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BT ARCHIVES & HISTORICAL INFORMATION CENTRE

**IMPORTANT DATES
IN THE HISTORY OF
TELECOMMUNICATIONS**

ACTION LINE 01-356 7930

HISTORY OF TELECOMMUNICATIONS

- 1753 A letter from a correspondent with the initials 'C.M.' was sent to the Scots Magazine, and published on 17 February, predicted the electric telegraph and suggested a way in which such a telegraph might be worked.
- 1786 Luigi Galvani, professor of anatomy at the University of Bologna in Italy, observed electrical convulsion in dead frogs' legs when in contact with dissimilar metals.
- 1793 Ignace Chappe, a Frenchman, (a brother of Claude Chappe who invented a system of semaphore) first used the word 'telegraph' in April 1793. The word is derived from the two Greek words 'tele' meaning 'far' and 'graphein' meaning 'to write'. The name was later applied to the electric telegraph.
- 1794 Modern communications began with the early telegraph. The first working telegraph machine, constructed by Chappe, was a visual semaphore apparatus operated by three men which relayed messages along chains of towers on hilltops 5-10 miles apart, using a code of 96 semaphore signals. There was a system, similar to that used in France, operating in the UK but it took about 15 mins to transmit a message 70 miles, with the added problems of the 'English weather' causing many delays.
- 1800 Alessandro Volta, professor of the University of Pavia in Italy, announced his invention of the Voltaic Pile, the first electrical battery.
- 1819 Hans Christian Oersted of Copenhagen, showed that a wire carrying an electric current would deflect a magnetic needle.
- 1837 The 'five needle' electric telegraph was invented by Cooke and Wheatstone and worked by a current deflecting two out of five needles to point to a letter on a grid. The railway revolution stimulated the growth of telegraphy services and public services were introduced, though these largely ignored the rural areas.
- 1839 The world's first commercial telegraph line, using equipment invented by William Fothergill Cooke and Charles Wheatstone of King's College, London, was built between Paddington and West Drayton.

It was working to Hanwell by 6 April and was completed to West Drayton on 9 July.

This was also the first commercial use of electricity.

- 1841 Charles Wheatstone invented the first type printing telegraph.
This year he also proposed a time-division multiplex telegraph system.
- 1842 Facsimile transmission ('Fax') first invented by Alexander Bain (1810-1877).
- 1843 A message was sent by telegraph (the first telegraph line in the USA) from Washington to Baltimore by Samuel Morse.
Morse used equipment of his own invention which was totally different from that of Cooke and Wheatstone. (He also used what became known as 'Morse Code'.)
The line was not fully operational until 1 January 1845.
- 1849- The world's first central telegraph station was opened by the Electric
1850 Telegraph Company in Founders' Court, Lothbury in the City of London.
- 1850 The first telegraph cable was laid between England and France, this was also the first telegraph cable laid in the open sea and was laid by H.M. Tug 'Goliath' accompanied by H.M. Packet 'Widgeon'. It failed after only a few messages, but a successful cable was laid the following year.
- 1851 An Englishman, Thomas Russell Crompton devised the first armoured submarine cable which was laid between England and France.
- 1852 London - Paris submarine cable telegraph service established by the "Submarine Telegraph Company" using Cooke and Wheatstone's "Double Needle".
- 1853 London - Brussels submarine cable telegraph service established by the Chartered Submarine Telegraph Company.
- 1858 Lowestoft - Zandvoort cable laid providing telegraph communications with the Netherlands.
- 1860 Telegraph service opened with Germany.
- 1866 First successful transatlantic telegraph cable laid.
- 1868 Telegraph Act empowering Her Majesty's Postmaster-General to acquire the inland telegraphs of the United Kingdom.

1870 Inland telegraph system transferred to state ownership. Continental telegraph station set up in Little Bell Alley, Moorgate - afterwards renamed "Telegraph Street" (TS).

1871 Great Britain admitted to membership of the International Telegraph Union.

1874 Central Telegraph Office, London, transferred from Telegraph Street to General Post Office (West).

1876 The telephone was invented and patented by both Alexander Graham Bell and Elisha Gray in the USA.

Sir William Thompson (later Lord Kelvin) exhibited Alexander Graham Bell's telephone to the British Association for the Advancement of Science.

1877 The first commercial telephone instrument available in this country.

Mr W H Preece who later became Sir William Preece, FRS and Engineer-in-Chief of the Post Office, brought to this country the first pair of practical telephones.

Thomas Alva Edison invented the carbon transmitter for telephones.

1878 Telegraph Act gave Postmaster General full wayleave rights authorised after January 1, 1878.

Alexander Graham Bell demonstrated the telephone to Queen Victoria on the Isle of Wight with calls to London and Southampton...these were the first long distance calls in the United Kingdom.

The Telephone Company Ltd was formed to market Bell's patent telephones.

The first telephone led to the establishment of private lines linked together by means of public exchanges.

GPO provided its first telephones, obtained from Bell's UK agent, on rental terms to a firm in Manchester.

1879 The Edison Telephone Co. of London Ltd. was floated on 2 August with a capital of £200,000 to work the Edison telephone patents.

Daniel Connolly, T A Connolly and T J McTighe exhibited an eight line automatic telephone exchange at the Paris Exhibition.

The Telephone Co. Ltd., opened Britain's first public telephone exchange at 36 Coleman Street, London.

The same year the rival Edison Telephone Co. of London Ltd. started to operate with exchanges in Lombard Street and Queen Victoria Street.

1879 Oliver Lodge, an Englishman, transmitted wireless signals a distance of 150 yards.

Atlantic telegraph cable laid between Brest and St. Pierre for Compagnie Francaise de Telegraphs de Paris a New York.

1880 On 13 May the Telephone Co. Ltd. and the Edison Telephone Co. of London Ltd. were amalgamated to form the United Telephone Co.

On 29 January the first trunk line was introduced between Leeds and Bradford

1881 The Government authorised the Post Office to offer the public telephone as well as telegraph service.

The first Post Office Telephone Exchange was opened at Swansea on 23 March.

Atlantic telegraph cable laid for Western Union Telegraph Company.

1882 G L Anders of London patented a central battery system by which telephones could be supplied with electrical power from the exchange thereby making batteries at the telephone unnecessary.

W H Preece (Engineer-in-Chief and Electrician 1892-1899), experimented in wireless telegraphy between Southampton and Newport, Isle of Wight.

1884 The birth of the public call office.

L M Ericsson of Sweden combined the transmitter and receiver to form the earliest telephone handset.

1885 The Post Office reduced the charge for telegrams to sixpence for twelve words and embarked on a vast programme of expansion.

1886 Dane Sinclair invented an automatic line selector which was installed at Coatbridge near Glasgow.

In this year fifty million telegrams were sent compared with 33 million the previous year.

1887 An Englishman, Oliver Heaviside, propounded the theory that the effect of the large electrostatic capacitance of cables could be minimised by increasing their inductance. This led to the successful development of long-distance telephone cables.

1888 Heinrich Hertz, a German, successfully transmitted electro-magnetic waves, that is, radio waves, proving that they could be reflected and refracted, thus confirming the mathematical theory of James Clerk Maxwell.

- 1888 Almon Brown Strowger, an undertaker of Kansas City USA, built the first automatic telephone selector capable of being interconnected to form a large exchange.
- 1889 The United Telephone Co. and its subsidiaries were amalgamated to form the National Telephone Co.
- Post Office acquisition of the Submarine Telegraph Company's Anglo-continental circuits.
- 1891 The first telephone cable was laid by HMTS 'Monarch' (No 1) between England and France enabling telephone conversations to be made between London and Paris.
- Continental telegraph "Cable Room" transferred to Central Telegraph Office.
- 1893 Hughes duplex telegraph installed between London and Paris and Rotterdam.
- 1895 78,839,600 telegrams dealt with in the United Kingdom.
- 1896 The Post Office took over the trunk telephone lines of the United Kingdom in accordance with a government decision of 1892. £459,114.3.7d was paid in compensation.
- The telephone dial was invented by the Americans E A Keith, C J Erickson and John Erickson.
- June. Guglielmo Marconi, an Italian, called upon the Engineer-in-Chief of the British Post Office to demonstrate his new system of "telegraphy without wires".
- August. Post Office permitted Marconi to experiment on Salisbury Plain and other places with wireless apparatus.
- 1897 Marconi Wireless Telegraph Company formed.
- London - Paris Baudot multiplex installed.
- States of Guernsey granted a licence to operate a local telephone service.
- 1897-1912 Anglo-continental telegraph routes gradually converted from "Hughes" to "Baudot" working.
- 1898 Britain's first long-distance cable was laid between London and Birmingham. This cable was normally used for telegraphy but was also used experimentally for telephony.

- 1899 South Foreland, Kent communicated with Boulogne-sur-Mer by wireless telegraphy.
- 1900 Order for manufacture of Canada-Australia Cable given to Telegraph Construction and Maintenance Company.
- Contract for construction of Pacific Cable signed.
- The first large central battery type exchange in Europe was installed in Bristol.
- 1901 On 12 December, Guglielmo Marconi, transmitted the first radio signals across the Atlantic from Poldhu in Cornwall to Signal Hill, Newfoundland.
- Inductance was added experimentally to the London-Birmingham cable laid in 1897-1898 applying the theory of Oliver Heaviside of 1887.
- F G Creed (founder of the firm of Creed & Co. of Croydon), developed a receiving reperforator enabling telegraph signals received from line to be recorded in the form of perforations in a paper tape at speeds of up to 200 words per minute.
- Atlantic Cable laid for Commercial Cable Company.
- GPO opened a telephone service in London and extended its operations; it then decided not to renew the licences of other telephone companies in the rest of the UK except Hull.
- 1902 Wireless messages transmitted between ships and shore at more than 1,500 miles.
- First message transmitted across the Atlantic.
- 1903 Telephone service opened with Belgium.
- 1904 John Ambrose Fleming, an Englishman, invented the thermionic valve.
- Wireless Telegraphy Act passed conferring licensing powers on the Postmaster General.
- 1906 Twenty-nine countries formed the International Radiotelegraph Convention. (Later known as the International Radiotelegraph Union.)
- 1907 Lee de Forest of the USA added a grid to the Fleming valve and showed how it could be used for amplification.

- 1907 Charles L Krumm and his son H Krumm introduced the first stop-start type of telegraph. This instrument known as the 'teletype' used a typewriter keyboard for direct sending and a 5-unit code with stop-start signals, as used by modern teleprinters.
- 1908 The Post Office opened its first ship-to-shore radio station at Bolt Head in Devon.
- First International Conference of Telegraph and Telephone Engineers held at Budapest.
- International Telegraph Conference in Lisbon. Over 70 States and countries represented.
- 1909 Marconi coast stations transferred to the Post Office.
- 1910 First criminal (Crippen) captured by means of wireless telegraphy.
- 1912 On 1 January the Postmaster-General took over the National Telephone Co. and for the first time a unified telephone system was available throughout most of Britain. 1,565 exchanges were transferred of which 231 had more than 300 subscribers each; 68 were of the central battery type, most of the rest were of the magneto type.
- There followed a period of rapid expansion.
- In the next three years no fewer than 450 new exchanges were opened in places with no previous telephone service.
- On the 13 March, the Post Office opened Britain's first public automatic telephone exchange in Epsom.
- Wooden telephone kiosks introduced generally.
- 1913 The first long-distance telephone cable in Europe was laid between Leeds and Hull.
- Portsmouth telephone exchange transferred from the local authority to the Post Office.
- First "Keith Line Switch" non-director exchange with remote manual board opened at Chepstow.
- 1914 Cable laid between Dover and Dunkirk.
- Telephone service opened with Switzerland.
- Licence granted to the Hull Corporation to operate a local telephone service; covering 9 exchanges, with 9,126 stations and 197 call offices, transferred to the Corporation.

- 1915 Archangel submarine telegraph cable laid.
- 1916 The Post Office made the first effective use of amplifiers on telephone circuits when their research staff installed experimental repeaters in London to Belfast and London to Dublin circuits at Liverpool. A few weeks later, the first permanent repeaters were installed in the London to Liverpool cable at Birmingham.
- 1917 Bomb dropped by enemy aircraft struck Central Telegraph Office, London.
London - Halifax (Nova-Scotia) direct cable telegraph link established, using syphon recorders and Judd and Fraser direct printers.
- 1918 Ancillary phonogram equipment introduced.
- 1919 London - Berne telegraph communication opened.
- 1920 G A Campbell, an American, invented the anti-sidetone telephone circuit. In the older type of telephone circuit the power from the transmitter was divided between the line and the local receiver, so that the caller heard his own voice. This is called 'sidetone'. In the circuit which G A Campbell devised, this unwanted current is considerably reduced, leading to greater efficiency.

The Post Office commenced their long-distance radio-telegraph service to ships.

Private automatic branch exchanges introduced.

First wireless telegraph point-to-point service opened with the Continent.
- 1921 The first of the 'rural automatic exchanges', which were intended to give automatic telephone service to sparsely populated areas, was opened at Ramsey in the Peterborough Area. The name 'rural automatic exchange' was later changed to 'unit automatic exchange'.

Concrete telephone kiosks introduced, Kiosk No. 1.

London toll system opened.
- 1922 After a series of full scale experiments in which six different automatic telephone systems were tried, the Post Office decided to adopt the Strowger system as its standard. It had been thought that there might be difficulties using the Strowger system in very large cities such as London but this problem was solved when the Automatic Telephone Manufacturing Co. Ltd. of Liverpool, working in conjunction with the Post Office developed the 'director'. This is a piece of equipment designed to 'direct' telephone calls through the complex network of circuits linking telephone exchanges in large cities.

- 1922 London commenced transmitting long distance radio telegrams to ships at sea.
- First "Relay" system non-director exchange with remote manual board opened at Fleetwood.
- First teleprinter trials.
- Transfer to the Eireann Administration (then the Irish Free State) of 194 telephone exchanges with 19,037 stations and 553 call offices.
- Telephone service opened to the Netherlands.
- 1923 Licence granted to the States of Jersey to operate a local telephone service: 15 exchanges with 1,639 stations and 26 call offices transferred to the "States Department" of the island.
- London toll system extended to Brighton and Aylesbury.
- British Broadcasting Company received its licence and opened stations in London, Birmingham, Manchester and Newcastle-upon-Tyne.
- 1924 April 24. Telegram sent by the King at Wembley, London, round the world, via Pacific cable and Australia in 1 minute 20 seconds.
- First "Siemens No. 16" automatic exchange opened at Swansea.
- 1925 Prepayment coin collecting boxes introduced.
- 1925- "Beam" wireless telegraph service established with Montreal, Melbourne,
1927 Cape Town and Bombay.
- 1926 Voice-frequency telegraph working over inland telephone lines introduced experimentally.
- Telephone service opened with Germany.
- Rugby long wave telegraph transmitter, with world-wide range, brought into service.
- Baird demonstrated the television.
- 1927 Regular telephone service between Britain and the USA began on 7 January using radio.
- The first director exchange was used at Holborn, London.
- Telephone service opened with Austria, Denmark, Norway and Sweden.

1927 Cast-iron kiosks introduced.

London toll system divided between Toll "A" and Toll "B".

1928 The first high-frequency radio telephone link between Britain and the USA opened in June.

All Post Office extra-European telegraph services (including "Beam" wireless and the Imperial Atlantic Cable) transferred to Cable and Wireless, Limited.

Telephone service opened with Czechoslovakia, Gibraltar, Hungary, Italy, Luxembourg, Mexico, Portugal and Spain.

Creed's teleprinter No. 3 adopted as standard inland telegraph instrument.

Post Office standard non-director system introduced.

New York telephone basic rate reduced to £9 for 3 minutes' conversation.

London toll area extended to include Southampton, Portsmouth, the whole of Kent and Sussex, Reading, Bedford, Ipswich and Colchester.

1929 The development of the immersed electrode principle in transmitter design and advances in plastics technology, made it possible for the Post Office to introduce a new telephone with a plastic case and a handset suitable for all types of exchange.

The Post Office decided to adopt the teleprinter as the standard instrument for inland telegraph circuits.

Personal call service introduced.

Telephone service opened with Finland and Poland.

First 100-line unit (rural) automatic exchange (No. 5) opened.

Hand micro-telephone introduced (combined transmitter and receiver in one hand-set).

1930 Picture telegraph service between Central Telegraph Office and Berlin opened on 7 January. Services to other European cities soon follow.

The radio-telephone service was opened to Australia, Buenos Aires and Capetown.

Anglo-German picture telegraphy service opened. (Siemens-Karalus system.)

Motor cycle telegraph messages service inaugurated at Bournemouth.

Automatic metering up to 3d introduced on director exchanges.

1930 Manchester director area opened with the Ardwick, Collyhurst and Moss Side exchanges.

Four-frequency keysending at "A" positions in London.

Advice of duration and charge (ADC), at caller's request, introduced.

Control of toll traffic in London devolved upon local auto-manual switchboards.

1931 The page printing teleprinter (the teleprinter 7B) was introduced by Creed.

The first voice frequency telegraph system with 12 carrier channels was installed between London and Dundee.

Telephone service opened with New Zealand.

Channel Islands telephone cable laid.

First 200-line unit automatic exchange (No. 6) opened.

Engineering complaint and repair service made directly available to director subscribers by dialling "ENG" and to some non-director subscribers by dialling "97".

"Gamewell" street fire alarms introduced.

Birmingham director area opened with the Harborne, Northern and Victoria exchanges.

1932 The International Telecommunication Union (the oldest of the inter-governmental organisations which form the specialised agencies of the United Nations) was created from the International Telegraph Union and the International Radiotelegraph Union.

The Post Office introduced the Telex Printergram service.

The first ultra-short-wave radio telephone link, used as part of the inland telephone network, was set up across the Bristol Channel, over a distance of 13 miles.

The first submarine cable for carrier working was laid from Britain to La Panne in Belgium. It contained 120 wires arranged as 4-wire circuits and provided ninety telephone circuits using one-plus-two carrier equipment.

The Post Office introduced trunk service on demand, relieving telephone users of the need to book trunk calls in advance.

The Post Office introduced telephones with anti-sidetone induction coil (see 1920 entry).

1932 The first British experiments in carrier telephony were carried out using the London-Derby cable.

In August 1932 the first large centralised Directory Enquiry Bureau was opened.

Telephone service opened with Canada (direct), South Africa and USSR.

Sleeve-control switchboards introduced.

Police telephone and signal systems - standard switchboard introduced.

First "Strowger" type non-director exchange with remote manual board opened at Horsforth.

1933 Imperial Chemical Industries Ltd. discovered Polyethylene, or Polythene, as it has become known. This material, because of its low dielectric constant, became widely used for submarine cable insulation and for many other purposes in telecommunications.

Telephone service opened with India, Northern and Southern Rhodesia, and Turkey.

Phonogram work transferred from telephone to telegraph staff.

"Demand" trunk service extended to group centres.

First 9-channel (bothway) voice frequency telegraph system (using a 4-wire telephone circuit) brought into service.

1934 H S Black, an American, formulated the principle of negative feedback revolutionising the design of telephone repeaters.

On 1 October, the Post Office introduced cheap night rates for trunk telephone calls as part of the Kingsley Wood (the then Postmaster-General) plan for advertising and popularising the telephone.

Short-range radio-telephone service with coastal ships opened via Seaforth Radio coast station.

Transferred-charge service introduced on inland telephone system.

First ultra-short wave radio telephone link (London - Belfast) opened.

First ultra-short wave subscriber's circuit installed.

First 800-line unit automatic exchange (No. 7) opened.

1935 Telephone service opened with Japan.

First telephone multi-channel working (3 channels per open-wire circuit).

1935 First telegraph 4-channel bothway voice-frequency system using a 2-wire telephone circuit.

Teleprinter ancillary working introduced.

First standardised 100-line unit automatic exchange (No. 12) opened.

Kiosk concessions (a) Jubilee - provision in every village with a Post Office and (b) Tercentenary - provision in villages without a Post Office, under certain conditions.

1936 A specially designed 12-channel carrier cable between Bristol and Plymouth was laid by the Post Office.

The Post Office laid the World's first coaxial telephone cable between London and Birmingham.

First telephone 4-channel system established over existing underground cables.

"Pip" tone signal provided on timed calls.

"Country satellite" exchanges introduced.

Ultra-short wave radio link established with the Channel Islands.

Speaking clock (TIM) introduced in London.

Kiosk No. 6 ("Jubilee" model) introduced.

Two-frequency trunk telephone signalling and dialling trials.

Anglo-Continental telex service introduced.

Call queueing, with cyclic distribution, introduced at larger directory-enquiry bureaux.

1937 The '999' emergency telephone service was introduced in London and later extended throughout the country.

First submarine co-axial telephone cable opened to Holland carrying 16 channels (1 4-channel system plus 1 12-channel system).

First 12-channel carrier telephone system on special carrier cable opened between Bristol and Plymouth.

First standardised 200-line unit automatic exchange (No. 13) opened.

Glasgow director area inaugurated with the opening of Halfway exchange.

London trunk director exchange opened.

- 1938 The first Administrative Telegraph and Telephone and Radio Conferences of the new International Telecommunications Union was held in Cairo.
- Pulse Code Modulation (a telephone transmission system) was invented by an Englishman A H Reeves.
- London - Birmingham co-axial cable brought into use, carrying 40 circuits initially with wide band working.
- First standardised 800-line automatic exchange (No. 14) opened.
- 1939 "Two-frequency" inland trunk signalling and dialling introduced.
- Teleprinter working introduced on the Anglo-continental telegraph cables.
- Defence teleprinter network opened.
- First mobile unattended automatic exchange put into service.
- 1940 Private manual branch exchange switchboard "1A" introduced.
- London - Birmingham co-axial cable extended to Manchester.
- Central Telegraph Office suffers serious German bomb damage on 29 December.
- 1941 Telephone 12-channel carrier system standardised.
- Liverpool director area inaugurated with the opening of Advance exchange.
- Telegraph zone-centre decentralisation scheme inaugurated.
- 1942 Shared service introduced on automatic exchanges.
- First VHF radio multi-channel telephone link converted to frequency modulation.
- Toll "A" automatic exchange opened.
- 1943 The first submerged repeater was laid. It was inserted in a submarine co-axial cable between Anglesey and the Isle of Man.
- 1944- Introduction of inland teleprinter manual switching scheme.
1948
- 1945 The West country space expert, Mr Arthur C Clarke, in an article in the 'Wireless World' was the first to suggest using synchronous satellites for communication.

- 1945 Direct Anglo-German polythene co-axial submarine cable laid.
- Post-war re-opening of some continental telephone and telegraph and trans-Atlantic telephone services: London - New York basic rate £3 for 3 minutes' conversation.
- 1946 Gradual re-opening of continental and overseas telephone services.
- Submerged repeater inserted in Anglo-German cable.
- Cabinets and pillars used for subscribers' local cable schemes.
- 1947 Anglo-Dutch polythene co-axial cable laid.
- 1948 The Bell Telephone Laboratories, USA, announced the invention of the transistor.
- International teleprinter alphabet No. 2 adopted for the inland telegraph service.
- Anglo-Belgian submarine co-axial cable laid.
- Shared service made obligatory for all new residence applicants and for removing residence subscribers.
- Phototelegraph service with Europe re-introduced for the first time since the beginning of the war.
- 1949 Introduction of radio-telephone service with ships in the Thames Estuary.
- Tercentary scheme for provision of telephone kiosks abolished: rural allocation scheme introduced, whereby kiosks allotted to rural areas and installed where recommended by rural local authority whether likely to prove remunerative or not.
- London - Birmingham television radio relay link opened.
- Phonogram automatic-distribution equipment installed at Newcastle-upon-Tyne.
- 1950 The first long-distance television cable was brought into service in October between London and Sutton Coldfield.
- Control of Cable and Wireless Ltd.'s overseas telegraph services from the United Kingdom transferred to the Post Office.
- Edinburgh "director area" inaugurated with the opening of Central and Fountainbridge exchanges.
- Four submerged repeaters fitted to a cross-channel cable, in tandem.

- 1950 First phase of teleprinter automatic switching scheme introduced.
- Anglo-Danish submarine co-axial cable laid.
- Private automatic branch exchanges Nos. 1 and 2 introduced.
- Field trials of pressurisation of trunk and junction cables radiating from Leatherhead.
- 1951 Post Office research engineers evolved an entirely new type of deep sea telephone cable. Known as lightweight submarine cable it had a steel strand in the centre instead of the conventional layer of steel armour wires on the outside. This lightweight type of cable was both cheaper and easier to lay.
- Telephone Act passed, enabling the Postmaster-General to fix rental charges, etc., by Statutory Regulation.
- Birmingham - Manchester television co-axial cable brought into use.
- 1952 New telex network opened for Government departments only.
- 1953 Agreements were signed on 1 December between the British Post Office, the American Telephone and Telegraph Company, the Canadian Overseas Telecommunication Corporation and the Eastern Telephone and Telegraph Company for the provision of the Transatlantic Telephone Cable.
- Pressurisation of trunk and junction cables introduced.
- 1954 A new inland Telex service was established using a separate network integrated with International Telex circuits.
- A submarine telephone cable was laid between Aberdeen and Bergen, Norway. This cable, 300 nautical miles in length was, at the time it was laid, the longest submarine cable in the World.
- The cable was laid by the Post Office cable ship HMTS 'Monarch' (No. 4).
- Teleprinter Automatic Switching scheme completed.
- A new Directory Enquiry Service which included the use of the London Postal Area printed street directory came into operation in January 1954.
- 1955 First cordless switchboard opened at Thanet exchange.
- Last PO inland morse telegraph circuit recovered (between Barra and South Uist in the Outer Hebrides).

1956 The first transatlantic telephone cable was laid between Oban in Scotland and Clarenville in Newfoundland, a distance of 2,240 miles. After crossing Newfoundland, a further submarine cable was used to complete the connection to the mainland of North America, some of the circuits terminating in Canada and some in the USA. The Post Office cable ship HMTS 'Monarch' participated in the lay.

Introduction of the Weather Forecast Service and the Test Match Information Service.

1957 Introduction of Road Weather Information Service.

1958 On 5 December, her Majesty the Queen inaugurated the Subscriber Trunk Dialling service by making a call from Bristol Central telephone exchange, the first to have STD facilities.

The first automatic Telex exchanges were opened at Shoreditch (London) and Leeds.

Introduction of Group Charging of telephone calls.

Introduction of Teletourist Information Service in London in English (24 hours) and in French and German (7 pm - 11 am).

1959 The trans-Atlantic telephone cable (TAT2) was laid by the Post Office cable ship HMTS 'Monarch'.

First Pay-on-Answer Coin Box (STD) introduced at Bristol.

Car radiophone service for vehicle users opened in South Lancashire.

Freephone Service made available to subscribers in any part of the country.

1960 The conversion of the Inland Telex service to automatic working was completed.

Introduction of Credit Card service for inland and overseas telephone calls.

Introduction at Bristol of new engaged tone, to conform with International standards.

First direct cable link between United Kingdom and Sweden.

Cable pressurisation scheme extended to include local cables from exchanges to cross-connexion cabinets.

1961 The Anglo-Canadian cable (CANTAT 1) was laid by the Post Office cable ship HMTS 'Monarch', as the first section of the submarine telephone cable network linking the Commonwealth. This was the first time that the lightweight submarine cable, developed by the Post Office in 1951, was used in service.

Post Office Act, 1961 - to separate the finances of the Post Office from the Exchequer.

Introduction of Recipe service in Birmingham.

Introduction of radio telephone service from aircraft.

London terminals of Western Union, Commercial, and Great Northern Cable Companies connected to TAS network.

1962 The Post Office Satellite Communications Station at Goonhilly Downs began working. The station was designed to track communication satellites and, through them, transmit and receive telephone, telegraph and television signals. The station used a British designed dish-type aerial which was the first of its type. Dish-type aerials were later adopted throughout the World for satellite communication. The station took part in the first trans-Atlantic television transmission made via an artificial satellite - Telstar.

Telstar was the first broad-band active communications satellite and was launched into orbit from Cape Canaveral on 10 July. It circled the earth once every 158 minutes at a height of between 600 and 3,500 miles. The day after it was launched, Telstar was used to transmit the first high-definition television pictures across the Atlantic.

An experimental electronic telephone exchange was opened at Highgate Wood (London).

Opening of the first telephone cable to Faroe Islands and Iceland (SCOTICE).

1963 On 8 March, International Subscriber Trunk Dialling (ISD) was inaugurated allowing London subscribers to dial Paris numbers.

The Commonwealth trans-Pacific cable (COMPAC) was laid between Canada and Australia.

The Post Office cable ship HMTS 'Monarch' participated in the lay.

Third Transatlantic cable opened between Britain and USA.

Introduction of operator dialling on telephone circuits between Britain and USA.

New cordless international telex switchboard opened in Fleet exchange, London.

- 1964 Datel services introduced, (Datel 100) enabling data to be sent over private telegraph circuits and the telex network.
- Trial pulse-code modulation (PCM) systems introduced on junction cables.
- First Crossbar exchange opened to public service at Broughton.
- First Small Automatic exchange (SAX) opened.
- 1965 INTELSAT 1 (Early Bird) the first commercial communications satellite was launched into a synchronous orbit of 22,300 miles on 6 April.
- The Prime Minister, Mr Harold Wilson, opened the Post Office Tower in London, Britain's highest building at the time. The Tower was designed to carry aerials for the Post Office micro-wave network covering some 130 stations throughout the country including the Post Office satellite earth station at Goonhilly; the Tower is the focal point of this network.
- The Tower and the four storey building below are equipped to handle 150,000 simultaneous telephone connections and provide 40 channels for black and white or colour television.
- Public Radiophone service for vehicle users extended to the London area.
- Datel services extended to enable data to be sent over private telephone circuits and the public telephone network; datel services subsequently available to a number of European countries and the United States of America.
- Trial installations of electronic equipment for telephone exchanges up to 2,000 lines brought into service at Leamington Spa and Peterborough.
- 1966 The first fully-operational production electronic telephone exchange in Europe (the first small-to-medium sized one in the World) was opened at Ambergate, Derbyshire. This was a TXE2 reed relay exchange.
- Change to all-figure telephone numbers commenced in the director areas (London, Birmingham, Edinburgh, Glasgow, Liverpool and Manchester).
- Dial-a-Disc service opened in Leeds.
- 1967 The final section of the South East Asia Commonwealth (SEACOM) cable linking Australia, Hong Kong and Singapore became operational.
- Overseas Telegraph Services new automatic relay centre opened.
- "Lincompex" a new type of radio telephony terminal equipment introduced on several overseas routes.
- 1968 The Post Office installed the World's first Pulse Code Modulation exchange at the Empress telephone exchange in London.

1968 First all-transistor 12 MHz (2,700 circuits) co-axial cable brought into use.

Kiosk No.8 introduced.

1969 The Post Office ceased to be a Government Department and became a Corporation on 1 October.

A second aerial at the Post Office Satellite Communications Station, Goonhilly Downs, was completed.

The station could then communicate simultaneously with satellites over the Atlantic and the Indian Oceans. In July, Goonhilly was the European terminal for the television coverage of Man's first steps on the moon at the time of the Apollo 11 moon landing.

Introduction of Financial Times Industrial Ordinary Share Index on the Telephone Information Service.

Intelsat communication satellites launched and stationed over the Pacific and Indian Oceans.

1970 The World's first telephone directories produced by a fully integrated computer printing process, were completed for the Post Office in January.

The International Subscriber Trunk Dialling service was extended to allow London subscribers to dial New York numbers - the World's first major Inter-Continental subscriber dialling service.

The 100th electronic telephone exchange (TXE2) was opened at Bawtry near Doncaster.

Tape Callmaker, a repertory dialler device, brought into service.

First public demonstration of waveguide digital transmission system.

1971 Trans-Atlantic dialling was extended. Six British cities: Birmingham, Edinburgh, Glasgow, Liverpool, London and Manchester were able to dial direct to the whole of the mainland of the USA by dialling 0101 followed by the USA area code and local number.

In July the Post Office announced the development of the one-plus-one subscribers carrier system by means of which two subscribers can speak simultaneously on one line.

Confravision, the World's first public bothway television system giving conference facilities to groups of people in different cities, was made available by the Post Office at its studios in Birmingham, Bristol, Glasgow, London and Manchester.

First direct submarine cable link laid between the UK and Spain.

1971 Transit Network opened with the connexion of Kingsbridge, Wolverhampton and Worcester.

1972 A third aerial was completed at the Post Office Satellite Communications Station at Goonhilly Downs, making the station the largest in Europe and the first in the world to operate simultaneous commercial services through three satellites.

The ten millionth telephone exchange line was installed in the United Kingdom.

Channel Islands telephone service became independent.

1973 The Post Office adapted the application of the hovercraft principle for moving pre-packed containers of submarine cable weighing up to seventy tons at their new Southampton cables depot.

The World's first experimental international Confravision link was set up by the Post Office between London and Sydney, Australia.

First electronic mobile exchange brought into service.

1974 The World's first commercial International Confravision service was opened between the United Kingdom and Sweden.

International Subscriber Trunk Dialling (ISD) was extended to additional countries including New Zealand making UK subscribers the first in the World able to dial the Antipodes.

New Transatlantic cable (CANTAT - 2) completed between Britain and Canada.

1975 Two new Post Office cables, the 'Monarch' and the 'Iris' were launched. These were the first cables in the World to be designed for rapid cable loading using the 'pan loading' system developed by the Post Office.

20 millionth UK and 5 millionth London telephone installed by January 1975.

1976 The Post Office opened the World's largest international exchange at Stag Lane, Edgware.

Centenary of the telephone 10 March 1976.

Telephone service to North Sea oil and gas platforms via micro-wave radio link (tropospheric scatter) inaugurated.

Last manual exchange (at Portree) closed. UK telephone system now fully automatic.

- 1977 Radiopaging service opened in London following successful trial in Thames Valley area.
- 1978 First telephone call in Europe using optical fibre transmission and first call using waveguide transmission.
- Prestel, the Post Office viewdata service launched on trial.
- 1979 International launch of System X at Telecom 79, Geneva.
- Code of Practice issued.
- Completion of introduction of STD throughout UK.
- Prestel launched in London - becoming the world's first public viewdata service.
- UK's first digital telephone exchange on trial in Glenkindie, Scotland.
- First electronic, microprocessor controlled payphone - the Blue Payphone - introduced.
- 1980 Inauguration of Euronet/Diane, the EEC-based information retrieval system.
- New name given to the telecommunications business - British Telecom - following government decision to separate Post Office operations.
- First System X exchange opened at Baynard House, City of London.
- First experimental optical fibre submarine cable laid in Loch Fyne.
- Datel Packet Switching Service introduced.
- Two new international telephone exchanges - Mondial and Thames - opened in London.
- Prestel service expanded to give nationwide coverage.
- First operational optical fibre link went into service between Brownhills and Walsall (West Midlands).
- 1981 Microfiche system introduced in Inland Directory Enquiry Centres.
- First System X local exchange opened at Woodbridge, Suffolk on 25 July.
- Prestel extended to Holland, Italy, Sweden, Switzerland and West Germany.
- Radiopaging extended to give virtually nationwide coverage.

- 1981 British Telecommunications - trading as British Telecom - severed its links with the Post Office.
- British Telecom offering telephones for sale or rent, opened eleven Phoneshops in major department stores.
- First cashless, card operated payphone - the Cardphone - introduced.
- First table-top renter's payphone introduced.
- 1982 British Telecom established Telecom Enterprises and Martlesham Enterprises, to exploit and market British Telecom products and expertise.
- Bureaufax (facsimile service via bureaux) extended to Japan.
- British Telecom Enterprises introduced BT Gold - an electronic mail service.
- IPSS (international packet switched data service) extended to Japan.
- New transatlantic cable TAT 7 laid.
- Telephone Showcase opened - an exhibition centre showing the development of communications from the earliest days to the present era.
- World's longest optical fibre telephone cable brought into service, between London and Birmingham.
- IDD (International direct dialling) facility made available to all remaining parts of the UK.
- First 'Transaction Telephones' installed in traders premises - a system which helps fraud prevention by enabling plastic credit payment cards to be checked via the data network.
- Largest single telecommunications project of its kind came into service when LIFFE (London International Financial Futures) system for the Stock Exchange opened.
- Telemessages (overnight delivery service) superseded the Inland telegram service.
- On 19 July the Government announced its intention to Sell up to 51 per cent of British Telecom to the public.
- 1983 Phototelegraph Service closed on 31 March.
- Microprocessor controlled Blue Payphone 2 introduced as major replacement for pay-on-answer public payphones. Also Payphone 500, a similar model for prestige renter's sites.
- Trainphone, the first public payphone on a train, introduced on a trial basis on services from Paddington to South Wales and the West Country. It operates via the British Telecom Radiophone network.

1983 New dish aerial at Goonhilly satellite earth station brought into use to provide directly-dialled telephone and telex calls to ships.

A milestone in broadcasting reached, when British Telecom made possible - via the Prestel viewdata service - an electronic opinion poll during a television drama programme. Viewers were invited to state the sort of ending they would like by answering key questions on a Prestel page.

Directly-dialled telex service extended to Shanghai.

Telecom Tan launched - an advanced message handling service.

World's most advanced electronic exchange - new generation System X - brought into service in Coventry.

Direct-dialling introduced for carphones.

British Telecom's first cordless telephone launched - the Hawk.

Display Page, Telecom's radiopager with digital message display, brought onto the market.

Telecom Red launched - a range of security systems using telephone lines to link customers' premises to emergency services.

Telemessage service extended to USA.

Purpose-built Telcare (Telecom Customer Attitude Research) centres opened, providing continuous and up-to-date measurement of customers' opinions, enabling Telecom to respond quickly to customers' needs.

Confertel, a new flexible and inexpensive way of holding meetings by telephone, introduced.

Bill to privatise British Telecom given its third reading in the House of Commons.

Direct dialling from ships introduced.

Itemised billing introduced on trial basis on trunk and international calls in parts of Bristol and Bath.

1984 Formation of British Telecommunications plc and 50.2 per cent of its shares made available to the public.

First United Kingdom digital international telephone exchange opened at Keybridge House, London.

Teleport - satellite earth station - opened in London's dockland.

British Telecom's first overseas office - in New York.

1985 Cellnet, the British Telecom and Securicor joint venture cellular radio service, launched.

United Kingdom first operational undersea optical fibre cable laid linking the Isle of Wight to the mainland.

Trials of the LinkLine 0800 and 0345 services begin and international 0800 service opened from the USA.

Singapore office of British Telecom opened.

1986 British Telecom acquires Dialcom, International Aeradio (IAL) and a majority holding in Mitel Corporation.

First Customer Services System (CSS) installation in service.

Directory enquiry service computerisation completed.

Tokyo office opened; shares listed on the Tokyo Stock Exchange.

First AXE10 digital exchange in service.

1987 Start of work on new transatlantic optical fibre cable - TAT8.

The world's first instantaneous translation of speech by computer was demonstrated by British Telecom's Research Laboratories.

Itemised billing introduced on trial basis in City of London for 6 months.

Manx Telecom Ltd. came into operation as wholly-owned subsidiary of BT on 1 January, with 20-year licence to operate the Isle of Man's telecomms system.

Major activities of BTI Marine Services transferred to a wholly-owned subsidiary of BT, known as BT (Marine) Ltd. on 1 October.

Electronic Yellow Pages (EYP) goes live on 8 January.

Video Map and Imaging System (VMIS) launched in June enabling extra graphics showing location of plant, equipment or resources to be superimposed on video maps, plans and photographs.

1988 British Telecom Overseas Division and the Government of Gibraltar formed a joint venture company to operate Gibraltar's overseas telecomms services from 1 January.

Iain Vallance, BT Chairman, switched on the country's first fibre optic network for the City of London on 27 January.

Itemised billing introduced in London as a permanent service.