

9 Key Features of AI-Ready Data Center



1

ABILITY TO SUPPORT HUGE COMPUTING RESOURCES

A data center must be able to accommodate massive amounts of IT resources - especially of high power density, e.g. 80 kW per rack - and provide the right working conditions, necessary technical support, and physical security.



2

HOSTING SERVERS WITH GPU CARDS

AI uses servers that provide access to graphics processing units (GPUs), which are critical for accelerating computations. A data center supporting AI must have the technologies to power and effectively cool these devices (precision cooling, liquid cooling, rear door cooling).



3

READY FOR FLUCTUATIONS IN RESOURCE CONSUMPTION

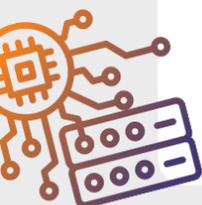
The data center must be prepared for significant fluctuations in resource consumption, depending on the training or operational phase of AI models. Contracts should address and account for these variations.



4

ULTRA-LOW LATENCY COMMUNICATIONS

Ultra-low latency networks are required to enable AI to make decisions and deliver results in real time.



5

DATA CENTER RESOURCE REDUNDANCY

The data center must provide infrastructure flexibility to meet the changing demands of AI workloads. Ample power and cooling capacity is a must.



6

HIGH BANDWIDTH NETWORKS

The network infrastructure must provide high bandwidth to and from the data center, which is important when training AI models on distributed systems. It is also advisable not to restrict the direction of network traffic by ensuring the availability of a wide range of providers in the bloodstream of the IP world.



7

FLEXIBLE AND AGILE INFRASTRUCTURE

The rapid evolution of AI technologies is forcing data centers to prioritize flexibility and agility in their projects. Engineering teams should be agile in making deep changes to the data center infrastructure. The operation section should ensure that SLA parameters are met, and be able to complete remote hands tasks in minutes.



8

STRATEGIC TECHNOLOGY PARTNERSHIPS

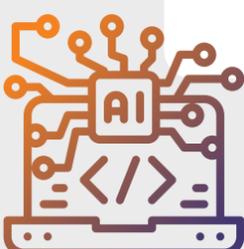
Working closely with leading vendors to facilitate the integration of advanced technologies, such as liquid cooling systems and AI accelerators, is key to meeting the high demands of AI applications.



9

SUSTAINABLE USAGE

With a focus on sustainability, data centers should integrate solutions that help achieve net-zero emissions goals, reduce energy consumption, and support green initiatives.



Learn more atman.pl/ai-ready

