

Eagle Eye Application Note - AN021

Leveraging Local Display Station to View Multiple HD Streams Without Impacting Bandwidth

2022-06-07 Revision 1.1

Target Audience

This Application Note is intended for Resellers and Salespeople that are looking to better understand the Local Display Station solution or that may require support in viewing multiple HD streams without impacting bandwidth.

Local Display Station Overview

The Eagle Eye Networks Local Display Station can be used to access high-quality live video directly from cameras on the local network, reducing bandwidth and latency. The Local Display Station integrates seamlessly with Eagle Eye's Cloud Video Management System (VMS), displaying up to 32 cameras on any standard TV display and up to 164 cameras across multiple display pages. There are two models available, supporting different numbers of displays, but both models provide ultra-low latency and crisp, clear video. The software provides high reliability and customizable Layouts, which are controlled and managed from the cloud.

Background and Configuration

The Eagle Eye Local Display Station is available in a single display model (DS100) and a dual display model (DS200). The DS100 can support a single display of 1080P and the DS200 can support two displays at 1080P or one display at 4K resolution. The Local Display Station uses 'Layouts' from a linked Eagle Eye Cloud VMS account to determine which live video to display. When the Layouts are updated in the VMS, they are automatically updated on the Local Display Station. The Local Display Station also supports web tiles, allowing for the display of

key information in addition to live video streams. Through the web tile, use one of the available View Tiles to connect to a website instead of a camera for example. This view could show event monitoring from another website, an access or alarm monitoring event feed, the weather for more. The web tile can be used to display this type info alongside other tiles showing camera feeds but note that this only works with a WAN architecture.

There are two ways of connecting an Eagle Eye Local Display Station: CamLAN configuration and WAN-only configuration;

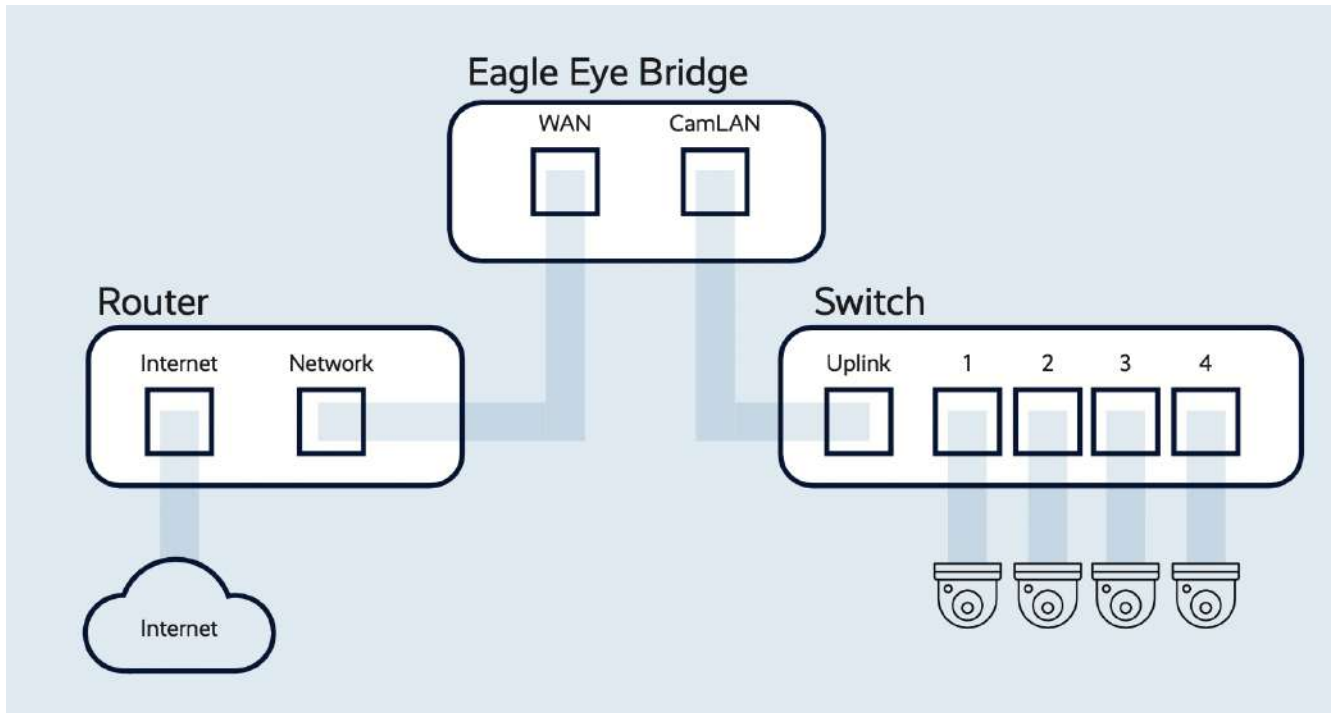


Image 1: Example CamLAN configuration for the Local Display Station

CamLAN Configuration:

The Eagle Eye Local Display Station (LDS) will be connected to the same PoE switch as the IP cameras that are connected to the secured camera network, or CamLAN. With this configuration, the Local Display Station will also be secured behind the bridge/CMVR and has a direct connection to all of the cameras that are also connected to this bridge/CMVR.

Comments:

- The Eagle Eye Local Display Station is securely connected behind the CamLAN, with no access from the local network.
- The Eagle Eye Local Display Station doesn't use LAN network resources as it connects over the separated camera network.

Eagle Eye Local Display Station WAN Only Configuration

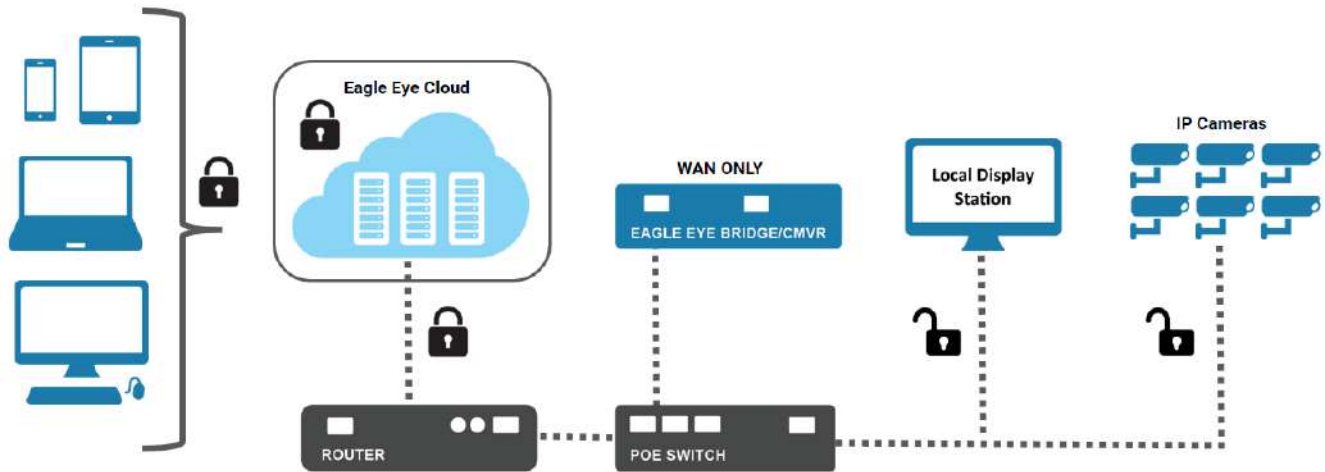


Image 2: Example WAN only configuration for the Local Display Station

WAN-Only Configuration:

The Eagle Eye Local Display Station will be connected to the same PoE switch as the IP cameras. In this setup, however, the secured camera network (CamLAN) will not be used. The bridge/CMVR will only be connected through its WAN port. With this configuration, the Local Display Station will not be secured behind the bridge/CMVR, but still has a direct connection to all of the cameras that are also connected to this Bridge/CMVR.

Comments:

- Eagle Eye Local Display Station is not connected behind the CamLAN; the Local Display Station will be accessible from within the local network, which is less secure.
- Eagle Eye Local Display Station uses LAN network resources as it connects over the existing local network.

Use Case: The customer's existing cameras are already connected over the WAN

- Moving cameras over to the CamLAN in this scenario may not be feasible. In this case, the Secure Display Station can still be utilized without having to reconfigure the existing network topology.

Functionality

The Eagle Eye Networks Local Display Station does not require any login information for the end user to view the live video. Logging in is only necessary to configure the device. It is

necessary for the device to be placed in the same local network as the cameras and bridge/CMVR because it makes a direct connection.

Use case examples:

Security Guard / Office Manager

The Local Display Station is placed at the front office or entrance of the building where the viewer has a direct overview of the site. The Local Display Station will remain completely functional in an internet-outage event as it streams directly from the cameras.

Spot Monitor / Retail

The Local Display Station is placed at the entrance of the store, and can be used to show customers while they are entering the building that they are being monitored.

Application

Create Eagle Eye Local Display Station User

To set up the Local Display Station, first an Eagle Eye Cloud VMS account needs to be created.

1. Log in at <https://login.eagleeyenetworks.com> with an admin user account.
 - a. If this is a Reseller account, click the “eye” icon under “Actions” of the account that will have the Local Display Station. Note: The LDS user needs to be an end-user account, not a reseller account.

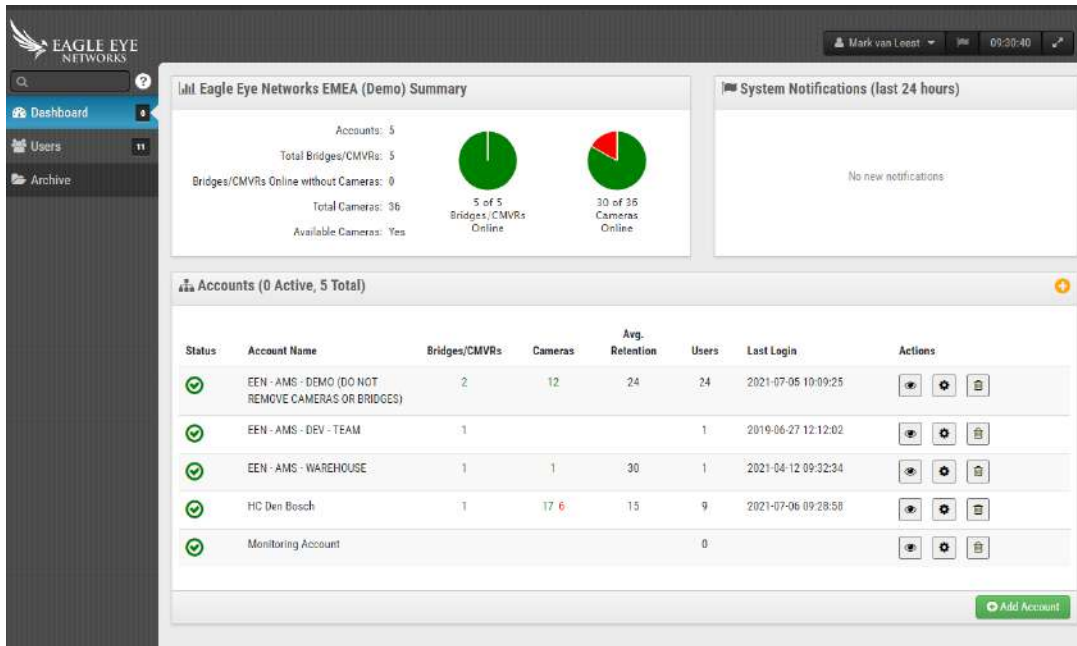


Image 3: Setup the Local Display Station for end-user accounts by clicking on the “eye” icon

2. Click Users on the left-side menu.
3. Click Add User at the bottom of the user list.



Image 4: Selecting Add User

4. Enter an email address and name for the Local Display Station account. A valid email address will need to be used in order to receive the account verification email required to log in. After the user is created, check the email account to validate the user and create a password.

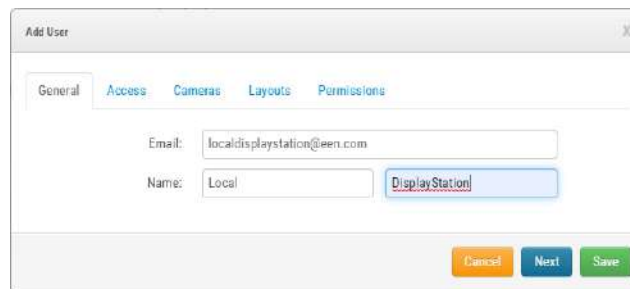


Image 5: Entering in the email address and name for the Local Display Station account

- Click the Permissions tab for the user to make sure it has viewing permissions. If any changes have to be made, click Save.

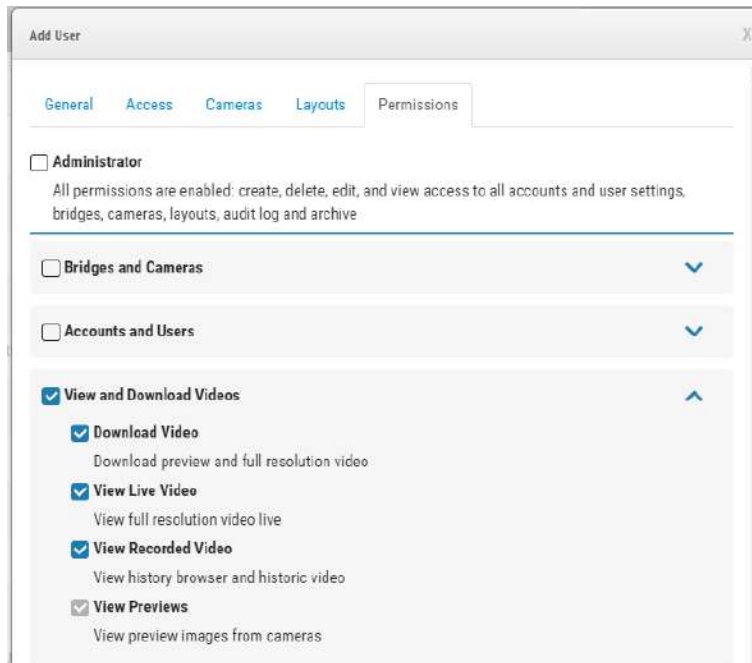


Image 6: Manage permissions for viewing and downloading videos within the Permissions tab

Create Layout for Local Display Station

The Local Display Station connects to the Eagle Eye Cloud VMS through the user created in the previous step and displays the default Layout for that user. The next step is creating Layouts.

- Click Layouts on the left-side menu.



Image 7: The Layouts menu located on the left-side menu

- Click the blue Layout button and select "New Layout".

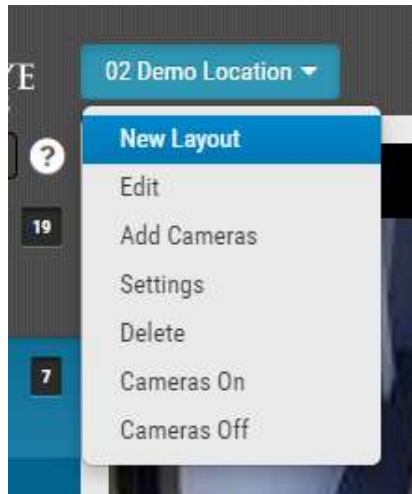


Image 8: Selecting a new layout

3. Design the desired Layout on the page that is now displayed. For example, a 4x4 Layout will be created to show 16 video feeds per screen.

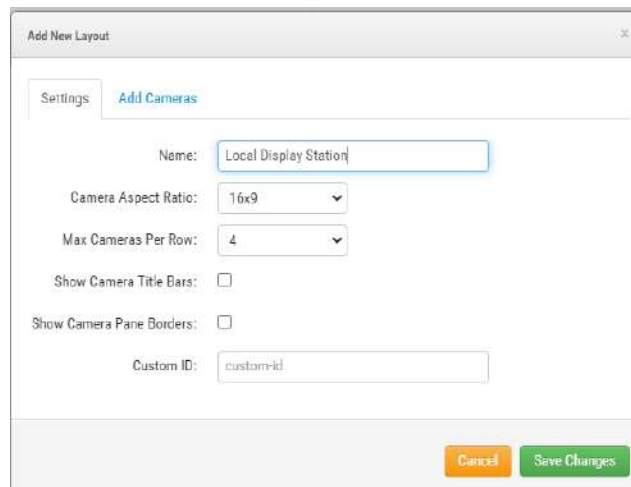


Image 9: Design and name the desired Layout from the Settings tab

4. Click the Add Cameras tab and select the cameras that will be displayed on the Local Display Station. Click "Save Changes" when finished.

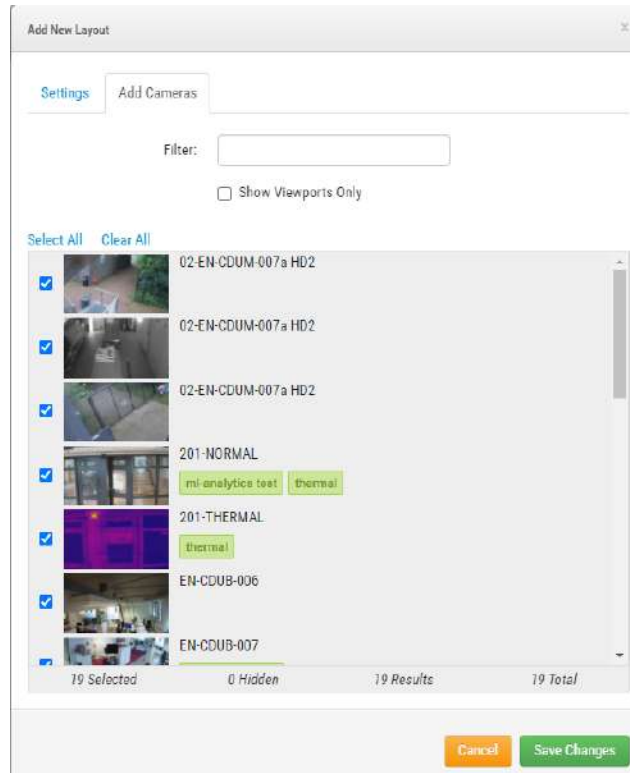


Image 10: Selecting cameras to be displayed in the Layout

5. Edit the size and order of the different camera feeds by clicking Layouts on the left-side menu, selecting the new Layout, and then choosing “Edit” from the blue button drop-down menu.

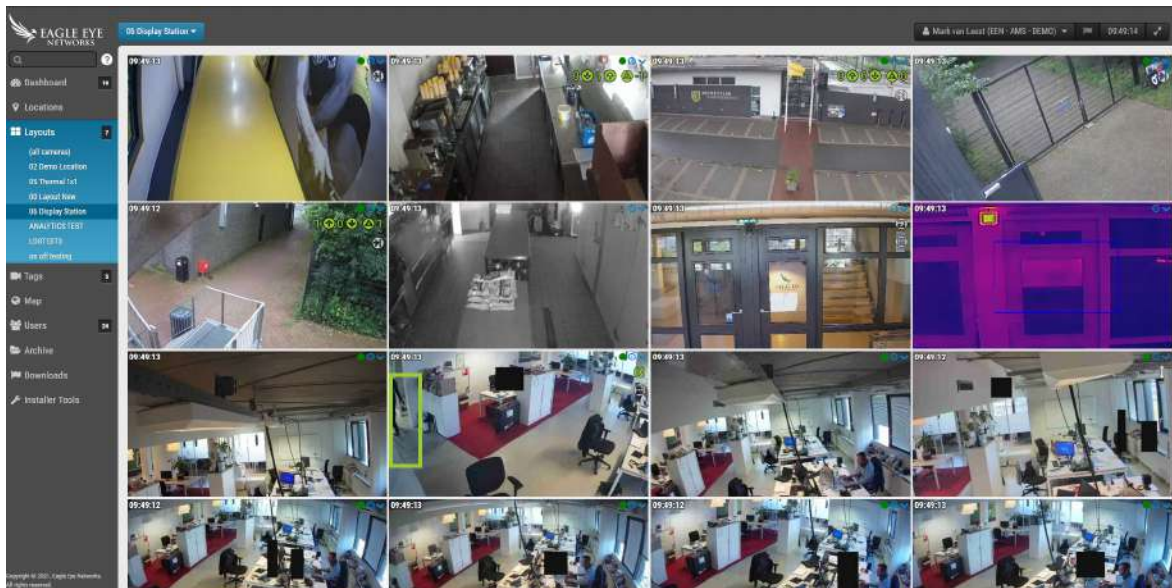


Image 11: Edit the size and order of camera feeds from the left-side menu

Assign the Layout to the Local Display Station

In order for the Local Display Station to display the Layout, the Layout will need to be assigned to the Local Display Station user account.

1. Click Users in the left-side menu and find the Local Display Station user. Click the Gear icon under Actions.

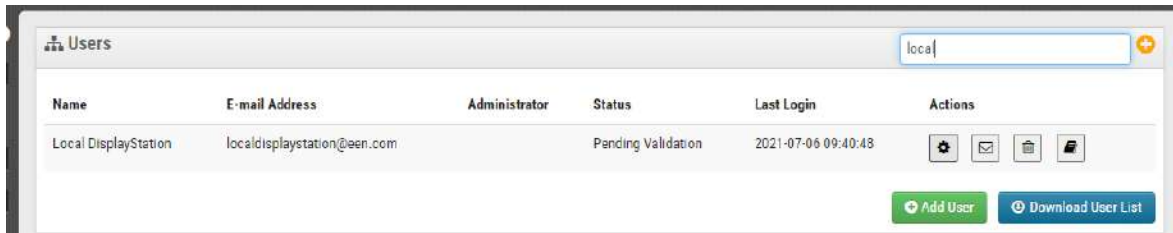


Image 12: Select users to assign to Layouts

2. Select the Layouts tab and only add the Layout made for the Local Display Station to the "Access" list, then "Save Changes".

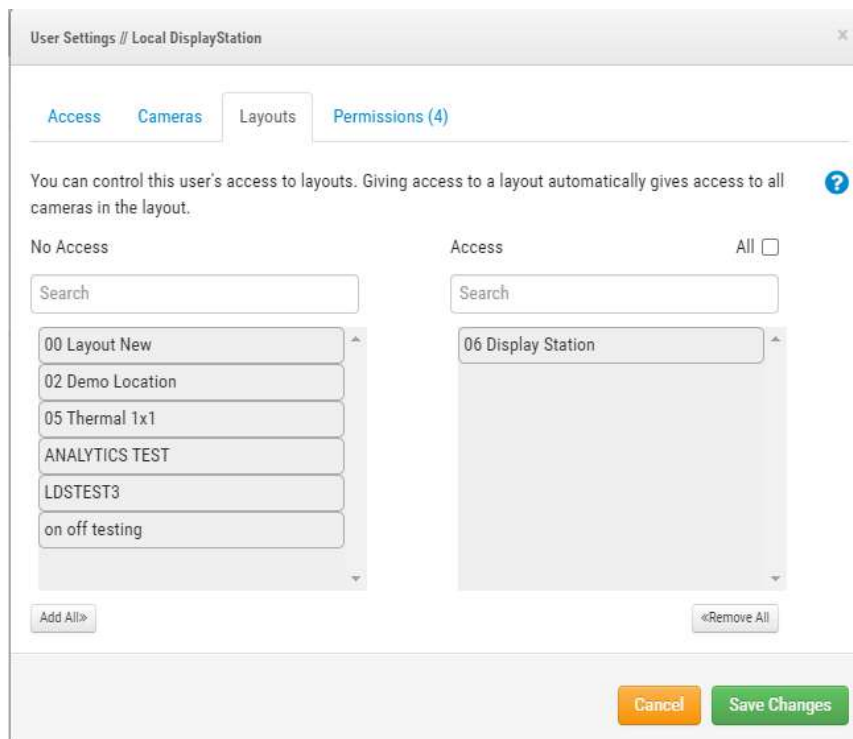


Image 13: Adding the Layout made specifically for the Local Display Station

Configure the Local Display Station

After the Local Display Station user and Layout have been created, the device itself needs to be configured to access the Eagle Eye Cloud VMS.

1. On the Local Display Station, click “Switch to Configuration View” at the top of the screen.



Image 14: Example of Switch to Configuration View

2. Log in to the Local Display Station. The default username/password is admin/admin.
3. Once logged in, click Configuration, then go to the Integration tab and enter the Eagle Eye Cloud VMS account credentials created for the Local Display Station.

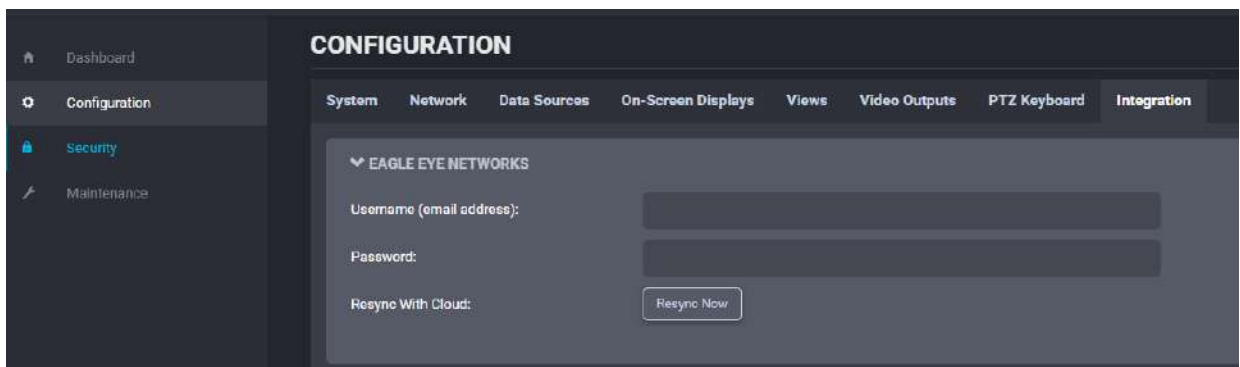


Image 15: From the Integration tab, enter VMS account credentials for the Local Display Station

4. If done successfully, the following message will be displayed:



Image 16: Indication of a successful setup

5. Finally, click “Switch to Display View” to view the Layout assigned to the account.

6. If multiple Layouts are assigned to the account, the top-left drop-down menu is where they can be selected as shown below.



Image 17: Selecting between multiple Layouts using the Switch to Configuration View