Study shows small businesses can run in-house AI chatbots on an AMD EPYC processor-powered Dell PowerEdge R6615 server

Small organizations and departments can use this server as an AI entry point and upgrade to a CPU + GPU configuration to support more users as needs increase

ROUND ROCK, TX, UNITED STATES, February 10, 2025 /EINPresswire.com/ -- Businesses of all sizes are eager to explore the potential of the in-house AI chatbot. By using a publicly available large language model (LLM) along with an organization's own data, these AI chatbots can improve customer support and boost employee productivity with search and content-generation capabilities—all while keeping data private and secure.

Decision-makers in smaller companies, believing that GPUs are a requirement for AI, might assume that the price of entry for such chatbots would be too high for them. In fact, benchmark testing performed by Principled Technologies (PT) revealed that a single-socket Dell PowerEdge R6615 server with only a CPU can be a great AI entry point for small businesses and departments within larger organizations, and can give them the option of scaling up by adding GPUs should their needs grow over time.

To investigate how different hardware options might support an in-house AI chatbot, PT used the PTChatterly benchmark tool to test two configurations of a single-socket Dell PowerEdge R6615

server. In the first phase of testing, the PowerEdge R6615 with only a 64-core AMD EPYC 9534 processor could support up to nine simultaneous chatbot users with a 5-second response time. In the second phase of testing, PT added a single NVIDIA L4 GPU to the Dell PowerEdge R6615 server and re-ran PTChatterly to measure any improvement the GPU might make. This configuration supported 23 simultaneous users with the same response time.

The report states, “Our testing revealed that a small organization or a department within an enterprise could use this solution in a CPU-only configuration to adopt a chatbot that supports a minimum of 9 simultaneous users at an affordable entry price. And because it is unlikely that all employees of an organization would be using the chatbot at once, this solution would effectively support larger departments comfortably. We also found that by adding a GPU to the server, the organization could scale up to support 23 or more simultaneous users as its requirements expanded.”

To learn more, read the report at https://facts.pt/MxYZe83.

About Principled Technologies, Inc.
Principled Technologies, Inc. is the leading provider of technology marketing and learning & development services.

Principled Technologies, Inc. is located in Durham, North Carolina, USA. For more information, please visit www.principledtechnologies.com.

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