
TECHNICAL OVERVIEW

VIDERI DIGITAL CANVAS
SPARK SERIES

JULY 2024

Canvas Specifications

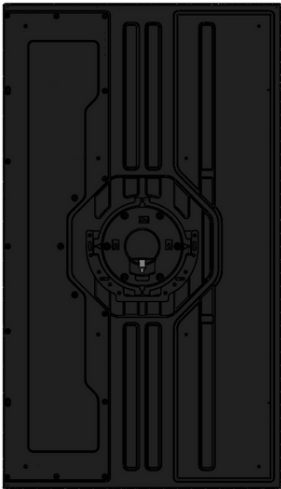
Spark5

FRONT

43.42in
[1102.868mm]

24.92in
[633mm]

BACK



Screen Size	1073.8 x 604mm
Resolution	3840 x 2160 UHD
Brightness (NITS)	450 nits
Surface Treatment	25% Haze
Processor	RK3588
OS	Android12
WiFi/Bluetooth	WiFi 6/5.2
Vesa Pattern	200mm x 400mm with M5 Screws
Power Consumption	81W (typical)
Panel Type	TFT
Storage	24GB Useable
Weight	13Kg/28.7lbs

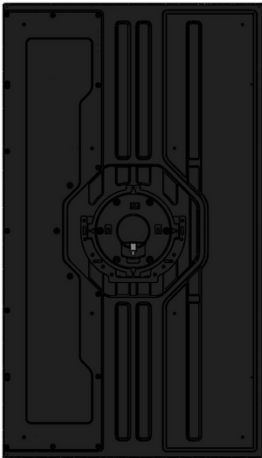
Spark4

FRONT


38.23"
[971mm]

22.05"
[560mm]

BACK

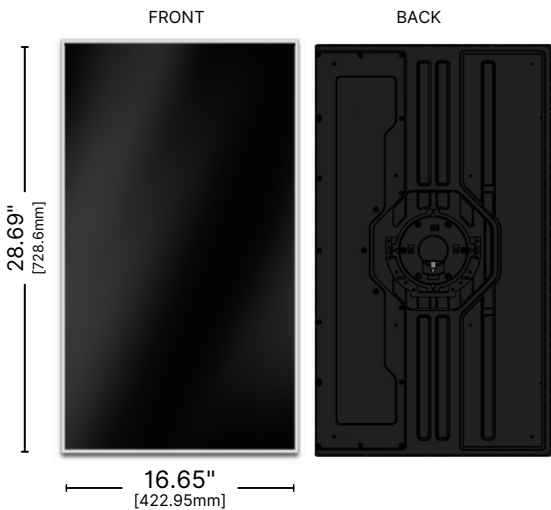


Screen Size	941.18 x 529.42mm
Resolution	3840 x 2160 UHD
Brightness (NITS)	450 nits
Surface Treatment	25% Haze
Processor	RK3588
OS	Android12
WiFi/Bluetooth	WiFi 6/5.2
Vesa Pattern	200mm x 400mm with M5 Screws
Power Consumption	63W (typical)
Panel Type	TFT
Storage	24GB useable
Weight	9.5Kg/20.94lbs

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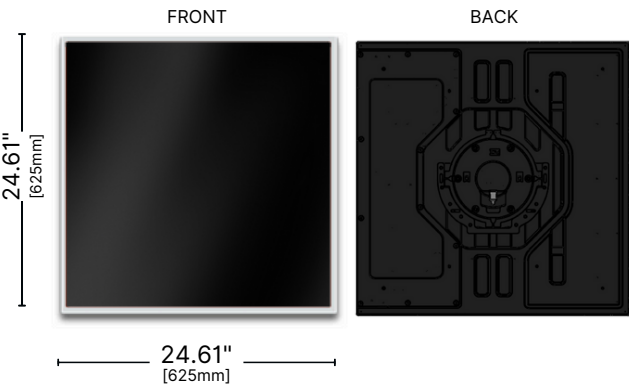
Canvas Specifications

Spark3



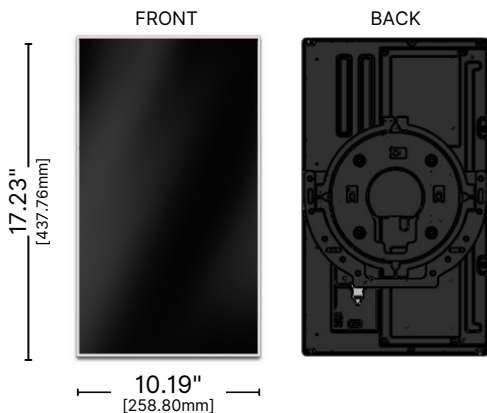
Screen Size	698.4 x 392.85mm
Resolution	1920 x 1080 FHD
Brightness (NITS)	450 nits
Surface Treatment	25% Haze
Processor	RK3588
OS	Android12
WiFi/Bluetooth	WiFi 6/5.2
Vesa Pattern	100mm x 100mm with M5 Screws
Power Consumption	36W (typical)
Panel Type	TFT
Storage	24GB useable
Weight	5.5Kg/12.1lbs

SparkQ+



Screen Size	596.16 x 596.16mm
Resolution	1920 x 1920
Brightness (NITS)	450 nits
Surface Treatment	25% Haze
Processor	RK3588
OS	Android12
WiFi/Bluetooth	WiFi 6/5.2
Vesa Pattern	200mm x 400mm with M5 Screws
Power Consumption	53W (typical)
Panel Type	TFT
Storage	24GB useable
Weight	7Kg/15.4lbs

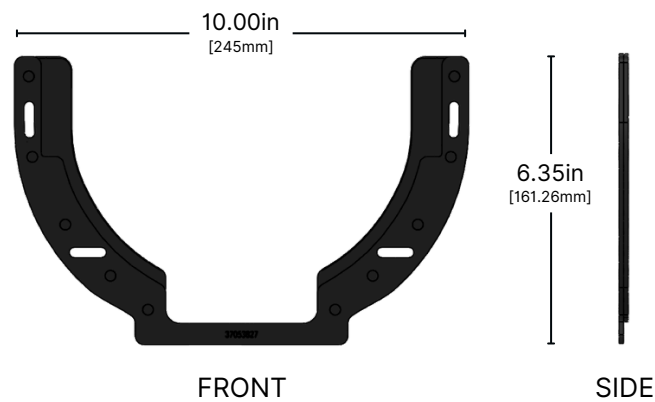
Spark2



Screen Size	408.96 x 230.04mm
Resolution	1920 x 1080 FHD
Brightness (NITS)	450 nits
Surface Treatment	25% Haze
Processor	RK3588
OS	Android12
WiFi/Bluetooth	WiFi 6/5.2/(optional 4G LTE)
Vesa Pattern	100mm x 100mm with M5 Screws
Power Consumption	17W (typical)
Panel Type	TFT
Storage	24GB useable
Weight	2.25Kg/5lbs

Power & Mount

Horseshoe Mount



Mech Outline	245mm x 161.26mm x 5mm
Mounting Hardware	#8 Panhead x 1"

Power Supply



Output Wattage	120 Watts
Output Voltage	24 Volts
DC Side Cable Length (in)	14"
AC Side Cable Length (in)	36"
Mech Outline	5.5"L X 2.75"W X 1.125"H

Power Cable



Output Wattage	120 Watts
Output Voltage	24 Volts
Cable Length (ft)	10'

SparkBridge

SparkBridge



Device Size	4"L X 4"W X 0.5"H
Support Output Resolution	1080P
Output Ports	HDMI 2.0a
LAN ports	One Gigabit Port
Processor	RK3566
OS	Android 11
WiFi	WiFi6
Bluetooth	5.2
PowerConsumption	10W Max
Storage	53GB Useable

SparkBridge+



Device Size	7.5"L X 4"W X 1.25"H
Support Output Resolution	Up to 8K
Output Ports	HDMI 2.1
LAN ports	Dual Gigabit Ports
Processor	RK3588
OS	Android 12
WiFi	WiFi6
Bluetooth	5.2
PowerConsumption	24W Max
Storage	53GB Useable

SparkBridge+ Sealed



Device Size	7.5"L X 4.25"W X 1.25"H
Support Output Resolution	Up to 8K
Output Ports	HDMI 2.1
LAN ports	Dual Gigabit Ports
Processor	RK3588
OS	Android 12
WiFi	WiFi6
Bluetooth	5.2
PowerConsumption	24W Max
Storage	53GB Useable

Network Requirements

The Canvas uses the following outbound ports and protocols

TCP Protocol	Ports	DNS										
HTTP	TCP 80	ANY- our Canvases and SparkBridge* may contact public websites as part of normal signage operations. Depends on content. HTTP is used only in the case that a 3rd party CMS / website uses HTTP and it is scheduled to the canvas.										
HTTPS	TCP 443	ANY- our Canvases and SparkBridge may contact public websites as part of normal signage operations. Depends on content. All Videri hosted content uses HTTPS.										
XMPP	TCP 5222, 5223	msg.videri.com										
NTP	UDP 123	<p>The following NTP pools will be contacted. Note that each pool contains 1000s of individual servers with specific IPs. Generally, it is required to whitelist the NTP protocol rather than individual IPs.</p> <table><tr><td>time.nist.gov</td><td>0.us.pool.ntp.org</td></tr><tr><td>0.android.pool.ntp.org</td><td>1.us.pool.ntp.org</td></tr><tr><td>1.android.pool.ntp.org</td><td>2.us.pool.ntp.org</td></tr><tr><td>2.android.pool.ntp.org</td><td>3.us.pool.ntp.org</td></tr><tr><td>3.android.pool.ntp.org</td><td></td></tr></table>	time.nist.gov	0.us.pool.ntp.org	0.android.pool.ntp.org	1.us.pool.ntp.org	1.android.pool.ntp.org	2.us.pool.ntp.org	2.android.pool.ntp.org	3.us.pool.ntp.org	3.android.pool.ntp.org	
time.nist.gov	0.us.pool.ntp.org											
0.android.pool.ntp.org	1.us.pool.ntp.org											
1.android.pool.ntp.org	2.us.pool.ntp.org											
2.android.pool.ntp.org	3.us.pool.ntp.org											
3.android.pool.ntp.org												
ICMP	ICMP	msg.videri.com										

*SparkBridge henceforth refers to all 3 models, SparkBridge, SparkBridge+ and SparkBridge+ Sealed.

We support the following SSID encryption modes:

- WEP (64)
- WPA-PSK (TKIP)
- WPA2-PSK (TKIP)
- WPA2-Enterprise using RADIUS
- WEP (128)
- WPA-PSK (AES)
- WPA2-PSK (AES)

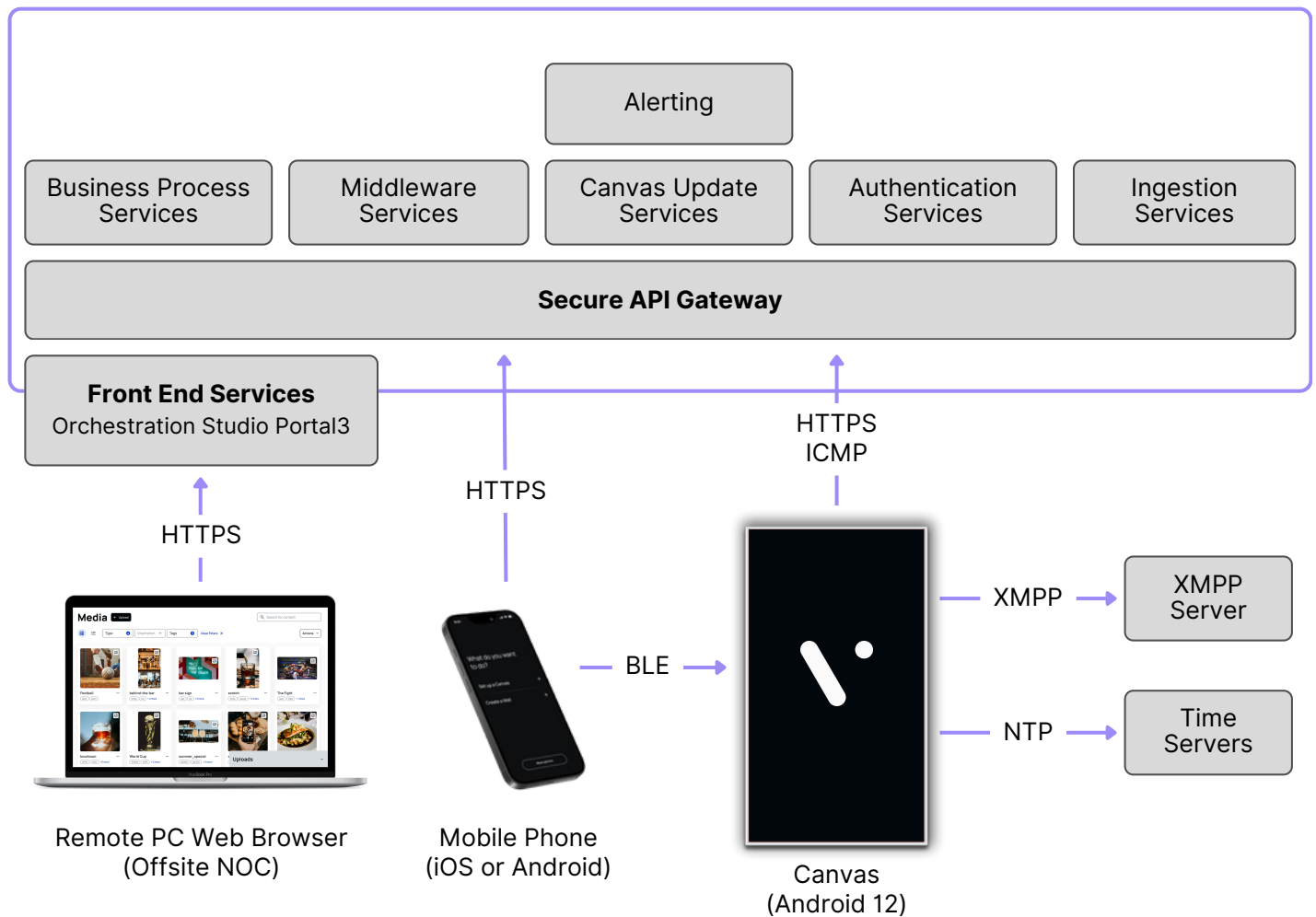
The use of certificates or authentication via a landing and/or sign-in page is NOT supported.

Wi-Fi Best Practices

- Your Wi-Fi network should have a password.
- There should be no metal beams or concrete walls between the Canvas and the access point. For the best experience, please have the Canvas in line of sight to the access point.
- Your Canvas should be on its own network and should NOT be on a network that guests use.
- All Canvases should have -70dbm or better signal strength at all times. We recommend WPA2-PSK (AES) security for the best network speeds.

Backend Architecture

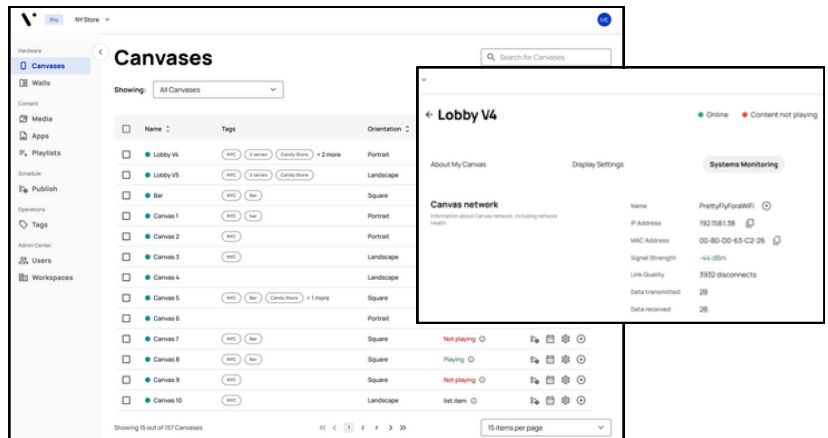
The Canvas uses the following outbound ports and protocols



Features

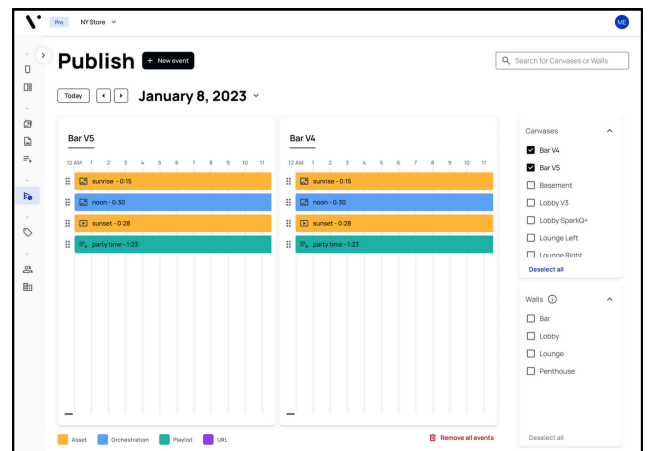
Device Monitoring

- Device metrics
- Network information
- Content synchronization
- Content playback status
- Real-time playback screenshot



Publishing

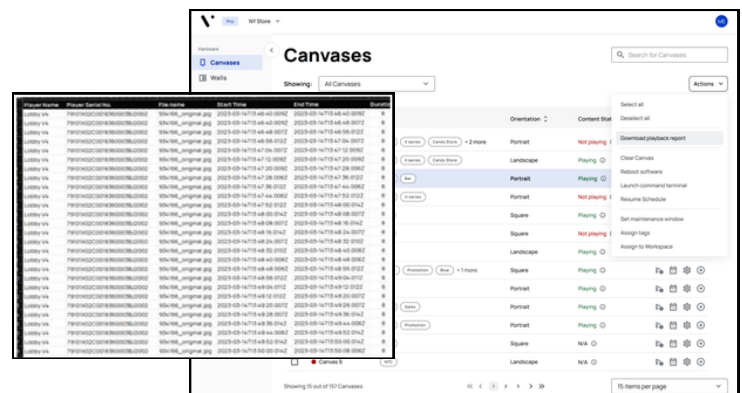
- Side-by-side schedule comparison
- Priority events & Temporary schedule overrides
- Event recurrence
- Day and hour parting
- Wireless Orchestration with content adjustment
- External URL scheduling
- Playlist Creation
- Image, video and .APK publishing



Proof of Play Reporting

Exportable .CSV file, including:

- Canvas serial number
- Asset ID
- Asset name
- Start & end times
- Duration of play



Initial Canvas Setup

1. Provision a Canvas using one of the following phone apps: Videri Classic for Portal 2, or Videri Mobile for Portal 3. If you need assistance, here is a video showing how to provision a Canvas.

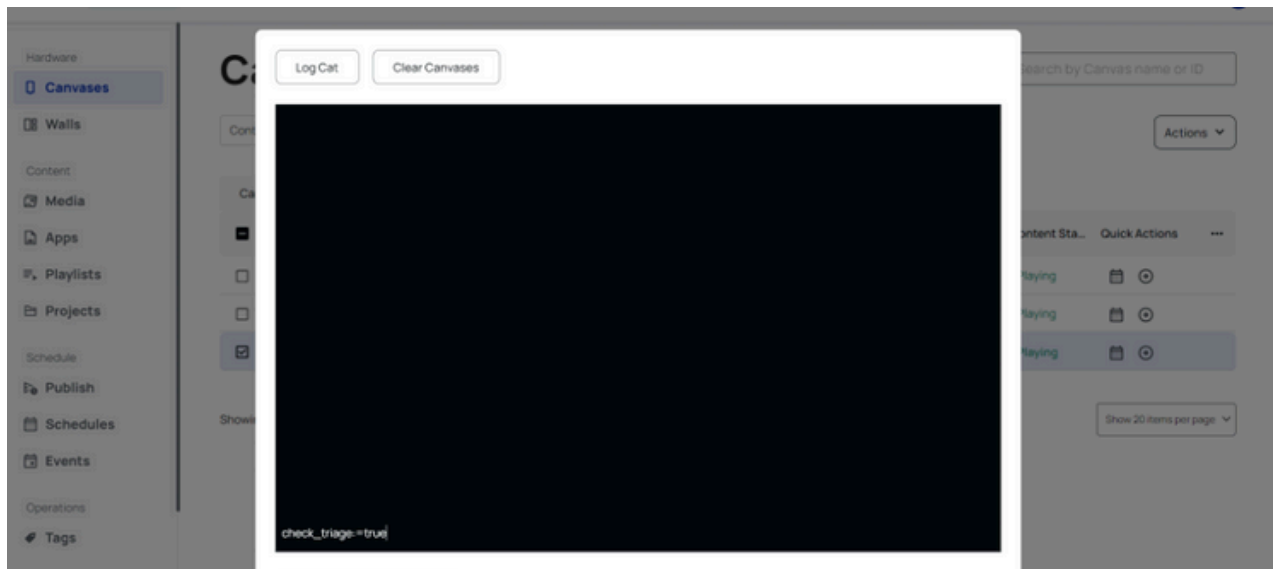
Provisioning: <https://www.youtube.com/watch?v=tMNDgx0rb0o>

2. Once a Canvas is online, please update the devices using one of the two methods below (A or B). This will update the device to the latest firmware. Please use the Latest APK and Firmware to confirm canvases are running on the newest software before proceeding.

- a. Using batch action terminal (Portal 2 or Portal 3)

Select by checking off all canvases you want to update in your console. Next, open the batch action command terminal from the drop-down actions button. With the command terminal opened, type in the following command:

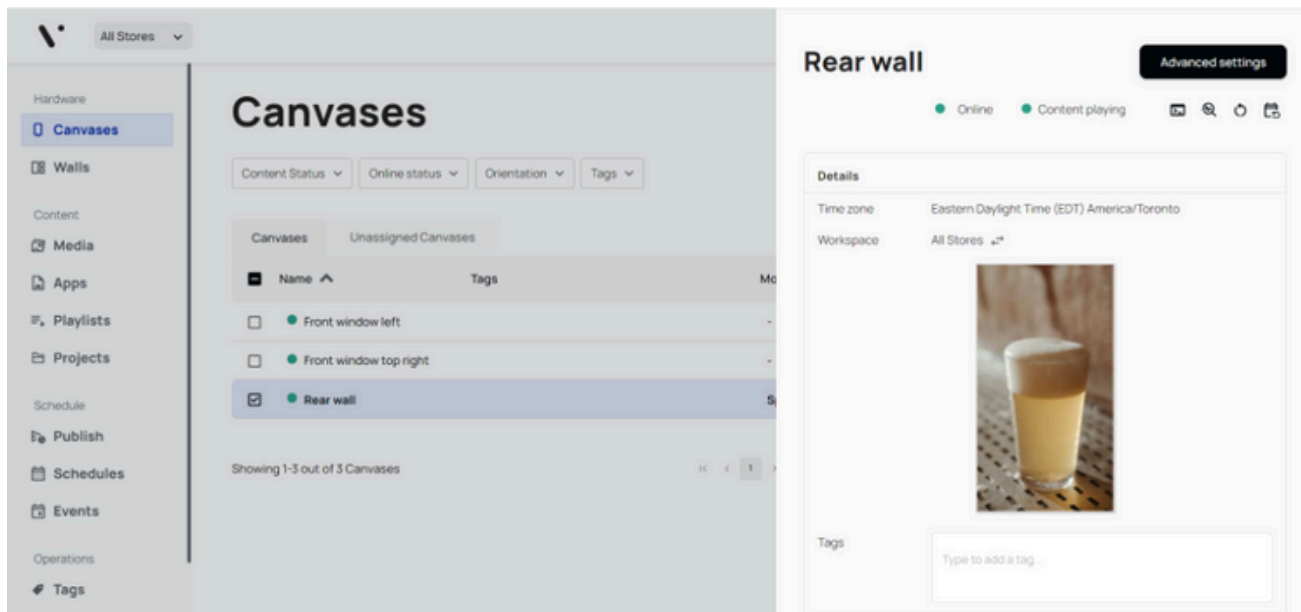
```
check_triage:=true
```



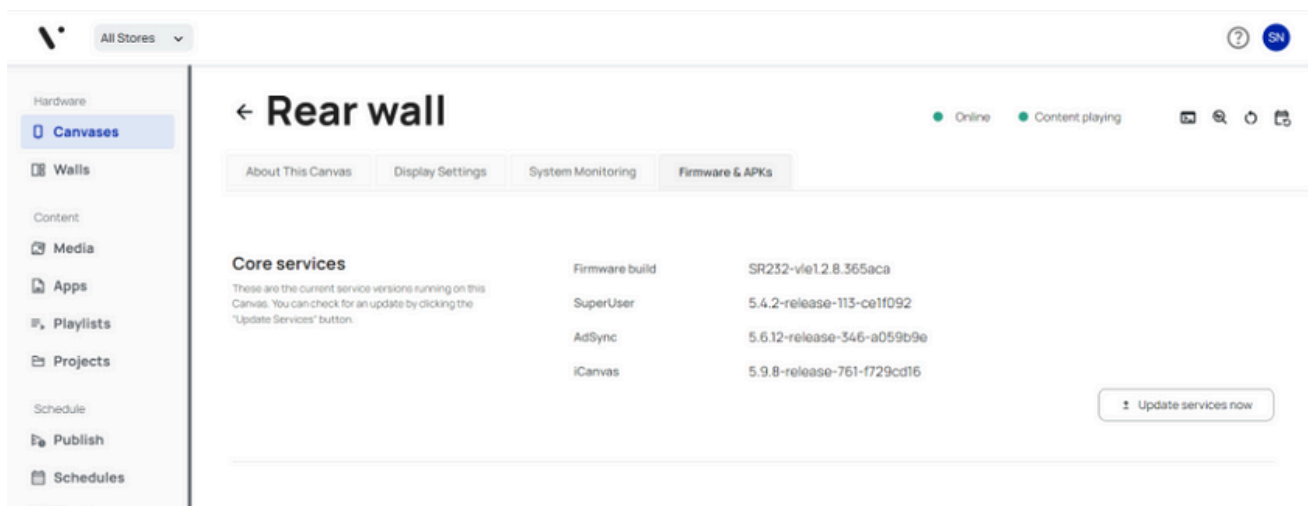
Initial Canvas Setup

b. Using the Update services now button within the Advanced Setting page (Portal 3 Only)

Click on the Canvas name which will open the side- draw of the desired canvas and click on the advance setting button at the top. This will open the settings.



From there, click on the APK and Firmware tab; click on the update service now button, forcing the canvas to “update”



Initial Canvas Setup

3. Setting a Canvas default value before setting the color LUT table using the command Terminal.

If you are on portal 2 all below commands must be set via the batch action command terminal. If you are on Portal 3 it can be done from either the batch action or the command terminal within the advanced setting page.

Run the following commands.

Command	Purpose
<code>su_shell_cmd:=am startservice -n com.videri.FactoryService/.FactoryService -a com.videri.FactoryService.RESET_COLOR</code>	This will reset the Hue, Saturation, and contrast values back to the initial values
<code>su_shell_cmd:=am startservice -n com.videri.FactoryService/.FactoryService -a com.videri.FactoryService.SET_SATURATION --ei saturation 50</code>	Sets saturation to 50
<code>su_shell_cmd:=am startservice -n com.videri.FactoryService/.FactoryService -a com.videri.FactoryService.SET_HUE --ei hue 50</code>	Sets hue to 50
<code>su_shell_cmd:=am startservice -n com.videri.FactoryService/.FactoryService -a com.videri.FactoryService.SET_CONTRAST --ei contrast 50</code>	Sets contrast to 50
<code>set_color_temperature:=6500</code>	Set the color temperature to 6500K

4. Obtain the latest LUT table from this link: [LUT tables](#).

5. Apply the new LUT table

*Please note that each canvas has its own LUT table, and each must be updated.