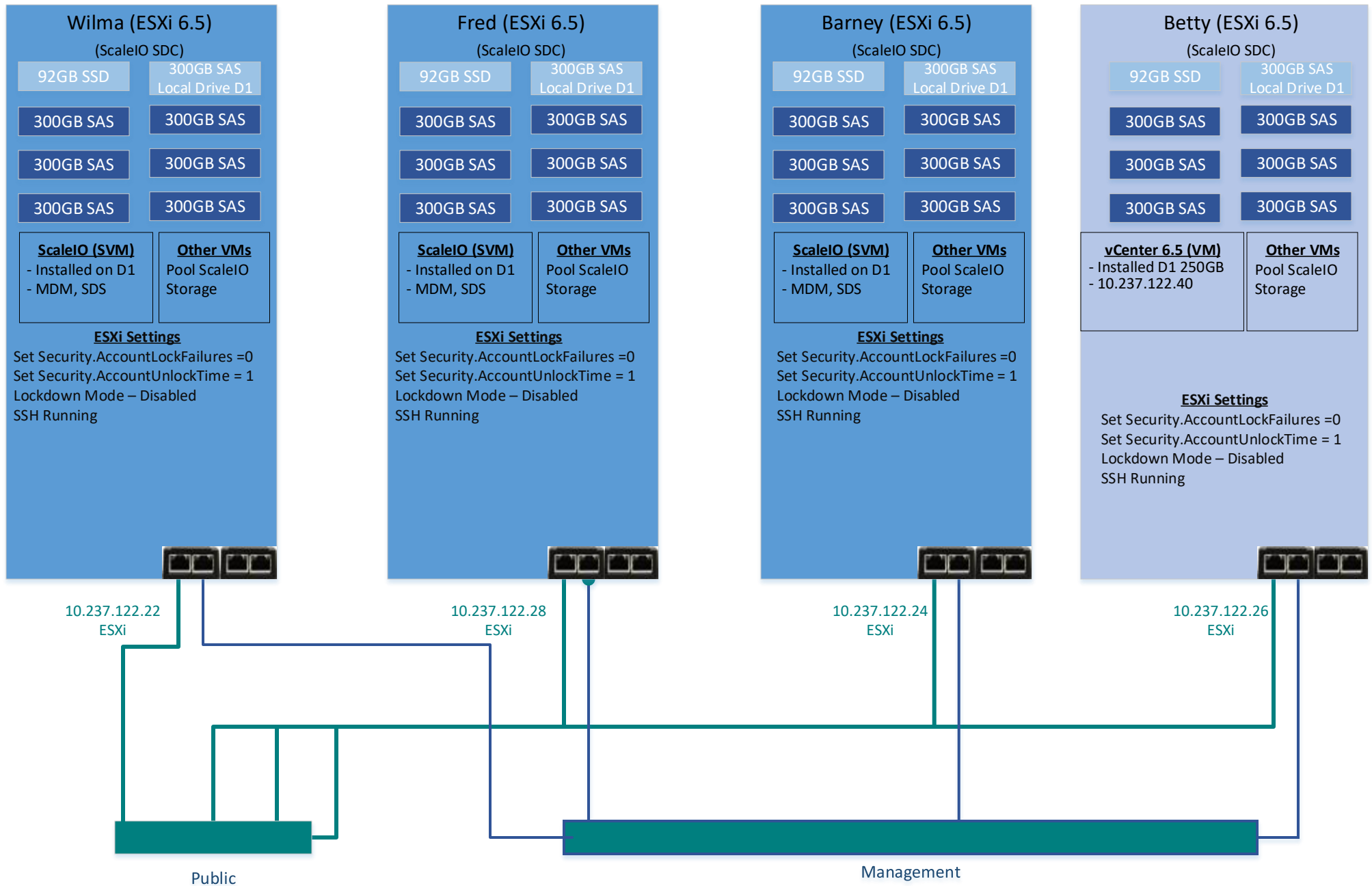
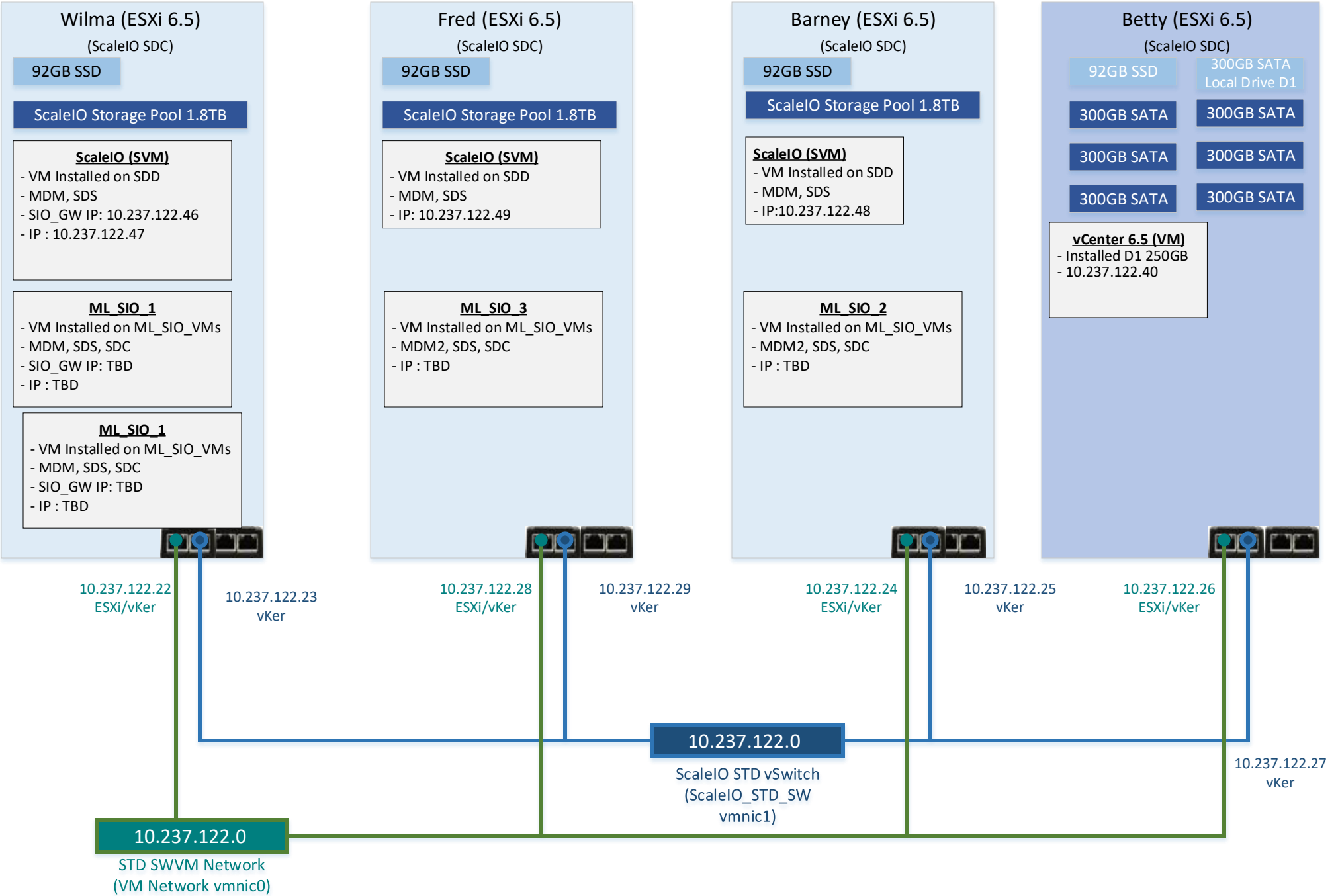
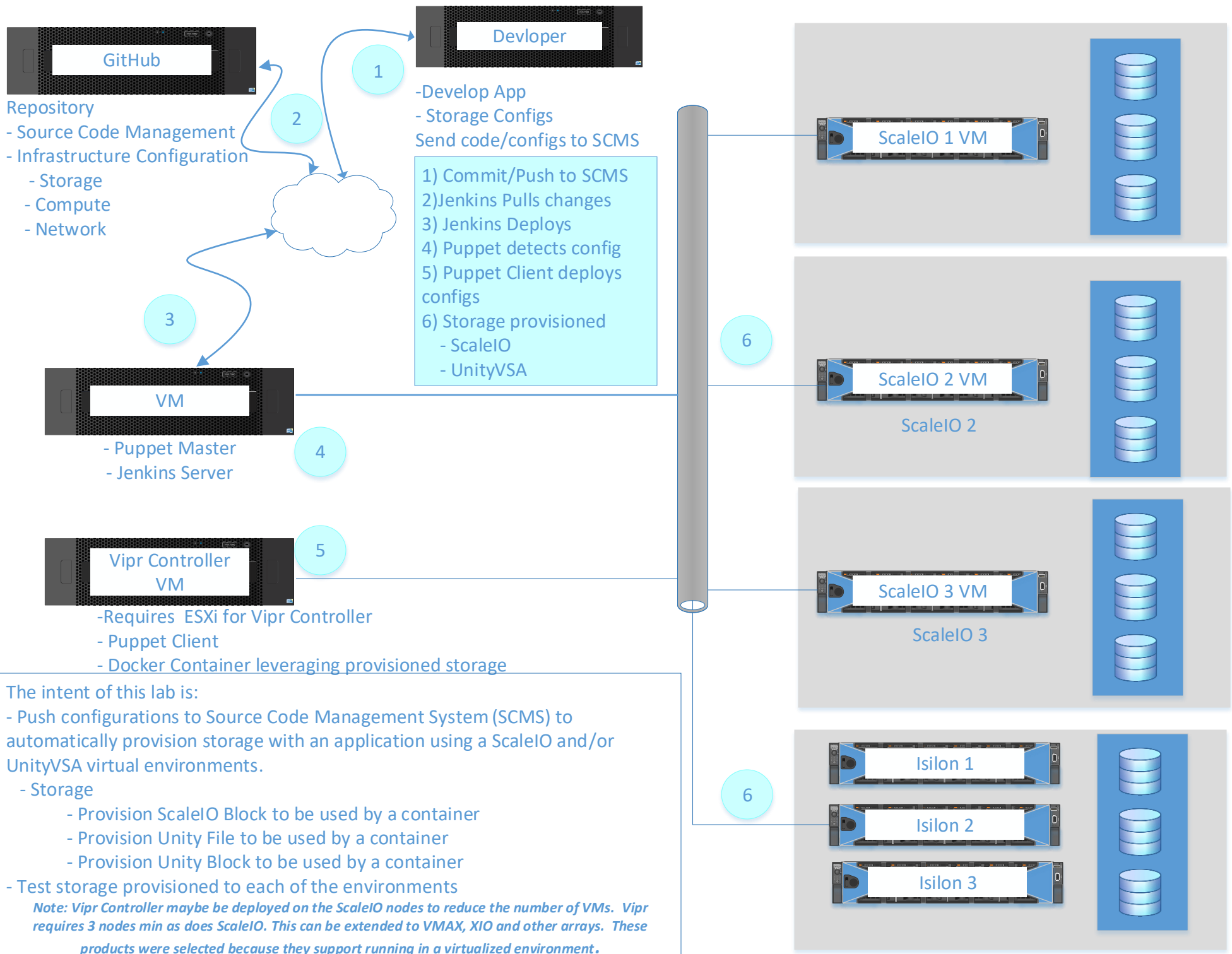


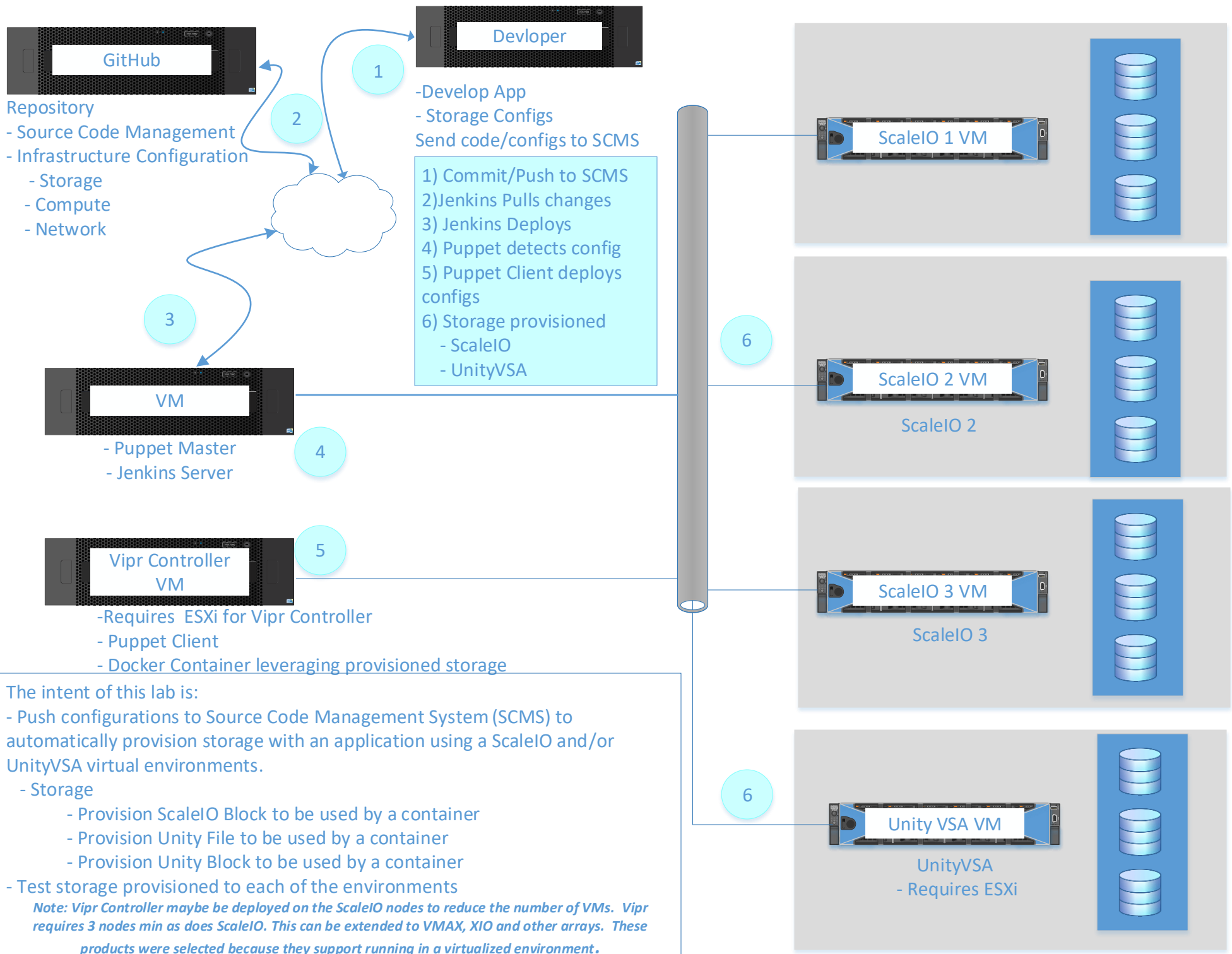
## Warren Lab (MetroLab Physical Layout)

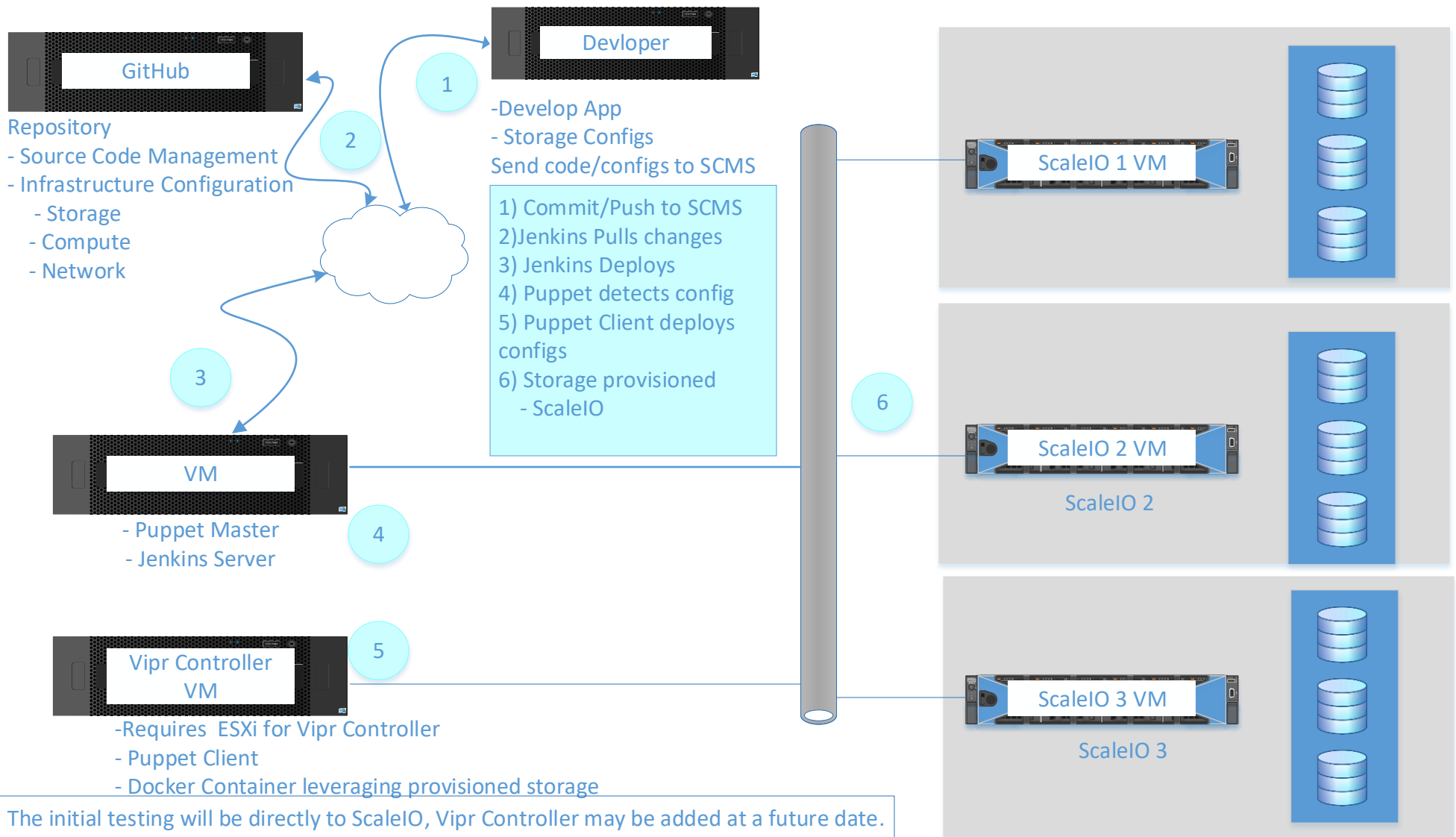


# Warren Lab (MetroLab Virtual Layout)









The intent of this lab is:

- Push configurations to Source Code Management System (SCMS) to automatically provision storage with an application using a ScaleIO virtual environment.
  - Storage
    - Provision ScaleIO Block to be used by a container
    - Test storage provisioned to each of the environments

*Note: Viper Controller maybe be deployed on the ScaleIO nodes to reduce the number of VMs. Viper requires 3 nodes min as does ScaleIO. This can be extended to VMAX, XIO and other arrays. These products were selected because they support running in a virtualized environment.*

## Laptop VM Layout

### MDM Master (3GB)

- SDS - ScaleIO Data Server (500MB)
- SDC - ScaleIO Data Client (50MB)
- MDM - Meta Data Manager (500MB)
- Java 1.8
- 192.168.142.10
- ScaleIO Installed
- ID admin PWD:password
- MDM/LIA PWD:Passw0rd

### MDM Slave (2GB)

- SDS - ScaleIO Data Server (500MB)
- SDC - ScaleIO Data Client (50MB)
- MDM - Meta Data Manager (500MB)
- Java 1.8
- 192.168.142.20

### MDM Tie (2GB)

- SDS - ScaleIO Data Server (500MB)
- SDC - ScaleIO Data Client (50MB)
- MDM - Meta Data Manager (500MB)
- Java 1.8
- 192.168.142.21

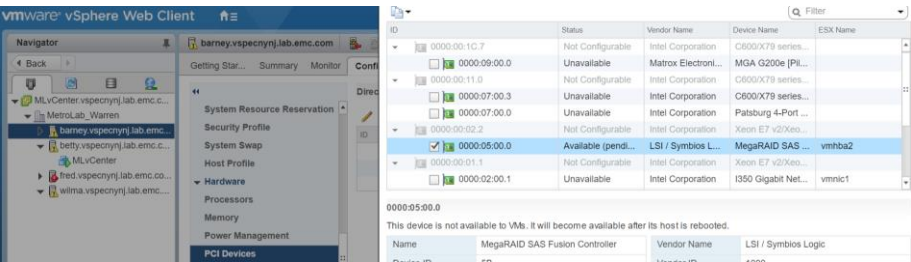
Installing the ESXi Plugin

- 1) Launch PowerShell as Administrator
- 2) Run the ScaleIOPluginSetup-2.0-14000.231.ps1 script inside the PowerShell
- 3) Disable the checking of the SSL Certificate
  - 1) Check Setting
    - Get-PowerCLIConfiguration
  - 2) Suppress Warning
    - Set-PowerCLIConfiguration -InvalidCertificateAction ignore -confirm:\$false
  - 3) Run Script and follow instructions in the ScaleIO ESXi documentation
    - ScaleIOPluginSetup-2.0-14000.231.ps1

Configuring Each ESXi to support DiretPathing at the ESXi level

- 1) From vCenter go to Host and Clusters -> Configure -> Hardware -> PCI Devices
- 2) Click the Pencil, scroll to the controller, in this case it is vmhba2 and click the checkbox to enable.
- 3) Reboot host
- 4) Repeat for each host in the ScaellIO cluster.

To fix the SDC IP Issue ([https://emcservice--c.na55.visual.force.com/apex/KB\\_BreakFix\\_clone?id=kA2j00000000R5go](https://emcservice--c.na55.visual.force.com/apex/KB_BreakFix_clone?id=kA2j00000000R5go))



Configuration

Initial

Generate a GUID for the SDC. This can be done at: <http://www.guidgen.com>.

Configure the SDC module with its GUID and the MDM IP addresses. There should be exactly one space between the end of the GUID and the beginning of the IP variable:

```
esxcli system module parameters set -m scini -p "loctlIniGuidStr=GUID_GOES_HERE loctlMdmIPStr=10.0.0.x,10.0.0.y,10.1.1.x,10.1.1.y"
```

Load the SDC module:

```
esxcli system module load m scini
```

Reboot the ESX host.

Change/Modify

Updating the IP addresses requires you to set the entire module parameter string again. (Remember to specify both the GUID and the MDM IP addresses.)

Retrieve the current GUID:

```
esxcli system module parameters get -m scini | grep loctlIniGuidStr
```

(ESXi 6: 

```
esxcli system module parameters list -m scini | grep loctlIniGuidStr
```

)

Configure the SDC module with its GUID and the new list of MDM IP addresses:

```
esxcli system module parameters set -m scini -p "loctlIniGuidStr=GUID_GOES_HERE loctlMdmIPStr=10.0.0.x,10.0.0.y,10.1.1.x,10.1.1.y"
```

Reboot the ESX host.

Removal

Clear SDC configuration:

```
esxcli system module parameters set -m scini -p ""
```

Retrieve the package name:

```
esxcli software vib list | grep scaleio
```

Uninstall SDC:

```
esxcli software vib remove -n PACKAGE_NAME
```

If the VIB was uninstalled (step 3) without clearing the SDC module parameters (step 1), remove the configuration manually:

```
cat /etc/vmware/esx.conf | grep scini
```

Edit /etc/vmware/esx.conf and remove all lines returned by the previous step.

Configure ScaleIO Virtual Machine IP addresses and hosting Datastore






ESX Name	Mgmt IP	Mgmt Subnet Mask	Default Gateway	Data IP	Data Su
wilma.vspecnynj.l... (ScaleIO Gateway)	10.237.122.46	255.255.255.0	10.237.122.1	10.237.122.81	255.255.
wilma.vspecnynj.l...	10.237.122.47	255.255.255.0	10.237.122.1	10.237.122.82	255.255.
fred.vspecnynj.la...	10.237.122.49	255.255.255.0	10.237.122.1	10.237.122.83	255.255.
barney.vspecnynj....	10.237.122.48	255.255.255.0	10.237.122.1	10.237.122.84	255.255.

Configure Cluster Virtual IP addresses

Network	Virtual IP
Data (ScaleIO_STD_SW)	10.237.122.80



## Configure ScaleIO Virtual Machine IP addresses and hosting Datastore

ESX Name	Mgmt IP  	Mgmt Subnet Mask	Default Gateway	Data IP  	Data Su
wilma.vspecnynj.l... (ScaleIO Gateway) 	10.237.122.46	255.255.255.0	10.237.122.1	10.237.122.81	255.255.
wilma.vspecnynj.l...	10.237.122.47	255.255.255.0	10.237.122.1	10.237.122.82	255.255.
fred.vspecnynj.la...	10.237.122.49	255.255.255.0	10.237.122.1	10.237.122.83	255.255.1
barney.vspecnynj....	10.237.122.48	255.255.255.0	10.237.122.1	10.237.122.84	255.255.

## Configure Cluster Virtual IP addresses

Network	Virtual IP
Data (ScaleIO_STD_SW)	10.237.122.80