CAP Theorem

From "CAP 12 Years Later: How The Rules have Changed" by Eric Brewer

Desirable Properties

Consistency

Availability   Partition Tolerant

You may only have two of three.

CAP Update

CAP only prohibits perfect availability and consistency in the presence of partitions.
Two of three is misleading:
    Partitions are rare so don't forfeit A or C when the system is not partitioned.
    All three properties are more continuous than binary.
    Availability scales from 0..100%
    Consistency too may vary, e.g., "eventual consistency".
    Partitions have nuances

In essence, CAP allows perfect C and A most of the time. When partitions occur
or are thought to have occurred, a "partition mode" may be appropriate.
Three steps for partition mode:
    - detect partitions
    - enter an explicit partition mode that may limit some operations
    - initiate a recover process to restore consistency and compensate for mistakes
     made during a partition.