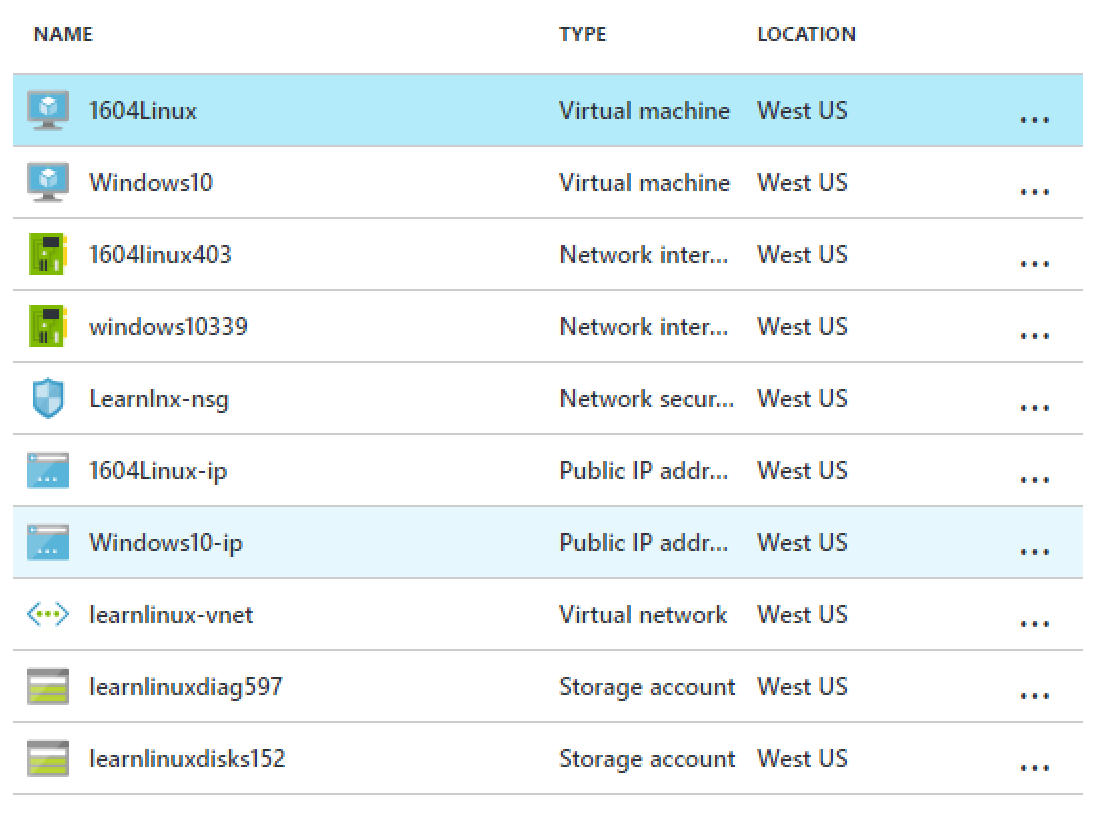
Learn Linux – and setup a Media Server

# Setup Infrastructure

Deploy out one (1) resource group with the following:

* 1 Windows 10 VM
* 1 Ubuntu 16.04 VM
* 1 NSG
* 2 NICs
* 2 Public IPs
* 1 Virtual Network
* 2 Storage Accounts

Example:



Open the following ports in your NSG:

* 80 – HTTP
* 22 – SSH
* 3389 – RDP
* 8181 – PyPlex Web App
* 32400 – Plex Media Server

## Objective – Setup a Plex Media Server and Python Web App with a CIFS mount to pull log data Bonus – Configure vhosts conf file and use a reverse proxy

# Setup Windows 10

Install the following software:

* Plex Media Server (free) - <https://www.plex.tv/downloads/> - Will require restart (Hint: From run: ‘shutdown /r /t 00’ will remotely restart

# Configure Plex Media Server from Windows VM

* Web browser should automatically open to <http://127.0.0.1:32400/web/index.html#!/setup/>
* Create a new account (it’s free)
* You can close the window for Plex Pass – not necessary to use Plex
* Add Libraries (predefined ones are music and photos) I used Home Videos for the demo and pointed it to my local Videos folder - C:\Users\demo\Videos
* Navigate to %LOCALAPPDATA%\Plex Media Server\Logs\ and share the folder

# Setup Ubuntu 16.04 LAMP Stack

Install the following packages

* sudo apt-get update
* sudo apt-get upgrade
* sudo apt-get install apache2 mysql-server mysql-client php7.0-mysql php7.0-curl php7.0-json php7.0-cgi php7.0 libapache2-mod-php7.0 php-cli

Verify successful installation on Linux

* Verify Apache by going to IP Address / DNS
* Verify MySql install by typing: sudo systemctl status mysql
* Verify PHP 7 version install by typing: php -v

# Setup PyPlex Web App from Linux VM

* cd /opt
* sudo git clone <https://github.com/JonnyWong16/plexpy.git>
* cd plexpy
* sudo python PlexPy.py
* PlexPy will be loaded in your browser or listening @ http://localhost:8181
* To start PlexPy on startup, refer to [Install as a daemon](https://github.com/JonnyWong16/plexpy/wiki/Install-as-a-daemon)

(OPTIONAL) - Daemon instructions below:

* sudo adduser --system --no-create-home plexpy
* sudo chown plexpy:nogroup -R /opt/plexpy/
* sudo wget https://raw.githubusercontent.com/JonnyWong16/plexpy/master/init-scripts/init.ubuntu.systemd && mv init.ubuntu.systemd plexpy.service
* sudo mv plexpy.service /lib/systemd/system/plexpy.service
* systemctl daemon-reload
* systemctl enable plexpy.service
* sudo service plexpy start

# Setup PyPlex on Linux VM to connect to Windows Plex

* From a web browser, <http://ip-address-of-linux-vm:8181> type your Plex user account and password created when Plex was setup on Windows
* Under Plex Media Server (below Plex Authentication) type the IP address or hostname of your Windows Plex Server – hit verify to confirm it found it
* Hit next after the above steps are completed and leave all other settings as is. (Next will need to be clicked 3-4 times)
* To allow logging – From PyPlex web browser go to Settings –> Plex Media Server and in the field for Logs enter the mount path for the cifs mount in the following section.   
  \* In the demo I used /opt/plexpy/MediaServer

# Windows shares mounted on Linux – Samba

# Linux Ubuntu 16.04 Instructions

* sudo apt-get install cifs-utils (may already be installed)
* sudo update-rc.d -f umountnfs.sh remove
* sudo update-rc.d umountnfs.sh stop 15 0 6 .  
  \* Update the unmount order to prevent CIFS from hanging during shutdown.
* Create a .smbcredentials file under /root/   
  \* (tip: touch /root/.smbcredentials then use a text editor to edit)  
  \* sudo su (elevate cli session to root)
* sudo chown root .smbcredentials
* sudo chmod 600 .smbcredentials  
    
  Example .smbcredentials file:   
  username=user-account-name  
  password=super-secret-password
* mkdir /opt/plexpy/MediaServer
* sudo vim /etc/fstab add new line:   
  //local-ip-address/Logs /opt/plexpy/MediaServer cifs credentials=/root/.smbcredentials
* sudo mount -a -v (mounts all entries in /etc/fstab and enables verbose mode)  
  \* cifs is type of mount (another is smbfs)  
  \* yellow highlight is location on local linux system where mount point will be made

# vhosts.conf and ProxyPass

* cd /etc/apache2/sites-available
* touch sites.conf
* sudo vim sites.conf
* Paste in text from sites.conf.example (in GitHub repo) and modify accordingly
* sudo a2enmod proxy
* sudo a2enmod proxy\_http
* sudo a2enmod rewrite
* sudo a2ensite sites.conf
* sudo service apache2 reload
* sudo systemctl restart apache2

# Setup Second Site for vhosts demo

* sudo vim /var/www/html/info.php  
  Add this text and save the file:  
    
  <?php

phpinfo();

?>

* sudo chmod -R 755 /var/www/html
* sudo systemctl restart apache2
* Go to DNS name of second site  
  Expectation:   
  - Should see apache landing page (index.html in /var/www/html)  
  - Go to <http://dns-name-of-2nd-site/info.php> and should see PHP landing page