



# **FORUM SYSTEMS LICENSE SERVER v1.0**

## **USER GUIDE**



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# Table of Contents

Preface .....	vi
1. Audience .....	vi
2. Conventions .....	vi
1. QuickStart .....	1
2. Installation .....	2
2.1. License Server Requirements .....	2
2.1.1. Operating System .....	2
2.1.2. Hardware .....	2
2.1.3. <i>Amazon EC2</i> Instance Type .....	2
2.1.4. Networking .....	2
2.2. Linux Installation .....	2
3. Configuration .....	4
3.1. Creating an Administrator Account .....	4
3.2. Importing the First License .....	4
3.3. Licensing <i>Forum Sentry</i> <sup>™</sup> .....	5
4. Advanced Configuration .....	6
4.1. Editing a License .....	6
4.2. Releasing a License .....	6
5. Licensing Functionality .....	8
5.1. Introduction .....	8
5.2. Obtaining a New Lease .....	8
5.3. Validating an Existing Lease .....	8
Glossary .....	9

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# List of Figures

- 3.1. Create User Screen ..... 4
- 3.2. License Import Screen ..... 5
- 3.3. Create User Screen ..... 5
- 4.1. Edit Screen ..... 6
- 4.2. Release Screen ..... 7

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## List of Examples

2.1. Granting execute permissions .....	2
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# Preface

The License Server Guide provides a system for provisioning *Forum Sentry™* devices. It is particularly well-suited for companies wanting to use a *floating licensing* solution.

## 1. Audience

The user guide is for system administrators that will be provisioning *Forum Sentry™* devices. Familiarity with *Forum Sentry™* devices is useful, but it is not required.

## 2. Conventions

The following typographical conventions are used in this user guide:

<i>Italic</i>	Indicates glossary items, new terms, URLs, email addresses, file-names, and file extensions.
<b>Bold</b>	Shows commands or other text that should be typed literally by the user.
<b>Constant width bold</b>	Shows text that should be replaced with user-supplied values or by values determined by context. An example is filename, where the word “filename” is a placeholder for the actual filename.
	This icon signifies a note.
	This icon indicates a caution.

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# Chapter 1. QuickStart

This chapter is for experienced administrators that only want an overview to get the system up and running.

1. Install the License Server.
2. Create an administrator user for the License Server.



## Caution

There is no way to recover or reset the password. Make sure to store the password safely.

3. Load a *Forum Sentry*<sup>™</sup> license into the License Server.
4. Configure the *Forum Sentry*<sup>™</sup> appliance to obtain the license from the License Server.

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# Chapter 2. Installation

## 2.1. License Server Requirements

### 2.1.1. Operating System

Minimum: Linux 64-bit  
Recommended: *CentOS* 7 (tested)

### 2.1.2. Hardware

Minimum: 

- 1 GHz CPU
- 10 GB Hard drive
- 1 GB Ram

  
Recommended: 

- 1 GHz CPU
- 40 GB Hard drive
- 2 GB Ram

### 2.1.3. Amazon EC2 Instance Type

Minimum: t2.micro 1 CPU, 1 GB RAM  
Recommended: t2.small 1 CPU, 2 GB RAM

### 2.1.4. Networking

Listening Port	The License Server will listen for incoming calls from all Forum Sentry™ instances that are leasing licenses. These calls happen over HTTPS. The default port for this communication is 443 but this can be changed during the installation of the License Server to any available port.
Network Availability	Each Forum Sentry™ instance configured to lease a license from the License Server will need constant access to the server on the listening port. Failure to reach the License Server will eventually result in the Sentry instance becoming unlicensed.

## 2.2. Linux Installation

Here are the steps to install the License Server in *CentOS*

1. Download the installer for the your Operating System
2. Grant execute permissions to the binary by running the following command:

```
chmod +x FS-LicenseServer-0.0.36.bin
```

### Example 2.1. Granting execute permissions

```
[user@centos]# chmod +x FS-LicenseServer-0.0.36.bin
[user@centos]# ls -l FS-LicenseServer-0.0.36.bin
-rwxr-xr-x. 1 user user 154033823 Dec 12 08:55 FS-LicenseServer-0.0.36.bin
```



### Note

The version for this binary is 0.0.36, the one you might be installing will not necessarily match the version displayed here.



### Note

After running **chmod**, an x should appear in the permissions. e.g. -rwxr

3. Run the installer with the command: **./FS-LicenseServer-0.0.36.bin** and follow the prompts.



### Note

The default port is 443, but it can be changed during the installation. When installing the License Server as non-root, only ports above 1024 are available.

4. To test the installation use a browser to access <https://localhost> if the License Server is installed on the same system.

If the License Server is installed on a separate system, access <https://<computer name>> instead.

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# Chapter 3. Configuration

## 3.1. Creating an Administrator Account

After checking that the installation was successful by accessing <https://localhost> or <https://<computer name>>, the Create User screen will be presented. Fill out the required sections.

**Figure 3.1. Create User Screen**

**Create User**

**Username**

**Password**

**Confirm Password**



### Note

The username can be up to 16 characters and the password can be up to 256.

## 3.2. Importing the First License

After creating the administrator account the License Server needs to be licensed. Click on the clipboard icon to copy the *server identifier*. Email [<licenses@forumsys.com>](mailto:licenses@forumsys.com) or contact Forum Systems Customer Service at (888) 811-0060 and provide the following information:

- Name
- Company Name
- Purchase Order
- Email Address
- *Server Identifier*

Once the license file has been received click on the "Choose File" button, select the license file from your computer and click the "Import" button. Once the license has been imported the License Status screen will be presented.

**Figure 3.2. License Import Screen**

### License Import

**Server Identifier**  
 98A6F0C435D0D08C78EDF10D04CA13FBCC4C85D1 

**License**  
 no file selected



### Note

If more than one license needs to be imported, click the "Import" button from the License Status Screen and repeat the procedure.

## 3.3. Licensing *Forum Sentry*<sup>TM</sup>

Open a new browser window and go to the URL for the *Forum Sentry*<sup>TM</sup> Web Admin that you wish to license. If this is the first time you are licensing *Forum Sentry*<sup>TM</sup> select the "Floating" Licensing Model and enter the License Server IP address, select the License Type and click the "Save" button. This will issue a request to the License Server and lease a license.

**Figure 3.3. Create User Screen**

**LICENSE REQUEST**

Licensing Model:  Floating  Permanent

License Server\*:

Port\*:

Disaster Recovery Server:

Disaster Recovery Port:

License Type:

Lease Time (mins)\*:

Auto Release:



### Note

If you want to see the license information use the left menu and go to System->Settings->License from the *Forum Sentry*<sup>TM</sup> Web Admin.

After licensing *Forum Sentry*<sup>TM</sup> the License Status screen will display the leased license in the table with the blue banner.

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# Chapter 4. Advanced Configuration

## 4.1. Editing a License

The edit icon on the License Status Screen allows the administrator to configure the maximum duration that a license can be leased for and can restrict access to a particular network. To change the duration click on the edit icon and, in the modal window, use the up and down arrows to adjust it. To restrict access click the "Restrict Access" checkbox, enter the IP or IP ranges of the network(s) that you want to allow or deny access to. Then, choose "Allow" or "Deny". Then click the "Save" button to store the configuration change(s).

**Figure 4.1. Edit Screen**

**Edit**

**License ID**    efe7c5bb0956334b19e5b5843aa3caaa3b5cde29

**Duration (minutes)**    1440

**Restrict Access**    Comma delimited list of IP or IP ranges. Examples of valid IP ranges: 1.2.3.4-1.2.255.255, 127.0.0.0-255, 10.0.0.0/8

**Allow**     **Deny**



### Note

The maximum lease duration is 1440 minutes (1 day).

## 4.2. Releasing a License

The option to release a license is used in the rare occasion when a *Forum Sentry*<sup>™</sup> device mal-functions and the administrator cannot wait for the lease to expire. In this circumstance, email <support@forumsys.com> or contact Forum Systems Customer Service at (888) 811-0060.

**Figure 4.2. Release Screen**

### License Release

<b>License Id</b>	efe7c5bb0956334b19e5b5843aa3caaa3b5cde29
<b>Server Identifier</b>	60f81da809b0
<b>Identifier</b>	<input type="text"/>

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# Chapter 5. Licensing Functionality

## 5.1. Introduction

A license is leased from the License Server during the initialization of *Forum Sentry™*. *Forum Sentry™* will return the lease to the License Server when it shuts down if auto release is enabled. In this case, during bootup, *Forum Sentry™* will reach out to the License Server to lease a new license.



### Note

Forum Systems recommends leaving auto release enabled. When auto release is disabled a lease runs the risk of remaining in use after a shut down, and is unable to be used by any other *Forum Sentry™*.

When *Forum Sentry™* is using a License Server it will get a new lease or validate the existing lease every 5 minutes.



### Note

The License Server keeps a log file, `leases.log`, to keep track of each lease that is checked in or checked out. The format of the log is as follows: the date, timestamp, license id, computer name, server id and whether the license was leased or returned. The log file is found in the installation directory.

## 5.2. Obtaining a New Lease

*Forum Sentry™* needs to contact the License Server to obtain a new license. The *Disaster Recovery License Server* is never contacted for obtaining a new license.

## 5.3. Validating an Existing Lease

Validating an existing lease is comprised of the following 3 functions:

1. If the lease is from the *Disaster Recovery License Server*, *Forum Sentry™* will attempt to contact the main License Server and lease a new license. If the main License Server can be reached, it will return the license to the *Disaster Recovery License Server* and use the new license from the main License Server.
2. If the lease is expired, *Forum Sentry™* will remove the existing license and will attempt to lease a new license. Failure to do so will result in the License Server becoming unlicensed.
3. If the current lease has 5 minutes or less left, then *Forum Sentry™* will attempt to renew the current lease by contacting the License Server and if that fails it contacts the *Disaster Recovery License Server*, if configured. If a lease cannot be renewed from either License Server, the system will remain available for the remainder of the lease.



### Caution

The license from the *Disaster Recovery License Server* is only valid for 3 days. After 3 days, the *Forum Sentry™* device will become unlicensed.

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# Glossary

Amazon EC2	<p>Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud. It is designed to make web-scale cloud computing easier for developers.</p> <p><a href="https://aws.amazon.com/ec2/">https://aws.amazon.com/ec2/</a></p>
CentOS	<p>CentOS is a Linux distribution that provides a free, enterprise-class, community-supported computing platform functionally compatible with its upstream source, Red Hat Enterprise Linux.</p> <p><a href="https://www.centos.org">https://www.centos.org</a></p>
Disaster Recovery	<p>A Disaster Recovery License Server is a License Server which only contains DR (Disaster Recovery) license types. The Disaster Recovery License Server is only used when the main License Server cannot be contacted. This happens in the case of a network interruption or a hardware or software malfunction.</p>
Floating License	<p>Floating licensing is a software licensing approach in which a limited number of licenses for a software application are shared among a larger number of users over time. When an authorized user wishes to run the application, they request a license from a central license server. If a license is available the license server allows the application to run. When they finish using the application, or when the allowed license period expires, the license is reclaimed by the license server and made available to other authorized users.</p>
Forum Sentry™	<p>Forum Sentry™ is the industry's only FIPS 140-2 and NIAP NDPP certified XML Gateway for enabling secure connectivity between users, applications and the cloud.</p> <p><a href="https://www.forumsys.com">https://www.forumsys.com</a></p>
Server Identifier	<p>A generated value that uniquely identifies a computer.</p>