Remote Simulation Computer Recommendations

Recommending a build for a remote simulation machine is a difficult problem because the computer requirements are going to vary depending on the type of problem that is being solved and the simulator that is being used. However, there are some generalities that can be followed to help optimize the computer performance for AWR simulators and your application.

General Guidelines

Buy a computer with enough RAM to solve your problem.

This is highly dependent on which simulator you are using, but some general guidelines are below.

	Small	Medium	Large
AXIEM	32 GB	64 GB	128 GB
Analyst	32 GB	128 GB	256 GB

Buy "workstation-class" machines/processors instead of "server-class" machines/processors

When purchasing a computer for remote EM simulation, you should purchase a machine with a "workstation-class" processor (i.e. the latest intel i7 or i9) and not a "server-class" process (i.e. intel Xeon). Above four cores or so, due to the imperfect scaling of simulators with the number of cores it is better to prioritize clock rate over the number of cores. Server-class processors typically have higher core count, lower clock rate, cores and thus typically do not perform as well as workstation-class processors do for the same problem. The only exception to this guideline is that you need to have enough RAM to run the problem. It is common that server-class processors can handle more RAM than workstation-class processors.

AWR Example Build

- 128 GB of RAM
- Intel i7-9700K (or latest Intel i7 or i9)

FAQ

Should I buy more machines for my queue or one large machine?

As of AWRDE V14, simulation can now be ran in parallel on a single machine. While this can help better utilize computers/servers you may already own, better performance will most likely be seen on multiple workstation-class machines.

If you are looking for recommendations for end user systems, please see this page, http://www.awrcorp.com/support-resources/getting-started/system-requirements