Quick Start Guide Appliance XL-Type Supermicro

Version 1.1

Appliance XL-Type Supermicro

Welcome to the SCION world! Here you can find initial connection instructions for your Anapaya XL-type device to set it up as an EDGE appliance. When installing the appliance as a CORE appliance you may need to change the port assignment. Once the device is unpacked and installed in your rack environment, on the rear panel (depicted below) connect power both on port `A` and port `B` .

On the front panel of the device:

1. Plug the QSFP28 transceiver into port `e0` and connect the LAN access fiber optics to it.
2. Plug another QSFP28 transceiver into port `e1` and connect the WAN access fiber optics to it.
3. Optionally, connect port `1` to the management network (for BMC and OS Management)
4. For initial configuration either (1) connect a keyboard and a monitor, (2) use port `1` , or (3) connect a LAN cable to port `4` and the machine you want to configure the device from i.e. your laptop.
5. Turn the device on by pressing the power button `P` .

Note

Your support may indicate other ports to connect the cables to. If, for example, RJ45 patch cables are used, port 5 will be the LAN port an port 6 the WAN port. Instead of transceivers and fibers, also DACs can be used (Direct Attached Cables).

After a few minutes, the system should have booted, and you should see a login prompt on the connected screen or you should be able to SSH into the device.

Note

If you manually need to configure the device the use default credentials user: `anapaya` and password: `anapaya` to log in to the device through one of the following options:

1. The connected keyboard and a monitor.

2. Accessing the device via SSH using the DHCP assigned IP address or the static IP assigned to port 4 i.e. `ssh anapaya@169.254.1.1` . Make sure that on your computer you statically configure the IP address `169.254.1.2/30` on the network interface the cable leading to the Appliance is connected to.
3. Once logged in, you can setup the WAN IP parameters as indicated by your support. For more information consult docs.anapaya.net .
4. DHCP will be active on all ports, and port `4` will be assigned 169.254.1.1/30 until an appliance configuration is applied.

Interface mapping

Interface Name	Port Nr. on Device	Port Usage	Port Type
eno1	1	BMC & OS Management	RJ45 1G
eno2	2	Unassigned	RJ45 1G
eno3	3	Unassigned	RJ45 1G
eno4	4	Unassigned	RJ45 1G
eno5	5	Default RJ45 LAN interface	RJ45 10G
eno6	6	Default RJ45 WAN interface	RJ45 10G
eno7	7	Default SFP28 LAN interface	SFP28 25G
eno8	8	Default SFP28 WAN interface	SFP28 25G
enp22s0	e0	Unassigned	QSFP28 100G
enp24s0	e1	Unassigned	QSFP28 100G

The official manual of the XL-type hardware (SuperServer SYS-110D-16C-FRAN8TP) can be found at:

https://www.supermicro.com/en/products/system/iot/1u/sys-110d-16c-fran8tp

Troubleshooting

The appliance should be equipped with the `Intel® Ethernet Network Adapter E810-2C-Q2` expansion card. This card requires some specific settings in the BIOS to work properly. Bifurcation needs to be set to `x8x8` and the NIC needs to be set to `1x100G` mode. The `Bifurcation` settings can be found in the BIOS at:

```
Advanced -> Chipset Configuration -> North Bridge -> IIO
Configuration -> CPU1
Configuration -> CPU Slot6 PCI-E 4.0 x16 Bifurcation
```

Warning

After changing the `Bifurcation` settings, the machine needs to reboot to show the NIC correctly in the OS and in the BIOS.

The NIC breakout mode is set in the BIOS at:

```
Advanced -> Intel(R) Ethernet
Network Adapter E810-2c-Q2 - MAC:ADDRESS:OF:THE:NIC -> Device Level
Configuration -> Port Option configuration -> Port Option
```

Set it to `option 0: 1x100G` .

Warning

If the NIC was already set to some sort of breakout only the first interface of said breakout will show the “Device Level Configuration” menu. A reboot is required for the changes to take effect and show up correctly in the BIOS

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