Broadcast Radio SmartSign Lite device: Advanced Configuration with the Windows IoT Device Portal

SmartSign Lite runs on a version of Windows developed specifically for devices such as the Raspberry Pi called Windows 10 IoT Core. To change system settings, such as network addresses, passwords or device name you will need to connect to the web interface called the Windows Device Portal.
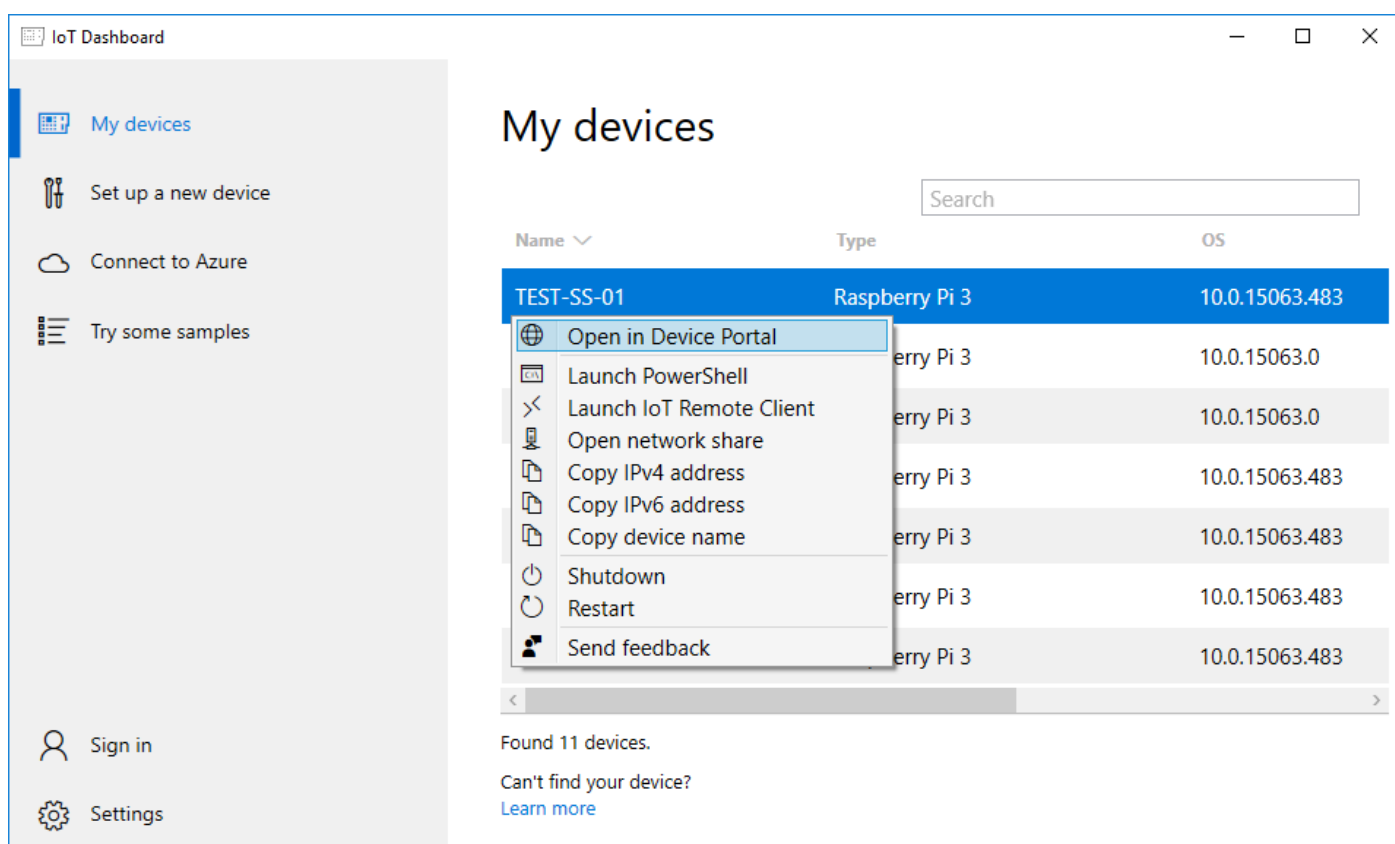

FIGURE 1

Connecting to your device

The Simplest method of connecting to Windows IoT, if you have a Windows 10 PC, is to install the Windows 10 IoT Core Dashboard software from Microsoft that can be found at https://developer.microsoft.com/en-us/windows/iot/docs/iotdashboard. This will automatically detect Windows IoT devices on the network and allow you to simply right click and connect to the Device Portal. (See Figure 1)

Alternatively, if you do not have Windows 10 or would like to manually connect to a Windows IoT you will need to know the IP Address. To find the address that your device has been assigned, look in the SmartSign Lite software settings by clicking in the bottom right of the screen and selecting the Layout icon, then the App Settings icon on the bottom left. On this screen you should find details of the IP address that the device has been assigned.

Once you know this address, you can connect to the Windows IoT Device Portal using a web browser and typing the address and port into the address bar. The IP address will vary depending on your network, but the port should always be 8080. In your address bar type: http://x.x.x.x:8080 replacing the x.x.x.x with the IP address of your device.

Username and Password

Your SmartSign Lite Device has been preconfigured with a simple administrator logon, but this is not very secure and we would recommend that you change this password. However, if you do decide to change the administrator password, *please ensure that you take a note of this and keep it somewhere safe* as you will not be able to reset this easily if you forget it!

Username: Administrator

Password: admin

Once logged on, you can change the administrator password, Time Zone, or Display Settings from the Device Settings Tab (see figure 2)
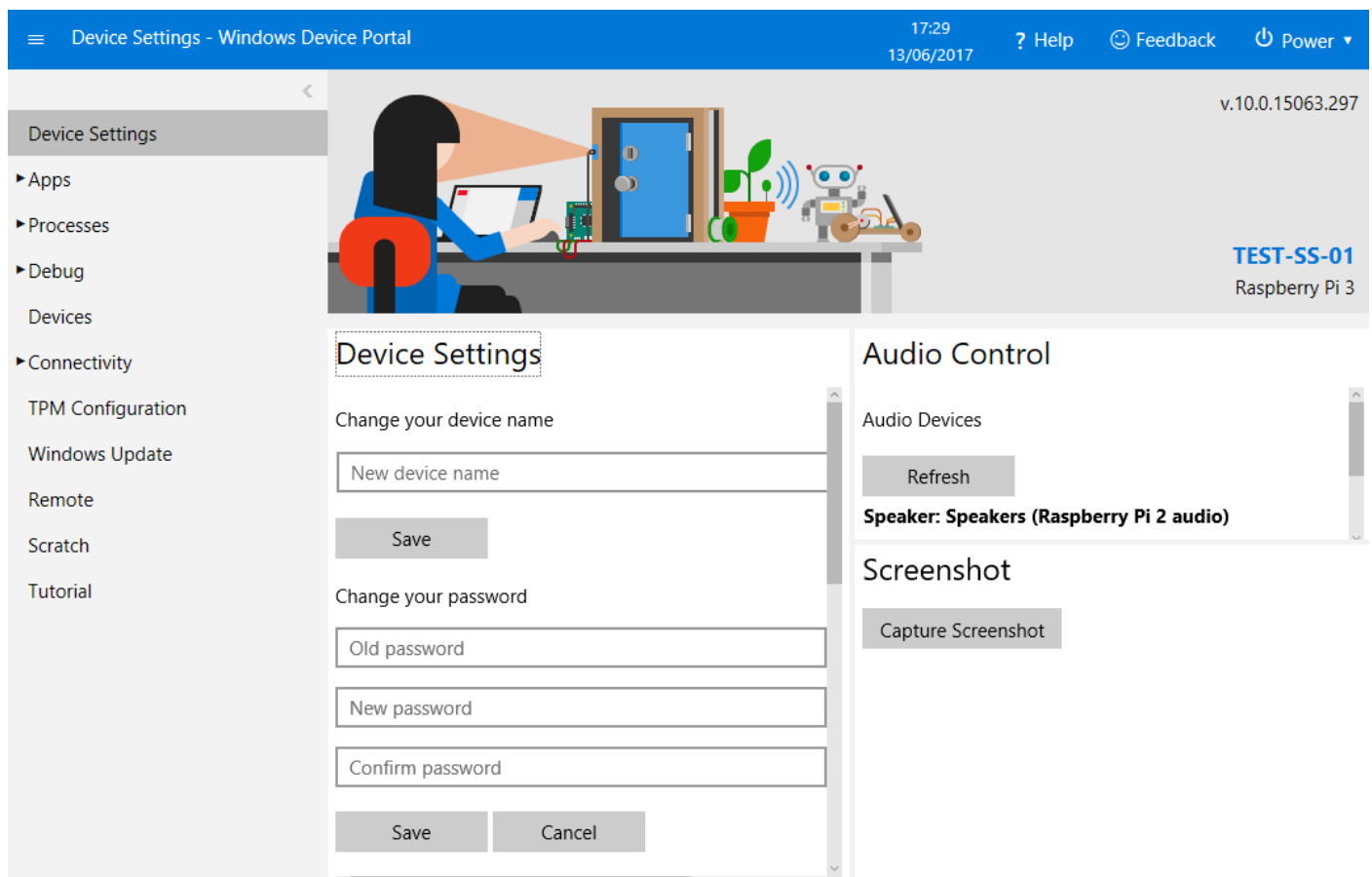

FIGURE 2

Network Configuration

If you need to manually configure an IP address for your wired network or to connect to a wireless network you can do this from the Connectivity menu of the Device Portal. (see Figure 3)

To configure a static IP address for the wired network, look in the list of devices on the righthand side for the one that currently has the IP address you are connected to the Device Portal. Click on the IPv4 Configuration button for that device and set the static details you need. Once these are set, the device will need to restart and you will need to reconnect to it on the new IP address to do any further work in the Device Portal.

Please be careful when inputting these details as if you enter them incorrectly you will not be able to reconnect to the device!
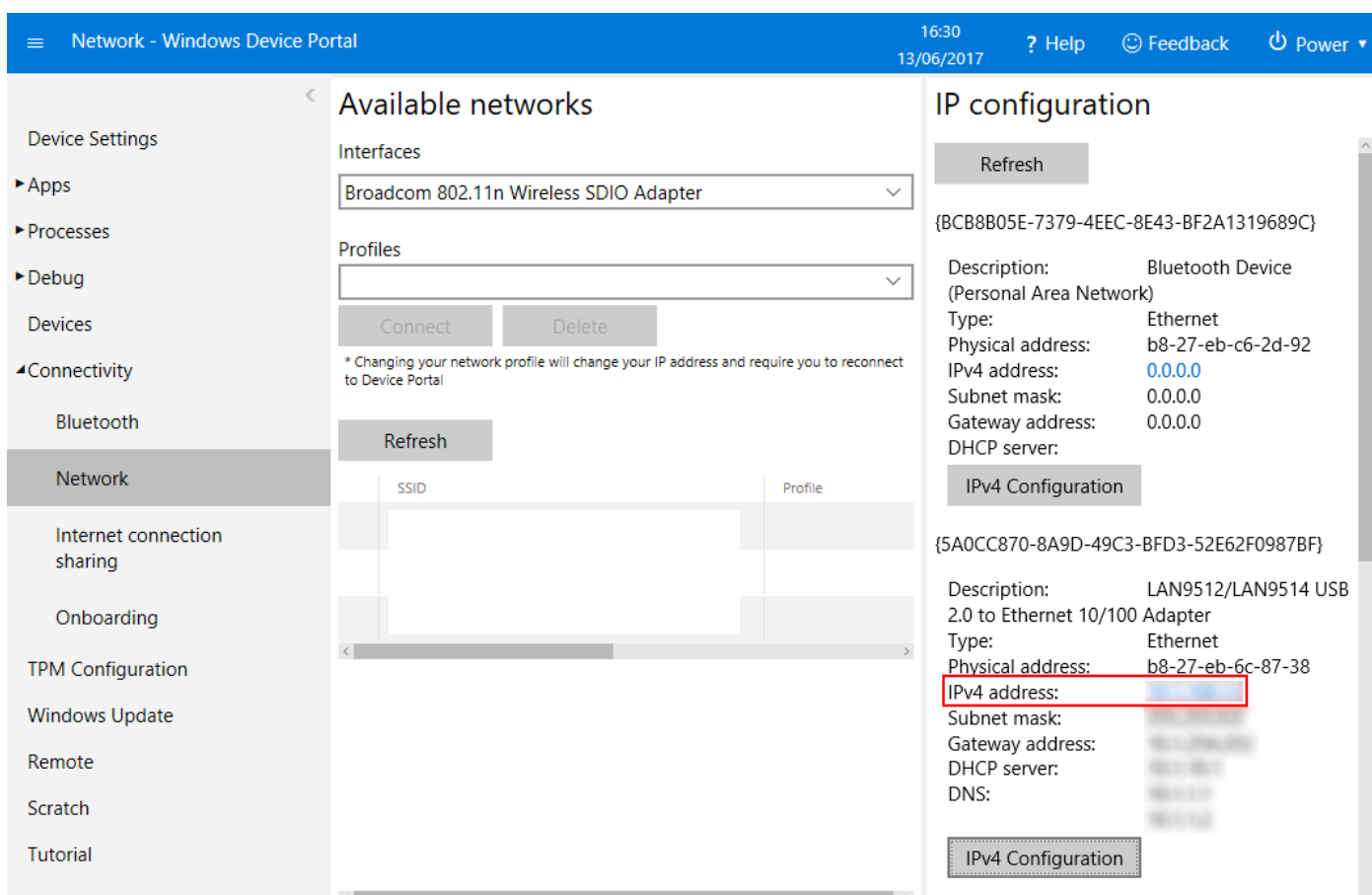

FIGURE 3

Notes:

Broadcast Radio Strongly recommends you use a wired network to maintain a more reliable connection to SmartSign Lite, especially if using it in conjunction with the Broadcast Radio Hardware Service to pass GPIO signals to other Broadcast Radio software or devices!

Adding Pictures for use in Tiles

UPDATE: Microsoft have added the ability to add pictures directly to the 'cameral roll' or 'documents' folders through the Portal Interface under the APPS>File Explorer. This method is far simpler than the process described below but both options are sill valid.
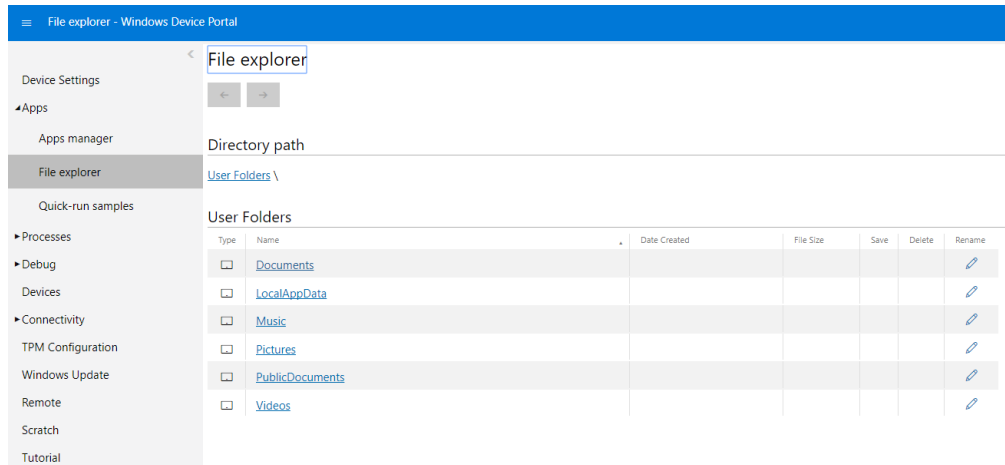
You may want to add graphics or pictures to be used in SmartSigns tiles for station logos or a rotating carousel of photographs to display.

Before you will be able to select picture in the tile configuration screen of SmartSign, you will need to copy them into the correct folder on the Device. Again, the simplest method is to use the Widows 10 IoT Core Dashboard, right click on the device you would like to add pictures to and then choose the Open Network Share option. (See Figure 4)

As before, if you do not have Windows 10 on you PC, so cannot use the Dashboard, there is an alternative. By opening a Windows Explorer window and typing \\x.x.x.x into the address bar (replacing the x.x.x.x with the IP address of your device) you should get to the same place.
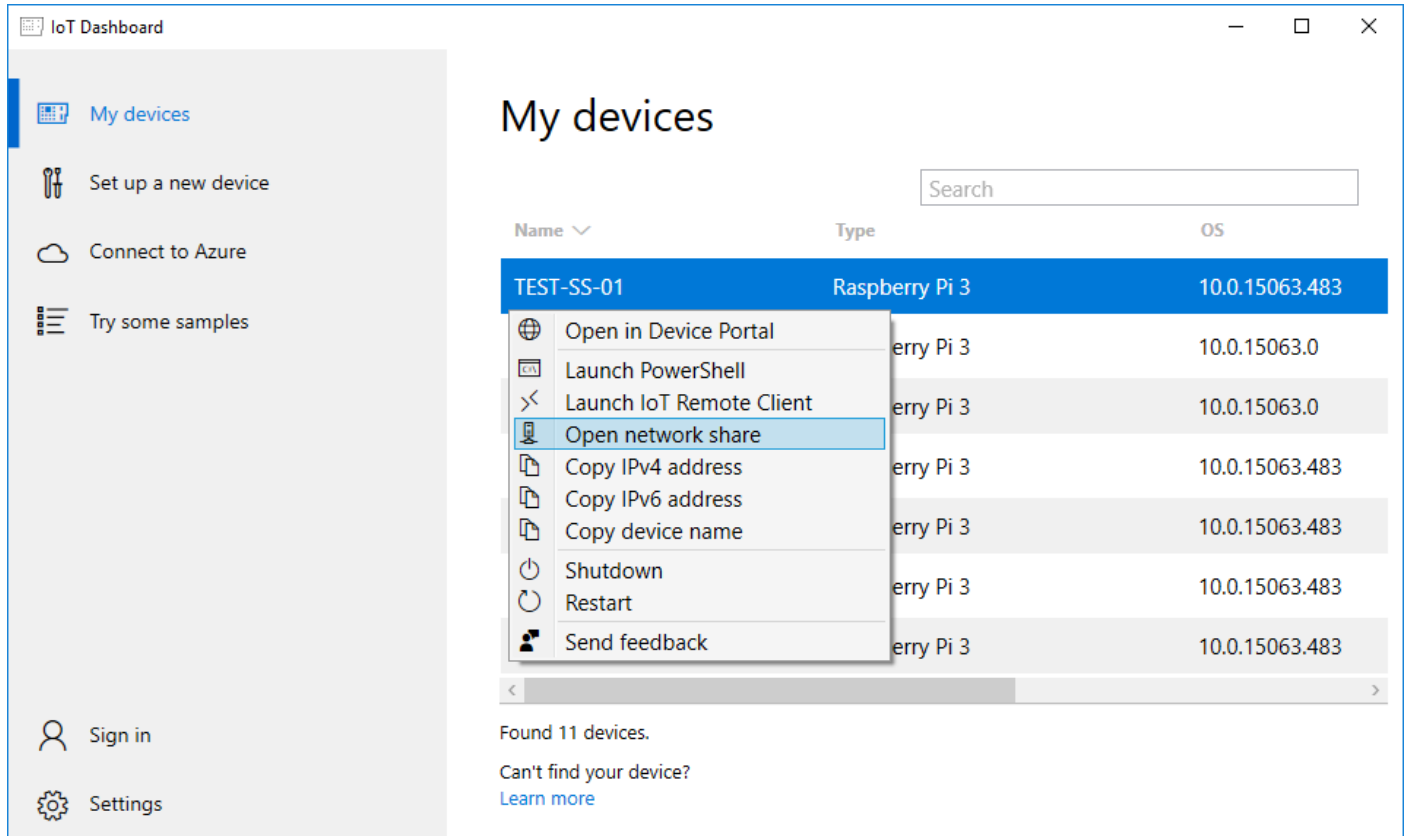
FIGURE 4

You will be asked for logon details to connect, so type in the Administrator username and password and you should be connected to the root of the C: drive on the device \\x.x.x.x\c$.

Browse to \\x.x.x.x\C$\Data\Users\DefaultAccount\Documents and copy any picture files you would like to add to the rotating carousel list. To add files to be used on single logos or graphics, open the \\x.x.x.x\c$\Data\Users\DefaultAccount\Pictures\Camera Roll folder and copy these here.

Once the files have been copied across they should appear in the list of available pictures in the SmartSign Tile Setup screen.