

Mobile Operating System

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Introduction

- ▶ Smartphones
 - ▶ Phone calls, Video calls, Multimedia messages, take pictures, play media files, browse www, run web applications etc.
- ▶ This requires multiple tasks run on the device.
- ▶ Therefore a powerful operating system is necessary for every smartphone.
- ▶ The OS performs 2 main responsibilities:
 - ▶ Managing resources
 - ▶ Providing interfaces

Managing Resources

- ▶ Important feature → efficient utilization of the resources of the device by performing multiple tasks.
- ▶ The resources managed by OS
 - ▶ Processor, Memory files,
 - ▶ Various devices such as camera, speaker, keyboard, screen.
- ▶ A person listening to music, same time he can send sms, view email, search contacts etc...
- ▶ Even multiple tasks contend to use the same set of resources.

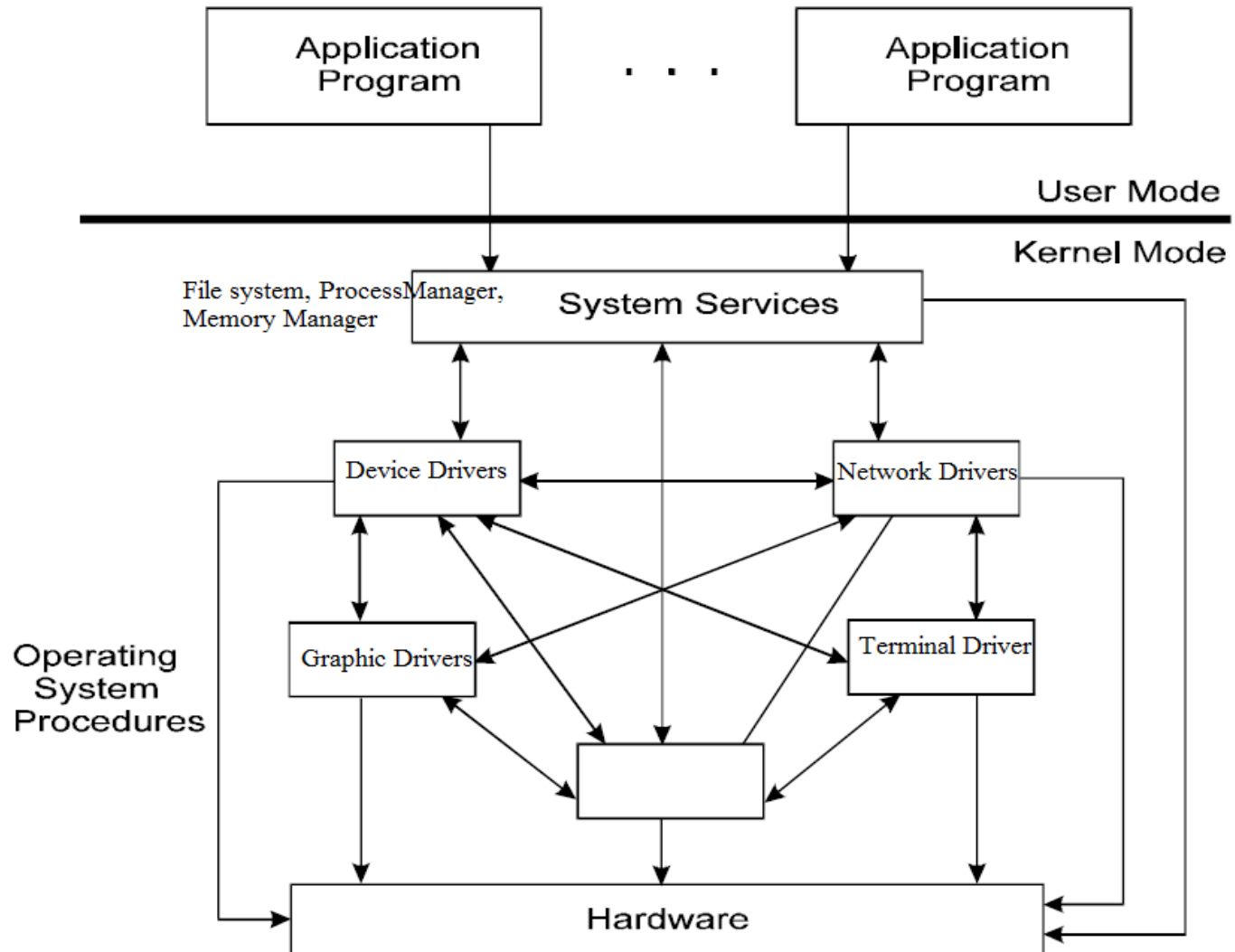
Providing Interfaces

- ▶ Mobile Os provides
 - ▶ A high interactive interface to the mobile user
 - ▶ Interfaces with several devices and networks
- ▶ Important interface are control, data, voice communications.
- ▶ Apart from it OS also takes care of recognizing inputs from the keyboard, sending outputs to the screen, interfacing with peripheral devices such as other mobile devices, computers, printers, etc.
- ▶ Keyboard in touch screens.
- ▶ Variations in screen resolution and size of mobile device.
- ▶ Underlying Os should handle all these interfaces.

Mobile OS available in Market

- ▶ Symbian
- ▶ Android
- ▶ Windows
- ▶ Palm Os
- ▶ iOS
- ▶ Blackberry Os

Monolithic Kernel



Microkernel

