I learned how to create experiments on Deterlabs using the Experiments, XDCs, Model Editor, and Jupyter. How to create a three node topology network using Python. As well as how to create a secure tunnel between XDC and the experiment using terminal commands.

Dashboard

Users

Organizations

Projects

Experiments ▾
    Manage
    Reservations
    Activations

XDCs

Model Editor

Resources

Models   Editor ▾

✅ **Model Pushed**   ✕
   Revision created in jacksonsamanthalab1.csci4306: 35b41bf8c94ccba0490fbdf6feb828711e0c328f

</> PYTHON

```python
1    from mergexp import *
2
3    # Create a network topology object. This network will automatically
4    # add IP addresses to all node interfaces and configure static routes
5    # between all experiment nodes.
6    net = Network('hello-world', addressing==ipv4, routing==static)
7
8    # Create three nodes.
9    a,b,c = [net.node(name) for name in ['a', 'b', 'c']]
10
11   # Create a link connecting the three nodes.
12   link = net.connect([a,b,c])
13
14   # Make this file a runnable experiment based on our three node topology.
15   experiment(net)
```

Compiled Topology   ⋮

Revision Details

ID: hello-world
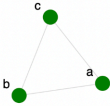
Model View
- ⦿ Nodes
- ○ Nodes & LANs
- ○ Nodes & Interfaces

Topology View
- ⦿ 2D
- ○ 3D

Topology Display

Node Size:
3

0 ———————— 10

Font Scale:
20

c
b   a

Reservation Node Details

🔍

Name	Experiment Addresses	Infranet Address	Kind	Resource	Image	Facility
a	10.0.1.1/24	172.30.0.11	VirtualMachine	md04	bullseye	moddeter
b	10.0.1.2/24	172.30.0.12	VirtualMachine	md04	bullseye	moddeter
c	10.0.1.3/24	172.30.0.13	VirtualMachine	md04	bullseye	moddeter

Reservation Details

Creator	Created	Expires	Revision	Infrapod Se...
csci3306jbzo	Fri, 30 Aug 2024 04:20:11 GMT	Fri, 06 Sep 2024 04:20:11 GMT	35b41bf8	ifr0

Status

⟳ ⤧ ⤢

Name	Description	Status	Creation	Last Updated
⌄ ✅ Realization: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Manage Realization: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Success	8/29/2024, 11:20:11 PM	8/29/2024, 11:20:11 PM
› ✅ /realize/rlzs	Manage realizations	Success	8/29/2024, 11:20:11 PM	8/29/2024, 11:20:11 PM

Status | Details

Name	Description	Status	Creation	Last Updated
⌄ ✓ helloworldjacksonsam.jacksonsamanthalab1.csci4306	Materialization Management: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Success	8/29/2024, 11:25:46 PM	8/29/2024, 11:31:07 PM
⌄ ✓ Portal Operations	All portal operations for helloworldjacksonsam.jacksonsamanthalab1.csci4306	Success	8/29/2024, 11:25:46 PM	8/29/2024, 11:25:53 PM
› ✓ Materialization: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Manage materialization: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Success	8/29/2024, 11:25:46 PM	8/29/2024, 11:25:53 PM
⌄ ✓ moddeter: helloworldjacksonsam.jacksonsamanthalab1.csci4306	Create materialization helloworldjacksonsam.jacksonsamanthalab1.csci4306	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:31:07 PM
› ✓ metalCreateOps	Image the baremetal resources	Success	8/29/2024, 11:25:50 PM	8/28/2024, 2:52:55 PM
› ✓ vmCreateOps	Create virtual machines	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:30:24 PM
› ✓ linkCreateOps	Configure networking links	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:25:51 PM
› ✓ danceCreateOps	Allocate ip addresses to materialization resources	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:25:54 PM
› ✓ createInfrapod	Create mtz infrapod	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:25:55 PM
› ✓ wireguardOps	Facility-side wireguard operations	Success	8/29/2024, 11:25:50 PM	8/29/2024, 11:31:07 PM

Terminal 2

```
# su - csci3306jbzo
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

csci3306jbzo@samanthajacksonlab1:~$ echo "PATH=$PATH:/share" > .profile
csci3306jbzo@samanthajacksonlab1:~$ echo # su - csci3306jbzo
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

csci3306jbzo@samanthajacksonlab1:~$ echo "PATH=$PATH:/share" > .profile
csci3306jbzo@samanthajacksonlab1:~$ echo z7hqaDRQOv > pass.txt
csci3306jbzo@samanthajacksonlab1:~$ exit
logout
# su - csci3306jbzo
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

csci3306jbzo@samanthajacksonlab1:~$
```

File browser:

Name	ModifiedLast Modified
/	
bin	6 mo. ago
boot	2 yr. ago
dev	1 hr. ago
etc	14 min. ago
home	1 hr. ago
lib	6 mo. ago
lib32	6 mo. ago
lib64	6 mo. ago
libx32	6 mo. ago
media	6 mo. ago
mnt	6 mo. ago
opt	6 mo. ago
organization	1 hr. ago
proc	1 hr. ago
project	1 hr. ago
root	11 min. ago
run	1 hr. ago
sbin	6 mo. ago
share	5 hr. ago
src	27 days ago
srv	6 mo. ago
sys	last mo.
tmp	9 min. ago
usr	1 hr. ago
var	6 mo. ago
created.txt	27 days ago

Simple   2 🔲 1 ⊕   Terminal 2   1 🔔