



# IOT DIGITAL SIGNAGE

Quick Start Guide

## ABSTRACT

Remotely create, send, and display messages to televisions or other HDMI supported gadgets anywhere within your enterprise Wi-Fi network. Scheduling, targeting and managing your Playlists on your gadget kiosks are made easy.

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#### DOCUMENT HISTORY

Date	Version	Particulars
02/26/2018	1.0	Created quick start guide

## 1. Introduction

This is a quick start guide used to develop a digital signage content management application with customer interaction. A smart Digital Signage Stick (OEM) communicates with platform and the signage content is displayed remotely from the content manager application. The digital signage content is controlled and monitored centrally by the content manager application.

Digital signage are displays which use technologies such as LCD, LED and projection to display content such as digital images, videos, streaming media, web pages, weather data, restaurant menu, or text. They can be found in public spaces, transportation systems, stadiums, retail stores, hotels, restaurants, and corporate buildings and so on to provide outdoor advertising.

### 1.1. Purpose of this document

The purpose of this document is to help you to remotely create, send and display messages on televisions or other HDMI capable displays anywhere in your enterprise wi-fi network. The application provides basic interfaces to Create, Schedule, Target, Manage and Publish the content on your device kiosks.

### 1.2. Definitions and Abbreviations

Terms	Definitions
<b>Device</b>	Devices are HDMI IoT sticks, which are plugged into components such as monitors, projectors or televisions, positioned at Locations that display Content within a Playlist.
<b>Location</b>	A Location is a place such as hotel or restaurant with one or more Devices that display Content within a Playlist.
<b>Content</b>	Content is your message or information on billboards which is displayed on Devices positioned at Locations within a Playlist.
<b>Playlist</b>	A Playlist is a group of Locations, with one or more Devices at each Location, which displays one or more Content on Devices.
<b>Dashboard</b>	A console used to display the status of Device, Location and Playlist.
<b>Admin</b>	Admin can customize settings for the users and assign roles.
<b>Reports</b>	A consolidated information of all components.
<b>HDMI</b>	High Definition Multimedia Interface

### 1.3. Sign-in

Navigate to <http://signedemo3.azurewebsites.net/> and sign in. Enter the following credentials:

1. Username: **Demo**
2. Password: **Demo**
3. Click **Next**.

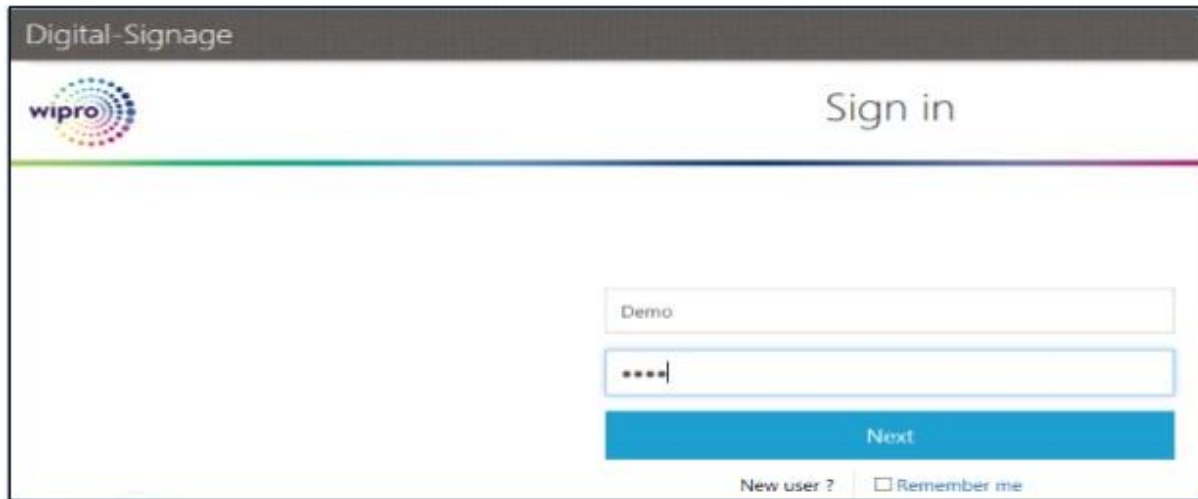


Figure 1: Sign in

## 1.4. Process Flow

1. Devices - Add Devices.
2. Locations - Add Devices to Locations.
3. Content - Select Content Template and add your Message.
4. Playlist- Create a Playlist by adding Locations to the Playlist and targeting Content to Devices.
5. Admin - Apply settings to a Playlist as required.

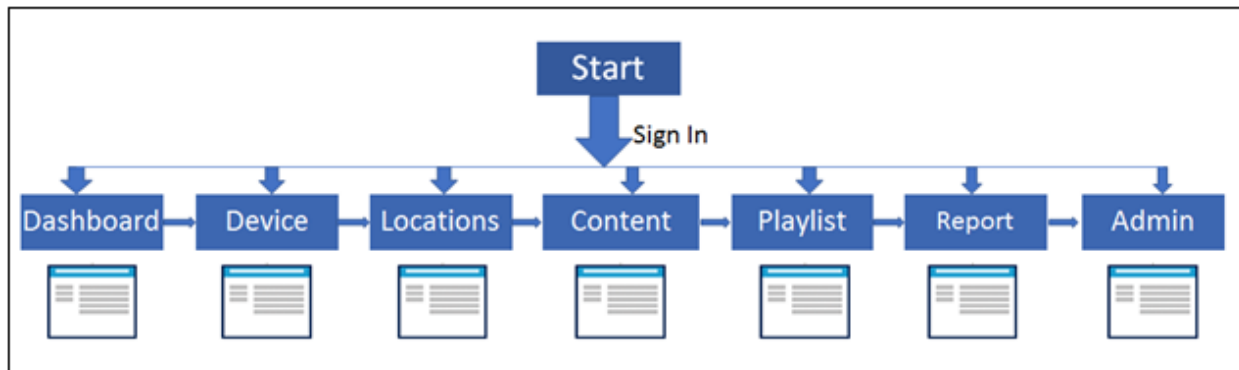


Figure 2: Workflow

## 1.5. Navigation



Figure 3: Main Menu

Main menu consists of following items:

- [Dashboard](#)
- [Device](#)

- [Location](#)
- [Content](#)
- [Playlist](#)
- [Report](#)
- [Admin](#)

## 2. Dashboard

Dashboard provides at-a-glance view of the Content and Playlist details. A detailed status of rejected, approved, saved, scheduled and published Content is displayed in the graph.

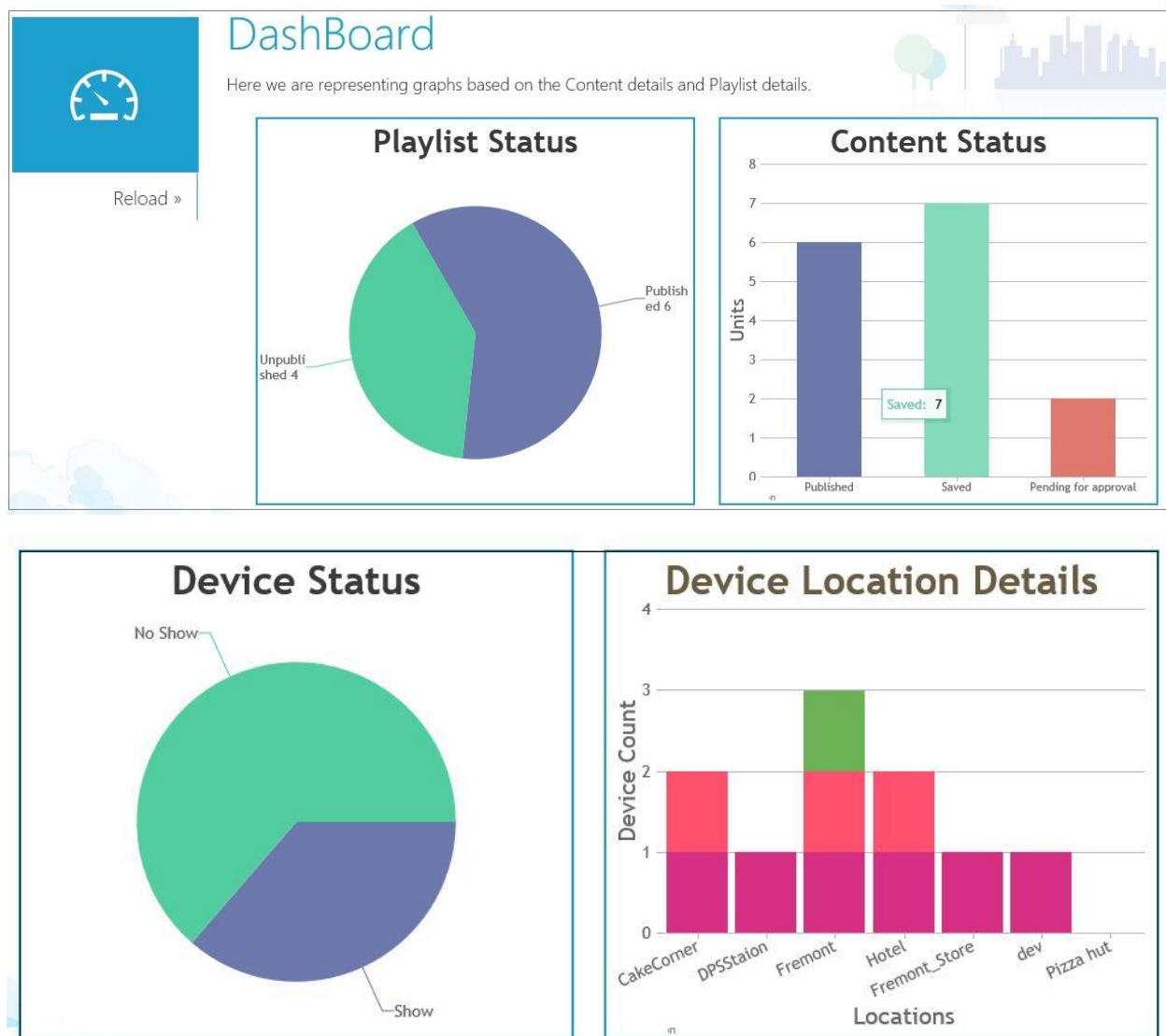


Figure 4: Dashboard

### 2.1.Reload

Reload sub menu is used to refresh the dashboard if any changes are made. The following graph is based on Content, Device and Playlist details:

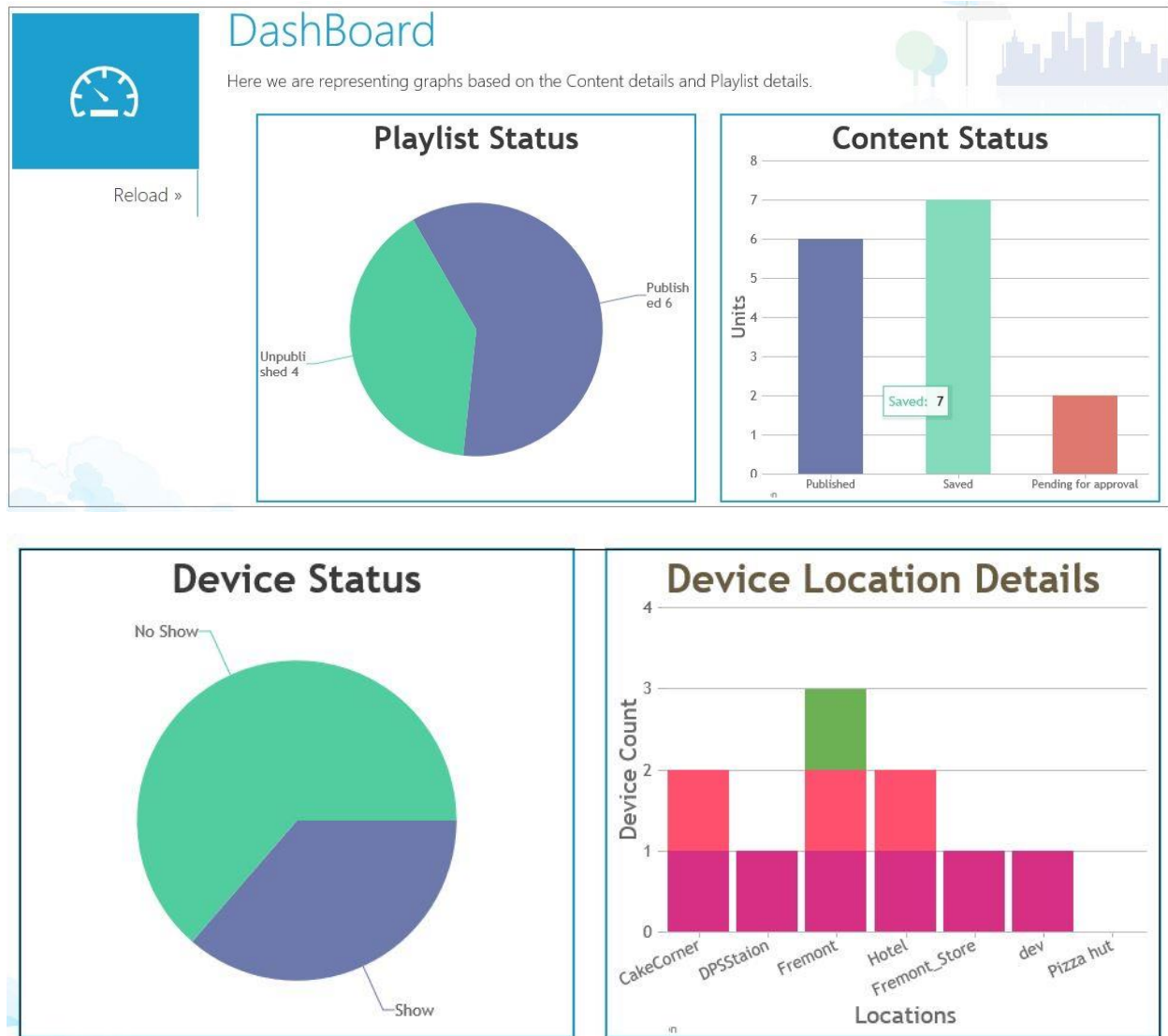


Figure 5: Dashboard

### 3. Device

A Device is a HDMI IoT stick, which is plugged into components such as monitors, projectors or televisions, situated at Locations where Content is displayed within a Playlist.

#### 3.1.Add Device

To add Devices:

1. Select **Device** from the main menu.
2. select **Add Device** from the sub menu.

The screenshot shows the 'Digital-Signage' web interface. The top navigation bar includes 'Dashboard', 'Device', 'Locations', 'Content', 'Playlist', 'Report', and 'Admin'. The main content area is titled 'Devices - Add Device'. It contains a description: 'Devices are HDMI IoT sticks that are plugged into devices, like monitors, projectors or televisions, located at locations that content display on within a playlist.' Below this are two input fields: 'Device Serial No' with the value '43445554534123' and 'Device Name' with the value 'Demo1'. At the bottom right are 'Save' and 'Cancel' buttons. On the left, there is a sidebar with a play button icon and three options: 'Add Device »', 'Remove Device »', and 'Reload »'.

Figure 6: Device List

3. Enter **Device Serial No.**  
Note: The product serial number is displayed at the back of the component.
4. Enter **Device Name.**  
Add the Device name to the Locations and add/select the Content for each Device.
5. Click **Save.**

### 3.2.Reload

Reload sub menu is used to refresh the Device list.

### 3.3.Remove Device

To remove a Device:

1. Select **Device** from the main menu.
2. Click **Remove Devices.**
3. Check the Devices you wish to remove.
4. Click Remove Devices.  
**Note:** The screen will refresh and the selected Device is deleted.

## 4. Device Group

1. Select **Device** from the menu.
2. Select **Device Group** from the Device main menu.



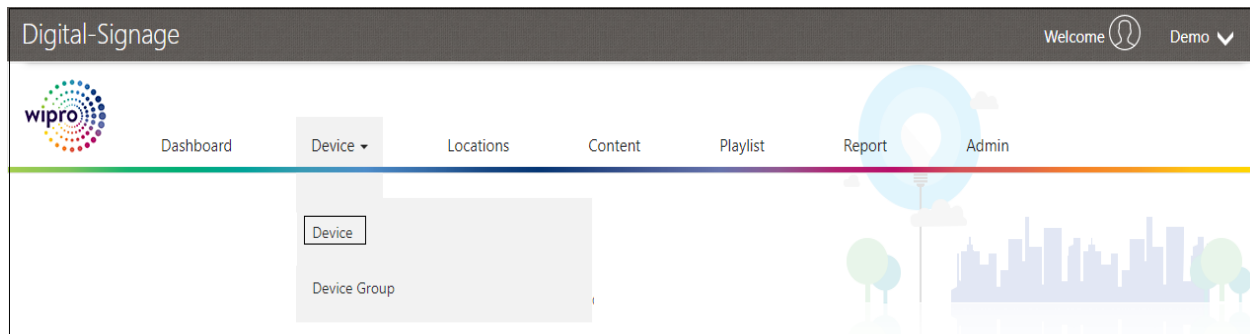


Figure 7: Select Device Group

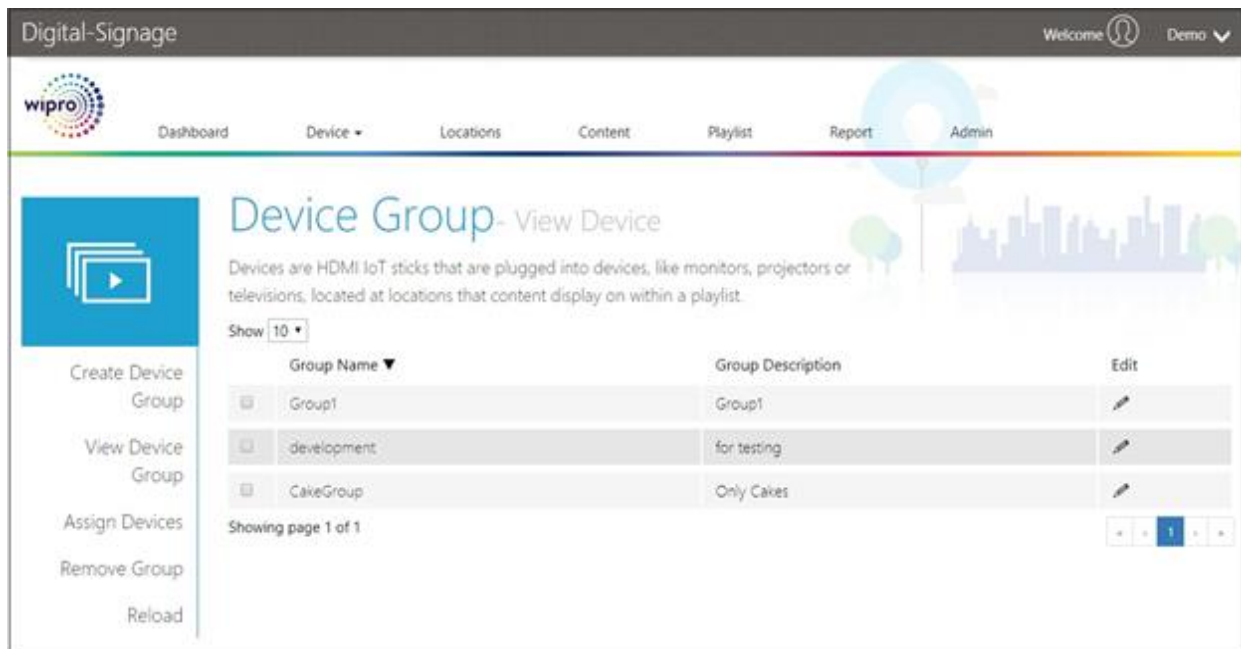


Figure 8: Device Group

#### 4.1. Create Device Group

1. Select **Create Device Group** from the sub menu.
2. In **Group Name**, enter the name of the Device group.
3. In **Group Description**, enter description of the Device group.
4. Click **Save**.

Digital-Signage

wipro Dashboard Device Locations Content Playlist Report Admin

## Device Group - Add DeviceGroup

Devices are HDMI IoT sticks that are plugged into devices, like monitors, projectors or televisions, located at locations that content display on within a playlist.

Group Name  
Cake

Group Description  
Shop

Save Cancel

Create Device Group  
View Device Group  
Assign Devices  
Remove Group  
Reload

Figure 9: Add Device

## 4.2. Assign Devices

1. To Select Devices, drag the Devices from **List Available** column and drop to the **List Selected** column.
2. Click **Save**.

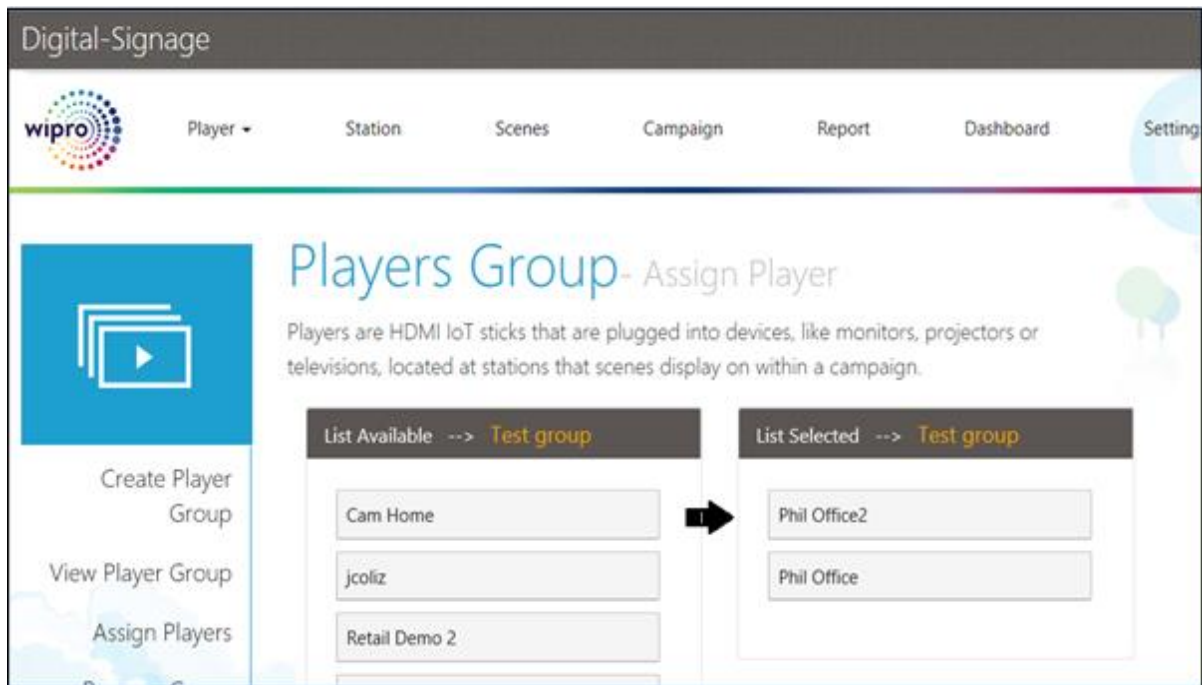


Figure 10: Assign Device

### 4.3. Remove Device

To remove a Device:

1. Select **Device** from the main menu.
2. Click **Remove Devices**.
3. Check the Devices you wish to remove.
4. Click Remove Devices.

**Note:** The screen will refresh and the selected Device is removed.

### 4.4. Reload

Reload sub menu is used to refresh the Device list.

## 5. Locations

Locations are places such as hotels or restaurants with one or more Devices where Content is displayed within a Playlist.

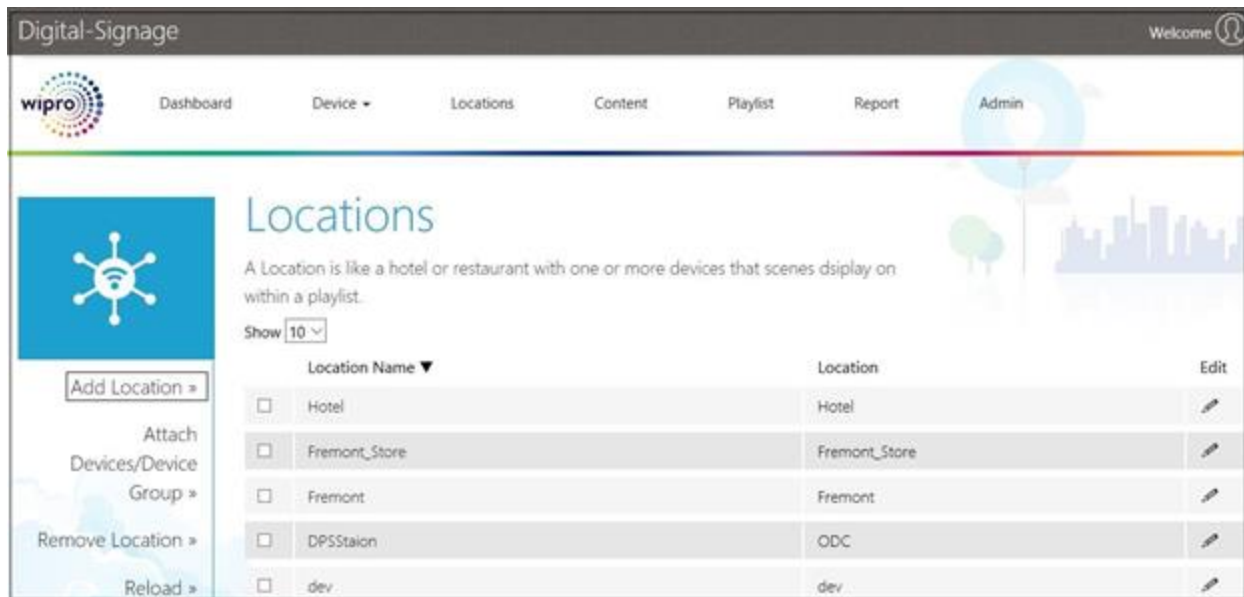


Figure 11: Location

## 5.1.Add Location

To add a Location:

1. Select **Add Locations** from the sub menu.
2. Enter **Location Name**.  
Name of the place where the Devices are situated. Location can typically be hotel, restaurant, airports or any other such location.
3. In **Location Details**, enter the general description of the Location. Such as hotel.
4. Click **Save**.

**Digital-Signage**

Wipro Dashboard Device Locations Content Playlist Report Admin

## Locations - Add Location

A Location is like a hotel or restaurant with one or more devices that scenes display on within a playlist.

Location Name:

Location Details:

Buttons: Save, Cancel

Left Sidebar: Add Location », Attach Devices/Device Group », Remove Location », Reload »

Figure 12: Add Station

### 4.1. Assign Device Group

To assign one or more Devices to a location:

1. Select one or more Location from the Location's List you wish to assign the Devices to that Location.
2. Click **Attach Device Group** from the sub menu.
3. Select the Device and drag the Device from the **Available list** column and drop it to the **Assigned list** column.
4. Click **Save**.

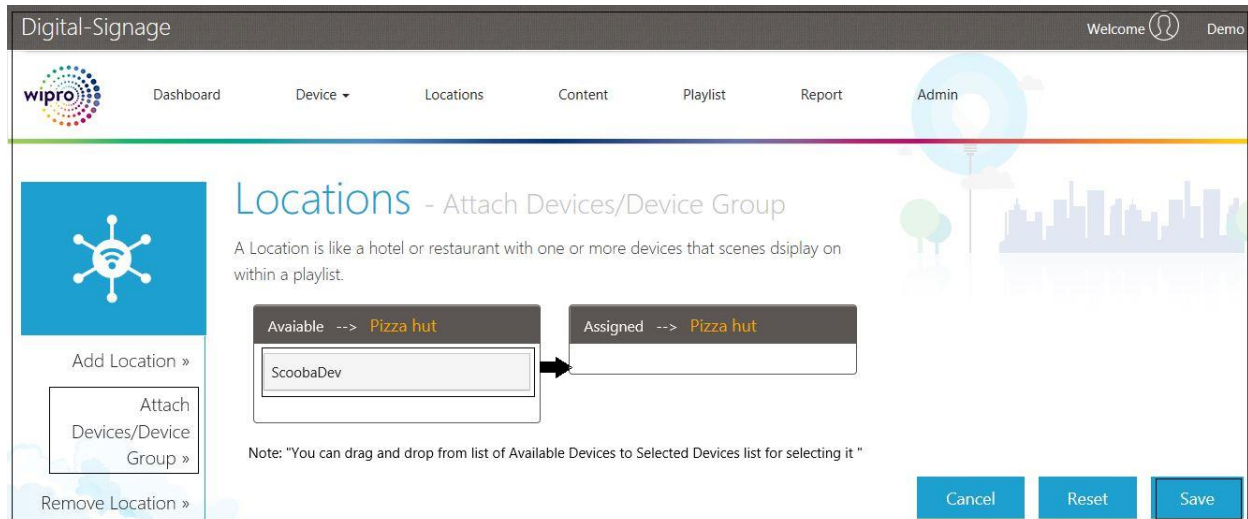


Figure 13: Assigning Devices for Stations

## 4.2. Remove Location

To remove Location:

1. Click Location from the sub menu.
2. Check the row you wish to remove or delete.
3. Click Remove.

**Note:** The screen will refresh and the selected Location is removed.

## 4.3. Reload

Reload sub menu is used to refresh the Location list

## 5. Content

Content is your messages or information on billboards and so on, which is displayed on Devices situated at the Locations within a Playlist.

### 5.1. Change Role

To change role:

1. Select Role from the **Manager** Drop-down list.
2. Click **Preview** icon to view the Content
3. Click **Submit**.

**Note:** A confirmation message will be displayed on the screen.

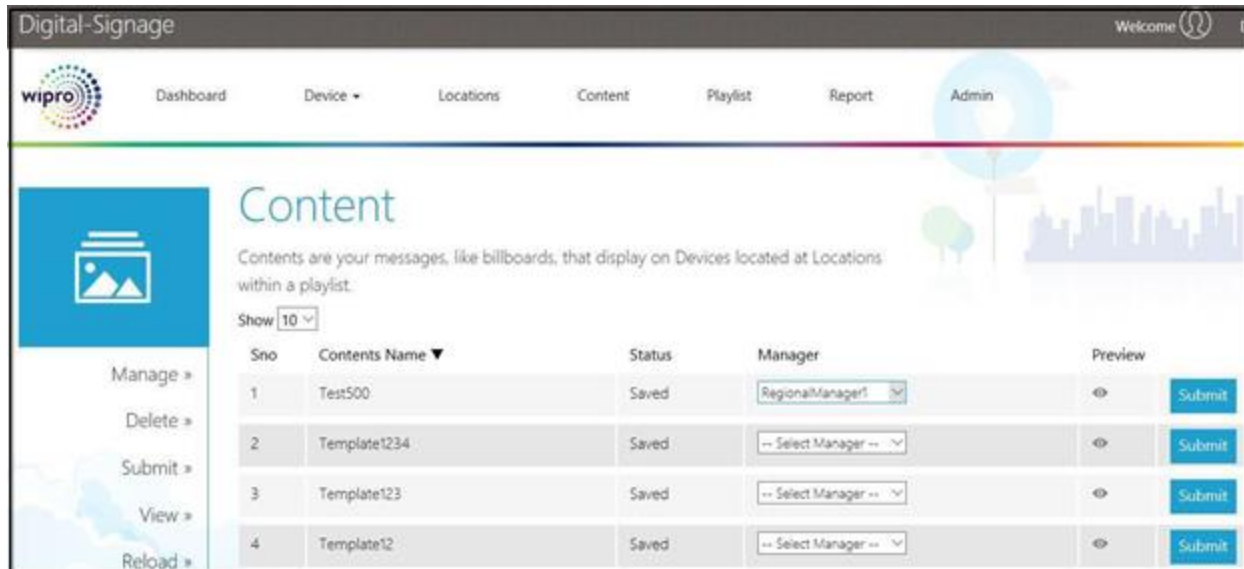


Figure 14: Content

## 5.2. Manage - Upload Content

To upload Content:

1. Select **Content** from the main menu.
2. Click **Manage Content** for the sub menu.
3. Click Upload.

**Note:** Upload your own Content such as an image with text or select a template and create Content with the template tool.

4. Enter **Content Name**.  
Add the name to the Content which you will add to Devices situated in the Locations within your Playlist.
5. Enter **Description about the Content**.  
General description of your Content.
6. **Upload**  
For Content, upload Image, Video, Web URL and Video URI (blob) located on your local drive.
7. Click **Save**.

**wipro** Dashboard Device Locations Content Playlist Report Admin

## Content - Upload

Contents are your messages, like billboards, that display on Devices located at Locations within a playlist.

Content Name  
Pizza Hut

Description about the scene  
Menu

Choose Upload Type : Image

C:\Users\sh881105\Pictures\DI.JPG Browse...

Save Cancel

Manage »  
Upload  
Predefined Templates  
Custom Templates  
Delete »  
Select the Content !  
Submit »  
View »

Figure 15: Upload Content

### 5.3. Manage – Predefined Template

To add Content:

1. Select **Add Content > Custom Template** from the sub menu.

**Note:** This is your message which is composed of images and text that appear on Devices in the Location within your Playlist.



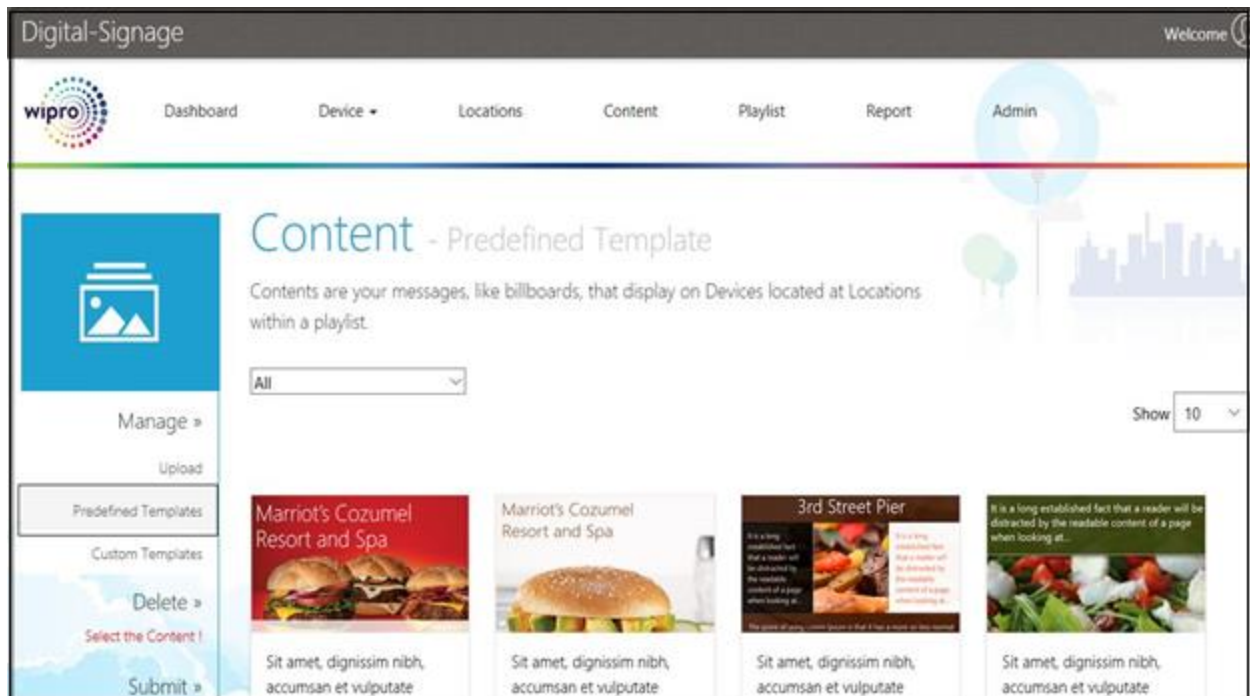


Figure 16: Content - Predefined templates

2. Select a template and select **Click to Edit** and **Upload**.
3. Select a static template to customize your image and text.
4. Select the **Category** from the drop-down list.

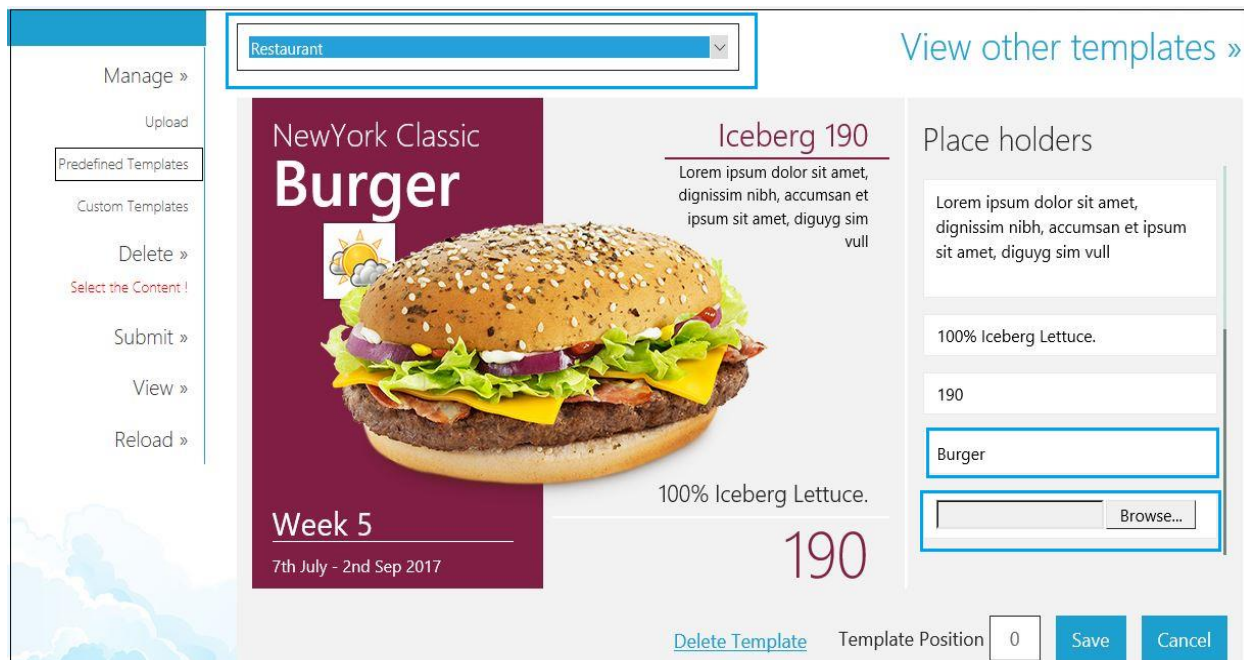


Figure 17: Customizing template

5. In the **Place Holder** section, customize the information you would like it to appear on the image.
6. Select the icon position. Left-Top, Left-Top, Left-Bottom and Right-Bottom.
7. Scroll down and Enter the **Template Name**.

8. Select an image and Upload using the **Browse** button.
9. Enter a number in **Template Position** box where you want the template to appear.
10. Click **Save**.

## 5.4. Manage - Custom Template

You can customize the template by selecting **More Options to Create Template**.

1. Enter a name for custom template.
2. Customize your Content template by selecting custom template options such as orientation (landscape/portrait) and animation.
3. Click **Save**.

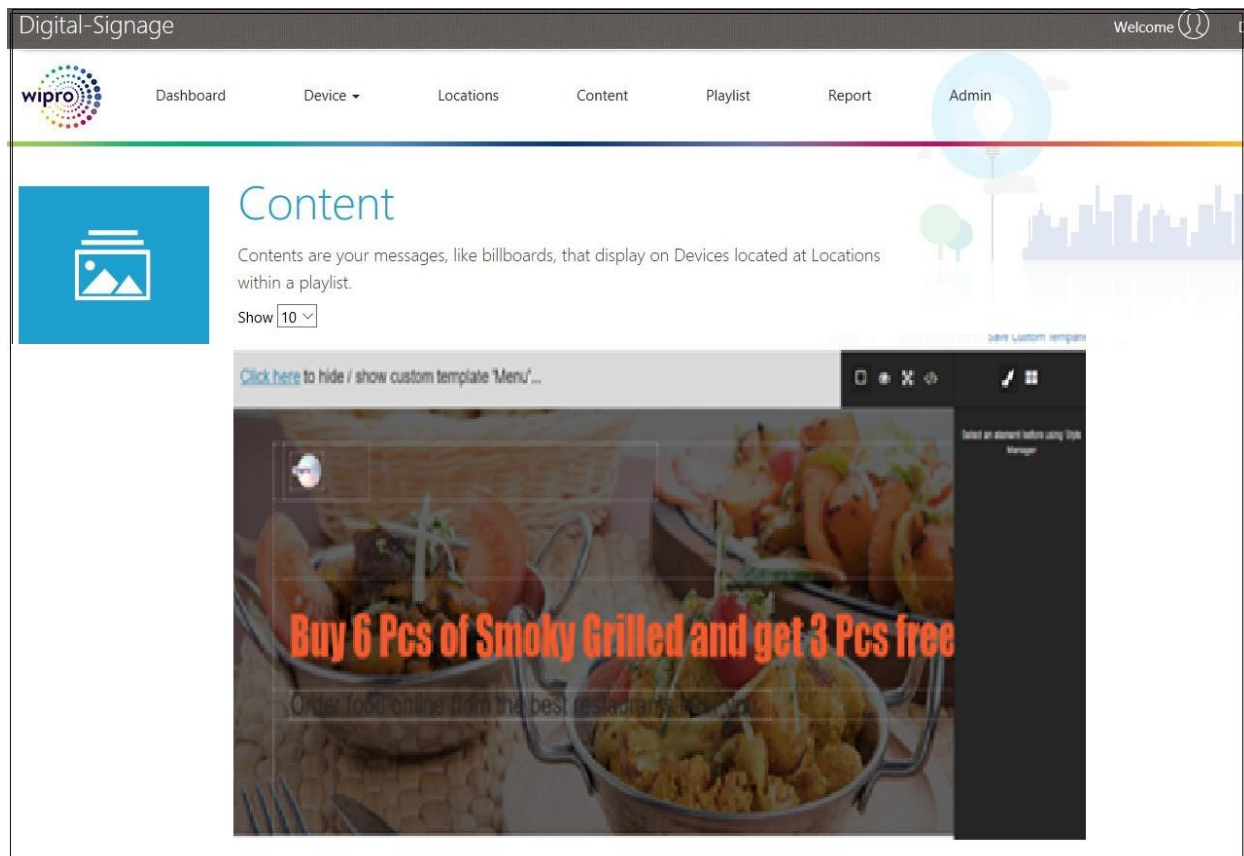


Figure 18: Custom template

## 5.5. Delete Content

To remove Content:

1. Click View from the sub menu.
2. Check the row which you wish to delete.
3. Click Delete.

**Note:** The screen will refresh and the selected Content is deleted.

## 5.6.Change Role

To change role:

1. Select Role from the **Manager** Drop-down list.
2. Click Preview icon to view the Content
3. Click Submit.

Note: A confirmation message will be displayed on the screen.

## 5.7.Reload

Reload sub menu is used to refresh the Content list

## 6. Playlist

A Playlist is a group of Locations, with one or more Devices situated at each Location that displays one or more Content on the Devices.

You can edit and publish the location, start/end date and time in the Playlist.

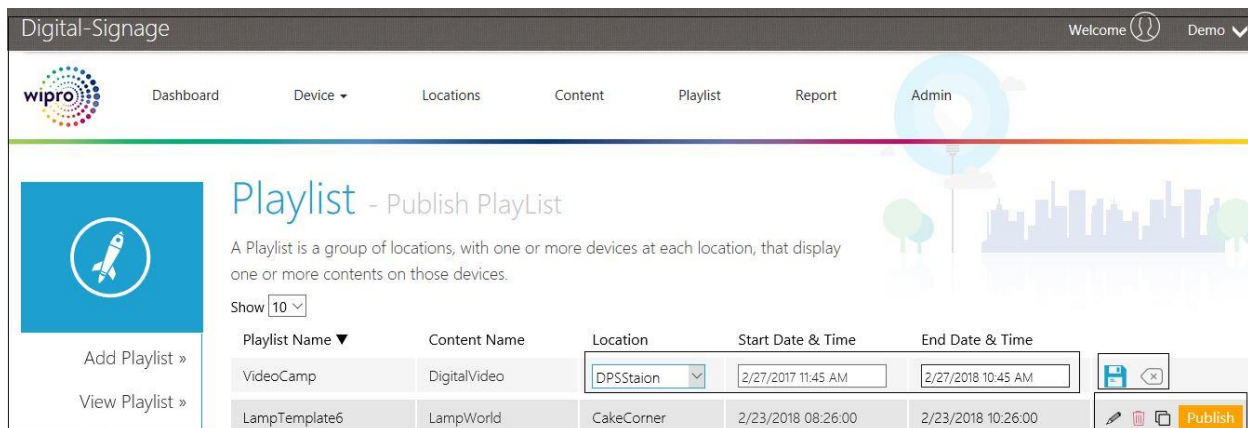


Figure 19: Publish Playlist

### 6.1.Add Playlist

To add a Playlist:

1. Select Playlist from the main menu.
2. Check one or more approved Content for your Playlist, which you wish to display on the Device in the Locations.
3. Select **Location Name** from the drop-down list.  
These are the Locations on which Content is displayed.
4. Enter the **Playlist Name** from the sub menu.
5. Set the **Start/End Date and Time (dd-yyyy)** format.  
Select an image placed on your local drive to display the Content
6. Set the **Interval in Display Interval (in seconds)**.  
Playlists are displayed in 3,5,10,30,60 second intervals.
7. Click **Save**.

8. Click **Publish**.

**Note:** Publish the Playlist. Refer to [Publish](#) for more details.

The screenshot shows the Wipro IoT Digital Signage web application interface. The top navigation bar includes links for Dashboard, Device, Locations, Content, Playlist, Report, and Admin. The main content area is titled 'Playlist - Add Playlist' and includes a description: 'A Playlist is a group of locations, with one or more devices at each location, that display one or more contents on those devices.' Below this is a 'Select Contents to Preview and Publish' section. A modal form titled 'Campaign - Add Campaign' is open, showing fields for Station Name, Campaign Name (demo), Start Date (2/16/2018), End Date (2/18/2018), Start Time (10:37 AM), End Time (2:37 AM), and Display Interval (30 seconds). The form has 'Save' and 'Cancel' buttons.

Figure 20: Create Playlist

## 6.2. View a Playlist

To view a Playlist:

1. Click Playlist.
2. Select **View Playlist** from the sub menu you wish to view the current and active Playlist in the list.

**Note:** The list is refreshed.

## 6.3. Publish

To publish a Playlist:

1. Create a Playlist.
2. Select **Publish** from the sub menu.

3. Select the **Publish** icon and your Playlist is published.

**Note:** This Playlist will display Location and Devices based on the predefined date, time, and frequency.

### 6.3.1. Unpublish Playlist

To Cancel the publishing from the list, Click **Cancel** to unpublish the name from the Playlist.

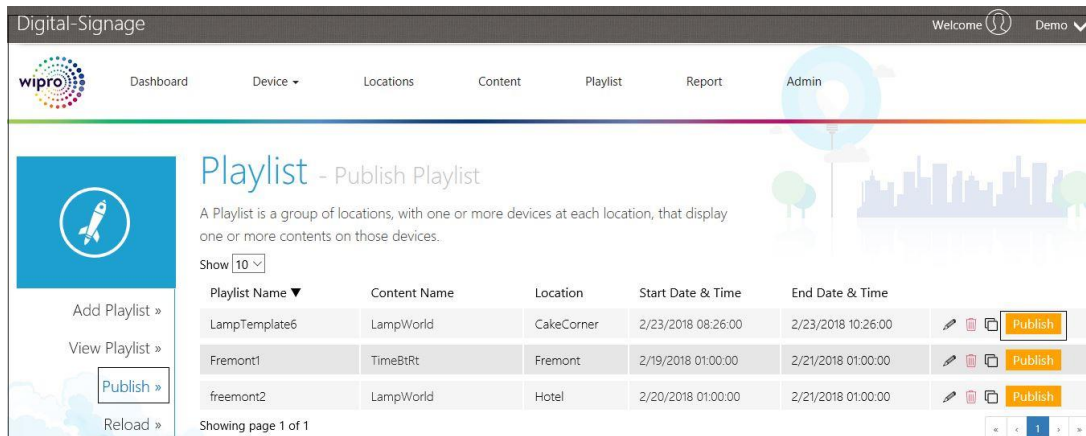


Figure 21: Publish Playlist

### 6.4.Reload

Reload sub menu is used to refresh the Playlist.

## 7. Reports

Reports are generated to provide history based on Location or Playlist details. A detailed view of station name, Playlist name, Content name, Device name, start/end date and time and status is displayed in the report.

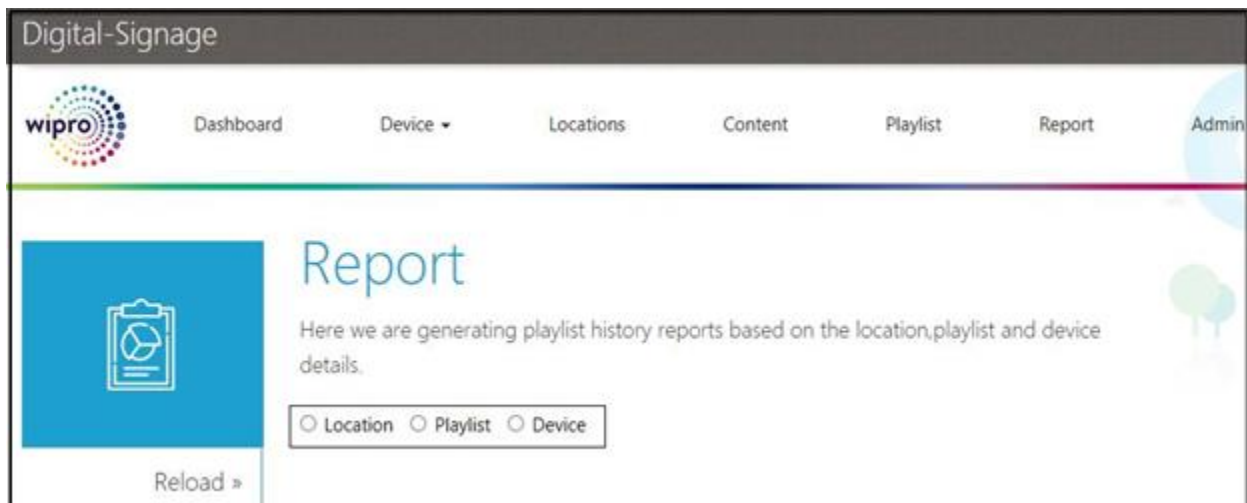


Figure 22: Reports

## 7.1. Location wise reports

To generate the Location wise report, do the following:

1. Click the **Location** radio button.
2. Select the **Location name** from the drop-down list.
3. Enter the **Start Date** from the drop-down list.
4. Enter the **End Date** from the drop-down list.
5. Click **Show Report**.


The screenshot shows the 'Report' section of the Digital-Signage application. The top navigation bar includes 'Dashboard', 'Device', 'Locations', 'Content', 'Playlist', 'Report', and 'Admin'. The 'Report' section has a 'Location' radio button selected, along with 'Playlist' and 'Device' options. Below these are input fields for 'Location' (set to 'CakeCorner'), 'Start Date' (11/23/2017), and 'End Date' (2/19/2018). A 'Show Report' button and a download icon are also present. A table displays the report data:

Location name	Playlist name	Content name	Device name	Start Date & Time	End Date & Time	Status
CakeCorner	LampTemplate6	LampWorld	CakePlayer	1/3/2018 12:59:00	2/16/2018 00:59:00	Scheduled

At the bottom, it says 'Showing page 1 of 1' and includes pagination controls.

Figure 23: Station wise Reports

## 7.2. Download Report

Click the  icon to download the report.

## 7.3. Playlist wise reports

To generate the Playlist wise report, do the following:

1. Click **Playlist** radio button.
2. Select the **Location name** from the drop-down list.
3. Enter the **Start Date** from the drop-down.
4. Enter the **End Date** from the drop-down.
5. Click **Show Report**.



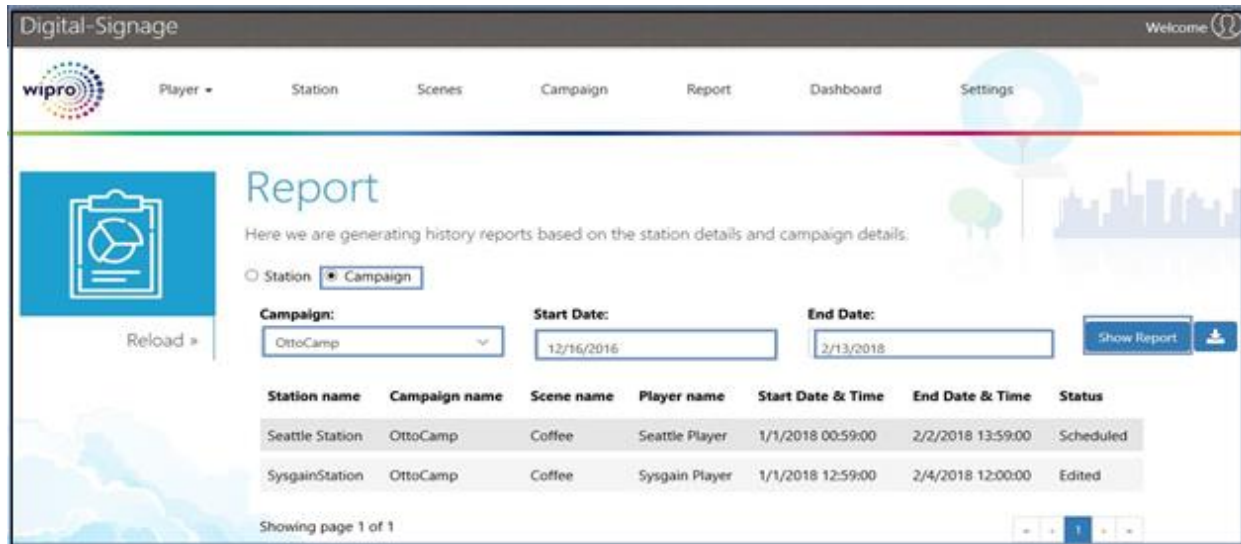



Figure 24: Playlist wise report

## 7.4. Device wise reports

To generate the Device wise report, do the following:

1. Click **Device** radio button.
2. Select the **Location name** from the drop-down list.
3. Enter the **Start Date** from the drop-down.
4. Enter the **End Date** from the drop-down.
5. Click **Show Report**.

## 7.5. Download Report

Click the  icon to download the report.

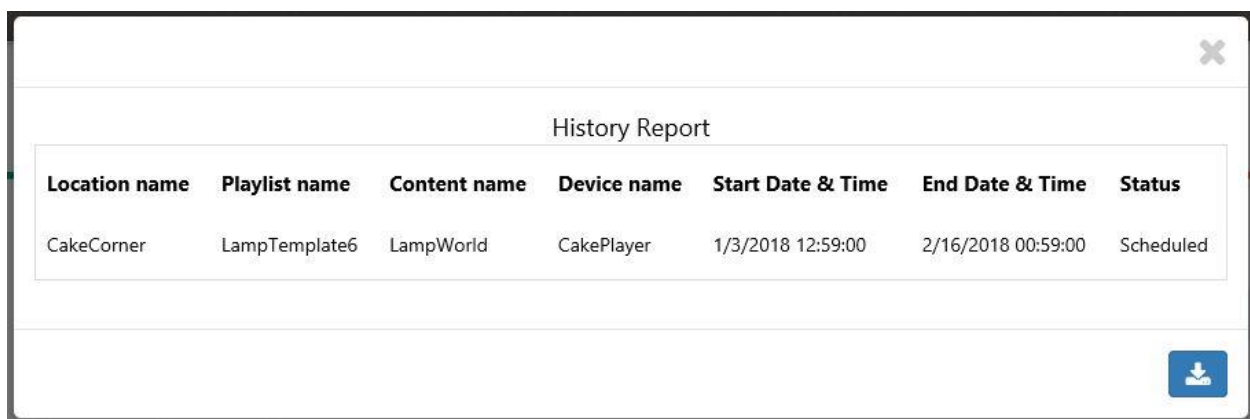


Figure 25: Report

## 7.6. Reload

Reload submenu is used to refresh the Location and Playlist list.

## 8. Admin

In **Admin**, you can select and modify **User Roles** and **Approvals** for your Playlist.

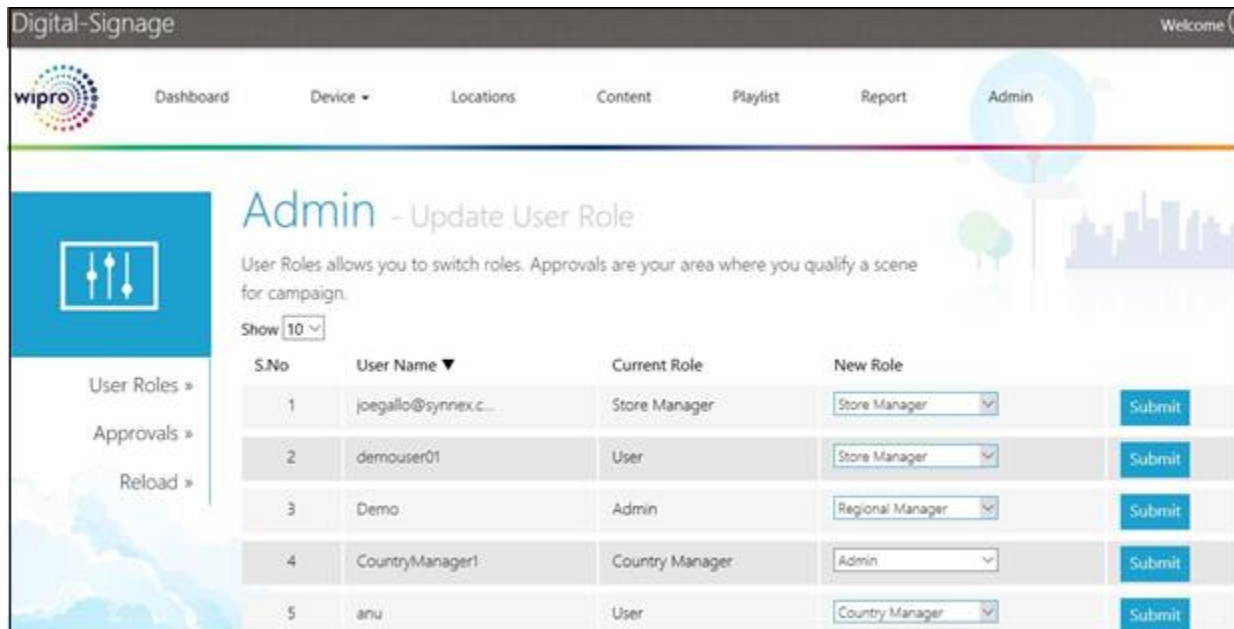


Figure 26: Admin

1. Select **Admin** from the main menu.
2. To define user roles, click **User Roles** from the sub menu.
3. Select the role by clicking the **New Role** drop-down list.
4. Click **Submit**

Note: A confirmation message will be displayed as **User details updated successfully**.



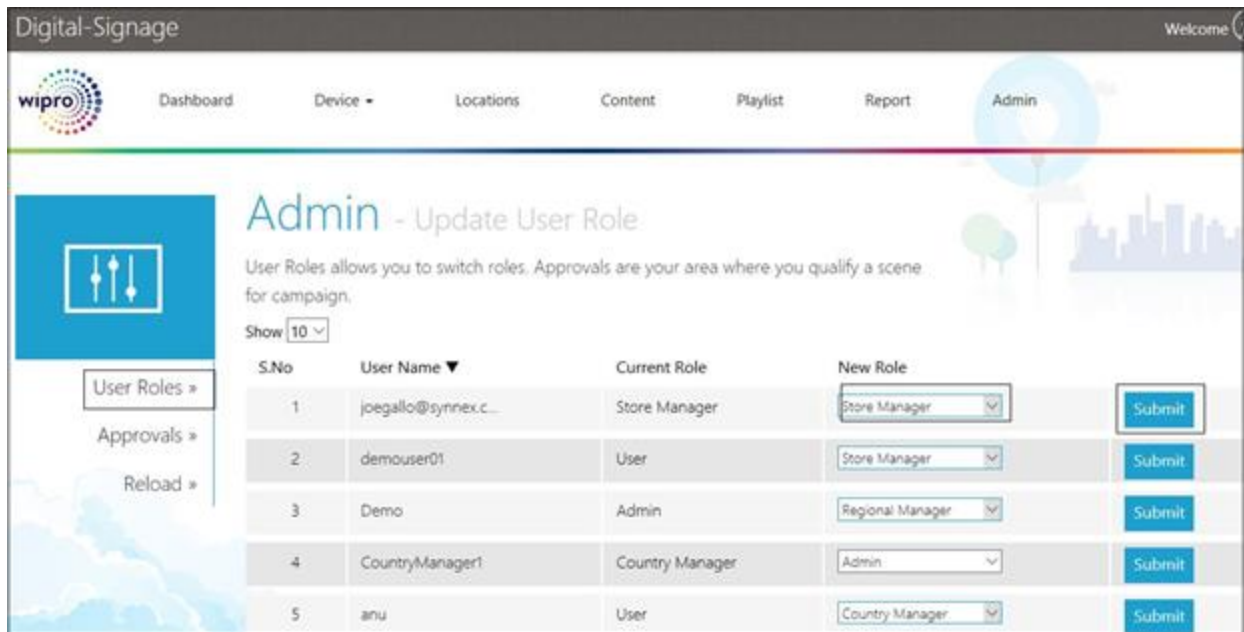


Figure 27: Settings

User roles allow you to switch roles. Approvals are required to qualify Content for a Playlist.

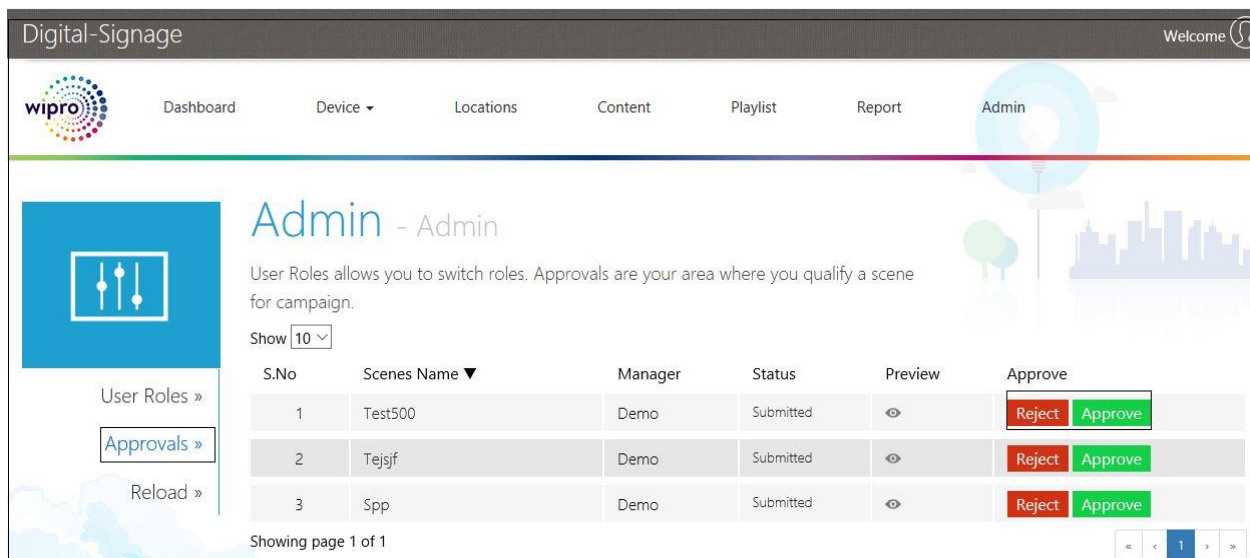


Figure 28: Approve/Reject user roles

In Approvals sub menu, click **Approve** or **Reject** to approve or reject a user from the Playlist.

**Note:** A confirmation message is displayed depending on the response selected.

### 8.1.Reload

Reload submenu is used to refresh the roles either after assigning user roles or approving/rejecting the roles for a Playlist. Click **Reload**.