NTT Communications
Go the Distance.

TOKYO No.5 DATA CENTER

Outstanding disaster-resistance structured premier data center

Nexcenter

High performance specs

Building

Construction completed	March, 2011
Floor area	13,200 sq.m (142,000 sq.ft.)
Server room space	3,400 sq.m (approx. 1,500racks)
Office room space	400 sq.m (4,300 sq.ft.)
Main building	16 stories, Penthouse: 2 stories
Structure	Reinforced concrete (precast concrete) Seismic isolation structure
Floor load	1,000 kg/ sq.m
Raised floor	Floor height: 600 mm (2.0 ft)
Loading Bay	One 4 t truck H 4.5 m
Freight elevator	W 1,800 mm× D 2,300 mm× H 3,000 mm Capacity: up to 4,000 kg
Parking space	Not available
Ground level	T.P.+ approx.6.3 m
Building/ room access	Facility access: 24 hrs/ day Pre registration required via Web Entry System Speedy smart entry after photo ID confirmation, card key and rack keys are provided Operators are available 24 hrs/ day
Certification	ISO 9001 , ISO 14001, ISO 20000, ISO 22301, ISO 27001, PCI DSS, Privacy mark, SSAE 16/ ISAE 3402

Facilities

Power reception		Active and stand-by system
		Power reception voltage: 66,000 V
		Inspection: every 3 yrs (No need to interrupt system operation)
Generators		Gas turbine engines
		Operation without refueling: 24 hrs+
		Startup tests conducted each month
UPS		N+1 Parallel redundant configuration
Battery support time		10 mins
Power supply type		Single phase 100 V and 200 V Three phase 200 V
Air-conditioning		Air-cooling 24 hrs/ day N+1configuration
Fire detection and suppression		Nitrogen gas fire suppression system Early Warning Smoke Detection System
Security		IC card+ Biometric authentication, Monitoring cameras Lockable rack with individual cylinder key
Network		Multi-carriers complied Nexcenter Connect™

Business Portal

Customer portal that enables customers to view their usage and status of major services provided by NTT Com and change various configurations on demand in a timely manner.

Main functions

- Entry request
- View information on facilities currently in use
- View building access logs
- View remote hands operation records
- Download information files

SD-Exchange

Connecting colocation and various cloud services globally. This solution optimizes the best system design in secured and high performance environment. You can also manage the network settings and changes from our portal flexibly.

Enterprise Cloud

Other Cloud Services

Nexcenter
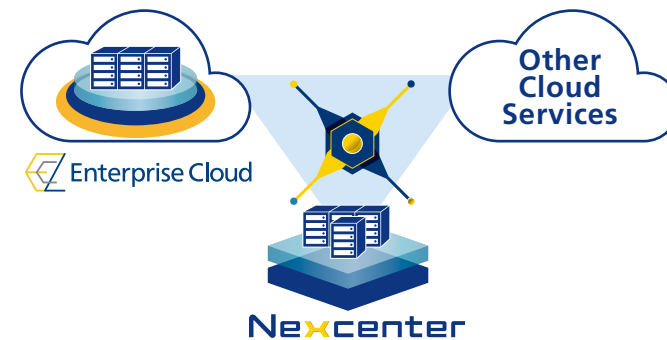
Extensive Service Menu

Service Categories
In addition to basic services, we offer a variety of optional services and customized services.

Colocation Services	Basic Services	19 inch cabinet racks	Compliant with EIA standards
		Power supply	Stable power supply 24/ 7 with UPS and Generators
		Security	Rack keys, Monitoring cameras
		Room access management	Biometric authentication or IC card key required for room access
		Air-conditioning	24 hours a day
		Remote hands (Basic troubleshooting)	Visual checking, Power cyclying, Reset button cyclying
	Optional Services	Enhanced power supply	Choose from AC single phase 100 V 10 A, 20 A or 30 A/ AC single phase 200 V 15 A, 20 A or 30 A
		Redundant power configuration	Choose redundant breaker or redundant power distribution unit
		Stand-by power supply	Choose from AC single phase 100 V 20 A or 30 A/ AC single phase 200 V 15 A, 20 A or 30 A
		Other power options	Earth, additional power outlets in racks, changes to power outlets
		Rack options	Additional shelves and blank panels, change of rack keys, racks supplied by customers
		Connectivity	Optic fiber cable; UTP cable; Metal cable
		Remote hands	Customer's system construction, operation of equipment, trouble recovery and system management support in the data center
	Customized Services	Escort service	
		Private cage	
		Other features as requested	
Managed Services	Server Operation Services	Customer's system monitoring and maintenance in the data center	
	Security Operation Services	The global integrated security service provides total security outsourcing	

NTT Communications Corporation

Website **http://www.ntt.com**

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VEGETABLE OIL INK

Disaster Prevention

Disaster-resistant Data Center

NTT Communications offers Data Centers that support social infrastructures.

Multifaceted design takes into consideration a wide range of disaster risks.

■ Flooding risks
Securely located about 5 km from Tokyo Bay and about 2 km from Sumida River, far removed from the effects of tsunamis or river overflow.
Even in the unlikely event of flooding in the area around the building, the customers' devices, power facilities, and communication facilities are located on the third floor or higher, safe from any potential water damage.

■ Earthquake risks
No active faults have been discovered in the vicinity of the building, which rests on a firm foundation with no risk of liquefaction.

Secure, earthquake-proof buildings ("Seismic isolation" structure) that can withstand earthquakes even on the scale of the Great East Japan Earthquake (2011) and the Kobe Earthquake (1995)
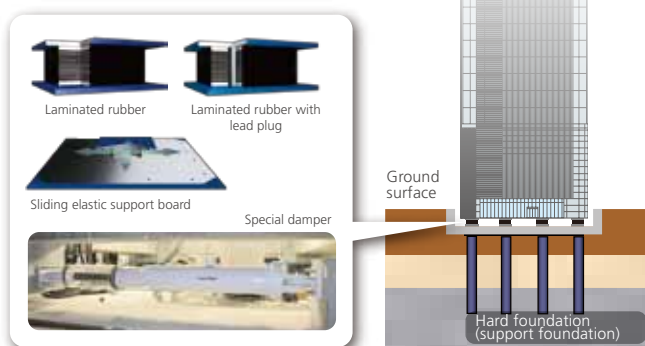
■ Positioned on a Firm Foundation
Piles are driven more than 20m into a firm foundation with about twice the strength* of foundations normally required for high-rise buildings.
*Foundation strength: N value 60 or more, based on standard penetration tests.

■ Seismic isolation structure
Four types of seismic isolation devices reduce seismic impact on the building by up to 80%, to prevent malfunctions in ICT devices.

Laminated rubber
Laminated rubber with lead plug
Sliding elastic support board
Special damper
Ground surface
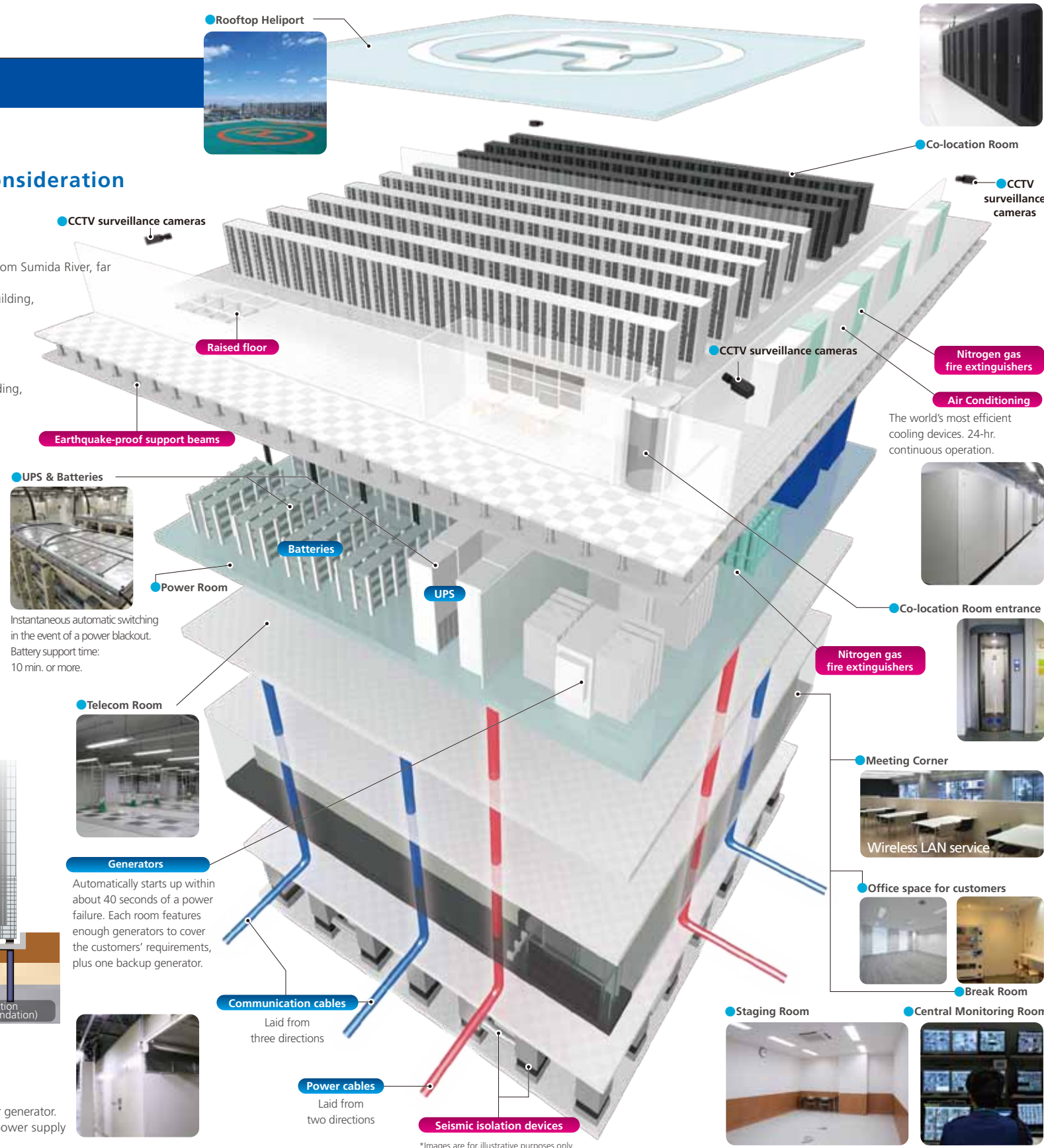Hard foundation (support foundation)

■ Electric power supply
· UPS(uninterrupted power supply)with emergency in-house power generator.
· Electric power remains uninterrupted even when commercial power supply from electric power companies fails.
· With ample fuel stores and priory contracts with fuel supply companies, power supply can be ensured over a long period of time.

■ Stable Communications
Communication cables are laid from three directions via underground conduits with telecommunications carrier specs that minimize disaster risk.

■ Emergency response
A heliport located on the building's roof can be used for rescue operations or to transport supplies in an emergency.

● Rooftop Heliport

● CCTV surveillance cameras

● UPS & Batteries
Instantaneous automatic switching in the event of a power blackout.
Battery support time: 10 min. or more.

● Power Room

Batteries

UPS

● Telecom Room

Generators
Automatically starts up within about 40 seconds of a power failure. Each room features enough generators to cover the customers' requirements, plus one backup generator.

Raised floor

Earthquake-proof support beams

Communication cables
Laid from three directions

Power cables
Laid from two directions

Seismic isolation devices

*Images are for illustrative purposes only.

● Co-location Room

● CCTV surveillance cameras

● CCTV surveillance cameras

Nitrogen gas fire extinguishers

Air Conditioning
The world's most efficient cooling devices. 24-hr. continuous operation.

● Co-location Room entrance

Nitrogen gas fire extinguishers

● Meeting Corner

Wireless LAN service

● Office space for customers

● Break Room

● Staging Room

● Central Monitoring Room

■ Multi-level security
■ Prior registration using a Web Entry System
■ Personal authentication using a finger vein authentication device

● Entrance　**● Finger vein authentication device**　**● Security gate**　**● CCTV surveillance camera**
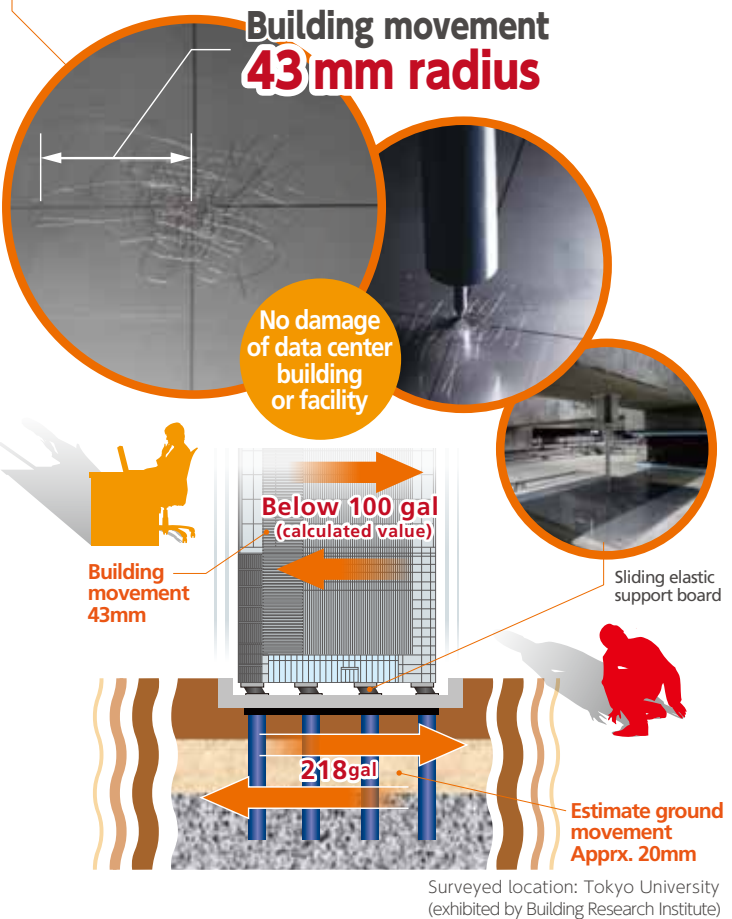
Location

Ideal Location

About 10 minutes by car from Tokyo Station. Ideal location within walking distance of several train stations.

Can be accessed in less than 1 hour from both Narita and Haneda Airports.

Ikebukuro Sta.
Shinjyuku Sta.
Ueno Sta.
Shibuya Sta.
Tokyo Sta.
Shinagawa Sta.
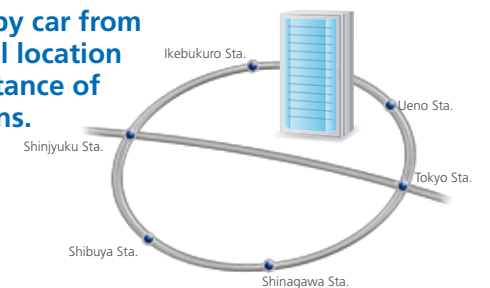
Results of the 2011 Tohoku Earthquake and Tsunami
Occurred at 2:46 pm March 11th, 2011

Building movement 43mm radius

No damage of data center building or facility

Below 100 gal (calculated value)

Building movement 43mm

Sliding elastic support board

218gal

Estimate ground movement Apprx. 20mm

Surveyed location: Tokyo University (exhibited by Building Research Institute)

■ Reducing up to **80%** of earthquake vibration, and minimize the damage to your ICT equipment
■ The building movement is bigger than the ground movement, however, letting the building move slowly realizes deceleration

Nexcenter

Nexcenter™ is NTT Communications' brand name for the next generation data center services, offering world-class quality, outstanding cost efficiency and full-support ICT menu.