Data Center Facilities Costs

A comparable on-premises data center cost per cabinet can be up to 2x the cost of a Tier 1 Co-Location facility and most likely doesn't include appropriate fire suppression.

TYPICAL EXPENSES

SPACE

POWER & COOLING

SECURITY

TOTAL OPERATIONAL COSTS

REDUNDANT INFRASTRUCTURE

FIRE SUPPRESSION

MAINSTREAM
T E C H N O L O G I E S

>>> Explainer: Data Center Components

> **Redundant (N+1) UPS:** Uninterruptible power supplies (UPSs) are essential components of any data center, providing power conditioning and keeping equipment up and running during brief outages. Because UPS failure is the leading cause of data center downtime, redundant UPSs are essential.

> **Backup Generator:** A UPS is designed to provide backup power just long enough to shut down systems safely. Data centers should also have a backup generator to supply power during extended power outages.

> **Redundant (N+1) Cooling:** If a data center's cooling system fails, the temperature can rise two or three degrees per minute, quickly leading to a thermal shutdown event. To prevent downtime and potential damage to equipment, data centers should have redundant cooling systems.

> **Redundant Connectivity:** A data center must have network connectivity to the outside world, and it needs to be highly reliable. A redundant network connects to multiple Internet services and has duplicate network devices that provide an alternate path if the primary connection fails.

> **Security Controls:** The physical protection of the data center facility is an important aspect of cybersecurity that's often overlooked. A data center should be well-built in a secure location, and have controlled entry points with surveillance cameras and multifactor authentication.

> **FM-200 Fire Suppression:** Most offices have traditional sprinkler systems, and water can severely damage expensive IT equipment. Data centers should have FM-200 fire suppression, which uses a gas to quickly extinguish fires without water damage, oily residue or particulates.