

Recommended Hardware

Compass AI hardware shopping list. Take this to your Dell, HP, or Lenovo rep. Compass is a local model. It runs on hardware your district already buys. These are the three sizes, with the CPU models we have tested and the RAM you actually need.

| Tier | Compass Lite | Compass Standard | Compass Pro |
|----------------|---|---|---|
| Model | Phi-3 Mini (Microsoft, 3.8B) | Mistral Small 3 24B (Mistral AI) | Llama 3.3 70B (Meta) |
| Best for | Pilots, single schools, small districts | US districts up to 7,500 students | Large districts (7,500+) and central servers |
| RAM | 16 GB minimum, 32 GB comfortable | 48 GB minimum, 64 GB comfortable | 96 GB minimum, 128 GB comfortable |
| CPU class | Any 6-core Intel or AMD from the last 5 years | Workstation-class: 8+ cores, fast single-thread | Server-class Xeon or EPYC, many cores and high TDP |
| CPU examples | Core i5-12400, Ryzen 5 7600, Core i5-13400 | Core i7-14700K, Ryzen 7 7700X, Xeon W-2275 | Xeon Gold 6338, EPYC 7443P, Threadripper Pro 5965WX |
| GPU (optional) | Not required | Helpful: RTX 4060 or 4070 | Strongly recommended: RTX 4090 or A6000 |
| Disk | 60 GB SSD for model and app | 80 GB SSD, NVMe preferred | 120 GB NVMe SSD, dedicated for models |

RAM IS THE GATING FACTOR

If Compass will not load, it is almost always RAM, not CPU. Size for the RAM row above first, then pick a CPU from the same row. GPU is optional on Lite and Standard; only Pro benefits from a dedicated GPU at scale. Any one machine on this list handles hundreds of concurrent district users.

BUYING NOTES

- **Used server hardware is fine.** A 3-year-old Dell PowerEdge or HP ProLiant with the RAM upgraded to the target tier is a valid Compass Standard host.
- **One machine, district-wide.** All users across all buildings log into the same Atlas K-12 install. You are not sizing per school, you are sizing for one server.
- **Start on Lite, upgrade later.** The model is one config line. You can start on Compass Lite on an existing machine and upgrade to Standard or Pro when you are ready.

Hardware sizing help: ashleyreddick@atlasoa.com. Atlas K-12 installs happen on Dell, HP, Lenovo, Supermicro, or existing district hardware.