

# License Server Administrator Guide

**How to configure and manage a license server for sharable licenses**

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## Overview

Sharable licenses allow you to use your computer as a license server to share this special type of license across your network so that other users (clients) can also authorize the protected software to run. This guide covers how sharable licenses work, and how to configure the license server and client computers.

In order to set up a license server and share licenses, you will need the following:

- A networked computer to act as the license server.
- A 2nd generation iLok with a license for the product **iLok Server\*** on it.
- One or more sharable licenses to share on your network. Sharable licenses are different from regular licenses in that they have a number of seats assigned to them. The number of seats corresponds to the number of other computers that can concurrently use the license over the network. Sharable licenses that are shared across a local area network (LAN) are also called floating licenses.

\*A license for iLok Server may be purchased from the software company you purchased your sharable license from. One iLok Server license is required for each computer that will be used as a license server.

## System Requirements

Sharable licenses are supported on the following operating systems (both the client computer and the license server).

- Mac OSX 10.6 or above
- Windows 7 or above
- License Support version 2.5.0 or above

## Glossary

Here is a list of terms that are used in this guide.

**Floating License Server:** a computer that serves up shared licenses to other computers (clients) over a network. Also referred to as the license Server or server.

**Client Computer:** the computer of the user who is the consumer of a license that is shared by a license server over a network. A client computer “leases” the seat of the shared license from the license server over the LAN.

**Floating License:** an instance, or seat, of a shared license provided by a license server to another computer (client) over a LAN. Any given instance of a floating license counts against the maximum concurrent activations allowed for the shared license.

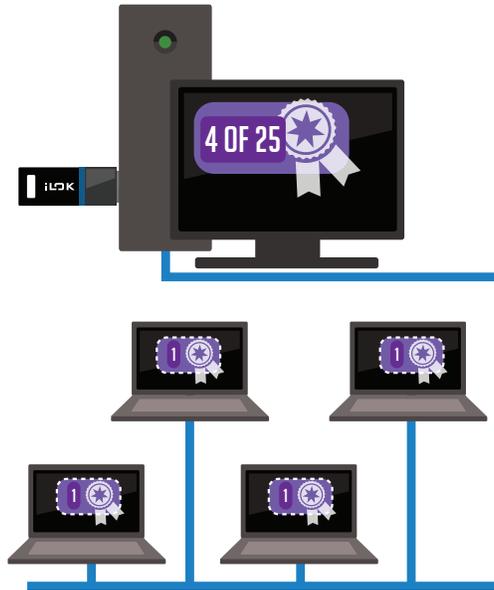
**Seat count:** the count of simultaneous leases that are allowed for a shared license.

**Config File:** a configuration file that the floating license server administrator can export for use by potential clients. The file contains all of the information that a client computer needs to successfully add the server to their list of preferred connections.

**iLok Server:** a licensed product of PACE Anti-Piracy that is required to provide authorization to run a floating license server. This product may be sold by PACE customers under a distribution agreement with PACE.

## How Sharable Licenses Work

Let's take a look at how sharable licenses provide authorization over a network for protected software to run.



*In the illustration above, a floating license server is serving up 4 out of the 25 seats of a sharable license across its network, and all 4 of those seats are in use by client computers.*

### The License Server

The license server is the computer that will share the floating licenses with the client computers. This computer must be configured to accept client connections and will also need to have a 2nd generation iLok with an iLok Server license on it. Zero-configuration standards have been used so that connecting the server with the client computers is easy to do. Once the server is set up and turned on, any number of sharable licenses may be served up to client connections. The server settings are configured in the iLok License Manager application's Preferences in Network > Server Admin. Detailed instructions are included after this general overview section.

### The Client Computer

The client computer is the computer that will be using one of the seats of the sharable license. The client computer will need to be configured to look for the server and to connect to it to use the shared licenses. Users of the shared license probably won't be familiar with the term "Client", so iLok License Manager uses the term Connection for the relationship between the client and the server.

## Protected Software Version

The user of the shared license will need to have a version of the protected software that supports sharable licenses. The version of the software product must allow authorization by an iLok server license, so make sure that the user has the correct version of the software. Software distributed prior to March 30, 2015 will likely not work with a sharable license.

## Bonjour

In order for client computers to use licenses being shared on their network, a connection needs to be made from the client computer to the license server. Using sharable licenses involves the use of Bonjour, which is Apple's implementation of the Zero Configuration Networking Standard. Bonjour is built in to the Apple OS, and Bonjour for Windows, which is installed with License Support, includes a System Service that helps applications discover shared services on the local network. Bonjour allows both the floating license server administrator and the client computers to easily set up their systems to find each other and securely work together to share a license. If you don't want to have your license server be discoverable, there is an option to make the server private so that discovery via Bonjour does not take place.

## iLok Server License Required

Running a license server requires that you have a 2nd generation iLok with a license for an iLok product called iLok Server\* plugged in to the computer that is acting as your server. One license is required per computer that is set up as a license server.



*\*Licenses for iLok Server may be purchased from the software company that sold you the multi-seat sharable software license.*

## Configuring a License Server

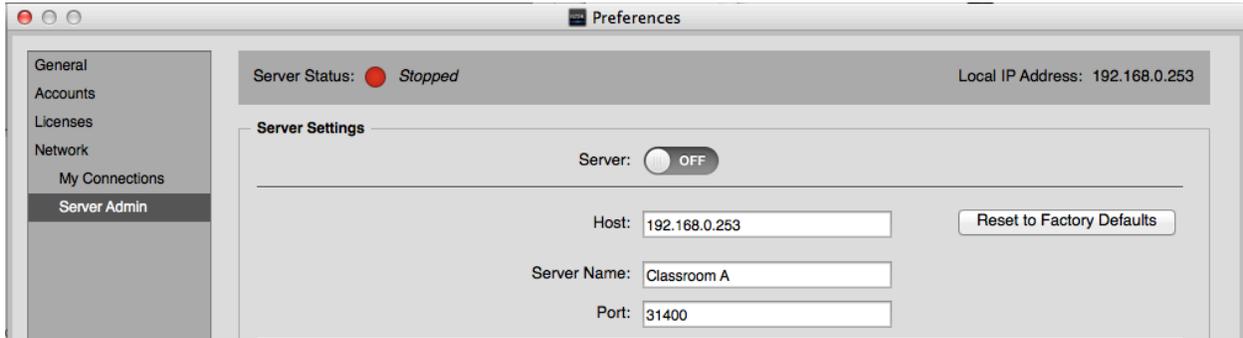
Any supported, network-connected computer can be configured via the iLok License Manager application to be used as a floating license server. Both the server and client computers must be running License Support version 2.5.0 or greater to use sharable licenses. Remember that the license server must also have a 2nd generation iLok with a license for iLok Server plugged into it.

**Before you start:** You'll need your 2nd generation iLok with your license for iLok Server. You can configure your server without an iLok with this license present, but you will not be able to turn on the server functionality. The iLok Server license is what allows the server to be operational.

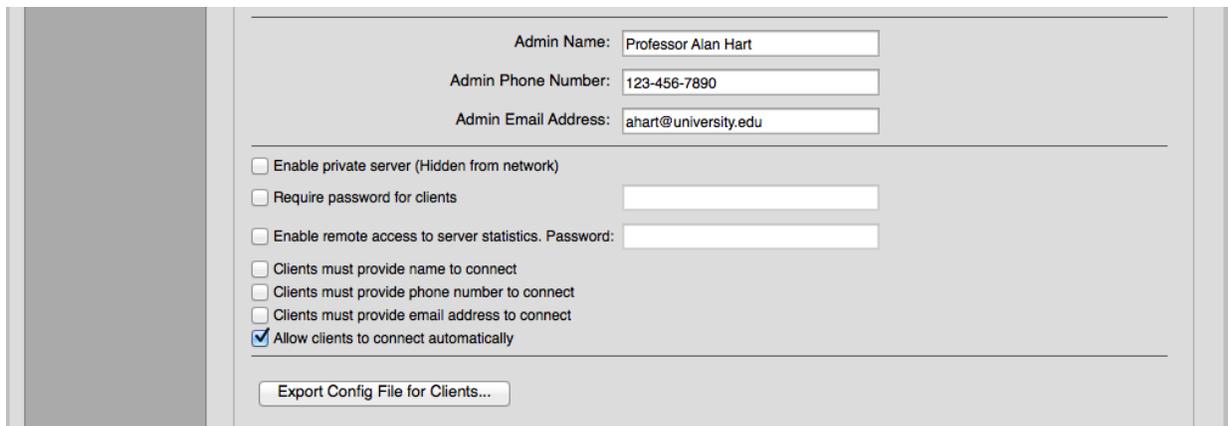
**Launch the iLok License Manager:** You can view and edit your network preferences by navigating to Preferences > Network. Use the Server Admin page to define a few settings to allow you to use your computer to be a license server to share a multi-seat license with others and to turn on the license server.

## Understanding the Server Settings

When you first visit the Server Admin page, the Server Settings section is populated with your IP address as the Host address, your machine's name as the server name, and a default port number. The "Allow clients to connect automatically" setting is also enabled by default. You won't normally need to change the Host or Port values. If you would like a different name for your server (it is visible to the users on the network) you can enter a new name. We do recommend having a static IP address for your server, especially if you will be running a private server (see below).



The next section contains fields for the server administrator's name, phone number, and email address. These are optional, but this information will allow the users that connect to your license server to have your contact information in case they need to get in touch with you.



## Public or Private Server

You can choose whether to make your server public or private. Public servers can be seen by client computers that are browsing the network for available servers. Private servers cannot be discovered by browsing. A client would need to know information about your private server in order to connect to it. Use the “Enable private server (Hidden from network)” option to make your server private.

## Password Protection Option

Independent of whether your server is public or private, you can choose to require a password before a client computer can connect to your server. This means you can allow your server to be seen on the network (a public server) but still require that a user enter a password before they can use any licenses that you are sharing. If you choose to enable a password, you will need to communicate the password to your potential users. There is more information on this later in the [Configuration File](#) section. The client password is per server, not per user (client), so all users who connect to your server would use the same password.

## Protecting Server Statistics

Server statistics, such as a list of shared licenses available on your server, how many seats are in use, and information on the clients that are connected, are available via the iLok License Manager and may optionally be accessed remotely. Use the “Enable remote access to server statistics” option to allow remote users to view statistics. A password is required. More information on [server statistics](#) appears later in this document.

## Requiring Client Identity Information

You have the option to require users (clients) who want to connect to your server to provide their name, phone number, or email address. This information will allow you to see information on who is using licenses on your server or give you the ability to contact them if you need to, perhaps to alert them that your server will be going offline or that the license they are using is needed for a higher-priority client. If you require any of these client identity items, the user will be asked to provide them prior to being able to use any licenses you are sharing. The settings for your identity requirements will be included in a [configuration file](#) if you choose to make one.

## Configuration File

You can use the “Export Config File for Clients...” button to create a configuration file to help your potential users easily import the information they need to connect to your server. A configuration

file is a special file type that is used by the iLok License Manager to create a network connection on the client computer. This is especially helpful for LANs with subnets, virtual private networks, or if you require a password, client identity information, or if you set your server to be private. The user can add a connection profile for your server by clicking on the “+” icon and choosing the “Add Server with Config File...” in Network > My Connections.

## Configuring the Client

In order to use a license that is shared over the network, the consumer of the license (the client/user) will need to set up their computer to connect to the floating license server. The version of the protected software product that the user is running must also allow authorization by a shared license. The user can set their computer to look for licenses on the network instead of just locally in one of two ways:

### Automatic Connection via the Activation Experience

If the protected software uses the Activation Experience and allows for authorization to be provided by a license server, the Experience will first check to see if the computer launching the product is configured to use a network license. If the user has not configured their computer to use network licenses, they are given the option to enable network licenses and automatically attempt to connect to discoverable licenses servers on the network.

The Experience then continues and looks for available licenses for your product and will find local licenses and remote licenses once network licenses are enabled. If the client does not have a local license but network connections are enabled, the wrapped application will look to see if a server on the network has an available license seat for the product. If one is found, the product will just launch with no additional interaction required by the user, unless the license server with the available license requires a password or other identity information from the user. If the only available network license is on a server that requires a password or identity information that the user has not entered, the user will see the software’s normal activation experience.

### iLok License Manager Preferences

Network connections can also be configured using the iLok License Manager application. The iLok License Manager allows a user to choose to automatically connect to public servers on their network. If a user needs to connect to a private server, identifying information about that server is needed from the server administrator. Once information about a private server is added to the

user's list of network connections, it is saved as a preferred server, and if automatic connections are enabled, a connection will automatically be made when the user is on that network.

### **Using a Configuration File**

As the server administrator, you may provide a configuration file to your potential users that contains all of the information needed to create the connection. In addition to the mandatory IP address and port number, the configuration file may include optional information such as the administrator's contact information, optional server settings, or a required password. To use a provided configuration file, the user simply uses the "+" button for My Network Connections on Preferences > Network > My Connections page and chooses the "Add Server with Config File..." option. The connection is added once the user browses to the configuration file and chooses to import the connection.

You can create the Configuration File by using the "Export Config File for Clients..." button on the iLok License Manager applications's Preferences > Network > Server Admin page.

### **Manually Creating a Connection**

A connection can also be manually created by entering the IP address of the license server. The user simply uses the "+" button for My Network Connections on the Preferences > Network > My Connections page and chooses the "Add Server with IP Address..." option. When the IP address is entered, the iLok License Manager will attempt to locate the server. If the server is located, the user may be prompted to enter any additional information that the server requires, such as their name, phone number, email address, or a server password prior to the connection being made and saved. If the server is not located, the connection will still be saved, but the user may be prompted for any required information the first time they attempt to connect and use a license.

Any connection that is created by the user, either with a configuration file or by entering the IP address manually, is saved as a preferred connection. If the user has set the "Automatically connect to license servers found on the network (LAN)" option, the license service will attempt to connect to these preferred servers or any public server when they are seen.

## **Running a Floating License Server**

Once you have configured your server and you have licenses with multiple seats defined, you are ready to begin sharing licenses. You will be able to turn on your license server when a 2nd generation iLok with a valid license for iLok Server is plugged into it. In order to share licenses, you will need to activate seats of the sharable license to a 2nd generation iLok on the server. It can be the same iLok that holds your iLok Server license or a different 2nd generation iLok.

## Allocating Sharable License Seats



You can recognize a sharable license by this icon next to the product name in the iLok License Manager. The number of seats is also displayed in the detail view for the license. In order to share seats of the license on your server, you will need to activate one or more seats of the license to a 2nd generation iLok that is plugged in to your license server. You can activate the license in any of the usual ways: drag and drop, right-click and choose Activate, or by selecting the license and then using either the Activate icon at the top of the screen or by using the application menu (Licenses>Activate). When you choose to activate a sharable license, you will be prompted to set the number of seats you want to share. You may choose from one seat up to the total number of seats that are currently unallocated.

## Server Statistics

The Network tab of iLok License Manager shows server statistics such as licenses shared, number of seats in use, connected client information, and whether or not potential clients were unable to use a seat because none were available. Statistics are available on the machine acting as the server. Server statistics can also be made available via a remote connection to the server. Simply choose the option “Enable remote access to server statistics.” in the iLok License Manager’s Preferences > Network > Server Admin page. A password is required for statistics to be viewable on remote computers.

Shared
Admin

**Classroom A**  
192.168.0.253  
Server Start Time 5/15/2015 12:35 PM

Admin: Professor Alan Hart  
Alan Phone: 123-456-7890  
Admin Email: alanh@university.edu

Edit server statistics password

Clients
Licenses

Product Name	Publisher Name	Seats Available	Clients	Server
Widget Pro	Basic Company	39 of 40 seats	1	Classroom A

**Connections leasing the product:**

**Widget Pro**  
**Basic Company**

Client Name	IP Address	Machine Name	Leased Since	Client Email	Client Phone
John Business	192.168.0.250	RG-3PO	06/29/15 01:22 PM	john@business.org	x546

## Known Issues

### Virtual Private Networks

If you wish to connect to a license server over a virtual private network, you will need to add the server to your My Connections list either manually by entering the IP address, or by using a configuration file. In most default network configurations, Bonjour discovery cannot be used across subnets, such as from a virtual private network to a LAN.

### Firewalls

Macintosh and Windows firewalls on the license server may block incoming connections to the server from the client computer, even though the PACE License Daemon is digitally signed.

#### Macintosh

The simple solution to this issue is to disable the firewall. An alternate solution is to add the License Daemon to the exception list by finding it in its installed location.

1. From the Firewall tab under System Preferences -> Security & Privacy, press the "Firewall Options..." button.
2. Press the "+" button to add an application.
3. In the Find File dialog, press Command+Shift+G to allow you to enter a path.
4. Paste the following path in the "Go to the folder:" text field: /Library/PrivilegedHelperTools/
5. Select "licenseDaemon" from the PrivilegedHelperTools folder.

At this point the License Daemon on the license server should be able to receive incoming connection requests from protected clients.

#### Windows

On the Windows platform, Windows Firewall needs to be configured to allow a floating license server to communicate through the firewall with its clients.

For Windows 8:

1. In Control Panel, select "System and Security", then select "Windows Firewall", then "Allow an app or feature through Windows Firewall".

2. Click on “Change Settings” to enable the “Allow another app...” button.
3. Browse to find and select the LDSvc.exe program and choose to add this app to both Public and Private Network Types. LDSvc.exe is found at the following path. Begin at the root directory on the Windows system disk to locate it:
  - For 64-bit Windows: Program Files (x86)\Common Files\PACE\Services\LicenseServices
  - For 32-Bit Windows: Program Files\Common Files\PACE\Services\LicenseServices

For Windows 7:

1. In Control Panel, select "System and Security", then select "Windows Firewall", then "Allow a program or feature through Windows Firewall".
2. Click on “Change Settings” to enable the “Allow another program...” button.
3. Browse to select the LDSvc.exe program and choose to add this app to both Public and Private Network Types. LDSvc.exe is found at the following path. Begin at the root directory on the Windows system disk to locate it:
  - For 64-bit Windows: Program Files (x86)\Common Files\PACE\Services\LicenseServices
  - For 32-Bit Windows: Program Files\Common Files\PACE\Services\LicenseServices