



On-Prem Recovery CAT Deployment System Requirements

Single Server (Minimum Setup)

Our software should be run on a Linux server with the minimum specs in this document. Non-Linux servers are not supported at this time. Please note that users with Windows or Apple workstations can still use the software from their individual computers - the server is the only system required to run Linux.

Operating Systems:

- **Linux Distributions:** Ubuntu 24.04 LTS

Network:

- **Minimum Recommended:** 1 Gbps
- **Scalability:** To connect multiple hosts using the network, supporting scalable deployment, see the “Multi Server Setup” section below.
- **Recommended:** External access to packages.recocat.io - Recovery CAT packages can be installed and upgraded using our signed and authenticated apt repository.

CPU Requirements:

- **Minimum:** 16 cores (XEON, EPYC or ThreadRipper recommended)
- **Recommended:** 32+ cores for optimal performance

GPU Requirements:

- **NVIDIA GPUs:**
 - **Minimum:** RTX Ada 2000
 - **Optimal:** RTX Ada 4000-6000
 - Multiple GPUs can also be used to boost image processing throughput.
- **Minimum GPU RAM:** 16GB
- **CUDA Compatibility:** CUDA 12 or later
- **Drivers:** Ensure the latest NVIDIA drivers compatible with CUDA 12 are installed.

Memory (RAM):





- **Minimum:** 64GB
- **Recommended:** 128GB or more

Storage:

- **Minimum:** 16TB disk space
- **Type:** SSD recommended for faster performance
- **Note:** Disk space requirements may increase depending on the volume and retention of processed files.





Multi-Server Setup

Although the software can run on a single Linux server, multi-server setups allow for higher throughput of cases. The various components of the system may be scaled as needed. The specific hardware requirements of the servers will depend on the overall system design. Considerations about the number and types of datasets anticipated to be scanned and the desired throughput of scans will inform which components should be scaled and by how much. It is recommended to work with a CAT Labs specialist to finalize the multi-server infrastructure design.

The components to consider are:

1. Application Database - stores results
2. Object Store - keeps copies of files found to contain crypto artifacts
3. Message Broker - hands-on work between systems
4. RecoveryCAT CATSCAN service - scans datasets for artifacts.
5. RecoveryCAT API - provides data for the application.
6. RecoveryCAT OCR - provides an image classifier and AI-based Image Scanning.

A two-server setup would place RecoveryCAT OCR on a GPU-enabled server and all other components on a CPU-based server. More complex setups are possible, with a few caveats:

- Servers hosting API and CATSCAN should all have read access to some shared location in the filesystem. This could be a network-mounted drive mounted in the same area. The OCR service operates only on images stored in the Object Store and does not need to mount the same dataset locations as the other services.
- All RecoveryCAT components will need standard, client/server, and network access to the Application Database, Object Store, and Message Broker.

