

SONY[®]

LocationFree TV

NetAV Quick Start Guide

Revision #1.6

LF-X1
LF-X5

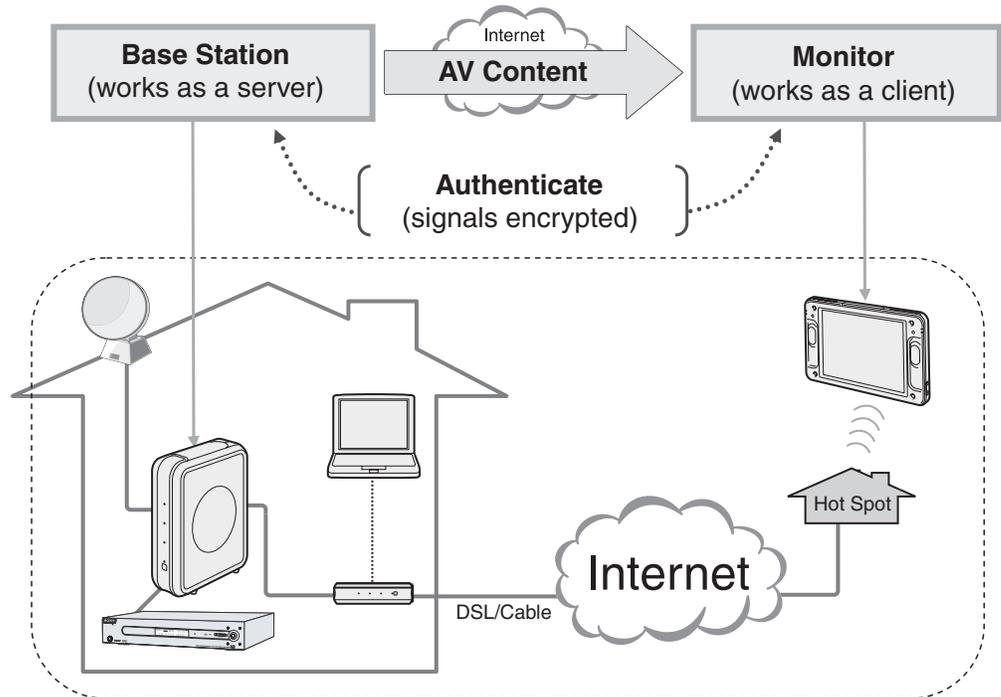
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Overview

The LocationFree TV's NetAV function enables you to enjoy video entertainment content while you're away from home. Using a public wireless access (also known as a *hotspot*) or a wired LAN, such as in a hotel room, you can watch TV and even control your VCR or DVD player in your home.



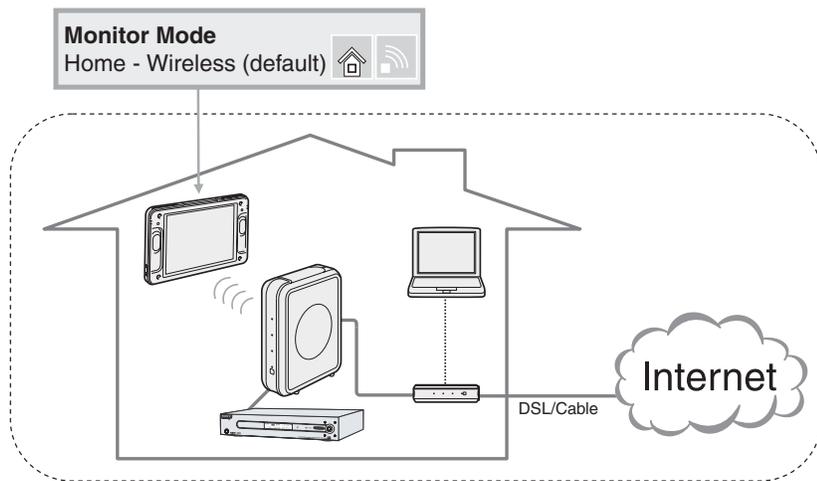
 The network system used in most office locations include firewalls that may restrict an open port required to use NetAV.

Setup Summary

To start enjoying NetAV, follow these five simple steps:

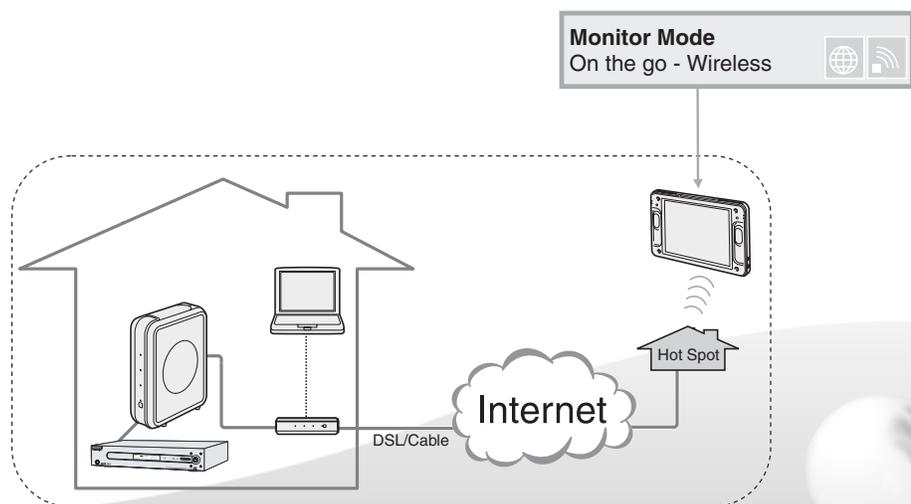
Before You Go Out (One Time Setup Only)

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From Outside

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Step 1

Check Your Current Network Set Up

Network connection

You must have a broadband connection (DSL, cable modem, etc.) with uplink and downlink speeds of at least 300 kbps. The more uplink bandwidth you have available, the better your NetAV performance.

 For best performance a premium bandwidth service is recommended. Contact your ISP for details.

 You cannot use NetAV through a dial-up connection.

Internet Protocol (IP) Address

If you do not already have a fixed IP address¹, you will need to register with a Dynamic Domain Name Service (DDNS)². Step 2 explains how to register with one such provider.

 A public fixed IP address³ may be used in lieu of a dynamic DNS service. Contact your ISP for details.

 You cannot use a private IP address (an address assigned by a home router) for NetAV.

Router setting and Firewall

Your home router must be configured for DMZ⁴ or Port Forwarding⁵ to allow secure access through your firewall. You must enable use of a port for LocationFree TV (typically 5021).

¹ Typically your Internet Service Provider (ISP) assigns an IP address to you when you sign up for service. However, this IP address is "dynamic," meaning that it may change. Most ISPs offer, for a monthly premium, a "fixed IP address" that is assigned only to you. If you have a fixed IP address, you do not need to sign up with a Dynamic Domain Name Service (DDNS) to use NetAV.

² A DDNS lets you tie a Host/Domain name to a dynamic IP address. If you do not have a Host/Domain name and your dynamic IP address is changed while you are using NetAV, your connection will drop.

³ Every device connected to the Internet must have either a public or private IP address. Public IP addresses are assigned to a home router or to a PC when either is connected directly to the global Internet. A Private IP address is assigned between a home router and another device, typically a PC, on a home network.

⁴ DMZ stands for "demilitarized zone," a military term meaning a buffer area between two enemies. On some routers the term is used to represent a buffer area (outside a firewall) between a trusted private network and an un-trusted external network, such as the public Internet.

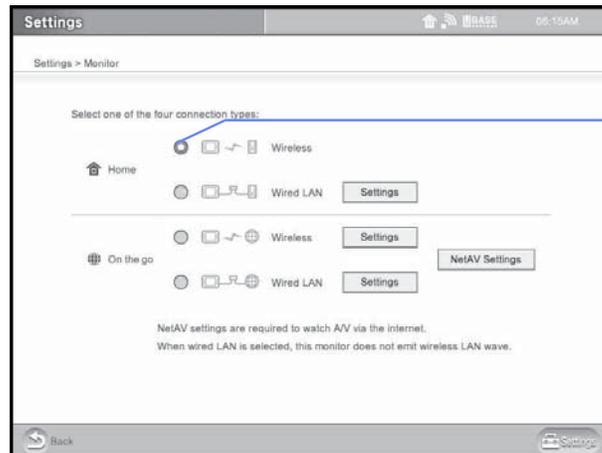
⁵ Port forwarding offers a means of transferring unsecured data from TCP/IP applications through a secure connection. The transfer of unsecured data takes place by means of "tunneling" through a secure connection established by setting up port forwarding between two devices, in this case the LocationFree Base Station and the LocationFree Monitor.

Step 2 Obtain a Dynamic Domain Name

If you do not already have a fixed IP address, you will need to register with a dynamic DNS service such as Dynamic Network Services Inc., a provider of dynamic DNS and other network services. You can register with www.dyndns.org, as described below.

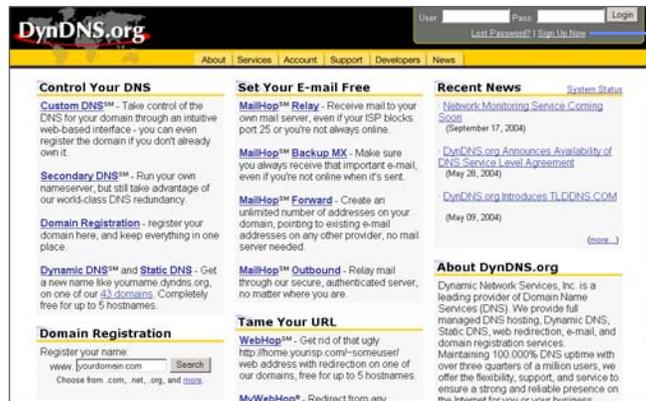
Registering with a Dynamic Domain Name Service (DDNS)

- 1 Check to make sure the LocationFree TV is connected to the Internet (in Home/Wireless mode) **A**.



Settings > Monitor

- 2 Using the Web function, enter the URL <http://www.dyndns.org/> and then select Sign Up Now **A**.



<http://www.dyndns.org/>

Continued

- 3 Read the Use Policy, and then check the **Agree** box **A**. Next, enter your Username **B**, E-mail address **C** and Password (up to 16 characters) **D**. (Make a note of your Username and Password, which you'll use to configure the LocationFree TV, described on the next page). Then select **Create Account** **E**.

An Account Created confirmation page appears and a confirmation e-mail will be sent to you.

 If you do not receive a confirmation e-mail, send an e-mail to support@dyndns.org.

- 4 Go to <http://www.dyndns.org> again, enter your Username and Password, and then select the **Login** button.
- 5 Select the **Account** tab. Your Account page is displayed. Under Your Hosts & Zones, select **Dynamic DNS (Add Host)** **A**.

- 6 The New Dynamic DNS page is displayed. Enter your host name **A** and choose **dnsalias.com** from the dropdown menu **B**. Leave all other fields as is and then select **Add Host** **C**.

You are now registered.

Make a note of the Host/Domain name, which you'll need to configure your LocationFree TV on the next page.

Step 3 Configure LocationFree TV for DDNS

- 1 Make sure your LocationFree TV is connected in the Home/Wireless mode.
- 2 In the Settings menu, go to **Base station > NetAV Settings > Dynamic DNS**. Enter the following information in the appropriate field.

A User ID	Enter the Username you registered in DynDNS
B Password	Enter the Password you registered in DynDNS
C URL to update DNS information	If your registered Host/Domain name is YourName.dnsalias.com, enter http://members.dyndns.org/nic/update?hostname=YourName.dnsalias.com
D URL to detect IP address	Enter http://checkip.dyndns.org:8245/
E Set button	Select the Set button

Settings > Base station > NetAV Settings > Dynamic DNS

- 3 Select the **Back** button and again select **Dynamic DNS**. Check that the data is showing as entered. If the data has changed, repeat step 2 on this page. Then check the Current status field as follows:

Success	Your Dynamic DNS is successfully configured. The system is automatically checking IP addresses currently assigned to your base station. Wait at least 10 minutes before going to Step 4 on page 9.
Failure	The Dynamic DNS configuration failed or communication to the server failed. Try repeating Steps 1-3 on pages 5 to 8. The update process may take as long as 10 minutes at the DDNS provider. Wait 10 minutes before trying again
Updating	The system is still trying to correctly configure. Try waiting a few more minutes; the current status will soon indicate "success" or "failure." If the Current status field does not change, repeat Step 2 on page 6.

Step 4 Configure LocationFree TV for Your Home Router

In this section you will specify or “lock” an IP address from your router to the LocationFree Base Station.

- 1 Go to **Settings > Base station > Internet Connections > LAN (DHCP/Manual IP address settings)**. Make sure the box next to Automatic IP address configuration (DHCP) is checked and write down on a piece of paper the information in all of the fields.

Settings > Base station > Internet Connection > LAN (DHCP/Manual IP address settings)

Automatic IP address configuration (DHCP)

IP address: 43.15.242.123 e.g. (10.45.67.101)
Subnet mask: 255.255.255.0 e.g. (255.255.255.0)
Default gateway: 43.15.242.254 e.g. (10.45.67.1)
*Host name: e.g. (host1)
MAC address: 08:00:46:24:67:82
Domain name:

Automatic DNS configuration

DNS1: 43.15.126.4 e.g. (10.45.6.78)
*DNS2: 43.7.134.253 e.g. (10.45.8.78)
(* Enter if necessary.)

Set Press Set to save the changes.

Check this check box

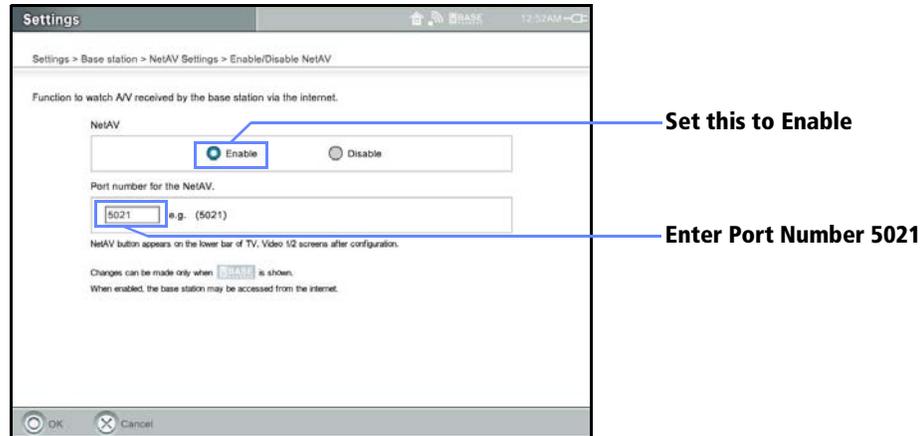
Settings > Base station > Internet Connection > LAN (DHCP/Manual IP address settings)

- 2 Uncheck the box next to Automatic IP address configuration (DHCP). The information in the fields will clear, which releases the “automatic” IP settings.
- 3 Enter again the information you wrote down in step 1—with one exception. For the IP address, be sure to change the last two digits to **64**. So, if the IP address your router provided is 192.168.0.5, then enter or “assign” **192.168.0.64**.¹
- 4 Select the **Set** button to lock in the IP address and other important information on this screen.
- 5 Press the **Index** button and select **Web** to go to the Internet. Make sure you are able to access the Internet by viewing any web page. If you are able to access the Internet, the settings are correct.

Continued

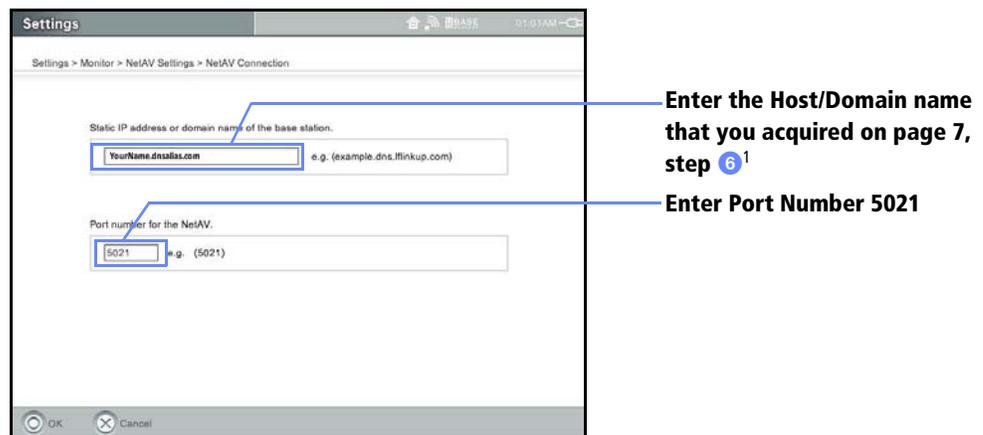
¹ Why the number 64? Most routers using DHCP assign the last numbers of an IP address between 2-50. The number 64 is safely out of this range. Note that any two-digit number outside of the DHCP range should work.

- 6 Configure the base station NetAV settings to send video from the base station to a remote computer in the Enable/Disable NetAV screen, as described below.



Settings > Base station > NetAV Settings > Enable/Disable NetAV

- 7 Configure the monitor to receive video from the base station in the NetAV Settings screen, as described below.



Settings > Monitor > NetAV Settings > NetAV Connection

¹ If you have a fixed IP address, enter it at this step.

Step 5 Configure Your Home Router

Most of the popular routers used in the USA include DMZ or Port Forwarding.

 If your router does not have either mode, you cannot use the NetAV function.

Setting up the LinkSys WRT54G router



The following steps show how to set up one popular home router, the LinkSys Wireless-G Broadband Router, model WRT54G.

- 1 Press the **Index** button, select **Web** and enter the following web address: **http://192.168.1.1/**. The Enter Network Password screen appears.



Leave the User Name blank. In the Password field, enter the word **admin**. Then Select **OK**.¹

- 2 Select **Advanced**, then **Applications and Gaming** **A**.



- 3 Select **DMZ** and then **Enable DMZ**.



- 4 For the DMZ Host IP, enter **64**, which corresponds to the private IP address of the Base Station that you locked in Step 4.3. Then Select **Save Settings**.

Confirming your set up

To confirm your setup, do the following:

- 1 Press the **Index** button and select **Web** to open up the LocationFree TV browser.
- 2 Type in **http://YourName.dnsalias.com:5021/lfx/check**
- 3 If "NetAV Connection OK!" appears, you are all set. If not, go back and confirm the settings in Step 5 on page 11.

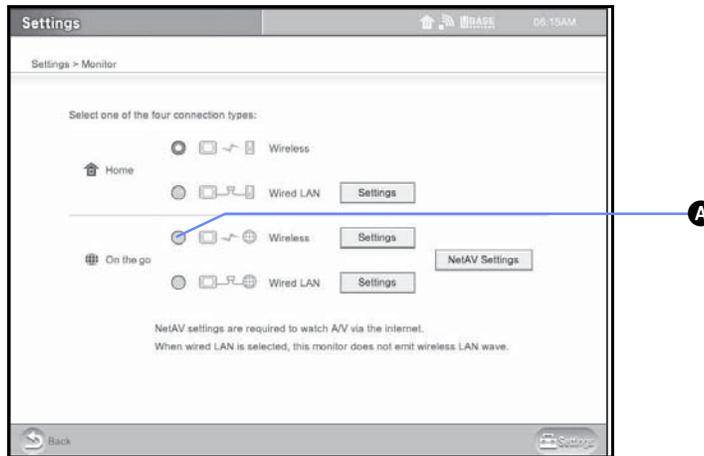
 The above example is when using DMZ. As an alternative, you can use Port-forwarding. For more details, see your router's instruction manual.

¹ Note that this is the configuration site for the Linksys WRT54G; other routers will have different configuration sites. See your router manual for details.

Step 6a Connect NetAV from a Hotspot

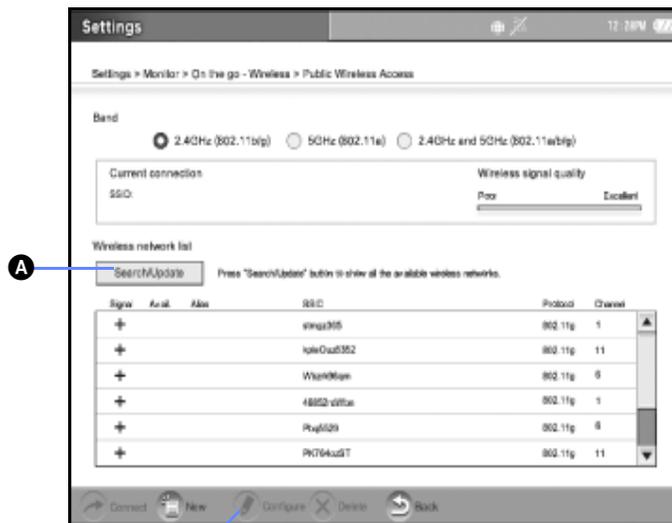
Finding a signal corresponding to a hotspot

- 1 Go to **Settings > Monitor >** and set **On the go** to **Wireless** **A**.



Settings > Monitor

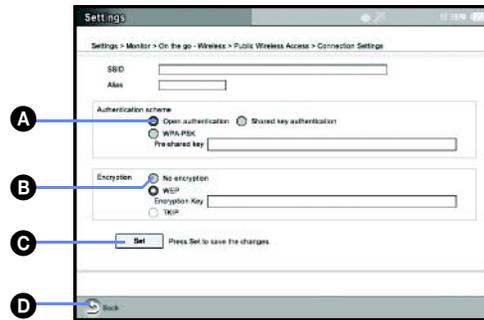
- 2 Go to **Settings > Monitor > On the go-Wireless > Settings > Public Wireless Access**. A list of available wireless access points is displayed. If nothing appears in 10 seconds, select **Search/Update** **A**. If an access point you want to connect to does not display the + sign in the Avail. Column, select an SSID you want to connect and select **Configure** **B**.



Settings > Monitor > On the go - Wireless > Settings > Public Wireless Access

Continued

- To set up an unencrypted wireless signal, select **Open authentication** **A** and **No encryption** **B**. Select **Set** **C** to save the changes. Then select the **Back** button **D**.¹



Settings > Monitor > On the go - Wireless > Public Wireless Access > Connection Settings

- Select an SSID² you want to connect to and select **Connect**.
- If the wireless signal is unencrypted, the Wireless signal quality level appears **A** and the icon on the top bar **B** changes to . If the wireless signal quality level does not appear, make sure you entered the correct encryption code in step 3 (page 13) or go back to step 2 (page 12) and choose another SSID.



Settings > Monitor > On the go - Wireless > Public Wireless Access

- Try to connect to any website. Most hotspots requiring a login will automatically redirect you to the login page. Note that some hotspots may require a fee.
- Go to TV or Video and select **NetAV** to start!



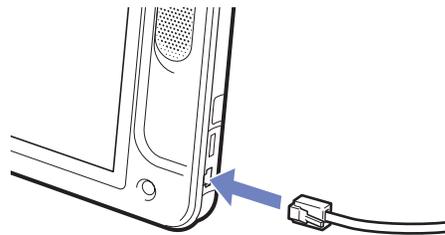
A dialog box will show that you are Connecting, then > Authenticating > Buffering. **Shortly the picture will appear. Enjoy!**

¹ Some commercial hotspots require an encryption code to log-on. If needed, enter the encryption code at this step. Also, note that some commercial hotspots require a fee for access.

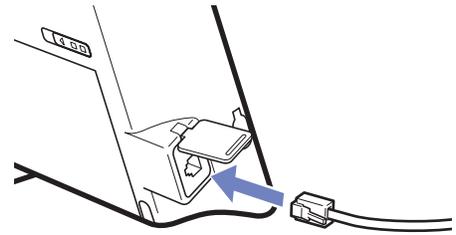
² SSID stands for Service Set Identifier, a label that distinguishes one wireless LAN from another.

Step 6b Connect NetAV from a Wired LAN

- 1 Connect the Ethernet cable to the LAN port on the monitor.

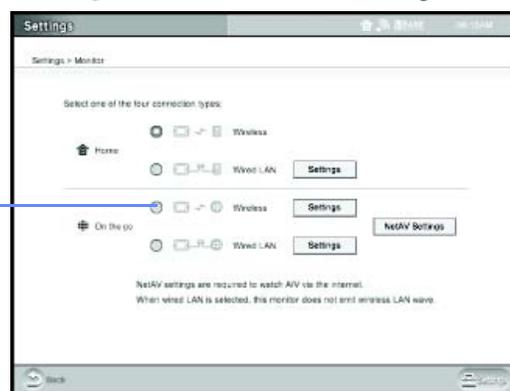


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- 2 Go to **Settings > Monitor**. In the On the go section, select **Wired LAN** **A**.



Settings > Monitor

- 3 Press the Index button and select **Web** to open up the LocationFree TV browser. Some networks require a login. If a login is required, you will be redirected to the login page. Enter your name, password or go to the signup page to finish logging in.
- 4 Go to TV or Video and select **NetAV** to start!



A dialog box will show that you are Connecting, then > Authenticating > Buffering.
Shortly the picture will appear. Enjoy!