

## Personal device requirements for using cmrad.com platform

Our secure cloud-based software platform is accessed using web browser software. The technical requirements are:

- Operating System
  - *For laptops:* Windows 10 (32/64 bit), Mac OS X 10.9+
  - *For mobile phones:* iOS 9+, Android 6+
- Web Browsers
  - *For laptops:* Chrome 74+, Firefox 74+, Safari 10+, Microsoft Edge 85+
  - *For mobile phones:* iOS 9+ Safari, Android 6+ Chrome
- Processors
  - Modern CPU not older than 7 years
  - GPU or integrated GPU not older than 7 years
- RAM
  - *For laptops:* 8GB
  - *For mobile phones:* 3GB
- Network bandwidth: 20Mbps for a good experience

## Server requirements for using CM-Connect - PACS Connection

CM-Connect allows users to exchange data, mainly DICOM studies, automatically from the PACS to Collective Minds Platform, the technical requirements for one channel are:

- Docker installed with Docker engine v20.10 or greater. As a guide, see the requirements for Docker Desktop to run linux containers on Windows using WSL:  
<https://docs.docker.com/desktop/install/windows-install/>
- CM Connect uses Docker containers that can be managed by an Orchestrator or platform for containers if it is already in use (e.g Suse Rancher, OpenShift, ..). If not CM Connect ships such orchestrator, and in this case the recommended Operating Systems include:
  - LSB compliant 64-bit Linux distribution (For instance: Ubuntu Server 22.04 or greater).
  - Windows Server 2019, Windows Server 2022, Windows 10 or Windows 11. If the server is a VM, Nested Virtualization is necessary.
- Minimal Virtual server with minimally 4 vCPU, 16 GB RAM, 300 GB disk (**for consortium like projects, we recommend at least 1 TB of disk**).
- Internet access on port 80 and 443
- Incoming traffic from PACS open on ports 4242-4251

It is recommended to install antivirus and monitoring agents on the server as long as these do not block the above mentioned requirements and allow for the complete installation procedure