

## Ce-ijs-01-pve

From Protagio

Note this text is english due to it being for the Fediversity project

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## hardware

The hardware is located in the Gebrandytoren in IJsselstein or also referred by us as ce-ijs

- The setup consists of the following devices

| count | name                            |
|-------|---------------------------------|
| 2     | mellanox sn2700 100gb switch    |
| 4     | juniper ex4200 48 X 1gbe switch |
| 12    | 1U supermicro cse819u           |

these devices are split evenly between 2 racks and order as in the table

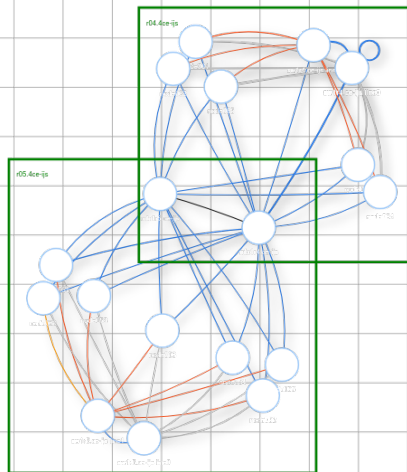
- each supermicro has the following componants

| count | name   |
|-------|--|
| 2     | Intel(R) Xeon(R) CPU E5-2690 v3 @ 2.60GHz (24 cores) |
| 4     | 64GB ddr4 2133MHZ ram                                |
| 1     | Lexar_SSD_NS100_512GB boot disk                      |
| 1     | 7.68Tib nvme   |
| 1     | connect-x4 dual 25gb sfp card                        |

## software

### ProxMox

#### topology



## networking

The network config is as follows on all the nodes

we have 1 ovs bridge (ovsbr0) which in layman's terms acts as an virtual switch. In this bridge are 3 ports

1. Bond0: This is a bond between the 25gb sfp ports ( ens1f0np0 ens1f1np1 ) which are connected to both mellanox sn2700's
2. mg0: This is an OVS IntPort which acts as a virtual interface and is connected to 192.168.51.0/24 network on vlan 21. This network is used for communication between the proxmox cluster and also serves as our management network to access the proxmox
3. stor0: This is also an OVS IntPort and is connected to 192.168.50.0/24 network on vlan 20. This network is used for communication of the Linstor (<https://wiki.protagio.org/index.php?title=Ce-ijs-01-pve&action=submit#Linstor>) shared storage

```

# please utilize the 'source' or 'source-directory' directives to do
# so.
# PVE will preserve these directives, but will NOT read its network
# configuration from sourced files, so do not attempt to move any of
# the PVE managed interfaces into external files!
auto lo

```

```
iface lo inet loopback
iface enp2s9f0 inet manual
iface enp1s9f0 inet manual
auto ens1f0np0
iface ens1f0np0 inet manual
iface enp1s9f1 inet manual
auto ens1f1np1
iface ens1f1np1 inet manual
iface enp2s9f1 inet manual
auto mgt0
iface mgt0 inet static
    address 192.168.51.81/24
    gateway 192.168.51.1
    ovs_type OVSIntPort
    ovs_bridge ovsbr0
    ovs_mtu 9000
    ovs_options tag=21
#21_mlnx_proxmox_ce_tjs
auto stor0
iface stor0 inet static
    address 192.168.50.81/24
    ovs_type OVSIntPort
    ovs_bridge ovsbr0
    ovs_mtu 9000
    ovs_options tag=20
#20_mlnx_storage_ce_tjs
auto bond0
iface bond0 inet manual
    ovs_bonds ens1f0np0 ens1f1np1
    ovs_type OVSBond
    ovs_bridge ovsbr0
    ovs_mtu 9000
    ovs_options bond_mode=balance-slb lacp=active
auto ovsbr0
iface ovsbr0 inet manual
    ovs_type OVSBridge
    ovs_ports bond0 mgt0 stor0
    ovs_mtu 9000
source /etc/network/interfaces.d/*
```

## Linstor

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