

# Working With License Server Redundancy

## SUMMARY

**License Server** redundancy enables you to configure a pair of license servers to work in a synchronized manner to provide high availability of activated licenses. When configuring a redundant pair, all actions associated with licenses, such as activation, acquisition, and reservations are kept in sync between both servers.

If a **License Server** fails based on known conditions, the second server continues to operate with minimal impact on the operation of the licensed products' servers. The pair are commonly referred to as the **Primary** server and the **Backup** server. All data on the primary server is synced to the backup server. If the Primary server fails, all its data is available on the Backup server. Setting up a redundant pair requires two nodes where the License Server and License Manager components are installed.

**Note:** For more information about installing licensing components, see Installing **License Manager** and License Server on page 35 of SELicenseManagerGuide.pdf.

## SITUATION

### Requirements for Primary and Backup Servers

Certain **License Server** conditions must be met before license activation can succeed on a redundant pair.

- The primary and backup server cannot have activated licenses. Deactivate the licenses on both the primary and backup servers, in case there are activated licenses.
- If licenses are currently or have previously been activated on the backup server prior to pairing, the **License Server ID** must be reset for the backup server before licenses can be successfully activated on the pair.

Click the **Sync** button after deactivating the licenses, when the primary server is hosting activated licenses and is managed by an offline **License Manager**.

**Note:** The pair status in the Server Details Page will display as **Pair not synced** until the Sync action is performed.

## ACTION

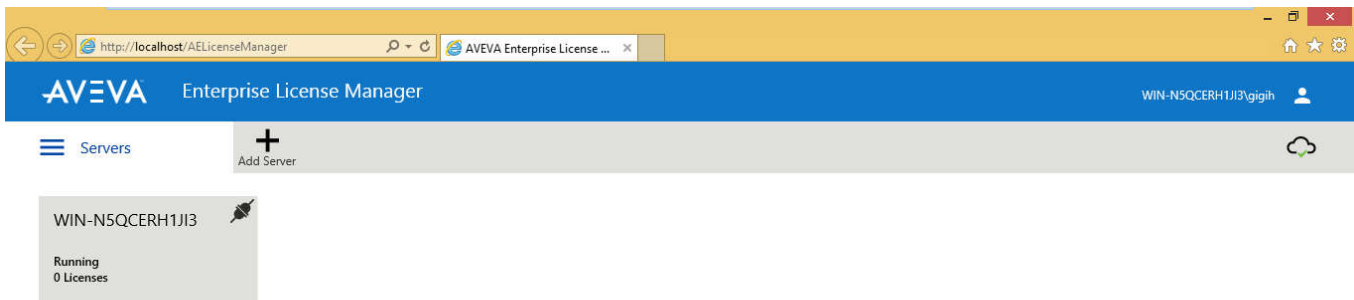
### Setting Up License Server Redundancy

This *Tech Note* assumes the following:

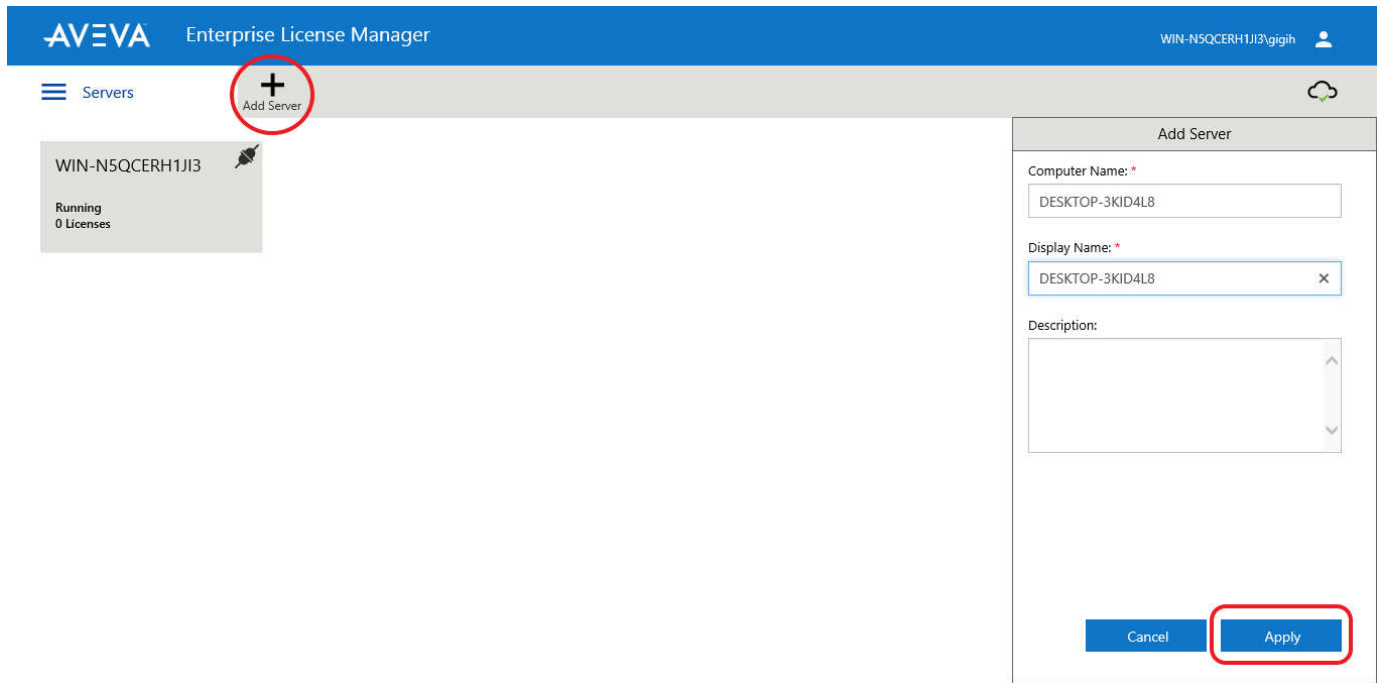
- WIN-N5QCERH1J13 - Is the **Primary** node
- DESKTOP-3KID4L8 - Is the **Backup** node

**Step 1:** Launch the AVEVA Enterprise License Manager on Primary node. Windows Button --> AVEVA --> AVEVA Enterprise License Manager.

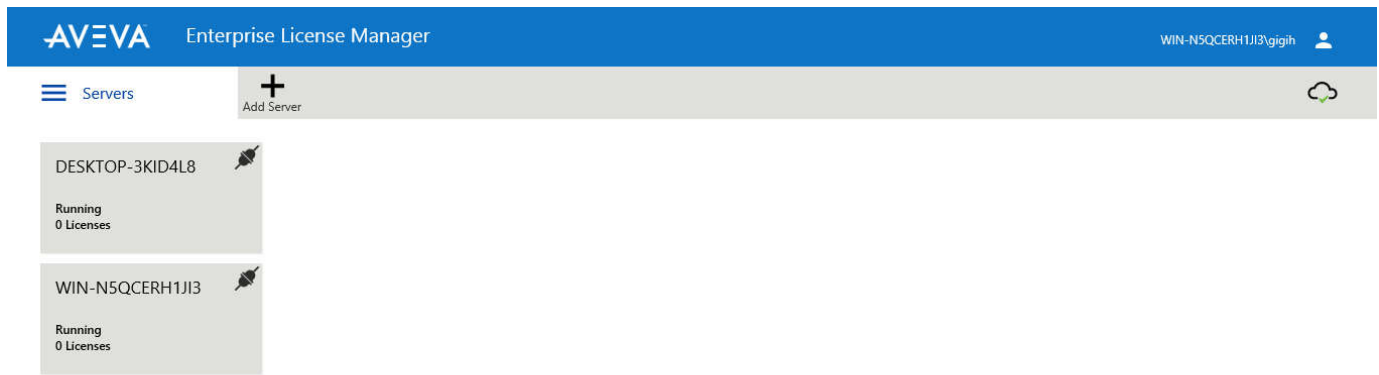
The form shows the server name where the License Manager is being launched from. In this screen print, there are NO activated licenses. The redundant (backup) license manager must be configured before activating any licenses. Otherwise, the technician will have to release licenses, configure the redundancy, then re-activate the licenses.



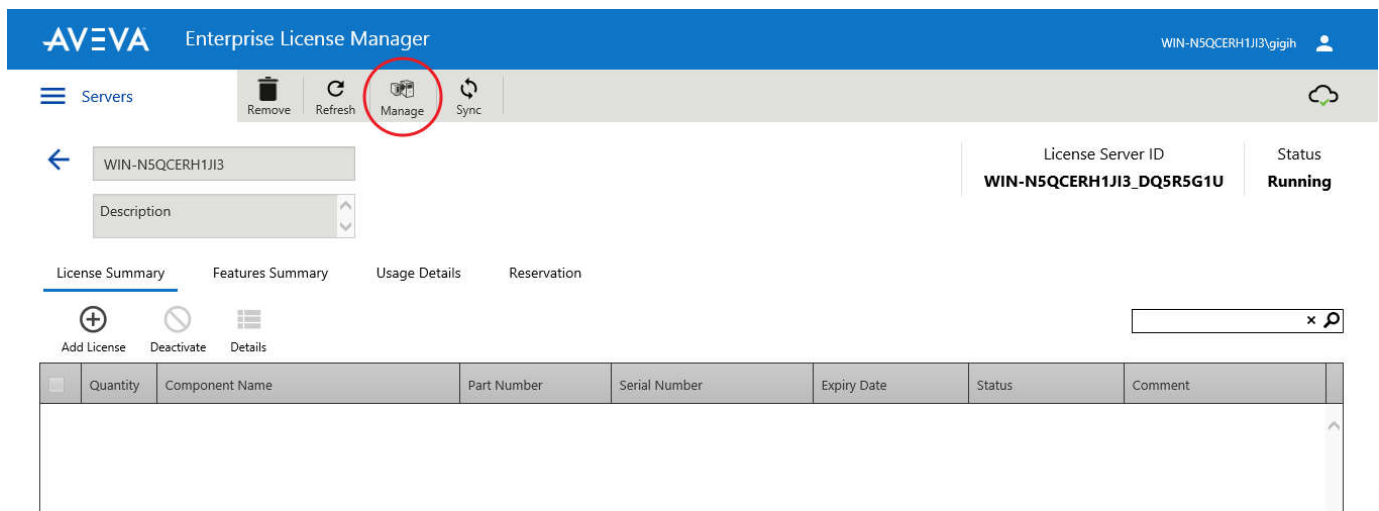
Step 2: Click "Add Server" to begin the process of creating the **backup** node license server.



After the backup is added you should be back at the main screen as follows (showing both license servers):



Step 3: Double-click on the grey box, select **Primary** node. Click on the Manage button.



**Step 4:** Enable the Backup by checking on the checkbox, and then select the Backup License Manager Server via the Drop-Down box. Select the appropriate server and click on the Apply Button.

The screenshot shows the 'Manage License Server' dialog box in the AVEVA Enterprise License Manager. The 'Redundancy' section is expanded, showing 'Enable Backup' checked and 'Backup Server' set to 'DESKTOP-3KID4L8'. An 'Apply' button is visible next to the dropdown menu. The background shows the 'Servers' list with 'WIN-N5QCERH1J13' selected.

If you successfully paired the license servers, your License Manager Form will show the primary and backup server names, and show the status as Paired and Available.

The screenshot shows the 'Servers' list in the AVEVA Enterprise License Manager. The primary server 'WIN-N5QCERH1J13' and backup server 'DESKTOP-3KID4L8' are listed. The primary server has a License Server ID of 'WIN-N5QCERH1J13\_DQ5R5G1U' and a status of 'Running'. The backup server has a License Server ID of 'DESKTOP-3KID4L8\_992MKIVZ' and a status of 'Running'. The pair status is 'Paired and Available'.

Quantity	Component Name	Part Number	Serial Number	Expiry Date	Status	Comment
1	AdvDev Studio 2017 Unlimited, 30day Demo Consignment	AdvDev-99-P-17	T19111401-0	12/31/2019	Activated	

**Step 6:** At this time, you can now proceed with activating all required licenses within the primary License Server Manager. It is assumed that the reader is familiar with this step in the process.

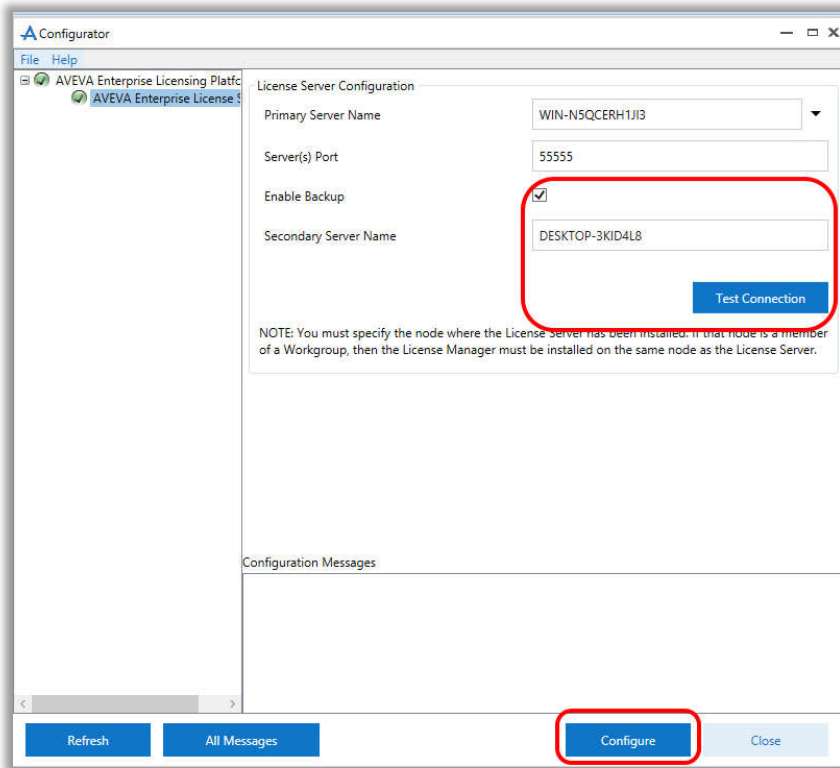
The screenshot shows the 'Servers' list in the AVEVA Enterprise License Manager. The primary server 'WIN-N5QCERH1J13' and backup server 'DESKTOP-3KID4L8' are listed. The primary server has a License Server ID of 'WIN-N5QCERH1J13\_DQ5R5G1U' and a status of 'Running'. The backup server has a License Server ID of 'DESKTOP-3KID4L8\_992MKIVZ' and a status of 'Running'. The pair status is 'Paired and Available'.

Quantity	Component Name	Part Number	Serial Number	Expiry Date	Status	Comment
1	AdvDev Studio 2017 Unlimited, 30day Demo Consignment	AdvDev-99-P-17	T19111401-0	12/31/2019	Activated	

**Note:** Once you have activated licenses on the pair, you cannot undo the pairing until all licenses have been deactivated.

**Step 7:** Open the **Configurator** from Windows Button --> Wonderware Utilities --> Configurator.

- **Enable Backup** by checking on the checkbox.
- Click **Test Connection**.
- Click **Configure**



Activate the licenses using **License Manager** on the secondary node. The activated licenses will show up in the license manager on the primary and the backup node.

## Monitoring The Status of the Pair

The pair status information is also reflected on the server tile in the Server Summary Page. If both servers in the pair are connected and running, the **Pair Status** is **Paired and Available**. If the pair is not available, the server tile indicates the unavailable server. The pair status is displayed in the server tile :

- Paired and Available Server Tile
- Pair Not Available Server Tile
- Recovering

### The Backup server node shuts down:

- Backup server status changes to **Disconnected**
- Pair status changes to **Backup not available**

### The Backup server loses network connection or is stopped:

- Backup server status changes to **Stopped**
- Pair status changes to **Backup not available**

**The Backup server is uninstalled:**

- Backup server status changes to **Backup not available**
- Pair status changes to **Backup not available**

**The pair is not synced:**

- Both server statuses remain as **Running**
- Pair status changes to **Pair not synced**

**In a Workgroup environment**

The Local System account does not allow the **License Manager** to work with off-node redundant License Servers. In this case it needs to assign an existing local user account for the License Manager Web Service.

In a workgroup environment procedures to pair up the License Servers are the same, except that one additional step is required: Use the Change Network Account User for the License Manager Web service logon information.

Complete the following steps for *both* Primary and Backup license server nodes.

1. Click **Start / Run** and type **Services.msc**.
2. Select **License Manager Web Services**, right-click **configure its properties**. By default it will login using the Local System Account (Figure 15):

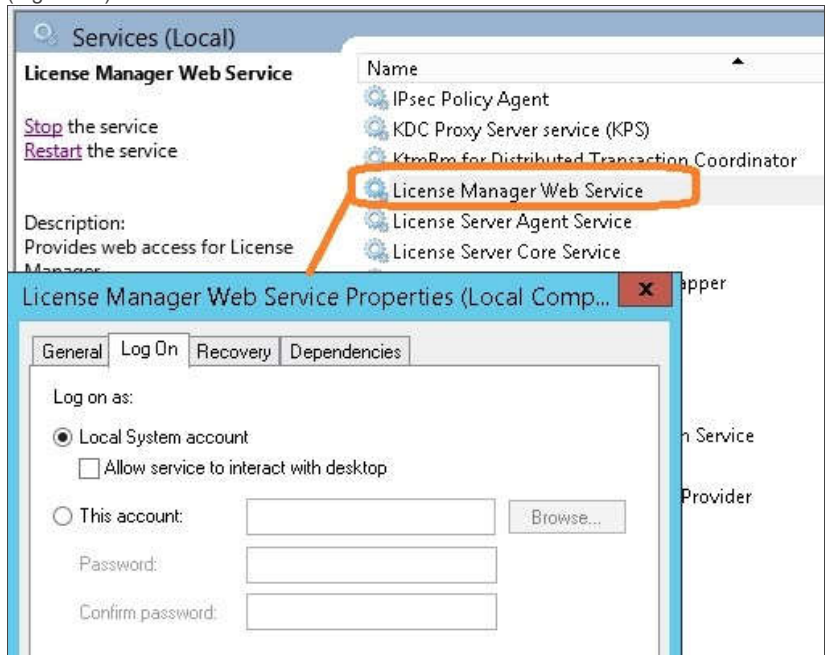


Figure 15: License Manager web service Default setting

3. Select the **Log On** tab and click **Browse**. Select the **Change Network Account User** and then click **Apply** (Figure 16):

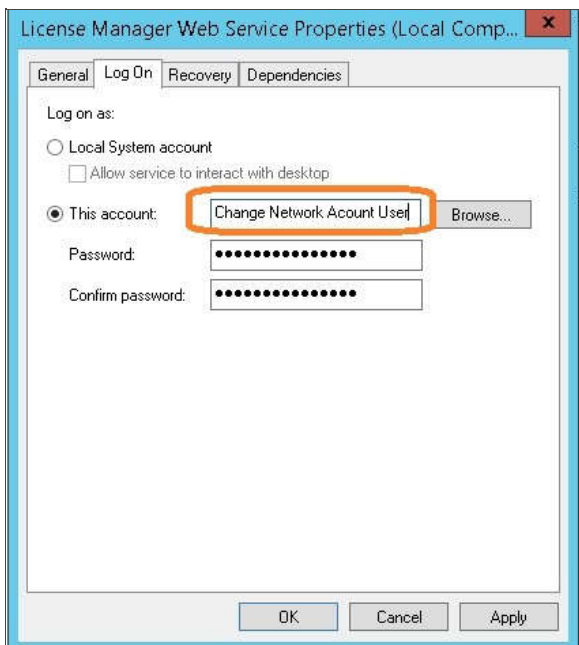


Figure 16: License Manager Web Service Log On modification

4. Restart License Manager Web Services.

A utility to do this automatically is included in **System Platform 2017 Update 2** and later:

**%Program Files (x86)%\Common Files\Archestra\Licensing Framework\License Utilities**