



Global Data Centers

SV1 Data Center

16MW Data Center in the Heart of Silicon Valley

NTT's Silicon Valley SV1 Data Center is **strategically located** in Santa Clara, California at 1160 Walsh Avenue, right near the infrastructure of some of the top technology companies in the world.

SV1 will offer 16 megawatts of scalable, critical IT load across 64,000 square feet of **customizable data floor space** in a 160,000 square-foot facility. The first phase of the building will offer 5MW of critical IT load.

SV1 will be fed by Silicon Valley Power, which offers **renewable energy** packages and has a reputation for reliability and rates that are 25 to 40 percent lower than other Bay Area power companies.

An important differentiator of SV1 is its state-of-the-art **base isolation system**. This combination of various elements of specially engineered infrastructure has been proven to reliably absorb vibrations during seismic tremors, thereby protecting all critical IT equipment so all data center operations continue without interruption.

SV1 has a **robust connectivity** infrastructure with appropriate levels of redundancy. Power is fed from multiple substations, and fiber is delivered through diverse entrances.

Many levels of **physical security** are in place, including a fully fenced and gated perimeter, highly trained security officers guarding the campus 24x7x365, and a sophisticated network of sensors, cameras, and multi-factor authentication systems.

SV1 Overview

- Four-story, 160,000 sq. ft. facility with 16MW of IT power
- 3.3 acre campus
- Seismic vibration absorbing system to keep IT equipment safe
- Renewable energy packages available
- Dual power feeds
- Multiple "Meet Me Rooms" allows for network diversity and resiliency
- Dedicated onsite substation
- Superior reliability from N+1 electrical and mechanical redundancy
- Closed loop, air-cooled chillers with economizer coils and fan wall system
- Industry-leading security, compliance and safety procedures
- Conference rooms, lounge and break room dedicated for customer use
- 24x7x365 in-house security staff

SV1 Data Center Vault 1 Specifications

General Specifications

- One of three data center floors in four-story structure
- 5MW at 234 watts per square foot
- 21,355 sq. ft.
- Constructed with slab design
- Dedicated electrical infrastructure options

Power

- Power densities supported from 7kW per rack to 20kW per rack, with higher densities possible upon request
- 2nd floor vault capable of 5MW of critical IT load fed by a "6 to make 5" distributed redundant electrical system
- Six identical 2MW UPS systems in N+1 topology

Base Isolation

- The main portion of the building is supported structurally by a base isolation system. The building and all connections are capable of 32" of movement in any horizontal direction.
- The base isolation system uses a braced frame structure, triple-friction pendulum pedestals, fluid viscous dampers, and a foundation with 60-foot piles into the ground

Security

- Access control system tracks location of people
- Biometric readers
- High-resolution video surveillance system
- Trained security staff on-site 24/7/365
- Anti-climb perimeter fence

Cooling

- Vault 1 has 5MW of dedicated IT cooling load
- Target average annual PUE is 1.25 or less at full load
- All equipment is concurrently maintainable, while still cooling 100% of the IT load
- Essentially no water use due to closed loop chiller plant
- Cooled by 16 366-ton, roof-mounted air-cooled chillers with integrated free cooling coils and pumps and two chillers for redundancy

Network

- Connected to three fiber entrance facilities and two Meet Me Rooms where carriers are located
- Multiple Tier-1 carriers on-site including Level 3, Frontier and Wholesale Networks (with access to other local networks for dark fiber), with more to come including NTT GN
- Direct connectivity to major cloud providers, applications providers and enterprise ecosystem.

