

Specifications

Available Guest Resources (per rack)

SYSTEM CONFIGURATION	Up to 32 1st Gen Sleds or Up to 24 2nd Gen Sleds
vCPU (2 PER PHYSICAL CORE)	Up to 7,875
MEMORY (DRAM)	Up to 30.6 TiB
NVMe BLOCK STORAGE	Up to 1.7 PiB
NETWORK BANDWIDTH	12.8 Tbit/s

Actual specifications will vary based on configuration

Cloud Computer Hardware Specs (per rack)

COMPUTE SLEDS (TOTAL)	Up to 32 1st Gen or Up to 24 2nd Gen
CPU CORES / THREADS	Up to 4,608 / 9,216
MEMORY (DRAM)	Up to 36 TiB
STORAGE	Up to 6.5 PiB
NETWORK SWITCHES	2
SWITCHING CAPACITY	12.8 Tbit/s
POWER SHELVES	2 (1+1 redundant or 2+0 non-redundant)
POWER SUPPLIES PER SHELF	6 (5+1 or 3+3)
MAX POWER DRAW	Up to 21.6 kW redundant or 30 kW non-redundant
DIMENSIONS H × W × D	2354mm (92.7") × 600mm (23.7") × 1060mm (41.8")
WEIGHT	Up to ~2,518 lbs (~1,145 kg)
MAX THERMAL OUTPUT	122,832 BTU/hr
AIRFLOW REQUIREMENTS	145.8 × kVA CFM

Actual specifications will vary based on configuration

Compute Sled Specs (2nd Gen)

PROCESSOR	1 × AMD EPYC 9005 Series
CORES / THREADS	Up to 192 / 384
MEMORY CAPACITY	12 × DDR5 DIMM Slots
MEMORY CONFIGURATIONS	768 GiB, 1152 GiB, or 1.5 TiB
MEMORY FREQUENCY	6400 MT/s

Specifications

STORAGE CAPACITY	10 × U.2/U.3 NVMe 2.5-inch (15mm) Bays
STORAGE CONFIGURATIONS	10 × Up to 30 TB Gen 4 NVMe
NETWORK CONNECTIVITY	2 × 100GbE

Compute Sled Specs (1st Gen)

PROCESSOR	1 × AMD EPYC 7713P
CORES / THREADS	64 / 128
MEMORY CAPACITY	16 × DDR4 DIMM Slots
MEMORY CONFIGURATIONS	512 GiB or 1 TiB
MEMORY FREQUENCY	3200 MT/s (512 GiB), 2933 MT/s (1 TiB)
STORAGE CAPACITY	10 × U.2/U.3 NVMe 2.5-inch (15mm) Bays
STORAGE CONFIGURATIONS	10 × Up to 30 TB Gen 4 NVMe
NETWORK CONNECTIVITY	2 × 100GbE

Network Switch Specs

ASIC	Intel Tofino 2
SWITCHING CAPACITY	6.4 Tbit/s
PACKETS PER SECOND	Up to 6 Bpps (Billion Packet per Second)
PACKET BUFFER	64 MB
PORTS	32 × 40/100/200GBASE QSFP-56 Uplink Ports 32 × 100GBASE-KR4 Backplane Ports
SFP TYPES	40GBASE-LR4 100GBASE-CWDM4, 100GBASE-FR1, 100GBASE-LR4, 100GBASE-SR-BiDi, 100GBASE-SR4 200GBASE-FR4
FIBER TYPES	OS2 Single-Mode OM3/4/5 and Multi-Mode LC (Lucent Connector) and MPO-8/MPO-12 Connectors

Power Shelf Specs

TYPICAL / MAX OUTPUT POWER	2400W / 3600W per power supply
INPUT VOLTAGE (AC)	3 Phase Delta: 208–240V 3 Phase WYE: 380–480V
TYPICAL INPUT FREQUENCY (AC)	50–60
POWER CONNECTOR TYPES	CS8365C (Delta), L22-20P (Wye)

Facilities

DIMENSIONS	2354mm (92.7") high, 600mm (23.7") wide (add 32mm w/ side panels), 1060mm (41.8") deep with no doors (door thickness adds 51mm).
RACK TRANSPORT	The fully assembled Oxide rack includes casters, making it easy to move into place. Once there, leveling feet help stabilize the rack. Seismic kits are also available.
TEMPERATURE	The front of an Oxide rack is intended for the cold aisle, while the back is intended for the hot aisle. The ambient temperature must be between 35° F (2° C) and 95° F (35° C). The relative humidity must be between 8 percent and 80 percent with no condensation.
WEIGHT	The weight of a rack depends on how many sleds are filled. The location where the rack will be installed and the path to that location must support the weight specified in the order summary at the rack point loads. This includes freight and standard elevators. A fully configured rack weighs ~2,518 lbs (~1,145 kg).
ELEVATION	The elevation of the room where the rack is installed must be below 9,842 feet (3,000 meters).
POWER	Three-phase power. Flexible input voltages 180–300, delta or wye. Will support up to 15kW, actual power draw depends on the density you choose for your rack.
AIRFLOW	The rack position must provide at least 145.8 times the kVA of cubic feet per minute (CFM) airflow.
LOADING DOCK	Your loading dock must accommodate a rack crate that is at least 102" high, 48" wide and 60" deep.

Specifications

CLEARANCE

The equipment is 2354mm (92.7") high from the bottom of the casters to the top of the rack and 632mm (24.9") wide and 1060mm (41.8") deep without doors. Door thickness adds 51mm (2").

Front clearance should be at least 1000mm (39.37") to allow for space to remove sleds and switches. Back doors require clearance of ~290mm (11.4) to open.

Any doorways, hallways, turns, ramps, and elevators must also provide sufficient clearance.

LOCKABLE DOOR

Oxide racks come with a lockable door if requested by the customer.

NETWORK SWITCHES

Every Oxide rack has two physical network devices that attach to your local network. To connect to your local network you will need a minimum of two physical links between these Oxide network devices and your local network devices.

We provide optics compatible with the fiber you have ready at the rack position.

INITIAL SETUP

Initial setup of the Oxide rack is performed by connecting a laptop or other device via 1GbE RJ45 link to one of the technician ports (each switch has two ports). After entering essential information, setup proceeds via the web console or CLI.