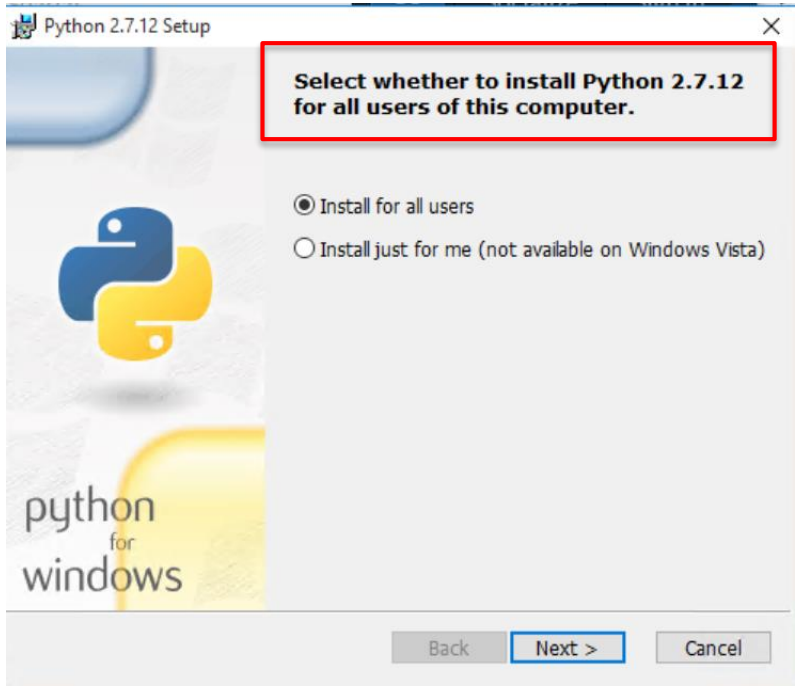
Installation of pynsxv

1. **Installation of Python + NSX toolkit (pynsxv)**
   - **For Windows**
   - **For Linux**
2. Validation of pynsxv installation

Installation of Python + NSX toolkit (pynsxv) – Windows

1. Installation of python
   - Install python 2.x (https://www.python.org/downloads/)

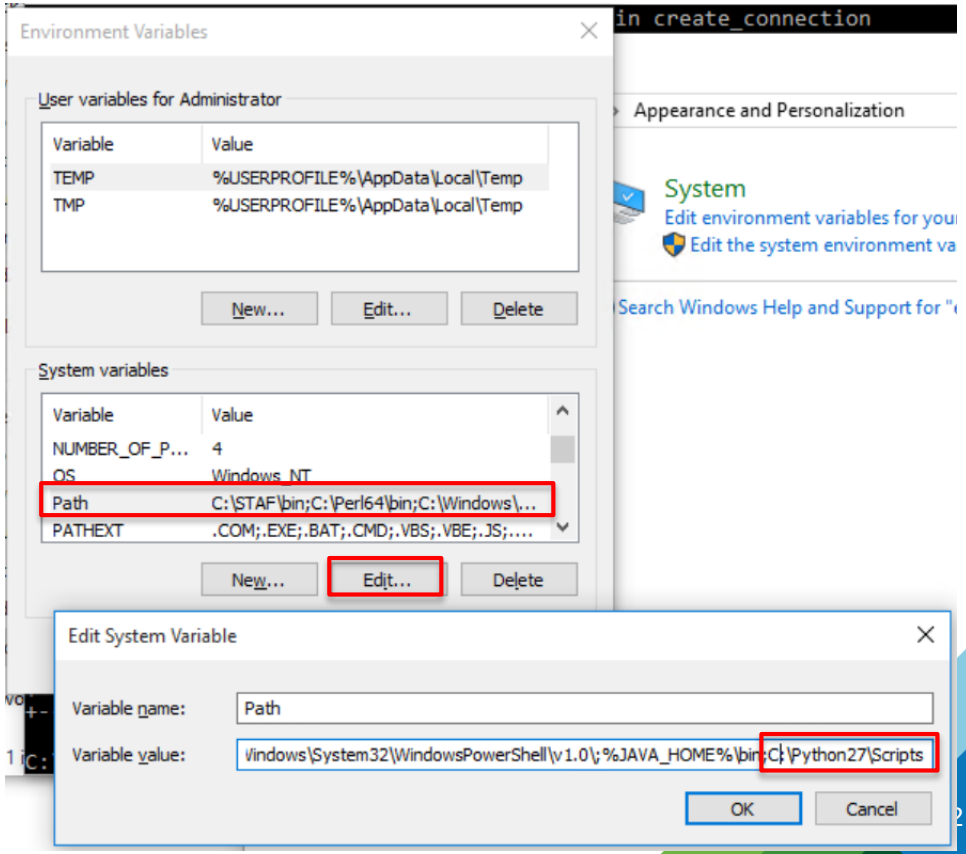
     Note: Attention do NOT install python 3.x



   - Add python installation folder in the Windows path

     So you can run pynsxv from any folder

     Under "Control Panel – Environment Variables", edit the System Variable "Path", and add the "Python27\Scripts" folder:



Installation of Python + NSX toolkit (pynsxv) – Windows

2. Installation of pynsxv
   - `pip install pynsxv`

```
C:\Windows\system32>pip install pynsxv
Collecting pynsxv
  Downloading PyNSXv-0.3.tar.gz (40kB)
    100% |################################| 40kB 655kB/s
Collecting nsxramlclient>=2.0 (from pynsxv)
  Downloading nsxramlclient-2.0.0.tar.gz
Collecting pyvmomi (from pynsxv)
  Downloading pyvmomi-6.0.0.2016.6.tar.gz (218kB)
    100% |################################| 225kB 1.1MB/s
```

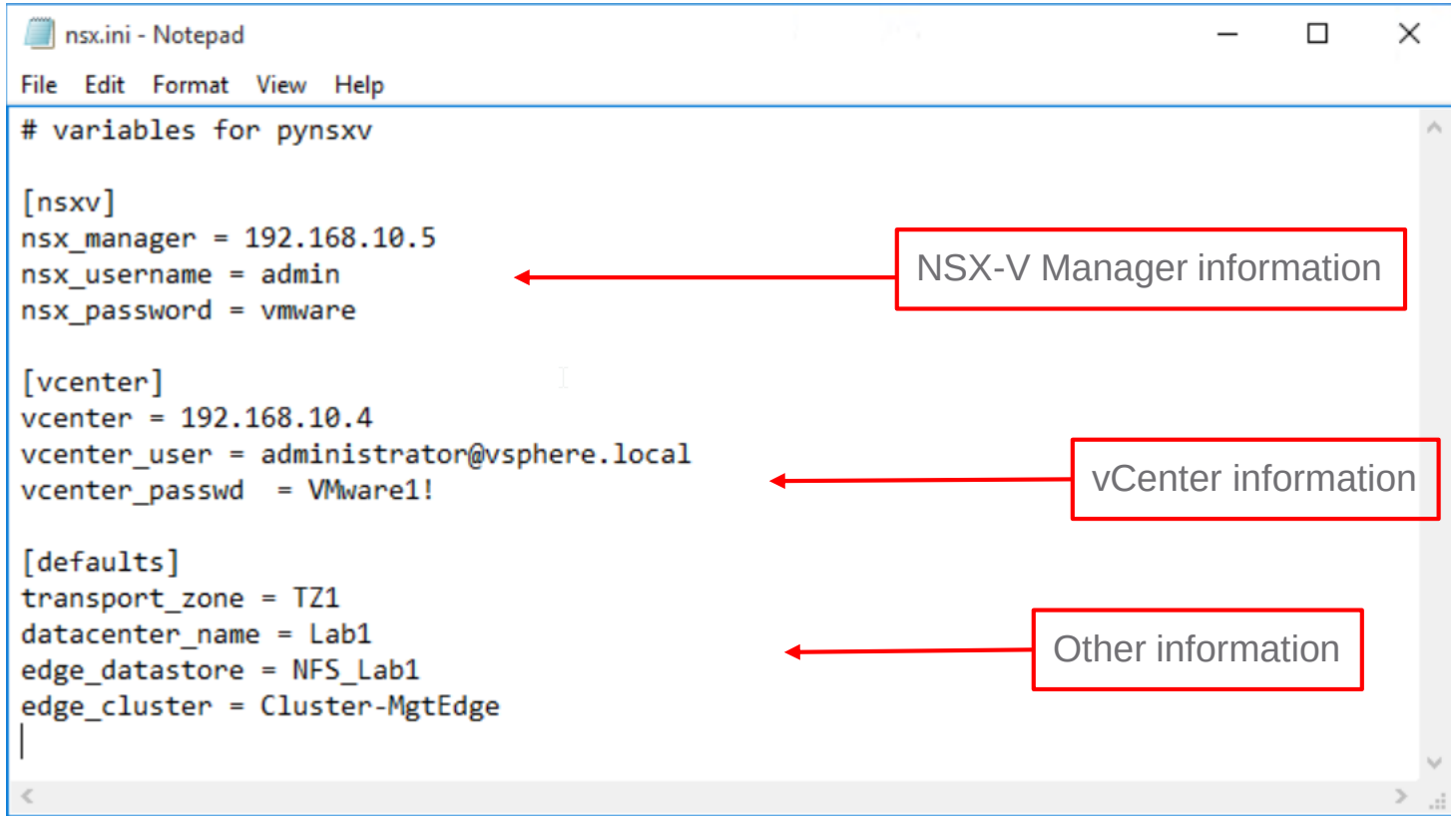
Note: Solution also requires pyOpenSSL (to talk HTTPS to NSX-Mgr)

`pip install pyOpenSSL`

```
C:\nsxraml-master>pip install pyOpenSSL
Collecting pyOpenSSL
  Downloading pyOpenSSL-16.0.0-py2.py3-none-any.whl (45kB)
    100% |################################| 51kB 544kB/s
Requirement already satisfied (use --upgrade to upgrade): six>=1.5.2 in c:\python27\lib\site-packages (from pyOpenSSL)
Collecting cryptography>=1.3 (from pyOpenSSL)
  Downloading cryptography-1.4-cp27-none-win32.whl (891kB)
    100% |################################| 901kB 364kB/s
```

Installation of Python + NSX toolkit (pynsxv) – Windows

3. Create nsx.ini file (information for python on NSX + vCenter)



4. That's it ☺

Installation of Python + NSX toolkit (pynsxv) – Linux / Ubuntu

1. Installation of python + pip

```
dimi@ubuntu-python:~$ apt-get install python-openssl libxml2-dev libxslt-dev python-dev zlib1g-dev python-pip -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'libxslt1-dev' instead of 'libxslt-dev'
```

2. Installation of pynsxv

```
dimi@ubuntu-python:~$ sudo pip install pynsxv
Collecting pynsxv
Collecting nsxramlclient>=2.0 (from pynsxv)
Collecting tabulate (from pynsxv)
Collecting pyvmomi (from pynsxv)
```

Installation of Python + NSX toolkit (pynsxv) – Linux / Ubuntu

3. Create nsx.ini file (information for python on NSX + vCenter)

```
dimi@ubuntu-python:~$ cat nsx.ini
  # variables for pynsxv

  [nsxv]
  nsx_manager = 192.168.10.5
  nsx_username = admin
  nsx_password = vmware

  [vcenter]
  vcenter = 192.168.10.4
  vcenter_user = administrator@vsphere.local
  vcenter_passwd  = VMware1!

  [defaults]
  transport_zone = TZ1
  datacenter_name = Lab1
  edge_datastore = NFS_Lab1
  edge_cluster = Cluster-MgtEdge
```

NSX-V Manager information

vCenter information

Other information

4. That's it ☺

Installation of pynsxv

1. Installation of Python + NSX toolkit (pynsxv)
   - For Windows
   - For Linux
2. **Validation of pynsxv installation**

Validation of pynsxv installation

1. Launch pynsxv help
   - `pynsxv -h`

```
C:\pynsxv>pynsxv.exe -h
usage: pynsxv-script.py [-h] [-i INI] [-v] [-d]
                        {lswitch,dlr,esg,dfw,usage} ...

PyNSXv Command Line Client for NSX for vSphere

positional arguments:
  {lswitch,dlr,esg,dfw,usage}
    lswitch             Functions for logical switches
    dlr                 Functions for distributed logical routers
    esg                 Functions for edge services gateways
    dfw                 Functions for distributed firewall
    usage               Functions to retrieve NSX-v usage statistics

optional arguments:
  -h, --help            show this help message and exit
  -i INI, --ini INI     nsx configuration file
  -v, --verbose         increase output verbosity
  -d, --debug           print low level debug of http transactions
```

Windows

```
dimi@ubuntu-python:~$ pynsxv -h
usage: pynsxv [-h] [-i INI] [-v] [-d] {lswitch,dlr,esg,dfw,usage} ...

PyNSXv Command Line Client for NSX for vSphere

positional arguments:
  {lswitch,dlr,esg,dfw,usage}
    lswitch             Functions for logical switches
    dlr                 Functions for distributed logical routers
    esg                 Functions for edge services gateways
    dfw                 Functions for distributed firewall
    usage               Functions to retrieve NSX-v usage statistics

optional arguments:
  -h, --help            show this help message and exit
  -i INI, --ini INI     nsx configuration file
  -v, --verbose         increase output verbosity
  -d, --debug           print low level debug of http transactions
```

Linux

Validation of pynsxv installation

2. List NSX-v Logical Switches
   - `pynsxv lswitch list`

```
C:\pynsxv>pynsxv lswitch list
+---------------+---------------+
| LS name       | LS ID         |
|---------------+---------------|
| Transit_LS-01 | virtualwire-2 |
| Web_LS-01     | virtualwire-3 |
| App_LS-01     | virtualwire-4 |
| DB_LS-01      | virtualwire-5 |
| TSWeb         | virtualwire-51|
| Transit_LS-02 | virtualwire-74|
| Web-01        | virtualwire-89|
| App-01        | virtualwire-90|
| DB-01         | virtualwire-91|
| Transit-01    | virtualwire-92|
+---------------+---------------+
```

Windows

```
dimi@ubuntu-python:~$ pynsxv lswitch list

+---------------+---------------+
| LS name       | LS ID         |
|---------------+---------------|
| Transit_LS-01 | virtualwire-2 |
| Web_LS-01     | virtualwire-3 |
| App_LS-01     | virtualwire-4 |
| DB_LS-01      | virtualwire-5 |
| TSWeb         | virtualwire-51|
| Transit_LS-02 | virtualwire-74|
| Web-01        | virtualwire-89|
| App-01        | virtualwire-90|
| DB-01         | virtualwire-91|
| Transit-01    | virtualwire-92|
+---------------+---------------+
```

Linux