

Architecture and Deployment of Medulla Relay Servers

Relay servers are local components designed to optimize resource distribution and communication between agents and the main **Medulla** server.

1. The Classic Relay (LAN / Private Network)

The classic relay is installed within the company network. Its purpose is to serve as a local "cache" and distribution point for agents located on the same site or network segment.

- **Function:** Bandwidth optimization and image deployment (Imaging).
- **Location:** Remote site, behind a router or an inter-site link.

2. The DMZ Relay (Public Exposure)

The DMZ relay is a secure gateway between the Internet and the main Medulla server.

- **Function:** Enables the management of mobile workstations (teleworking, travel) without directly exposing the main server to the Internet.
- **Location:** Demilitarized Zone (DMZ), accessible via a public IP address or an external domain name.
- **Note:** It does not support remote imaging (mastering) via the Internet.

3. Sizing (Technical Specifications)

The hardware requirements are identical for both roles, but their software functions will differ during configuration.

A. Relay Server(s) (LAN)

Component	Recommended Specification
OS	Debian 12.x
Architecture	x86-64
CPU	4 cores
RAM	8 GB
Partition /	20 GB (EXT4)
/var partition	≥ 400 GB (XFS) or mount point on array

B. DMZ Relay Server (Mobile Workstations)

Component	Recommended specification
OS	Debian 12.x
Architecture	x86-64
CPU	4 cores
RAM	8 GB
Partition /	20 GB (EXT4)
/var partition	≥ 200 GB (XFS) or mount point on array

4. Decision Summary

This table helps you determine which type of server to deploy based on your situation:

Condition	Required Relay Type	Main reason
Fleet > 5,000 workstations on the same network	Classic Relay (LAN)	Reduction of CPU/RAM load on the main Medulla server.
Remote site (Different network without a transparent LAN connection)	Classic Relay (LAN)	Enable local imaging and save WAN bandwidth.
Mobile workstations (Remote work, outside the private network, without VPN)	DMZ Relay	Ensure secure agent communication over the Internet.
Interconnected sites (High-speed private connection, authorized LAN traffic)	None (Optional)	The main server can manage the entire system, including imaging.

Revision #1

Created 2026-04-30 07:38:03 UTC by Adrien Thaisse

Updated 2026-04-30 07:38:04 UTC by Adrien Thaisse