UNDERSTANDING DATA CENTER RELIABILITY LEVELS

What Tier I, II, III, and IV mean

Reliability levels describe how well a data center is designed to keep operating when equipment fails, maintenance is needed, or power is interrupted. They measure resilience — not the type or size of the data center.

1. Tier I — Basic Capacity



The most basic level. It has essential power and cooling systems, but little or no backup. Maintenance or an equipment problem may require shutting systems down.

2. Tier II — Redundant Capacity



Adds some backup components for important systems, such as power or cooling. This provides more protection than Tier I, but some maintenance or failures can still interrupt operations.

3. Tier III — Concurrently Maintainable



Built so planned maintenance can be performed without shutting down the data center's main operations. It offers a higher level of continuity, though unexpected failures can still cause disruption.

4. Tier IV — Fault Tolerant



The highest reliability level. It is designed to keep operating even if a major component fails, while still allowing maintenance. This provides the strongest level of resilience.

Tier I → **Tier II** → **Tier III** → **Tier IV**

INCREASING RESILIENCE AND CONTINUITY

IMPORTANT: Tier I–IV ratings describe infrastructure resilience. They do not tell you the type of data center, how large it is, or whether it is used for cloud, AI, colocation, or another purpose.

Sonja A. Brown
MAYOR
GLENN HEIGHTS, TEXAS

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