

SYNCHRONOUS VS. ASYNCHRONOUS REPLICATION

Synchronous replication

Asynchronous replication

Level of synchronicity

In sync at all times

Data is written to the secondary storage system with a slight delay

Write sequence

Data is written to the secondary storage first and only on success is data committed to the primary storage array

Data is written to the primary array first and changes are subsequently applied to the secondary array

Requirements

Sufficient bandwidth with little latency

Suitable across lower bandwidth, high-latency connections

Distance limitations

Only works well for short distances of less than 100 kilometers

Works well across long distances