

VANCOUVER VAULT DATA CENTRE (VAN1)

The Vancouver Vault Data Centre is designed to Uptime Institute Tier I standards to provide data centre essentials in a prime location within Downtown Vancouver. "The Vault" facility was originally built for the Bank of Canada to protect gold bullion and cash reserves. True to its name, the facility provides the ultimate physical security through its 28" steel-reinforced walls, 1 metre thick ceilings, and 2 metre thick floors. Power is supplied via utility power feed, UPS system, and backup generator to provide power fault tolerance. Cooling and connectivity infrastructure elements are built with N+1 redundancy to provide additional fault tolerance to the system. The majority of the supplied power to the data centre is hydroelectric (renewable).

The Facility

Power

Distribution

- 800 kW power capacity
- Main power delivered from municipal hydro
- A and B side power available for every cabinet
- Two dedicated municipal hydro substations
- 208V Single or 3-Phase, 120V Single Phase available

Generators

- 600kW generators supplying backup power to the complex
- On-site fuel capacity provides > 48 hours run time at full load
- Fuel capacity - 22,000 L

UPS System

- 560kW total UPS capacity
- N + 1 UPS redundancy

White Space & Building

- 6,210 sq. ft. facility
- 4,155 sq. ft. of total whitespace for IT
- Full height loading docks
- Secure room for equipment delivery and storage
- Customer lounge area

Connectivity

- Carrier-neutral facility
- Diverse building fibre entrances
- Redundant connectivity between other data centres
- Internet transit from multiple providers including:
 - Bell
 - Zayo
 - Shaw
 - TeraGo
 - Telus



Cooling System

- Total 90-tonne CRAC units, supporting 320 kW IT load at capacity
- Chilled water loop system with in-row cooling and outdoor chillers
- N + 1 cooling redundancy

Cooling System Design

- Hot aisle containment configuration
- Chilled water system closed loop

Cabinet Space

- Full cabinet includes 48 rack units (42U)
- Half cabinets available
- Standard rack PDUs provided; customer supplied PDUs can be supported

Security and Monitoring

- 24/7 video monitoring and surveillance by Network Operations Centre
- Minimum video retention capable of 90+ days
- Exterior and interior surveillance
- Multi-factor access authentication (access card and biometric)

Compliance and Certifications



**Case by Case – More solution base assessment*

