

## Business Reporter: Addressing the unprecedented demands of AI applications

*The importance of creating AI-ready networks meeting future energy, bandwidth and cooling requirements* 

LONDON, UNITED KINGDOM, April 9, 2024 /EINPresswire.com/ -- In an article published on Business Reporter, Siemon, a global leader in network infrastructure solutions, talks about what types of advanced technology solutions are needed to support the huge energy, bandwidth and cooling requirements of large language model (LLM) training and inferencing. AI is already extensively used in data centres to monitor assets, proactively detect faults and improve energy efficiency by driving better power usage effectiveness (PUE). While an increasing number of AI networks use the emerging InfiniBand technology, Ethernet remains the prevailing standard in most data centres. However, regardless of which standard a business chooses, both standards meet the key requirements for high bandwidth and low latency.

Supercomputers with GPUs running GenAI applications demand vast power and multiple highbandwidth connections. The GPUs' demand for power ranges from 6.5kW to over 11kW per a 6unit server, where one unit equals 1.75 inches. Moreover, every node commonly having eight connections, GPUs typically need connections with bandwidth of up to 8x100-400Gb/s.

The steeply rising cooling demands of data centres are also pushing network managers to reconsider their infrastructure. Solutions addressing this pain point include altering network blueprints and spacing out GPU cabinets further, potentially adopting End of Row (EoR) configurations to better handle escalating temperatures. To bridge the resulting increase in the physical gaps between GPUs and switches, Direct Attach Cables (DACs) must be replaced with AOCs (Active Optical Cables). Siemon advises businesses deploying AI applications to select solutions employing Ultra-Low Loss (ULL) performance alongside MTP/APC connectors.

To find out more about how to future proof your network with the needs of AI deployments in mind, <u>read the article</u>.

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About Siemon

Established in 1903, Siemon is an industry leader specializing in the design and manufacture of high quality, high performance IT infrastructure solutions and services for data centres, LANs and intelligent buildings. Headquartered in Connecticut, USA, Siemon offers the most comprehensive suite of copper and optical fibre cabling systems, cabinets, racks, cable management, data centre power and cooling systems, as well as intelligent infrastructure management solutions.

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