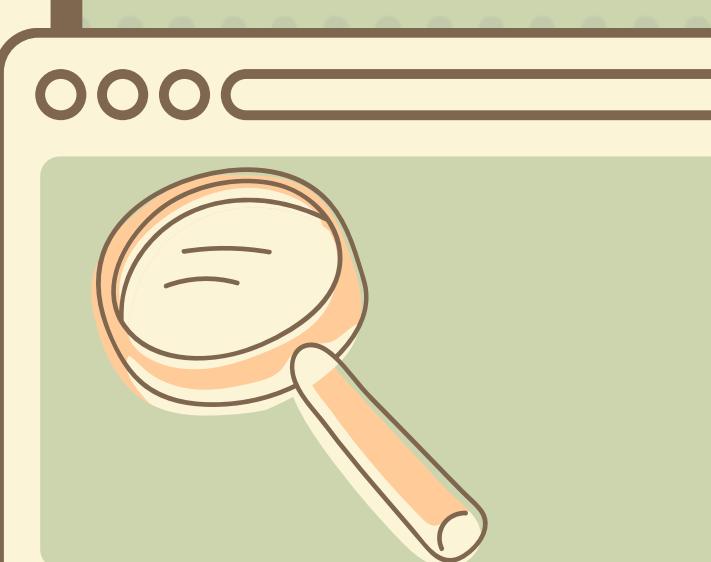


COMPARATIVE STUDY ON DIFFERENT TYPES OF COMPUTERS

PRESENTED BY: GESITE, DAN JOSEPH



SUPERCOMPUTER*

Supercomputers, such as the Frontier system with AMD EPYC processors and four AMD Instinct™ accelerators, are advanced computing systems capable of processing data across distributed architectures. With up to 64-core processors and 4 petabytes of memory, they can perform trillions to quintillions of calculations per second.

Utilizing 20 to 50 MW of power, they drive breakthroughs in various fields.





MAINFRAME COMPUTERS

Mainframe computers, powered by the IBM Telum processor, are high-throughput systems for transactional and large-scale data processing. With up to 40 TB of memory and 8 processor cores, they handle workloads ranging from 3-4 MIPS to 100 MIPS. Mainframes are essential for mission-critical applications in industries like banking, insurance, and enterprise data processing, offering minimal energy usage.



MINI COMPUTERS*

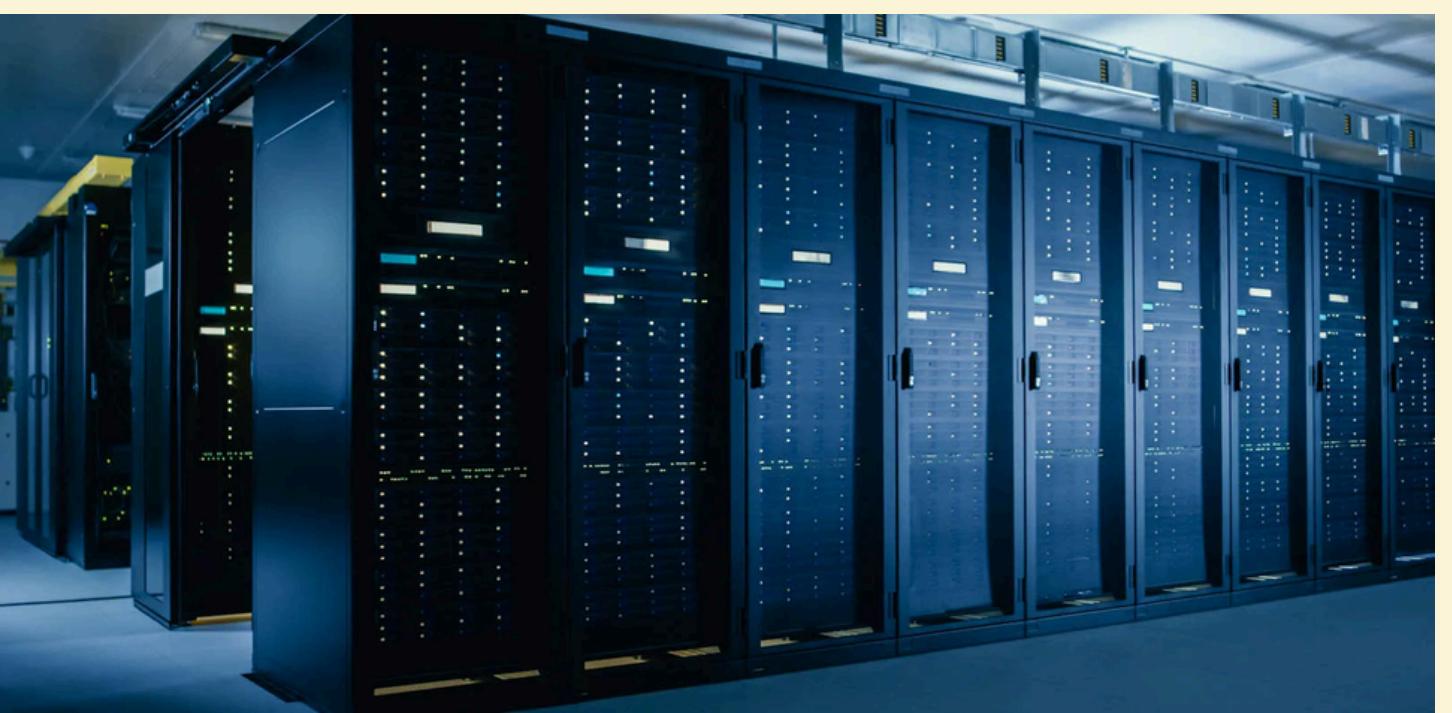
Mini computers, like the DEC PDP-1 and PDP-11 series, are efficient task management systems for medium-sized businesses or institutions. They bridge the gap between microcomputers and mainframes, with 16-bit processors and moderate processing power. Ideal for media centers, gaming devices, home automation, IoT devices, small business servers, and portable workstations, they consume 1,000 watts or more.



SERVER

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Servers are centralized computing resources that offer specialized services across large networks, balancing performance with energy efficiency for reliable, 24/7 operations in industries like web hosting and gaming. The Dell PowerEdge R750 server, powered by Intel Xeon Scalable processors, is a high-performance system capable of handling demanding workloads with up to 32 TB of memory and 3.5 GHz per core.



WORKSTATIONS

Workstations are high-performance computers designed for intensive tasks like scientific calculations, 3D rendering, software development, and graphics processing. They have multi-core processors, RAM capacities, and specialized operating systems. Known for their billions of FLOPS, they are used in industries like data, 3D design, video editing, and engineering. They consume 500-1000 watts of power.



MICRO COMPUTERS

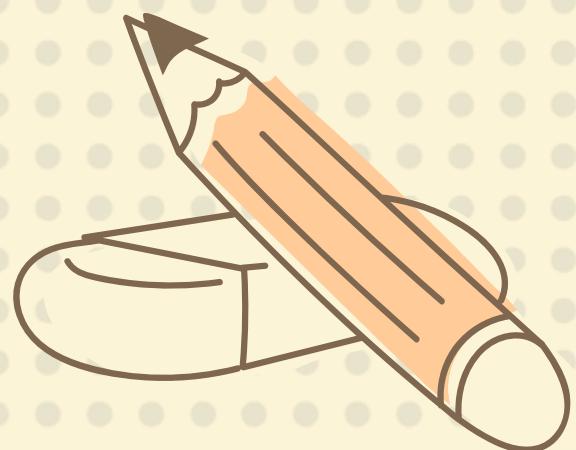
Microcomputers are small, efficient systems designed for everyday tasks, personal applications, and web browsing. With processing speeds ranging from 1 GHz to 5 GHz, they are suitable for various industries, including data processing, word processing, and professional presentations. Examples include the Atari Falcon, which offers 96 million instructions per second and is cost-effective.



THANK YOU!



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