

1. Difference between Multicore & Multiprocessor?

⊙ Multiprocessor

- It is system with multiple CPU that allows processing programs simultaneously.
- Multiprocessor run multiple programs faster than a multicore system.
- It is more reliable than multicore system.
- If one of any processor fail in system, the other processor will not be affected.
- It has high traffic than the multicore system.
- It is more expensive compared to multicore.
- It requires complex configuration.

⊙ Multicore

- A multicore processor is a single processor that contains multiple independent processing unit known as core.
- The multicore system executes a single program faster.
- It is not much reliable than the multiprocessor.
- It executes only one program on one type.
- It has less traffic than the multiprocessor.
- These are cheaper than the multiprocessor.
- It doesn't need to be configured.

2°. Explain details different types of mobile O.S.?

→ Some popular m.O.S.:

- ① iOS
- ② Android
3. Windows
4. (BlackBerry) O.S
5. Symbian (Nokia):

• iOS :-

- This is apple's own O.S. iOS runs the company's iPod, iPad, iPhone and Apple watch devices. It is only available on Apple products.

- one of the benefits of the Apple O.S is its built-in video chatting and Apple music capabilities.

- In iOS there are four abstraction layers: • the Core OS layer, • the Core Services layer, • the Media layer, • and the Cocoa Touch layer.

• Android :-

Android m.O.S developed by Google, based on the Linux kernel and designed primarily for touchscreen mobile devices such as Smartphone and tablets.

- Android user interface is mainly based on direct manipulation, using touch gestures.

Windows :-

- Windows m.o.s is best described as a subset of subset of platforms based on a windows ce. This o.s is compatible with the microsoft office suite of programs.

- It encompasses the entire software stack from the kernel to the application interface.

BlackBerry os:-

B.B os is proprietary mobile operating system developed by BlackBerry Ltd. for its BlackBerry line of smartphone handheld devices.

The blackberry o.s is well-linked for its enhanced security and safety measures.

Symbian (Nokia) :-

Symbian is a m.o.s targeted at mobile phones that offers a high-level of integration with communication and personal information management functionality.

- Nokia has made the Symbian platform available under an alternative, open and direct model, to with some OEM's, Nokia does not maintain Symbian as an open source development project.

3. What is Distributed o.s? Describe examples of D.o.s.?

D.o.s:-

is an o.s which manages a collection of independent computers and makes them appear to the users of system as a single computer.

• Examples of D.O.S :-

1. Networks :-

- The earliest example of a d.o.s happened in 1970's when Ethernet was invented and LAN were created.

- First time computers would be able to send msg. to other systems with a local IP address, peer-to-peer Network evolved and e-mail and then the Internet as we know it continue to be the biggest, ever growing example of distributed systems.

2. Telecomm? Network :-

Telephone and cellular N/w are also examples of distributed N/w.

- As telephone N/w's have evolved to VOIP (Voice Over IP), it continues to grow in complexity as a distributed network.

3. Distributed Real-T. System :-

Many industries use real-time systems that are distributed locally and globally. Airlines use Flight control systems. Uber and Lyft use dispatch systems. e-commerce companies use real-time tracking systems.

4. parallel processing :-

These used to be a distinction between parallel computing and distributed locally and globally system. parallel computing was focused on how to run software.

4. Short note on Uniform memory access (UMA):

- UMA is a shared memory architecture used in parallel computers. All the processors in the UMA model share the physical memory uniformly.

- In UMA architecture, access time to a memory location is independent of which processor makes the request or which memory chip contains the transferred data.

- In the UMA architecture, each processor may use a private cache. peripherals are also shared in some fashion.

- UMA, a single memory controller is used and it is applicable for general purpose applications and time sharing applications.