Services environment
- Properly configured DNS server with reverse DNS lookups enabled
- If using DHCP, properly configured DHCP server with dynamic DNS updates
- "/var/tmp", "/tmp", "/private/var/tmp" and "/private/tmp" must reside on the system volume

Configuration
- Fast User Switching **DISABLED**
- Statically assigned IP address for the server OR static IP address to Ethernet MAC address mapping
- Properly configured access to Directory Services, if used (see website for more information)
- Properly configured DNS forward and reverse lookups of IP addresses and names of servers and clients

Security
- Passwords set for every user connecting to the server
- A local administrator account and Directory Service administrator account with password if using Directory Services
- System Volume ("/") should be read only to "everyone" but writable only to "root" and "admin" users
- Applications Folder ("/Applications") should be read and execute only to "everyone" but writable only to administrator accounts
- Server Tools Folder ("/Applications/Server") should be read, write and execute only to administrator accounts with no rights to "everyone"

Connectivity
- Internet access with HTTP and HTTPS protocols OR access to Aqua Connect Licensing Key Server
- Stable network connectivity between clients and server(s)
- Highly recommended 1GB Ethernet connection (if using Xserve, use bonding, if possible)

Graphical Based Installation Walkthrough

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 Terminal Server License Keys can be obtained only through an authorized sales representative. Please contact your authorized sales representative 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 Terminal Server, please uninstall it through the supplied Aqua Connect Uninstall application. When the installation process is complete, the server will be required to restart. Failing to restart after the installation process will yield a very unstable system that may cause data corruption or even data loss.

Aqua Connect Terminal Server Installation Files are distributed in Apple's Meta-package format (mpkg) inside a disk image container (dmg). Once downloaded, open the disk image container by launching it. This will mount the disk image revealing the Meta -package format file "Aqua Connect Installer". Proceed to install by launching "Aqua Connect Installer". (See figure 1 below)
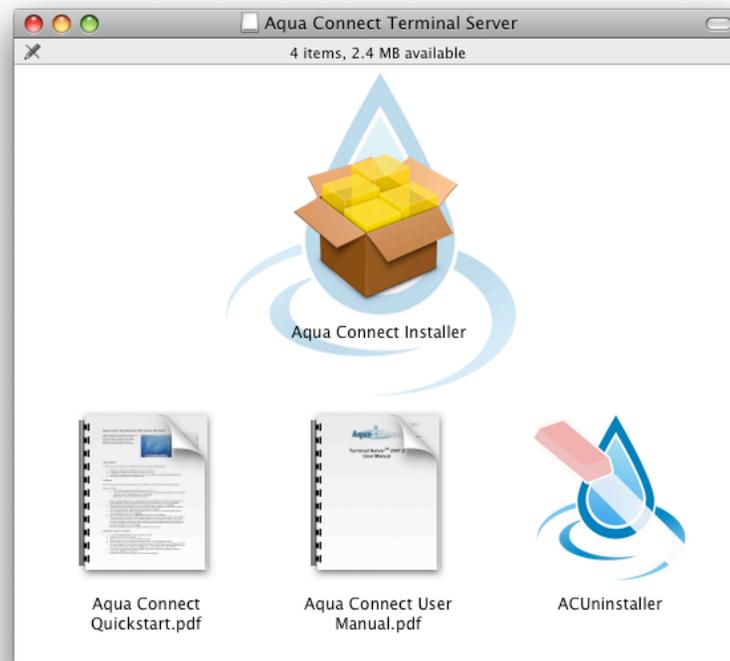
(Disk Image Container - Figure 1)

Graphical Installation Information Screens

Launching the Aqua Connect Installer will cause Apple's built-in Installer to launch and read the Meta-package and all of its dependencies. After launching the installer will display a welcome and introduction screen. Proceed by pressing Continue. The installation will then display some important information. Please take a moment to read this important information as it may contain the latest system requirements and prerequisites. (See figure 2 below)
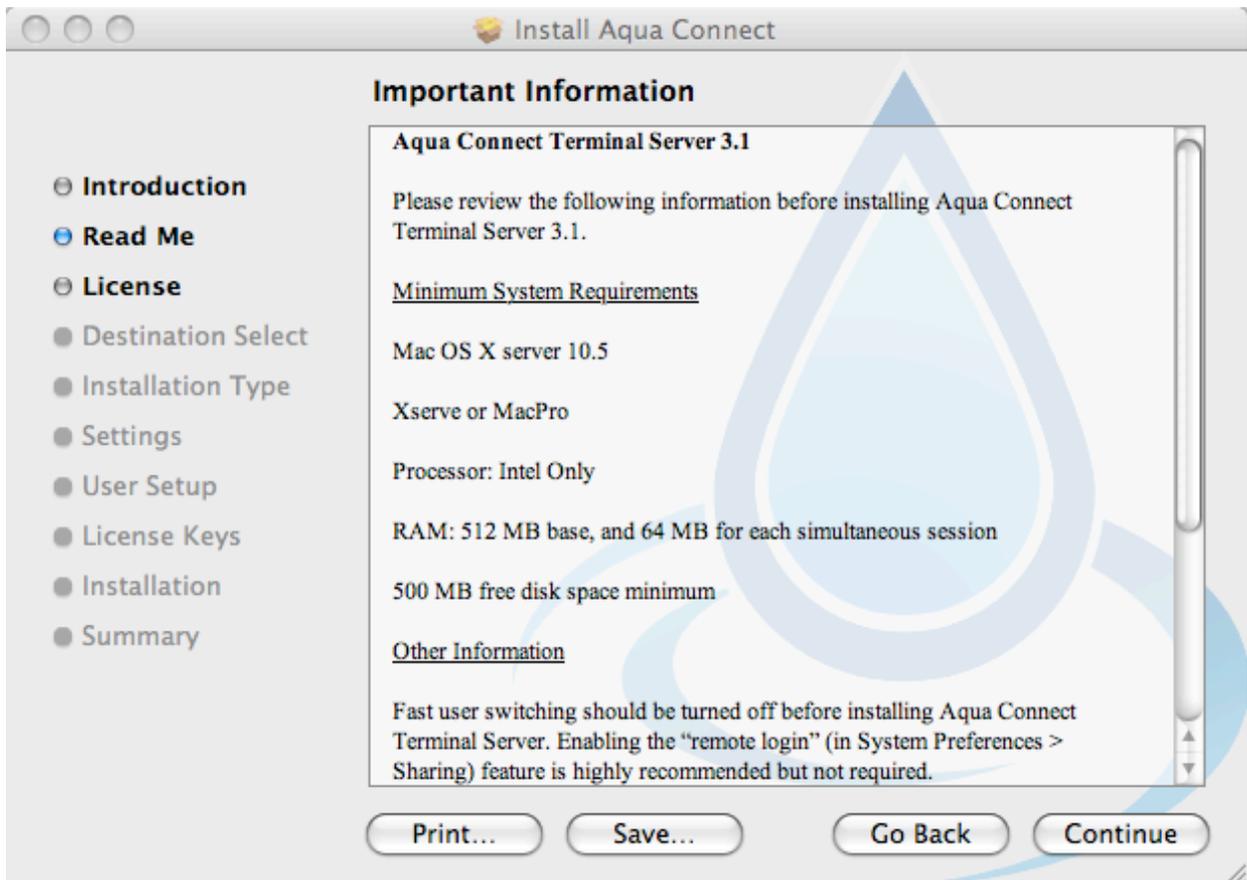
(Important Information - Figure 2)

After reading the important information screen then continue to the Software License Agreement screen. 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. (See figures 3 and 4 below)
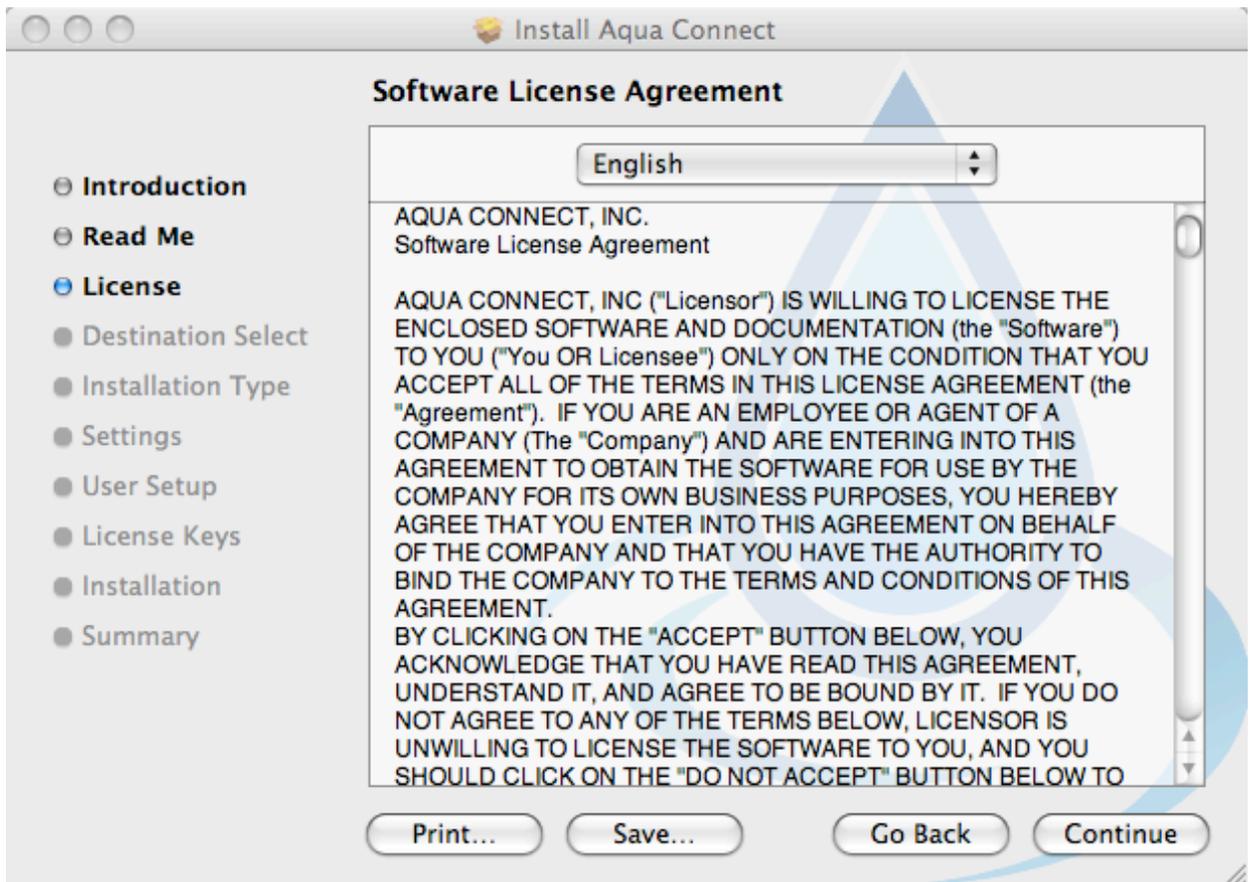
(Software License Agreement - Figure 3)
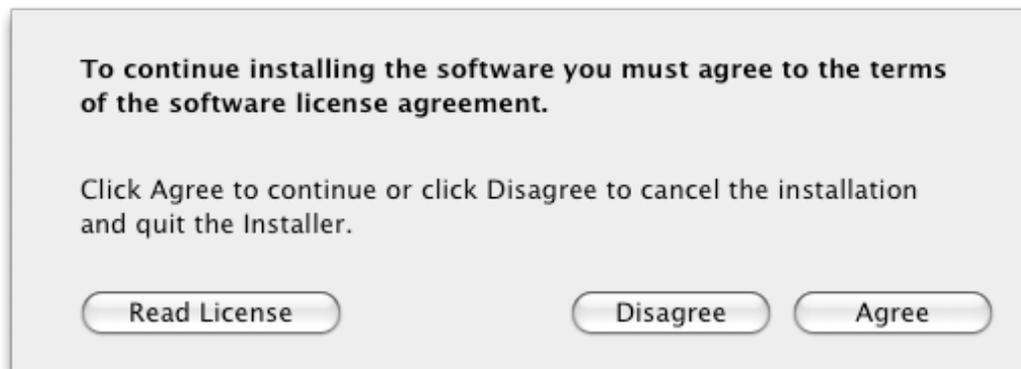
(Agreement Panel - Figure 4)

When you are at the "Destination Select" screen you must choose the system volume that contains the Mac OS X Server 10.5.4 or higher operating system. After selecting your destination, you will be presented with an "Installation Type" screen. Here you may choose to install X11 or X11 and VNC support. RDP and Admin Tools are required for installation of Aqua Connect Terminal Server 3.1.2857 or higher. (See figure 5 below)
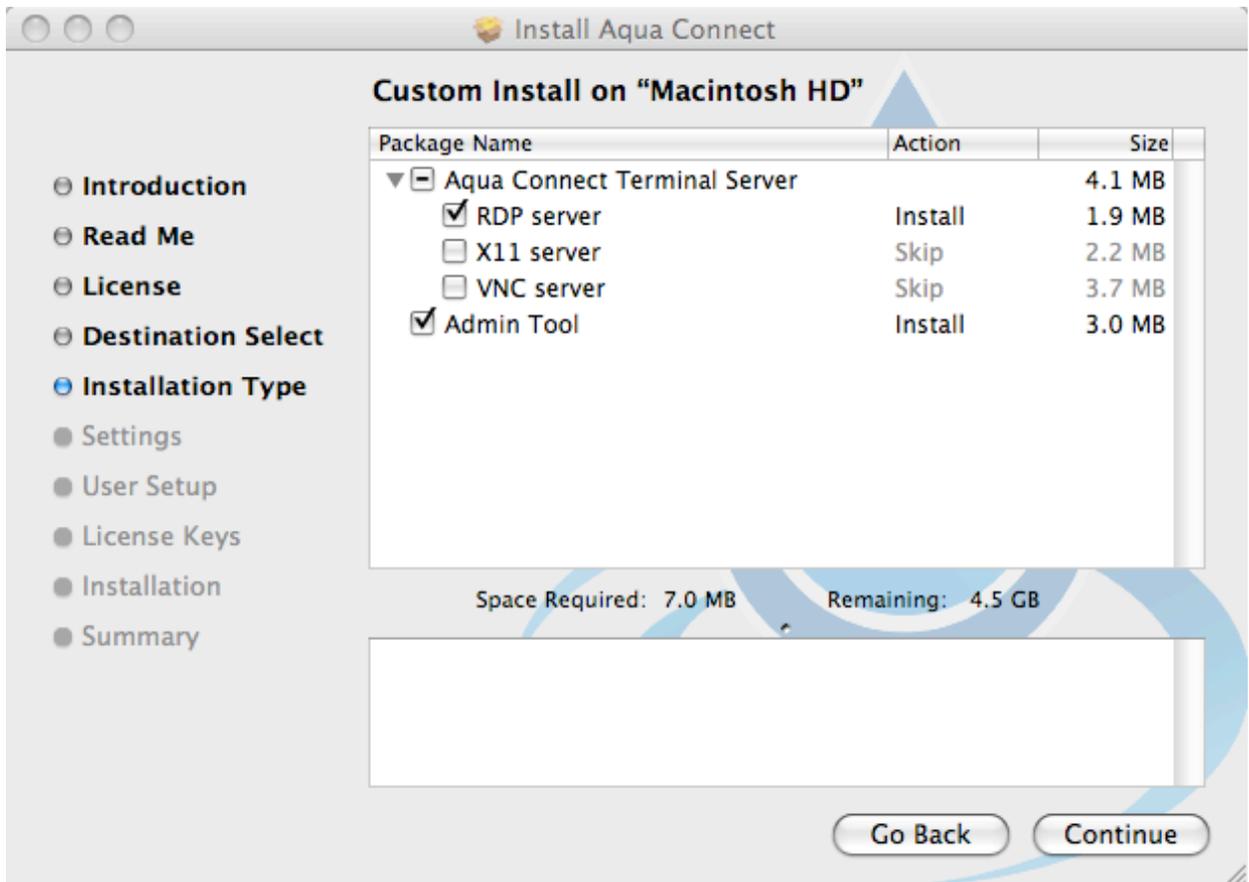
(Installation Options - Figure 5)

You may be prompted one or more times for a valid username and password that has both local administration privileges and optionally (if you are using Directory Services), directory administration privileges. Please note that Aqua Connect includes a default administrator account that can **ONLY** be used in the Aqua Connect Admin Tool and **CANNOT** be used for logging in. Furthermore, only Aqua Connect administrator accounts added in the Aqua Connect Admin Tool can administer the Aqua Connect Terminal Server, Users and Settings.

After selecting the installation package choices, you will be presented with an Aqua Connect Terminal Server terminal setup screen. Depending on what protocol interfaces you have previously selected, you will be prompted for protocol specific settings and protocol port number assignments. If a port is in use, a black circle with an X in it will appear beside the port number input field box. This will prevent you from proceeding until you either change the port number or disable the application that is using or reserving that port. (See figure 6 below)
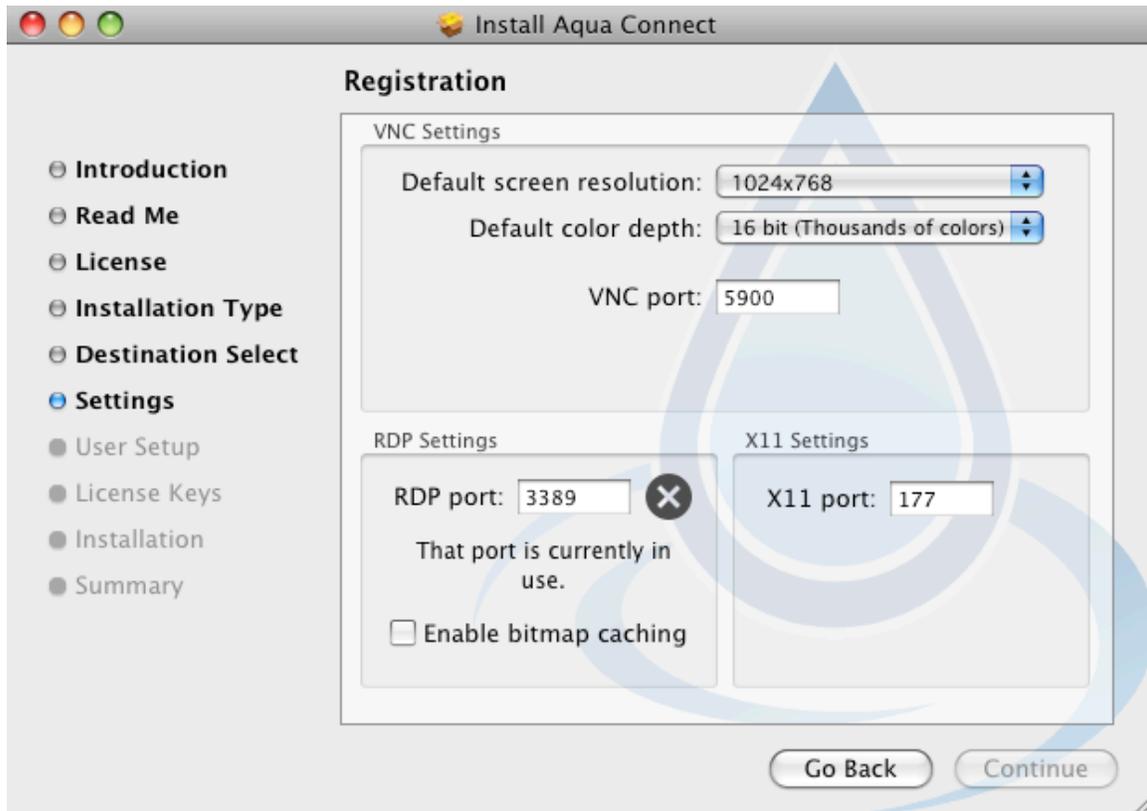
(Terminal Setup Screen - Figure 6)
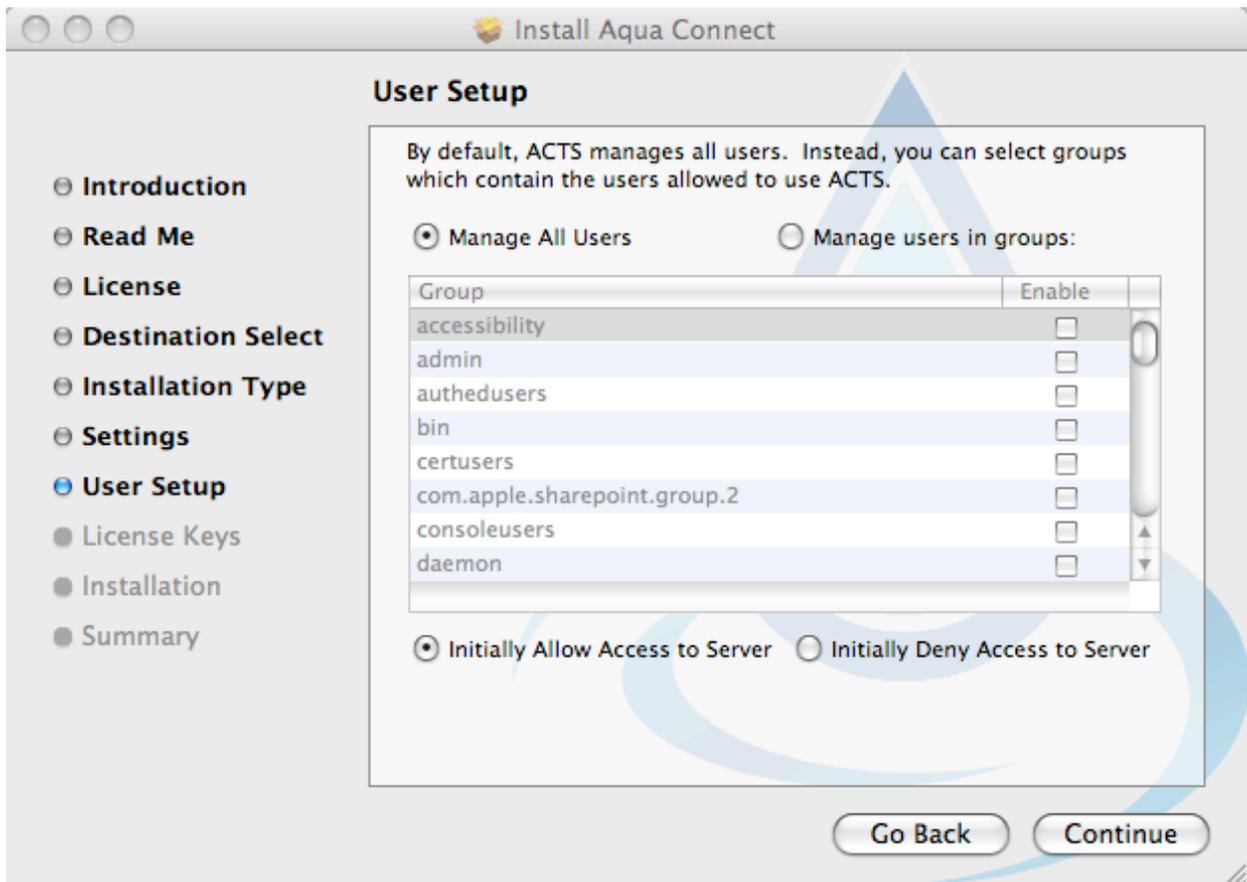
(User Setup - Figure 7)

The User Setup screen enables the ability to have Aqua Connect Terminal Server only look at a particular Directory Services Group for the list of users or to enable or disable users by default.

The top portion allows you specify from where Aqua Connect Terminal Server will retrieve its list of users who are allowed to access the server. There are two options: You can either choose to have the server allow all users or only users in a particular Directory Services group.

Choosing to manage all users provides the most flexibility. In this case, any user on the server will be able to connect via Aqua Connect Terminal Server. You can choose this and later use the Aqua Connect Admin Tool or the option below to explicitly enable or disable users. While this option provides the most flexibility, it can be unwieldy when managing thousands of users.

Choosing to manage only users in a particular Directory Services group will limit the number of users allowed to connect to this server via Aqua Connect Terminal Server to only users in this group. Furthermore, only users in this group will be shown in the Aqua Connect Admin Tool. This can be very useful for large Active Directory, Open

Directory, or LDAP installations where you may have thousands of users but you want to limit access to only a few.

The bottom portion allows you to specify whether users known to the server are enabled or disabled by default.

Choosing to enable users by default allows you to get started using Aqua Connect Terminal Server immediately. If you have chosen to manage users in a particular Directory Services group (above), allowing a user access to the server is as simple as adding them to that group using your Directory Admin tool of choice.

If you choose to disable users by default, no users will be able to login to the server until you have explicitly enabled them by using the Aqua Connect Admin Tool. This can be useful for environments with hundreds of users where only a few users are allowed to connect via Aqua Connect. It can also assist in security when you have two different people administering the Directory list and the Aqua Connect Terminal Server so that one doesn't have to keep disabling new users as they are added to the Directory list.

Note: If you disable all users by default, you should install Aqua Connect Admin Tool on a local machine or make certain that you can access the server via the console. Otherwise, after installation, you will not be able to log in via Aqua Connect Terminal Server to access the Aqua Connect Admin Tool to allow users to log in—a vicious circle.

A valid Aqua Connect License Key is required to be entered into the License Key input field box. If you have multiple keys, enter in each key separately. Placing an invalid key will display an error icon and then prevent you from proceeding. Click on the icon to see why the key is not valid. Selecting the appropriate region is also important since the valid License Key is bound to the specific region. The key server host name will populate itself after you make a selection. If you are using a private Aqua Connect License Key Server then you can select "Other" and specify the IP address or DNS hostname to be resolved. This will cause both the installation and product activation to be done without Internet access. (See Figure 8 below)
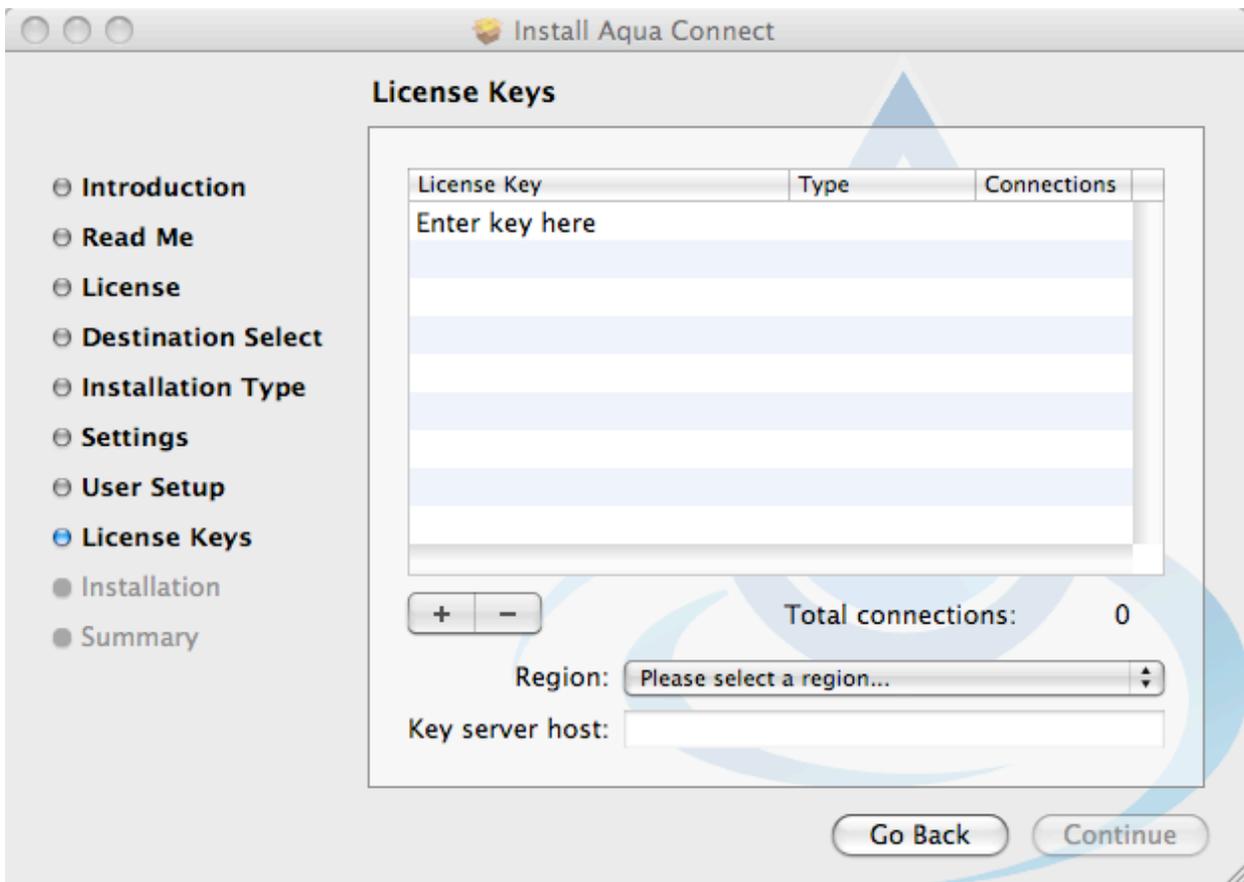
(License Keys - Figure 8)

After proper configuration of the Aqua Connect Initial Configuration and Registration screen you will receive an Installation Successful message. You will then be required to restart the server promptly. (See figure 9 below)
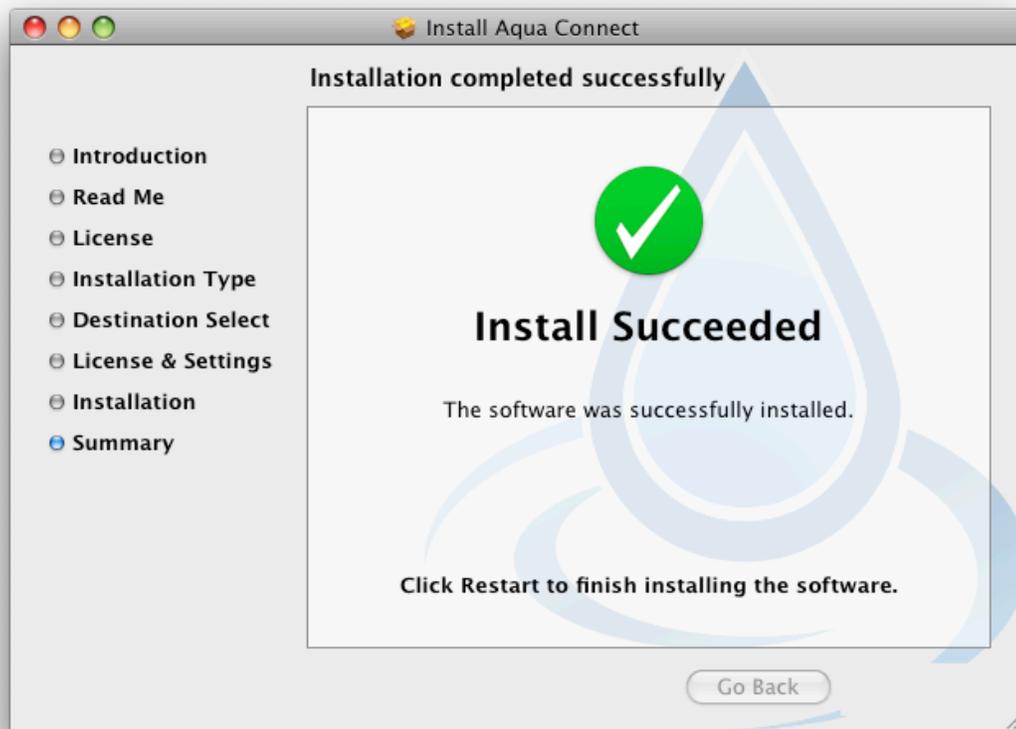
(Successful Result - Figure 9)

This concludes the Aqua Connect Terminal Server Installation Guide. Please refer to the Aqua Connect Administration Guide for further details.