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## Sommario/riassunto

Today's networks of processors on and off chip, operating with independent clocks, need effective synchronization of the data passing between them for reliability. When two or more processors request access to a common resource, such as a memory, an arbiter has to decide which request to deal with first. Current developments in integrated circuit processing are leading to an increase in the numbers of independent digital processing elements in a single system. With this comes faster communications, more networks on chip, and the demand for more reliable, more complex, and higher performance sy