

# Licensing Utility – User Guide

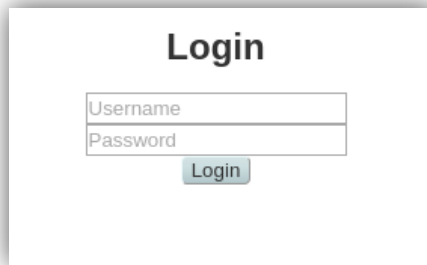
## Overview

The Xorcom licensing utility allows you to activate CompletePBX functionality, such as ports, hardware echo cancellation, and/or the TwinStar Plus option by generating a software license unique to the Xorcom device at hand.

## Login

If this is your first log-in attempt, and you have not yet received a password, please contact Xorcom at [xorcom@xorcom.com](mailto:xorcom@xorcom.com) to register to use the utility.

Using a Web browser, connect to the Xorcom Licensing utility: <http://license.xorcom.com>. Input the username and password you received by e-mail from Xorcom in the Login screen:



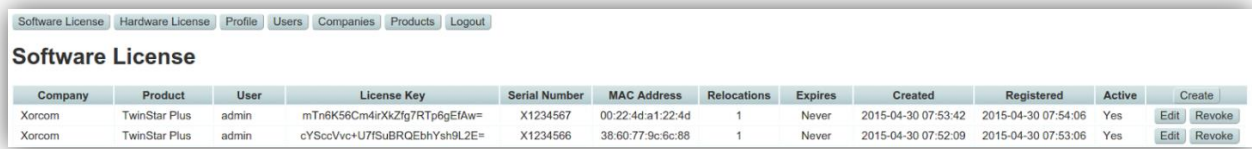
The screenshot shows a simple login form with the title "Login". It contains two input fields: "Username" and "Password", and a "Login" button below them.

Figure 1: Licensing Server login dialog

Once you are logged in you can manage the CompletePBX software licenses (except the Switchboard, the Call Center Statistics and CompleteSBC licenses) and also change the Astribank license.

Click the “Software License” button from the top menu to access the software license management dialog or the “Hardware License” button to access the Astribank license management dialog.

## Software Licenses Management



The screenshot shows a web interface for managing software licenses. It includes a navigation menu at the top with options: Software License, Hardware License, Profile, Users, Companies, Products, and Logout. Below the menu is a table titled "Software License" with the following data:

Company	Product	User	License Key	Serial Number	MAC Address	Relocations	Expires	Created	Registered	Active	Create
Xorcom	TwinStar Plus	admin	mTn6K56Cm4irXkZfg7RTp6gEFAw=	X1234567	00:22:4d:a1:22:4d	1	Never	2015-04-30 07:53:42	2015-04-30 07:54:06	Yes	Edit Revoke
Xorcom	TwinStar Plus	admin	cYScvVvc+U77SubRQEbYeh9L2E=	X1234566	38:60:77:9c:6c:88	1	Never	2015-04-30 07:52:09	2015-04-30 07:53:06	Yes	Edit Revoke

Figure 2: Software License dialog

The software license dialog shows a list of all the software licenses created by the logged in user, including detailed information about each license:

- **Product** - product to which the license key is applied
- **User** - the licensing server user that created the license key
- **License Key** - a unique sequence for each license. It can be used to register or unregister licenses.
- **Serial Number** - the PBX serial number
- **MAC Address** - the PBX eth0 MAC address
- **Relocations** - the number of times a license can be transferred from one system to another
- **Expires** - the license key expiration date
- **Created** - date of the license key creation
- **Registered** - the license key registration date. The registration process is association of a license key to particular CompletePBX server. The registration process is performed by the `xlic` utility that is run on the CompletePBX server.
- **Active** - indicates whether the license key is active or not

**Note:** You can click on any column header in order to sort the list according to that column.

## Create a License

Creating a license is possible via the Software License dialog. Click on the “Create” button on the top right corner of the Software Licenses table.

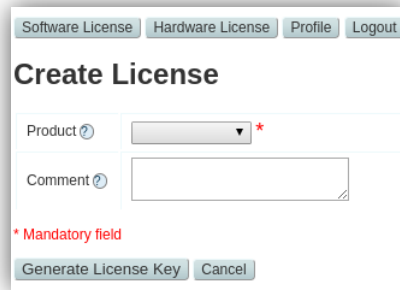


Figure 3: Create License dialog

- **Product** - a product for which the license key should apply (it must be selected from the drop down menu)
- **Comments** - a place where any additional information for this license key can be written

Once the license is created a unique license key will be generated:

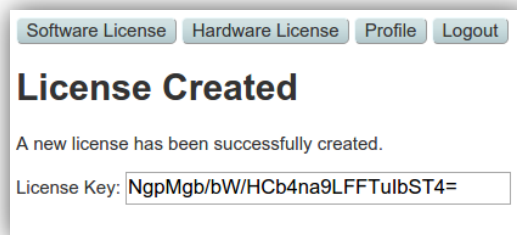
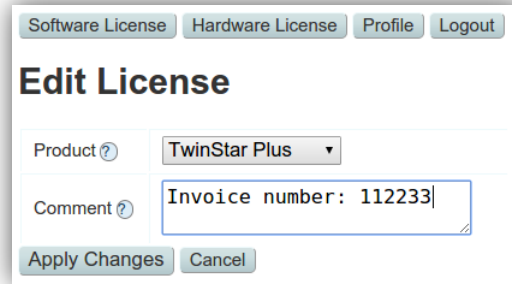


Figure 4: License key

A CompletePBX server can then use the license key to request registration. Upon confirmation, the CompletePBX server will update the serial number and the MAC address for the license.

## Edit License

It is possible to edit the license via the Software Licensing dialog by clicking the “Edit” button on the Software License dialog.



**Figure 5: Edit License dialog**

It is possible to edit some of the license parameters; such as the product to which the license should be applied and the comments for that license.

## Applying Software License on a CompletePBX Server

In order to apply (register) the license the CompletePBX server must have Internet access and a properly configured DNS. Once the license has been registered then Internet access for the PBX can be disabled.

The following command is used for the license key registration:

```
xlic register <license_key>
```

For example:

```
xlic register Yc75+iAgDnlN0iGSNC2Xvy7N8o4=
```

Following are some other useful `xlic` utility options:

Command	Description
<pre>xlic list</pre>	<p>Shows the information about the software products licensed on this server (except the Switchboard, Call Center Statistic and CompleteSBC modules):</p> <pre># xlic list Licenses           : 1 Public Key         : MFwwDQYJKoZIhvcNAQEBBQADSwAwSAJBAL8aRN3mgUh9yXim52HW8+24o0erHn QlwlYeaCSQAlMSp0//N0+3ZpbBJOzlw9c36eJHQ6rjzQ/d+07dF0aSMRcCAwEA AQ== Type               : Physical Name               : twinstar-plus Displayname        : TwinStar Plus Last Registration  : 2015-04-30 14:22:31 Expires            : Never License Key        : rBlsbsLkhsZGITiTYcAEo3DzZzo= Signature          : qM0M0i0STYgd+bTWrMuNz5Acl42cOZssD2kEVQPD+M2/4KAUgSoLGB4kZZCIr0 iMdulinjBE4a4jQK/TbeE2Ag==</pre>
<pre>xlic find &lt;product_name&gt;</pre>	<p>Shows the licensing information for the specified product:</p> <pre># xlic find twinstar-plus Type               : Physical Name               : twinstar-plus Displayname        : TwinStar Plus Last Registration  : 2015-04-30 14:22:31 Expires            : Never License Key        : rBlsbsLkhsZGITiTYcAEo3DzZzo= Signature          : qM0M0i0STYgd+bTWrMuNz5Acl42cOZssD2kEVQPD+M2/4KAUgSoLGB4kZZCIr0 iMdulinjBE4a4jQK/TbeE2Ag==</pre>
<pre>xlic remove &lt;license_key&gt;</pre>	<p>This operation is the opposite of the <code>register</code> operation. It removes the license from the local license file.</p> <p>If the license key was registered within the last 3 months then the license key will also be unregistered on the licensing server. It will then be possible to register this key again on another server without affecting the maximum relocation counter.</p> <p>This operation requires Internet access.</p>

Command	Description
<code>xlic update</code>	Contacts the licensing server and updates the licensing information. This operation requires Internet access.
<code>xlic sysinfo</code>	Shows the server serial number and the eth0 interface MAC address: # <code>xlic sysinfo</code> MAC : 0c:c4:7a:43:71:cd Serial : X1069910

## Hardware License

The hardware license dialog can be accessed using the navigation buttons at the top of the page.



Figure 6: Hardware License dialog

Use the following procedure to activate ports, hardware echo cancellation, and/or the TwinStar functionality by generating a software license unique to the Xorcom device at hand.

### Stage 1: Determining the Existing License for the Xorcom Unit

1. Access the Asterisk server via SSH protocol.
2. Use the following command to see which USB devices are connected:

```
# lsusb
```

then press Enter

Here is a sample result:

```
Bus 003 Device 001: ID 0000:0000
Bus 002 Device 001: ID 0000:0000
Bus 001 Device 001: ID 0000:0000
Bus 001 Device 002: ID e4e4:1162
Bus 004 Device 001: ID 0000:0000
```

3. Mark down the **Bus #** and the **Device #** for the USB device with an ID that begins “e4e4:116”. As per our example in step 2 above, we would indicate **Bus = 001** and **Device = 002**.
4. Use the following command to receive a listing of the current license of the unit:  

```
# astribank_allow -D /proc/bus/usb/[Bus #]/[Device #]
```

 then press **Enter**  
 As per our example in step 2 above, our command line would be:  

```
# astribank_allow -D /proc/bus/usb/001/002
```
5. On the screen which appears, copy all text to the clipboard. The text begins with -----BEGIN TELEPHONY DEVICE LICENSE BLOCK----- and ends with -----END TELEPHONY DEVICE LICENSE BLOCK-----

## Stage 2: Verifying the Existing License & Updating It

Paste the contents of the clipboard into the field on the Hardware License dialog and click the “Verify License” button.

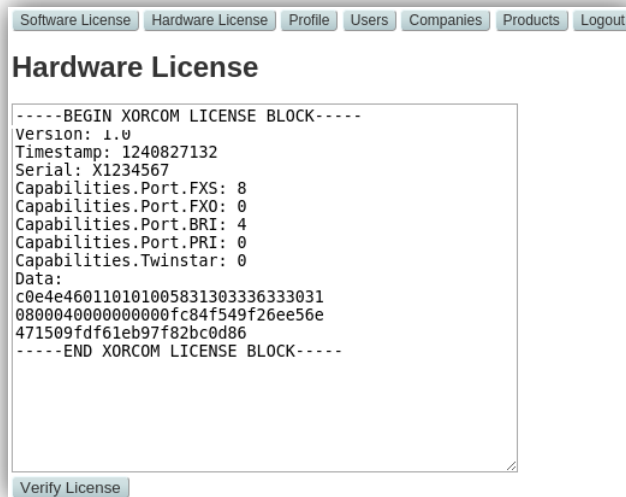


Figure 7: Hardware License verification

If the license is valid, you will receive a screen displaying the unit’s serial number and current configuration, with an option to add to the number and type of existing ports, as well as activate the Echo Cancellation and/or TwinStar Plus option (for both the servers and the Astribank, if there is one in the configuration).

**Note:** FXS and FXO modules support exactly eight ports, so the quantity you specify is for complete modules. PRI and BRI ports, on the other hand, are licensed individually (up to 4 PRI ports per PRI module; and up to 8 BRI ports – even number only – per module), so the quantity you specify is for **number of ports**.

The screenshot shows a web-based interface for the Xorcom Licensing Utility. At the top, there are navigation tabs: Software License, Hardware License, Profile, Users, Companies, Products, and Logout. Below the tabs, the current license information is displayed: SERIAL: X1234567, FXS: 8, FXO: 0, BRI: 4, PRI: 0, Echo Cancellor: Disabled, TWINSTAR: 0, and a timestamp from Mon Apr 27 13:12:12 2009. A section titled 'Valid License for XR2029' contains a sub-section 'Activate Additional Ports and Warranty for Serial: X1036301'. This section includes a table with columns for P/N, Desc, and Quantity to add. The table lists items like LCN001 (8-port FXS Module), LCN002 (8-port FXO Module), LCN003 (1-BRI Port), LCN004 (1-PRI Port), XR0124 (Echo Cancellor), and LC0016 (Activate TwinStar). Each item has a corresponding input field for quantity or a checkbox for enabling a feature. At the bottom of the form, there is a 'Comment' field and a 'Generate updated license' button.

Figure 8: Hardware License order form

There is also an option to indicate that the device includes extended warranty. At this point the price for the warranty extension will be calculated **without** your partner discount. You should contact your Xorcom sales representative to adjust the price in your invoice. After you click the “Generate updated license” button, you will receive the license text to be applied to the Xorcom unit. Again, copy all text to the clipboard. The text begins with -----BEGIN TELEPHONY DEVICE LICENSE BLOCK----- and ends with -----END TELEPHONY DEVICE LICENSE BLOCK-----

### Stage 3: Applying the Updated License to the Unit

1. Stop Asterisk using the following command:  
`/etc/init.d/asterisk stop`
2. Stop DAHDI using the following command:  
`/etc/init.d/dahdi stop` **Note:** you can use both if you don't know which software is installed on the unit.
3. Use the following command to apply the updated license to the unit:  
`# astring_allow -D /proc/bus/usb/[Bus #]/[Device #] -w`  
 then press `Enter`
4. To apply the new license, paste the contents of the clipboard into the command line, press `Enter`, then press `\Ctrl+D`.
5. Next, you will need to reset the Xorcom Astribank firmware. You should run the following command:  
`/usr/share/dahdi/xpp_fxloader reset`
6. The new ports are now activated, but will need to be configured and tested prior to shipment.

## Profile

The profile dialog can be accessed using the navigation buttons at the top of the page. This dialog allows changes to be made to the user's profile.

The screenshot shows a web-based profile management interface. At the top, there are four navigation buttons: 'Software License', 'Hardware License', 'Profile', and 'Logout'. The 'Profile' button is active. Below the navigation is the title 'Profile'. The form contains the following fields:

- Username**: Input field containing 'User'.
- E-Mail**: Input field containing 'user@mycomapny.com'.
- Company**: Input field containing 'MyCompany'.
- Timezone**: Dropdown menu with 'Europe/Stockholm' selected.
- Current password**: Empty input field.
- New password**: Empty input field.
- Confirm new password**: Empty input field.

An 'Apply Changes' button is located at the bottom left of the form.

Figure 9: Profile dialog

- **Username** - name of the user
- **E-Mail** – e-mail address of the user
- **Company** - company at which the user is employed
- **Timezone** - time zone in which the user is located
- **Current password** - current password for the user
- **New password** - new password for the user
- **Confirm new password** - new password for the user - repeated for confirmation