Activation Instructions for DESIGNBUILDER - Network licenses

MARCH 2019

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Setting up a Licence Server for Site Network Licenses

Site network licenses require a license server application to be installed and run on a server on the network. DesignBuilder runs on the client machines on the same Windows network and obtains licences from the license server on a concurrent basis.

Summary of Process

In summary, the steps to set up DesignBuilder Site Licenses are:

1. Download the RLM server software **designb_rlm.zip** file from the *Download > Software > Server Software* area of the [DesignBuilder website](#)

2. Extract the files in the **designb_rlm.zip** file to the folder on the server to be used to store DesignBuilder site license files (e.g. c:\RLMSERVER)

3. Obtain the License file by clicking on **activate.cmd**, following instructions on the webpage and saving the license file to the site license folder.

4. Run the RLM server as a service and start the service.

5. On client machines which are to run the DesignBuilder software, open the Licence Manager dialog (**Help > License** menu option) and enter the ip address or hostname of site license server host.

The above steps are detailed below.

DesignBuilder
SOFTWARE

Detailed Steps

1. Obtain your License File

With Site Network Licenses the License file is obtained through the activation code you received when ordering the software.

   a. Before you run the rlm server you will need to obtain your license file and save it into the rlm installation folder. That's the folder containing rlm.exe and other files listed above.

   b. You should have received an activation code from your site license purchase. This is an 8-digit number and is needed to activate the license.

   c. Open the rlm installation folder in Windows Explorer and ~~double-click on~~ run **activate.cmd** as administrator

   d. This loads a web page at http://www.designbuilder.co.uk with a form for you to enter your activation code.

   e. Other values in the form such as Hostid are automatically filled in for you. After entering your activation code click **Activate License** and if successful you will be presented with a download link for your activated license file.

   f. Download the license file and save in your **rlm installation folder**.

If your server cannot access the Internet

If your server computer has no internet connection then activate.cmd will not be able to connect a browser window to the **designbuilder.co.uk** web server and you will have to activate manually by following these steps:

   1. Obtain your server hostid by running the command **rlmutil rlmhostid -q 32**

   2. Obtain the ip address using the command **rlmutil rlmhostid -q internet**

   3. Obtain the hostname with command **rlmutil rlmhostid -q host**

   4. Make a note of the **hostid**, **ip address, hostname** and your DesignBuilder **activation code** and go to a computer with internet connection and run:

   http://www.designbuilder.co.uk/license/activate_site.php

   5. Enter your details in to the form and download the resulting .lic file.

   6. Place a copy of the .lic file in the site license installation folder on your host server.

2. Running the RLM Server

The server can be run directly by double clicking **rlm.exe**. This runs a command window and logs activity to the window. This is useful when you first run the license server as you'll be able to see the license server starting up correctly and loading the license file as well as DesignBuilder clients obtaining licenses from the server.

3. Running RLM as a Service

It is best to set rlm up to run as a Windows service rather than in the command window, otherwise you'll need to remember to manually restart the license server when the computer reboots.

If you are running rlm in a command window you should close that before starting up rlm as a service.

To create the Windows service to run rlm automatically double click on **service_install.cmd** or use **Manage Windows Service** in the admin interface.*

*If the **service_install.cmd** does not run then open a command window with elevated privileges from Start> right click on Command prompt to run as admin, then cd to RLM folder and type **service_install** and press Enter key. See page 6 for details.

Note: The service will be added to Windows services but not started.

Use Control Panel > Services to start **DesignBuilder License Server.**
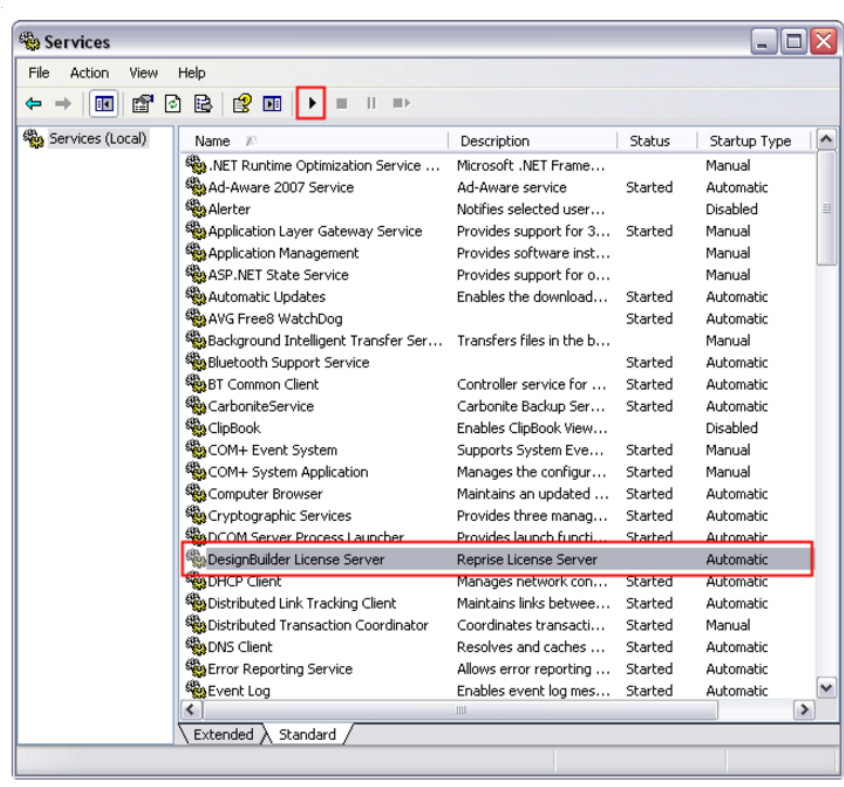
Once started in this way the service will restart automatically if the computer is rebooted. By default the service will write a log file **designb_rlm.log** into the rlm installation folder. If you want this in a different location you can use the admin interface (above) to set up the service then you can specify the service name and the log file location.

You may experience problems with permissions when setting up the service. You can either disable the UAC or try right clicking **service_install.cmd** and choosing "Run as administrator".

Even this doesn't always give you access to the Service Control Manager. You can check this by running a cmd prompt, changing folder to the license server installation folder and running the rlm install service command (below).

If you edit **service_install.cmd** you'll see the command being executed is:

```
rlm -install_service -dlog "%CD%\designb_rlm.log" -service_name "DesignBuilder License Server" -c "%CD%"
```

If you see this error returned "Error: Access to Service Control Manager denied" you can get over this by running cmd as administrator and then run the install command. To do this right click Command Prompt on the start menu and run as administrator. Change folder to the license manager installation folder and run the rlm.exe -install_service command given above and it should work.**

**In case of trouble, add inbound windows firewall rules to server machine, to always allow TCP ports 5053, 5054. If you set fixed ISV port for port-forwarding method of off-site access (See Troubleshooting section) then also add and fixed ISV port e.g.49670 as an inbound TCP port-allow rule. If necessary, also allow TCP ports 2600 and 2700 inbound.

More on this in the License Manager FAQs at http://www.reprisesoftware.com/support/faq.php

RLM Server Admin Interface

RLM provides a browser-based administration interface to the license server. To run this, double click on the **admin_interface.cmd** file in the RLM folder using Windows Explorer.

Refer to the RLM End User Manual (double click **online_manual.cmd**) for more details on using the admin interface.

Note: DesignBuilder does not use the Activation page of the admin interface.

Reprise Software, developers of the RLM licensing system, always maintains a current version of the RLM End User's Manual here:
www.reprisesoftware.com/RLM_Enduser.html

Adding a lic file for extra seats

If you purchase additional seats for a site network license system, the new licenses are provided in the form of a lic file download. The process of obtaining the additional lic file is the same as described above under Obtaining your License File. The new lic file does not replace the existing lic files, but is used in addition to the existing licenses. The license server reads these multiple lic files, licenses from multiple lic files adding to give the total number of seats of concurrent use that are allowed.

4. Setting up Client Machines

This steps involved in pointing client machines to the License Server is described on the main Licensing & Activation page. From DesignBuilder you can check out or check back in module licenses using the License Manager which can be accessed from the Help menu.

Site Network Licensing (client side)

With site network licenses each client computer on the network can "check out" licenses from the license server application which manages the allocation of licenses. The system is designed to provide a maximum number of concurrent users according to the number of seats purchased. For example if you purchased a site licence with 10 seats for the EnergyPlus module then the software can be installed on any number of computers but only a maximum of 10 people will be able to access DesignBuilder EnergyPlus simulations at any one time. If an eleventh person on the network tries to check out an EnergyPlus license (by starting DesignBuilder with EnergyPlus selected in the License dialog) then they will receive a message to say that the seats are all in use and to wait until one becomes available.

DesignBuilder site licensing requires a simple server application to run on the network to provide licenses. Each client computer has a setting to tell the software to run in site license mode and where to find the Licence Server on the network. The site licensing system is quite straightforward but does require a network administrator with adequate IT skills to set it up.

To set up site network licensing on a *client* computer (i.e. the computer that is to run DesignBuilder) follow the instructions below.

Open the **Licence Manager** dialog (**Help > Licence**). Click on the **Licence** button to open the **Licence Manager Wizard**.
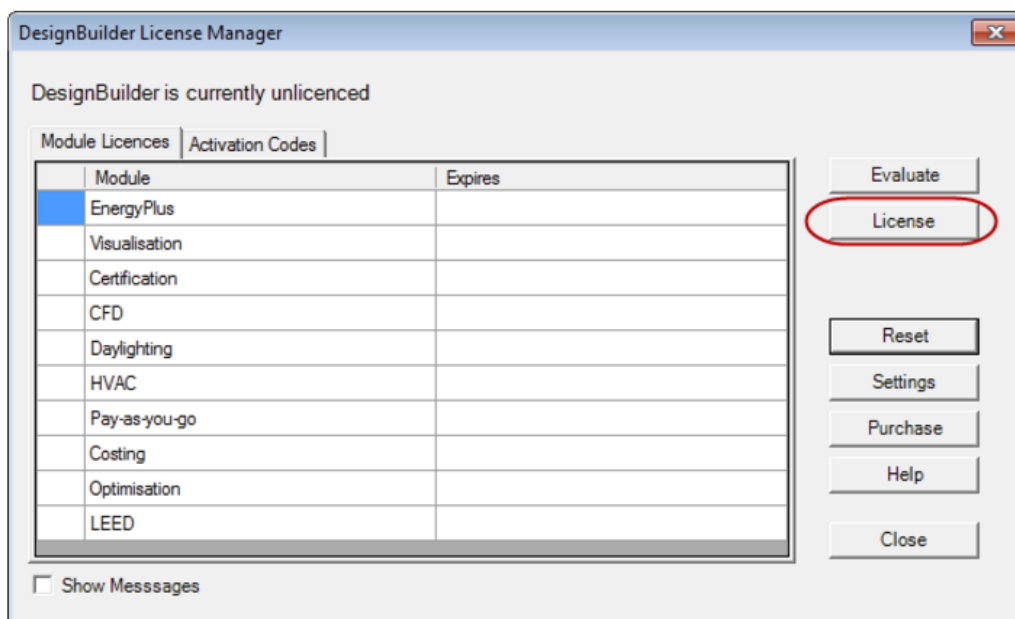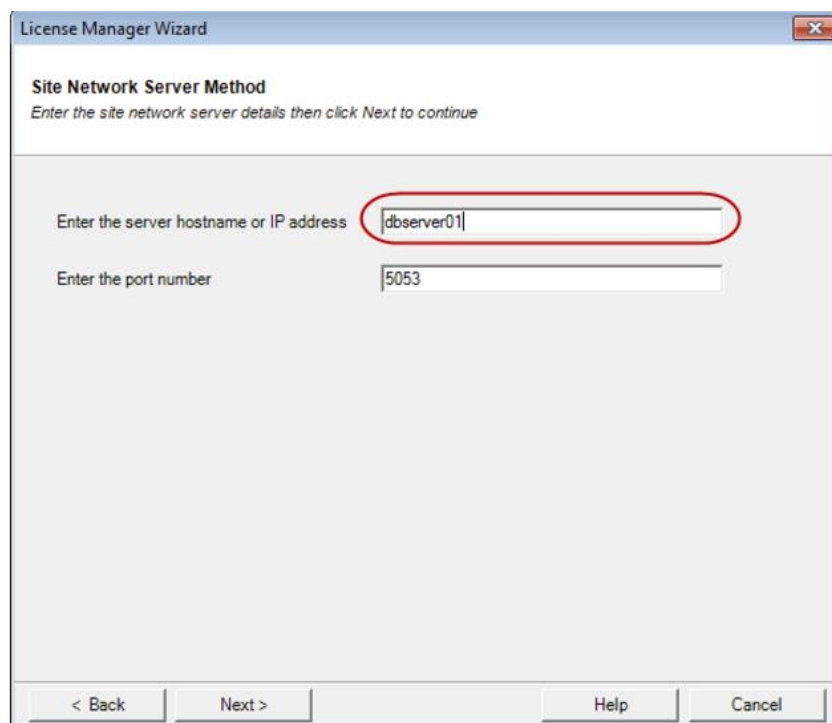
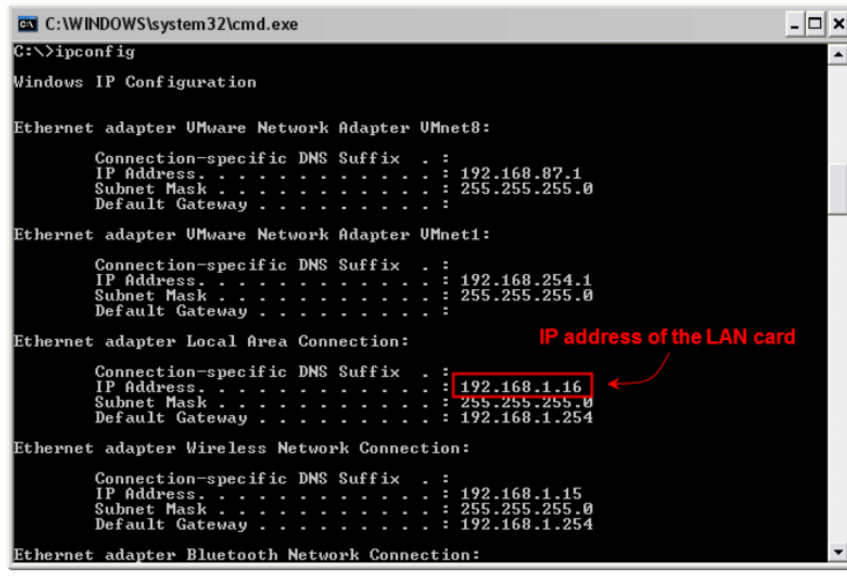Select the **Site network licence** option and press Next.
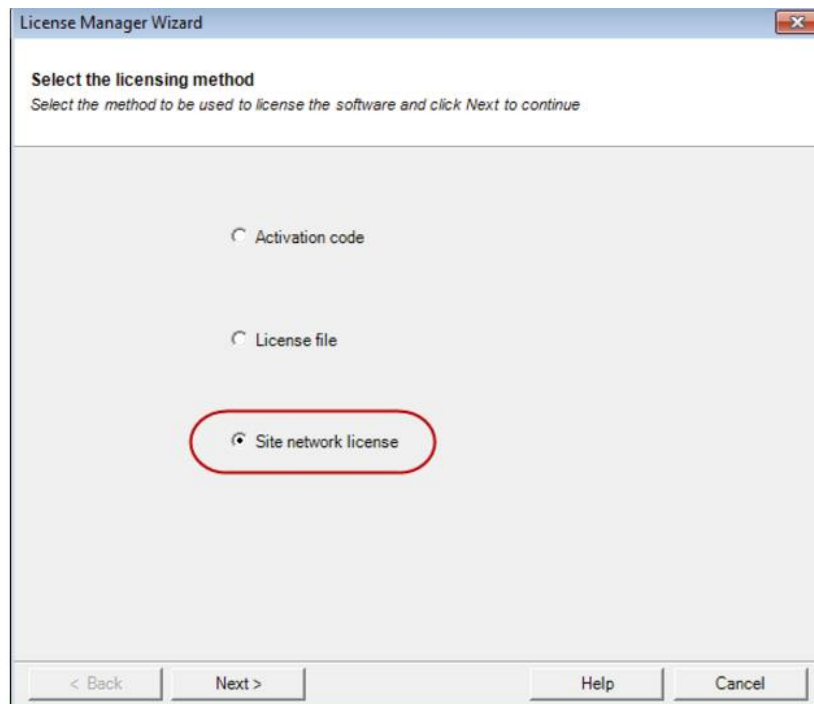
On the second page enter:

      a. Either the name of the server or its IP address***.

***See Troubleshooting section off-site WAN cases.

You can find the IP address of your server by typing **ipconfig** in the Windows Command box on the server machine.

   b.   The port number which will usually be 5053.

When you click the Finish button the connection to the License Server is established based on the port number and IP address you provided on the dialog.

If the site network licence connection was successful you will be shown the Modules Licence tab displaying the licence status of each module.
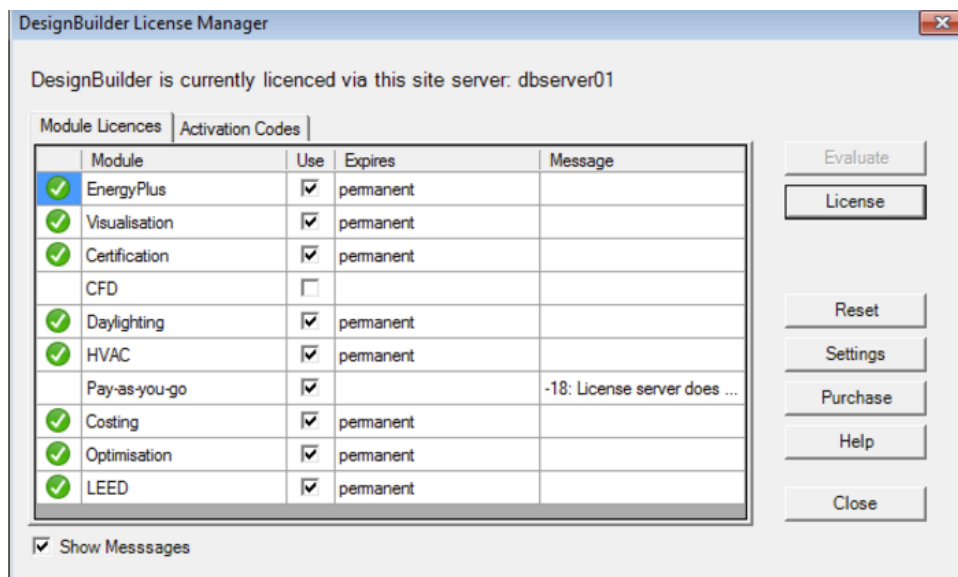
Once back to the main License Manager dialog you can check out or check back in module licenses through the check boxes in the Use column for each module.

If the server host name or IP address was incorrect, if that server is not running or if the Licence Server service isn't running then the licences will not be accessed and error messages are displayed.

Troubleshooting

- ***Unreachable server***

Normally when the Client machine can't see server it displays "-17 communications error" and "-111 Connection refused at server". In that case the access to the server is probably being blocked.

The RLM Licence server uses random ports. So, the best solution is not to allow exceptions by port, but instead by program, eg. open all ports used by "rlm.exe".

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But if the server is behind a firewall ~~that~~ you have to specify pinholes to get access then follow these instructions:

- In order to specify what port the second service uses you will have to edit the lic file.

On the ISV designb line of the lic file (that will be the 2nd line) add the following:

port=nnnnn

where nnnnn is the port number. There must be a space before the word "port".

```
HOST localhost 780bc61a
ISV designb port=49670
LICENSE designb designbuilder_n
```

N.B. See appended page for more troubleshooting scenarios.

- ***Usage of licence server from off-site (via WAN)***

Method 1: VPN with a sufficiently fast connection.

Method 2: Port forwarding

On Method 2 , after activating the site license activation code and download the .lic license file, open the file in a text editor, with admin rights. Example:

```
HOST localhost 780bc61a
ISV designb port=49670
LICENSE designb designbuilder_n
```

Now, on the second line you should see "ISV designb" but the "port=..." part is probably not present. Be sure to insert after "designb", a space, followed by "port=", followed directly by a port number – one example is 49670.

Then save the lic file and restart the service.

This instructs the licence server to use a fixed "ISV port" as specified, instead of randomly choosing the port number from a range each time the server is started (default behaviour, good for security but it makes port-forwarding for off-site access unachievable)

In the router used by the licence server, set up port forwarding from WAN TCP port 5053, to LAN TCP port 49670 or whatever you chose as your fixed ISV port. Forward to the LAN static IP of the licence server machine.

All clients, whether on LAN or WAN, must then access the server using port 5053. When on WAN, for host name they must use the server's WAN static IP or DDNS host address as the host name. This means when a staff member moves in/out of the office with their laptop, they have to switch the hostname in their DesignBuilder (client) licence settings (unless you have something clever set up on your network to make this seamless). The VPN approach is probably more convenient in this respect.

Please note: It is the customer's responsibility to consider security concerns when opening ports etc. DesignBuilder Software Limited shall not be held responsible for damages due to a security breach.

DesignBuilder licence server is based on the Reprise Licence Manager (RLM) software in case you have prior knowledge of this platform.

Support contact

All the information available at this document can also be found online at:
www.designbuilder.co.uk/helpv6.0/#_Licensing_and_activation.htm

For further support please contact your local DesignBuilder software reseller or,
DesignBuilder Support Desk at: http://support.designbuilder.co.uk/

Troubleshooting: Unreachable server (continued)

Check in Windows services on the server, that the service is running and is set to automatically start on server boot, as shown below.
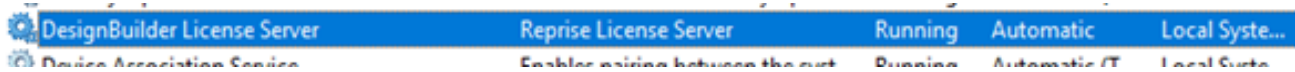

Run `C:\RLMSERVER\admin_interface.cmd` on the server (or equivalent installed path), got to "Status" button on left pane, and send a screenshot to support.

Also do as above but click the "System info" button near bottom of left pane, and send screenshot to support.

Troubleshooting: DB Licence server service runs for a minute or two then stops

Something is shutting down the service from running. Change the service recovery to what is shown in the screen shot below. Also we would suggest to reinstall the licence service from a command prompt with admin privileges
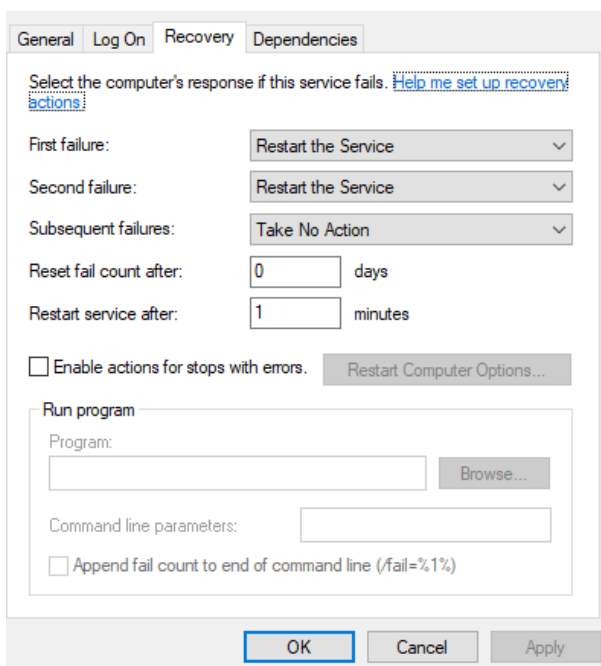
Troubleshooting: DB Licence server service runs for a minute or two then stops (continued)

There may be an old rlm service installation lying around on the server services area that stops the correct DesignBuilder license service from running. I would suggest to search for any obsolete rlm service and delete/disable it.

If you are seeing the "Port 5053 in use, waiting…" message in the debug log (or on the console), that means there's already an RLM license server running on that port. 5053 is the default port for RLM licenses.

You can change the DesignBuilder client port from 5053 to something like 5060 on DesignBuilder licence file(s). Leave a space after the hostID then type the desired port number, as shown below).

```
HOST localhost a1bca7n 5060
```

You will need to Reinstall the DesignBuilder License Server service to pick up the new port.

```
rlm -delete_service -service_name "DesignBuilder License Server"
```

and then

```
rlm -install_service -dlog "%CD%\designb_rlm.log" -ws 5061 -service_name
"DesignBuilder License Server" -c "%CD%"
```

The port used on the client side at DB licence manager will also need to be changed from 5053 to 5060.

The RLM web interface needs also to be moved to a different port and this is done by using the -ws #### option in the service install cmd. The above port number `5061` is a suggestion for the web interface port.

Make a note in your IT records, of all of the changed details, to avoid confusion in future!