

# MTL-R2

# CANADA'S LARGEST WHOLESALE DATA CENTER

Built to accommodate the growing demands of large scale organizations, MTL-R2 is a 175,000 sq. ft. site located on 384,000 sq. ft. of land. With 50MW of power capacity, this facility is Canada's largest wholesale data center.

ROOT is a next-generation data center company that provides retail and wholesale colocation to Canadian and international customers. Designed to challenge conventional data centers, MTL-R2 promises its customers savings by putting less time, space, and energy to waste.

**Hyper-flexibility and rapid scalability** capable of deploying 20 cabinets in less than 24 hours and large scale multi-megawatt deployments in 90-120 days.

**High density power ability** creates a future-proof colocation environment that accommodates cabinets with density requirements ranging from 1kW to 40kW.

**Industry-leading average PUE of 1.15** achieved by combining Quebec's cool climate and an innovative free air cooling technology.

#### WHAT ELSE SHOULD YOU KNOW ABOUT MTL-R2?

**Abundant and available power.** MTL-R2 accommodates up to 20MW of power capacity today and is readily upgradeable to 50MW when needs arise.

**Reliable power supply.** Adjacent to one of Montreal's largest dual fed power substations, reducing utility feed risk.

**Beyond Uptime Tier 3 standards.** The critical infrastructure meets or exceeds Uptime Tier 3 standards and provides enhanced concurrent maintainability.

**Carrier-neutral connectivity.** Through on-net providers and ROOT's Metro Connect service, MTL-R2 has access to over 50 carrier networks, fiber networks, and major public clouds.

**Convenient location.** Located within close proximity to multiple highways and public transit systems, MTL-R2 is 15 minutes from the Montreal International Airport and 25 minutes from the downtown core.

**Customizable space.** Dedicated offices and storage space are available based on each customers' needs.

#### IT COSTS LESS TO RUN A DATA CENTER IN GREATER MONTREAL

**Lowest power rates.** Cost of power in Montreal is the lowest in eastern North America, which attracts heavy-power consumers like data centers to invest here and enjoy a lower operational overhead.

**Favourable climate and temperature.** The cold Montreal climate maximizes the total cooling hours using ambient air, which minimizes the use of electrical cooling like air conditioners.

**Sustainable energy source.** 99 per cent of the city's power comes from Quebec's massive hydro-electric dams, where all of it is clean, renewable and reliable.

**Other financial incentives.** The lower Canadian dollar exchange rate and Quebec's incentives for economic development attract many international and out-of-province businesses to invest in the province.

LESS POWER TO WASTE. MORE POWER TO YOU.

ROOT | Data Center



# MONTREAL NEXT GENERATION DATA CENTERS TIER 3 DESIGN — TECHNICAL SPECIFICATIONS



## SITE INFORMATION

<b>Site Information</b>	175,000 sqft. building 384,000 sqft. land
<b>Power From Substation</b>	Phase 1: 20MW mid tension substation Phase 2: 50MW high tension substation
<b>Space Configuration</b>	Cabinet and cages 44 U x W : 24-30" x D : 42-48"
<b>Electrical</b>	25 kV primary

## SECURITY & COMPLIANCE

<b>SOC 1 TYPE II</b>	Yes
<b>SOC 2 TYPE II</b>	Yes
<b>CSAE 3416 TYPE II</b>	Yes
<b>PCI DSS</b>	Yes
<b>ISO27001 Standards</b>	2017 Q1
<b>Closed-Circuit TV</b>	Yes
<b>On-Site Guards</b>	Yes

## POWER

<b>Fuel Run Time</b>	Diesel, 48 hours concurrently maintainable
<b>UPS</b>	Concurrently maintainable
<b>Load Design</b>	6kW/rack (272 watts/SQF) average design density, 35-40kW/rack (1590 watts/sqft) performance density
<b>Rack Power</b>	Concurrently maintainable, dual path power distribution to every rack
<b>Generators</b>	Concurrently maintainable, multiple 1.0 MW continuous runtime
<b>PUE</b>	~ 1.15
<b>Remotely Monitored</b>	Onsite and offsite NOC

## FIRE DETECTION

<b>Fire Protection</b>	Smoke and heat
<b>Fire Suppression</b>	Dry pipe, double interlock, pre-action
<b>Remotely Monitored</b>	Yes
<b>VESDA</b>	Yes

## CONNECTIVITY

<b>Meet-Me Carrier Room</b>	Yes
<b>Number of Networks</b>	5+ on-site networks and access to over 50 carriers with minimal additional latency
<b>Carrier Neutral</b>	Yes
<b>Fiber Entrance</b>	Yes, Multiple diverse entries

## ENVIRONMENTAL CONTROLS

<b>Cooling System</b>	KyotoCooling – air to air heat exchanger
<b>Backup Cooling System</b>	Perimeter refrigerant based cooling system
<b>Cooling Density per Rack</b>	35-40kW/Rack, 1590 watts/sq
<b>Humidification</b>	Centralized steam

## SITE UTILITY

<b>Electrical</b>	25 kV primary
<b>Utility Provider</b>	Hydro-Quebec
<b>Water</b>	Domestic (not required for mission critical operations)

