

MOBILE COMPUTING

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# HISTORY & EVOLUTION

# HISTORY

- ▶ "0G" SERVICES - IMPROVED MOBILE TELEPHONE SERVICE,
- ▶ FIRST GENERATION (1G) - ANALOG CELLULAR NETWORK [ 1979 ]
- ▶ SECOND GENERATION (2G) - DIGITAL CELLULAR NETWORKS [ 1990's ]
- ▶ THIRD GENERATION (3G) - BROADBAND DATA SERVICES [ 2001 ]
- ▶ FOURTH GENERATION (4G) - NATIVE-IP NETWORKS [ 2009 ]

# FIRST MOBILE

- ▶ 3 APRIL 1973 , MARTIN COOPER ( MOTOROLA )
- ▶ WEIGHED 1.1 KG
- ▶ DIMENSION 13x23x4.45 CM
- ▶ TALK TIME 30 MINUTES & NEEDS 10 HOURS TO RECHARGE



Martin Cooper with the first mobile phone

# FIRST MOBILE OF MOTOROLA

- ▶ THE FIRST CELL PHONE RELEASED BY MOTOROLA WAS THE DYNATEC
- ▶ CONSIDERED AS 1G
- ▶ NICKNAMED AS BRICK
- ▶ 4,000 USD IN PRICE

# MOBILE EVOLUTION



# MOBILE EVOLUTION



1992, MOTOROLA INTERNATIONAL 3200



NOKIA 1011, FIRST MASS-PRODUCED GSM PHONE

# MOBILE EVOLUTION



**MOTOROLA STARTAC, FIRST FLIP PHONE**



**NOKIA 9000 COMMUNICATOR,  
FIRST SMARTPHONE ( 1386 )**



# MOBILE EVOLUTION



BLACKBERRY 7210, FIRST COLOR SCREEN



2007 , IPHONE

# TOP-SELLING MOBILE PHONES

Mobile	Released on	( Sold) Million Units
Nokia 1100	2003	250
Nokia 1110	2005	250
Nokia 3210	1999	160
Nokia 1200	2007	150

# TOP-SELLING SMART PHONES

Mobile	Released on	( Sold) Million Units
iPhone 6 and 6 plus	2014	100
Samsung Galaxy S4	2013	80
iPhone 5	2012	70
iPhone 4S	2011	60

# WIRED vs WIRELESS

- ▶ HIGH BANDWIDTH
- ▶ LOW BANDWIDTH VARIABILITY
- ▶ CAN LISTEN ON WIRE
- ▶ HIGH POWER MACHINES
- ▶ HIGH RESOURCE MACHINES
- ▶ NEED PHYSICAL ACCESS(SEcurity)
- ▶ LOW DELAY

- ▶ LOW BANDWIDTH
- ▶ HIGH BANDWIDTH VARIABILITY
- ▶ HIDDEN TERMINAL PROBLEM
- ▶ LOW POWER MACHINES
- ▶ LOW RESOURCE MACHINES
- ▶ NEED PROXIMITY
- ▶ HIGHER DELAY

Thank you