General purpose/Media Server

Honestly, you can use almost anything for this. However, I'm going to give pretty much the same recommendations as I did with the file server.

The biggest difference is, for the sake of performance, efficiency and cost, I'm going to strongly steer you towards a $200-$500 (bare bones) mini PC with a decent core/thread (4/8 minimum) count, at least 32 GB of RAM and a 1 TB NVME SSD. You can go bigger but, going smaller would put you in appliance territory and that's a separate section of this guide.

Something else to consider is to make sure it has an integrated CPU with a feature like Intel Quick Sync. It's the minimum of what you'll need to handle transcoding on something like Plex. That said, unless you've got more than a half dozen people watching streams at the same time, that's all you should really need.

A high core/thread count and high RAM quantity are important, if you want to host a lot of services at once. I'll cover this more in the software section but containerized apps like Docker/Kubernetes will greatly benefit from that. Most of your storage should be on your NAS, so the 1 TB NVME SSD should be plenty for local storage. The speed/timings of your RAM are only important in that they should match what your motherboard supports. Faster RAM speeds are pretty much negligible when it comes to performance. As time goes on, I continue to feel like there's no such thing as too much RAM, as long as your PC supports it. I'd consider 32 GB the minimum for anything running at least a half dozen services. Even then, some services are just plain resource hogs and may need their own hardware, just to keep them from choking out other services. qBittorrent is especially the app I think of when I say this. Oddly, the Windows version of the app doesn't suffer this problem nearly so much. On the other hand, Plex on Windows was the resource hog. Of course, you can always try to directly restrict resources for the apps to try to get them to play nicely.

As usual, Crucial is my go-to recommendation for RAM and SSDs. There are way too many choices for mini PCs to even begin to recommend one. So, I'll once again point you to the Reddit thread and spreadsheet, for that.

Note that these are also the servers you'd most likely want in a cluster. The exception being something far more beefy like trying to host AI.

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