

Why EasyStreet?



EasyStreet has become Oregon's leading independent Cloud Computing, Managed Hosting and Colocation provider because it is reliable, responsive and responsible — to its customers, its community and the environment.



Operations

- Type II SSAE 16 Audit provides third-party validation of our control objectives
- 24/7 NOC pro-actively monitors all systems
- Ensures immediate escalation of any facility incident

Construction

- Better than downtown Portland: on flat, stable ground above flood plane
 - Seismic upgrades to current code
 - Cages and cabinets bolted to concrete slab floor
- Indirect Evaporative Coolers expected to be more reliable than conventional HVAC (DX units)
 - Flywheel UPSs more reliable than conventional batter UPSs

Redundancies

- N+1 on all critical electrical systems
 - Allows for scheduled maintenance or subsystem outage without affecting service availability
- Separate A/B Starline bus ducts, PDUs and circuit breakers to each cabinet
 - Blown breakers only affect offending cabinets
- Data centers 1 & 2 operate independently with redundant underground fiber interconnections to mitigate risk of single data center failure
- More reliable, Indirect Evaporative Cooling systems internally redundant with 10 tons of DX backup for each IEC
- Managed Internet service blends three upstream providers (CenturyLink, Level 3 and AboveNet) with path diversity and ample headroom.
 - Fifteen-year history with no outages
 - Maximizes uptime and reduces costs

Capacity

- Flywheel UPSs are 7X more reliable than battery UPSs
- 30 hours of generator fuel per tank at full load; can be refueled while running from one of two fuel providers; one located only .25 miles away
- Dedicated 4 MW PGE utility feed with 1.5 MW utility transformer (sufficient for full data center build-out) means guaranteed adequate facility power

Maintenance and Testing

- Rigorous preventative maintenance and testing validated by over 10 years of continuous colocation operation



Access Control and Surveillance

- Under SSAE 16 control objectives
- Facility monitored for intrusions detection with both internal monitoring and alarm with alerts to external third-party service
- 24/7 authorized access to Data Center 1 or Data Center 2 only, via photo ID card and biometric scanners
- Internal and perimeter video surveillance with 90 day logging

Fire Detection and Suppression

- VESDA smoke detection system integrated in return air ductwork with supplemental spot testers
- Pre-action water-based fire suppression system eliminates accidental water discharge
- No gas-based fire suppression system is safer for personnel and reduces installation and maintenance costs



Performance Features

- High average power density of ~200 kW/sq. ft. (~5 kW per cabinet) allows more load per cabinet for lower-priced colocation and more convenient expansion
- Staged data center build-out allows for optional cages
- Secure loading dock directly adjacent to data center floor simplifies move-in
- Lobby area with workspace for equipment prep, including Internet access, allows for convenient work outside of data center environment
- Snacks and drinks available in DC1 allows for uninterrupted job completion

Network Configurations

- Carrier-neutral facility with numerous carriers provides high capacity service with lower-cost choices for backup, DR, synchronization, etc.
 - AboveNet, CenturyLink, Level 3, Comcast, Freewire Broadband, Frontier, Integra, LS Networks, Time Warner
 - Pittock Block is an EasyStreet PoP offering additional connectivity options
- Managed Internet service blends three upstream providers for path diversity and ample headroom
 - CenturyLink, Level 3 and AboveNet
 - Simplifies network upgrades, ensures low latency and optimizes routing
- Peering at Northwest Access Exchange (NWAX), Seattle via Qwest, Bay Area via AboveNet

Service Offerings

- Optional Managed Network and Managed Security Services
- Optional equipment and application monitoring, reporting and escalation service via 24/7 NOC eliminates need to hire 24/7 on-call staff
- Network of trusted partners for additional services, if needed provides coordinated, multivendor solutions
- Professional services available from "remote hands" through architecture, design, procurement and installation enable faster deployment



Energy-Efficient Design and Technologies

- First data center construction project qualified for Oregon Dept. of Energy SELP loan and BETCs
 - Qualified for Energy Trust of Oregon incentive
 - Expected PUE of ≤ 1.3 at load will lower energy usage costs now and in the future
 - EasyStreet customers pay no premium for energy efficiency or 100% renewable energy
 - Overall lower energy usage lowers costs now and in the future
 - Data Center energy usage, including PUE data, reported to EPA Energy Star program
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- Indirect Evaporative Coolers (IECs) used for primary cooling with conventional HVAC (DX units) for supplemental cooling (only 180 hours/year expected)
 - No refrigerants in primary system; lower anticipated maintenance costs
 - Chimney cabinets capture hot air and route it to rooftop IECs for cooling
 - Highly efficient, isolated airflow system leaves more power available for IT equipment
 - Cold air descends from roof, flooding room
 - Reduces dependency on perforated floor tiles
 - Cold air temperature target of 74 degrees adheres to new ASHRAE standards
 - Delta T of ~24 degrees reduces cooling costs without compromising equipment reliability
 - Power monitoring data available per cabinet enables cabinet power optimization

Responsible Choices

- Rainwater capture system provides majority of cooling water needed, limiting environmental impact
- 100% offsets through Bonneville Environmental Foundation Water Restoration Certificates mitigates water usage impact
- 100% Renewable Energy Credits with PGE Clean WindSM program creates zero carbon footprint for data center operations
- 100% NW Natural Smart EnergyTM offsets
- Customers benefit from zero carbon footprint for corporate carbon footprint calculations
- Flywheel based (rotary) UPSs for “ride through” power
 - No lead- and acid-containing batteries, which demand constant charging
- EV/hybrid car charging station available for customer use
- Waste heat used to heat the lobby area, eliminating need for separate heating energy
- Motion-sensitive lighting throughout



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