Site Selection

The site should not have interfering elements.

The below interfering elements should be eliminated

- vibration
- air contamination
- security
- Flood
- electromagnetic interference
- Hazardous materials

The site should have enough space around the building to allow for complete security and it must have enough space for support equipment such as Generators, fuel tanks, HVAC Heat rejection systems and the site should have all electric service requirements.

The site should have the nearest prevailing ground floor for equipment access, upper floors can contribute to structural instability and mostly the upper floors are not designed for the floor loading required for a datacenter.

If the data center is on a floor above the first floor, ensure that access is provided for the equipment required in the data center.

The data center shall be located as close as possible to incoming power to reduce the power cabling lengths.

The building should be designed to meet design criteria for seismic and wind lateral conditions.

The computer room shall be located on a floor that has the structural capabilities to support the equipment. The computer rooms should be in proximity to the telecommunications entrance room(s) of the building.

The computer room is best located on the ground floor. It is generally desirable to locate the computer room away from exterior walls although it may be appropriate to design a data center where the computer rooms have an exterior wall with knock-out panels for future expansion or integration of certain free cooling options. Where knock-out panels are used, precautions against storm/blizzard damage and temperature extremes (e.g., condensation) should be taken.

Critical data centers shall be installed within a steel or concrete framed building such as a Type I, II, or III building as defined in the regulation of Rwanda Standards board. Under certain conditions, Type IV construction can be utilized if constructed in accordance with Rwanda standards board.

The exterior of buildings shall be nonflammable and of durable material, resistant to the foreseen weather conditions for the expected lifetime of the facility.

The building section shall allow a minimum clear access height of 3 mm (10 feet) from slab-to-slab. The slab to structure above should be a minimum of 4.5 m (15 feet).
If datacenter is in multi-tenant building, it has to maintain the distance from hazards and mutual access points with other tenants.

All water lines, sprinkler lines, ductwork, and gas lines serving areas outside of the computer room shall not pass through the computer room area. No systems hazardous to the computer room shall be in or around the computer room.

All supply lines, ductwork, and telecommunication pathways serving the computer room shall not pass through the rooms of other tenants if comprehensive monitoring, protection against intrusion, and accessibility for maintenance cannot be guaranteed.

Services to the data center should be separate from services to other tenants.

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