

Brief Information and Communications Technology (ICT) History (Version 1: 12/16)

Consumer Telephone History

The Beginning: Pre-1900

- Telegraph
- Telephone (Manual/1876)
- Operator assist/party lines

First Generation: 1900>2000

- Telephone (Rotary dial/1930)
- Single party lines (Central offices)
- Telephone (Touchtone/1963)
- Portable Telephones (Cordless/1980)
- Satellite Telephones
- Mobile (Car Telephones/1984)
- Cellular Telephones (Flip phone/1996)

Next Generation: 2000<Present

- Cellular Telephones (Camera/2003)
- Cellular Telephone (PDA/Black Berry/2004)
- Cellular Telephone (Palm push button smart phone/2009)
- Wireless (Wi-fi) 4G Smart phone (Touch screen/2007)

Communications, Business Phones and Voice Networks

The Beginning: Pre-1900

- Manual/Cord Board (Operator assisted)

First Generation: 1900<2000

- Mechanical (Cross-bar)
- Semi-conductor (1947)
- Electro-mechanical (Cross-reed/relay)
- Electronic (Solid State Key systems/PBX)
- Equipment Competition (Interconnect Industry/1968)
- Analog (Stored program control)
- Long-distance Competition (MCI/1969-1972)
- Divestiture and Deregulation (1982)
- Digital (Proprietary/legacy)
- DOV (Integrated/Data over voice/1995/Failed)

Next Generation: 2000<Present

- Premise VOIP (Parallel or converged/Voice over data/IP)
- Hosted VOIP (Cloud telephony)



Information, Business Computers and Data Networks

The Beginning: Pre-1900

- Manual (Abacus)
- Mechanical (Babbage)

First Generation: 1900<2000

- Electro-mechanical (Analytical Machine)
- Analog Electronic (Vacuum Tube)
- Main frame computers (Centralized/terminal networks)
- Accounting/ bookkeeping machines (Punch cards/mag strips)
- Electronic calculators (Solid state/1961)
- Digital business computers (Solid state/1960)
- Proprietary operating systems
- Super computers (1965)
- Personal computers (Distributed/proprietary networks)
- Laptop computers/1981, pads and tablets/1987
- Standardized operating system (Microsoft/Apple/1974)
- Proprietary Local area networks (LANS)
- Proprietary Wide area networks (WANS)
- Internet/ARCNET/1969 (Internet Protocol/1981)

Next Generation: 2000<Present

- Standardized IP IAN (Internet/cloud computing/hosted)
- Standardized IP LAN (Converged premise voice/data networks)
Cat-5 cable or wireless