

I already have a PXE server on my network. Is that a problem?

Coexistence with an Existing PXE Server

The **Medulla** installation includes setting up a dedicated **PXE** (Preboot Execution Environment) **server** to facilitate deployment. We understand that your environment may already have an operational PXE server.

This is not a problem.

The key to coexistence lies in the **DHCP** (Dynamic Host Configuration Protocol), which acts as the orchestrator of the network boot process (PXE).

1. DHCP is the sole decision-maker

The PXE server (whether Medulla's or an existing one) cannot act alone. It is the **DHCP server** that directs the client to the correct boot server.

When you power on a machine that needs to boot via PXE, it sends a DHCP request. The DHCP server not only provides it with an IP address but also two pieces of information crucial for network booting:

Even if two PXE servers are listening on the network, **only the DHCP server has the authority** to tell the client which server to use.

We provide a DHCP/PXE configuration after installing the Medulla server.

2. Selective Filtering (MAC Address / Scopes)

It is possible to manage filtering by MAC address.

- **MAC Address Control:**
You can configure the DHCP server to check the MAC address of the requesting client.
 - If the MAC address is `00:1A:2B:3C:4D:5E`, the DHCP server sends **Option 66** pointing to **Medulla's PXE**.
 - For all other addresses, the DHCP server sends no PXE option, or points to your **existing PXE**.
- **Control by Scope or Vendor Class:**

DHCP can also apply these PXE routing rules to specific IP address ranges or based on a specific identifier sent by the client (the PXE client's Vendor Class).

In summary, both PXE servers can exist in parallel, but they remain **inactive** until DHCP formally instructs the client to contact one of them via the `next-server` directive.

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