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Digital Twins for Energy Efficient and Sustainable Datacenters (HPE)

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Digital Twins are the basis of a rapidly growing field of study that pairs physical systems with their digital representation to enhance understanding of the physical counterpart. Digital twins of data-centres are becoming a reality, using bi-directional feedback loops to link operational telemetry with models of associated sub-systems, which are combined with visualisation and analytics components. We will discuss on-going collaborative research into such datacenter digital twins, which promise improved system behaviour prediction, optimised system operation, and ultimately better-informed decision-making for operating large-scale compute centre installations with associated power, cooling, and management infrastructure in a sustainable and energy efficient manner.

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