Multi-Core Processors: An Overview

1. Introduction

A **multi-core processor** is a **single computing unit** that consists of two or more independent **processing units (cores)**.

Each core functions as a **separate CPU**, allowing the processor to perform multiple tasks simultaneously, improving performance and efficiency.

Processor 0

Core 0	Core 1
L1 cache	L1 cache

L2 cache

Processor 1

Core 2	Core 3
L1 cache	L1 cache

L2 cache

System bus

Main memory