The Internet of Things Workshop
Distributing Shared Media
Using Virtual Networking

Part I – Setup Media Storage Server

A. On the topology page, click on the **PlexSvr-Pod#** (which is a Windows Server 2012). On the menu bar, click on **PC** then click on Send CTL-ALT-DEL. When asked to login you will to login as Administrator with the password of **Password1**

B. On the desktop you will see the **Synology Assistant** icon. Double-click on it.
   1. On the window, you should see a listing for the **MediaStore-Pod#** server. Double-click on it.
   2. On the login screen, enter the following:
      
      User Name:  **Administrator**
      Password:   **Password1**

C. Setup the Storage Environment
   1. In the upper left corner of the web page, you will see an icon that says **Main Menu** when you hover over it. Click on it.
   2. Click on the **Storage Manager** icon on the window
   3. On the **Storage Manager** window, look to the left and you will see a list of menu items. Click on the one that says **HDD/SSD**. Confirm that there is disk listed and the status is Initialized
   4. Click the **Volume** menu option
   5. On the right-side pane, you’ll see a **Create** button ... click it
   6. The **Volume Creation Wizard** will now start:
      a. Make sure the **Quick** radio button is selected, and then click **Next**
      b. Confirm that **Disk1** is checked and click **Next**
      c. When presented with the Warning window, click **OK**
      d. On the **Perform Disk Check** window, select the **No** radio button then click **Next**
      e. The last window in the wizard is the **Confirm Settings**. Click **Apply**
      f. The volume will be created (it should only take a couple of minutes)
      g. Click the “X” in the upper right corner of the **Storage Manager** window
   7. On the Desktop, find the **Control Panel** icon and click on it
   8. On the **Control Panel** window, look for the **Shared Folder** icon and click on it.
   9. Make sure the **Shared Folder** menu option is selected and then click on the **Create** button on the top of the window
   10. On the **Create New Shared Folder** window, enter the following:
       
       Name:   **Media**
       Description:  **Media Files**
       Location:  **<< Use the Volume 1 default >>**
       Do not make any other changes and click on the **OK** button
11. On the **Edit Shared Folder Media** window, find the **Administrator** user under the **Name** column
12. Click the **Read/Write** checkbox for the **Administrator** user
13. Click on the **OK** button
14. Close the **Control Panel** by clicking on the “X” in the upper right corner of the window
15. Minimize the **Synology DiskStation** web page and the **Synology Assistant** window

16. Double-click on the **This PC** icon
17. Click on the **Computer** menu item, then click on the **Map Network Drive** icon
18. For the drive letter, choose **M:** (actually, you can use any letter, M: seems good for Media
19. For the Folder type in the following location:

```
\MediaStore-Pod#\Media
```

20. Make sure the **Reconnect At Sign In** box is checked and then click **finish**
21. ... which will open the shared folder on the XPEnology server

22. On the desktop you should see a folder called **Movies** ... drag this folder to the open shared **Media** folder
23. You can then minimize the **Media** folder window and the **This PC** window
Part II – Setup the Plex Media Server

A. Install **Plex Media Server** software
   1. Look on the desktop and find the application named **Plex Media Server Install**
   2. Double-click on the application to begin the installation
   3. Click on the **Install** button
   4. When the **Plex Media Server Setup** window opens, click on the **Install** button
   5. When the installation completes, click on the **Launch** button
   6. This will open up the **Plex Server** (which is managed by a Web Browser)
   7. Click on **Agree** to agree to Plex’s terms of service
   8. At this point, you “could” sign up for a Plex account, which will give you some interesting options, but you have to sign up with their service … we will not be doing this, so just close the Plex web page.

B. Configure the **Plex Media Server**
   1. On **Firefox**, open a new tab and enter the **http://127.0.0.1:32400/web** which will open the **Plex Media Server** manager.
   2. At this point, there are two ways to add the movies to the library
      a. The first is to click on the **Add Library** button below where it says “The Dashboard is Empty” … but this will only appear the first time you use Plex
      b. The second is to look to the left side of the window and find **LIBRARIES**
         • Hover over it and you will see a + appear to the right
         • Click on this + and you can create libraries and add content
   3. Click on the **MOVIES** icon
   4. Confirm the name of the library (it’s **Movies** by default)
   5. Click **NEXT**
   6. On the next screen, click on the **BROWSE FOR MEDIA FOLDER** button … this is where we’ll select the **Media Storage** server’s shared media folder.
   7. You’ll see a list of all of the drive letters and some folders … find the **M:** drive (or whatever drive letter you chose in the previous step) and click on it.
   8. On the Add Folder window you’ll see a folder called **Movies** … click on it
   9. Click the **ADD** button to add the folder to the library
      (... technically, you could have additional folders that will be added to the Movies library)
   10. On the next screen, confirm the folder by clicking the **ADD LIBRARY** button
   11. Click on the **NEXT** button
   12. **Plex** will scrape the movie data from the Internet and add posters, descriptions, etc **(be patient)**
   13. You could actually watch movies from the server if you’d like, but the idea is to setup this server in the home’s “Data Center” and watch from clients.
   14. You can now minimize the **Host: Plex Media Server Remote PC Viewer** window
Part III – Setup the Plex Media Home Theatre Client Computer

A. Install **Plex Home Theatre** software
   1. Look on the desktop and find the application named **Plex Home Theatre Installer**
   2. Double-click on the application to begin the installation
   3. Click on the **Next** button to start the wizard
   4. On the **License Agreement** window, click **I Agree**
   5. On the **Choose Install Location**, use the default folder and click **Next**
   6. On the **Choose Start Menu Folder**, use the default menu folder and click **Next**
   7. On the **Choose Components**, use the default components and click **Install**
   8. When the installation completes, click the **Finish** button

B. Perform the Initial Setup of **Plex Home Theatre**
   1. Click on **Start → All Programs → Plex Home Theatre folder → Plex for Home Theatre**
   2. Here’s the steps for the setup … the mouse will be disabled, use the arrow keys and press **Enter**
   3. On the **Welcome to Plex** page, press **Enter** on the **Next** button
   4. On the **Choose Type of Audio Connector**, take whichever is on the top, press **Enter** to check the box and arrow down to highlight **Next** and press **Enter**
   5. The next page is used if you have a Plex account and want to get access through the Plex Servers (cloud-based). Since we DID NOT set this up, use the **Right-Arrow** to highlight **Manual** and press **Enter**
   6. Now on the **Plex Log In** page we do not have a User ID or Password, so use the **Down-Arrow** to go the buttons at the bottom, then the **Left-Arrow** to highlight **Cancel** and press **Enter**
   7. When asked “Are You Sure?”, use the **Right-Arrow** to highlight **Yes** and press **Enter**

C. Close and Restart **Plex Home Theatre**
   1. You will see a row of menu options that all say “**Search**”
   2. Use the **Left-Arrow** key to move to the **Management Menu** then press the **Down-Arrow** key to highlight **Quit** and press **Enter**
   3. You will now need to restart the Plex Home Theatre application
   4. Click on **Start → Plex Home Theatre folder → Plex for Home Theatre**
   5. When the program starts the menu items should change. Use the **Up-Arrow** key to highlight **Movies** and press **Enter**
   6. You will see a list of the movies that were copied earlier to the server and are being transcoded by the Plex Server. Pressing **Enter** on a movie will show the movie on the **Plex Client** (you won’t hear any sound … Netlab doesn’t support audio.
   7. Press **Esc** to stop playing the movie you’re watching
   8. Pressing **Esc** again will go back to the movie list.
   9. Pressing **Esc** again will go back to the **Menu** list
   10. Once again, use the **Left-Arrow** key to move to the **Management Menu** then press the **Down-Arrow** key to highlight **Quit** and press **Enter**