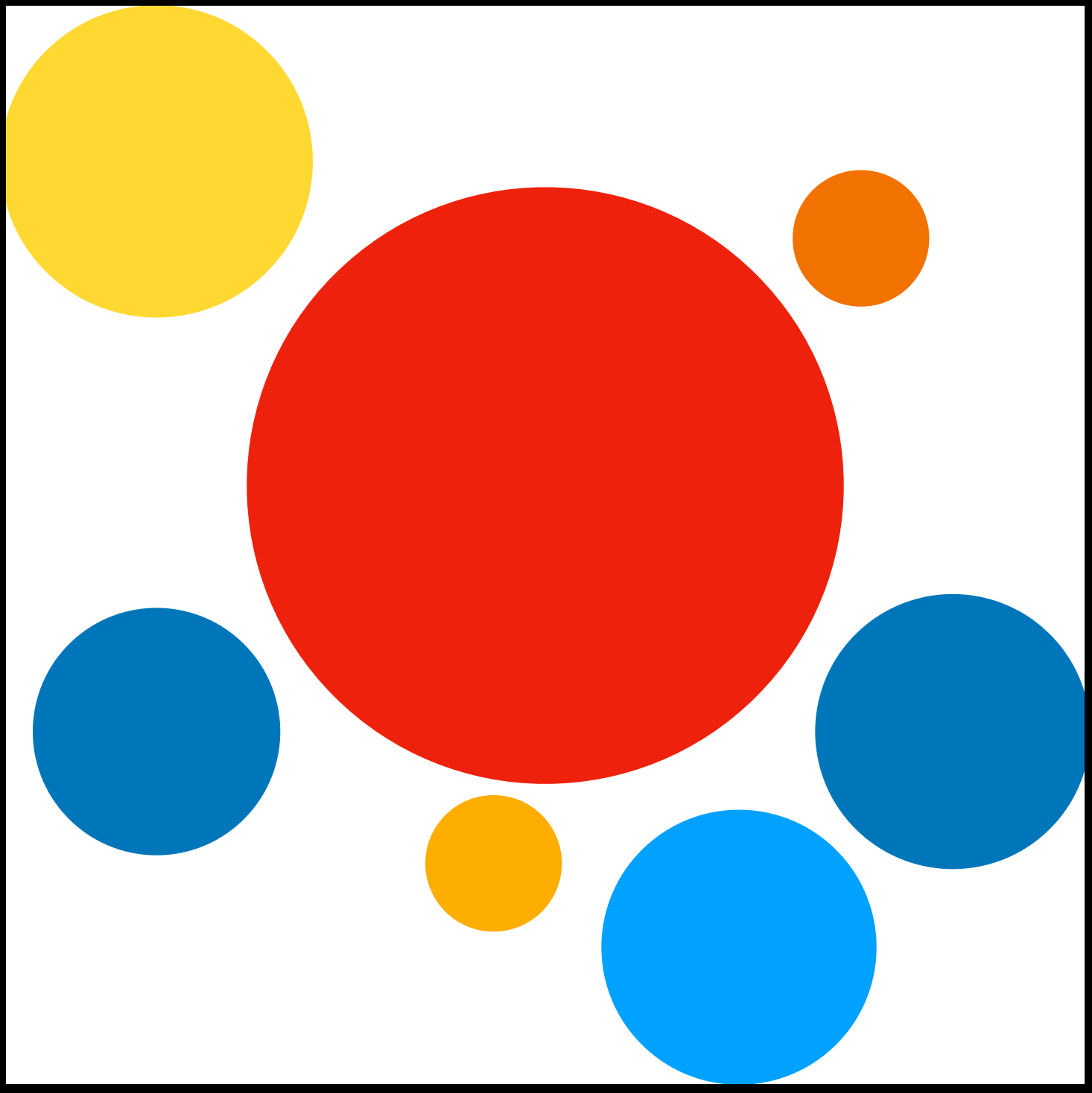
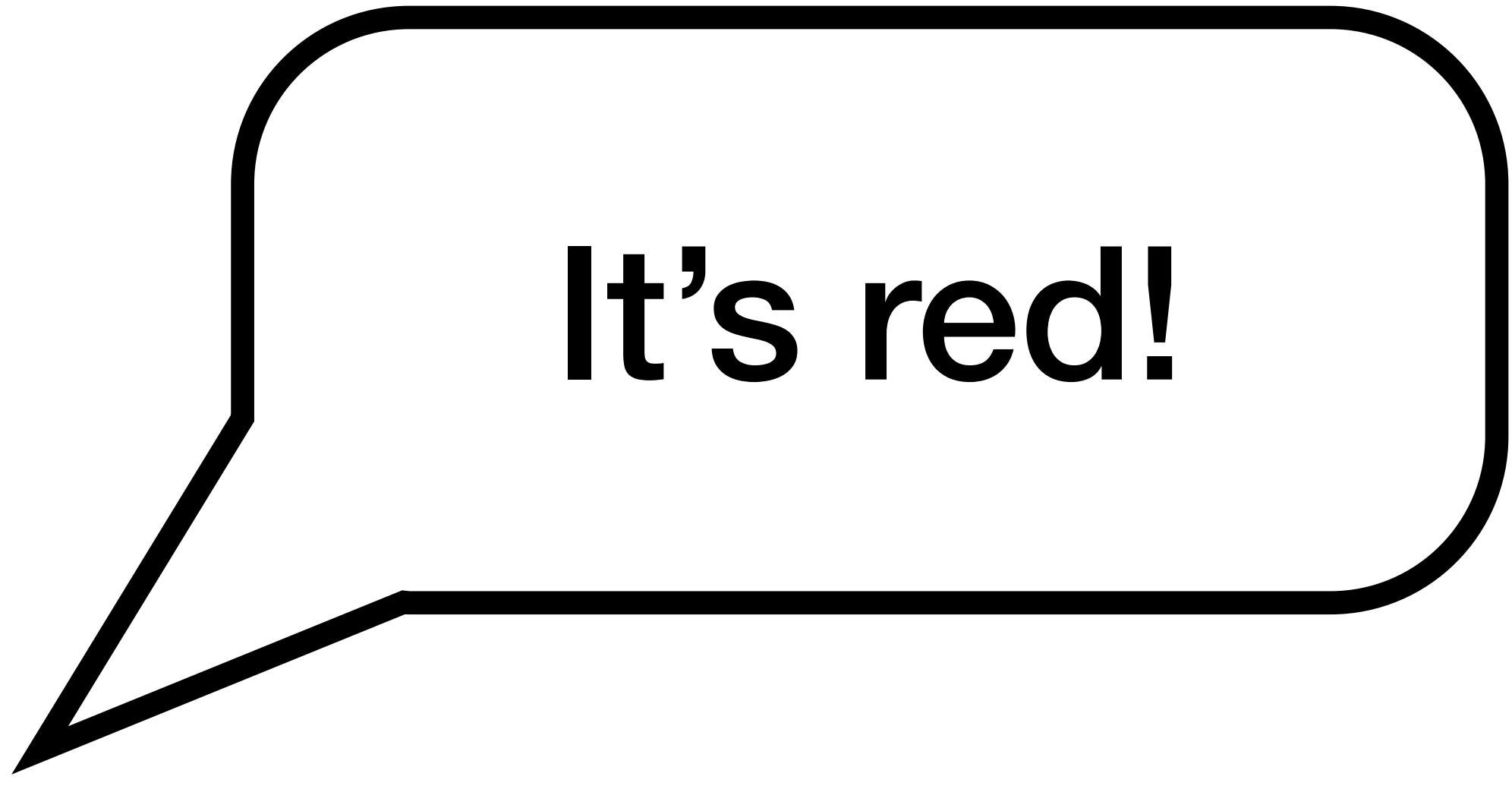
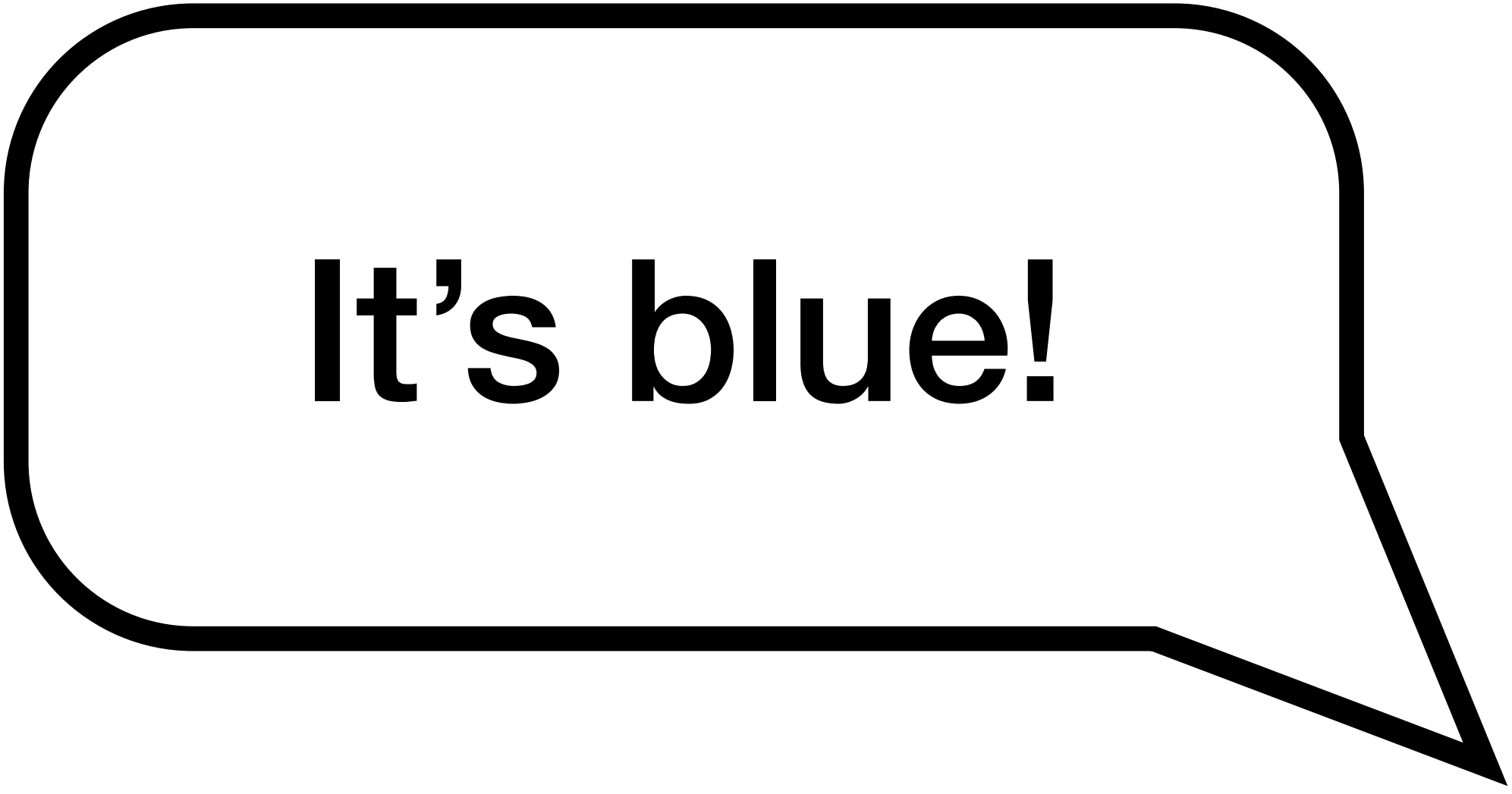
Since updates are asynchronously propagated,
users can observe different states at the same time




It’s red!


It’s blue!


It’s neither!

Since updates are asynchronously propagated,
users can observe different states at the same time

		✅	❌
Single node		Consistent data Operational simplicity	Failure-prone Vertical scalability only
Distributed	Strong consistency (Real-time consensus)	Consistent data High-availability	Higher latency Relatively low throughput Harder to implement (assuming you want to roll your own system)
	Eventual Consistency (Deferred consensus)	High-availability Highest throughput Lowest latency Suitable for offline-first apps	State isn’t immediately consistent Possible data losses due to conflicts