Connect ES24N to TrueNAS® F-Series
1 Introduction

This document guides you through connecting your ES24N(s) to your TrueNAS F-Series within the TrueNAS OS.

Before starting, ensure your TrueNAS license is active in System Settings > General.

Important - Licensed Hardware

TrueNAS restricts adding ES24N shelves based on how many are in your license.

You must have at least one ES24N in Additional Hardware to access the NVMe-of Expansion Shelves screen.

Note - IP Addresses

If you already know your ES24N IOM1 and IOM2 IP addresses, you can skip to step 4.

If you know one IOM IP address but not the other, you can use the `curl` command in step 3 to obtain it.
2 Retrieve the ES24N IOM1 IP Address

Attach a serial cable from IOM1 on the ES24 to the active controller on the F-Series.

Open the Shell (System Settings > Shell) on the active F-Series controller and list the active serial ports with:

```
ls /dev/tty* | grep ‘USB\|ACM’
```

Example return:

```
root@f60-161a[~]# ls /dev/tty* | grep ‘USB\|ACM’
/dev/ttyACM0
/dev/ttyACM1
```

Before you can access the port, you might have to change the permissions with:

```
chown :wheel /dev/ttyACM0
```

After modifying permissions, enter:

```
cu -l /dev/ttyUSB/ACM0/1 -s 11500
```

Where:

- **USB/ACM** is the serial port type returned from the `ls` command
- **0/1** is the port number you want to access

Press Enter again. The command logs you into the expansion shelf.

Finally, enter:

```
ip addr show eth0
```

Example return:

```
root@ves-ves-vds2249r-MXE3000043CHA007-mgr1:/usr/bin# ip addr show eth0
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast qlen 1000
   link/ether 00:09:3d:0c:4e:d5 brd ff:ff:ff:ff:ff:ff
   inet 10.220.13.101/20 brd 10.220.15.255 scope global dynamic eth0
      valid_lft 44801sec preferred_lft 44801sec
   inet6 fe80::209:3dff:fe0c:4ed5/64 scope link
      valid_lft forever preferred_lft forever
```

Record the ES24N IOM1 IP address for the next steps, then close the Shell.

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**Tip - Entering Commands**

We recommend manually entering all shell commands. Copied/pasted commands might not execute correctly.
3 Retrieve the ES24N IOM2 IP Address

Re-open the Shell on the F-Series and enter:

```
curl -k -u 'Admin:PASSWORD' https://IP/redfish/v1/Managers/IOM2/EthernetInterfaces/1 |jq .IPv4Addresses
```

Where:

- **PASSWORD** is your ES24N IPMI/BMC password
- **IP** is the ES24N IOM1 IP address you got in step 2

Example Output:

```
root@f60-161a[~]# curl -k -u 'Admin:MXE3000043CHA007' https://10.220.13.101/redfish/v1/Managers/IOM2/EthernetInterfaces/1|jq .IPv4Addresses
```

```
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
Dload  Upload   Total   Spent    Left  Speed
100   860  100   860    0     0   7275      0 --:--:-- --:--:-- --:--:--  7288
[  
  {  
    "Address": "10.220.13.102",
    "AddressOrigin": "DHCP",
    "Gateway": "10.220.0.1",
    "SubnetMask": "255.255.240.0"
  }
]
```

Record the ES24N IOM2 IP address for the next steps, then close the Shell.

- **Important - Serial Cable**

Remove the serial cable from the F-Series and ES24N before continuing.
4 Add the ES24N to TrueNAS

Log into your TrueNAS webUI and go to **System Settings > Enclosure**.

Click on **NVME-OF Expansion Shelves** to access the **NVME-oF Expansion Shelves** screen.

Click **Add** in the upper-right corner to configure an ES24N.
4. Fill out the **Add Expansion Shelf** form and click **Save**.

![Add Expansion Shelf form](image_url)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The name you want TrueNAS to display for the shelf.</td>
</tr>
<tr>
<td>IP</td>
<td>The IOM1 IP address (obtained from step 2 if you did not already have it).</td>
</tr>
<tr>
<td>Optional IP</td>
<td>The IOM2 IP address (obtained from step 3 if you did not already have it).</td>
</tr>
<tr>
<td>Username</td>
<td>Admin</td>
</tr>
<tr>
<td>Password</td>
<td>SB-327 IPMI/BMC password (chassis serial number). Ex. MXE3000043CHA007</td>
</tr>
</tbody>
</table>
5 Managing ES24N Shelves

After adding ES24N shelves to the system, TrueNAS lists them in the **NVME-OF Expansion Shelves** screen. You can edit them by clicking the pencil icons or delete them by clicking the trashcan icons.

6 Additional Resources

**ES24N User Manual**

![ES24N User Manual QR Code]


**ES24N Resources**

![ES24N Resources QR Code]

ES24N Resources: [https://www.truenas.com/docs/hardware/expansionshelves/#es24n-resources](https://www.truenas.com/docs/hardware/expansionshelves/#es24n-resources)

7 Contact iXsystems

Having issues? Please contact iX Support to ensure a smooth resolution.

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<th>Contact Method</th>
<th>Contact Options</th>
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<tr>
<td>Web</td>
<td><a href="https://support.ixsystems.com">https://support.ixsystems.com</a></td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:support@ixsystems.com">support@ixsystems.com</a></td>
</tr>
</tbody>
</table>
| Telephone      | Monday-Friday, 6:00AM to 6:00PM Pacific Standard Time:  
                 • US-only toll-free: 1-855-473-7449 option 2  
                 • Local and international: 1-408-943-4100 option 2 |
| Telephone      | Telephone After Hours (24x7 Gold Level Support only):  
                 • US-only toll-free: 1-855-499-5131  
                 • International: 1-408-878-3140 (International calling rates will apply) |