



NetSource Data Center Specifications – Naperville, IL

Main Network Specifications and Data Center Features

- Brand new (10/2006) data center was built to ANSI / TIA 942 DATACENTER STANDARDS
- Many of our customers and clients were audited and passed for HIPPA, Sarbanes-Oxley, and Graham-Leach-Bliley. NetSource is currently researching SAS-70 standard.
- Built using quality APC components including racks, cooling, and backup UPS systems
- Data center is also PCI compliant for credit card handling and handling of financial data
- Multiple POEs (point of entry) for fiber inputs
- Capacity Planning – No fiber optic link will ever peak at more than 33% of its capacity
- 1000 MBPS (GigE) bandwidth connections
- 100 MBPS connections to NetSource's routers and switches from your server
- Instant growth and scalability – NetSource has 96 fiber lines running into the building for possible 95,000 MBPS bandwidth.
- Redundant bandwidth carriers
- BGP4 is being used on all border routers to ensure the closest and quickest path between every request
- 42 U locking cabinets supporting 19" mounting rails
- 20-amp 120 volt AC circuits, 3-phase circuits available
- Custom dedicated hosting and managed services available
- We can work with you on creating a disaster recovery plan using trained specialists
- Geographically stable (low disaster occurrence) location located 30 miles west of Chicago, Illinois. Located 1/2 mile off I-88 Highway exit for easy access.
- Senior Level system administrators
- Plus many more features highlighted below

Data center Power Overview

The electrical power system is fully redundant uninterruptible power systems (UPS) and a 350 KW Cummins diesel backup generator – minimizing the possibility of power failures.

- Redundant APC UPS's – uninterruptible power supply battery backups, powers all servers and equipment during generator startup.
- Cummins 350,000 Watt diesel generator – Hospital-grade diesel generator provides for all data center operations, and support needs during power outages.
- Dense high capacity circuit distribution
- 120 VAC and 208 VAC (single and three phase power availability)
- Electrical circuit load monitoring and management

AC Power System Specifications:

- N+1 Redundancy in all systems
- Redundant interruptible power sources (UPS)
- APC valve-regulated lead-acid batteries providing a minimum of 5-10 minutes of backup at full load until generator controls power
- 24 hour backup with power diesel generator
- Capable of supporting data center and all equipment
- Generator backup can be extended with refueling
- 12 hour re-supply schedule with diesel provider
- Uninterrupted transfer of power using high capacity UPS and Automatic Transfer Switch (ATS)
- Transfer of power to backup systems are completely automatic and transparent

Power System Monitoring and Emergency Plans For Data Center:

High capacity UPS regularly charges internal battery to sustain enough energy to power servers in any emergency. When an outage occurs, the power is automatically transferred to UPS battery transparent to servers. The power generator is automatically started and the ATS then transfers all data center power to generator source in under 10 seconds.

- Regularly scheduled maintenance with certified power generator contractors.
- 24/7/365 emergency service with local technician stations
- 24/7/365 emergency refueling with local provider
- 24/7/365 monitoring of generator systems at Network Operations Center – NOC.

Cooling / Environmental Data Center Specifications:

The NetSource data center has redundant HVAC systems, so at maximum cooling times, one system can be completely down and not affect room conditions.

- Redundant HVAC cooling capacity controlled to (+/-) 2 degrees of 70 degrees
- Leak detection system – upon detection of any water near system, the leak detection will send an alarm.
- Equipped with high capacity data center grade HVAC Systems
- N+1 redundancy on all cooling systems
- Data center environment maintained at optimal temperature and humidity levels or equipment
- 24/7/365 HVAC emergency service by certified contractors
- Contracted maintenance with certified HVAC contractors
- Computer controlled humidification system

Fire Detection and Suppression

The NetSource data center is protected by dual fire protection systems. NetSource maintains both FM200 waterless fire suppression and Fike dry pipe pre-action fire protection systems, thus allowing NetSource to offer the best available fire protection in existence today.

- Full fire detection systems installed
- Photoelectric early warning smoke detectors
- Heat detection warning systems act as secondary system
- FM-200 fire suppression system – safe gas based
- Dual interlock pre-action dry pipe fire suppression systems
- Water held outside critical equipment areas
- Assures sprinkler leaks will not damage server equipment
- High temperature sensors on fire sprinkler heads
- Fail-safe alarm system to prevent false discharge or tampering
- Server room has been fire-protected 360 degrees
- Zone-specific discharge of pre-action systems

Security Specifications for Data Center:

NetSource is committed to providing the strongest security to safeguard your equipment 24 hours a day. With multiple levels of security, entry into the data center is restricted by proximity cards and access codes. Video surveillance and stringent data center escort requirements protect server access.

- Cement building with no windows in data center
- No public access to data center
- No signage to let cars know we operate a data center at this location
- Intrusion detection alarm system
- Event driven, fixed mount digital Closed Circuit (CCTV) with digital archive
- All entry, exit, and data center locations under surveillance
- Key card and Code Access required to enter data center
- Database of individuals authorized to access the facility
- Man Trap to ensure that only authorized personnel enter data center
- 24/7/365 intrusion detection monitoring
- Surveillance cameras with 90 days storage
- Virus Scanning
- Locked racks for all servers including the availability of secondary locks
- Serial numbers on equipment is recorded on equipment entry and exit points
- No smoking, no food, no liquids admitted in data center
- Emergency pager access to all clients for emergency priority
- no liquids or hazardous materials permitted in the data center
- All access is electronically logged

Operations Control Center Specifications

- State-of-the-art high resolution screen data audio/video system
- Command consoles for control of local and remote systems
- Secure, highly restricted access to operations center
- Monitor and control environmental systems like electrical and cooling
- Network systems monitoring and management
- Remote systems for backup monitoring during non business hours
- NetSource has highly trained system admins on staff
- Control center built from the ground up as a data center control room

Roof Access for Antenna and Cable TV Options:

- Full roof rights for antenna installations
- Restricted roof access for special antenna needs
- We can mount most types of antennas with proper documentation and planning
- Roof portals for waterproof cable entry so that installation is easy
- Cable TV can be brought into our center for specific needs

Business Conveniences for Visitors:

- Kitchen access for breaks and longer installs
- On-site office space setup room that can be reserved
- Conference room with audio / visual facilities that can be reserved in special cases
- Fully functioning crash-carts in the data center for your use
- Staffed system administrators to answer your questions

Telecommunications Specifications:

- Access to all major telecommunications providers
- Redundant true diverse-path, dual entry fiber directly on SONET rings or Gigabit Fiber for highly available, fault-tolerant telecommunications.

Miscellaneous Building Features

- 10 foot ceiling height contributes to maintaining ambient air temp of 70 degrees F.
- 2 foot raised floor for under floor cooling
- Data center is kept clean and dust free to ensure proper equipment functionality
- Carts available to help customers bring in larger equipment

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