



Administrator Training

The course is intended to team willing to learn and practice programming techniques.



3 days duration



DIATEAM certified training

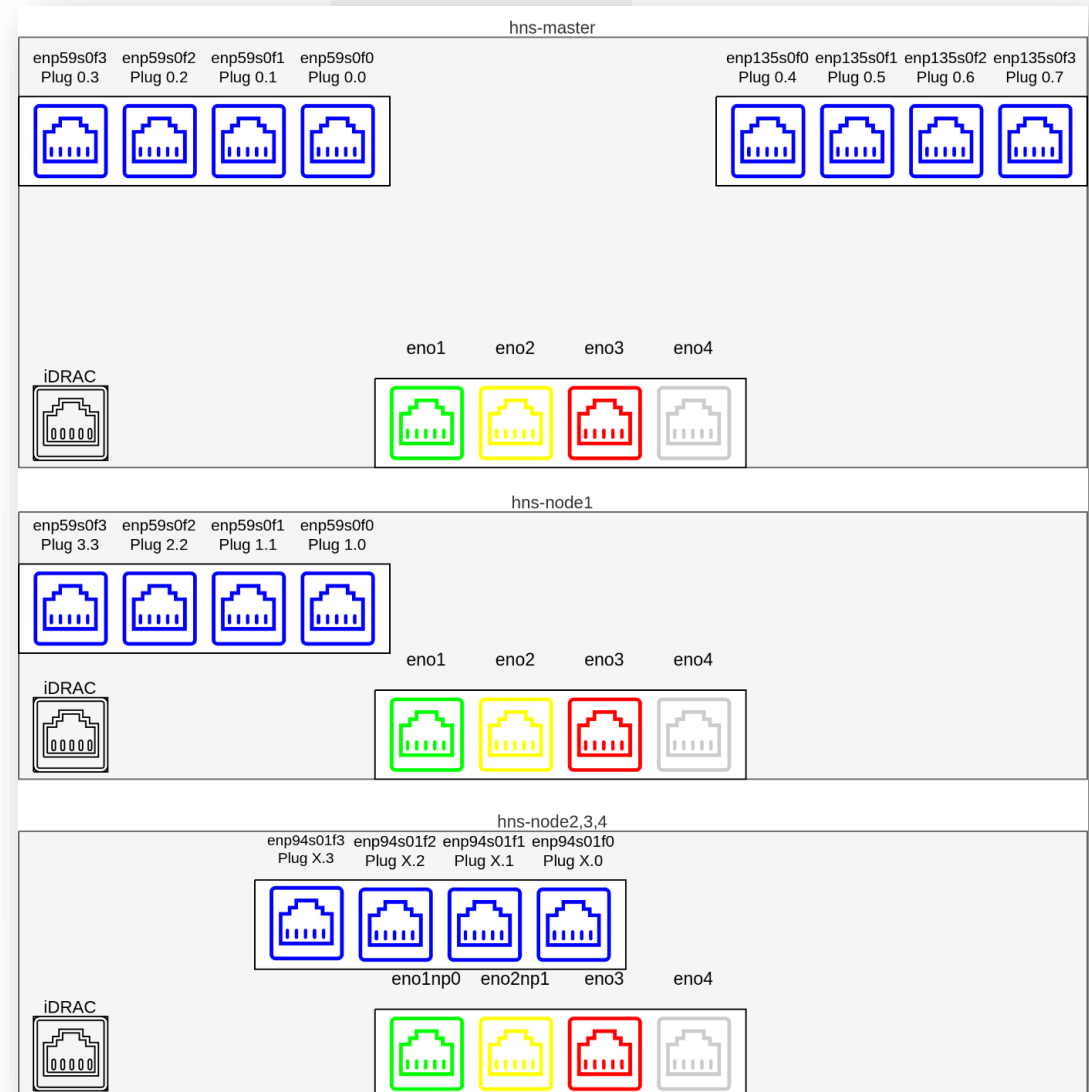
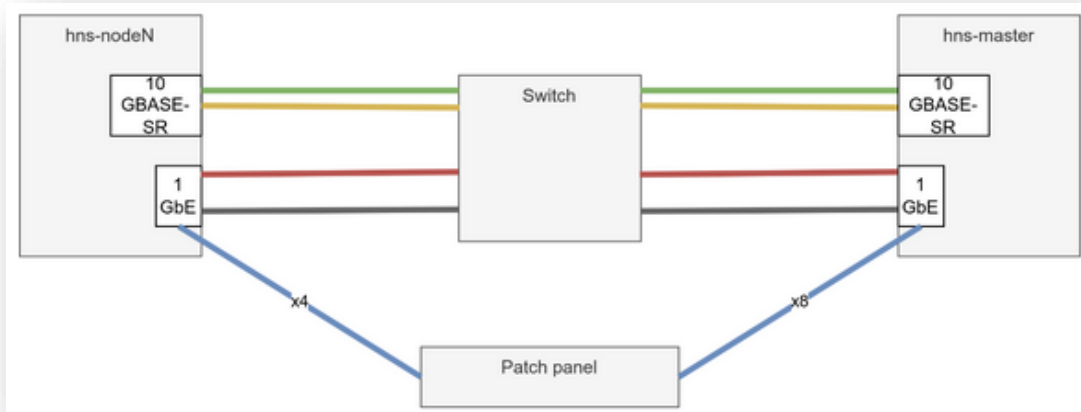
Summary

- Cyber Range wiring
- Start and Stop the Cyber Range
- Wake On LAN
- Services
- Scripts
- User / Group Management
- Cyber Range Environment Partition
- Backup and Restore the Cyber Range
- Minor Updates



Cyber Range Wiring

- Servers Overview





Start and Stop the Cyber Range

Start and Stop the Cyber Range

- Starting the Cyber Range
 - Start the inverter (if present).
 - Start the master server.
 - Wake-On-LAN is activated on nodes, they will start automatically



Start and Stop the Cyber Range

- Shutting down the Cyber Range
 - Connect to the master
 - Linux command:
 - `ssh root@{MasterIP}`
 - Windows:
 - Use Putty
 - Connect as admin to MasterIP address
 - Where MasterIP address is 10.100.1.1 by default
 - Launch the « cleanHalt » command line



Wake on LAN

Wake On LAN

- Launch ethtool to display network card parameters
 - Wake-on: g (Wake-On-LAN is enabled)
 - Wake-on: d (Wake-On-LAN is disabled)

```
File Machine View Input Devices Help
root@programo:/home/jlwallen# ethtool enp0s3
Settings for enp0s3:
  Supported ports: [ TP ]
  Supported link modes:   10baseT/Half 10baseT/Full
                        100baseT/Half 100baseT/Full
                        1000baseT/Full
  Supported pause frame use: No
  Supports auto-negotiation: Yes
  Advertised link modes:  10baseT/Half 10baseT/Full
                        100baseT/Half 100baseT/Full
                        1000baseT/Full
  Advertised pause frame use: No
  Advertised auto-negotiation: Yes
  Speed: 1000Mb/s
  Duplex: Full
  Port: Twisted Pair
  PHYAD: 0
  Transceiver: internal
  Auto-negotiation: on
  MDI-X: off (auto)
  Supports Wake-on: umbg
  Wake-on: d
  Current message level: 0x00000007 (7)
                        drv probe link
  Link detected: yes
```



Services

Services

- 3 main services are running on Cyber Range
 - hynesim-glacier
 - hynesim-master
 - hynesim-node
- To command one of these three services
 - Launch « *sudo systemctl start hynesim-glacier* » to start the service
 - Launch « *sudo systemctl stop hynesim-glacier* » to stop the service
 - Launch « *sudo systemctl restart hynesim-glacier* » to restart the service
- To view logs of one of these three services
 - Launch « *sudo journalctl -ru hynesim-glacier* »



Scripts

To launch on master server

- cleanHalt
 - Shut down the system
- resetNode
 - Stop and start the current node
- resetPlatform
 - Restart all services from the master

Scripts

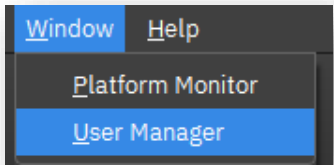
- wake-hynesim-nodes
 - Launch a wake on line command to all nodes
- dispatchAction
 - Send a command list to all servers (master + nodes)

[HNS-HYNESIM-PRO-3.0-AdministrationGuide-EN.pdf](#)



User / Group Management

- Create, Edit, Delete User



The 'User Manager' window displays a list of users with columns for Username, First name, Last name, State, and Login status. The 'admin' user is currently selected.

Username	First name	Last name	State	Login status
admin			-	Online
cybermar-sa	sitawareness	cybermar	-	-
cybermar	cybermar	cybermar	-	-
admin-dla	david	labbe	-	-
pierre	pierre	b	-	-
admin-ndi	nicolas	diaz	-	-
admin-jwi	jonathan	w	-	-
frama01	frama01	frama01	-	-
ctf	ctf	ctf	-	-
oao01	oao01	oao01	-	-
oao02	oao02	oao02	-	-
oao03	oao03	oao03	-	-

The 'New user properties' dialog box is shown, containing fields for user details and configuration options.

Fields:

- Username: [Empty text box]
- First name: [Empty text box]
- Last name: [Empty text box]
- Password: [Empty text box with eye icon]
- Confirm password: [Empty text box]
- Hierarchical rank: OU Admins (dropdown)
- Creation: N/A
- Last modification: N/A
- Status: Enabled

Global rights:

- Manage ISO files
- Manage custom icons
- Manage topology gates
- Create new entity
- Create new topology
- Import/export entity
- Import/export topology

User enumeration rights:

- Enumerate all users
- Enumerate users of common groups
- No enumeration

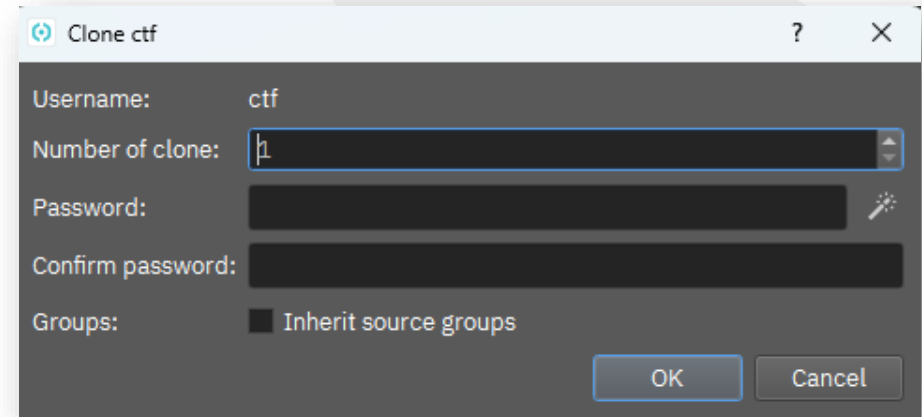
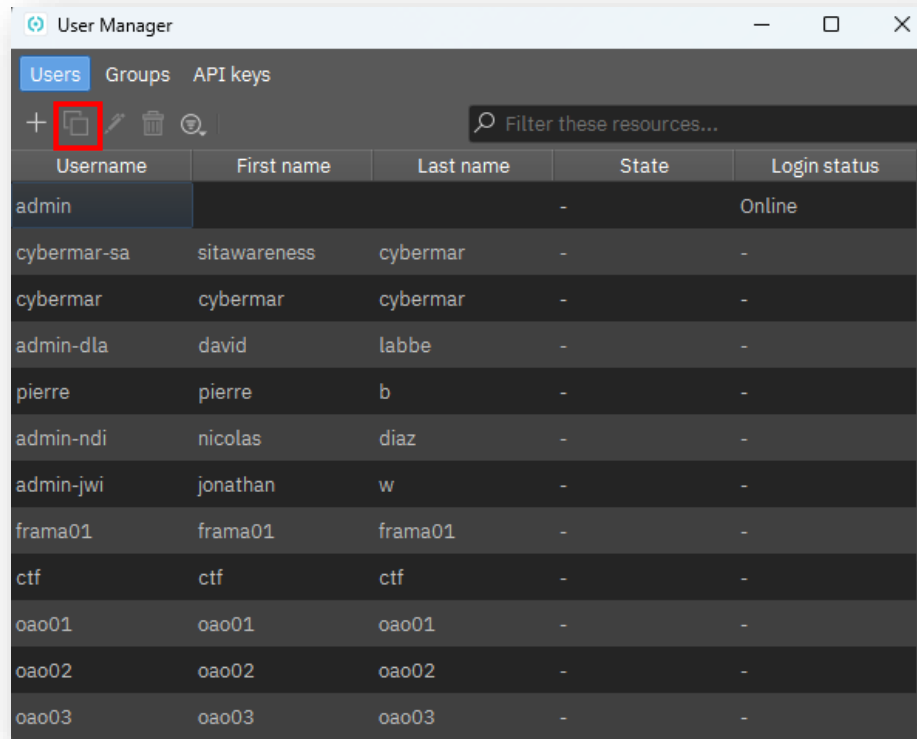
Available groups:

- C Admins
- frama
- A Admins
- admin
- B Admins
- B Teachers
- A Teachers
- A Students
- C Teachers
- C Students
- B Students

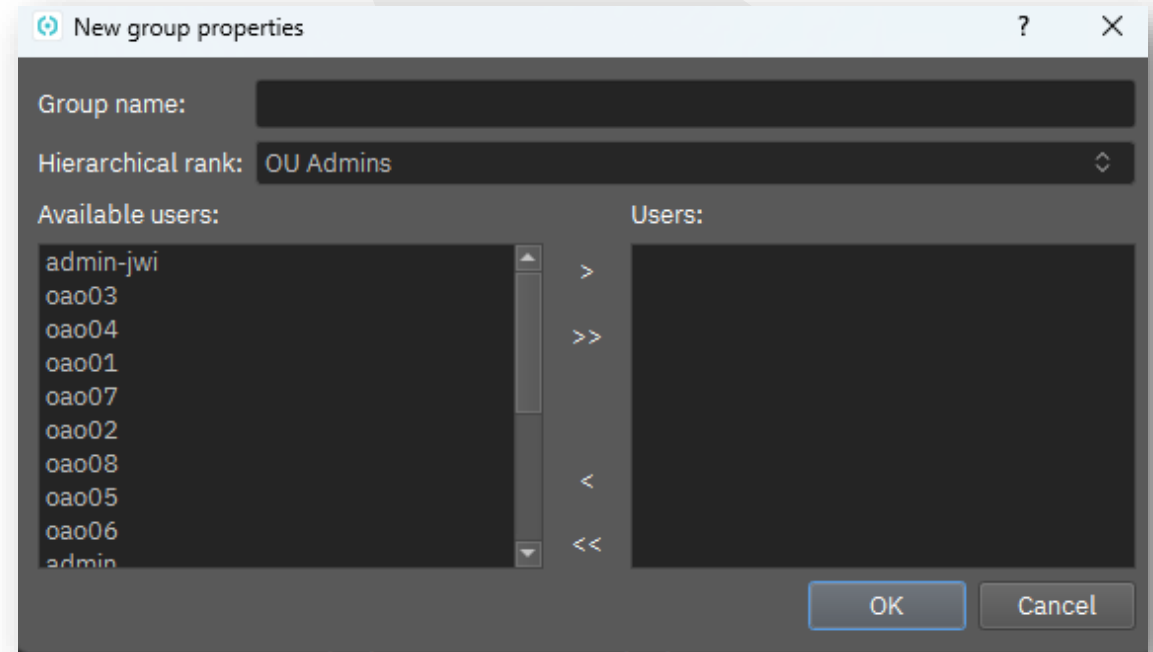
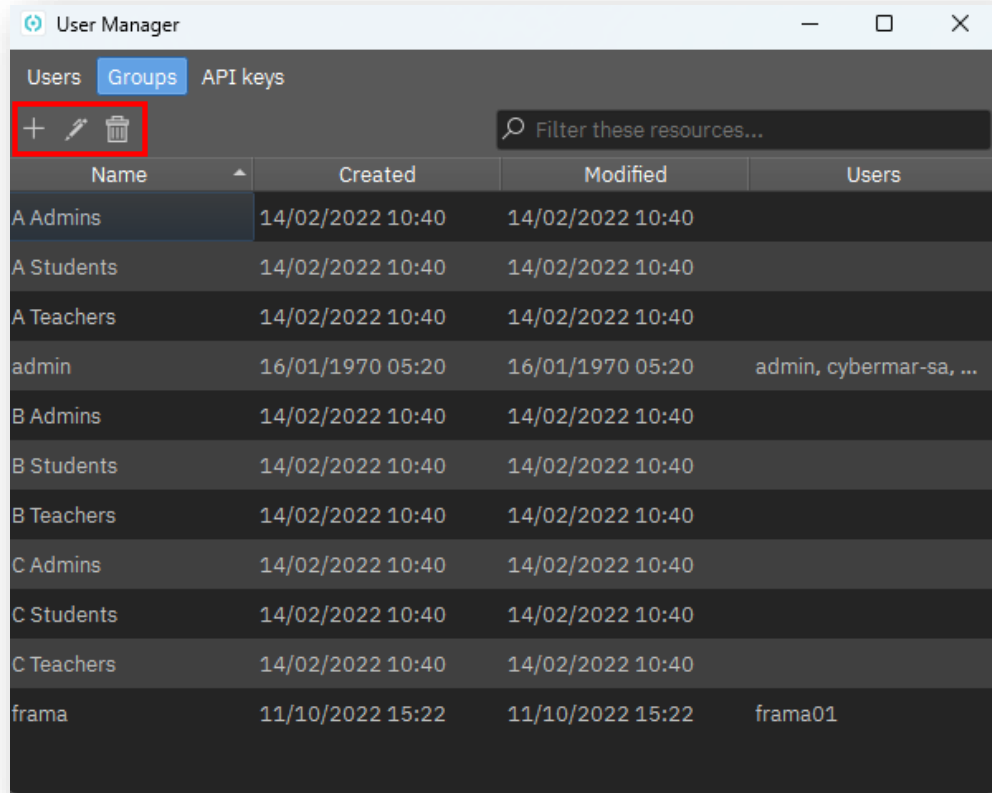
Groups: [Empty list box]

Buttons: OK, Cancel

- Clone User



- Create, Edit, Delete Group

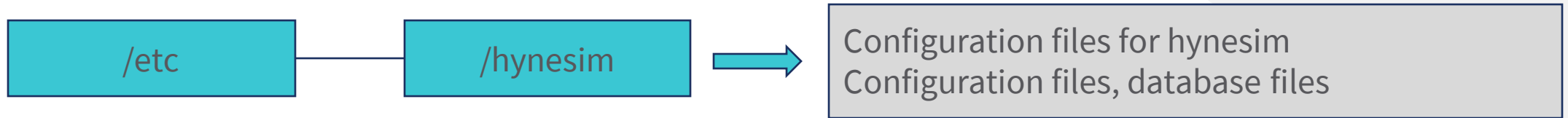




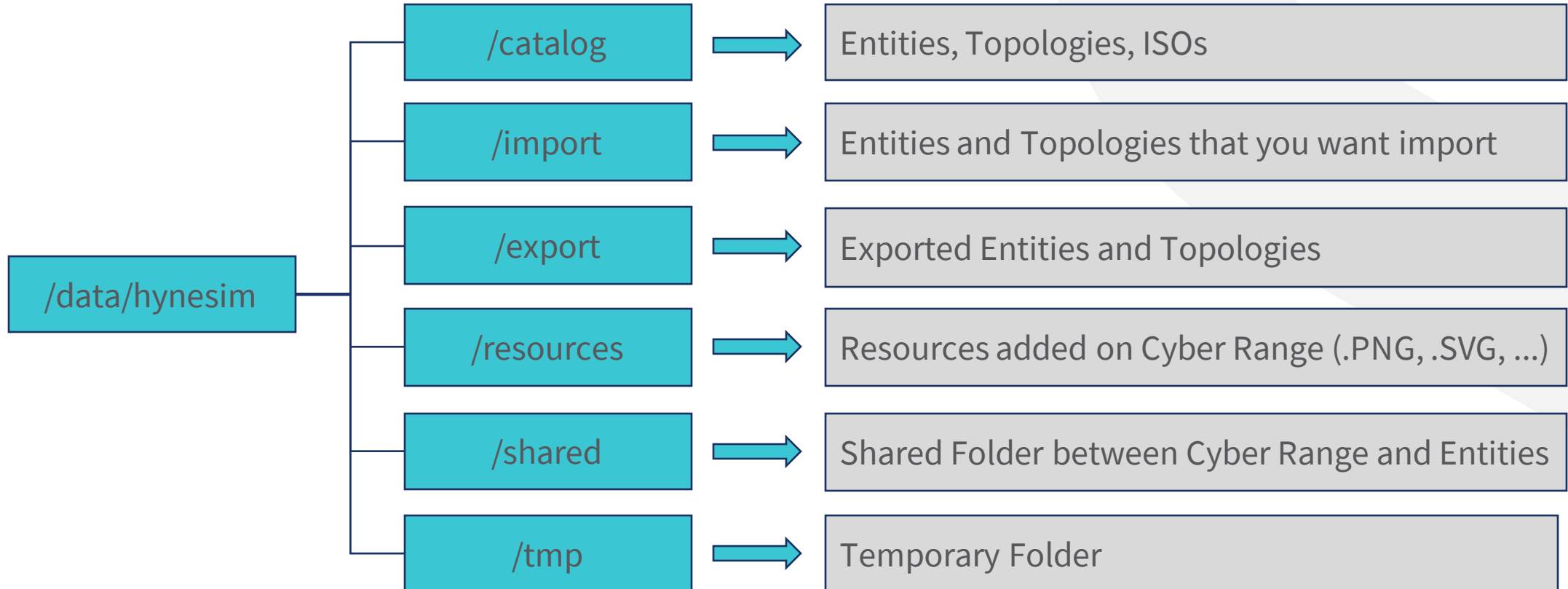
Cyber Range Environment Partition

Cyber Range Environment Partition

- Partition /etc



- Partition /data





Backup and Restore the Cyber Range

Backup and Restore the Cyber Range

- Prerequisites
 - Use usb bootable key
 - Download archlinux iso file

- Use partclone application
- Which information to backup
 - EFI partition : system partition that contains operating system boot information
 - Root partition : Main system partition
 - Data partition : topologies + entities
- Restoration
 - **Warning:** This is a destructive step

backup.pdf



Minor Updates

Minor Updates

- Prerequisites
 - The official hynesim pro version downloaded from Diateam site
- Update the minor hynesim version on your Cyber Range

HYNESIM_DOC_UPGRADE_4.X_EN.pdf



Administrator Training

**MANY THANKS !
QUESTIONS ?**



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