

REAL TIME OPERATING SYSTEMS

Lesson-15:

Middleware and Application Software

Middleware

- Software which provides the services other than available to an application using the OS
- Software layer between applications and OS on each node in a distributed computing system in a network

Middleware

- Software which enables an application to communicate between two systems consisting of different OSs and hardware.
- Software for data communication and management in the distributed computing systems in network.

Middleware Examples

- Middleware services consist of enterprise data integration and application integration.
- A Mobile Android OS based device has middleware software layer consisting of libraries. Middleware provide services for implementing device specific applications.

Middleware

- Middleware for multimedia communication
- web-browsing,
- data storage on media card,
- touch screen displays.

Middleware in Android devices

- Java core application libraries and Dalvik Virtual Machine part

Application layer

- Layer consisting of software for methods and Internet related protocols used for communication between the processes
- Communicates through a port for user. Port uses a protocol for communication of information. [TCP/IP model has five layers for transmitting and receiving in a network.]

Application Layer

- Application layer software communication protocols are FTP, HTTP, POP, SMTP, SNMP and Telnet in TCP/IP model.

Summary

We learnt

- Software which provides the services other than available to an application using the OS
- Middleware Application Examples
- Application Software Layer
- Examples HTTP, FTP

End of Lesson 15 of Chapter 10
on
Middleware and Application Software