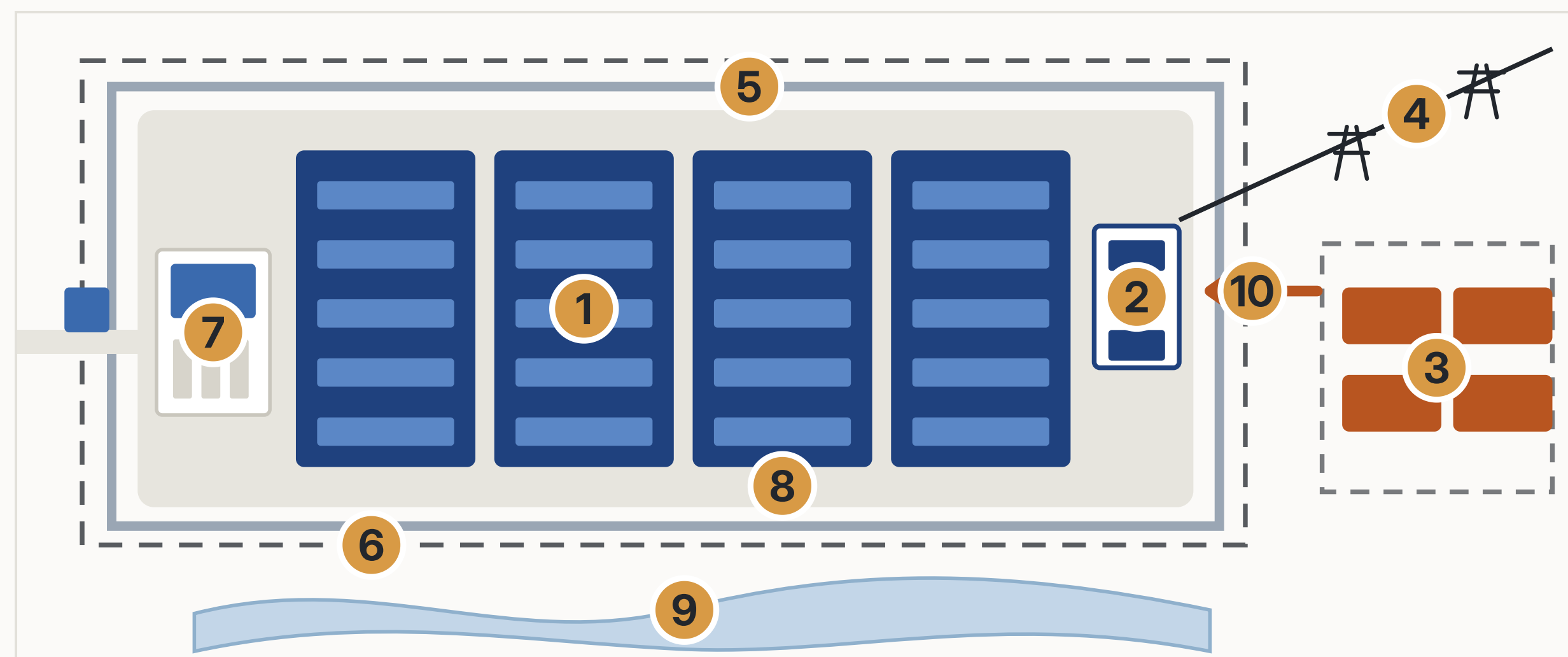


What Is a Data Center?

Data centers are the physical facilities that store and process the digital information that powers businesses, healthcare providers, financial institutions, cloud services, streaming platforms, artificial intelligence applications, and countless everyday online activities.



A modern data center campus. Low-profile buildings, on-site power equipment, screening and stormwater management.



Illustrative site layout — conceptual, not to scale.

- 1 Data halls
- 2 Electric substation
- 3 On-site power generation
- 4 Incoming transmission line
- 5 Sound & screen walls
- 6 Secure perimeter fence
- 7 Site office, parking & guard house
- 8 Access roads & fire lanes
- 9 Stormwater detention pond
- 10 Behind-the-meter power delivery

Data Center Equipment Basics



Servers

Racks of computers that do the actual processing, stacked in rows inside the data halls.



Data storage

Storage drives that hold the information in use, duplicated so nothing is lost if one fails.



Networking

Switches, routers and fiber that move data between servers and out to the internet.



Cooling systems

Equipment that removes the heat servers generate and holds them in a safe operating range.



Backup power

On-site generation and switchgear that keep critical systems running during an outage.

How Data Centers Power Your Day



Healthcare: Medical records, imaging and lab results stored and shared securely.



Online banking: Transactions, account information and payments processed securely.



Streaming: Netflix, YouTube and Spotify deliver movies, shows and music.



Cloud storage: Photos, files and backups available across all of your devices.



Video calls: Zoom, Teams and FaceTime connect people around the world.

How AI Powers Your Day



Smarter search and recommendations: Search results, show suggestions and playlists tuned to what you already like.



Navigation and traffic: Maps apps predict traffic and adjust your route in real time.



Virtual assistants and smart devices: Siri, Alexa and smart thermostats handle everyday tasks.



Fraud detection and security: Banks spot unusual card activity and flag it before it reaches your account.



Email and communication: Spam filters, autocorrect and suggested replies.