



AT&T Internet Data Center Site Specification – Chicago Area (Lisle, IL)

Site Biography

Market Area: **Chicago, IL**

Location: Lisle, IL 60532

Address: 4513 Western Avenue

CLLI, POP, NPA/NXX Code: LSLEILAA, EQLAILAA 630/810

History of Facility: Former AT&T Western Electric Manufacturing Facility. Upgraded facility built to AT&T Internet Data Center and Industry IDC standards as outlined in the [Uptime Institute Report](#)

Center Amenities:

- Customer Lounge Facilities
- Customer Conference Room

Customer Briefing/Visit Request:

- If you would like to schedule a Domestic IDC Tour, [click here to use the scheduler](#)
- If you are not a Certified Tour Manager and would like to schedule a visit to a Domestic IDC, please contact your local Enterprise Hosting Specialist.
- [For the Corporate Briefing Center in Bedminster, NJ, use the BriefingEdge Online Visit Scheduling System](#)

Gross Sq. Ft.: 130,000

Total Net Square Feet: 78,000

SAS70: This site is subject to annual SAS70 Type 2 auditing.

Network

Internet (Front-end) IP Capacity: Minimum of two (2) 10 Gigabit Ethernet WAN uplinks to the AT&T IP Network

Redundancy: Redundant and path-diverse entrances and exits. Dual access routers connect the Internet Data Center to the AT&T IP Network via multiple network access points.

Administrative (Back-end) Access: Access the [AT&T Back-End Connectivity Guide](#) for options



Architectural Section

Building

Raised Floor Specifications	The raised floor is rated for 300 psf.
Loading and Receiving Dock	Loading dock facilities are available. Onsite security personnel monitor access to the loading dock. Customer shipments to the IDC require customer site ID # on all shipping labels.

Power

Watts / Square Foot	The facility is constructed to support 120 w/sf.
Electrical –Redundancy	There are two commercial power services feeding this building.
Standby Generator Systems	There are nine diesel generator sets providing standby power to the Internet Data Center. Also, there are five 10,000-gallon underground fuel oil storage tanks available at the site. The generator system represents an N+1 configuration.
Uninterrupted Power Supply	There are eight UPS systems, each with two to four supporting 750kVA modules. Power is supplied to the eight UPS systems through diverse/redundant commercial power feeders and nine standby generators. The UPS system is designed to support the full Internet Data Center load for 15 minutes via its internal battery plant. This represents an N+1 configuration on each system.
Grounding Architecture	This facility has enhanced data center grounding system. A perimeter ground ring is tied into driven ground rods. The UPS systems, equipment cabinets, racks and associated metal parts are tied into the ground ring.
Commercial Power Contingency Arrangements	In case of a commercial power failure, the standby generators provide power to the Data Center within one minute of a commercial power outage. The one-minute gap is covered by the UPS system. During an extended commercial power outage, the diesel generators can provide power for a minimum of 72 hours using the fuel stored at the site. The quantity of generators represents N+1 redundancy in the generator plant. There are connection points, processes and procedures to hook up additional portable generators from AT&T's fleet of portable equipment to further ensure generator capacity and redundancy.

Environmental Controls

A/C Distribution	The building has five 500-ton dedicated chillers. The raised floor delivers conditioned air to the equipment cabinets/racks. The raised floor acts as an air plenum.
A/C System	30 ton CRAC units strategically are located on raised-floor, within the web-hosting area to deliver conditioned air under the raised floor.
A/C Redundancy Architecture	Designed to N+1 specification required standards.
A/C Contingency Arrangements	HVAC is designed with fault tolerance. If a chiller fails, a standby chiller can carry the load continuously. Operations can choose to operate all (or some of the) CRAC units which share the cooling needs evenly operating at less than full capacity. If a CRAC unit fails, heat load is redistributed automatically.
Fire Suppression	The Center has pre-action dry pipe fire suppression system. In the data center equipment area. Non-equipment areas have wet sprinkler system. The Center has a state-of-the-art VESDA (air sampling) smoke detection and alarm system. It is 100 times more sensitive than conventional fire detection systems. http://www.vesda.com Detectors are grouped into zones. When one or more detectors in different zones detect smoke, the fire alarm panel opens the deluge valve to fill the sprinkler piping with water. In the event of an actual fire, the seal on the sprinkler heads will melt and discharge water on the affected area. Water will not be discharged in unaffected areas.



Architectural Section - *continued*

Security

Building Access: Security staffing 24x7, closed circuit monitors, secure key-card access, biometrics scanner, a mantrap, and alarmed doors. Guards maintain access from the loading dock and access requires a card key. Security personnel also monitor the building and use an electronic watch monitoring system that identifies when and where guards have patrolled. AT&T maintains a current list of authorized personnel. AT&T maintains all keys for cabinets and cages in a lock box on site. Customers are not allowed in managed spaces.

Site Monitoring:

- 24x7 monitoring is performed on site and remotely.
- Shipping & Receiving: No unidentified packages will be accepted. Onsite security personnel monitor access to the loading dock.
- **Customer shipments to the IDC require customer site ID # on all shipping labels.**

Operations

Staffing: Internet Data Center technicians and building engineers are available 24x7.

Remote Hands: Available 24x7. See [AT&T Enterprise Hosting Service Guide](#) for details

Risk Assessment

General Information

Site Description:

The site is located in Seismic Zone 4.

- Proximity to major faults:
 - 35 miles from the San Andreas Fault
 - 2 miles from the Inglewood Fault
- Soils: Fine-grained alluvial deposits.
- Groundwater: Not encountered in maximum boring depth of 42 feet

Building Description:

- Located in a existing 1-story building with mezzanines
- Building is a 1-story steel moment frame structure without a basement.
- Administrative area is 243'x100'
- Web Hosting Area including mech. areas is 612'x215'
- Building was constructed circa 1962.
- Floors designed for the following live loads
- Electrical Room = 350 PSF
- Mechanical Room = 250 PSF
- Web Hosting = 150 PSF

General Conditions:

- All buildings appear to be in good condition. Building was upgraded to intent of 1997 UBC Seismic Code.



Risk Assessment - continued

Earthquakes:

Hazard Assessment:

- Ground Shaking Hazard: High
- Soil Liquefaction Hazard: Low
- Soil Compaction Hazard: Low
- Fault Rupture Hazard: Medium
- Tsunami Hazard: Low
- Landslide Hazard: Low

Building Risk Assessment

Web Hosting Facility

- Potential for concrete wall cracking
- Building movement could damage non-structural partitions
- After retrofit to intent of 1997 UBC Seismic Code, no life safety hazards identified
- Post-earthquake damage repair may have limited effect on continued operations.

Equipment Risk Assessment:

<u>Equipment</u>	<u>Anchorage Description</u>	<u>Risk Assessment</u>
Data Center Racks	Anchored to concrete slabs per AT&T Standards	Low
Overhead Auxiliary Framing	Suspended racking braced per AT&T Standards	Low
Raised Access Flooring	Web Hosting and Administrative Areas Interface floor tile manufacture provided zone 4 seismic calcs.	Low
CRAC Units	Web Hosting Area Supported on Seismic racks in Web Hosting Area	Low
PDU's	Supported on Seismic racks in Web Hosting Area .	Low
UPS	Anchored to Concrete slab in Electrical Rooms	Low
Switchgear	Anchored to Concrete slab in Electrical Rooms	Low
Electrical conduits	Mounted by seismic supports	Low
Chillers	Mounted on Vibration isolators, isolators anchored to concrete floor.	Low
Chilled Water Piping	Piping support anchored to concrete floor	Low
Generators	Anchored to Concrete foundation	Low
Cooling Towers	Supported by seismic elevated steel structure anchored to concrete foundation. Anchored to seismic steel structure per AT & T Standards	Low



Regional Disaster Effects on Site

Loss of Power:

- Power supplied by 1 incoming service
- Standby generators can maintain power supply
- 72 hour diesel fuel storage on site

Loss of Water:

- Make-up water in on-site storage tanks.



Regional Disaster Effects on Site - *continued*

Network Connectivity:

- Two diverse routed telecom duct banks provided

Summary: Site is in general well prepared to resist the effects of an earthquake

Windstorms

Hazard Assessment:

- UBC Design Wind Speed: 75 mph
- UBC Exposure Category: B

Building Risk Assessment:

- Buildings are assessed to have a low risk for wind loading.

Equipment Risk Assessment:

- Interior equipment is adequately protected against the effects of a windstorm.
- Exterior equipment is adequately anchored to resist the effects of a windstorm.

Regional Disaster Effects on Site:

- Loss of Power: See Earthquake Risk.
- Loss of Water: See Earthquake Risk.
- Network Connectivity: See Earthquake Risk.

Summary: Site is in general well prepared to resist the effects of a windstorm.

Flooding

Hazard Assessment:

- Site is not located in a flood plain.
- Flooding is not considered to be a significant hazard for this site.

Man-Made Hazards

Crime:

- At present, site has security guard coverage 24 hours a day, 7 days a week, year-round.
- Security system monitors front entrance, courtyard and roof.
- Controlled entry into customer area is via biometric controls.
- Considered to be a low risk.
- Exposed exterior walls of Data Center are concrete panels w/ windows that are infilled and covered with EFIS.