

ASREN





# ASREN Clouds Services

Evolution of ASREN Cloud Services over the third year of the AfricaConnect3 Project

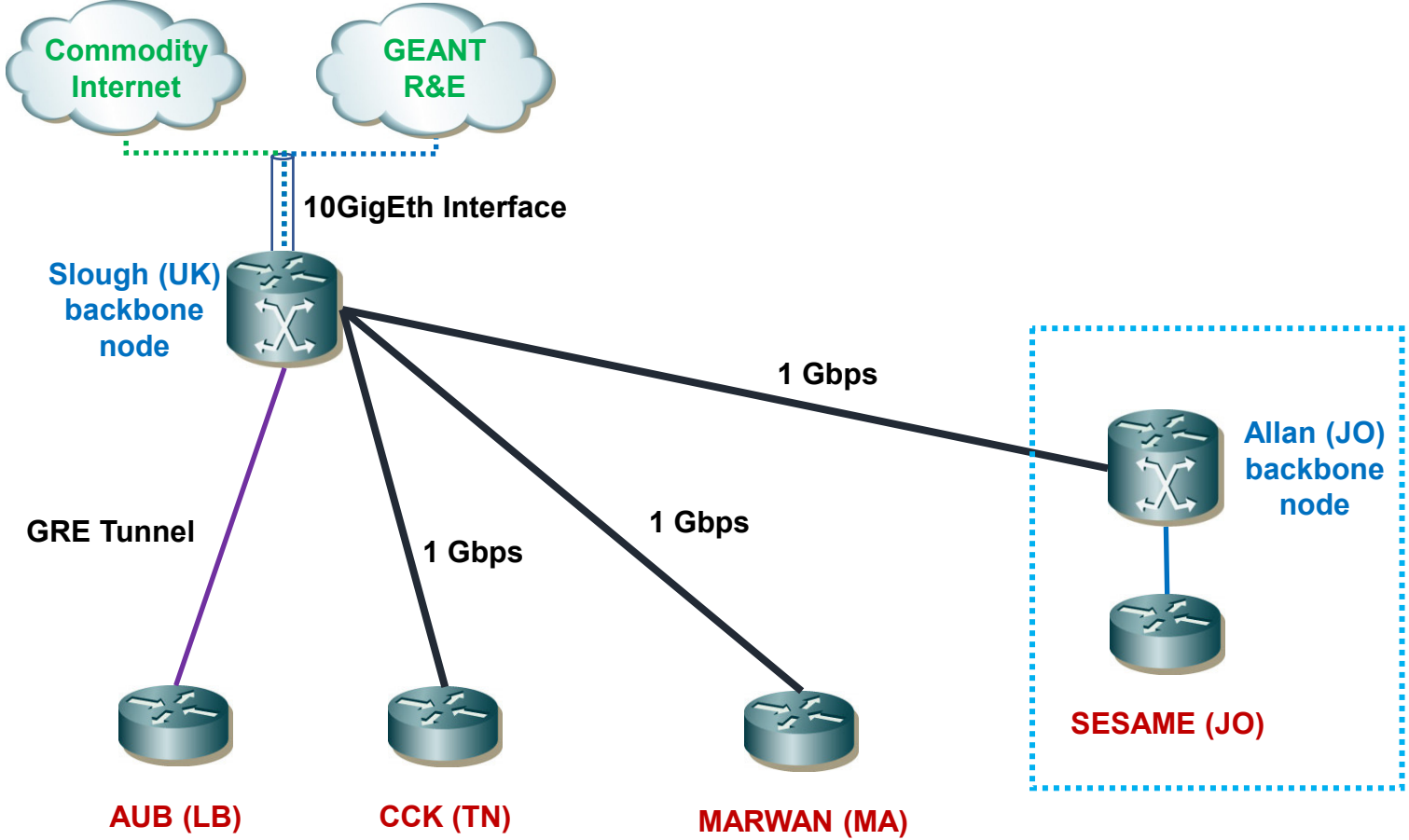
Eriko Porto

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Open Science – The Way Forward

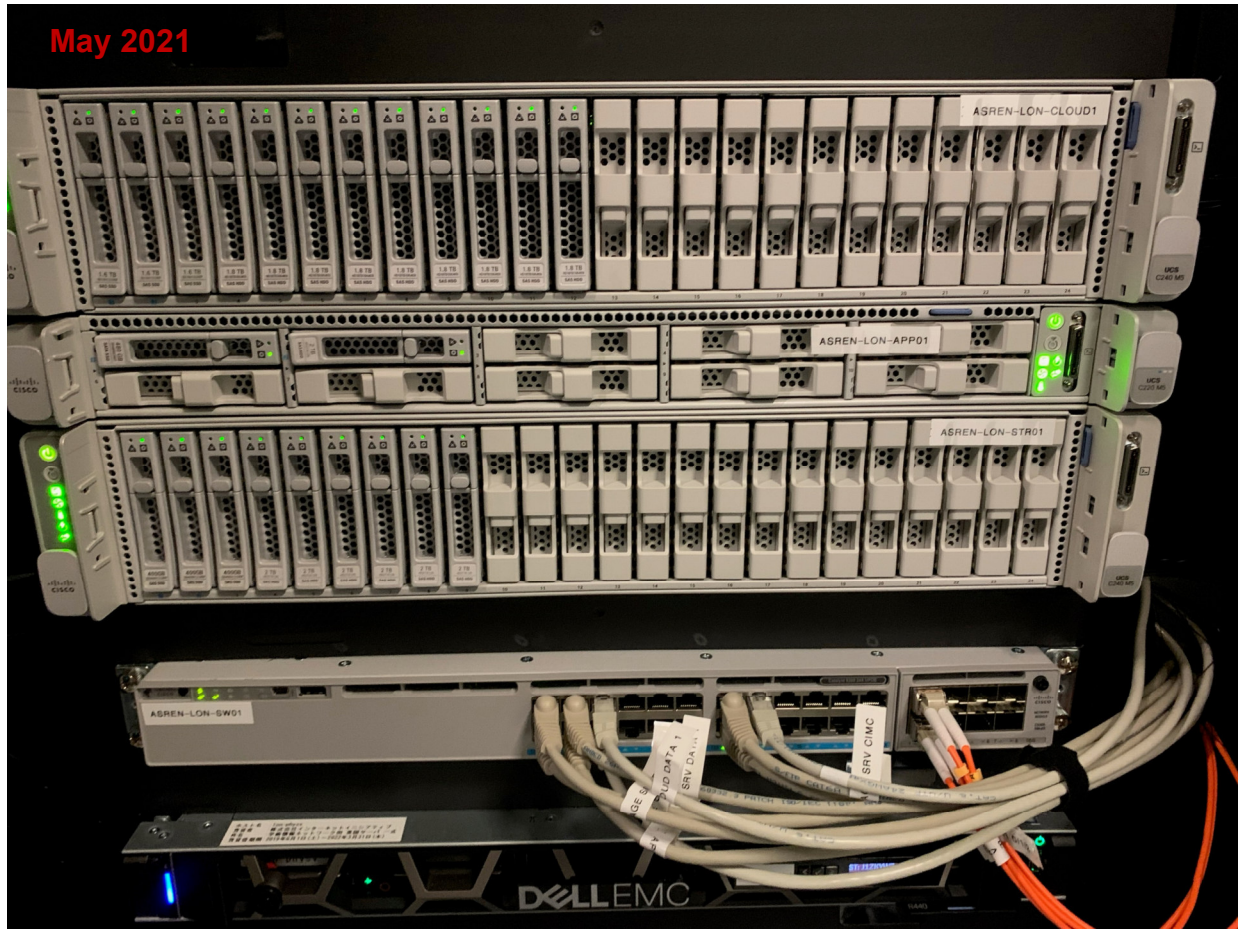
July/2022

# ASREN Network Topology





# ASREN Slough PoP

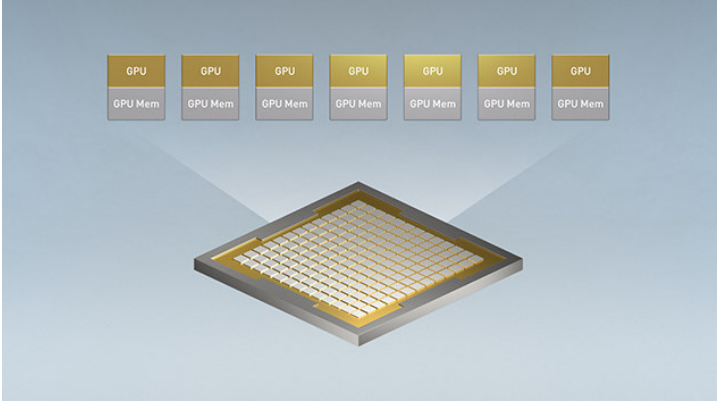


# ASREN Cloud Hardware

| Hardware    | Number of vCPUs | Memory (GB) | Storage (GB) |
|-------------|-----------------|-------------|--------------|
| UCS C220    | 8               | 16          | 2258         |
| UCS C240 #1 | 64              | 192         | 8015         |
| UCS C240 #2 | 112             | 768         | 12720        |

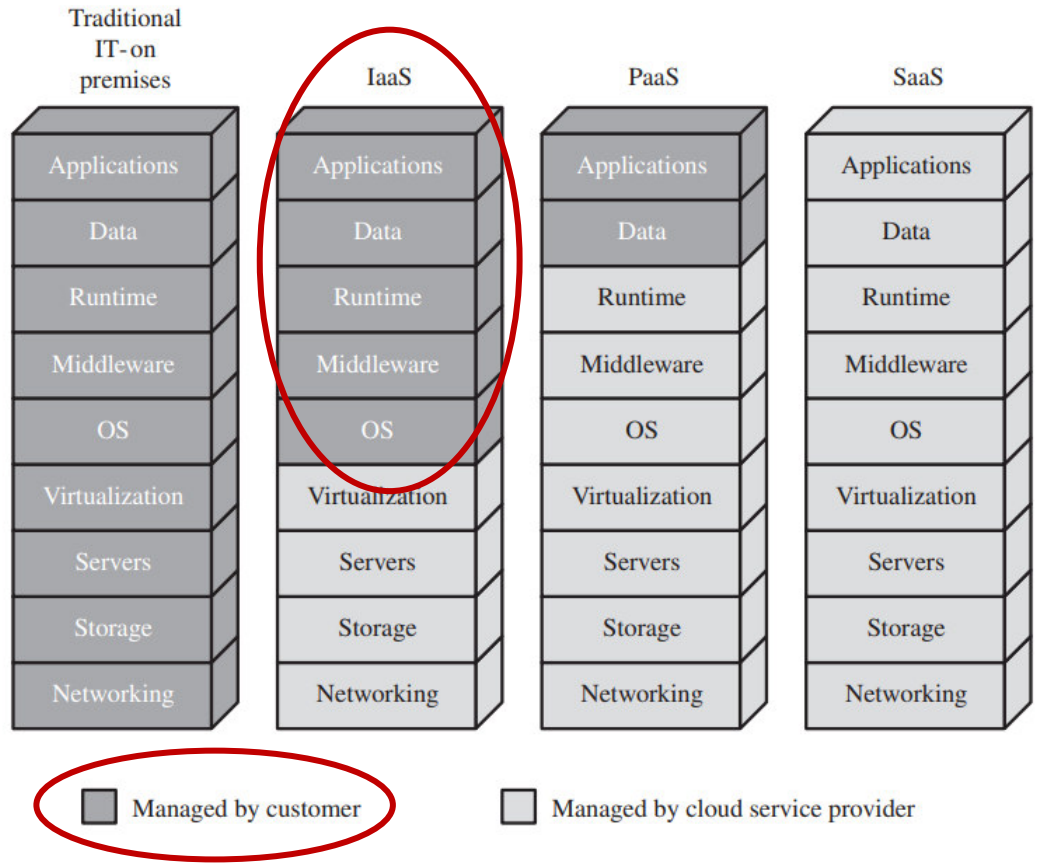
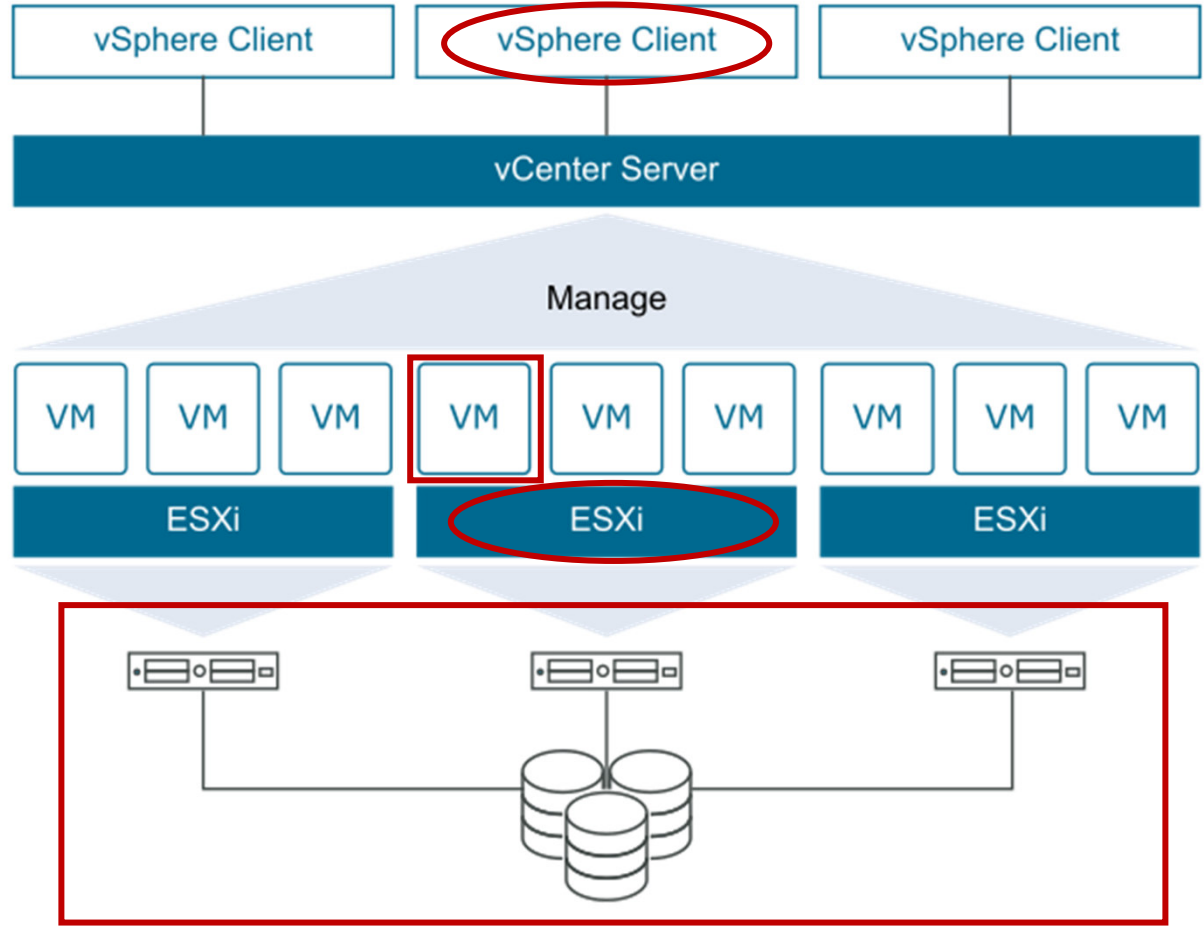
**Upgrade – November 2022**

- 2 CPUs (Intel 8253 16C) → 32 vCPUs
- 192 GB Memory
- 6 TB Storage
- 2 NVIDIA T4 GPUs

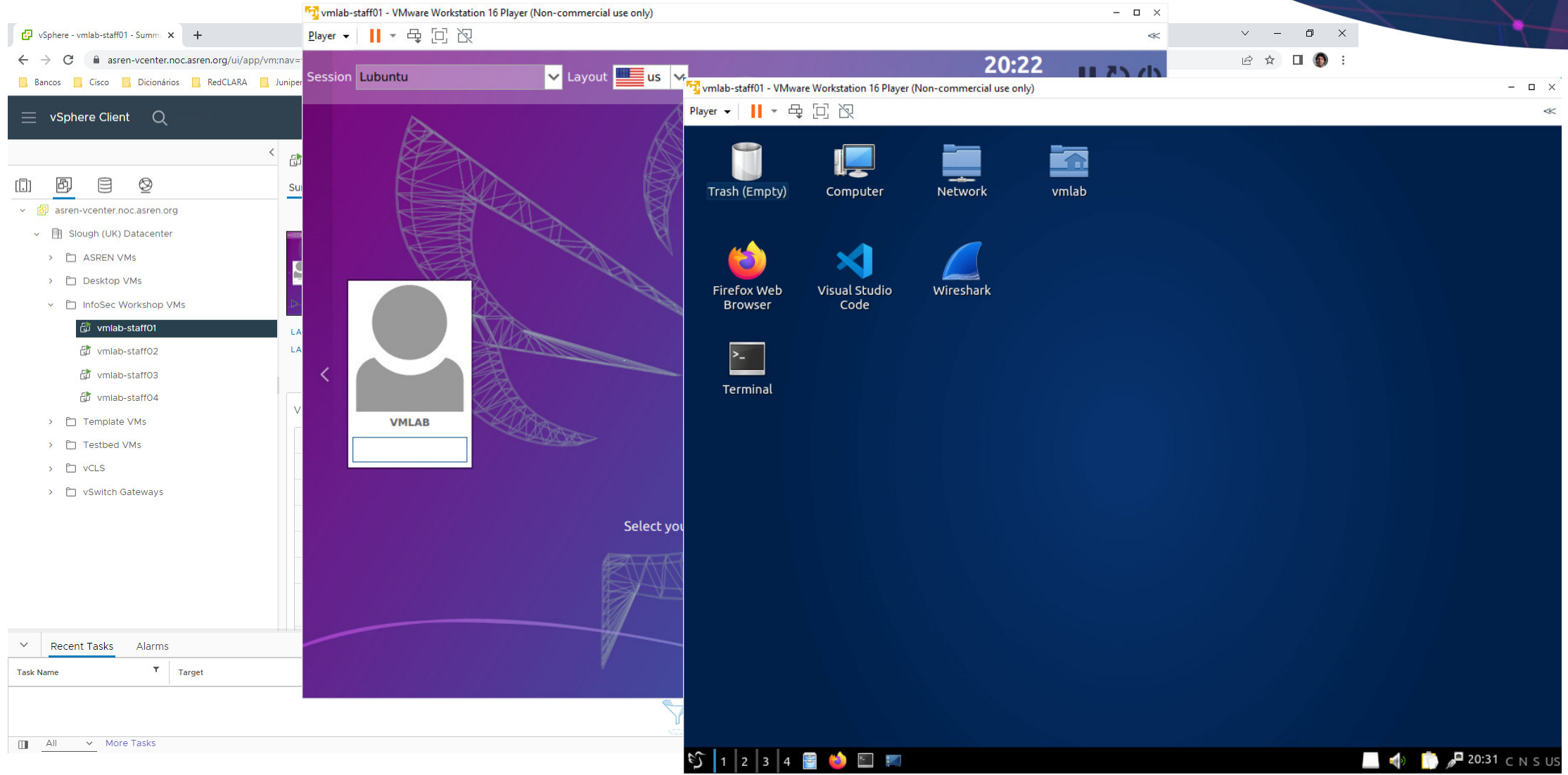




# ASREN Cloud IaaS



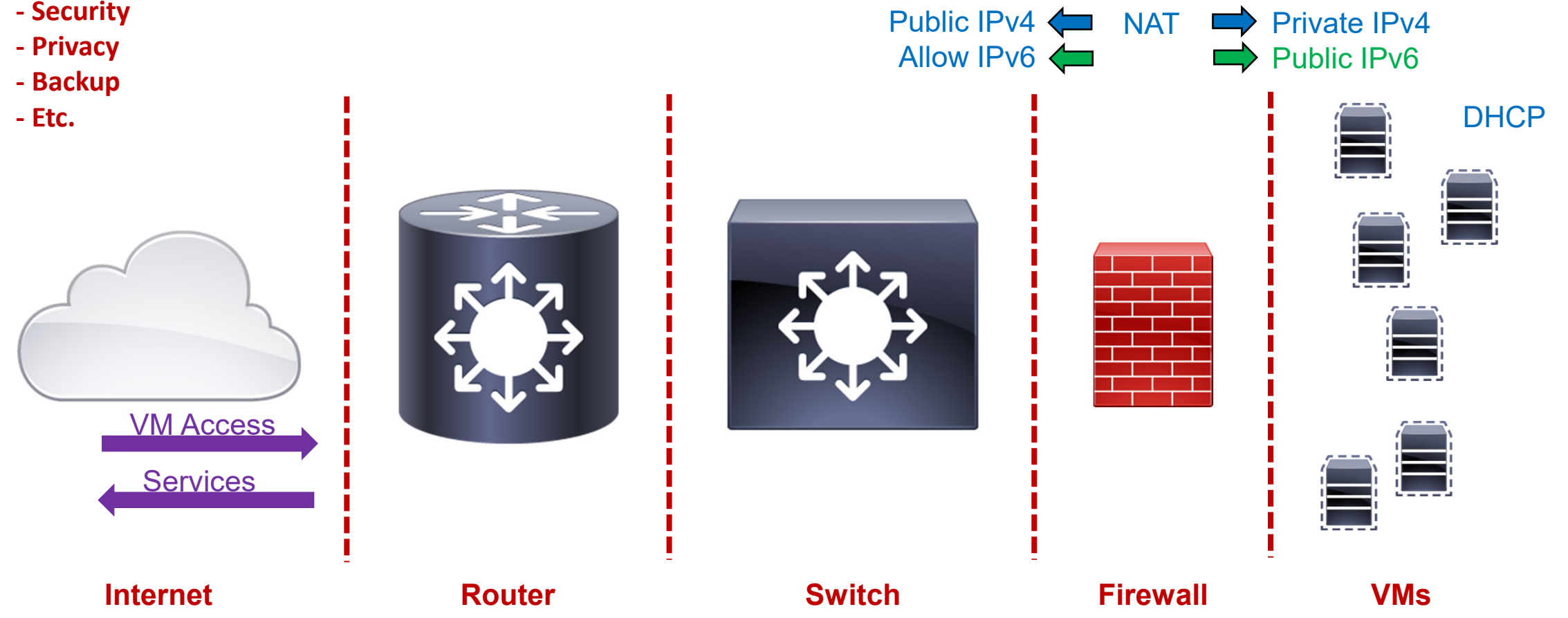
# VM Console Access

The image is a composite screenshot showing the process of accessing a VM console. On the left, the vSphere Client interface is visible, with a tree view on the left pane showing a hierarchy: 'asren-vcenter.noc.asren.org' > 'Slough (UK) Datacenter' > 'ASREN VMs' > 'vmlab-staff01'. The 'vmlab-staff01' VM is selected. Below the tree view, there are sections for 'Recent Tasks' and 'Alarms'. On the right, two overlapping windows show the VM console. The top window is titled 'vmlab-staff01 - VMware Workstation 16 Player (Non-commercial use only)' and shows a purple-themed login screen for 'Lubuntu'. A login card is displayed with a grey silhouette icon and the text 'VMLAB' below it. The bottom window, also titled 'vmlab-staff01 - VMware Workstation 16 Player (Non-commercial use only)', shows the desktop environment of the VM. The desktop has a dark blue background with several application icons: 'Trash (Empty)', 'Computer', 'Network', 'vmlab', 'Firefox Web Browser', 'Visual Studio Code', 'Wireshark', and 'Terminal'. The taskbar at the bottom of the VM console shows the time as 20:31 and the system tray with icons for network, volume, and power.

# VMs Architecture

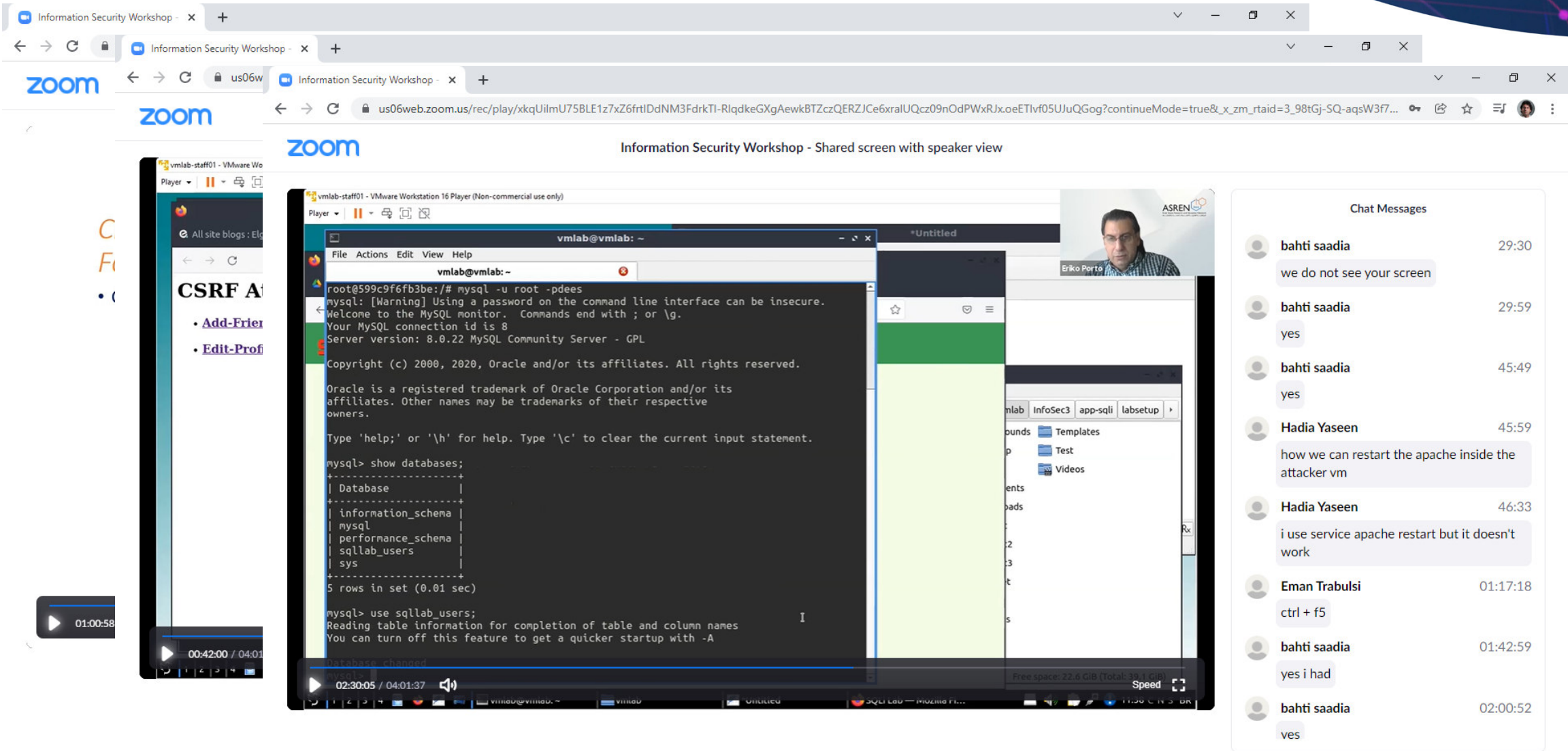
## Terms of Service (work in progress)

- Security
- Privacy
- Backup
- Etc.





# InfoSec Workshop



The screenshot shows a Zoom meeting interface. At the top, there are browser tabs for "Information Security Workshop". The main window displays a shared screen titled "Information Security Workshop - Shared screen with speaker view".

The shared screen contains a terminal window with the following content:

```
vmlab@vmlab: ~  
File Actions Edit View Help  
vmlab@vmlab: ~  
root@599c9f6fb3be:/# mysql -u root -pdees  
mysql: [Warning] Using a password on the command line interface can be insecure.  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 8  
Server version: 8.0.22 MySQL Community Server - GPL  
  
Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.  
  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sqllab_users |  
| sys |  
+-----+  
5 rows in set (0.01 sec)  
  
mysql> use sqllab_users;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A
```

Overlaid on the terminal is a file explorer window showing a directory structure:

```
vmlab InfoSec3 app-sqli labsetup >  
ounds Templates  
p Test  
Videos  
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bads  
2  
3  
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s
```

On the right side of the Zoom window, there is a "Chat Messages" panel with the following messages:

- bahti saadia 29:30: we do not see your screen
- bahti saadia 29:59: yes
- bahti saadia 45:49: yes
- Hadia Yaseen 45:59: how we can restart the apache inside the attacker vm
- Hadia Yaseen 46:33: i use service apache restart but it doesn't work
- Eman Trabulsi 01:17:18: ctrl + f5
- bahti saadia 01:42:59: yes i had
- bahti saadia 02:00:52: ves

At the bottom left, there are video player controls for two videos, with the first video at 01:00:58 and the second at 00:42:00 / 04:01:37.

# Thank you

Any questions?

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