

A short insight into
Data Centre
Tier Systems

Custodian Data Centres



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DATA CENTRES

Understanding Data Centre Tiers

The Uptime Institute's Tier Classification system for data centres that has been in place for more than two decades. Its creation as a system has evolved and played an important role in global standard for third-party approval of a data centres infrastructure and ability to deal with mission-critical business operations.

What are the Tiers?

The Tiers range from I-IV and each Tier incorporates the requirements of the lower tiers. The classification system aims to measure a data centres infrastructure performance, and ultimately, uptime. Tier I is a basic capacity data centre. The site will provide infrastructure to support equipment beyond say, that of an in-house or office server room. A Tier I facility will:

- Have dedicated space for IT systems
- An uninterruptible power supply (UPS)
- Dedicated cooling equipment
- An engine generator

Tier II is a data centre that has redundant critical components. A facility built with redundant power and cooling components to create an increased margin of safety against failure for protection against IT processes. Redundant components would include:

- Power, including UPS modules and generators
- Cooling, including chillers or pumps

Tier III is a data centre, which is concurrently maintainable. The most common facility in the industry; it requires no shutdowns for equipment replacement or maintenance. Availability of such a data centre will top 99.98%, ensuring minimal downtime. More commonly, companies with worldwide presence and 24/7 will choose a Tier III data centre as a minimum. Here are some pros of a Tier III data centre:

- Planned outages will not cause any disruption to its clients equipment
- Unplanned outages are very unlikely to cause any disruption, also
- All equipment must have dual power units, ensuring if one fails, the other picks up the slack
- Tier III data centres can be significantly cheaper than Tier IV facilities

Tier IV is a data centre that adds the concept of fault tolerance to its infrastructure and systems. This means that should an individual's equipment fail or should there be distribution path interruptions, the events are stopped short of all IT operations. The Tier 1V data centre which adhere to all requirements of lower tiers, being fully faulty-resistant, achieved by creating physical copies of all components. This is also known as N+N.

Custodian Data Centres is a facility built on Tier IV standards, but at Tier III prices. Our facility is built with true failover in every aspect, including true 2N UPS dual path resilience and a 2N resilient evaporative cooling system, designed and built in-house by our very own M&E team.

