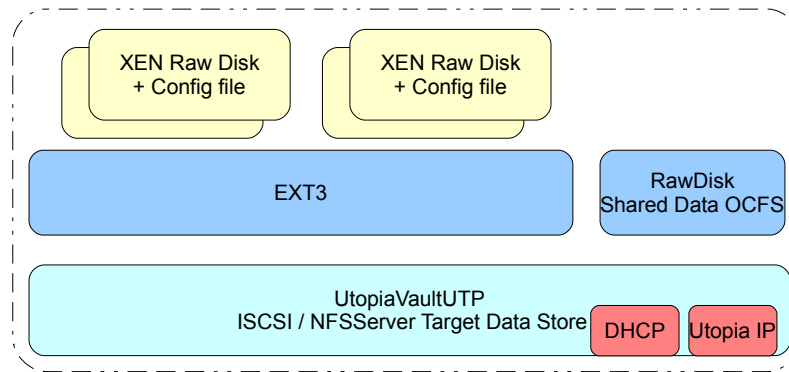


Utopia Infrastructure UtopiaVaultUTP

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What is it ?

UtopiaVaultUTP is a shared disk virtual machine that can be accessed via NFS or ISCSI host. It is used to host Utopia Based XEN Virtual Machines and provide shared storage for demos like High Availability. The virtual machine can be run inside and outside Utopia IP standards



Requirements

- SLE11 with XEN hypervisor
- UtopiaVaultUTP must reside in /utopia
 - any XEN VM's that are run from the Vault must be referenced via /utopia/xenstore so it's advisable to create /utopia and /utopia/xenstore on all host machines that may run Utopia XEN VM's

Installation

Unpack the rar file ... this will create a directory called utopia containing several files and a subdirectory called "xenstore"

- if possible move the utopia directory to / . If this is not possible due to space constraints (UtopiaVaultUTP requires 20Gb) then please create a symbolic link to this directory from root.
 - `ln -s <location> /utopia`

For XEN networking to work make sure that the host has br0 configured

The Vault VM can be accessed via a Utopia standard address or by a DHCP-assigned address. If you wish to use Utopia addresses and have the host participate in the demos make sure it too has a Utopia based IP address assigned.

- e.g. to add a Utopia standard secondary address to the host:
 - `ifconfig br0:1 inet 172.17.2.xxx netmask 255.255.255.0`

TEST CONFIGURATION

To test that the vault environment described above is correctly configured, run the shell script UtopiaVaultHostCheck.sh (in the "utopia" directory):

- `sh UtopiaVaultHostCheck.sh`

- If there are any config errors the script will tell you what they are. If everything is setup correctly you will see the following result:

```
Utopia Directory = Pass
Utopia XENStore Directory = Pass
br0 = Pass
```

Startup

- As root
- Launch Virtual Machine Manager from within YaST (TIP: right-click, Add to Favorites)
- open a terminal
- change to `/utopia`
- now create a virtual machine entry to manage
 - `xm new UtopiaVaultUTP`. This will add an entry to your virtual machine list.
- `xm list` to verify
- Start the VM either via the Virtual Machine manager GUI or command line
 - command line `xm start UtopiaVaultUTP`
 - GUI right-click, Run
- Verify the machine has started. Either via the Virtual Machine Manager or via command line
 - command line `xm vncviewer UtopiaVaultUTP`
- You will see the Vault's console with its two external addresses displayed

Shutdown

- access the vault console and down it like any other linux machine. (`init 0`)

Running a Vault-hosted XEN VM

On the Host machine you wish to run the VM on you will need to create a NFS connection to the server mapped to `/utopia/xenstore`. Once this is done simply add the XEN VM to you host Virtual machine to manage and start it

Mount NFS

- as root
- verify that you have the directories `/utopia` and `/utopia/xenstore` off of root (create them manually if they don't exist). These should already exist on the machine you're using to host UtopiaVaultUTP, but will need creating on any other hosts.
- Use either the NFS Client in YAST or via the command line and mount `xenstore` to `/utopia/xenstore`.
 - command line `mount 172.17.2.49:/xenstore /utopia/xenstore/`
- To test this has worked type `ls /utopia/xenstore`. You should see directories named after each XEN vm in the Utopia XEN demo set.

To add VM

- as root
- open a terminal
- change directory to /utopia/xenstore
- `ls` to view all available VM's
- `xm new <VMdirectory>/<VMname>`
 - eg `xm new /utopia/xenstore/Node1UTP/Node1UTP`
- Type `xm list` to verify the VM has been added, or view list in Virtual Machine Manager.

To start VM

Start via Virtual machine manager or via command line

- e.g. command line `xm start Node1UTP`
- or in Virtual Machine Manager right-click VM name and choose Run.

Reference

UtopiaVaultUTP		
ipaddress	eth0 via DHCP	eth0:0 172.17.2.49
nfsshare	/xenstore	Mapped to local /xenstore
ISCSI Target	Mapped to raw disk image / ISCSITarget	
GUI	startx	
User name / password	root	n0v3ll