



BEHIND THE CLOUD

EPISODE 1 | QUICK REFERENCE

The “cloud” is not weightless. It has a footprint.

01 THE BIG IDEA

A data center is a highly connected industrial building, not an invisible cloud. Its servers depend on local land, electricity, cooling, fiber, public infrastructure, and emergency systems.

4.4%

of U.S. electricity was used
by data centers in 2023

02 WHAT KEEPS IT RUNNING



POWER: Continuous electricity plus batteries, generators, and redundant systems.



COOLING: Air, chilled water, evaporative, or liquid systems remove heat around the clock.



CONNECTIVITY: High-capacity fiber moves information quickly and reliably.



MONITORING + SECURITY: People and automated systems track equipment, networks, temperature, and access 24/7.

03 THEY ARE NOT ALL ALIKE

- **SCALE:** A server room may fit inside an existing building; a hyperscale campus may span several buildings and require major utility upgrades.
- **USE:** Facilities may serve one company, multiple colocation customers, or a single institution such as a hospital or university.
- **DESIGN:** Power demand, cooling technology, water use, backup systems, and expansion plans can vary widely.
- **LOCATION:** Power, fiber, land, approvals, water, reliability, tax treatment, and construction speed can all shape siting.

The key question is not “*Is it a data center?*”

Ask what kind, what size, and what supporting infrastructure it will require.

04 THE BIG QUESTIONS TO ANSWER

1. **POWER:** Can the grid serve the project reliably? What upgrades are needed, and who pays?
2. **WATER + COOLING:** Which cooling system will it use? What happens during drought or extreme heat?
3. **PLACE:** How could construction, traffic, noise, emergency response, nearby property, and long-term plans be affected?
4. **PUBLIC AGREEMENT:** What is promised about investment, jobs, taxes, infrastructure, expansion, reporting, and accountability?

BOTTOM LINE Digital services may be global and nearly invisible, but every data center connects to a particular place. Size, design, and operating model determine what that connection means locally.

