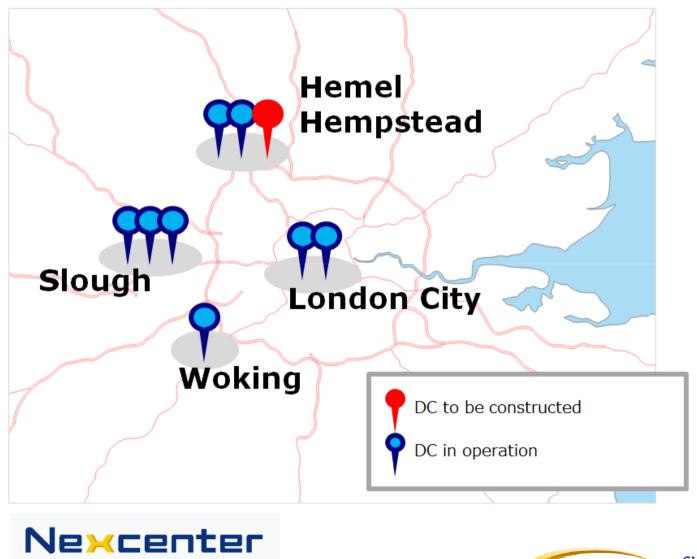
Data Centers in UK



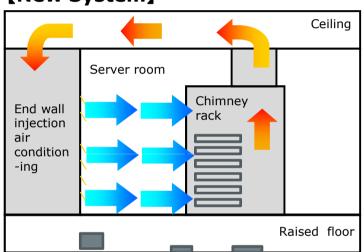




Efficient Air Conditioning

By combining end wall injection with a chimney rack, it is not necessary to use the void under the raised floor, where cabling and sensor equipment impede the airflow, resulting in a shorter, simpler cooling loop and highly efficient and consistent air conditioning.

[New System]



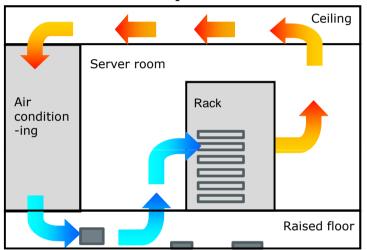
End wall injection air conditioning



Chimney rack



[Conventional System]







Optional Chillerless Cooling System

- A cooling method which expels heat from the server room by circulating water outside the building.

 It is simpler and more efficient than a conventional chiller system because it does not require a compressor or other equipment.
- As chillers consume a lot of power, particularly a peak times, a chillerless system frees up 30% more capacity for ICT equipment (when using equivalent power equipment).

	Conventional system	Chillerless system
Cooling method	Uses heat pump principle such as compressor	Expels heat via circulating water (Additional water can be sprayed on cooling towers in high temps)
SLA parameters	Temperature: $18{\sim}27~^{\circ}{\rm C}$ Humidity: $25\%{\sim}60\%$ Compliant with ASHRAE TC9.9 Recommended	Temperature: $15{\sim}32^\circ$ C Humidity: $20\%{\sim}80\%$ Compliant with ASHRAE TC9.9 A1
Energy available for ICT equipment (Conventional system=1)	1	1.3

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE): An organization that decides recommended server room temperature and humidity range, etc.

Chillerless system organization

