

3 Long-term planning for data centers



Location considerations

Because of their unique operational and physical requirements, several crucial factors must be considered when deciding what sites suit data centers:

● Power	● Roads	● Land
Data centers are power-intensive. Reliable and robust access to power is non-negotiable, making proximity to high-capacity substations essential.	Whereas operational traffic is minimal, the initial construction phase generates more traffic. Thus, easy access to highways and major roads is vital for logistics and transportation.	Hyperscale campuses require ample land area to accommodate both the facility and its accompanying infrastructure.
● Discharge infrastructure	● Wet utilities	
If there is runoff from water-based cooling, a site will need adequate infrastructure for wastewater discharge, such as a connection to a municipal sewer system, an on-site water treatment facility, or proper drainage.	Some data centers require access to municipal water supply greater than what typical industrial developments need. The climate goals of most hyperscalers and developers are driving demand for recycled, rather than potable, water.	