

**TELEPHONE TALES: CONCERNS AND CONFLICTS IN
ADOPTION OF TELEPHONES IN COLONIAL
INDIA 1878-1923**

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CERTIFICATE

This is to certify that the dissertation titled "Telephone Tales: Concerns and Conflicts in the Adoption of Telephones in Colonial India 1878-1923", submitted by Medha Saxena is in partial fulfillment of the requirements for the award of the Degree of Master of Philosophy. This Dissertation is original and has not been previously submitted for any degree of this or any other university and this is her own work.

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ABBREVIATIONS

Pro	-	Proceeding/s
DG	-	Director General
CW-Tel	-	Civil Works – Telegraph
PWD	-	Public Works Department
NAI	-	National Archives of India
C & I	-	Commerce and Industry
Off	-	Official
Dtd	-	Dated

INTRODUCTION

“Such is the tiny Genie of the Wire that had to be protected and trained into obedience. The world was populous with its enemies. There was the lightning, its elder brother, striking at it with murderous blows. There were the telegraphic and light-and-power currents, its strong and malicious cousins, chasing and assaulting it whenever it ventured too near. There were rain and sleet and snow and every sort of moisture, lying in wait to abduct it. There were rivers and trees and flecks of dust. It seemed as if all the known and unknown agencies of nature were in conspiracy to thwart or annihilate this gentle little messenger who had been conjured into life by the wizardry of Alexander Graham Bell.”

- Herbert Casson, *The History of Telephone*, 1910

The telephone current had much more to fear than the conduct of its natural enemies in the weather and other man-made systems employing electricity. Technology was mediated through existing economic, political, social and legal structures in any given space. In India, the telephone had to negotiate with colonial space that was preconfigured with its own set of unique structures. The bureaucracy, the state, the local governments and the commercial bodies, all represented various vested interests that built the context for technological transfer.

Telephone has not been the subject of many researches the world over partially due to its ubiquitous nature. Krishnalal Shridharni's story on the Indian Telegraphs is an exhaustive account on the events and achievements of the Indian Telegraph Department. The study covers the telephone, wireless and radio also. Herbert Casson wrote on the 'History of Telephone' in 1910.¹ It was a linear, teleological, progressive, positivist analysis centred on the lifecycle of the phone. He used the metaphor of a living organism for the telephone. In the text technology moved forward in an invisible seamless progression, as a breathtaking modernizing force, powered by relentless capitalist instinct. Edward Bennett wrote on the

¹ Herbert Casson, *The History of Telephone*, A. C. McClurg & Co., Chicago, 1910

history of the British Post Office in 1912.² His work was dedicated to the variegated services provided by the Department. Telephone was considered as the definite future of communication and his narrative structured a defense for the decisions taken by the British Post Office.

Daniel Headrick wrote on telecommunications as a whole, within the gamut of imperial linkages, developed under the aegis of the colonial powers.³ Headrick read technology as the subtext of society – it was the sociological causes, development and consequences that interested him. Headrick did not essentialize the role of technology as invariably progressive or decadent. Technology, as a cause, stood more complicated as it was placed in opposition to human agency. Headrick dissected all the causes and segregated them into motives and means to diffuse the contest ensuing from this problem. History of imperialism, according to him, was best understood as a complex interaction between changing motives and means. Europe had been powerful before but technology and ambition combined to spread this power at very little economic cost. Karl Marx and others believed that transmission of technology should be the harbinger of great industrial progress. But change was not apparent in the colonies – traditional tropical economies were transformed into modern undeveloped ones.

Stephen Kern's work breaks out of previous models to bring together diverse sources that contributed to the construction of time and space and dealt to a great extent with technology.⁴ He explored the key developments of modernity through categories of time (past, present and future) and distance (space, form, distance and direction). At the confluence of these two variables was speed. The much celebrated technological revolutions were accompanied by lesser analyzed Cultural Revolution. Technological innovations such as telephone, wireless telegraph, x-ray, cinema, bicycle, automobile and airplane featured within the first category while independent cultural developments like stream-of-

² Edward Bennet, *The Post Office and Its Story: An Interesting Account of the Activities of a Great Government Department*, Seely Service & Co. Ltd., London, 1912

³ Daniel R. Headrick, *The Tools of Empire – Technology and European Imperialism in the Nineteenth Century*, OUP, New York, 1981 and *Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940*

⁴ Kern, Stephen, *The Culture of Time and Space*, Harvard University Press, Cambridge, Massachusetts, 1983

consciousness novel, psychoanalysis, Cubism, and theory of relativity shaped consciousness form the second category. A volume published in honour of hundred years of telephone by MIT, formed the first historically diversified account of the telephone.⁵ It analyzed a range of topics within the subject, from the anticipation the telephone created to how it was adopted by various countries, and forms of labour were employed. It is the most comprehensive survey in setting out large fields of enquiry within telephone history.

The sources for the subject were necessarily fragmentary in nature and created an incomplete but compelling picture. The sources of the current dissertation have largely been drawn from the bureaucratic discussions in Government of India and in particular the Telegraph Department. They provide an insight into the subject of how telephones became the space for contestation between private capital and colonial government. It becomes even more interesting considering the facilitative role, colonialism played for financial exploitation. The following questions have been addressed to first establish a narrative for the subject - How was telephone technology transferred to the Indian subcontinent? How did the system develop? What kind of peculiar politico-economic issues did it raise for the government with its entry? How was its progress hindered or facilitated by policy decisions and public perception?

Also accessibility was a function of economics. The high charges levied by telephone companies and Telegraph Department effectively kept it away from mass usage for a long time.

THE JOURNEY OF THE PHONE

The spread of any technology required a socio-political context conducive for its development and accessibility created by organized units of manufacturing and distribution. This, one could term, was the personal journey of an innovation from an inventor's desk to an inexpensively available useful technology. The growth and adaptation of any invention was staggered. It was adapted and appropriated to a specific context to which it was

⁵ Ed. Ithiel de Sola Pool *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

transferred. Technologies like telephony functioned most efficiently and productively within a wide network. They required daily upkeep of ever more complicated webs of wires looping over and snaking under urban landscapes. Even with obvious advantages over previous forms of communication, telephones did not really sweep the field communications instantly on their entry. Thereby hangs the telephone tale.

On the surface oral communication seemed a definite advancement on telegraphy or post. But each had its own appeal to users. And though they occupied similar spaces of work over time, they had some crucial differences that set them apart. The telephone was more accessible than the telegraph. It allowed more intimacy in conversation. It could be delivered in your own voice with its special tonal quality and what's more - you could receive an instant reply. No complicated codes were employed to create the message. Telegraphic messages reduced words to a bare minimum and made them sound cryptic. However, it could be a uniquely disembodied experience to have a conversation over the phone that seemed to drive the voice out its context. Telephone usage was also limited by imposed informality. Instantaneousness, informality, self-delivery and speed of this form of communication could shock Victorian etiquette by its abruptness. The trope of privacy and secrecy in transmission of messages pervaded all the questions raised with regard to the question in the bureaucracy. An operator could listen in anytime on purpose or accidentally in the daily course of her work. The telegraph was relatively more secure and protected hence the British Post Office made their preference for the telegraph very clear in the beginning. The case was the same with the British colonial government in India.

Upon receiving requests for establishment of exchanges, initially the Government took stringent measures to prevent the entry of private enterprise in a field exclusive to the State earlier. In November 1880, the two private companies by the names of Oriental Telephone Co. and Anglo-Indian Telephone Co. who wanted to establish telephone exchanges in British Indian territories were given the same response. The economic structure of the nascent technology was greatly debated. Arguments were made for and against monopolization and competition. The bigger question was what agency was to be employed to install exchanges? The Government or the private companies? Chapter 1 discusses this.

The bureaucracy was fraught with apprehension in the matter of telephones. Several issues emerged in this tussle between private players and the colonial state.. The state did not want to lose a good source of revenue. It did not want a rival institution to come up, which utilized a technology very close to the main instrument of networking information in the colony which was a state monopoly – the telegraph. . It was a technology that could be utilized to supersede the telegraph. There was, additionally, the fear that this move on the telephones in the colony would eventually push the highly prized telegraph system also into private hands. Secrecy was not ensured if private exchanges were allowed to come up. The distrust extended from private capital to the telephone itself as an instrument of communication. Since the switchboards were manned by operators to link together lines, they were always open for hearing and could become the weak link in the colonial state's information system. After many initial reversals the companies did manage to secure concessions from the Government and established exchanges in all the Presidency towns. The British Indian Government followed the example at home as a precedent. The dealings of the British Post Office played in a decisive role in a number of situations. But the Colonial Government never lost sight of its own agenda and pursued the matter with its own stringent regulations.

Thereupon evolved the legal and economic structure on which this new technology was positioned. Licensing was used a tool to regulate and limit the functioning of the companies. The companies themselves agitated a great deal and used the precedent of concessions obtained in England as the regular appeal to the colonial government in India. The licensing process itself was delayed over a long period of time for the negotiations never really ended between the two parties. Royalties, compensation for goodwill on compulsory purchase clause, limits of its operation, private telephone lines, and trunk lines were the main bones of contention before and after the licenses were created. Curiously, certain rules even allowed sending telegrams through telephones. Chapter 1 and 2 both partially deal with these matters.

The spotlight, however, went to the privilege of installing telephones for Government itself. Many bids were made to install the same and memorials were sent by the companies over the years to several quarters, but it remained a Telegraph Department stronghold for the most part. In the process evolved certain hybrid structures of exchanges, which may be maintained or constructed by the Telegraph Department or the companies and run by operators provided by the same department for which they were erected. Very many combinations existed in actual functioning of these exchanges.

The running of the exchanges was marred by several conflicts between the government (mostly represented by the Indian Telegraph Department) and the Private companies (led by Oriental Telephone Co.). The Company utilized the leeway obtained by its parent company in England (United Telephone Co.) to bypass the authority in Telegraph Department and the PWD to reach the Secretary of State. The Local Governments and local officials played role uncharacteristic of the Central Government to a large extent. The companies were able obtain more freedom with respect to their work as the decades went by.

The interstices of their relationship were fraught with the tension and conflict with each side attempting to address 'public good'. However, the public was never good with the options, charges and quality of service. Chapter 3 dwells on this. The Telegraph Department attempted rationalization of its charges from the turn of the century in its attempt to attract more subscribers to the service. Official attitudes went through a perceptible change towards the telephone as the decades went by. This was especially so once the colonial government decided unofficially to not support private enterprise anymore, possibly due to the fact that the British Post Office took over private telephone system in 1912. There were genuine attempts made towards promotion of the service but financial problems thwarted this process. Criticism surfaced openly in the early 1921 and later in 1922. Several questions were raised in the Legislative Assembly with respect to the telephones.

Since the nature of the sources limited the evaluation of general social attitudes amongst native Indians the last chapter in this work attempts to evaluate how the native came to the fore in these official debates. The dealings with native states were very important in this matter. They were also viewed differently in that they were perceived as politically more volatile areas. Though a legal or political intervention in this matter was not allowed for most states the colonial government kept a close watch on every exchange and every line that was constructed and for what purposes it was used. The group of native users that created a problem were Marwari businessmen who used these telephone services to carry on speculation and gambling. The few native companies that attempted to establish telephone businesses are also mentioned here. It is in dealings with these companies that it is seen that the government alters its earlier course of supporting the private enterprise.

CHAPTER 1

GOVERNMENT MONOPOLY VS PRIVATE MONOPOLY: Bureaucratic Discourse and Private Capital

The coming of the telephone gave birth to a colonial bureaucratic discourse within which all the fundamental principles of the new enterprise were formulated and interpreted. It afforded a new insight into the relationship between government and private enterprise in this period. When the private companies from Britain first arrived in India to establish a telephone exchange business in major cities, they were refused permission. The Government Telegraph Department considered this an infringement of its rights. It gave rise to a conflict that continued in myriad forms for almost the next sixty years.

The events in India ran parallel to those in England. The British Post Office was also in a quagmire with the entry of private telephone companies. The hostility between British Post Office and private companies was comparable in several ways to the case of the Telegraph Department and Government of India. But ironically, in the situation that materialized between private companies and the colonial state, it was the British Post Office that brought about a compromise. The arguments produced within the bureaucratic discourse raised numerous questions with regard to the economic structure. Was the telephone system to be a monopoly or not? Was it to be a state owned and controlled monopoly or a private monopoly? Or was a free rein to be given to private competition?

The economic structure to be adopted became a deeply contested terrain. Public-private polarization played out to the fullest. The state and private capital competed against each other to capitalize on the opportunity created by a new invention. The colonial state was sensitive to any changes in its communication system. It was within these contests, also, that the legal structures were evolved which could control the work and spread of the companies.

The third economic phase of colonialism was well under way at the time the proposals arrived for establishing telephone systems within British Indian territories.¹ But the history that followed their arrival did not fall into any neat category of imperial financial exploitation. The period from late nineteenth century to the end of the British rule was considered to be dominated by financial imperialism. Financial exploitation was carried out in this period with the establishment of banks, managing agencies and export-import firms. British private enterprise was generally facilitated by the colonial state in this period. But the telephone enterprise was a complex and problematic venture that stretched the colonial state to its limits. There was no collusion of the resources of the colonial state and the private enterprise here.

THE COMING OF THE TELEPHONE AND BUREAUCRATIC RESPONSE

Headrick thought of technological transfer as a dual process via which men and machines as well as attitudes and knowledge were deposited from one region to another.² Technological absorption was not automatic or inevitable, as he said, "Technology does not flow of its own accord from 'advanced' to 'backward' areas". Agents of transfer were those people who benefited from the spread of a certain technology. In Colonial India, private capitalists vied to be those agents of transfer along with the Government. The initial process of technology transfer was highly politicized. The following sections evaluate the beginnings of the contest between private capital and colonial state for telephones. The coming of the telephone made an interesting story that revealed a number of layers in the positions adopted by both the Government and the companies.

¹ R.P. Dutt, *India Today*, The three economic phases of colonial exploitation suggested in his work.

² Daniel R. Headrick, *The Tools of Empire – Technology and European Imperialism in the Nineteenth Century and Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940*

Telephone as Telegraph

In October 1878 the government received correspondence from Messrs Black and Murray, a firm selling telephone instruments. They wished to put up telephone lines in India for their private clients who bought telephonic instruments from them.³ They were well aware of the condition with regard to telegraph lines in India, which were under strict government control, but wanted to know if the same was applicable to telephone lines.⁴ They were refused by the Director General of Telegraphs in India for reasons published later in the *Supplement to the Gazette of India November 16, 1878*. The Director General of Telegraphs in India clarified the definition of the word “Telegraph” in the Indian Telegraph Act (Act I of 1876), in the *Gazette*. In this Act it was stated that “Telegraph” meant an “Electric or Magnetic Telegraph”. With the introduction of telephones in England a bill was brought before the Parliament which provided that

“In the construction of Telegraph Act, 1869, the term Telegraph shall, in addition to the meaning assigned to it by that Act, include any apparatus for transmitting messages or other communications with the aid of electricity, magnetism or any other like agency.”⁵

The Secretary of State held the same view as the Director General but he used an entirely different premise. The Secretary of State very clearly and succinctly stated in his response that “...this Act deals with a genus of which telephone is a species. Thus the Act of George II, which protects copyright in engravings, has more than once been held to extend to copies taken by the subsequent invention of photography.”⁶ In his view no amendment was required to change the definition of telegraphs to include the telephones in the Act. Moreover, unlike the English Telegraph Act, the Indian Telegraph Acts had a more blanket approach.

³ The opinion of the Government on the subject was published for all in the *Gazette of India* in the wake of this case. Letter dated 28th July 1881, Pro no. 54, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁴ Despatch from the DG of Telegraph dtd 14th Sept 1878, Simla, *Supplement to the Gazette of India November 16, 1878*.

⁵ It would be informative to keep in mind that Edward Bennett, the historian of British Post Office remarked that this bill was not accepted by the Parliament.

⁶ *Supplement to the Gazette of India November 16, 1878*

Engravings and photography were mediums of expression as diverse as chalk and cheese. Yet, the state thought it fit to extend the concept of absolute ownership from one medium to the next. Thus, the principle of copyright was extended in conceptual understanding to telephones and telegraphs. It was stressed by the Secretary of State that there was no real departure from this set pattern of rules.

However, there were two issues in conflict here. Copyright extended itself in the public domain to safeguard individual and group interests. Intellectual property, and the patents which had been secured by Alexander Bell, were cleanly co-opted by the state. Hence, while stressing the principle of copyright the state was itself in violation of the same. The state absorbed and appropriated the rights to a technology with a reference to an Act that had been enacted for individual interest. This was not just copyright – it was monopolization of a technology and of its future establishment and use. In doing so the English Government had effectively made a telephone into a telegraph - legally. It was simultaneously elevated in terms of importance as a means of communication by being made into a telegraph and stripped of its revolutionary potential. The analogy drawn out with photography and engravings was misplaced. Also, at no time could photographs be described or legally defined as engravings.

The above response was not strange considering the mixed reactions the telephone received in America, Europe and Britain itself. The telephone was initially seen as a toy and later came to be seen as an instrument with excellent prospects for communication. Sidney H. Aronson; Asa Briggs; Jacques Attali; and Yves Stourdze; and Colin Cherry have each shown how the telephone was viewed in the months following its invention.⁷ It was both romanticized and trivialized by the interest it generated. Herbert Casson, who wrote on the history of telephones in the United States of America in 1910, charted the difficulties that surfaced both at the level of public acceptance and financial assistance, in the conversion of

⁷ Ed. Ithiel de Sola Pool *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

telephone from an oddity into a communication network.⁸ Casson argued that the British Post Office was unduly harsh in its terms on the telephone companies that wanted to install telephone exchanges. Charles Perry's work demonstrated that problems with the telephone were given as much space in the British press as its advantages.⁹ A number of articles in the newspapers both represented the immense interest in the telephone and exhibited a skepticism that considered a telephone a toy-like, unimportant invention. For instance, this was reported in *the Times*:

In America, with long lengths of single wire, and a fine dry climate, the telephone may perhaps come into use practically. But in England, with most of the telegraph wires already overweighed, it is hardly likely to become more than an electrical toy, or a drawing-room telegraph, or at most a kind of electrical speaking tube.¹⁰

Perry argued that most new inventions had seen a certain amount of criticism and the telephone was no different. Initial disbelief was later transformed into appreciation. He believed that early historians of the telephone, like Herbert Casson, laid too much stress on the perceived lack of publicity of the telephone and the inability of the British Government to appreciate it as a means of communication.¹¹ Its differences with the telegraph were plain for all to see when it was introduced later. It became clear that it could not be contained within the definition of a telegraph. In other words, the usage of telephone as opposed to a telegraph was not very obvious and hence it was clubbed with the telegraph. In other words, it was because the uses of the telephone were initially not clear as opposed to the more familiar telegraph and that it was viewed in terms of the latter.

⁸ Herbert N. Casson, *The History of the Telephone*, A. C. McClurg & Co., Chicago, 1910

⁹ Charles Perry, *The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay* 'in Ed. Ithiel de Sola Pool *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

¹⁰ *The Times*, 21st August 1877, Pg. 8 as quoted in Charles Perry.

¹¹ Charles Perry, *The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay* 'in Ed. Ithiel de Sola Pool *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

The reigning market leader in communication in America, the Western Electric Co. was offered Bell's patents at 100,000 dollars. Its President, William Orton refused them with the comment, "what use could this company make of an electrical toy?"¹²

Transmission through the telephone was of poor quality and worked over only short circuits and sounds were uni-directional.¹³ Entertainment and information were the twin uses for telephone, before long distance conversation was perfected and was shown to be effective through lectures and exhibitions. Bell himself was clear of what he wished to achieve with the telephone but others and especially news writers expected radio type musical qualities from the telephone. Singing and reciting performances drove the lectures and presentations with the phone. The element of spectacle was deeply ingrained. The shared experience of telephone was more appealing to audiences.¹⁴ Radio telephony was one branch of telephony that had the properties of a letter and a newspaper in terms of privacy and information.¹⁵

The American Bell Telephone Co. was set up to capitalize on the invention. The patents for telephone (obtained from Bell himself) were challenged by the market leader in telegraph networks, the Western Electric Co. and other independent companies. Many independent companies came into existence at the time of the formation of American Bell Telephone Company, which led to long years of litigation till the Bell patents expired in 1894. There were six hundred lawsuits over eleven years.¹⁶ But America remained the country where telephones proliferated to the largest extent. Most of its towns were connected by the telephone in a few years after the invention. Rural telephony benefited after the expiration of Bell patents and coming of more independent companies. Communications in India were also set for similar shifts in operation and spread.

¹² Sidney. H. Aronson, 'Bell's Electrical Toy'

¹³ *Ibid.*

¹⁴ Asa Briggs, 'The Pleasure Telephone: A Chapter in the Prehistory of the Media', in Ed. Ithiel de Sola Pool *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

¹⁵ *Ibid.*

¹⁶ Herbert N. Casson, *The History of the Telephone*, Chicago, A. C. McClurg & Co., 1910.

The British Post Office was offered Bell's English patent as well, but the Post Office refused.¹⁷ However, Perry argued that the British Post Office took the invention more seriously than was commonly understood. Studies were done on the telephone technology in America.¹⁸ In December 1877, an agreement was made between the American Bell Telephone Co. that the Post Office would act as an agent for Bell telephone.¹⁹ The Post Office would lease out the telephone to public and would earn 40% from gross rental income. But soon, the American telephone company struck a partnership with its rival the Edison Telephone Co. to form the United Telephone Company in 1879. This combining of capital interests put the private telephone company squarely in the face of the Post Office. A struggle ensued that informed a greater part of the debate over telephones in India.

Several private entrepreneurs saw the potential in the spread of telephone which compressed time and space to connect people in the fastest way yet. In July 1880 Messrs. C. Stephenson & Co., a firm of telephonic engineers in England enquired of the Secretary of State for India, if private individuals or firms were permitted to lay down telephonic lines in India including Native States.²⁰ The Marquis of Hartington, Secretary of State, forwarded the same to the Government of India. Lord Ripon replied that not only had the subject received attention but that the conclusion had been published for all in the *Gazette of India*. At that stage it seemed that telephones would go the way of the telegraph and become another government monopoly. But the tussle between the Government and private enterprise was far from over.

¹⁷ Sidney. H. Aronson, 'Bell's Electrical Toy'

¹⁸ Perry, 'British Experience'

¹⁹ *Ibid.*

²⁰ Despatch from Secretary of State No.16 T of 15th July 1880. Aug 1880 3 -4 A, CW-Tel, PWD. The incident recounted in Letter dtd 28th July 1881, Pro no. 54, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

Proposals for Telephone Exchanges

In 1880, more telephone companies approached the government for permission to establish telephone exchanges in British Indian dominions. In October 1880, Mr. W.S. Hill, Manager in India for Anglo-Indian Telephone Co. Ltd. landed in Bombay to negotiate its fortunes for the establishment of telephones in the Bombay Presidency.²¹ At first he approached the Bombay Government to pass on his application to the Director General of Telegraphs and was “informed unofficially” that it would be forwarded with a favorable report. This never came through. Having failed there he handed his proposal to the Director General himself and to the Secretary of State for permission to establish a network “to embrace the whole of India”.²²

By his account, the Anglo Indian Telephone Company had its Head Office at Edinburgh and a capital of 300, 000 pounds in 60,000 shares of 5 pounds each of which many had already been subscribed to.²³ The Company wished to establish telephones through a Central Exchange System in cities where the subscriber base was large enough to warrant an exchange. The exchanges would be connected to each other via the central exchange which would run its wire web over poles and house tops in the city.

This appeal for a license was rivaled by a Messrs Sanderson and Co., solicitors for the amalgamated Bell and Edison’s Telephone Co. (called the United Telephone Co.). They formed the Oriental Bell Telephone Co. to commence business in India. On the basis of being “large capitalists” and experienced, by having established exchanges at most large English towns, they wanted to do the same in India.²⁴ They appealed that the other company ought not be given a “virtual monopoly” before their application was considered. They had been advised by officials at the India Office, Indian merchants and managers of the Indian railroads in London that such an enterprise would be met with much success.²⁵

²¹ He applied to the Government on 29th October 1880. Pro no. 1, Pro Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

²² Pro Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

²³ The *Times of India, Bombay* dated 28th Oct 1880 also mentions this amount.

²⁴ Letter dtd 29th Oct 1880, Pro 2, Dec 1880 No. 1-5 A, CW-Tel, PWD.

²⁵ Letter dated 20th January 1881, Proc. 24, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD.

The arrival of agents from England to establish these revolutionary new forms of communication was getting a lot of public attention in India. Public meetings were held and resolutions passed favouring the establishment of such exchanges.²⁶ The *Times of India* published a piece on the arrival of Clement D. Leggatt, the Director General for Oriental Bell Telephone Company.²⁷

The news item served to greatly increase public knowledge about these private companies and their business venture. Mr. Clement D. Leggatt (earlier represented by Sanderson and Co.) laid out his plan for a district telephone exchange in Calcutta before the Lieutenant Governor of Bengal and presented a proposal for connecting all the chief cities and towns of the Indian Empire before the Chamber of Commerce and public of Bombay, and the Viceroy in Bombay.²⁸

The Oriental Telephone Co. was, it seemed from the article, backed by enormous capital and had controlling stakes in their local counterparts spread over Europe and directed the local management also.²⁹ The Oriental was part of a network of commercial concerns fostered by the same capitalists that backed the American Bell Telephone Co. The Oriental had other sister concerns. In England and Ireland it was the United Telephone Co, the International embraced the European continent, the Colonial embraced the English colonies, the American Bell Company was situated in America and now they created the Oriental Bell Telephone Company for India.

The Oriental Bell Telephone Co. proposed to supply all the material, including the use of patents, and they themselves were to subscribe for 55% of the stock of the Company established for the Presidency of Bombay at par value. They would commence business as soon as they had a license and at least a hundred subscribers at the rate of 20 pounds per annum each. The Bombay Co. was to be started with a minimum capital of 60,000 pounds. The local associate would have to pay 30 pounds for the material-wires, equipments for the

²⁶ The *Times of India, Bombay edition*, 28th October 1880.

²⁷ The *Times of India, Bombay edition*, 28th October 1880.

²⁸ Letter dtd 16th Dec 1880, Pro. 14, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD.NAI

²⁹ The *Times of India, Bombay edition*, 28th October 1880.

central office, instruments consisting of a hand telephone, a transmitter and battery and a magneto belt for each station. An additional 30 pounds would be paid by each station for the usage of the invention. Thus, each telephone station was to cost the local company 60 pounds. Not only that, the Oriental Company would also supply a competent technical manager, a lineman and an instrument man with a business manager of local standing and nominate at least two of the local directors and one of the two auditors of accounts.

Hence, the entire apparatus, the capital and the policy measures would remain firmly in the hands of Oriental Telephone Company. According to Mr. Leggatt, two hundred companies had mushroomed on similar terms on the European continent in the previous seven months. The number of subscribers in England had increased several times over, from sixteen to 1,500, and the American Bell Company had also leased out a phenomenal number (150,000) of telephones. All of this data was borrowed from the documents of the company and therefore was only as credible as the company itself.

An official in the Telegraph Department of the Indian Government was of the opinion that these news pieces were being deliberately printed by the Agents themselves to whet the appetite of the public in this matter.³⁰ The amount of interest being generated by the agents was akin to the reception of the telephone elsewhere in the world as well. It was an object of curiosity. And here, as elsewhere the public sphere was being utilized to put pressure on the Government and draw it out. The Government, on the other hand, was unfazed and systematically avoided a direct public confrontation.

The Public Works Department (PWD) summarily rejected these appeals without any explanation.³¹ They wanted to establish telephones under the aegis of their own department. It is the official dialogue which reveals a number of issues involved in these proposals. Despite outward rejection the PWD had to work vigorously to avoid the entry of

³⁰ "I attach no great importance to the newspaper articles in favour of telephone exchanges, as they are clearly inspired by the Agent of the Company in question..." Col. Murray in Off Note dtd 1st Nov 1880 in Proc. Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

³¹ On 13th Nov both companies were notified of the wishes of the Government. Pro 3 & 4, Dec 1880 No. 1-5 A, CW-Tel, PWD.

private companies. There was inner turmoil when the department was faced with twin challenges of a new technology and commercial interests where it thought to have its own legacy.

Bureaucratic Discourse

In the discourse that emerged around the telephonic enterprise the bureaucracy introduced its own terms of reference. Rights over establishing telephone systems and the implied inefficiency of the Telegraph department were the two nodal points around which the whole debate was structured. Whether the public was demanding a telephone system and if a telephone system was workable in India were also considered, though these were clearly secondary to the above concerns. Post and telegraph had been under the canopy of the Government in India for long time by 1880. They formed the basis of the Government's sources of knowledge and control. In other words, they formed the nervous system of the Empire and served faithfully as its eyes and ears.

There was apparent commotion within the PWD. The question was how the private companies would get past the dictum of the PWD. An obvious recourse was to seek interview with the Governor General himself. The Directorate of Telegraph busied itself collecting arguments and reasons to avoid the deliverance of such important forms of communication into private hands.

There was a parallel debate running in England at the same time. Should monopolization or competition form the basis of the telephone business? Should it be publicly managed or privately managed? At this point the history of telephones, in both Britain and British Indian territories, marks a departure from the classical Marxist analysis of this period. In an era when private capital was considered to have flourished under Imperialism, the case of the telephone added complexity to the complexion of colonialism.

Col. R. Murray, the Director General of the Indian Telegraph Department discussed the various aspects involved in the privatization of telephone systems.³² He drew precedents from the injunctions regarding telegraph lines. Their installation was restricted to a state agency by Sir J. Lawrence, and his line of thought was subscribed to by Lord Mayo and Lord Northbrook subsequently. The Secretary of State at the time agreed with the Director General.³³ The Government wanted to cite precedents to legitimize the current restriction. The definition of telegraphs had been suitably expanded in scope to include telephones. The Director General himself was thoroughly convinced of the uselessness of changing this precedent. He adopted a proactive approach to ensure that the state “jealously guarded” the right to maintain the inviolate interest in and control of telegraph lines in India “from any attack”.³⁴

Col. Murray believed that Britain was lax in these matters as compared to other European countries which maintained a strict monopoly vis-à-vis telephones.³⁵ The Government of England had fallen into trouble by allowing private enterprise into communication. The matter had reached the Courts of Law for resolution. Col. Murray was aghast at the thought of the Government of England having to battle private companies for what he considered, its “right” in the first place.

Col. Murray also did not want the public to invest in the shares of these companies under the false notion that the companies might receive contracts. He did not feel the need in India for any such companies, for there would be none to avail of the facilities. Therefore, there was little chance for generation of profit.³⁶ In case such a need arose the Telegraph Department could fulfill the desired responsibility as it was well-capacitated in men and materials. Murray claimed that experiments were under way with different instruments for

³² Off Note dtd 1st Nov 1880. Pro Dec 1880 No. 1-5 A, CW – Tel, PWD, NAI

³³ “I agree with you in thinking that all lines of telegraph should belong to the State and be under direct State control!” as in Despatch No.28 of 17th June 1875.

³⁴ Off Note dtd 1st Nov 1880 in Proc Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

³⁵ The case vis-à-vis other countries seemed ambiguous since some officials say other countries have allowed private firms and others say they have been barred from communication.

³⁶ Interestingly it was borne out by later evidence that telephone did not have many takers due to its high price which in turn had been inflated by royalties and expensive establishment costs.

some months now. A telephone line was functioning for the Lahore Durbar. He elaborated that the technology was fast improving and “it seemed better to wait and avail ourselves of others’ experiences” than to accrue undue expenses to the department. Here the Department preferred a policy of waiting patiently before jumping into the fray.

As it happened the telephonic apparatus at this time was going through rapid technical refining and hence the telegraph department would have had to train its men in the latest developments before installing a telephone network. Additionally, the technology or lack of development of telephone technology was cited almost as an afterthought and as something incidental to the whole question of rights. The technology itself is hardly ever a term of reference in the larger discourse except in this minor incident.

Despite appeals of safeguarding public interest, the bureaucracy was limited in its work to obtaining and maintaining the agency of constructing the telephone system. There was comparatively little or no concern over how the telephone might function in the Indian climate or how it was to be worked over long distances to deliver clear voice. The Telegraph Department was a bureaucratic body concerned with technical matters. But other than a passing remark on technological pre-requisites it hardly ever concentrated on the technology. It hardly seemed like a matter of providing the better system of communication to the public. It was a pure matter of rights.

Col. Murray thought it “extreme unwisdom” to relax the government monopoly principle in the smallest degree – a stand previously endorsed by successive governments. Since the department was not inefficient or inept there was no need to engage private hands in the business. If, for whatever reasons, the Government decided to grant licenses, the conditions of royalty and function ought to be determined beforehand. The companies were considered completely incapable of erecting lines by themselves, so, Col. Murray suggested, that lines should be leased to them at private line rates. He was of the opinion that the government should impose a royalty equal to 10% on the gross subscription to the company, as was being proposed by the British Telegraph Department, if the case was decided in favour of

the government in England. If the lines were leased in this manner and royalty was charged then the Department would de facto be conducting the business.

There were other more moderate opinions in the bureaucracy. Capt. G. E. L. Marshall, Assistant Secretary to Government of India agreed with the Director General on the whole, but he thought that the correspondence from Gazette of India was not reason enough to refuse an English company permission to establish telephones in India.³⁷ He added other important reasons to the ones already stated by the Director General. He pointed out that the Telegraph Department was already constructing telephone wire between Government House, Parel and Bombay Secretariat, and between government offices at Simla. If the monopoly was given up the remuneration from 'private line' business would suffer and a "legitimate source of revenue will be lost though this could be compensated through royalties from the companies".³⁸

This loss of business was not just from the envisaged telephone networks but also from existing telegraph infrastructure. In India, telegraphs being a government monopoly, the investment in them was of equal importance. The revenue earned from telegraphs had grown from Rs 11, 45, 420 in 1865-66 to Rs. 24, 96, 455 in 1876-77. The total number of messages had increased from 312,001 to 1,109,036 in the same time period.³⁹ This made it a substantial concern. Similarly, it was understood that the British Post Office was guarding its telegraph system by preventing the entry of private firms in telephony. It had cost the Post Office a fantastic 5, 800, 000 pounds in buying out the business from private telegraph companies.⁴⁰ They clearly did not want a repeat of the same history.

The growth of telephone was both inhibited and benefited by the telegraph. The telegraph system was a well entrenched reliable technique for sending messages at the time the telephone arrived. There was a worldwide telegraph network already functioning efficiently

³⁷ Off Note dtd 1st Nov, 1880, Pro Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

³⁸ *Ibid.*

³⁹ Nov 1878 Vol I -7 (13), CW-Tel, PWD, NAI

⁴⁰ Perry, 'The British Experience 1876-1912'

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with the laying of 200 submarine cables.⁴¹ It also gave personalized service as an alarm, as financial and commercial life-line and for messaging, of course. Advances like multiplexing, automatic telegraphy, autographic telegraphy and others made it much superior to a telephone in the initial years.⁴² The switchboard for the telephone was also adopted from telegraph. Telephone became sophisticated for individual conversation only later.

Marshall believed that the best that might emerge from the entry of private companies on the field would be increased competition and hence increased efficiency for the public.⁴³ This was a flawed assessment as technologies like telephony were considered public utilities. Public utilities over time were considered most efficiently managed under centralization of the system. In other words they were deemed natural monopolies. Though the public is mentioned obliquely in Marshall's statement it compares with what Perry has to say for England. Perry noted that telephone was "seen as a practical invention that could service the public and a source of additional revenue". This stood true in the Indian context also.⁴⁴ William Preece, the Engineer-in-Chief for the Post Office in his memorandum believed that the telephone had many practical uses also and would accede well to the private wire business.⁴⁵

On 2nd November, the very day after these official notes were produced, a meeting was organized with Sir John Strachey, Hon'ble J. Gibbs, President in Council, Col. Murray, Director General of Telegraph, Deputy General of Telegraph and Captain Marshall, Assistant Secretary to Government of India. They clearly stated the following:

- 1) That the telephone business should be retained in the hands of the Telegraph Department, and

⁴¹ Sidney. H. Aronson, 'Bell's Electrical Toy'

⁴² Multiplexing was the ability to send several messages together over the line. Automatic telegraphy was going to eliminate the telegraph operator and his laborious staccato by sending messages to several places simultaneously. Autography was a technique being developed to allow messages written on an ordinary piece of paper to be transferred to a metal plate for transmission. Aronson, 'Bell's Electrical Toy'

⁴³ Off Note dtd 1st Nov, 1880, Pro Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

⁴⁴ Perry, The British Experience

⁴⁵ Perry, The British Experience

2) That it would be unadvisable to encourage private enterprise in this field.

It was stated as one of the reasons of the foregoing decisions that, once it was given to private telephone companies, the privatization of telegraphs (which at any rate was a very well laid out system of communication in India by that time) could not be prevented. The state machinery was deeply ensconced in this sector of the economy and the entry of private players jarred its boundaries. It's a rich contrast to the unbridled private financial investment pictured for this period in colonial history. The Government of India would have lost revenue by granting permission to private capital. That was one of the most potent factors buttressing the opposition of the government.

Telegraph lines, a government monopoly were, ironically enough, being ambiguously used by both sides as an alibi for their arguments. They formed one of the foci around which private players tried to build up their own case. Telegraph lines built anywhere were only to be maintained and operated only by the Telegraph department, though licenses could be granted for their private usage at a fee.

In characteristic entrepreneurial manner the Anglo-Indian Co. found a loophole in law to meet its goals. Its representative, Mr. W. L. Hill, demanded that, since the Governor General in Council had the right to grant the erection of private telegraph lines, he could certainly do the same with telephone lines if they came under the legal definition of telegraph. The government could easily circumscribe the geographical spread of the company.⁴⁶ Also he assured the authorities that the central exchanges would remain limited to one town and not connect to distant towns. To lay to rest Col Murray's, doubts he said that their capital was enough to commence business and they did not need to float shares in the local market. He added that initially the firm would have to grant free trial and advertise since the proposed system was completely new. The government would scarcely be willing to go such lengths as a private company would. Clearly, he took into cognizance the fact that the company was in competition with the government telegraph department.

⁴⁶ Telegram dtd 30th Nov 1880, Proc. 1, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel,PWD, NAI

In December 1880 the Oriental Telephone Co. bought out the Anglo-Indian Telephone Co. and became the sole private enterprise wanting to enter the field till Crossley telephone Co. made its appearance in latter half of 1881.⁴⁷ So it seemed that, whether or not the Colonial Government was interested in promoting a private monopoly, the Oriental had arrived with the definite agenda of occupying the market.

A deputation representing private capital met Mr. Gibbs, a member of Governor General's Council and he promised the company a "reconsideration" of the matter.⁴⁸ The *Indu Prakash*, an Anglo Marathi newspaper from Bombay, reported about the deputation on 6th Dec 1880. Referring to the reply given by Mr. Gibbs, the paper said it was hoped that no "short-sighted crotchets" would be allowed to come in the way of supplying the commercial community of Bombay with a most important instrument of communication which had been found to work with such success in other parts of the world. The work could not be as successfully and economically managed by Government as by private agency. Mr. Leggatt, according to the paper, had furnished himself with the best men, money and materials. It was hoped that Government would see their way to make this concession to him. This appeal from the newspaper did seem to confirm the earlier apprehensions from officials that public space was being used to create a support base for private enterprise.

On 17th December 1880, the Government of India received an urgent wire from Secretary of State, Marquis of Hartington bidding the Viceroy not to take any action without his prior reference.⁴⁹ S. A. Blackwood, Secretary, General Post Office London reminded him that the decision of the High Court of Justice in England (Exchequer Division) was impending.⁵⁰ It was with regard to the suit of Attorney General versus the Edison Telephone Company of London on Post Master General's right to telephone as part of telegraph. They did not want the Government of India to take any decision which might put their case in jeopardy as it

⁴⁷ Letter dtd 28th July 1881, Pro 54, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁴⁸ Letter dtd. 8th Dec 1880, Pro 16, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁴⁹ Proc. 12 dtd 14th Dec 1880, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI This was the response to the offer of reconsideration made by Mr Gibb's.

⁵⁰ Letter dtd. 8th Dec 1880, Pro 16, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

“might be construed as an admission that the telephone is not a telegraph.” It was reiterated that the Post Master General had taken these steps for “convenience of the public” and not to protect its own rights in this field. On the 21st of December the Court ruled in favour of the Crown. The last letter from the Post Office to the Secretary of State for India dated 23rd December 1880 brought the final judgment of the court:⁵¹

- 1) That telephone is a telegraph within the meaning of the Telegraph Acts
- 2) That conversations through a telephone are telegrams within the meaning of such Acts.
- 3) That the operations of the Telephone Exchange Companies are not within the exceptions of the monopoly of the Post Master General, as defined by the Telegraph Acts.
- 4) That the defendants have infringed such monopoly.

With this declaration, by its own admission, Britain became the first to call a telephone a telegraph. Casson wrote in obvious frustration that “Just as the first railways had been called toll-roads, so the telephone was solemnly declared to be a telegraph.”⁵² Casson was of the opinion that the Post Master General was incapable of handling a new system of wires since telegraphs were running in loss as well.

The Secretary of State was positive that these judgments would be appealed against, but, till that happened, no decisions could be taken with regard to the telephone question in India. Though the private telephone exchange system in existence in England was not going to be dismantled for the time period of the appeal, the Post Master General’s project of establishing telephone systems got underway. Two advertisements for it had already been

⁵¹ Letter dtd 23rd Dec 1880, Pro 16, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁵² Herbert Casson, *The History of Telephone*, Pg 61

published in London and another in a provincial newspaper on 20th December 1880.⁵³ They were offering telephones at the rent of 15/ within half a mile of Telegraph Office; 19/ beyond half mile and less than a mile and at proportionate rates for greater distances.⁵⁴ They would be able to send messages by wire also at the regular rates.

Alternate Opinions from Merchant Bodies and Local Governments

Besides bureaucratic opinion and the telephone companies there were two other variables of great importance in the discourse over establishment of telephone systems. One was the mercantile community and the other was the local governments. They were a potent force in the final outcome of the question of privatization.

The PWD directed the various Secretaries of Chambers of Commerce to acquire information on the sustainability of telephone network projects in the cities of Rangoon, Calcutta, Bombay, Madras and Karachi and their opinion on the matter generally. They wished to ascertain how urgently or otherwise these facilities were desired by them.⁵⁵

The various Chambers of Commerce replied with their particular situations as regards the telephone. The Bengal Chamber of Commerce predicted that, considering the general success of the telephone in other countries of Europe and America, it was most likely to get accepted here too and become extremely useful to the mercantile community.⁵⁶ It also mentioned that the subscription should not exceed Rs 20 a month and the government should not exclude the private companies from the scheme. In another letter dated 21st January 1881 it was said:

“Under all the circumstances, they trust the Government will speedily decide to leave the work to private enterprise, with such limitations as necessary; and they feel confident that, if this be done, the work will be carried out in a far more satisfactory

⁵³ Transcript of the advertisement in the Appendix I

⁵⁴ These rates changed to 14/ and 18/ respectively for provincial areas.

⁵⁵ Letter dtd 15th Nov 1880, Pro 4, Dec 1880 No. 1-5 A, CW-Tel, PWD, NAI

⁵⁶ H. W. I. Wood, Secr, Bengal Chamber of Commerce, letter dtd 30th Nov 1880– “its inauguration would probably result in gradual acceptance by the public” and “...after a time, be found a great advantage to the mercantile community”. Pro. 2 & 7, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

manner to all concerned than it can possibly be if Government maintain the monopoly and exclusive right to enter on the scheme.”⁵⁷

As against the Telegraph Department’s image of itself, the Chambers of Commerce repeatedly doubted the capacity of the government to undertake such work, since men were not as yet trained or the materials bought, whereas the Oriental telephone company had brought both. A groundswell of enthusiasm seemed to be building up among the business classes not just because the new device would speed up and facilitate their business but as a business opportunity. Krishnalal Shridharni had observed that the chambers of commerce were powerful bodies of merchants and were themselves looking at this field of business.⁵⁸ Interestingly, the Secretary to Government of Bengal remarked that Mr. Leggatt, Agent of the Oriental telephone Company had already found support in the mercantile community.⁵⁹ This support was cited by Mr. Leggatt himself later on.⁶⁰

The Bombay Chamber of Commerce was equally emphatic in saying that “...telephonic communication would be a boon to mercantile and general public”.⁶¹ The Madras Chamber of Commerce was concerned that the subscription rates should be moderate.⁶² The Kurrachee Chamber of Commerce was not as enthusiastic since neither the commerce nor the distances were big enough to warrant requirement of this facility.⁶³ They did not think that telephone exchange would be a financial success.

Kurrachee’s admission introduced moderation in the overwhelming positive response that the private companies were receiving. Some of the enthusiasm could also be an indication of

⁵⁷ Pro 7, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁵⁸ Krishnalal Shridharni, *Story of Indian Telegraphs: A Century of Progress*, published by the Indian Government on the completion of a century of working of the Telegraph Department in 1953.

⁵⁹ Pro 8, Letter dtd 17th Dec 1880 from Col F. S. Stanton, Secr. to Govt. of Bengal, PWD. Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁶⁰ Letter dtd 16th Dec 1880, Pro 14, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁶¹ J. Gordon, Secr, Bombay Chamber of Commerce, dtd 2nd Dec 1880, Pro 6, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁶² P. Macladyen, Chairman, Madras Chamber of Commerce dtd 8th Dec 1880 – “...if the subscriptions were moderate such an “exchange” would be regarded as very desirable by merchants of Madras” Pro 4, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁶³ G.J.Portlock, Secr, Kurrachee Chamber of Commerce, in a letter dtd 8th Dec 1881, Pro 3, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

the opinion-building exercise conducted by the company's agents at Bombay and Calcutta. Rangoon pointed to the lack of commerce for a central exchange.⁶⁴ However, it seemed like an advantageous replacement to the alphabetic signaling machines (ABC instrument) connecting numerous offices and mills. Rangoon's response also reflected on the existing need for private lines of telephone from the offices to the mills.

The very first private line was supplied by the Telegraph Department was erected in August 1875 between the Fort office of the Peninsular and Oriental Steam Navigation Co. in Bombay and its Mazgaon dockyard.⁶⁵ An alphabetical dial type instrument was used. The letters of the alphabet were arranged round a circular dial with a key opposite each letter and words were spelt out letter by letter by depressing the keys corresponding to the letter. The operation of the keys caused a pointer on the dial of the instrument at the other end of the line to move it, and stand at, the required letter until the next letter was signalled.⁶⁶ The mercantile community saw it as a replacement of the ABC telegraph.⁶⁷

Local governments played a crucial role in decision-making and often their opinions were different from, if not diametrically opposed to, Telegraph Department. The Lieutenant Governor for Bengal, Sir Ashley Eden suggested that it be best left to the company where they wanted to establish an exchange. It would remain constricted to big cities and their suburbs. An additional fee could be charged to check the competition from public telephone exchange (for telephone calls made by non-subscribers of telephone exchanges to subscribers) to telegraphs. The telephone network, he reiterated, was meant to pose no threat to the Government telegraph system just as the street tramways did not compete with the countrywide railways.⁶⁸ Clearly, it was no secret that the government feared for its

⁶⁴ J. Camell, Secr, Rangoon Chamber of Commerce in a letter dtd 10th Dec 1880, Pro 5, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁶⁵ Administration Report of the Indian Telegraph Department 1882-83

⁶⁶ Shridharni, *Story of the Indian Telegraphs: A Century of Progress*, Pg 86

⁶⁷ J. Camell, Secr, Rangoon Chamber of Commerce in a letter dtd 10th Dec 1880, Proc. 5, Pro Volume Feb 1882, No. 1 to 99 A, Civil Works-Telegraph, PWD.

⁶⁸ Pro. 8, Letter dtd 17th Dec 1880 from Col F. S. Stanton, Secr. to Govt. of Bengal, PWD. Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI. - "He would look upon them as bearing much the same relation to the Government telegraphs that street tramways bear to the Imperial system of railways."

existing telegraph infrastructure. Sir Ashley Eden adopted many avenues to assuage the fears of the bureaucracy.

Col. C.J. Merrimen, Secretary of the PWD of Bombay contested Col. Murray's assertion that other countries had allowed the telephone industry to be privately started since it required certain risk-taking factors.⁶⁹ He was convinced that telephone would be advantageous if "...it were placed at a moderate cost within the reach of the moneyed and the busy classes." The government carried the responsibility of utilizing public funds and so its execution would most certainly be onerous and delayed and the community would suffer if the government did not gauge the existing demand. He believed that the telephone was a wonderful new creation which "...has only to become known to be widely appreciated and employed".⁷⁰ And a private organization was the correct kind of organization to introduce and promote it. He says the following to that effect:

"Joint Stock enterprise, in periods of commercial prosperity, embraces scientific inventions, and, often at a loss to individuals, confers great benefit on the community."

Once they were successfully functioning, the government could always buy out the enterprise. Therefore, the capitalist structure of a private concern was shown to be a better organizer and manager of this kind of business considering the risks and effort involved. Col. Merrimen drew interesting parallels with other British colonies. These "popularly" elected governments, according to him, were clearly ahead in establishing communication networks with the mother country and other colonies. Telegraph and railways had been brought to every section of Australian colonies.⁷¹ In May 1881 while recommending

⁶⁹ Letter dtd 28th Jan 1881, Pro 9, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁷⁰ "The experience gained in the UK and in America shows that the invention has only to become known to be widely appreciated and employed" Letter dtd 28th Jan 1880, Pro 9, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD,NAI.

⁷¹ He narrated the following instance – "... the Government of South Australia- a comparatively small colony- out of its own resources laid a line of telegraph in 1869 across the continent of Australia (previously traversed without loss of life by only two individuals), connecting it with the cable of the Eastern Telegraph Company, in order that their community might be placed in the most direct connection with the rest of the world." The import of this message was to show that communications were generally given prime importance in every place as it benefited both the colony and the metropolis.

moderation of telegraph fees he added that telephone service would be a lucrative adjunct to local telegraph facilities.⁷²

As opposed to Col. Merrimen's view the Municipal Engineer and Secretary of Kurrachee, wrote in December 1880 that the establishment of telephone there would not be a financial success.⁷³ J.W. Handley, the Secretary to Chief Commissioner of British Burmah, also replied that they were not sure of telephone's usage unless the trial line had succeeded.⁷⁴ Major J. Pennycuick, Under Secretary to Government of Madras was of the opinion that it would be beneficial for public business to put government offices at large stations in touch with each other by telephone.

The opinions of local bodies of government and merchants served to provide another layer of opinion to the ongoing debate. Three prominent strains can be discerned in their thought processes. The first was the facilitation of commerce through a new communication device. The telephone was seen as a replacement of the ABC telegraph. The second was a palpable financial investment prospect. The promoting concern Oriental was very clear that it was looking for local participation in running the business. The company clearly delineated the method of operation in the *Times of India* article. The third was the canvassing and initial drive required for promoting the enterprise. It was widely believed that if telephony was to be promoted at all, it was best done through a private enterprise. A private enterprise could carry out the preliminary measures to popularize the instrument. Here again, negative opinion on private participation was present. However, their concerns were nowhere similar to that of the Government of India. Their refusal was more out of concern for the under-developed state of the phone, skepticism over its practical application and usability in their environment.

⁷² Letter dtd May 31, 1881, CW-Tel, PWD, NAI

⁷³ Letter dtd 24th Dec 1880, Pro 9, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁷⁴ Letter dtd 22nd Feb 1881, Pro 9, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

Grant of License

The next move in this altercation between private enterprise and the government was made by Oriental Telephone Co. A petition from the Oriental went out to the Marquis of Hartington, Secretary of State, tracing the development of their interest in India from the summer of 1880.⁷⁵ The Oriental told the government that at all times they had conceded to a control of post and telegraph over telephones. Other than this obsequious gesture, they were quick to remind government that the telephone exchange business could not function without the patents that the Company possessed.

The Oriental was in part doubtful of the efficacy of the telegraph service in India. They believed that the telegraph service in India was limited, did not pay its expenses and that it was unable to satisfy the customers due to vast distances and few offices. What was even more interesting was that the extract remarked that telegraph services were used sparingly by the Natives because of “distrust and suspicion of telegraph officials.”⁷⁶ So, while petitioning for concessions, the Company considered it fair to criticize the handling of the telegraph by the Government of India to have its point put across. The antagonism intensified a great deal by now.

On 17th March, 1881 there was a breakthrough and the Secretary of State wired sanction to allow the Government of India to grant licenses.⁷⁷ The reason behind the sudden thaw was the proposed agreement between Oriental Telephone Company’s parent company United Telephone Company in Britain with the Post Master General.

S.A. Blackwood, Secretary of British Post Office from 1880 to 1893 believed that the telephones should be state operated.⁷⁸ But the Post Office was not supported by the Treasury in its intentions to buy out the enterprise. It was the Treasury, according to Perry, that was most discouraging in the matter of hard competition. As per the Treasury it was

⁷⁵ Letter dtd 20th Jan 1881, Pro 24, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁷⁶ *Ibid.*

⁷⁷ Telgr dtd 17th Mar 1881, Pro 18, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁷⁸ Perry, *Ibid.*

inappropriate to canvass for support from the public and it refused to allocate the necessary funds in 1882. It emerged that the Treasury and the Post Office were at loggerheads with each other. But the Post Master General, Henry Fawcett was not willing to buy out expensive patents which had only seven years to run out.⁷⁹

Hence, the Post Master General had decided to license private companies to establish telephone exchanges in Britain on the payment of an annual royalty and liability of being bought after the expiration of a fixed term. The Secretary of State for India also issued orders that nothing must impede progress of communications in India. Private companies were given licenses. But, he additionally warned that the Government of India should guard against claims to monopoly, excessive extortion from the public and infringement of Government rights. But the tenor of the argument changed a great deal as now the Government was expected to adopt a facilitative role for the companies. The telephones were now presented as a “valuable auxiliary to the main system of telegraphs.”⁸⁰

On 7th April 1881, the Governor General in Council decided that licenses would be granted to companies for introduction and working telephones under the following three conditions:⁸¹

- 1) The licenses must not accord monopoly to any single company
- 2) The licenses must be confined to a telephone exchange within town or municipal limits, separate licenses being required for each town, the limits of which for telephone exchange purposes will have to be defined in each case in communication with the Local Governments.

⁷⁹ Perry, ‘The British Experience’

⁸⁰ Telgr dtd 17th Mar 1881, Pro 18, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁸¹ Letter dtd 7th April 1881, Pro 19, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

- 3) The license to any Company is not to interfere with the Government telegraphic or telephonic business, except as regards a telephone exchange which is not to be established by Government where a Company is ready to occupy the field.

Ostensibly, this was a victory for private enterprise, mainly for Oriental Telephone Co. Blackwood's original plan was to limit the number of exchanges to one exchange for each town. It required that different companies do not establish multiple exchanges in the same city. But, once asked to grant licenses, the colonial government wasted no time in changing its stance. It immediately launched itself into insuring public good by defend competition as against monopoly and regulating the spread of the Company's business. This was also a momentous decision considering that the association between public utilities and monopolies/competition and private concerns was being experimented with.

NEGOTIATIONS AND LEGAL CONCERNS ABOUT THE LICENSE

Once it was conceded that private companies would be allowed licenses a legal structure was needed to accommodate the whole scheme. The Government called for the assistance of the Solicitor to Government to create a general license for all future purposes under Section 4 of Act I of 1876 supplemented by a schedule defining its limits.⁸² Licensing turned out to be an arduous task which took months to complete. The license itself became a document of conflict and compromise. The terms and conditions were thrashed out between the Telegraph Department and the Oriental Telephone Co to create a bridge of common understanding as regards the rights of the company in India.

Originally the license was to be the same as the one granted to the United Telephone Co, the parent of Oriental Telephone Co., in England. But the negotiations were mired in endless legalities that pertained to the limits of a telephone exchange, how the royalties

⁸² Letter dtd 29th April 1881, Pro 29, Pro Vol Feb 1882, No. 1 to 99 A, CW-TeI, PWD, NAI

were to be paid, whether private lines would be included with exchanges, who would arbitrate matters between the government and company and so on. Telephony extended itself in a web of wires looping and hanging all across the urban landscapes but it could not as easily side-step issues of property and contract.

The Government did not wish to facilitate the companies beyond giving them permission to construct telephone lines and systems. But the question of property crept in at this juncture. Municipal property and private properties required separate permission. Initially licenses were not meant to cover permission for roads, land, ground and street - over or under which the wires were to be carried.⁸³ The private company had to obtain way leave permission at their own expense from legally entitled people or institutions. The royalty did not exempt the company from municipal and other rates and taxes. The Telegraph Act of 1885 inadvertently resolved this problem for the companies as well. The private companies benefited from the privileges which the Telegraph Department obtained in constructing lines. Both parties finally followed the same rules in terms of way-leave and taxes.

A legal difficulty emerged with the license in May 1881 when the Advocate General opined that the Governor General in Council could not grant the license in his own name. He was not a body corporate that could sue and be sued and he did not have the same powers conferred on him as the Post Master General had under English law.⁸⁴ It was a uniquely colonial conundrum. The Governor General who was being appealed to for the grant of licenses, in fact, did not have the power to grant any.

The Indian Telegraph Act (Section 4) gave the Governor General in Council the exclusive privilege to establish telegraph lines and vested in him the right to license any individual or Company to establish or maintain telegraph line in British India. By the 22 and 23 Vic., Cap. XLI, he could also enter into any contract for purposes of Act for better government of India (21 and 22 Vic., Cap. 106) and it was sufficient to use the designation of Secretary of State as

⁸³ Letter dtd 29th April 1881, Pro 29, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁸⁴ Letter dtd 20th May 1881, Pro 34, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

a party to such contracts.⁸⁵ The Secretary of State could sue and be sued as a body corporate. This, according to the Advocate General G. C. Paul, was not sufficient since Act I of 1876 allowed them to grant a license but not enter into a contract.⁸⁶ He did not think that even the Secretary of State could be given that authority. Also Act I did not authorize the sale of a license. It was termed sale since they intended to earn royalties from the contract. It could not be done even if the Act was amended.

The characteristic bureaucratic obsession with legal technicalities opened a Pandora's Box of troubles. Definitions and counter-definitions of the Governor General's scope of rights were articulated. W. C. Bonnerjee, the Standing Counsel believed that this was no purely commercial transaction and would have been an Imperial Undertaking if the companies had not offered first. So, according to the Standing Counsel this was indeed covered under the above mentioned Acts. Here again G. C. Paul differed in that he said that it was no different than taking up mining or banking for public good provided it also secured a profit to Government. However, the Governor General himself could not establish telegraphs passing over private property (except those of Railway Companies) and so he could not authorize others to do so.⁸⁷ The English Telegraph Act allowed usage of private property.⁸⁸ If the license holding companies in India carried their wires over private property they would be deemed trespassers.

So herein lay the evolution of legal precepts that were closely associated with the development of a new kind of technology. The complex relations between private enterprise and government were giving rise to these legal complications. It appeared that the Governor General in Council had no right to grant licenses, according to law. In effect, these licenses were contracts, open to arbitration and revocation and from whom royalties were derived.

⁸⁵ Letter dtd 27th June 1881, Pro 37, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁸⁶ Pro 50, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI .

⁸⁷ Opinion of Officiating Standing Counsel, W. C. Bonnerjee Pro 49, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁸⁸ Ibid. W. C. Bonnerjee reminded that the English Telegraph Act 1863 (26 and 27 Vic., 112), which was incorporated with the Act 31 and 32 Vic., cap. 110, enabled Telegraph Companies to go over private property and use such property for the purposes of their undertaking.

There were several reminders from the Agents of Oriental Telephone Co. that the licenses were being delayed. At every stage before and after the decision was arrived at to grant licenses the Company was insistent that it could arrange at once to establish communication by telephone in Calcutta and Bombay at least.⁸⁹ The delay, they said, was costing the company dear and the Calcutta community was being deprived of the facilities which were “now within reach of even semi-civilized populations.”⁹⁰ They had obtained a power of attorney to sign any agreement that was not less favourable than the one obtained in England from the Post Master General.⁹¹ The general impression created was that the Company had had a large staff of skilled men and necessary equipment since September and October of 1880 to commence work any minute.⁹² Though the government continued to supply preliminary drafts of the license to the agents of the company at every stage there was still much more delay than anticipated.

The delays were not just due to legalities. A number of times the terms were re-considered at the behest of the Board of Directors of the Oriental Telephone Co.⁹³ They wanted the goodwill created by the Company, in the course of obtaining and maintaining subscribers, to be compensated if and when the Government bought up the Company.⁹⁴ The Government was convinced that goodwill should not be granted.⁹⁵

Another important issue of conflict pertained to time for constructing exchanges. The Company was to be given 120 days (4 months) to begin work following the date of license or it could stand cancelled.⁹⁶ The Company thought that this was too short a time limit for commencement of work. This was inspite of all the show of preparedness earlier.⁹⁷ The Company wanted 12 months to begin work. The PWD thought that the time for opening

⁸⁹ Letter dtd 8th Mar, Pro 24, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁰ Letter dtd 9th July 1881, Pro 45, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹¹ Letter dtd 8th Mar 1881, Pro 24, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹² Letter dtd 20th Jan 1881, Pro 24, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹³ Letter dtd 18th July 1881, Pro 47, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁴ Letter dtd 18th July 1881, Pro 47, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁵ Letter dtd 6th Aug 1881, Pro 55, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁶ Letter dtd 29th April 1881, Pro 29, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁷ Letter dtd 18th July 1881, Pro 47, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

exchange for work was to be determined for each case separately.⁹⁸ The DG was convinced that the work actually took mere two months and a double of that was granted to the company already.⁹⁹ The public need not wait till it was convenient for the company to establish exchanges. If their material and men were ready the Company need not ask for more time. The Governor General charted middle course and granted 6 months to the companies.¹⁰⁰ The Governor General in Council was willing to permit work if the agents gave an undertaking. The Public Works Department and the Governor General were of the opinion that since concessions had been granted to the company there need not be any delay and that the government was reasonably liberal.¹⁰¹

The license about to be given to the company could not be transferred in any part to another entity.¹⁰² But a certain clause in the original British license allowed such transference. The agent from Oriental Telephone Co. at Simla, A. B. Chalmers believed that this referred to the sale of stock of an exchange to a local Company so that the subscribers could get an interest on the returns of the exchange and the operations could be looked over by a local Board of Directors while the original license holding company held the controlling stake.¹⁰³ The Government decided to not include this clause.¹⁰⁴ But the Board of Directors considered this too stringent compared to the English agreement.¹⁰⁵ The Government of India then accorded the Company the right to sell or sub-let portions of their property as in the agreement with the United Telephone Company (the parent company in Britain) but the Oriental was to remain liable to the government and no third party.¹⁰⁶

Col. Murray, the Director General of Telegraph was the representative of view against company managed telephone facility. In July 1881, he set out once more in very clear

⁹⁸ Letter dtd 6th Aug 1881, Pro 55, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

⁹⁹ Letter dtd 12th Aug 1881, Pro 62, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰⁰ Letter dtd 10th Oct 1881, Pro 63, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰¹ Letter dtd 18th July 1881, Pro 47, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰² Letter dtd 29th April 1881, Pro 29, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰³ Letter dtd 30th April 1881, Pro 29, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰⁴ Letter dtd 14th May 1881, Pro 30, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰⁵ Letter dtd 18th July 1881, Pro 47, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰⁶ Letter dtd 6th Aug 1881, Pro 55, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

manner why the terms of the license disputed by the company must not to be revised.¹⁰⁷ According to him, the rules ought to be adhered to as originally framed. The situation in British territories of India was diametrically opposite to that in Britain itself. The Government of India was not granting a monopoly in telephone business to the companies. So, according to Col. Murray, it was akin to the Government giving out tenders for certain public conveniences. If the companies were not willing to accept the given terms the Government could still perform the task of installing telephone exchanges itself. The Oriental Telephone Company had absorbed its rival, appealed for concessions and was still not prepared to establish the exchanges unless given what he thought was unreasonable amount of time. The United Telephone Co. in England had managed to acquire vested rights by establishing exchanges before an agreement was drawn up with the British Government. So it had more bargaining power with the British Government.

Col. Murray did not want the Indian Government to commit the same folly. The Director General was very succinct in his assertion that the Government of India had an upper hand in this matter and brought out the irony of the situation in the colony. The British Post Office was in a more compromised situation and had, previous to this, also spent a large sum on buying out private telegraph companies but the Government of India had been much more guarded in its approach. It had always held monopoly of the telegraphs yet in the squabble with the private companies it was made vulnerable by the dealings of the British Post Office. The Director General believed that if the time limit to start work was extended and they were allowed to sell portions of their rights they would obtain licenses for all towns and sell them as promoters to subsidiary companies at a profit to themselves.¹⁰⁸ The grant of licenses for so many cities would also prove that his Department was unable to fulfill the simple requirements of telephonic communication for the public. The Director

¹⁰⁷ Letter dtd 28th July 1881, Pro 54, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹⁰⁸ Letter dtd 28th July 1881, Pro 54, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI According to him if common terms and conditions were not published for all prospective enterprises in this field and meanwhile the Telegraph Department was barred from establishing exchanges in cities where they were interested then this was a very real possibility. He took it to an extreme to say that they could demand goodwill payment for those exchanges in existence and those not existing.

General seemed as concerned about being proved incompetent as about the monopolization and deterioration of telephone services.

With the grant of goodwill the government would be forced to re-purchase its own right and buy up obsolete or ineffective material. The Director General's experience with telegraphs was eminently etched in his memory. This had happened previously, according to him, with Bombay, Baroda and Central Indian Railway telegraph. The South Indian Railway Telegraphs Company was allowed to start working telegraphs in 1875 before an agreement was decided upon.¹⁰⁹ That agreement could never be concluded and the Directors could now make their own terms. Hence, there was "extreme danger" in permitting Oriental Telephone Co. or any other company this advantage over the government.

However, the Government of India and Public Works Department were not always in consonance with the views of the Director General. He was lightly warned that the Governor General in Council desired that "...no unnecessary obstacle should be put in the way of Companies willing to undertake the work."¹¹⁰ The license, it was conceded, would include permission to construct private lines within limits of license.¹¹¹ But the Director General pointed out that a company could limit itself to private line business after obtaining licenses for both private lines and exchanges. This contingency was not contemplated by the Government. There were no royalties or terms of notice with respect to private lines either. He wanted private lines to be removed from the license if only for "political reasons".¹¹² The Director General claimed that the companies in Britain were not allowed private lines. They would create an additional set of vested interests difficult to buy out. This would allow the companies to establish private lines over which government has no control and which could be a source of "political complication and danger" in the time of crisis.¹¹³

¹⁰⁹ Letter dtd 28th July 1881, Pro 54, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹⁰ Letter dtd 6th Aug 1881, Pro 55, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹¹ Letter dtd 6th Aug 1881, Pro 55, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹² Letter dtd 3rd Sept 1881, Pro 67, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹³ Letter dtd 3rd Sept 1881, Pro 67, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

This was the first instance in which the question of security is cropped up. It was remarkable that the bureaucracy almost never brought up the question of security and political danger considering that it held a lot of importance in a colonial set-up. Intelligence gathering was regularly done through the postal system as later with the telegraph system. But this matter was hardly ever discussed in this departure being made from government monopoly for telephones. The DG seemed more concerned with losing private wire business to the companies. And he appealed to political expediency almost as a last resort. Secrecy was to become a crucial issue very soon after the licenses were granted. It surfaced most strongly in the case of installing government telephones.

As for private line business, the Directors for Oriental Telephone Co. did not want to make it a condition for the license.¹¹⁴ Eventually the private line license was separated with conditions similar to those in exchange license.¹¹⁵ Only a company with an exchange license in an area could obtain licenses for private lines. Additionally, a license had to be obtained separately for each line and these lines would be sold with the exchange in case of a sale of a Company's business. A ten per cent royalty on gross receipts was charged, as in exchange licenses.

The PWD additionally mentioned that the open exchange system be included. The "open exchange" system was a novel concept. The term "open exchange" did not exist in the English licenses and the DG misunderstood it to mean an interconnected district exchange system.¹¹⁶ But the "open exchange" meant that public offices would be established which would allow a non-subscriber to call existing subscribers on payment of a fee.¹¹⁷

The Solicitors of the Oriental Telephone Co. suggested still other ideas. They wanted the provision of paid messages to be accepted at open exchanges to be delivered from other open exchanges. This was, predictably, not acceptable to the Telegraph Department. It would mean new advantage given to the company where none was mentioned in the English

¹¹⁴ Letter dtd 15th Sept 1881, Pro 74, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹⁵ Letter dtd 8th Nov 1881, Pro 83, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹⁶ Letter dtd 12th Aug 1881, Pro 59, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹¹⁷ Letter dtd 11th Aug 1881, Pro 61, Proc Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

Agreement. However, two years later the Secretary of State permitted sending written messages through telephone exchanges.¹¹⁸

ATTEMPTS AT PRIVATE MONOPOLIZATION

The Oriental Telephone Co. was a competitive company that was carving out an exclusive space for itself in British Indian territories to establish telephone systems. It had absorbed its earlier rival Anglo-Indian Telephone Co in December 1880. In July 1881 a third name had surfaced to request a license – the Crossley Telephone Co. The Crossley Telephone Co. had sold its rights in England to the United Telephone Co.¹¹⁹ In September of 1881, the Calcutta agents of the Oriental claimed that the Crossley was promising instant telephone exchanges and also that the Telegraph Department would support them in materials where they fell short.¹²⁰ The Oriental believed that the Telegraph Department was facilitating this unfair move while they were still waiting for the negotiations over the licenses to conclude even after so many months. They protested that it was grossly unjust if the licenses were granted for any of the several cities that they had themselves applied for. The telephone was an instrument that functioned only within a network. Rival exchanges would not connect each others subscribers and hence it would result in the failure of the entire system. And here they cleverly added that the royalties to the government would also reduce. In clarification the Telegraph Department said that the Crossley had indeed approached them. But they had only requested the terms of license for establishing telephone exchanges and terms on which Telegraph Department would rent wires, and no assistance had been promised to them.¹²¹

The Oriental Telephone Co. also claimed that the Crossley had, in fact, published a prospectus in the name of Calcutta Telephone Co. It stated that Government had consented

¹¹⁸ Pro Nov 1883, No. 1 to 3 A, CW-Tel, PWD, NAI

¹¹⁹ Letter dtd 28th July 1881, Pro 54, Pro Vol Feb 1882, No. 1 to 99 A CW-Tel, PWD, NAI

¹²⁰ Letter dtd 7th Sept 1881, Pro 69, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹²¹ Letter dtd 9th Sept 1881, Pro 69, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

to construct necessary wires for it. The Agents for Oriental believed “it was calculated to do the Oriental Telephone Company very great harm...”¹²² This complaint was as much against the Telegraph Department as the Crossley. The Director General disallowed Oriental from publicly contradicting contentions made by Crossley. The Director General felt he could erect any lines he was asked to under private lines.

The Oriental registered a vehement protest that the “result practically would be to shut this Company out of the place by reason of a Government network of lines.” So while the Oriental had to run from pillar to post to obtain sanctions from local government the Crossley would circumvent all problems by using Government aid in what they called “surreptitious manner”.

The Secretary wired from London to find out the course of proceedings as he did each time matters reached a head in British India. He was duly informed that no such aid was promised to the new company and the Oriental was informed that it was free to publish so.¹²³ The Secretary of State brought in an important departure in the discussion on exclusive rights. In the British experience rival exchanges in the same city worked to the detriment of the subscribers and since they did not work smoothly in London such exchanges were amalgamated.¹²⁴ However, an exclusive license was not given to any company and the Post Master was free to erect separate exchanges. Hence, the public was protected from excessive charges. The Government of India was ready to transfer even an exchange established by itself to any company capable of working it but it was not ready to grant monopoly in separate cities.¹²⁵ The theoretical rule of competition persisted.

By the 10th October the licenses were finally ready. The Government of India granted licenses to the Oriental Telephone Company Limited of England for opening telephone

¹²² Letter dtd 13th Sept 1881, Pro 72, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹²³ Telegram dtd 17th Sept 1881, Pro 71, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

¹²⁴ Letter dtd 10th Nov 1881, Pro 94, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI. He said that “The practice is to grant a license for only one exchange system in a town, as it is of the essence of an exchange system that it should enable every subscriber to speak through to every other subscriber.”

¹²⁵ Letter dtd 9th Dec 1881, Pro 95, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

exchanges at Calcutta, Bombay and Madras on 8th November 1881. License was given for Karachee on 3rd March 1882 and later for Ahmedabad. A license was granted to Crossley Telephone Co. as well, for Calcutta. The Oriental Telephone Co. passed on its business in Bombay and Karachee to Bombay Telephone Co. Ltd. on 23rd Nov 1882 and in Bengal to Bengal Telephone Co. on 30th May 1883.¹²⁶ In all the memorials and addresses from the Indian telephone companies, the Oriental continued to play a main role as the promoter of local companies. It remained a large shareholder in both concerns.

The license lapsed once before an exchange came up by the Crossley Telephone Co. at Calcutta.¹²⁷ Even after the observation from the Secretary of State that it was not conducive to the efficiency of the system to maintain separate exchanges in the same city an exchange was allowed to come up by Crossley in May 1884.¹²⁸ The telephone enterprise lent itself most freely to the concept of a natural monopoly. With multiple exchanges in the same city the subscriber base was inevitably fragmented. Connectivity and efficiency of service were compromised unless some rules provided for interconnectivity as in present times. The State never abandoned its stand against monopolization. However the Bengal Telephone Co. bought out the Crossley business in March 1885.¹²⁹

Conclusion

The Government of India overtly debated on the type of economic structure to be employed to introduce telephony in India. But the interstices of that debate revealed that it was a more a matter of obtaining exclusive rights to the technology. The British Government in India was on a very strong footing with respect to their communications monopoly, but had to be more considerate to private concerns due to the decisions taken by Post Master General in England. Instead of facilitating the role of private capital investment the British Colonial government was in fact becoming a competitor. The Government did not merely

¹²⁶ Dec 1882, 11-15 A, CW-Tel, PWD, NAI, PWD

¹²⁷ Administration Report of the India Telegraph Department 1883-84. Pg 24, para 81

¹²⁸ Administration Report of the India Telegraph Department 1884-85. Pg 19 para 93

¹²⁹ *Ibid.*

mediate it altered the course of events in establishment of telephone systems to a large extent. This did not alter the general theory of colonial economic impact on India but it did prove that the government played an ambiguous role. The colonial state was a political unit different from private interests. And it worked for its own vested interests.

The numbers below were testimony to the fact that though small, the telephone enterprise was an exceedingly profitable business. The licensed systems presented the following picture in 1881-1883:

City	No. of Subscribers		No of Exchange Connections		No. of Private lines		Amount received (in Rs.)	
	1882	1883	1882	1883	1882	1883	1882	1883
Calcutta	102	195	101	178	2	18	32,215	52,839
Bombay	90	134	87	132	3	3	25,194	38,597
Madras	24	30	28	33	-	-	6,650	7,479
Rangoon	17	40	17	37	-	13	6,250	16,750
Karachi	11	12	11	12	-	-	2,700	4,200
Total	244	411	244	392	5	34	73,009	1, 19, 865

Source: Compiled from Story of Indian Telegraphs. Pg 89 and Administration Report of the Indian Telegraph Dept. 1883-84

The government system worked separately and presented the following figures:

Year	No. of Exc	No of Exchange connections		Total Exchg Conn	Public Lines		Private Lines		Amount Rs.
		Pub.	Pvt		No. of Circuits	No. of Offices	No. of Circuits	No. of offices	
1881	4	24	-	24	11	16	26	51	19,808
1882	8	45	11	56	42	65	46	82	40,069
1883	12	81	11	92	48	74	41	74	47,131

Source: Story of Indian Telegraphs. Pg 90. Also available in Administration Report of the Indian Telegraph Dept. 1883-84

The above figures show that private lines were not a big draw. It was the exchange connections that gathered most subscribers. The results were not as encouraging as compared to the enormous debate the telephones had created. The public was acting cautiously and responding very slowly. Calcutta made the most promising start.

The telephone itself was briefly discussed in various contexts. It was mentioned as a comparison and a competitor to the telegraph. Its technologically underdeveloped state was alluded to briefly. But in the bureaucratic discourse these references were more oblique than direct. The British Government, both at home and in India, first chose to re-define and re-christen a telephone as a telegraph. In the wake of lobbying by private companies they had to reconsider the matter. Then they proceeded to grant licenses for telephony compromising the very advantage they had acquired by such a definition. In effect, then, conceding in an implicit manner that a telephone was not really a telegraph. The telephone eventually receded to the background and it became a question of rights over the technology. Telephone became the site for this contestation.

The battle was keenly fought by both sides. But the lines were not clearly drawn. The local government in India and the Chambers Commerce seemed to trust private enterprise much more. The Government of India also harboured three or four different strains of thought in it. The Indian Telegraph Department was most critical of the private companies as was to be expected. It felt that their territory was being encroached. The Secretary of State, the Governor General in Council and the Public Works Department formed the decision making bodies that vacillated in their opinion from time to time but endorsed certain basic principles like no monopolization of the business by a single private company, no goodwill compensation, and general facilitation of the companies. But the ultimate deciding factor was what was transpiring thousands of miles away in England. That gave the private parties involved in the matter a much better position in India than they could have afforded in legal terms.

The competition was carried out even at the cost of the quality of the any telephone system that might be established. The Government insisted on the principle of allowing competition where a common network was requisite to the working of the telephone system after it lost the battle on exclusive rights. Regardless of the insight from the Secretary of State about the disruption created through multiple systems in the same city the principle was retained. However, private enterprise found a way to establish monopoly both in India and in England. Bombay, Bengal and Oriental Telephone Cos were the only providers of telephone service in their respective cities. In England, similarly, several telephone companies – Lancashire, Cheshire, National and United combined to form a monopoly – The National Telephone Co. in 1889. Hence, in the final verdict private enterprise succeeded in combating the governmental norms to establish private monopolies.

It was important to note at this point that no question of security or secrecy of government information networks had been raised as yet. It had been referred to marginally in the case of private lines only. Then too only the Telegraph Department chose to mention it much like a last resort in safe-guarding its rights in private lines. This was not the case later on when entire discourse over government connections was revolving around the secrecy. This was an additional factor which indicated a purely competitive nature of affairs.

The struggle did not end here. By no means was the matter concluded. With the revision of licenses over successive years the relationship between the Company and the different arms of the government slowly changed. They were at once opponents who were dependent on each other to function well. The economic structure mutated into more complicated systems of exchanges and the legal premises followed suit to accommodate these changes.

CHAPTER 2

'REVIVAL OF DEAD GHOSTS OF PAST CONTROVERSIES' – Concessions for Private Capital and the Principles of Secrecy, Economy and Efficiency

Hertbert Casson was dismayed at the attitude of the British Post Office to the National Telephone Co. in Britain. Casson reacted sternly to the opposition created in the working of the companies by the Post Office. He said: "If it had been let alone, this company might have given good service, but it was hobbled and fenced in by jealous regulations."¹ He might have very well applied his comment to India. But the case was not as simple. Once the main telephone company - Oriental and other local companies commenced operations, fresh attempts were made to enlarge their gains from the enterprise. This brought them up against many rules and terms in the licenses granted previously. Many ambiguities emerged in the capitalist-bureaucracy interface. At certain levels of governance, mostly local, the state assisted private enterprise, or inadvertently benefited it. On others it acted as an obstacle.

Goodwill, grant of way leave from local bodies and the opportunity to install telephones for government were important facets of the debate. A hierarchical, fragmented and layered structure like the government was ideally suited for the use of telephone technology. The focus slowly shifted away from Government as the state apparatus that dealt with granting of licenses, towards the Government as a consumer of the telephone technology. The Government itself was opposed to the companies providing for its needs on grounds of secrecy, economy and efficiency. These rules echoed the self-perception of the bureaucracy. Ostensibly, these principles were the primary reasons to not allow a private entity to do the work of installing telephones for the government. But a need certainly existed that was reflected in statements of various officials.

Here again, the Telegraph Department presented itself as a competitor and a better alternative. The uneasy peace between the Oriental Telephone Co., the promoter and

¹ Casson, *History of Telephone*, Casson said this with regard to the attitude of the Post Office with the National Telephone Co. but he would have very well applied it to the regulations enforced by British Indian Government.

shareholder of local companies – Bengal and Bombay Telephone Cos and the Telegraph Department was shattered a number of times. The local companies clung to the promoting concern because of the political clout it possessed in England in their efforts to have their way with the Government of India. It can be observed that the private players were often united in their interest while the government was not. The same grievances were hauled out repeatedly and presented in new ways by successive company agents. The Director Generals of Telegraph Department and PWD itself steadfastly opposed these demands. However, it was remarkable that the state and private companies worked in tandem on the ground. In the discourse that surrounded these issues the strains of rivalry mingled with those of interdependence slowly and imperceptibly. The boundaries of opposing and opposed were not easily defined as before.

REGULATIONS AND CONCESSIONS

General Rules for Conducting Business

It was two years after granting licenses in 1881 that the guiding principles in the relationship of the Companies with the Government were laid down. The essence of these negotiations had been laid down by the Secretary of State when giving permission to allow private companies to install telephone systems.² A Resolution was passed in Simla on October 25, 1883³ that further expanded these terms.⁴

The Government, to a certain extent, debarred itself from competing with private enterprise. It was even willing to transfer exchanges to private concerns in places where it had its own exchanges. As some officials projected, it was, in effect, sacrificing its own rights by allowing a private company to establish telephone systems. This made the Government even more ardent to ensure implementation of the rules made for the conduct of the existing and future telephone companies. Hence, it maintained very firmly that it could

² Letter dtd 7th April 1881, Pro 19, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

³ Annexure I to Circular Memorandum 1 of 1884, Simla, 11th Sept 1884 Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI. These rules are also given in Shridharni, *Story of Indian Telegraph*, Pg 90-92

⁴ Appendix 2

revoke the license for breach of any of its terms. There were still further developments on this ground. Telephone companies were essentially public utilities. Hence, the Act of 1885 also introduced penalties for breach of license since, revoking the license altogether could cause great hardship to the public.⁵

In the rules monopolization was avoided, trunk lines and government offices were safeguarded and 'goodwill' was yet again denied. However, royalties were cut by almost half. This framework was continually challenged by the Companies wherever they felt profit profits were being compromised. The Company often bypassed the Government of India to plead to higher authorities 'at home' like the Secretary of State. In this way they managed to gather more and more concessions. The changes in the licenses over the years documented this struggle very well. In some ways the government sought to facilitate the working of the companies. In others it created a wide web of bureaucratic hurdles.

There were new additions to the activities a telephone exchange could carry out for its subscribers. The 'open office' and phonogram system were a very well-conceived advantage in this respect. An 'open office' was literally the public call office or P.C.O. It was termed an 'open exchange' in the license of 1881 and allowed a non-subscriber to call on existing telephone exchange subscribers on payment of a fee. By 1899-1900, Departmental call offices were also functioning at Mussoorie, Landour, Dehradun, Kulri Bazar and Barlowganj.⁶

A new method of messaging was made available that combined the uses of the telephone and the telegraph and allowed telephone subscribers to send telegrams through telephones. It was available at regular telegram rates. However, this service had to be subscribed for separately on payment of a fee. None of the subscribers' offices could be used for collecting and delivering messages other than their own. It was the responsibility of the subscriber to ensure this did not happen or the line could be removed. But here was the fact of utmost importance. The system of sending telegrams through telephones was only begun in

⁵Part IV, Indian Telegraph Act, 1885

⁶ Krishnalal, *Indian Telegraphs*, pg 95.

Bombay in 1890 and Calcutta in 1892. In 1895-96 – 34,458 telegrams were received for transmission at Bombay and Calcutta and 20,520 were delivered by telephone in these two cities.⁷ This service was sought to be restricted by 1903, due to the speculation and gambling activities for which it was used. The reasons for the same are discussed later in Chapter 4.

There were also many delays and unnecessary bureaucratic deliberations. Some of these delays were caused due to need to check for safety before any line was laid by a telephone company. Others were just features of daily work that were fine-tuned as more experience was gained on the ground. In spite of obtaining an exchange license the companies had to seek additional licenses on several counts. Firstly, each telephone connection to the exchange had to be applied for separately. That application had a maximum time of seven days for bureaucratic clearance of route, manner of installing etc (The Director General could do it in less than that time if he pleased).⁸ Secondly, separate licenses were required for private lines. The separate licenses for private lines were considered granted if no response was received from the government within 15 days.⁹ The Telegraph Department was to be submitted full particulars of the intended subscriber and also a copy of the agreement between the Company and the subscriber.¹⁰ The responsibility of reviewing the accounts and ensuring scrupulousness was devolved to the local divisional superintendent and audited by the Examiner of Telegraph Accounts.¹¹

Rules were also made on various technical points. The distances of wires from the ground were specified.¹² The manner of connection of wires along streets was graphically illustrated. These and other minute details ensured that safety was maintained while erecting the lines and no conflict was created with government telegraph lines. Meanwhile,

⁷ Shridharni, *Story of Indian Telegraphs*, Pg 168

⁸ Schedule 1, Condition 14 (3), Telephone Exchange License 1884, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁹ No. 6 (d), Circular Memorandum 1 of 1884, Simla, dtd 11th Sept 1884, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹⁰ Schedule 1, Condition 14 (2), Telephone Exchange License 1884, Annexure II, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹¹ No. 6 (c), Circular Memorandum 1 of 1884, Simla, dtd 11th Sept 1884, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹² No. 6 (k) and (i), Circular Memorandum 1 of 1884, Simla, dtd 11th Sept 1884, , Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI It instructed that they should be at least 6 feet away from the ground and the Department reserved for itself the height of 24 feet

the department also exempted itself from any accidents due to faulty construction. After obtaining approval to erect lines and poles in a certain manner the DG could not ordinarily ask companies to move them. But under the new license, the DG could request them to do so for a reasonable reimbursement.¹³

Ultra radial connections were granted to the companies. Unlike previous license the ones given in 1884 did not restrict the companies to a very strict geographical limit. It allowed the Company (with permission of the Governor General in Council) to connect a subscriber outside the limits, to the exchange and give private lines provided one of the two places to be connected was within the licensed limits.¹⁴

So the Company literally was expanding the space of its work. Though Government was very cautious and sparing in its consideration the Company managed to derive some immediate benefits and certain latent benefits. The immediate benefits in extending the scope of its activities and geographical reach and the latent benefits were materialized through phonogram systems and privileges of erecting posts for carrying wires on all property.

¹³ Schedule 1, Condition 16, Telephone Exchange License 1884, Annexure II, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹⁴ Clause 4, Telephone Exchange License 1884, Annexure II, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

Price on Posts and Poles: The Indian Telegraph Act 1885

Urban spaces consist of numerous private property rights besides the public properties managed by Municipal Committees. When wires of telegraph and telephone networks had to be carried over these areas the question of property was made even more complicated. Both the Telegraph Department and telephone companies had to request way-leave from Municipal bodies in each city before setting up any poles or posts over public property.

The Suburban Municipality at Calcutta raised a new and important issue in latter half of 1882.¹⁵ The Municipality wanted to charge the Telegraph Department for erecting posts in the streets just as the Oriental Telephone Co. was charged. This was a question not so much of rent as of right to way-leaves. The Municipality believed that it had a right in this matter. The rules for waiving the right should therefore be followed equitably with respect to all parties who wanted to erect posts and poles on public property. The Municipality wanted the concerned Government Department to take permission like all others. This lack of differentiation between a government department and a private concern was extremely interesting. It seemed the only question that concerned local authorities was their own jurisdiction which operated against other branches of the state and private parties.

G.F.L. Marshall, Undersecretary at the PWD, believed that the telephone companies were also carrying wires for the public. He suggested that the Government must pay, if they have to pay.¹⁶ The Government suspected the Oriental must have brought this anomaly to light. The reasons for it were self-evident. The Company was attempting to reverse its situation as competitor of the Telegraph Department and draw benefits from the common nature of their work.

Within each city the method of obtaining permission for installing posts and poles was subject to the opinion of the Municipality. Permission was obtained from private and public institutions/individuals according to a certain process which is outlined in Appendix III.¹⁷

¹⁵ This objection reported in a letter by Col Murray dtd 4th September 1882, Appendix II, Indian Telegraph Act, 1885

¹⁶ Off note dtd 15th January 1883, Indian Telegraph Act, 1885

¹⁷ Indian Telegraph Act, 1885. Appendix A. No. 78-160, Legislative Department

G. S. Forbes, another official, was of the opinion that the Municipality would be well aware of public safety and needs and therefore, had a right to intervene, especially in cases like Bombay and Calcutta.¹⁸ Improperly erected lines could be hazardous to the public and traffic. But this procedure could only be followed in bigger municipalities. He believed that no rent should be claimed, "...considering the origin of municipal property in India and public advantages derived from establishment of telegraph and telephone lines."¹⁹ If this were allowed the department would be expending huge sums and extending office work.

G. S. Forbes was indicating the commonality of purpose that Municipal bodies were supposed to share with the Telegraph Department. The only difference was thought to be that their expertise lay in different areas. Another official concurred with the above opinion that wires were erected for public purposes. He stated that no rent should be charged because the Municipality was a quasi-public body.²⁰ These convoluted statements were also indicating how the bureaucracy was getting embroiled in its own contradictions. When authority and jurisdiction were clearly defined to suit the working of local bodies, they may not necessarily have been conducive to the working of central administration. One arm of the state is in effect creating more work for another arm. State structure was doubling over itself and creating obstacles in its own path.

According to the law (before the Act of 1885) the Governor General and his licensees had no legal power to erect lines and posts over lands of Municipal bodies and private persons, unlike the Post Master General in England.²¹ This was an important fact. It was thought that when telephone companies should be brought under the Telegraph Act, one of the considerations was to ensure that no company could erect telegraphic or telephonic posts except under license from Governor General in Council. One of the legal difficulties faced at the time of licensing was simply that Governor General had no legal rights over establishing

¹⁸ Off note dtd 18th April 1883, Indian Telegraph Act, 1885

¹⁹ *Ibid.*

²⁰ Non-dated Off note, Indian Telegraph Act, 1885

²¹ The Post Master General had been conferred with powers by 26 & 27 Vic., cap. 112, as amended by 41 and 42 Vic., cap. 76. The consent of municipal and other bodies was requisite but they could not arbitrarily withhold permission. The Magistrate arbitrated any differences. No rent was ever paid. But in case of damages compensation could be paid.

posts on public or private property! Once these rights were legally enshrined they could be granted to private companies as well.

It was decided by the PWD that legislation would be required to resolve these intermingled issues. The 1885 Telegraph Act was designed to address this object. Part III of the Telegraph Act of 1885 empowered the Government, or any licensed Company or person, to place telegraph lines and posts on public and private land.²² This ensured that the Telegraph Department could not be challenged in its right to install posts for telegraph wires. At the same time the work of the licensees was not obstructed and the power of the licenses was not neutralized. Meanwhile, the Municipalities were also given a voice in the direction and construction of lines. Any damage or injury to public or private property was to be made good with compensation.

It was taken into account that previously permitted lines may be required to move. For instance, what was formerly a waste land could acquire building value. In such a scenario, removal or alteration may be required. In case the Telegraph department did not accede to the demand for removal, the decision of the Local Government was to be final.²³ For altering the location of a post on private property the individual/institution would pay the amount required for work.²⁴

These new rules now created multiple rights in the same space. But all of them were dependent on each others consent. The Telegraph Department was bound to the Municipality's consent. The Municipality was bound not to refuse consent unless no alternative existed. And the telephone company was dependent on the consent of both these bodies. But even if the bureaucratic loops were not reduced, at least, the interface was better defined. A clear procedure was laid down.

²² They could place and maintain telegraph lines and posts under, over, along, across, in or upon the property of any "person", a term including body corporate.

²³ Part III Section 13 of the Indian Telegraph Act 1885

²⁴ Part III Section 17 of Indian Telegraph Act 1885

Goodwill Hunting

The Government wanted to retain the power to buy out the business of a company when it felt the need to do so. This purchase could be motivated by public opinion, political emergency, failure of the private enterprise or any other drastic event. According to the stipulations of the new licenses of 1884 (as well as the original licenses and General Rules), the companies were not to be compensated for anything but the value of their useful assets.²⁵ No allowance was to be made for past or future profits. No compensation was to be paid for the 'goodwill' created by the business. 'Goodwill', according to the companies, could entail present or past expenditure on canvassing for the telephone exchange, putting up trial lines, rendering efficient service and so on.

In December 1885 the Oriental, Bombay and Bengal Telephone Companies sent a Memorial to the Viceroy, Lord Dufferin.²⁶ The companies put forward their grievances with the General Rules published in *Gazette of India* on 3rd November 1883. One of the clauses in there was the purchase clause. The purchase clause in the license gave the government compulsory power of purchase on certain specific dates. The companies expressed that they had been compelled to accept the terms at the time when General Rules were framed since unacceptable terms (like purchase clause) were cleverly interspersed with the other benefits. One of the benefits was an extension of the definition of ultra-radial connections. The definition was expanded to include the extension of private lines outside municipal limits in Calcutta. The combining of these terms was denying them opportunities of expanding business.²⁷ The telephone companies in India referred to the case of British telephone exchange licenses. Like the Indian license, the British license allowed the Post Office to takeover the business of telephone companies under certain conditions. In Britain, the Post Master General had put no conditions on arbitration of price at the time of government takeover. This was also followed in the new licenses there.

²⁵ Clause 9 of license of 1884, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

²⁶ Letter dtd 10th Dec 1884, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

²⁷ They requested to do so in September 1883. In return they were asked whether "...the Bengal Telephone Co. was willing to accept the terms of Government in their entirety."

It was a little more complicated than the Company made it out to be. The provisions for purchase were laid down under Clause 17 of the British license. In those circumstances the Post Office was to make allowance for 'goodwill'. However, after the natural lapse of the license in 1911 they were not to receive anything for 'goodwill'.²⁸ The new license by the Government of India clearly laid out that it would only pay the then value of all Company's assets.²⁹ The catch was that the wording of the license intimately bound the 'goodwill' clause in the Indian license with the existing English system.³⁰

According to the protesting telephone companies the precedent for this clause came from legislation with regard to Electric Lighting in England. The Electric Lighting Companies had supposedly spent thousands of pounds to obtain provisional orders to function under the Act.³¹ They found the regulations stifling for the business. The worst of these conditions was the compulsory purchase clause. It allowed the authorities to purchase the undertaking after 21 years without compensation for 'goodwill'. Since the companies found it difficult to operate under these conditions the Board of Trade had cancelled many provisional orders.

On basis of this example the companies cited that "no ordinary capitalists possessing ordinary business caution will expend money in establishing a commercial undertaking which is subject to such a condition."³² In this uncertain enterprise there was a chance that some exchanges might fail. Failed exchanges would be abandoned at the time of purchase of the business by the Government. It was ironic that some years ago Col. Murray had stated succinctly in an ardent representation that if companies were granted 'goodwill'

²⁸ Letter dtd 12th Aug 1902, from General Post Office to India Office. Pro June 1903, 1 – 15 A, CW- Tel, PWD, NAI.

²⁹ This was the form of payment in case of purchasing - "the then value of the property, rights, plant, materials, apparatus and appliances exclusive of any allowance for past or future profits of the undertaking or goodwill, or any compensation for compulsory sale or withdrawal of the present concession or other consideration whatsoever."

³⁰ "Goodwill – In all future licenses it will be expressly stipulated, in accordance with the English system, that in case of purchase of the company's property by the Government, nothing will be paid for the goodwill of the business." Letter to Viceroy dated 10th Dec 1884 Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

³¹ This particular instance was related in the Memorial itself. Letter to Viceroy dated 10th Dec 1884, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

³² Letter to Viceroy dated 10th Dec 1884, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

compensation they would demand it both for those exchanges that existed and those that did not.³³ Col. Murray might have felt vindicated at this point.

The government in its defense said that the clause was not framed on the English Lighting Act but the English Tramways Act 1870 (section 43).³⁴ No matter where the clause may have been obtained from its relevance lay in its nature not the precedent. In creating this clause the Government wanted a simple piece of legislation that would give it fiat for taking over private enterprise when need arose. The Government claimed that they had bestowed the companies with the 'goodwill' by giving them the license in the first place. And that compensation for 'goodwill' would mean a re-purchase of their rights.

The PWD recorded in its official notes that the Director General of telegraph had referred this matter as far back as December 1882 to London and the Secretary of the London Post Office replied that "it is not contemplated that anything would have to be paid for the goodwill of the business, saying that the 'goodwill' rested entirely on the license granted by the Post Master General. He in fact endows them with their goodwill..."³⁵ The Companies, on the contrary, believed that the telephone business did not overlap with the telegraph business and hence the 'goodwill' created was a "private property" that should be compensated as all other private property.

The British Government had had to buy out private telegraph enterprise at an enormous expense to the exchequer. The companies argued that such was not the case with the British colonial government in India, which ought to make Government of India less guarded.³⁶ This argument was futile since the colonial government had sunk great capital into its own telegraph system. The experience of the home government with the telegraph companies served more as a warning to colonial government to act cautiously in the case of telephone companies and not as an opportunity to give them greater leeway.

³³ Letter dtd 28th July 1881, Pro 54, Pro Vol Feb 1882, No. 1 to 99 A, CW-Tel, PWD, NAI

³⁴ Off note by G. F. L. Marshall, dtd 28th Dec 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

³⁵ Off Note by G.F.L Marshall dtd 28th Dec 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

³⁶ Letter to Viceroy dated 10th Dec 1884, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

The companies stated their displeasure in no uncertain terms saying that fettering the commercial enterprise would be fatal to it. Substantively, however, the companies returned to the fact that 'goodwill' was part of the purchase clause in the English agreement.³⁷ Another official pointed out that "this revival of dead ghosts of past controversies" was merely due to the appointment of a new Agent and Attorney to the Oriental Telephone Co.³⁸ Nothing was brought forward that had not been said before. A bare restatement of old issues could not move the government into rethinking its stand. It was accepted, though, that the concessions proposed were planned as an inducement to the company to accept the rules in their entirety.

The official also remarked upon the ambiguous role played by the Oriental. He said that the purchase clause "pinches the Oriental Telephone Co. ... that company is essentially a promoting company and existed by sale of goodwill and concessions it acquires to local working companies. If this 'goodwill' was pronounced valueless the ground would be cut from under its feet in its mere promoting capacity".³⁹ The 'actual working companies', it was believed, would probably do well without the interference from the promoting company. The help from the promoting company was required in early stages of the spread of business and it was a help that was purchased. Therefore, he believed, that no concessions ought to be granted.

The local companies had good reasons to posit the Oriental as the lead critic of the Government's stance on the matter. The Oriental commanded a good number of shares in both Bombay and Bengal Telephone companies and it could access the home authorities to complain about the conditions in India. That was something the local companies lacked. They also benefited from the apparent political clout the Oriental possessed through its association with the United Telephone Co. in England.

In August 1885, another Memorandum was sent to the government from the head office of the Oriental Telephone Co. in London. It was most pointed in its criticism of the

³⁷ Off Note dtd 23rd Dec 1884 by R. B. Buckley, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

³⁸ Off Note dtd 30th 1884 by W. S. Trevor, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

³⁹ Ibid.

Government of India policies.⁴⁰ They seemed enraged at the short and curt reply from PWD stating that the points raised now by the companies had been considered before. The government, it averred, seemed determined to resist all attempts to develop the phone. These matters were a longstanding source of grievance and the conditions “were very harshly worked.”⁴¹ The role played by Col. Murray, the earlier DG of Telegraph Department came under great attack. His antagonism to private enterprise led to representations on several counts.

Eventually the 1903 license sorted out the issue to the benefit of all parties.⁴² Condition 2 (b) of the revised license allowed for provision of payment to the Company of a sum of money on account of “goodwill and compulsory sale or withdrawal of the license before the expiry of 35 years.”⁴³ So the company would have received an amount for ‘goodwill’ if the government exercised its right to purchase in the 20th, 25th or 30th year of the license granted for a term of 60 years. If the right was exercised at the end of 40 years or any subsequent 10 year period after that, or was revoked for breach, then no allowance would be made. This literally meant that if the colonial government had chosen to buy the enterprise anytime before 1943 they had to be prepared to part with a large sum. However, the enterprise was eventually taken over only in that year so this coup in theory did not bear out fully in fact. However, the companies were assured of a free rein as profit making concerns till 1943.

The goodwill controversy was situated within the larger framework of evolving government-capitalist relations. It illustrated very well how the government was at times compelled to take note of capitalist demands and at other times how it could circumvent them through regulations.

⁴⁰ Memorandum dated 7th Aug 1885 in Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI.

⁴¹ *Ibid.*

⁴² June 1903, 1 – 15 A, CW- Tel, PWD, NAI

⁴³ The 1903 License, clearly states that the goodwill clause was based on Indian Electricity Lighting Bill Clause 5(b).

Competition between Telegraph Department and Private Companies

The Telegraph department and the telephone companies were mired in disputes on the issue of competition. Repeatedly the companies complained of rivalry from Telegraph Department. The basic premise of granting licenses to the private players was that there would be no competition from the government.⁴⁴ Yet the Department strictly monitored the companies. They were not allowed any ultra radial connections without a license. Before 1903 the Government refused to grant goodwill to the company if it was given a six month's notice beforehand.⁴⁵ In 1885 the Company was even warned that establishing a telephone line without permission could involve a serious penalty.⁴⁶ The Government of India insisted upon Bengal and Rangoon governments to retain the power of terminating the licenses at short notice.⁴⁷

On 11th August 1886 the Oriental Telephone Co., the Bengal Telephone Co. and Bombay Telephone Co. addressed a memorial to the Government highlighting the above problems imposed on their working.⁴⁸ In spite of the "liberal announcements" made by the government, that it was not the desire of the government to compete with private enterprise, private lines were not allowed in towns where an exchange could not be run profitably.⁴⁹ Private lines could only be erected in areas for which a company already held an exchange license.

But the Telegraph Department in particular was working with a different framework. The D.G.T said that:

⁴⁴ Pro Nov 1883, 1-3 A. CW-Tel, PWD, NAI "While the Government of India has no desire to compete with private enterprise in the matter of Telephone Exchanges in this country, it reserves to itself the right to undertake such business in places where private agency is not prepared to take it up."

⁴⁵ Pro Jan 1885, No.19-20 B CW-Tel, PWD, NAI.

⁴⁶ Pro Jan 1885, No. 36-7 B. CW-Tel, PWD, NAI

⁴⁷ Pro July 1885, No. 41-4 B and July 1885 no. 45-8 B. CW-Tel, PWD, NAI

⁴⁸ Pro Nov 1886, 4-8 A, CW-Tel, PWD, NAI

⁴⁹ Letter No. 465T dtd 9th Dec 1881 provided for this non-competition. Private lines were not allowed in Clause 4 of the License.

“there was a growing feeling in Europe that the monopoly of telephone exchange business should be retained like telegraphs in the hands of the government that the practical monopoly enjoyed by the companies is so obnoxious as that of gas companies and the public would be far better served by a Public Dept of government than by companies seeking only dividends.”⁵⁰

In characteristic bureaucratic apprehension of private capital old rules were reiterated to the companies and the case was closed. The public - an anomalous, unidentified and non-segregated category was employed time again by both the private companies and Telegraph Department to buttress their own case.

The acquisition of telephone exchange business seemed very probable at this point. The Companies were seen not just as corruptible elements of enterprise disadvantaging the unsuspecting common public. They were also the entity that had taken away from the Department what rightfully belonged to them. Of course it was not mentioned that it was the traders and the Government which were the biggest consumers of the technology and the “common public” was scarcely consulted about these official decisions.

The Telegraph Department continued to establish telephone systems for various Government Departments. In 1887-1888, an extensive telephone system was constructed for the Postal Department in Calcutta by the Telegraph Department at an expense of Rs. 5, 299.⁵¹ Another telephone system for the police at Madras was constructed during 1887-88 and improvements were made to Madras Government system by substituting copper for iron wire.

The pleas against competition did not end there. In 1890, the Bombay Telephone Co. once again launched a complaint against the Telegraph Department to the effect that they had contracted a line from the Bombay Municipal Exchange to the Water Works at Vehar Lake.⁵² The telephone company had offered to put up the line at Rs 11,000 (for construction) and Rs.600 per annum for maintenance. The Telegraph Department had

⁵⁰ Off Note, Pro Nov 1886, 4-8 A, CW-Tel, PWD, NAI

⁵¹ Administration Report of the Indian Telegraph Department 1887-1888. Pg 24, para 74

⁵² Pro Aug 1890 No 24-31 A, CW-Tel, PWD, NAI

offered to put up line at its own expense and charge Rs.740 from the Municipality.⁵³ The Department secured the business and therefore

“...Government funds were brought into direct competition with private capital which was to a large extent subscribed for, because the public were given to understand that support, not opposition – patronage, and not rivalry – was the declared attitude of the Government towards this as to other private enterprises in India”⁵⁴

This case received much attention in newspapers and in Municipal reports. The Company seemed visibly enraged over the fact that these privileges were “practically the charter of this company’s existence” and a Royalty was paid annually to the Government in lieu of that.⁵⁵ In spite of that they were affronted with a “...direct rivalry between its Capital and Imperial funds.”⁵⁶ This time it was the Company bidding for public interest.

The Telegraph department did not deny the charge but brought forth the fact that the actual cost to the Telegraph Department including all interest on capital, depreciation and maintenance came to Rs 598 and 8 annas. The Company could have managed to construct the line with as little as Rs 5000. The cost of line and instruments had cost the Telegraph Department Rs.4, 853.⁵⁷ The D.G.T added that the high charges levied by the Company and not so much the competition generated by the Department were the reasons for a “painfully slow progress telephone has made in India.”⁵⁸

The case was folded up with the claim that the line that was actually erected was between the water works stores, Chinchpokli and Vehar Lake and not between the Municipal telephone exchange and the Water Works. Only if the connection had been with the Telephone Exchange could the Bombay Telephone Company have proved their case.

⁵³ Report of proceedings of a meeting of the Municipal Standing Committee held on Wednesday the 23rd April 1890, Pro Aug 1890 No 24-31 A, CW-Tel, PWD, NAI

⁵⁴ Letter dtd 3rd July 1890, Pro 24-31 A, CW-Tel, PWD, NAI

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Annexure A to letter No.44T dtd 14th August 1890 from D.G.T to Secretary, PWD.

⁵⁸ /Letter dtd 14th Aug 1890, Pro 24-31 A, CW-Tel, PWD, NAI

In 1893 a third powerful protest was launched against the conduct of the Telegraph Department.⁵⁹ The Company private lines business was suffering due to the low charges offered by the Department (They offered a half mile wire at Rs 20 rental) as also the limitation placed on the Companies to not provide lines where there was no exchange. The private line being the most profitable portion of their business (Rs. 16,000 in 1892) it could not be jeopardized. The ultra-radial connections (between a point inside the exchange and points outside the exchange limits) granted by the Municipality were also lost to Telegraph Department competition. For the Telegraph Department the establishment costs were much less. No income tax or royalty was paid either to the government or the patent holder. The Companies had to pay the Municipality also.

In the Department's defence they had fixed the rates of telephonic communication on the basis of what they had determined to be the true cost of maintenance, depreciation and interest and then arrived at the final figures. As a matter of fact the telephonic apparatus had come down 33% in terms of cost and that had to be adjusted with the current pricing. Also these rates had never been advertised. With 16 exchanges, 245 private lines and 684 miles of wire the Telegraph Department was not very significant in the business. The Department had been supportive of the private players even so far as renting a line to Oriental Telephone Co. for Bombay-Burma Trading Co. till the time they made their own extensions. The D.G. at the time, W. R. Brook, echoed the feelings of the earlier D.G. –

“...it is much to be regretted that the Telephone Companies were permitted to commence operations in India, as their very high rates, and the high rates consequently maintained by this Department in its anxiety to avoid the appearance of competition with the Companies, have undoubtedly had the result of most seriously checking the use in India of one of the most valuable inventions of the day.”⁶⁰

In the quest for better dividends for shareholders and to make up for huge general charges and obsolete instruments “they could not treat the public with liberality.”⁶¹ The state seemed deeply entrapped. The midway approach to resolving the issue of telephonic

⁵⁹ Pro April 1893 No.15-21, CW-Tel, PWD, NAI

⁶⁰ Letter dtd 14th Aug 1890, Pro 24-31 A, CW-Tel, PWD, NAI

⁶¹ *Ibid.*

communication had failed and, while the state regretted the loss the company was busy wresting as many privileges as possible. This was a first admission of the fact that in the pursuit of being the first agency to provide these facilities to the public, the public itself was being forgotten. The Bengal Telephone Co. declared a dividend of 6% for the year ending 31st Dec 1892 so their business was not being too seriously affected!⁶² To keep further complaints in abeyance Brook suggested that all private lines and ultra-radial connections permitted in the licenses ought to be referred to the Department.

The D.G.T did give the companies a slight benefit of doubt on the matter. He admitted that the Telegraph Department could afford to construct telephone systems at lesser capital cost since they already had a burgeoning system of communications at their disposal.⁶³ Whereas the telephone companies with a gross annual rental of only Rs. 2, 02,100 had to maintain their system separately. They had to pay charges for special Agencies, Directors and other miscellaneous general charges which outweighed small undertakings. He ended with an important note

“the fact that it is necessary to maintain a State Telegraph in India will, I fear, always prevent private enterprise as regards telephone network, being a true success, as it appears to me that it is only by combining telegraph and telephone work that the Companies could hope to put their business on a footing which, while paying the shareholders, would secure to the public the boon of cheap telephones.”⁶⁴

Private capital had gained entry into the business of telephones but it was clearly not very welcome. The Colonial state was not willing to facilitate and engage their services. The Telegraph Department in particular posed as a threat to the daily functioning of the companies.

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ *Ibid.*

GOVERNMENT PHONES – SECURED OR EXCLUDED?

In their quest to obtain permission to work in India the companies accosted the administrative machinery of the state repeatedly. But that was not the only way in which the private capital viewed the state. The government was a burgeoning structure that was dependent on communication techniques to function. Private capital was also looking at the character of the administration as a consumer.

The campaign for the liberty to supply and install government phones was carried out several times in the beginning. It was for the first time that the secrecy and security of telephone conversations was brought forth in this discourse. This issue was magnified several fold when private companies were imagined as handling this sensitive porous network. As will be borne out by later arguments the issue of secrecy was overplayed in certain instances and did not really stand its ground in the face of stiff logical analysis.

It could be construed that having lost its rights in the wider field the Telegraph Department was trying to carve out a niche for itself in the area of Government telephones. The Government was committed to not competing, but it continued to guard its last bastion from intrusion of private capital, namely government telephones. Since the rules for handling the companies were only framed two years after they had commenced work, the companies obtained certain leeway in establishing systems of communication for government offices especially police in certain places. Public offices and increasingly police stations and fire stations were ideal institutions to weave into the telephone network.

The *Bombay Samachar* of 23rd December 1880, a Gujarati Daily from Bombay observed that it was well known that great delay occurred in arrival of fire engines on occasions of fires in Bombay.⁶⁵ Before their arrival, the buildings on fire were totally destroyed. This happened because of lack of rapid communication between the several police stations. Long discussions had been held before in town councils on this subject. It was once decided that several stations should be connected with one another by means of the electric telegraph,

⁶⁵ Native Newspapers, 1880, NAI

but nothing practical had been hitherto done in the matter. The new invention of the telephone was less costly and more convenient than the telegraph. The telegraph required special training while the telephone could be worked by illiterate persons. The article advised the use of the telephone to connect different stations.

However, the government prevented private companies from installing telephones in government offices. They cited rules of privacy, economy and efficiency. Consequently, the telephone exchanges acquired a certain hybrid structure. Exchanges were established exclusively for police or other government offices and connected with general exchanges through trunk lines. These exclusive exchanges could be run by the police themselves, by the Telegraph department or the company. This also fragmented the base of subscribers in the network. The following cases illustrate the hybrid and fragmentary nature of these structures as they evolved.

Secrecy – Police as a Public Body and a Government Office

In 1884 Lieut-Col. C. H. Ewart, Deputy Inspector General of Police, Umballa Circle, Punjab prepared a Detective Scheme for all India that included telephones as a mode of effective communication with distant offices.⁶⁶ The Crossley Telephone Co., an English firm instantly picked up the strains of the argument. E.W. Pearson, Chief Agent at Crossley wrote in his letter to the Col. that:

“...having in other parts of the world enjoyed intimate business relations with Police and Fire Brigade authorities, it has quite passed my comprehension that by the Police and Municipalities of India so simple, so inexpensive and so obviously effective a means of communication as the telephone was regarded almost with indifference.”⁶⁷

Pearson even proceeded to invite the 47 municipalities with populations of over 50,000 to Col. Ewart's Detective scheme.⁶⁸ The scheme envisaged the connection of the house and office of Commissioner or Deputy Commissioner of Police and that of the District Superintendent of Police with several Police Stations and outposts under the latter's charge.

⁶⁶ Pro Oct 1884, 37/52 B, CW-Tel, PWD, NAI

⁶⁷ Letter dtd 22nd July 1884, Pro Oct 1884, 37/52 B, CW-Tel, PWD, NAI

⁶⁸ Letter dtd 22nd July 1884, Pro Oct 1884, 37/52 B, CW-Tel, PWD, NAI

An “Exchange” system was proposed “by means of which any one point may be placed in Telephonic communication with any and every point one after the other, and any two points concurrently, instantaneously.”⁶⁹ In other words a police network was envisaged.

The scheme capitalized on this nascent technology to the advantage of the state but, as will be found out later, the state was not too keen on anything that had to rely on private enterprise for its proper functioning. Pearson, while hoping to provide telephones for the whole of India, did not consider that he would face stiff opposition from the government itself over the question of secrecy, vying as he was for the contract under the assumption of being a British firm. Crossley Telephone Co., a purely British firm unlike the Oriental Telephone Co. was a recent entrant on the scene. It did not have the experience of the Oriental and hence did not anticipate a direct refusal.

The element of competition between Europe and America was also present in a small way in the case. Pearson was weary of American competition. He greatly criticized American instruments:

“The other telephones were good when they were in best and perfect condition; but by the principle of their construction they were liable to become out of order, a state of things which my experience, as the manager formerly of an American telephone company, is shown to be of very frequent occurrence.”⁷⁰

He believed that Crossley’s instruments would convey audible speech from Calcutta to Simla.⁷¹ Anglo-American rivalry did not really work to his benefit this time. Where colonial concerns of security were in focus, the rivalry hardly played a major role. Private capital was by and large seen as a vested interest group with common aims.

It was feared that the telephonic messages passing through the open exchanges were apt to be tapped by those for whom they were not intended - “Detective police messages would have considerable value to certain classes and would command a good price. If they could

⁶⁹ Letter dtd 24th July 1884, Pro Oct 1884, 37/52 B, CW-Tel, PWD, NAI

⁷⁰ Letter dtd 22nd July 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷¹ Letter dtd 22nd July 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

be bought it would go a long way to defeat the ends of the Police.”⁷² The condition of secrecy which applied to retention of government telephones in the hands of Telegraph Department applied most forcibly to the police lines⁷³.

The Government was firm in its disapproval.⁷⁴ Mr Pearson retorted that the Oriental Telephone Co. had been allowed to supply telephone connections for Bombay Police and Fire Brigade in a special exchange at the Crawford market (April 1882).⁷⁵ Even worse, in Calcutta the Commissioner of Police had himself informed the D.G of Telegraphs in May 1883 that he wished to employ the services of the Bengal Telephone Co.⁷⁶ He wanted the provision of telephones from the company in substitution of the telegraphic service provided by the Telegraph Department (between certain police and fire engine stations).

The administration came up with instant clarifications.⁷⁷ The Resolution of 1883 was laid down much after the Oriental had approached the Municipality in Bombay. Hence, there as a disparity in rules and the actual working of companies. The substitution of telephones for telegraphs was stalled at Calcutta when the recent refusal with respect to detective scheme was conveyed to the Bengal Police Commissioner. R.B. Buckley, Officiating Under-Secretary, PWD thought that the concern with Bengal was misplaced.⁷⁸ Bengal Police Commissioner had asked his office to be connected with certain places out of which at least three (Palmer's Bridge, Wellington Square and Tulla) were not police stations but pumping stations of Calcutta water and sewage works.⁷⁹ They were meant to serve as an alarm system.

Pearson pressed on, cited the fact that, in England, police and other public bodies were connected with wires and instruments erected and maintained by the private companies.⁸⁰ In case of private lines and ultra-radial connections the companies merely kept the local

⁷² Off note dtd 2nd August 1884, Pro Oct 1884, 37/52 B, CW-Tel, PWD, NAI

⁷³ Letter dtd 13th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷⁴ Letter dtd 15th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷⁵ Letter dtd 28th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷⁶ *Ibid.*

⁷⁷ Letter dtd 28th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷⁸ Off note dtd 1st Sep 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁷⁹ Off note dtd 1st Sep 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁸⁰ Letter dtd 26th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

telegraph dept informed instead of procuring a license each time. But the government did not relent in the detective scheme case. The decision of the Government was not revised on basis of favourable English norms, if any existed.

The Colonial state was so concerned with security that it refused to allow a British firm to install telephones for a Detective Scheme for all of India. This probably had everything to do with the exceptional colonial trepidation in the matter of communication networks. Though it is not abnormal for state structures to act as watchdogs of communication and information networks, this kind of restriction harks at a more colonial apprehension. Certain officials suspected that Col. Ewart was “playing into the hands of Pearson against the Policy of Government of India”.⁸¹

After the negative response to Pearson, the Government was keen to disallow the telephone system for police to be established in Bengal⁸². However, in deference to the wishes of Lt.Gov of Bengal, the Government of India sanctioned the contract. Similarly, police telephone lines established in Rangoon prior to the adoption of the Resolution of 1883 were retained.⁸³ But the detective scheme never came to be realized.

While granting the establishment of telephone lines in Calcutta it was pointed out very clearly that:

“...the object of the Government of India, in excluding Government office connections from the operations of private telephone companies, is not to compete with private enterprise but to ensure secrecy, messages sent through an open exchange being liable to be tapped.”⁸⁴

Thus, it was stressed repeatedly that secrecy and not agency (for construction) was the real reason behind this restriction. The Company believed, for its part, that the department could never give the same service. The plea for privacy was applicable to all telephone services alike. State secrets were not likely to be discussed even through a government line.

⁸¹ Off note by R. B. Buckley dtd 8th Aug 1884, Pro Oct 1884 37/52 B, CW-Tel, PWD, NAI

⁸² Letter No.265 T dtd 21st Oct 1884 Pro Oct 1884, 86-89 B, CW-Tel, PWD, NAI

⁸³ Letter dtd 23rd June 1885 Pro July 1885, 41-4 B, CW – Tel, PWD, NAI

⁸⁴ Letter No. 142T dtd 23rd July 1885 Pro July 1885 45-48 B, CW – Tel, PWD, NAI

This was the argument in one of the earliest memorials of the company. One of the officials admitted that this argument was most forceful of all.⁸⁵ After all, the telephone was to be used for discussing daily matters. Telephone network did not necessarily need to be insulated to this degree.

Police stations in Calcutta had been connected to the exchange with the permission of the Municipal Commissioners. But, the Bengal Telephone Co was not allowed to connect Howrah Police stations to the central exchange in a similar manner, when in the time of emergency, they could be helpful in securing help from either side of the Hooghly.⁸⁶ In Bombay, some 25 police stations were connected to a separate exchange linked with a trunk line to the general system of telephones. These connections had proven beneficial to save property in the time of fire.

The question was reopened whether police stations were government offices.⁸⁷ "Police station" it was said "could hardly be deemed to be government offices in as much as large sums are levied from the inhabitants as police rates and they therefore have a right to every facility for utilizing the police."⁸⁸ This was a very pertinent question. Was a police station merely a government office? To answer this question, the character of the police station had to be made clearer and less nebulous. The police station was the locus of civic responsibilities. It was one division of the state that was most squarely placed in public space as the agency of the state that mitigated disturbances and implemented the law. Hence, it was imperative to keep it connected to the public through all possible means. The government was not contesting the need for such a connection but at the same time it was preventing the police from getting connected to a general exchange. So what was undeniable in principle was prevented through the regulations.

A scheme had been envisaged for the erection of telephone exchange between local Government offices at Calcutta. It was to be separate from the central system throughout

⁸⁵ Off note dtd 23rd Dec 1884 by R. B. Buckley, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁸⁶ Memorial from Oriental Telephone Co. dtd 7th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

the city. It could be connected with central system when required. The Police and Fire Exchanges at Calcutta were working on this plan. This was convenient and ensured secrecy at the same time. Refusal of the government to allow the connections deprived the public of assistance during robbery, riot or fire or other such public emergencies.⁸⁹ The companies always had an advantage in this argument as the telephone could only be really utilized well in a network. Public emergencies were the most important reason to have a blanket system of communication that included all public bodies like the police station.

A.B. Chalmers, the agent of Oriental Telephone Co., narrated an instance to the same effect in Bombay. During the first Egyptian expedition the various Military departments were not allowed to be connected to the general exchange.⁹⁰ Lines had been erected to the docks, custom house, brigade offices and other military offices and dockyards. The lines had to be dismantled at the behest of the Telegraph department and those in charge of sending Bombay troops were left without adequate means of communication. Every department interested in dispatch of the expedition multiplied this inconvenience several fold. The purpose of telephone was defeated as the networks were too limited to serve any practical purpose.

The Memorandum from the London office of Oriental Telephone Co. was unequivocal in its support of joining government telephone connections to the central exchanges at Bombay, Calcutta, Madras, Moulmein and Rangoon.⁹¹ The Telegraph Department was averse to having a telephone exchange made by a company even when the company offered to have a nominee of the Telegraph Department run it.⁹² G. F. L. Marshall in his official note opined that a trunk connection could be maintained between the government and private exchange.⁹³

⁸⁹ *Ibid.*

⁹⁰ Letter dtd 8th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹¹ Memorial from Oriental Telephone Co. dtd 7th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹² Letter dtd 8th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹³ Off Note dtd 28th Dec 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

A number of applications by government officials for installing telephones through private agencies were rejected.⁹⁴ Their phones remained ineffective in that they could only speak to their own departments.⁹⁵ Sir James Fergusson, Governor of Bombay, tried to buck this trend when he connected his own houses in Malabar Hill and Parel to Bombay central exchange.⁹⁶ However, even after repeated attempts he could not get his office in Secretariat building at Esplanade connected with the same exchange.

Therefore, all officers were not uniformly of the same opinion. Local governments, by and large, differed in the matter of not connecting government offices with central systems. What was interesting was that the companies never complained of any “undue severity or officiousness” on part of the local officials of telegraph.⁹⁷ At the local level the relations were very cordial. But the regulations did not allow any space for discretion at the local level.

A year later in August 1886, all three companies once more protested that the Government must allow connecting Government offices, including police stations, to general exchanges wherever local authorities asked for them.⁹⁸ In 1889, while reiterating this very request, the agent of Oriental Telephone Co. presented an interesting and compelling perspective.⁹⁹ The agent believed that a privately managed telephone system was not any more politically dangerous than a police operated system.¹⁰⁰ “If a disturbance was to arise” he said, “say a Police mutiny, to take a remote possibility, is it more likely that an operator of the Company would assist the mutineers than an employee of the Government?”¹⁰¹ This was practically harking back to the times of the Revolt of 1857. It was really a matter of assessment what kind of agency would protect the interests of the state best? If the army

⁹⁴ Letter dtd 7th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹⁵ Letter dtd 7th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹⁶ Letter dtd 8th Aug 1885 from a G. Russell addressed to the Secretary, Oriental Telephone Co. The letter indicates that he belongs to the Bombay telephone but his location was indicated as The Rosset, Wrexham in Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹⁷ Letter dtd 8th Aug 1885, Pro Jan 1885, No. 19 – 20 B, CW-Tel, PWD, NAI

⁹⁸ Pro Nov 1886, 4-8 A, CW-Tel, PWD, NAI

⁹⁹ Letter dtd 20th Aug 1889, Pro 34-37 B, CW-Tel, PWD, NAI

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.*

could rise in a mutiny so could other arms of the state. In the event of such a development they could easily close down the exchange and cut the wires.¹⁰² According to the Oriental Agent, the lines had been used to great advantage during religious disturbances in Bombay and during the annexation of Upper Burma. The exchange had proven even more useful in the case of Rangoon since it was thoroughly under the control of the Company.

The Secretary, PWD remarked that in the times of emergency it was even more important to have the exchange functioning and cutting of wires was not a solution to the problem.¹⁰³ Shridharni mentions in his account that during the Upper Burma campaign the Indian Telegraph Department helped in providing communication for swift advance.¹⁰⁴ The introduction of quadruplex telegraphy and copper wire aided the campaign. Though the sincerity of the Oriental Agent's claim of the company-managed telephone system assisting the Upper Burma campaign may be somewhat suspect, its larger argument was not. The question of secrecy was rendered complicated in the colonial context. There was constant fear that the very means of control (army and police) could become foes of the state in no time. Consequently, it generated a debate as to how safe was the communication system with them. An official accepted that secrecy by itself was a weak argument.¹⁰⁵

The Under Secretary to Revenue and Agricultural department, R.E.V. Arbuthnot believed that too much importance should not be given to the fact that connections to public exchanges militated against secrecy –

“...one does not as a rule conduct confidential communication by telephone. It is often desirable in commercial offices for business of office not to be generally known, but I have never heard that the fear of divulging business secrets has ever deterred businessmen from using the telephone. I venture to think, too, that the danger is exaggerated, and that the risk of other subscribers getting hold of conversation which they are not intended to hear is in reality small.”¹⁰⁶

¹⁰² *Ibid.*

¹⁰³ Off note dtd 11th Oct 1889, Pro Aug 1889, 34-37 B, CW-Tel, PWD, NAI

¹⁰⁴ Shridharni, Story of telegraphs, pg. 168

¹⁰⁵ Off note by an Member dtd 11th Oct 1889, Pro Aug 1889, 34-37 B, CW-Tel, PWD, NAI

¹⁰⁶ Off Note dtd 25th Feb 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

The tussle between private enterprise and Government resulted in a number of hybrid structures emerging. In fact there was a diversity of systems being followed – a different one in each city indicating that the local governments and local situation had big impact on how the terms were negotiated on the ground.¹⁰⁷ In Calcutta though the lines connecting the Police office were property of Bengal Telephone Co. the police exchange was private and was worked by the police themselves. In Bombay the police exchange was private but operators belonged to the Telephone Co. In Rangoon the police connections were made through ordinary commercial exchange. It was not just that telephone systems functioning as alarm systems or otherwise were not pulled down because they fell outside the ambit of the time of the ruling of 1883. Their utility to the police and other government authorities was unquestionable. So while the users of the technology including the local representatives wanted to benefit, the state authorities were always apprehensive about its spread. What was also unique was that the local arms of the government very often did not agree with the central government. In actual usage the operation of telephones through companies was not considered any different from that of the government. This gave rise to many isolated exchanges instead of common exchanges that went against the logic of utilizing such a technology. Its fragmentary nature made it less effective as a system of communication.

Economy & Efficiency

In 1890, Sir Walter De Souza, late consul for Portugal at Calcutta, wrote to Secretary of State, Viscount Cross, that the government had an unfavourable attitude to the development of telephonic enterprise.¹⁰⁸ The Consul for Portugal believed that the PWD had placed its veto on telephonic communication between police offices and other local offices at Cawnpore. The traders alone could not provide enough connections to bring an exchange into existence. Ten connections were needed by the Municipal offices in Cawnpore as well. The Municipality of Cawnpore had already allocated a sum of Rs 2200 for their telephone connections. And it looked like, if there were to be telephone connections in the city of Cawnpore, they would need to come through two separate exchanges. One would be for

¹⁰⁷ Letter dtd 16th June 1890 from the Gov Genl in Council to the Sec of State, Pro June 1890 No. 28-31 A, CW-Tel, PWD, NAI

¹⁰⁸ Letter dtd 10th Mar 1890, Pro June 1890, No. 28-31 A, CW-Tel, PWD, NAI

municipal offices and other for traders. But there were not enough private connections to form an exchange in the first place. This was a deterrent to the development of legitimate trade, remarked the Consul. He regretted that while it was encouraged in England the telephonic enterprise did not receive facilities for its natural development in British Indian dominions.

It was not just the issue of secrecy which engaged the attention of the government in the whole prospect of employment of private telephone companies for government offices. It was also the fact that taxpayers money (routed through Municipal funds) would unduly go into private hands when the Telegraph Department could well do the job itself. Once again the interests of the tax-paying public were mobilized to support the government's argument.

The biggest obstacle in the path of the Company was that no exchange existed previous to this proposal in Cawnpore which could now incorporate police wires. The government was not ready to give up its connections in observance of Resolution of 1883. Once again private interests were strongly militating against those of the state. The Secretary to PWD was firm that since the government already had large and expensive system to maintain it could not promote this exchange in Cawnpore.¹⁰⁹ So, the mercantile community was not going to be served at all if the government rules were followed. The Oriental Agent spoke of the absurdity of two different exchanges for mere 20 subscribers in Cawnpore, but stated his willingness to construct them. The trope of secrecy was so deeply embedded in government thinking that public convenience was rather quickly sidelined in the process in the name of saving taxpayers money.

However, a government official remarked that only if the Government could make an exchange for the mercantile community and work it to a profit should they prevent the coming up of the exchange.¹¹⁰ It was not be the first time that part of the state apparatus disagreed with the general notion of guarding confidentiality of state matters.

¹⁰⁹ Off note dtd 11th Oct 1889, Pro Aug 1889, 34-37 B, CW-Tel, PWD, NAI

¹¹⁰ Off note by an Honourable Member dtd 11th Oct 1889, Pro Aug 1889, 34-37 B, CW-Tel, PWD, NAI

Accordingly then, the Director General gave the following estimate for the exchange at Cawnpore. They would charge Rs 200 per subscriber working 24 hours. The municipality was given an estimate of Rs 1800 by the DG as against Rs 2200 quoted by the company. And even then the Government (based on estimate drawn of actual price of lines, instruments and operators) would accrue a profit of 15% or Rs 30 per connection as against Rs 12 the Company would pay as royalty. Earlier the Telegraph Department had quoted a higher price than the Company to avoid competition because, as one of the members said, "...it was better to adhere to a doubtful rule once established than to vascillate".¹¹¹ The Telegraph Department was bound by law to not compete with private enterprise in telephones. But government telephones were not going to be given up easily. Calcutta, Bombay and Rangoon were to remain an exception to the rules and not a precedent for their relaxation.

On receiving a complaint from Sir Walter De Souza the Secretary of State, Viscount Cross questioned the Government of India. While giving reasons for the slow advancement of the telephone enterprise, the PWD argued that there was no great demand for an expensive service since messengers could be employed at really low rates.¹¹² That also explained that government offices were not connected to central exchanges on grounds of political expediency.

The case of Cawnpore was in stark contrast to the one that transpired in Bombay only three years later.¹¹³ When the Bombay police contract with Bombay Telephone Co. lapsed in 1893 the Bombay government asked the Telegraph Department to take on the existing system with twelve police stations and join nineteen new stations. Due to a lack of telephonic facilities at the Esplanade Police Court the police had to make use of Fire Brigade station telephone in Hornby Row. This arrangement not only caused great inconvenience due to the distance but also took away two policemen from work.

¹¹¹ Off note by an Honorable Member dtd 22nd Oct 1889, Pro Aug 1889, 34-37 B, CW-Tel, PWD, NAI

¹¹² Letter dtd 16th June 1890, Pro June 1890, 28-31 A, CW-Tel, PWD, NAI.

¹¹³ Pro Dec 1893, 4-9 A, CW-Tel, PWD, NAI

In view of the constant protests of competition from telephone companies, the Telegraph Department suggested giving the contract to the telephone companies, especially if the work so far had been satisfactory.¹¹⁴ Col D. Cruickshank, Secretary to Government of Bombay reminded the Government that this course of action had been followed as per Government of India orders.¹¹⁵ The Bombay government did not have any administrative inconveniences while working with the Bombay Telephone Co. and could retain their services if the central government orders were altered. In which case the connection maintained with mercantile firms, private individuals and other public figures would have remained serviceable. It was remarkable that the local officials were always keen to remain connected to the rest of the city through a common exchange. It facilitated their work on the ground.

The local telegraph staff did not always have the same understanding as the local governments. J.F. Brown, the Superintendent of Telegraphs in Bombay was emphatic in his plea that "...this Telegraph Department which forms the only safeguard for public against mismanagement by companies should not be restricted in the field allotted to it by the Government of India."¹¹⁶ The tenor of this statement suggested that the public was being protected from some definite catastrophe. Private enterprise was not trusted by the Telegraph Department is obvious. But the public was used as the common ground where both private enterprise and the Government fought their battles. Irrespective of who would construct the Bombay police system it was to be entirely new. It would be worked by police itself. It was not an extension of the existing system. Therefore the Telegraph Department believed that no hardship was being inflicted on the Company.¹¹⁷ Even a trunk connection from the police exchange to the general exchange was unacceptable to the Superintendent because that would allow the company to benefit from all police connections without having to construct any.

¹¹⁴ Letter dtd 8th July 1893, Dec 1893, 4-9 A, CW-Tel, PWD, NAI

¹¹⁵ Letter dtd 6th Nov 1893, Pro Dec 1893, 4-9 A, CW-Tel, PWD, NAI

¹¹⁶ Letter dtd 2nd Aug 1893. Pro Dec 1893, 4-9 A, CW-Tel, PWD, NAI

¹¹⁷ Letter dtd 2nd Aug 1893, Pro Dec 1893, 4-9 A, CW-Tel, PWD, NAI

The situation became more complicated as the Police Commissioner of Bombay found that a police system separate from the general exchange was a disadvantage.¹¹⁸ The Head Quarters could not accommodate telephone operators and did not want a dual system separate from the fire brigade telephone offices. It was not an economical measure. The Telegraph Department was to charge Rs 4920 per annum for the exchange as against Rs 4025 of the company. Hence, even the economics did not work out very well for the Telegraph Department as it had in the case of Cawnpore. Therefore, the police station connections in Bombay came to be established by Bombay Telephone Company instead of Telegraph Department.

The employment of a telephone company for Municipal purposes had important bearing on proposals under consideration. There were manifest advantages in direct and speedy communication between Police and Fire Brigade. A more informed understanding of the local situation convinced the government that it was not advisable to introduce a separate system. Economic concerns time and again decided a case for or against the companies. The questions of secrecy and invisibility of the state became tenuous when practical considerations took centre stage. The state was always concerned to keep its workings hidden from the public view whereas the state by the very nature of its work was bound to come into public contact on a daily basis. So while the central authorities were desperate to insulate the local governments from potential dangers, the local governments were not pleased to see their daily work complicated by these remote political dangers.

Karachi followed Bombay and established connections of police stations with general system of Bombay telephone co in that city. In a "straggling" town like Karachi it was considered that the Police would act with greater promptitude in cases where rapid concentration of force was necessary such as occurrence of fires, riots, escapes of prisoners and the likes.¹¹⁹ Once again, here, the cost of a separate police system created solely by the Telegraph Department would raise the expenditure. The trunk connection with the general

¹¹⁸ Letter dtd 15th June 1894, Pro July 1894, 1-5 A, CW-Tel, PWD, NAI

¹¹⁹ Letter No.2234 dtd 8th Nov 1894. Pro. Sept 1895, 1-4 A. The Commissioner of Sind H.E.M James wanted to model the system in Karachi on the Bombay system.

exchange would cost Rs 90 more due to the separate instruments installed in the telephone company's office since the company and the department used different technology.

The actual joining over of the two types of lines was also not possible. Sir E.C.K Ollivant pointed out the obvious flaw in this system.¹²⁰ If at any time a direct connection with normal exchange was required they would need permission from the company and a special instrument would need to be employed. The Commissioner of Sind, various offices of Port Trust, offices of the North Western Railway and several municipal offices were already connected to Company's exchange as well as most mercantile firms. So joining of two systems could not be avoided for long. The Company would charge a great deal more if a system not made by them was connected to the exchange. Hence, political concerns of the state had to be compromised to a certain degree as the technological disadvantages compelled a different course of action. Private enterprise could benefit from these technological anomalies.

As the Under Secretary to Revenue and Agricultural department, R.E.V. Arbuthnot saw that

“Points frequently arose that could be settled in two minutes by telephone that had to be sent over a demi-official letter with consequent waste of time and delay. Interviews had to be arranged in writing.”¹²¹

Another official added in a similar vein:

“Already today, Sunday 11.30 a.m. I have sent a demi-official to Honourable Member, received a reply from him, and sent a demi-official to legislative secretary. The peon has not yet returned from the latter. The work would not have occupied five minutes if we had telephone communication as suggested.”¹²²

¹²⁰ Letter No. 1975 dtd 5th June 1895, Pro Sept 1895, 1-4 A. CW-Tel, PWD, NAI

¹²¹ Off Note dtd 25th February 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

¹²² Off Note by E.N. Baker dtd 18th May 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

Keeping the daily concerns of government as an organization in mind he added: "Indeed, I venture to doubt where anywhere else in the world outside India it would be considered possible under similar conditions to do without telephonic communication."¹²³

Another official was of the opinion that

"In America every private house of any pretension and every tradesman's shop has its own telephone service and the advantages of it are immense. No one can fully appreciate what they are until they have tried them. So great have the benefits found to be that new hotels are providing telephones in every room and a long distance telephone in the building. The merits of the arrangement must be very great for them to go to all this expense. But they do so because they realise that the money expenditure is more than covered by the saving of time and facilitation of business."¹²⁴

The telephone business always received a mixed reaction at the official level. Not everyone was equally excited about the possibilities that the phone afforded. Another official did not appreciate the telephone very much. He said:

"Personally, I don't appreciate the telephone, and I should much dislike having one laid onto my room, or to be liable to be rung up to go into the telephone room by any of the other people in the exchange and at any moment."¹²⁵

In this case, the telephone was seen more as an instrument causing disturbance in the routine affairs of the office. The official clearly found it disturbing that anyone could command his attention with just a ring. It was very disconcerting to the Victorian etiquette. Personal affectations for a certain technology, like personal leanings in political matters, played a role to a limited extent in the attitude of these officials.

The government was slowly awakening to the advantages of a common telephone network. S. Preston, the secretary to PWD remarked that on his visit to Calcutta exchange the calls

¹²³ Off Note dtd 25th Feb 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

¹²⁴ Letter dtd 8th Mar 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

¹²⁵ Off Note by J.F.Finlay dtd 21st May 1902, Pro. Mar 1903 No. 1 A, CW-Tel, PWD, NAI

were coming in incessantly.¹²⁶ In the Simla exchange on the other hand, excluding Sundays there were 2,298 calls in a single month. All the departments welcomed the idea of connecting the local populace to the exchange. H. Erle Richards, Member, Legislative Department even suggested that the official doctors be put on official telephone since the chaprasi took forty five minutes to reach the doctor.¹²⁷ The Director General of Telegraphs supported the above suggestion and recounted that a child had been recently saved by giving instructions on the telephone.¹²⁸

By 1905 the British Indian government found that circumstances had changed to such an extent that the continuance of orders to limit licensed companies to private connections was undesirable. They passed a Resolution and empowered the Local governments and administrations to sanction, at their sole discretion, telephone connections to government offices with private exchanges.¹²⁹ They had to consult the Telegraph Department before deciding a particular private agency to be employed.

Local governments were quick to point out contradictions in government rules. The Bombay government found the clause of checking with Telegraph Department for private agency to be chosen in conflict with the rest.¹³⁰ W. L. Cameron, the Secretary to Government of Bombay said that there was only one telephone company in Bombay and therefore the question of choosing did not arise. But the Government was of the opinion that these provisions had been made not just to provide expert advice but to see if the connections could not be made more cheaply themselves. Consideration had to be given to expenses involved in establishing through departmental or private means. Therefore the Telegraph Department was not just looking to get the optimum benefit for the public. The Department was also keen to get a chance to do it better themselves.

¹²⁶ Off note dtd 1st Aug 1904, Pro Nov 1904, 4-5 A, CW-Tel, PWD, NAI

¹²⁷ Off Note dtd 1st Aug 1904, Pro Nov 1904, 4-5 A, CW-Tel, PWD, NAI

¹²⁸ Off Note dtd 1st Aug 1904, Pro Nov 1904, 4-5 A, CW-Tel, PWD, NAI

¹²⁹ Resolution No. 7421-7443 dtd 15th Dec 1905. Pro. Jan 1906 7-9 A File 28 of 1905. Telegraph, C&I, NAI.

¹³⁰ Letter No. 7-727 of 1907. Pro Mar 1907 11-12 B File no. 83 Sl.No. 1-2. Telegraph, C&I.

But the problems of the users only multiplied with so many contradictory regulations. In the complicated government rules the real matter of secrecy or otherwise was often lost. The complaints from Government officials themselves never stopped pouring in. In 1909, Sir Charles Allen, Chairman of the Calcutta Corporation, complained that “to telephone almost any Government officer I have to get a communication through two exchanges and this wastes time.”¹³¹ This was so even when Government officials were free to seek a separate connection with a private company. But the inconvenience did not reduce very much in that method and additional expenses were incurred.

G. Rainy the Under- Secretary of PWD, said that nothing would be saved by handing over the government system at Calcutta for the company to run. According to him, some telephone connections would always remain in the hands of the government. But secretaries from other departments did not concur. H. M. P. Hawkes, Secretary to the Army Dept responded in a different vein adding that “as regards confidential communication, I should say, that unless both parties are directly connected with each other it would be quite impossible to ensure secrecy over telephone lines which are worked through any exchange.”¹³²

The two telephone systems in Calcutta were not amalgamated eventually. It was because the company would not have bought all the lines and instruments already laid by the Telegraph Department. They used different instruments. The General Manager of Bengal Telephone Company informed that the company had spent nine lakh rupees in the past two years in reconstructing the system. So a more efficient system had been brought into effect. The rental would increase the cost of running the exclusive government system from Rs 18, 723 to Rs. 29, 800. The underground and aerial cables were irrecoverable and could not be sold if the Company did not take them up. So now efficiency was clearly not ensured while privacy was not a concern!

¹³¹ No. S-I, 3196 dtd 7th Dec 1908. Pro. May 1909 16-18 A, Telegraph, C&I, NAI

¹³² Off note dtd 18th Feb 1909, Pro May 1909, 16-18 A, Telegraph, C&I, NAI

The whole premise for this discourse lay in the single factor that the Colonial Government was not interested in retaining the agency to establish telephones but only in maintaining secrecy. But inspite of several instances in elaborating the futility of the argument as impracticable the principle was never really discarded completely. Only dissenting officials were given their right to adopt whichever agency they saw as more convenient.

JAIL PHONES

Telephones were not just sought after by government and police officials. They seemed to have found supporters among other kinds of users too. The Cellular Jail at the Andaman and Nicobar Islands required better forms of communication that relieved the large numbers of policemen involved in the work of communicating. The telephone was seen as an improvement not just in speed but also in labour costs involved.

In the Andaman and Nicobar Islands the Superintendent of Port Blair, Mr. Merk informed the Government of India that a telephone service was required inspite of an excellent system of signaling by heliograph, lampograph and flags.¹³³ These systems were served by the Andaman and Nicobar police and 42 policemen were detailed for this service alone. The total strength of the Police corps being 715, the employment of police for these purposes effectively reduced the number to 673 which, for some 14000 convicts, was not much. The convicts themselves, of course, could not be used as signalers. The total annual cost for the system at the time was Rs. 8560. This did not include the cost of 15 convict peons who carried messages from signaling stations. Each convict cost government Rs. 91 p.a. (total Rs. 1,365) plus Rs.165 a year cash allowances (total Rs. 1530). Altogether it came to Rs. 10,090.

On the other hand the telephone exchange was meant to be in police lines and as an electrical engineer was part of the local establishment, repairs and maintenance would be insured. It was, however, a concern that communication would be disrupted due to vandalism to the lines and cables. The Superintendent was of the view that

¹³³ Procd. March 1906, 56-58 A, File 35 of 1905

“...in the event of an outbreak the line could get cut but if the convicts are sufficiently pre-concerted to think of cutting the line then they could also as easily overpower the next signal station. There were no more than four policemen at any signal station (except for central Aberdeen).”

These views were most intriguing when they were juxtaposed with the colonial paranoia with secrecy. It was really remarkable that the central government officials were completely unable to see that a functional telephone offered a brilliant alternative to many other forms of communication. And the bureaucratic obsession with secretive communication was not really present with the administrative arm in the field. With telephones the cost of communication system at Cellular Jail would be reduced to a fifth of its previous figure (Rs. 2,018 annually).¹³⁴ Most officials agreed that the current systems were “cumbrous and expensive” and the telephones provided a “cheap and more efficient” alternative. This plan was agreed to and as in the case of all other government departments (including railways and canals) the establishment charge (at Rs. 13, 400) was borne by the Telegraph Department.

Conclusion

The Telegraph Department worked out a complicated system of regulations in its efforts to deal with the private companies. In the contested space of rights over telephone technology, a number of negotiations imparted a grave complexity to the development of telephones in India. The Government did not wish to compete with private enterprise overtly but wanted to prove in every manner that they could do the work better. The colonial bureaucracy evolved a trope of secrecy, economy and efficiency, which acted as the means for achieving the upper hand in the negotiations. The companies vied for the more and more benefits but succeeded in varying degrees. Both parties used the interest of the “public” to buttress their arguments but the development of the telephone enterprise suffered. The Government was limited by its commitment in the licenses and the private enterprise was limited by the

¹³⁴ After a revision of the practicalities a more conservative estimate was forwarded (pg 4 of Official Notes), amounting to Rs. 6,670.

regulations of the Government. As a result a hybrid and fragmented system of telephony evolved.

The official policy remained to encourage private enterprise which was altered only once the National Telephone Co. in England was given over to the Post Office in 1912. Security was really a very conflict ridden issue. Though the Companies at home (Britain) and in India were not trusted with day to day conversations between government offices, the telephone network was by its nature porous. No authority in reality could be trusted entirely with information even if it was the police themselves.

CHAPTER 3

THE HEN THAT DID NOT LAY THE GOLDEN EGG: Telephone Charges

The structuring of telephone charges was crucial to understanding the impact of telephone technology. The question of charges came up during the years whenever the government tried to regularize or reduce them or address complaints from the public about rise in telephone charges. As repeated attempts were made to clear public doubts about supposed high charges the Telegraph Department found two issues influencing its decisions. The first was the need to actively and consciously promote telephony as a modern form of communication by standardizing rates and improving upon them further. This process started almost two decades after the very first exchanges were established. The second was the Governments' need to show that it was not competing with telephone companies at least in areas where they had been licensed. The progression from promoting private enterprise in the early decades to, limiting it in the areas where it was licensed in the later decades, made the Governments' decisions in this direction very important.

The process through which rates were computed was riddled with problems that were delineated as they came up over time. The great deal of confusion caused over the matter of charges led the bureaucrats themselves often to comment on the aimlessness of the whole process. Very slowly but surely the emphasis on competition with telegraph melted away. The story with respect to telephone charges brought about a total role reversal for all the parties involved in the earlier bureaucratic discourse. It was a terrain where vested interests acquired harsh tenor about their individual rights. There was a renewed vigour for arguing the lack of efficiency and the disparity between service and ever growing demand for new connections. Also, the negotiations between the Government, commercial bodies and telephone companies entered the public space for the first time. They formed the basis for debate and agitation for better telephone system. Criticism followed the Government for its decisions and the private company for its limitation in acting as profit making concern and not a 'public utility'.

**INITIAL EFFORTS TO REGULATE TELEPHONE CHARGES IN INDIAN
TELEGRAPH DEPARTMENT**

The Director General's Circular No. 6 (Telephone) dated 18th December 1889 tried to regularize telephone rates to a large extent.¹ The Circular laid down the charges for the 8 systems operated by Telegraph Department. The table given below shows that while the costs of telephonic instruments (including wire, phone, indicators, and bells in certain cases) varied widely, the charge was standardized in such a manner that the whole system was run at a profit.

The cost of a wire ranged from Rs. 10 to Rs. 27 but it was charged at Rs. 20. The cost of a telephone ranged from Rs. 42 to Rs. 88 but it was charged at Rs. 60. Similarly the price of an indicator altered between Rs. 21 to Rs. 44 but was charged at Rs. 30. The following table shows how this was done.

Place	Cost	Charge	Difference
Cawnpore	Rs 7150	Rs. 7080	Rs. 70 more
Agra	Rs. 1372	Rs. 1220	Rs. 152 less
Negapatam	Rs. 716	Rs. 840 Rs. 832	Rs. 124 more
Allahabad	Rs. 1660	more	Rs. 490 less
Calcutta	Rs. 1448	Rs. 2280	Rs. 832 more Rs. 1440
Calcutta	Rs. 4120	Rs. 5560	more
Mussorie	Rs. 3586	Rs. 3640	Rs. 54 more
Profit			Rs. 1738

Source: Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

In 1901, E. Fg. Law, Member of Finance and Commerce Department requested to be connected by telephone to Deputy Secretary and Comptroller General.² These telephones

¹ Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

² Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

were not to be connected to the general system of the city but only within the same building. For 3 connections the Bengal Telephone Co. was charging Rs. 150 against Rs. 190 of the Indian Telegraph Department. The company charged Rs. 75 per annum for each instrument (whose actual cost was Rs. 150). The company was even willing to sell the instruments at Rs. 335. E. Law found the cost of connections excessive. He started an enquiry about how the charges had come to be so high. The Telegraph Department was immersed in questions over its own functioning.³

The Indian Telegraph Department had already been involved in trying to reduce the rates for some time. The Examiner of Telegraph Accounts, in his assessment of the telephone rates on 2nd June 1900, recommended that the telephone rates did not need any reduction.⁴ The capital cost of establishment, store-keeping and telephone, maintenance, direct maintenance, rates of interest, depreciation, general charges and pay of special operators, if any employed, were used to compute this figure.⁵ This method gave the following figures:

	Prescribed charge (Rs.)	Average of actuals (Rs.)
Per half mile of line	20	15.76
Per Telephone	60	60.76
Per Indicator	30	30.38
Per Bell	10	10.12
Charge for operator per subscriber	30	18.11

Source: Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

The values attributed to line and operators were much higher than the average of the original costs. The Examiner of Telegraph Accounts surmised that if the cost of line was adjusted then that of all other items would have to be increased accordingly. That would bring the final amount to the same approximate value. Operators were only employed at Mussorie Exchange. Annually the charges exceeded the cost by Rs. 1, 733.⁶ However, these

³ Off Note dtd 14th Dec 1900, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

⁴ Letter dtd 2nd June 1900, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

⁵ Actual standards for computing given in Appendix 4

⁶ Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

charges, it was pointed out, were for exchange connections.⁷ In practice exchange connections could be maintained “more economically”.⁸

The above explanation did not solve the problem. E. Law believed that telephone charges in India were much more compared to those in England. In answer to this query a clear comparison was set out between charges levied by Indian Telegraph Department, by British Post Office and the Bengal Telephone Co.⁹ It was reasoned that the rate for instruments was much higher in colonial India because the cost was much higher.¹⁰ The maintenance cost was more since there were fewer instruments to maintain and instruments were only repaired in Calcutta. Hence, the carriage of instruments to and fro added to that cost. The Indian charges were inflated by added freight charges on imported stores and repair costs.¹¹ E. Law retorted that repairs of installations within Calcutta did not incur this extra charge.¹² But, the DG argued, that it was difficult to maintain a sliding scale of rates depending on repair distance.¹³ Also, at all times they had to maintain the rates in a manner so that they do not appear to be competing with the private companies in areas where companies were licensed.

The rates of Indian Telegraph Department, indeed, compared favourably with the rates both at England and those levied by Bengal Telephone Co.¹⁴ The rates of Bengal Telephone Company ranged from Rs. 150 to Rs. 300. Those of the Telegraph Department had a lower range from Rs. 140 to Rs. 200. On a general basis, private lines cost more than exchange lines. The charges for private lines in London increased greatly as the distances increased. But increase for the same was not so dramatic in Indian Telegraph Department rates. For instance, within a mile the cost of a connection in London would be Rs. 150. The Indian

⁷ Off Note by E. FG. L(AW) dtd 10th Jan 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

⁸ Off Note by Fred Maclean dtd 22nd Jan 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

⁹ Off Note by Fred Maclean dtd 23rd Feb 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹⁰ *Ibid.*

¹¹ Off Note by Fred Maclean dtd 16th May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹² Off Note by E. FG. L(AW) dtd 21st May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹³ Off Note by Fred Maclean dtd 29th May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹⁴ Appendix 5

Telegraph Department charged Rs. 160 for the same. However, a three miles long connection cost Rs. 330 in London and the Department only charged Rs. 240.

The provinces in England fared better on all counts. The provinces had much lighter tariffs compared to the Indian Telegraph Department. Rs. 120 for businesses and Rs. 105 for houses compared very nicely with the flat rate of Rs. 140 charged by Telegraph Department. The figures for exchange connection charges in London were conspicuous by their absence. It could be that since the original question was mainly about internal and private connections it was deemed sufficient to compare Telegraph Department exchange rates with those of Bengal Telephone Co.

Another noticeable fact here was that the business connection charges levied by Bengal Telephone Co. were different for British and Native firms and the difference in amount was distinctive. Whereas European firms had to pay Rs. 250, native firms were only charged Rs. 150. One could venture to suggest that these charges were levied in this manner to attract native businesses to the services of telephone. But if that were so it clearly indicated towards an understanding that the native population had not absorbed telephone usage as much as its British counterparts. This question is analyzed in greater detail in chapter four in association with the telegram subscription rules.

More criticism followed this comparative analysis of rates. E. Law wrongly assumed that the British charges were those of a private company and hence, a “heavy royalty” and “handsome commercial profit” were included in the tariff. They were actually of the British Post Office.¹⁵

No specific charges were delineated for internal domestic telephony (within the same building unconnected to any exchange) since there was “no demand for “Domestic Telephone” connections, and no special charge has been found necessary hitherto.”¹⁶

¹⁵ Off Note by E. FG. L(AW) dtd 6th Mar 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹⁶ Off Note by Fred Maclean dtd 16th May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

It was believed that the Department should not be called upon to connect domestic telephony of the kind where it was within one building. The Director General of Telegraphs ascertained that the English Postal Department likewise had no rates for such domestic telephony. They did not undertake such connections. The Director General thought that it was as well since it was akin to the Public Works Department being called upon to supply fittings for private residences.¹⁷

No allowance was made for exchange attendance in the Indian rates.¹⁸ But as the elaborate break up for costs revealed, operators were accounted for where they were employed by the Telegraph Department. This was the case only in one exchange, Mussorie, out of 8 exchanges in existence. One valuable pointer to the increased Indian rates was the cost of instrument. While it was 2 pounds or Rs 30 in England it was Rs. 60 in India.¹⁹ The cost of earlier instruments obtained from England was much more than the latest versions available now.²⁰

E. Law the main critic of the system of Telegraph Department's rates suggested an alternative to the prevalent costing.²¹ The apparatus and installation cost could be made on a fixed distance – 1/4th of a mile. The cost of the apparatus according to him ought not to increase Rs. 45.50 and should be “preferably manufactured in India.”²² The cost price of a complete private line installation should not exceed Rs. 75. And charged over five years, this would come to Rs. 15. Maintenance and profit could be added to this amount. His advice was valuable since he belonged to the Finance Department. At the end he remarked that “I venture to question the propriety of now charging the original cost of instruments purchased at relatively high prices, many years ago, and now probably obsolete.”²³

¹⁷ Off Note by Fred Maclean dtd 26th July 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹⁸ Off Note by E. FG. L(AW) dtd 21st May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

¹⁹ Off Note by E. FG. L(AW) dtd 21st May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

²⁰ Off Note by Fred Maclean dtd 26th July 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

²¹ Off Note by E. FG. L(AW) dtd 6th Aug 1901, Pro May 1902, No. 9-11 A, CW – Tel, PWD, NAI

²² *Ibid.*

²³ *Ibid.*

This assessment was remarkable in that it pointed, for the very first time, towards full scale production of telephone instruments within colonial India. It had the potential of making telephones more accessible through lowering of costs of instruments. According to Daniel Headrick, in the colonial context, the geographical relocation of technology was done through superficial transplantation.²⁴ No forward and backward linkages were developed with local economy. This was preferred over cultural assimilation to avoid political hazards. Shridharni also opined that since the time of the First World War the telephone was never really able to catch up with the demand. He cited two reasons for it – lack of funds and “...deliberate turning back by our British masters in the twenties of the present century on the policy of manufacturing equipment in India which had been fostered so far as Telegraphs were concerned.”²⁵

The quality of the telephonic instruments quickly depreciated. But the comparative lowering of costs was much more gradual. This created a backlog of obsolete instruments. It saddled the enterprise with fast ageing stocks. These stocks required a fast growing business or else they were bound to lead to a loss. Here, the slow pace of the development of telephony got into a cycle of duplicating itself. Slower growth translated into retention of stocks over long time that led to payment of increased charges over equally long time and hence prohibiting future expansion. However, this need for local production did not feature in the discussions again.

It was stressed that the various respective government departments were free to either engage the service of the Telegraph Department or that of a private company. This was the case as long as they were not connecting to the general exchange for public.²⁶ The rule was not obligatory in case of telephones within same premises. So, while the rules of the Department seemed in obvious contradiction with each other, at the outset, they were designed to guard secrecy of official affairs and not agency of telephone line construction. However, the PWD went so far now to say that the Government was not trying to compete

²⁴ Headrick, *Tentacles of Progress*

²⁵ Shirdharni, *Story of Indian Telegraphs*, pg 95

²⁶ Off Note by T. Higham dtd 29th May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

with private enterprise or economize on telephone connections, but to maintain secrecy.²⁷ In each case that came forward the officials stressed on a different reason as the most genuine reason for bifurcating the telephone enterprise into government held exchanges primarily for government usage and those held by private companies. It was in part influenced by individual official attitudes and in part by time. As decades went by there was a shift in the stress from secrecy to economy to efficiency.

A Committee was assembled and Revised Circular Memorandum No. 6 (Telephone) dtd 20th Dec 1901 was brought out.²⁸ This Committee recommended a substantial reduction of the rates. There was a reduction of 1/4th of rent hitherto charged for telephone transmitters and receivers and bells used. The value of original instruments obtained many years ago from England had reduced. Additionally, they decided to differentiate between rates charged for exchange and non-exchange systems. A standard rate was introduced up to two miles (provisionally introduced in Cawnpore and Mussoorie).

Since the proposed rates were lower than those charged by companies, the Telegraph Department was to not supply telephone connections to Municipalities, private firms and individuals in places where telephone companies were licensed.²⁹ Communication exclusively within a Government department could be economically managed and hence a reduction in ordinary rates was possible. Revenue was to fall by Rs. 26,000 per annum as an immediate effect post-reduction in telephone rates.³⁰ The Circular Memorandum explicitly stated that these changes were instituted owing to the improvements in design and manufacture of telephones.

Clearly, the Telegraph Department brought into force newer rates that caused some loss to the Department in its effort to promote the telephone system. After this, every few years in

²⁷ Off Note by T. Higham dtd 29th May 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

²⁸ Revised Circular Memorandum No. 6 (Telephone) dtd 20th Dec 1901. The Committee met on 10th and 15th April 1901. Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

²⁹ Letter dtd 20th Dec 1901, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

³⁰ Off Note by W. L. Strange, Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI

the first two decades of 20th century the Telegraph Department delved into the question of charges to accommodate grievances on telephone connections.

The Telegraph Department maintained a modicum of control over private companies as well. The 1903 license fixed a maximum charge of Rs. 250 for private exchange connections made by telephone companies.³¹ If the charges made by licensees exceeded Rs. 200 it was subject to revision after ten years from date of the revised license. The charge for government connections, made by private concerns, was to be 25% less than the maximum rate.

In 1906 a more comprehensive revision was carried out.³² A charge of Rs. 26 and 4 annas was uniformly levied for wire on railway and canal property. For both railways and canal again, Rs. 54 was charged for telephone and telegraph instruments. Previous to the year 1906, Rs. 60 was charged for telegraph and telephone instruments on canal property. The amount was reduced to Rs. 54 for the sake of uniformity with railway charges. Railway and canal charges were higher than those for private telephones since they had to be monitored over long distances unlike private connections. The supervision and traveling expenditure raised these expenses. Common rates were laid down for telephone and telegraph wires for convenience.

Before 1906, half rate was charged for return wire to promote metallic return instead of earth return.³³ Metallic return was thought to give better service and required less maintenance. But it was decided in 1906 to charge full rate on return wire as well. The above alterations in totality were to bring in a profit of Rs. 3491 in wires and a loss of Rs. 3126 in the instruments.

Exchanges were divided into certain categories. Private Exchanges which were worked by the Department were sub-categorized into those with 20 or more subscribers and those with

³¹ Pro 1, Enclosure II, Pro June 1903, 1-15 A, CW-Tel, PWD, NAI. This was applicable within a radius of 4 miles.

³² Pro Dec 1906, 4-5 A, File no. 198 Telegraphs, C & I, NAI

³³ *Ibid.*

less than 20 subscribers. Before 1906, rates of Rs. 120, Rs. 135 and Rs. 150 were applied for 8, 16 and 24 hrs respectively for connections in exchanges with 20 or more subscribers.³⁴ These rates were applicable for connections within 2 miles. For all connections in exchanges with less than 20 subscribers, Rs. 150, Rs. 190 and Rs. 235 were applied for 8, 16 and 24 hrs respectively.

In 1906, the latter set of rates, for exchanges with less than 20 subscribers were removed to spur the growth of telephone connections, as these rates were considered prohibitive by some would-be subscribers.³⁵ The resulting loss was estimated to be Rs. 5,530 per annum. For private exchange connections not worked by the Telegraph Department an all-round rate of Rs. 100 upto 2 miles was employed.³⁶

Clearly, every few years the Telegraph Department brought into force newer rates that caused some loss in its effort to promote the telephone system. Hence, it may be suggested that these measures were not appreciated by the local population or certain shift in social perceptions was required for greater acceptance of telephone as a means of communication. This trend could also be suggestive of the fact that more and more people were discovering the uses of the instrument and hence, the Government was pushed to re-evaluate its financial structure in order to make it accessible.

A number of other kinds of charges were worked out. For 'Non-exchange' connections the recommendations of the Committee of 1901 were continued.³⁷ Rs. 20 was charged per ½ mile of wire and Rs. 45 for instrument. The rates were not altered because the initial cost of material and maintenance had remained the same since 1901. Also, private companies were charging more than the Telegraph Department in non-exchange connections already. Therefore, there was no need to bring down the tariffs any further.

³⁴ *Ibid.*

³⁵ *Ibid.*

³⁶ Rs. 45 was charged for telephone, Rs. 22 ½ for indicator and 32 ½ for average length of wire. Dec 1906, 4-5 A, Telegraphs, C & I, NAI

³⁷ Pro Dec 1906, 4-5 A, File no. 198 Telegraphs, C & I, NAI

'Private Hill Station' Exchanges levied special rates of Rs. 107 for seasonal connections.³⁸ The charge for Military Exchanges was the same as normal exchanges with the exception of Rs. 30 per mile of wire and Rs. 60 for return wire.³⁹ This last was higher due to the underground connections effected.

Internal connections were those connections that were operated within a building or premise. They could be maintained as single lines or as mini localized exchanges. For internal connections the same rates as those of external connections were charged initially. A new rate scheme of Rs. 90, Rs. 101 and Rs. 112 for internal exchanges operated by Telegraph Department was created.⁴⁰ The charge for internal exchange connections not worked by Telegraph Department was reduced from Rs. 100 to Rs. 75. The cost per non-exchange telephone was increased from Rs. 35 to Rs. 45 in compliance with the rate generally charged. Such connections were anyway very few, limited almost entirely to government offices. The minimal loss from decrease in charges was to be absorbed by increase in rate of instruments. These charges came into force in 1907.

By the time these new charges came into effect in 1907 the earliest exchanges had already been working for 27 years. The financial structure of the telephone enterprise was being rationalized by the Telegraph Department here in a manner to influence the companies as well. That factor made this whole process important. What was even more crucial was that, till now the criticism received from within the bureaucratic establishment generated these sweeping changes. Of concern was the fact that even so many years post its initiation in the country the telephone was not able to establish an enduring subscriber base. It continued to work in niche environs. It would be valuable to glance at the slow growth the enterprise had had over the years in both private company systems and exchange systems.

³⁸ Seasonal connections were from 15th March to 15th Nov in a given year.

³⁹ Pro Dec 1906, 4-5 A, File no. 198 Telegraphs, C & I, NAI

⁴⁰ *Ibid.*

The companies collected the following revenues from their systems from the years 1882-1904:

Year	No. of Subscribers	No. of Exchange Connections	No. of Pvt. Lines	Amount on which royalty paid
1881	-	-	-	-
1882	244	244	5	73,009
1883	411	392	34	1,19,865
1884	699	703	77	1,37,490
1885	822	837	100	1,51,349
1886	849	871	95	1,66,876
1887	808	842	104	1,79,448
1888	893	923	113	1,93,948
1889	961	1,001	120	2,02,100
1890	1,004	1,040	131	2,12,757
1891	1,076	1,186	139	2,30,380
1892	1,231	1,237	155	2,53,584
1893	1,360	1,380	156	2,73,371
1894	1,407	1,432	175	2,90,570
1895	1,537	1,546	199	3,10,421
1896	1,676	1,655	226	3,32,322
1897	1,826	1,802	229	3,64,683
1898	1,943	1,894	244	3,90,956
1899	2,062	2,005	273	4,11,334
1900	-	-	-	4,35,076
1901	-	-	-	-
1902	-	-	-	-
1903	-	-	-	5,14,482
1904	-	-	-	5,35,353

Source: Compiled from Administration Reports of Indian Telegraph Department 1880-1905

The Government system on the other hand spread in the following fashion in the early decades:

Year	No. of Govt. Exchanges	No. of Govt. Exchg Connections	Private Lines		Amount earned by Government	Total Earnings of Telegraph Department	Net Profit of Telegraph Department
			Circuits	Offices			
1881	4	24	37	67	19,808	38,54,212	6,18,568
1882	8	56	88	147	40,069	41,57,239	8,17,797
1883	12	92	89	148	47,131	40,91,417	3,75,087
1884	9	72	122	200	53,213	47,27,143	11,67,918
1885	8	71	160	257	61,443	51,10,986	14,92,291
1886	8	79	156	247	60,182	59,76,463	18,54,590
1887	11	105	124	195	58,118	66,28,660	23,36,412
1888	11	97	-	217	58,981	63,22,476	19,80,245
1889	13	103	-	203	64,871		
1890	13	93	-	224	53,794		
1891	16	141	-	260	64,618		
1892	23	188	-	273	75,946		
1893	26	205	-	320	87,749		
1894	30	260	-	360	93,278		
1895	31	265	-	394	1,06,511		
1896	36	296	-	418	1,15,309		
1897	41	357	-	454	1,35,194		
1898	42	395	-	468	1,44,588		
1899	43	421	-	511	1,54,133	1,03,65,897	36,49,525
1900	-	-	-	-	1,61,127	1,14,98,682	44,14,753
1901	-	-	-	-			
1902	-	-	-	-			
1903	-	-	-	-	1,95,692 (23,469- rents from tel exchg &pvt lines)	1,11,27,986	30,53,907
1904	-	-	-	-	2,04,520	1,15,97,897	33,94,182

Source: Compiled from Administration Reports of Indian Telegraph Department 1880-1905

The growth of number of connections was remarkably slow. The revenue was quite high for the few connections added to the system over such a long period of time. The extensive debate on internal telephones was reflective of the fact that indeed telephony was considered expensive in public perception. If internal telephones were so difficult to obtain, exchange connections automatically limited themselves to the bourgeois classes. From an instrument of public utility it turned into an instrument of luxury. Public utility was certainly not a concept limited to bourgeois classes. The discontent over availability of telephones was increasing the number of complaints.

The telegraph was advantageously placed as against a telephone. It did not require personal possession of a telegraphic machine at either end of the line for communication to take place. Impersonal hands could scribble the message and wire it to any part of the country. The telephone, on the other hand, required possession of an instrument and a network of such connections to even function.

ISSUES IN COMPILING CHARGES

Every successive Director General had to increasingly dwell more and more on the matter of telephone charges. Just after a complete revision of charges in 1907, the question was reopened in 1908. This time the enquiry was specific to the cost of a telephonic instrument. Also, the criticism emanated from a commercial body instead of the Government. The Telegraph Department doubled over itself in trying to prove that there was some rational basis to the telephone costs. They came up with very unexpected results. It was a losing battle as the department lacked the resources for constructing a logical analysis on something as small and basic as the rate a telephonic instrument. Eventually, the problem proved to be an “addled egg” that refused to deliver a solution.

In May 1908, the Upper India Chamber of Commerce complained about excessive annual charge of Rs. 55 made for hire of each additional telephone in a house or office.⁴¹ The Director General of Telegraphs believed that the charge was computed on fair grounds. The rate was Rs. 45 and not Rs. 55 as delineated below:

Interest at 4% on capital cost of instrument taken at Rs. 77.7		Rs. 3.11
Depreciation at 20% on capital cost of instrument taken at Rs. 77.7		Rs. 15.54
Maintenance	Supervision	Rs. 20.0
	Renewal of cells	Rs. 3.50
This was calculated in 1901 on actual cost of maintaining a telephone exchange system with 36 subscribers		
General charges at 9.6% on maintenance		Rs. 2.25
Total		Rs. 44.40
		Rs 45

Source: Off Note by T. D. Berrington, DG, dtd 16th Sept 1908, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

This manner of computation was recommended by the Committee in 1901. This was applied to all the 36 modern pattern instruments in Lucknow exchange. The details of which are given below:

36 Desk telephones at Rs. 48.6	Rs. 1,750
36 batteries at Rs.3.5	Rs. 126
Carriage of above	Rs. 200
Cash outlay in first fitting	Rs. 720
	Rs. 2, 796
	Rs. 2800

Source: Off Note by T. D. Berrington, DG, dtd 16th Sept 1908, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁴¹ Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

The annual rent was then decided on as follows:

Interest at 4% on Rs. 2800	Rs. 112
Depreciation on Rs. 2800 at 20%	Rs. 560
Maintenance and renewal of batteries allowing for annual renewal	Rs. 126
Direct maintenance, including cost of battery men, share of cost Inspecting Subordinate Staff, and share of Divisional and Sub-Divisional supervision	Rs. 720
General charges on account of Accounts, Electrician, Direction, etc.	Rs. 82
	Rs. 1,600

Source: Off Note by T. D. Berrington, DG, dtd 16th Sept 1908, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

The amount of Rs. 1600 divided by 36 instruments gave the figure of Rs. 44.40, i.e., Rs. 45 per telephone. And this was made the general rent everywhere.

The depreciation sanctioned at 20% in 1882 was due for a revision since the life of an instrument had increased to seven years.⁴² The DG accepted that the depreciation could be reduced to 12 ½%. Meanwhile, 10% and 15% needed to be added for store-keeping charges and establishment charges respectively. In this way the total charge amounted to Rs. 1,501 and 3 annas or Rs. 41.7 per telephone. The Committee had underestimated direct maintenance and general charges. So the lowering of charge through the new method was made up by maintenance charges. It was “well known”; according to the DG, that even the charge of Rs. 45 was low since the railways were charged Rs. 54.⁴³

Unlike the previous DG, Sydney Hutchinson who believed that railway and canal charges needed to be more due to long distances over which they were supervised, the current DG T.D. Berrington believed that they were “conveniently grouped” and simpler to maintain. He believed that this enforced his argument of an already low charge. Also Bombay Telephone Co. levied Rs. 60 for an instrument at Bombay and Ahmedabad and Rs. 50 at Karachi. The Examiner of Telegraph Accounts had calculated Rs. 70.31 as the rent based on actual figures.

⁴² Off Note by T. D. Berrington, DG, dtd 16th Sept 1908, Pro Jan 1914, 3-4 A, Telegraphs, C & I

⁴³ The charges for railways was fixed after much deliberation. It comprised of Rs. 7 for maintenance, Rs. 17 in Subordinate establishment, Rs. 6 for interest and Rs. 24 for General charges.

The Commerce and Industry Department itself was slightly unconvinced by his calculation but found his argument reasonable.⁴⁴ They also employed the DG's method of calculation. An amount was arrived at by taking the general and direct maintenance charges to be constant and introducing 10% and 15% for storage and establishment costs, respectively. The total arrived at in this case was Rs. 1,318.1 or Rs. 37 per telephone.⁴⁵ Thus, even taking into account the fact that general and direct maintenance charges had been underestimated the cost of a telephone could still be reduced to Rs. 40.

The DG came up with additional complications while defending his standpoint. There was great difficulty in finding the "maintenance" and "direct charges" since the accounts of telegraphs and telephones had been preserved in collation.⁴⁶ This particular impediment proved to be a singularly contorted problem that only became more complicated over time. As late as 1913 this problem had not been corrected. Both telephone and telegraph systems employed same inspection crews. Within telegraphs and telephones also, separate categories of Departmental connections, private lines and so on were also located for all of whom a certain rate needed to be compiled.⁴⁷

In 1911, the Examiner of Telegraph Accounts opined that the depreciation should include expenditure incurred in carriage of stores and placing them *in situ*, as depreciation included renewals and expenditure on it. With this in mind the charges were calculated once more and the estimate came to Rs. 39.12.⁴⁸

The voices against high cost of instrument grew stronger as more and more persons joined the debate in the official circles. Each one had their own experiences in the matter. The Lieutenant Governor of United Provinces, Sir J.P. Hewett entreated that, "something should be done by the way of reduction, so as to help to increase the use of such a modern

⁴⁴ Off Note dtd 18th Feb 1909 by J.F.R, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI The actual breakup given in Appendix 6

⁴⁵ Off Note dtd 18th Feb 1909 by J.F.R, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI The actual breakup given in Appendix 6

⁴⁶ Off Note dtd 10th Mar 1909, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁴⁷ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁴⁸ Off Note dtd 6th Mar 1911 by J.F.R, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI Break up in Appedix 8.

convenience as the telephone."⁴⁹ He made this statement with respect to a hospital in Allahabad that found it too expensive to install telephones. Even the Governor was turned down. It was related that a charge of Rs. 225 for two connections in the hospital was not excessive.⁵⁰

In 1911, the next DG, F. E. Dempster faced the same concern, that expenditure on telephone systems was not kept separately from general expenditure and the actual interest on block capital could not be ascertained.⁵¹ Figures for 60 systems small and large showed that 22 were run at a loss. All together they had a gross rental of Rs. 1, 91, 866 and a capital value of Rs. 13, 27, 456. The working expenses came to Rs. 1, 75, 262 giving net profit of Rs. 16, 604 or about 1.25%.⁵²

So, the telephone systems did little more than pay their own way. According to Dempster, most exchanges in the country were too small to run at a profit.⁵³ Cheap instruments and construction material could not be used. The Telegraph Department was always concerned to not compromise the efficiency of the service. The subscribers were scattered. Cabling was used to avoid reconstruction which required large number of subscribers for good use. They did make 8%, on the capital cost of system at Calcutta, as it then stood but that did not take into account the total money spent on it since its inception which was the block capital account. The Bengal Company's telephone system with 2000 subscribers and higher rentals only earned 5%. Hence, it could be safely assumed, according to Dempster, that lowering of rates was not required. He believed that since the telephone systems did not give much of a profit. To top it any reduction would involve an immediate loss.⁵⁴

⁴⁹ Off Note dtd 21st Sept 1909 by B. Roberson Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁵⁰ Off Note dtd 1st Oct 1909 by T. D. Berrington, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁵¹ Off Note dtd 23rd Feb 1911 by F. E. Dempster, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ *Ibid.*

More and more individuals commented that telephones were not adequately developed in the country compared to other places. For instance, a Mr. Todhunter from Rangoon said that

“...in that city the telephone is much more in evidence than in India proper: in the hotels the rooms are fitted up with instruments, and everything is done on more modern lines.”⁵⁵

In some ways it seemed that the charges calculated were too high. But their acceptance by most Director Generals was based on certain long standing methods of calculation. But clearly these methods were flawed in the final analysis as none of the Director Generals were, in fact, able to prove the reasons for the charges being so. Three entirely different estimates were arrived at for the cost of the telephone – Rs. 41.7, Rs. 39.12 and Rs. 37; while a fourth amount was actually charged – Rs. 45. The telephone system did not make a profit, according to them, and that remained one of the most potent reasons for not altering the price of instruments. Public utilities such as the telephone required initial subsidization. Unless the telephone system was well entrenched as the communication system it was hard to increase profits from it and consequently lower prices.

Most criticism stemmed from sources outside the Telegraph Department. That proved a catalyst for the Department to review its policies. This criticism, mostly, had to do with the unavailability of cheap service and an inhibited growth therefore. Of note was also the fact that there was now a general expectation to see the telephone system grow. Though the Telegraph Department was aware of the slow growth of the system early on, it took criticism from outside for it to rationalize the process of charging. Now, it saw that the telephones needed to be separated from telegraph both in terms of service and accounts. In the Department's eye their primary work continued to be with telegraph and telephones came a poor second.

Edward Bennett, wrote in 1912 about the communication systems in Britain, that,

⁵⁵ Off Note dtd 27th June 1911 by B. Robertson, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

“Telegraphy has held undisputed way for a number of years, but latterly the telephone has entered largely into competition, and there can be little doubt that telephoning is and will become its very dangerous rival. While some considerable time may elapse before the effect of trunk line telephony will make itself felt in competition with telegraphy to provincial offices because of its somewhat high rates, it is possible that as these are reduced it will show its effects upon telegraphy. With regard to local telegrams, telephony has undoubtedly already brought about a diminution in the number dealt with by its vigorous competition”⁵⁶

With respect to the same in British Colonial India, there were many suggestions made from various officials within the government. B. Robertson, an official, proposed that large centers with a potential for expansion must not pay for smaller centers.⁵⁷ He proposed that fixed charges should be abandoned. He gave the example of Simla as a “great field” for expansion which should not have to pay extra charges for smaller places to benefit. Model budgets could be drawn up on representative stations. These model budgets could then be employed for various kinds and sizes of exchanges.

B. Robertson, like a number of other people, believed that the charges fixed in 1901, which were accepted again in 1906, were pitched too high. In his parting remarks he also made a swipe at the department’s commitment to telephony. “The attitude of the Department” he said “should certainly be to encourage the use of telephone, and anything that can reasonably be done to advance this object should receive our support, provided that Government makes a fair margin of profit on its outlay.”⁵⁸ Therefore, even while supporting the cause of the telephone most officials followed the same line of thinking that dictated that the telephone should pay its way.

Almost a year later after Robertson, a second official, A. H. Ley pointed out that till actual figures were reconstructed for various exchanges, approximation could be done through

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⁵⁷ B. Robertson had this to say in his official note dtd 27th June 1911: “...Government should place every facility in the way of extending this convenience...”

⁵⁸ Off Note dtd 27th June 1911, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

Delhi exchange.⁵⁹ In 1912, the Delhi exchange was new and large. Approximate rates could be worked out keeping in mind a certain number of connections on a sliding scale from 50 to 200 or so subscribers. In this manner standard rates could be arrived at for large and small mofussil towns (like Bankipore and Benaras) and large ports (Calcutta and Bombay) and hill stations (Simla). In cases of twin cities like Dehradun-Mussoorie and Dacca-Naraingunj special rates could be devised.

However, Ley was not very hopeful that reduction in rates would attract new subscribers especially among the native population –

“The native of India is in no hurry over his business, and until he puts a little more life into it, there is little hope of a cheap telephone system; much water will flow under the Hooghly bridge before we can look forward to that.”⁶⁰

The Accountant General echoed the above sentiment. The Accountant General was of the opinion that:

“...unless Indians themselves take to the use of the telephone we can never have the turnover Sir B. Robertson desires. Until the telephone becomes as much a necessity of life to the Indian as a postage stamp, or in lesser degree the telegraph, the desired end will not be reached. I doubt if out of the whole population of India there are 100,000 who use the telephone, and this number is practically confined to the great commercial centers. The use of the telephone by Europeans and Anglo-Indians is a negligible factor in considering this question in its widest aspect – they form so small a fraction of the mass it is wished to touch.”⁶¹

Accountant General’s analysis was of the greatest importance since this was the first time that native population was seen as the prime consumers of a technology on basis of strength of numbers. Indeed, the telephone system could not thrive in a country predominantly inhabited by non-Europeans who were not willing to accommodate the telephone into daily

⁵⁹ Off Note dtd 25th July 1912 by A.H.Ley, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁶⁰ Off Note dtd 25th Aug 1912 by A.H.Ley, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI.

⁶¹ Off Note dtd 16th July 1912 by S.K. Levett-Yeats, Accountant General, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

business of their lives. It could also be that, if the officials were so vociferous about the steep cost of telephony, the indigenous population must feel the same as well.

The public call offices, indeed, were very little utilized. Those in Simla from May to June presented the following picture: Simla – 121, Simla North – 16, Simla South-West – 21, Mashobra – 31.⁶² It was also given to understand that almost all these calls came from European community. Therefore, according to the Accountant General, the positivism exhibited with regard to telephony as a field of expansion was misplaced.

The above assessment would have been more valuable if the telephone network was not very small. Telephone system was a communication system that needed to feed on itself to grow. If it was not completely adopted by public institutions, shopkeepers and other businesses, the local population had little reason to call anyone anywhere.

More tribulations followed when the Accountant General began to look for estimates for Calcutta, Rangoon, Madras, Bombay, Simla, Lahore and Allahabad.⁶³ Capital outlay, on which telephone charges were based, had no records. No registers having been kept in the Telegraph Department, capital cost and working expenses were not available.

A decade earlier in 1900, the Examiner of Telegraph Accounts had also pointed out crucially, that the systems at Madras and Ootacamund were constructed in 1882 and no separate accounts of the first fitting of telephone offices were kept. No completion reports were available either.⁶⁴ Though he pointed out the problems with respect to systems in Madras and Ootacamund alone the problem seemed to be all pervasive.

Now, once again the lack of proper records created an insurmountable obstacle. The old accounts and original estimates failed to yield any numbers with accuracy.⁶⁵ Since many

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ Pro May 1902, No. 9-11 A, CW – Tel, PWD, NAI

⁶⁵ Off Note dtd 16th July 1912 by S.K. Levett-Yeats, Accountant General, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

telephone lines were very old, the old records were essential. The following results tabulated had too many discrepancies for any practical use.

Stations	Average cost per mile	Average cost per instrument	Cost of fitting per connection	Total capital cost (Rs.)	Annual rent (Rs.)	Net revenue
Calcutta	Rs. 401.0	Rs. 53	Rs. 11.5	2,43,440	20,918	Rs.12,401 loss
Rangoon	Rs. 195.6	Rs. 34	Rs. 14.5	58,366	8,910	Rs. 228
Madras	Rs. 49.5	Rs. 50	Rs. 9	23,603	24,625	Rs. 14,067
Poona	Rs. 228.2	Rs. 61	Rs. 27	33,529	5,620	Rs. 513
Simla	Rs. 100	Rs. 32	Rs. 2.5	1,43,625	29,571	Rs. 6,074
Lahore	Rs. 411.9	Rs. 55	Rs. 16.5	80,767	19,175	Rs. 4,699
Allahabad	Rs. 137.8	Rs. 37	Rs. 39	54,900	11,505	Rs. 3,461

Source: Off note dtd 16th July 1912 by S.K. Levett-Yeats, Accountant General, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

The Accountant General's alternative was to compile the costs of reconstructing the whole system. Meanwhile, all future expenditure could be recorded.⁶⁶ He further commented on the format for calculation. Working expenses included interest on capital, maintenance and repairs, and general charges including rents if any. He was doubtful on the question of depreciation. The annual expenditure on maintenance and repairs were sufficient to keep the lines in good health. Including depreciation in this scheme made for a double charge.

The Bengal Telephone Co. did not bother with these details for working expenses. It merely took a percentage of gross receipts as their budget for working expenses which covered all charges and worked against it.⁶⁷ A similar method with a percentage fixed every five years could be adopted for the Telegraph Department, according to the Accountant General.

Free connections had to be evaluated on the basis of necessity and curtailed as far as possible.⁶⁸ Almost a fourth of the mileage in Calcutta was non-earning capital, it was

⁶⁶ Off Note dtd 16th July 1912 by S.K. Levett-Yeats, Accountant General, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

estimated. Direct maintenance charges could be similarly reduced. Differentiating rates could complicate matters for administration. There were different rates already prevailing for hills and plains. Rates could be devised for different circles and fixed on radius basis. The distinction between numbers of hours of service (8, 16 or 24 hours) could be abolished to popularize the system.

In the Accountant General's experience "people object to pay rates that vary between Rs. 120 to Rs. 150 per annum when they could get all their business done by the use of half anna postage stamp or a chaprasi and a chit." This was a slightly skewed popular analysis. A Rs. 120 annual charge came to about Rs. 10 for each month which was not a stupendous sum for at least institutions or commercial units that engaged in regular correspondence. As for households this could be a steep expense but as said before they were not the primary targets for the Telegraph Department all along.

The Accountant General summed it up well with the following remark:

"It is useless to look for anything of real value in the reams that have been written on the subject- the plain truth is that there has never been any reliable data to work on, and there has never been any proper watch over either capital expenditure or working cost to show where we are."⁶⁹

This was candid admission on part of the administration that something had gone wrong in terms of financial administration of the telephone system. At this point the officials seemed to have reached a level of exasperation with the whole process and hence one of them remarked – "I am afraid we have been sitting on an addled egg for nearly 4½ years" and on failure of all previous measures "the only course left would seem to be to start all over again, and try and hatch a new egg."⁷⁰ This seemed very much like an egg on the face situation. This case was pushed to the next year, yet again, since it was held that the "egg is so unlikely to produce a healthy chicken that the delay will not matter."⁷¹

⁶⁹ Off Note dtd 16th Aug 1912 by S.K. Levett-Yeats, Accountant General, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷⁰ Off Note dtd 25th Aug 1912 by A.H.Ley, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷¹ Off Note by R. E. Enthoven dtd 26th Aug 1912, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

FURTHER ALTERATIONS TO TARIFF

W. Maxwell, the next DG began to address the issue in 1913 with some heartening statistics.⁷² The telephone business had grown from 164 exchanges in 1910-11 to 179 in 1911-12 and 184 in 1912-13. The number of connections had grown from 2982 to 3485 to 4332 respectively. But well into the fourth decade of its existence in the country the telephone continued to elicit the following remarks:

“The fact is, however, that the public in this country are very slow to adopt any convenience like the telephone, and this remark applies also to some Government Departments. I find, for example, that in two out of every three headquarters stations in India the police have no telephone facilities.”⁷³

Here, both public and government were put in the dock. Both seemed equally reluctant of adopting and using the telephone.

An important alteration was brought about in the relationship of the Government and private enterprise at this point. In 1912, the British Post Office bought out the National Telephone Co., in Britain. This measure came about after much criticism of the British telephone system. From here on, the decisions taken in the matters of telephony by the Government of India became even more crucial to its advancement. The Government of India did not declare it but it was accepted that private enterprise was not to be encouraged in this field. Any new firms that approached the Government to install telephone systems were rejected.

The Telegraph Department was working with the frame of reference provided by the Accountant General earlier. It was thought that the reconstruction cost of government

⁷² Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷³ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

telephone systems at work, would present the approximate capital value of building them. Hence, the reconstruction estimates were compiled.

But they came with three inherent flaws.⁷⁴ Firstly, they did not show actual capital expenditure. Secondly, all the lines were presumed erected at the same time whereas in reality, lines were erected at different periods in time. Therefore, the estimate was smaller than what might have been the original value. Thirdly, no mention was made of lines which might have been erected in between and subsequently dismantled. Hence, the figures arrived at for interests on capital were “fictitious” for all practical purposes.⁷⁵

W. Maxwell illustrated that the Indian subscribers were better off than their London counterparts.⁷⁶ In London an unlimited service for 24 hours upto 2 miles cost 17 pounds (Rs. 255) while in India it was merely Rs. 150. In measured service, an annual charge of 5 pounds would be coupled with 1d for each call. Within the measured rate system, only 1200 calls could be made for 10 pounds (equal to Rs. 150).⁷⁷ In London area, the charge for private branch exchanges (as non-exchange connections were called) was 16 pounds or Rs. 240.⁷⁸ An additional 11 pounds (Rs. 165) were charged for connecting the private exchange with public exchange providing for 3000 calls. Beyond the 3000 call limit more was charged. In provinces the charge was Rs. 174 at the time – much more than was brought out in a previous comparison thirteen years before.⁷⁹ Of note was the fact here that the National Telephone Co., the main telephone co. had been bought out by the Post Office in 1912.

⁷⁴ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷⁵ On the basis of reconstruction figures they had arrived at interest on capital at rate of 9.7% on Departmental exchange systems, 7.5% on non-departmental exchange systems and 10.9% on non-exchange connections.

⁷⁶ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷⁷ He even advanced the claim that the statistics kept for all exchanges in India for a week last year showed that the average number of calls per subscriber per annum doubled the figure of 1200.

⁷⁸ Non-Departmental exchanges were those where only the lines and instruments were supplied and not operators. They were likely maintained by the Telegraph Department but not operated by them. Examples were police and military systems. Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁷⁹ Earlier the cost had been Rs. 120 for business and Rs. 105 for houses.

But, yet again, a very comprehensive set of reforms were put in effect from Jan 1st 1914.⁸⁰ The rent of a telephone was reduced from Rs. 45 to Rs. 40. It was opined earlier that maintenance and general charges were not correctly computed by the Committee of 1901 but the current DG sought to mitigate that problem. Non-exchange telephones which constituted a good number used in the country did not receive as much supervision, hence, maintenance charges for them derived by the Committee of 1901 were inaccurate. Besides that, as admitted before telegraph and telephone maintenance staff was one and the same and it was impossible to determine what part of their pay be dedicated to telephone work. Therefore, it was a matter of perception really.

The whole basis of fixing general charges was “arbitrary”.⁸¹ The general charges representing Direction, Accounts and Superintendence were calculated on the same principle as private telegraph lines. Therefore, charges for the 864 instruments rented out for use could be easily reduced to Rs. 40 which matched closely with charges of Bengal Telephone Co. in internal exchanges (Rs. 50 inclusive of a switchboard). The immediate loss was estimated to the tune of Rs. 4,320.

The principle of seasonal connections was made available to people everywhere other than the hill stations also but with a difference.⁸² This charge was made six monthly instead of previous eight monthly charges. It was proposed to charge 3/5th of the annual rate for six months and the rest for the full year in a hill station. This came to Rs. 90 for first six months and Rs. 60 for next six months.⁸³

⁸⁰ Letter dtd 8th Sept 1913 by W. Maxwell, DG, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸¹ The Committee stated thus in 1901: “For private lines (i.e., telegraph lines) the general charges are made in the proportion in which the total general charges debited to signaling bear to the amount of message receipts plus signaling charges. It appears reasonable to make the same charge for telephone but as there are no message receipts it is thought the charge should be double. The charge to private offices for the present year being 4.81%, the charge per telephone has been taken at 9.6% (i.e. on maintenance and direct maintenance = Rs. 846).” Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸² Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸³ It came to Rs. 81 and Rs. 72 for 16 and 8 hour connections.

Another similar scheme was worked out especially for officials on move from Calcutta to Simla for a part of year and back.⁸⁴ They were charged part of the amount in Calcutta and part in Simla for four and eight months respectively.⁸⁵ A reduction of Rs. 10 was made in previously prevailing charges for officials. Charge for shifting between rooms in the same building was also reduced from Rs. 20 to Rs. 5.

In exchanges worked by non-departmental agency (police and military and sometimes local government) private connections could be allowed in places where their number was not large enough to warrant a separate exchange. They would pay full rental of Rs. 150 out of which Rs. 50 would be given to the exchange managing agency and the Telegraph Department would reserve the right to take away these private subscribers when their number reached 50.

Sometimes military exchanges entertained private connections as well. The military wished to have a separate procedure for applications of this kind. It would allow them to reject applications of undesirable elements.⁸⁶ So in this another unique manner security issues were taken care of and public convenience was also managed.

Maxwell was one of the positivists in the approach to telephony. He was convinced that “there were many people who did not appreciate the value of telephone until they have got one and who would never give it up if they had once tried it.” Free connections (not beyond three months) were to be given so that business and people would both realize its benefits. According to the DG, Poona was the apt station for such experimentation where the shopkeepers did not install them because the public did not use it and the public did not use

⁸⁴ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸⁵ Rs. 107 for 8 months at Simla + Rs. 83 for 4 months at Calcutta or Rs. 190 was the charge for such connections. But this was reduced by Rs. 10. The reduction was made because under the six monthly scheme a subscriber had to pay Rs. 90 at one station for one month and another Rs. 90 for another station. That came to Rs. 180. Hence, all charges were being differentiated yet standardized. Later these charges were to be applicable between Delhi and Simla as well.

⁸⁶ Off Note dtd 13th Oct 1913 by Director of Military Operations, A. H. Gordon, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

it because the shopkeepers were reluctant. This was thought to overcome the “innate disinclination in natives of India to make use of time saving appliances.”⁸⁷

Another official remarked that

“...if we are ever to make the telephone a commercial success in this country, we must not be afraid of advertising its uses, and no advertisement can be more effective than a practical example such as that proposed.”⁸⁸

Where earlier it was only the telephone companies who believed in advertising their wares the government too had unhesitatingly jumped on the bandwagon. Also the Telegraph Department was taking concrete steps to remedy the problem of demand instead of lamenting the fact as it had done in the past.

The Telegraph Department decided to give special rates and charges to military and police authorities who ran separate exchanges.⁸⁹ These rates were to be levied in lieu of joining their separate exchanges to the systems of Telegraph Department wherever both existed in the same space. The DG suggested a special rebate of 20% for five years for military and police connections. Exchanges run by different agencies in the same city were not economical. They were not efficient. Even the cause of secrecy did not seem to move the government so much anymore. It is ironic that the Telegraph Department and the Government should have fought for maintaining secrecy of such law enforcing departments initially, only to lure them back into a common network. Perhaps this move was not as drastic as it seemed since the Telegraph Department trusted its own employees over those of a telephone company.

Clearly, the Military authorities did not think so. They wanted a guarantee of confidentiality from the Telegraph Department.⁹⁰ They required regulations to be put in

⁸⁷ Off Note dtd 24th July 1913 by S. H. Slater , Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸⁸ Off Note dtd 25th July 1913 by J.F.Gruning, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁸⁹ Off Note by W. Maxwell dtd 20th June 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁹⁰ Off Note dtd 13th Oct 1913 by Director of Military Operations, A. H. Gordon, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

place for choice of operators since their privacy had been violated before. They wanted a rule on minimum white personnel as maintained for telegraph offices. Common exchanges were a good concept but this could not be applied to “command” systems.⁹¹ In Rawalpindi, the General Staff Branch had joined the public exchange on condition of being allowed to overtake it in times of emergency.⁹²

This time the Telegraph Department came strongly against the maintenance of a particular kind of staff proportion.⁹³ Except in automatic exchanges, the conversations could be heard by any operator. Letting the subscribers know that they were overheard did not benefit the system. The DG was convinced that the operators could in no way be completely prevented from overhearing conversations. The best method was to give them plenty of work and there, the merging of exchanges served its end. The dangers of leak of information due to engagement of Indian operators were not as serious as made out to be. Both police and military had used departmental exchanges in various places like Meerut without complaint.⁹⁴

Secrecy reared again as an eternal impediment with the telephone system but in a different manner this time. The colonial bureaucratic dilemma remained the same but the public-private binary was not the category of conflict anymore. Now that the private enterprise was no more the reason for lapses in security, the telephone technology itself became the culprit.

There was also a role reversal as the Military Department scrutinized the Telegraph Department in the same way as private enterprises were. Now, the Telegraph Department was put to task about the confidentiality of its own operations. A Government department had to accommodate and ameliorate the doubts of another on the subject of secrecy. It was

⁹¹ The Command systems were systems at Defended Ports giving communication between the Commanders and detachments and between the Fire Commander and Batteries. As explained in Off Note dtd 20th Oct 1913 by W. R. Birdwood, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁹² Off Note dtd 2nd Oct 1913, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁹³ Off Note dtd 3rd Dec 1913 by DG, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁹⁴ *Ibid.*

truly ironic as the following defense offered by the DG, would have been anathema to the Government only a few years ago.

The DG explained that the problem was with the type of communication.⁹⁵ Complete secrecy could never be maintained no matter which operators were employed. However, the speaker could exercise caution and make sure that what was being said was intelligible to none but those for whom it was intended. Developing a personal code was suggested. If even this proved unsatisfactory, then ex-army men set free from military exchanges would be re-employed by Telegraph Department to assuage the fears of the Military authorities. But this was refused since there was a great drain on the "*rara avis*" British soldiers desperately required by the Army itself.⁹⁶ Employment of soldiers in civilian capacity was not right to the soldierly way of life plus in war the same men would be required for both communication and combat. Supervisors, to watch the conduct of operators was considered a better option in lieu of soldiers.⁹⁷

Methods of augmenting the resources of the Telegraph Department were also devised. Charges were increased in case of extensions from one building to another.⁹⁸ This was to augment revenues by Rs. 3000.⁹⁹ These lines were as much trouble as new connections. However, they were not exactly the same as new connections since different phones could not be used simultaneously on the same line. These lines were further broken up on a seasonal basis.¹⁰⁰

The radius based scheme suggested by the Accountant General involved a loss of Rs. 16,000 to the Telegraph Department so it was not recommended. When the number of subscribers

⁹⁵ *Ibid.*

⁹⁶ Off Note dtd 23rd Dec 1913 by F.J.Aylmer, Adjutant General's Branch, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

⁹⁷ Off Note dtd 30th Dec 1913 by A.H.Gordon, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI.

⁹⁸ A charge of Rs. 100 (for Telegraph Department run exchange) and Rs. 65 (for Non-Departmental Exchange) for distance under 2 miles was considered appropriate. The charge in London for a connection like this was Rs. 243-12-0. The Bengal Telephone Co. charged Rs. 100 for 100 yards alone. For 16 hours the charge was made Rs. 90 and Rs. 80 for 8 hours. For every half mile of wire beyond two wires Rs. 20 was charged.

⁹⁹ There were 194 such connections.

¹⁰⁰ 48 plus 32 for a 8 hour connection, 54+36 for 16 hours and 60+40 for 24 hour connection. Pro 2, Dec. 1916, No. 1- 2 A, Telegraph, C & I, NAI

increased substantially, the rates could be cut by 20 to 25%. Hence, a lot of flexibility was introduced in the rates for attracting the public. It was a business prospect that was well worth the trials now being done.

“I cannot help thinking” one of the officials said “that we have a prospect of a fine paying business in these telephones, if we can succeed in extending their use, and I would not be afraid of risking a reasonable amount of money in an endeavour to make their value understood.”¹⁰¹ The shift in attitudes was clearer than ever. Fear of phone as a porous instrument of communication was not gone. But it was also seen as a necessity and this drawback was not seen as an impediment to its progress. The opportunity for business was openly acknowledged and advertising was condoned.¹⁰² This was done in the most bureaucratic fashion with regulations overlaying previous regulations and a more complicated system of regulations being evolved at each stage.

¹⁰¹ Off Note dtd 25th July 1913 by J.F.Gruning, Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI

¹⁰² Off Note dtd 25th July 1913 by J.F.Gruning, in , Pro Jan 1914, 3-4 A, Telegraphs, C & I, NAI.

The following table represents the rate system implemented in December 1916.

Rates for Telephone Exchange Connections								
Kind of connection	Direct or Extension	Worked by	No. of hours of service	Yearly (in Rs.)	Half-yearly (in Rs.)	Season - 8 months (in Rs.)	Two places (part of year at one and part at another (in Rs.))	Remarks
External lines	Direct	Department	8	120	72+48	107	180	plus Rs. 15 per month or fraction of a month overlap
	Direct	Department	16	135	81+54	107	180	
	Direct	Department	24	150	90+60	107	180	
External lines	Extension	Department	8	80	48+32		120	plus Rs. 10 per month or fraction of a month overlap
	Extension	Department	16	90	54+36		120	
	Extension	Department	24	100	60+40		120	
Internal lines	Direct	Department	8	90				
	Direct	Department	16	101				
	Direct	Department	24	112				
Internal lines	Extension	Department	8	50				
	Extension	Department	16	50				
	Extension	Department	24	50				
External lines	Direct	N.D.	...	100	60+40			
External lines	Extension	N.D.	...	65	39+26			
Internal lines	Direct	N.D.	...	75		56		
Internal lines	Extension	N.D.	...	50				
Rates for Non-Exchange Connections								
External lines 1 telephone					40			
External lines 1/2 telephone					20			
Internal lines 1 telephone					40	30		
Extra Bell with or without switch					10			

Source: Pro 2, Dec.1916 No. 1 to 2 A, Telegraph, Commerce and Industry.

PRIVATE CHARGES, PUBLIC UNREST

In the years from 1920 to 1923 there was much debate and concern over the charges levied by private companies. Protests rose in Calcutta over various issues concerned with telephone systems. The dissatisfaction with telephone services was so great that questions were raised even in the legislative assembly. At different points in time the Government had tried to regulate the rates levied by telephone companies. In the events that transpired at this time the Government was viewed as an ambiguous arbitrator between the public and private capital. Merchant bodies stopped showing solidarity with private telephone companies and adopted the most aggressive stance in the whole situation. Even more interesting was the fact that earlier the problems faced with lack of demand, were the cause for bad telephone service now. The lines, said to be overloaded in Calcutta, were argued as the reason for bad performance of the company. Also, while the Telegraph Department, revising its charges in 1916, was anticipating higher demand as the panacea for all the ills ailing the telephone system; here it was precisely the high use of telephone lines that was making the company exchange difficult to function.

Public Complaints over Charges

In September 1921, the Bengal Chamber of Commerce expressed the dissatisfaction of its members over the services rendered by Bengal Telephone Co.¹⁰³ A trial was then conducted by a Telegraph Department officer, which yielded good results. This trial only proved to the complainants that the staff needed better supervision to render good service.

A meeting was set up between the Bengal Telephone Co. and the Chambers of Commerce and Trades Association in November 1921.¹⁰⁴ The meeting was not as productive since the

¹⁰³ The Members sent their complaint to the DG on 20th September 1921. Special meeting of the Committee of Bengal Chamber of Commerce, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI, Pg 1

¹⁰⁴ The meeting was held on 29th November 1921. Special meeting of the Committee of Bengal Chamber of Commerce, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI, Pg 3

assurances given on rates were flouted soon after. A high maximum rate was agreed on the understanding that the current rates would not be immediately hiked to the maximum until the company had allocated capital for and started improving its service.¹⁰⁵ The company was also meant to refund to all subscribers the Rs. 50 extra charge introduced since July 1920. Not only that, the Chambers expected it to form a new concern to take over from Bengal Telephone Co. by April 1922. Once these negotiations were concluded, the Director General of Posts and Telegraphs asked the President of Bengal Chamber of Commerce if, indeed, they had agreed to a maximum rate of Rs. 350. The President confirmed this. And the Government signed a Supplementary Agreement with the Bengal Telephone Co. on 11th April 1922.¹⁰⁶ The company increased its rate to the absolute maximum of Rs. 350 the following year. It was an increase of 75% over the previous rate.

In July 1922, the Bengal Chamber of Commerce, Calcutta Trades Association, representatives from Bengal Telephone Co. and Director General of Posts and Telegraphs met for a special meeting to discuss the high rates levied by Bengal Telephone Co.¹⁰⁷ A hundred and seventy four members out of two hundred and forty two found the service inefficient and only six actually found it acceptable. Apparently, telephone cost was the lesser disadvantage compared to inefficiency. The rates were raised before any perceptible change was made in the system. Also, the intention was never to agree to a full Rs. 150 increment in the charges by scrapping the earlier increase of Rs. 50. Additionally, a high maximum rate had been agreed to in theory to attract capital and bring more profits to the shareholder.

The new company that was to be formed was to give an assured dividend of 12½ % to the shareholder. But the original shareholders, the Bengal Chambers alleged, were to receive an astounding 37½ % on their original investment from the new company by virtue of the fact

¹⁰⁵ The maximum rate was agreed to be Rs. 350. This was later affirmed to the DG in a letter dated 12th December 1921. Special meeting of the Committee of Bengal Chamber of Commerce, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI, Pg 3

¹⁰⁶ Pro Oct 1922, 99-100, Telegraph, PWD, NAI

¹⁰⁷ The meeting took place on 18th July 1922. Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI

that each one of the original share would value as three in the new concern. The President of the Bengal Chambers of Commerce remarked that,

“I imagine that such a guarantee of 37½ %, is unprecedented in the case of public utility companies, which are licensed by Government, and given an effective monopoly to serve, and not to exploit, the public.”¹⁰⁸

The situation as regards the merchant bodies and state seemed to have reversed itself completely. The Chambers were very critical of the very same concern that they had lobbied for, four decades ago. It was ironic, that the state was accused of allowing the company to monopolize business when it had been an ardent force in limiting its expansion.

The Chambers further alleged that the share value of the company had risen from Rs. 223 to Rs. 290. The rate of dividend had risen from 7% in 1914-18 to 8% in 1919 and 10% in 1920-21.¹⁰⁹ The money received from public through the rise in rates earlier was meant to pay interest on fresh capital infused into the telephone system. It was not meant to be given to the shareholder as dividend on present capital.

Sir Alexander Murray from Calcutta Trades Association went so far as to say: “I got the shock of my life when I heard that the Company had promptly put their rates up to the maximum of Rs. 350 without any improvement whatever in the service.”¹¹⁰ He distinctly remembered the company representative assuring that there was no intention to actually raise the charge to the maximum.

It was interesting that when the DG, G. R. Clarke requested for the minutes of the meeting, the President informed him that since it was a private and confidential meeting, none were actually made.¹¹¹ And the recollections of the participants and the letters exchanged subsequently were the only proof. The DG explained that in 1919, when it was thought

¹⁰⁸ *Ibid.* Pg 8

¹⁰⁹ Special meeting of the Committee of Bengal Chamber of Commerce. Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI. Pg 8

¹¹⁰ *Ibid.* Pg 10

¹¹¹ *Ibid.* Pg 9

right to buy out company business the Government lacked the finances.¹¹² In 1920, after a round of deliberation with Chairman of the Oriental Telephone Co. it was decided that the Bengal and Oriental be left alone for the time being since they had not installed a new plant. If they were taken over, the Government would have to do the same at an expense of crores of rupees. Hence, a license was granted for next twenty years.

The Government had gathered information from all the stakeholders in the matter and then alone reached this conclusion. Curiously, it was the DG who laid out the progress being made by the Company on the promises of improvement. Burra Bazar and Alipore exchanges had been earmarked for development by the company and new connections were being installed in central building at Hare Street. The building at Burra Bazar was under construction and land had been purchased for Alipore exchange.

The stance adopted by the DG was very revealing. He believed that if the paid up capital of Bengal Telephone Co. was Rs. 20 lakhs and its block capital stood at Rs. 76 lakhs then any new Company that was going to be formed, that purchased it, would have to purchase it at its current market value. If the original shareholder got three times the value of their shares there was nothing wrong with that. According to him, the new shareholders were not likely to get more than 10% dividend in reality.

The President of the Chambers of Commerce turned his ire on the DG after these comments.¹¹³ He did not care how much percentage dividend the old shareholders received. But he cared for the fact that by his calculation the subscribers would be financing the extra dividend to be paid now (which came to an amount of Rs 5 lakh in his assessment). This was the basic premise for their complaint. Later, in his analysis of the meeting to another official, the DG said with regard to the matters of capital raised: "I don't consider that the statements made were of any great importance. The general idea was that Government had rather been let in by the Company."¹¹⁴

¹¹² *Ibid.* Pg 10 & 11

¹¹³ *Ibid.* Pg 16

¹¹⁴ Letter dtd 8th August 1922, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI.

The DG next focused on what he thought was the primary issue of contention. His opinions here were even more surprising. He must be the first Director General of Telegraphs to be appreciative of the efforts made by a private Company. He argued that the workload had doubled over one year for the company. In April 1921 the average calling rate varied from 45 to 51 thousand calls on a single day between 8 a.m. to 8 p.m. In the same month of 1922, the call rate varied between 97 thousand and 105 thousand calls a day. This substantial increase in calls could not have been serviced at all a year before, in his assessment. The Company "...must have done something to make their present calling rate possible."¹¹⁵ The increase in call rate seemed to be the reason why their quality remained stagnant. He had a most intriguing contrast to offer. He said that in case of some lines the calling rate was as high as 40-50 calls a day. The corresponding charges in London for these many calls would be Rs. 1,095 per annum. In England, there was a ceiling of 5000 originating and incoming calls per annum beyond which, the subscribers were expected to install separate lines. In his experience, the telephone company operators at Clive Street were only allotted half the number of lines on the switchboard that a government operator had to attend.¹¹⁶ The President of the Chambers of Commerce unequivocally declared that he was not impressed with figures in terms of service.¹¹⁷ He wanted to see results. The DG seemed to have shifted the focus from the Company on to the Government with his supportive stand.

A member of the Bengal Chambers of Commerce, Langford James, pointed out that it was not the official connections but the private ones that faced the brunt of the problem.¹¹⁸ Domestic telephony was slow and great inconvenience was suffered. Another member complained even about the Clive Street exchange which catered to the office connections.¹¹⁹ Their office had faced forty one breakdowns during a month and a half in 46 lines. One of the lines to their mill had been down for two months. The increase in rates for mill lines was almost 170%.

¹¹⁵ *Ibid.* Pg 13

¹¹⁶ The Company operators attended 70 lines compared to 140 of the government operators. *Ibid.* Pg 14

¹¹⁷ *Ibid.* Pg 16

¹¹⁸ *Ibid.* Pg 15

¹¹⁹ *Ibid.* Pg. 15

Mr. Hooper, Past Master, Calcutta Trades Association, pointed out that the Burra Bazar lines were notoriously overloaded and a sub-letting of lines was carried out to people other than the subscribers.¹²⁰ There ought to be, according to him, a method for checking, say a Marwari broker whose phone rang off the hook incessantly. The DG suggested that the message rate system could deal well with the increased traffic from prolific subscribers.¹²¹ The company representative concurred and added that the other solution was to limit number of calls per line.¹²²

The DG showed that the Company had been considerate in terms of implementation of the maximum rate also. The company had implemented the maximum rate from 15th July 1922, but 40% of their connections were being given with a rebate of 25%. The Company representative verified that and said that many public offices had been given a rebate.¹²³ And only the business community was being made to pay the extra rates. No doubt then the business community was complaining and not the government departments. That was the custom all over the world. The rebate on private lines and public bodies was unimportant to the participants at the meeting as business rates were the focal point of this discussion.¹²⁴

The Bengal Telephone Co. was also miffed at the Chamber's denial of the maximum rate. They had borrowed large sums of money from the London market on the word of the Chamber.¹²⁵ At that point, they owed 150,000 pounds to people in London for material purchases.¹²⁶ A Calcutta friend had given them overdraft of Rs. 10 lakh and 50, 000 pounds had been borrowed in London. The company considered it 'breach of faith' on the part of the Bengal Chamber.¹²⁷ The Company, for its part said that the Chambers' agreement was unqualified. It was true that the Company always had a higher maximum rate sanctioned in

¹²⁰ *Ibid.* Pg 20.

¹²¹ *Ibid.* Pg. 14

¹²² *Ibid.* Pg. 20

¹²³ *Ibid.* Pg 18

¹²⁴ *Ibid.* Pg 19

¹²⁵ *Ibid.* Pg 20.

¹²⁶ *Ibid.* Pg 22

¹²⁷ *Ibid.* Pg 17

the license than actually implemented. But there was no ambiguity in the decision made in the November 1921 meeting. Any departure from the maximum rate fixed would mean bankruptcy for the Company.

Sir Alexander Murray believed that too much was being made of the confirmation letter sent by the President of Bengal Chambers of Commerce on the issue of fixing the maximum rate.¹²⁸ If the letter was to be deemed as a binding contract then the company had not carried out its terms therein as well. No new Company had been formed to take over of the business of Bengal Telephone Co. on the lines prescribed in the previously mentioned letter.

Eventually, as far as the Government was concerned it was in the clear with respect to the dealings carried out. It was obvious that the earlier colluding business interests were now at loggerheads with each other and the state had come to acquire the role of a mediator. The arguments presented by the DG were truly fascinating contrast to the antagonistic positions adopted by his predecessors. The Government was charged with supporting private enterprise by allowing such an increase. And the DG's statements only made this charge more vehement.

The other important aspect of this whole debate was the question of 'public utility'. It was pointed out time and again over the decades that telephone networks were going to be an integral part of public life sooner or later since it was considered an essential service. The government was now blamed for allowing private companies to exploit 'public' by powerful commercial bodies. And what's more, the Telegraph Department chose to side with the telephone company in its defense! This, inspite of the fact, that the Government was considering buying out the enterprise only two years ago in 1920. The Deputy Master of Calcutta Trades Association, J Cottle went so far as to say:

“The position appears to be this, that because Government are not in a position to purchase the telephone service they have given the Company the right to exploit

¹²⁸ *Ibid.* Pg. 18

the public, and since the Company have got that right the service has gone worse and worse daily, particularly on single lines.”

It was indeed peculiar that the Government was laden with so much responsibility in the matter, since it was the commercial bodies that had gone behind closed doors to conduct this deal in complete secrecy. Now when the ramifications of the meeting were being experienced, the commercial bodies were quick to point the passive role of the Government. The Trades Association later backtracked from the confirmation letter sent by the President of the Bengal Chambers of Commerce, saying, that they were unaware that such documents were being passed.¹²⁹

The forgoing meeting was brought to an end in the hope that all these matters would be reconsidered by the Board of Directors of the Bengal Telephone Co. before the deadlock was made public. A second meeting between the commercial bodies and the Bengal Telephone Co. was held on more amenable grounds.¹³⁰ The Company representative regretted that there had been a misunderstanding and said that he would approach the Board of Directors with a view to keeping the rates at Rs. 300 for the present. The Directors of the company had agreed to the arrangement under certain conditions.

The Government did not escape unscathed by the agitations carried out in Calcutta. It was forced to revise its own rates. The matter was not over. A number of associations and groups joined the commercial bodies to protest the increase in charges and unfair treatment meted out to the subscribers of the Bengal Telephone Co.¹³¹ A Conference took place in Calcutta on August 25th 1922 for the purposes of stating their case in the public.¹³² *The Statesman, Calcutta, dated 6th September 1922* reported the proceedings of the meeting in full.¹³³ The

¹²⁹ *Ibid.* Pg 16

¹³⁰ Letter dtd 8th Aug 1922, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI.

¹³¹ Incorporated Law Society, Anglo-Indian and Domiciled European Association, Marwari Association, Bengal Landholders Association, High Court Vakils' Association, 24-Pargannas Bar Association, British Indian Association, Bengal National Chamber of Commerce, Indian Mining Federation, Motor Trades Association, Indian Association, Calcutta Trades Association, National Liberal League and Rotary Club of Calcutta were the bodies represented at the conference.

¹³² Pro Oct 1922, 99-100, Telegraph, PWD, NAI

¹³³ *Ibid.*

Conference declared that Bengal Telephone Co. had been increasing its dividends in the past few years on the basis of past charges. The participants at the Conference stated:

“the conference has been compelled to take into serious consideration the incontrovertible fact that the Corporation on its previous charges has been able to declare regular and increasing dividends and in addition has been in a position to set aside as reserves and to block account sums amounting to over five and one-half times its original share capital”¹³⁴

Earlier, the Company had not been able to replace its aging equipment due to the Great War. The new equipment, having arrived after much delay was also not giving any better service in the last twelve months. The Conference took great exception to, what it thought was the surreptitious manner in which the Government negotiated with the Company. The Government had, according to them, sanctioned baseless increments in telephone rates for a highly inefficient service. They demanded that the contract signed between Government and the Company and the basis for this increase was made public. Additionally, an enquiry ought to be instituted to gather how the Company was improving its services.

“...a public utility company which has a practical, if not theoretical, monopoly and which, by reason of its long establishment, is in a secured position, the provision that it is entitled to the whole of the first 12 ½ % of net profits is unduly generous”¹³⁵

It was indeed the case that the Bengal Telephone Co. had declared a high dividend in financial years 1919-1920 and 1920-1921. In a profit of Rs 1, 86, 724, the portion to be set aside for dividend was 8% in 1920 amounting to Rs. 1, 60, 000 while rest was carried forward.¹³⁶ The year following Rs 2, 00, 000 was set aside as dividend from profit of Rs. 2, 10, 900.¹³⁷ It was the year when 10% dividend was paid.

The Bengal Telephone Co., as stated before, had borrowed large sums of money on the security offered by the public. The interest on the borrowed money was also paid from here.

¹³⁴ *Ibid.*

¹³⁵ *The Statesman, Calcutta, dated 6th September 1922*, Pro Oct 1922, 99-100, Telegraph, PWD, NAI

¹³⁶ Report of the Directors 1919, Bengal Telephone Co., February 1922, 4, Telegraphs, PWD, NAI

¹³⁷ Report of the Directors 1920, Bengal Telephone Co., February 1922, 4, Telegraphs, PWD, NAI

The money from the increased telephone rates would pay interest on Company's market borrowings. Once fully repaid, the plant and equipment would belong to Telephone Corporation and not the subscribers. So the subscribers derived no benefits, neither in terms of service nor money. They requested certain other measures also. Rebate of 25% should be granted by Bengal Telephone Co. should be increased to 33 ½% for the Telephone Corporation and all those who paid their bills within ten days of receiving them should also be given 25% rebate.¹³⁸

An official wrote from Simla to the DG that, in view of the letters and objections that were being received against the enhancement of connection rates by the Bengal Telephone Corporation, it might be well to issue a press note explaining the benefits accruing from the new agreement and the reasons which led the government to agree to the enhancement.¹³⁹

The DG, in his reply noted that Calcutta subscribers complained bitterly about the service.¹⁴⁰ The fact was that the service, especially in residences, was not good. The Company had done everything possible to provide a good service, but they had failed to do so. Their new apparatus imported a year ago was very defective and had to be completely overhauled. The new table instruments which been installed in 1922, had become useless owing to damp affecting them. The flat telephone charge meant an excessive calling rate, especially in the business parts of the town and the Company was asking Government's permission for a definite limit being imposed upon the number of calls for each line. In these conditions a public explanation was likely to create the desired effect. The DG was convinced that the Company was making honest efforts but it was not able to deliver desired results.

In September 1922, numerous questions were received about the working of the companies in the Legislative Assembly.¹⁴¹ Several legislators concentrated on the unrest created by increase in Bengal Telephone Co. rates in Calcutta. Sir D. P. Sarvadhikary asked the Government a number of questions about the licenses, trunk lines and raise in charges. Sir

¹³⁸ *Ibid.*

¹³⁹ Off Note, Pg 4, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI.

¹⁴⁰ Letter dtd 8th Aug 1922, Pro Nov 1922, 1 – 7, Filed, Telegraph, PWD, NAI.

¹⁴¹ Pro Oct 1922, 99-100, Telegraph, PWD, NAI

Darcy Lindsay questioned the government if it had made an agreement with the companies on terms that allowed the company to increase the rates for all services, business and professional premises by 75% from Rs. 200 to Rs. 350. He questioned the basis of such an exorbitant charge considering the profits the company had earned. A year ago the charges had been increased by 25% and there was much displeasure over that in Calcutta. The Government was questioned why no Public bodies had not been consulted on the matter.

Mr. J. Chaudhuri pressed this line of enquiry further to ask, whether the government was aware that the terms agreed upon between commercial bodies and Bengal Telephone Co. were different from those presented to the Government.¹⁴² He added that the Bengal Telephone Co. had sold out their concern to an altogether new entity. The original shareholders of Bengal Telephone Co. had earned three times their profits, since every one of their shares was equivalent to three in the new entity. More voices joined these legislators in questioning the government over its conduct and future response in the whole matter.¹⁴³

The Government did not issue clarifications to the public for fear of inciting further antagonism but it could not ignore the questions raised in the Legislative Assembly. It was decided, as stated by the Company above, that the Telephone Corporation was not going to increase the rates beyond Rs. 300 in Calcutta. This rate was also subject to revision according to the supplementary agreement every five years. Also, one third of the net profits of the companies in excess of 12 ½%, were to be divided by way of rebate among the telephone subscribers.

Lowering of Rates by Telegraph Department

Taking cue from the widespread indignation created by increase in rates by Bengal Telephone Co., the Post and Telegraph Department decided to revise its own rates in

¹⁴² *Ibid.*

¹⁴³ Shoshi Kanta Acharyya Chaudhuri and Manindra Chandra Nandy were the other two legislators who put in questions on the same subject.

consonance with distances. In 1920-21, the total revenues earned including royalties from companies and pro forma rental of free connections amounted to Rs. 18, 00, 240.¹⁴⁴ Expenditure came to Rs. 15, 60, 245 leading to a net profit of Rs. 2, 39, 995. Even for 1921-22, the DG was expecting a profit of Rs. 5 lakh. Telephones were expected to do brisk business. However, as will be pointed a little later these figures were suspect. Krishnalal Shridharni put the gross rental for Government at Rs. 1, 484, 417 in 1920-21.¹⁴⁵

The prevalent rates on telephones (which had only been introduced in February 1922) did not differentiate between small towns with low number of subscribers in small area and large cities with bigger subscriber base and long distances.¹⁴⁶ The new rates were going to make them lose 500 subscribers and Rs. 75,000 in revenue per annum. The Post and Telegraph Department could not absorb such a tremendous loss.¹⁴⁷

All the officials had the agitation against rise in rates at Calcutta in mind while discussing these matters. The Deputy Secretary to PWD, E. Clerici believed that telephone growth was being retarded due to high rates.¹⁴⁸ New exchanges could not be opened at Multan, Lyallpur, Ferozepur, Jullundur etc owing to prohibitive effect of prevalent rates.

In August 1922, there were only four Telegraph Department run exchanges which actually catered to more than 500 subscribers. So the DG suggested a graduated scale of rates keeping in mind the total number of subscribers (50, 100, 250, 500) within a radial distance of 3 miles.¹⁴⁹ These scale of rates was more “businesslike” and less “uniform and arbitrary” than the previous scale.

¹⁴⁴ Off Note dtd 26th Sept 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁴⁵ Shridharni, Story of Indian Telegraphs, Pg 95. On the 31st March 1921, there were 255 exchanges with 10,703 connections owned and maintained by the Government of which 146 small exchanges with 1,274 connections were not operated by the Department. There were 320 independent non-exchange systems with 1,092 offices. The licensed telephone companies owned 11 exchanges with 20, 335 connections and the revenue earned by them was Rs. 3, 491, 264. The receipt from Trunk lines amounted to Rs. 217, 186 and total length of trunk wires came to 5, 611 miles.

¹⁴⁶ Appendix 7

¹⁴⁷ Letter dtd 21st Aug 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁴⁸ Off Note dtd 26th September 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁴⁹ Appendix X

Not all officials were convinced of the reliability of the figures presented by the DG.¹⁵⁰ They wanted a proof of the same. Member of PWD, D. G. Crookshank was agreed to a strong financial structure based on reliable numbers. He did not think it reasonable to run exchanges at losses to do expansions that did not pay their way. The station systems and trunk lines had to be commercially self-supporting and could not be “classed unremunerative for political purposes or protective reasons.”¹⁵¹

However, Crookshank wrote in support of the DG’s proposal that “...it really comes to taking a step in the dark and gambling on the new rates... We may take our courage in our hands and authorize the introduction of the graduated scale of rates now proposed... I gather that something like a rot is setting in and as it is desirable to stop it at once we recommend the new rates to the T.D. (Telegraph Department) for early introduction...”¹⁵² New rates based on radius restriction of 3 miles were applied from October 1922.¹⁵³

¹⁵⁰ Off Notes dtd 25th Aug 1922 and 27th Sept 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁵¹ Off Note dtd 26th Aug 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁵² Off Note dtd 28th Sept 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

¹⁵³ Letter dtd 16th Oct 1922, Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

Conclusion

Adequate financial tools were not employed in maintaining the telephone systems, which would have helped in rationalization of the rates charged for telephone connections. There was a great degree of arbitrariness and definite ambiguity in the financial management of the telephone enterprise. Accuracy did not seem achievable in any category whether that of capital outlay or maintenance or general charges. It could only be safely assumed that it was paying its way and returning a decent profit. But it could never be completely ruled out if it were indeed dependent upon telegraph system for its existence at least as part of the Telegraph Department.

However, the Telegraph Department did not lose reflexivity and self-assessment was carried on for years to attain some kind of resolution. As the officials themselves understood, from time to time, “eggs” or new schemes were hatched to salvage the business of telephones. But most of the times the “eggs” proved to be bad and insufficiently planned.

The deathly slow increase in subscribers and connections pointed many a time to the prevalent social attitudes. The constant criticism of telephone enterprise revealed that there were people and institutions who might have been willing to invest in it if it were better managed and maybe subsidized to a certain extent. But in spite of the great uproar at times on the question of rates no one contemplated that maybe if telephones were not made to pay its way as other public utilities were not it might have spread faster. The other resolution to the problem of cost – local production on a large scale was once again not discussed or attempted to any extent in the time period studied here.

The only solution to the slow rate of growth was, according to the bureaucracy, further growth. With the enlargement of the exchange everything was to fall into place. A bigger network would mean increased usefulness of the telephone as an instrument of communication. It would be more economical since bigger exchanges could levy lower

rates. And more privacy and secrecy was assured because the operators were busily employed in handling the traffic.

The Bengal Telephone Co. seemed to have all of the above benefits in place. But it found itself crumbling over with the extension of the network. The indignation in the public over the increased rates was a reflection of the failure of the private capitalist monopoly model. As a 'public utility' it was questionable on all accounts. It was put to question whether these protests were more because of the dismal quality of service provided by the companies, or for the high charges levied or simply because the telephone was being seen as a most important and indispensable instrument for connecting networks of information, commerce and people. There was an all round acknowledgement of the fact that telephones were an essential item of utility. The apparent stress on the fact that the Company's conduct was deplorable on account of being a 'public utility' was all the more interesting. The concept of the 'public utility' routed these issues through public domain and not through closeted bureaucratic debates. The complete role-reversal and change in the relationships between private capital, state and commercial bodies was the highlight of this last phase before the Bengal Telephone Co. finally gave way to a new entity called the Bengal Telephone Corporation, Ltd. in April 1922.

CHAPTER 4

NATIVE STATES & THE ROLE OF THE NATIVE

The Native came up in the official discussions almost through the backdoor. The native states were less directly controlled portion of British Indian territories and the spread of telephone in these regions was more troublesome than in the British administered territories. The treaties did not give them a direct entry point to interfere in this matter but the political clout and reason of political expediency was enough to keep a diligent eye on the matter. Earlier it had been expressed several times that native was disinclined to adopt telephone in daily matters. Instances transpire of the alternative uses that telephone was subjected to – speculation and conduction of business and ‘gambling’. Lastly, the few native companies that came forward to capitalize on the telephone business were unable to obtain any leeway with respect to that.

TELEPHONE IN NATIVE STATES

Another interesting development was the complication regarding spread of telephones to the native states. The Telegraph Act did not apply to the native states of its own accord. The Foreign Department (FD from here on) sent a Circular to Local Governments and Administration and Companies that projects of establishing telegraphic or telephonic communications in native states not of a local or quasi private character should be reported for information and orders of GOI.¹ The GOI wanted to stress its control over the telegraph system of the whole country. Small lines were unobjectionable but it was the spread of exchanges that caused a problem. They tended to spread from one city to another and become systems of communication through States. The general system of telegraph and telephone was meant to be under imperial control. Any project had to be reported.

¹ Circular No. 782 I.P. of 24th October 1881, NAI

Eventually the residents in various states were directed to inform about the smallest of line installments. In very many cases like in that of the Raja of Faridkot the telegraph department itself offered to install telephone lines. The various native princes requested permission to install telephone line and though on the surface there was no problem with it the application usually had to do the rounds of the Agent of the particular region, The PWD and the FD before it could be granted. The applications of Junior Maharaja of Dewas and Raja of Tehri was similarly granted.

The Mysore state was knotted in another dilemma.² The Bombay telephone Co. wanted to establish telephone exchange in the city. The danger of proliferation to trunk lines in native states loomed large that too in territory where there was no direct British control. In case of friction between an outside company and a native state the government would have to arbitrate. The Under-Secretary to the foreign department also observed that the establishment of telephone lines in native states had been mere “play-things” connecting two palaces and so on but now a profit making concern was looking to capitalize on this opportunity. Various alternatives were presented. The Government could monopolize work in native states or give license before its commencement. This license should be applied for by the Chief of state. A certain Sir S. Bayley moved against the grain to defuse the fears regarding private operation of telephone exchanges. Two advantages accrued from giving licenses. a) They would be automatically relegated to imperial control and b) they could be distinctly warned in the licenses not to exceed their local limits. Arbitration was a small danger. Besides a small local operation of this manner was not important enough to attract attention from the department (Telegraph). After doing a few more rounds the notes by various departments were sent to Hon’ble C. P. Illbert, to clarify the legal aspect of the problem. His reply made it clear that the Telegraph Act did not authorize Governor General to grant license for the establishment or maintenance of a telegraph line outside British India. Article 14 of the Instrument of Transfer (imposed specifically on the Mysore state) provided that all telegraph lines within the native state constructed by the native state or by the British government would be worked by the British Telegraph Dept. It was through this

² Procd, March 1884, No. 5, Foreign Dept, A Judl I, NAI

article that restrictive conditions could be introduced. Hence, it was clearly understood that they would have to remain satisfied with being kept informed.

Soon after the same company advanced application for Secunderabad cantonment to the GOI and separately to Hyderabad Nizam. It was obvious in this instance that Hyderabad would want a connection with Secunderabad. It could also be a source of danger at the time of political excitement. Since the Instrument of Transfer was not applicable they did not have the “legal power to grant a license for Hyderabad not the political power to refuse permission to the company to make its own arrangements.”³ But as one Secretary to FD pointed out the political power was theirs to exercise if they so chose. There were some ‘disabilities’ imposed on various states and the political power was not limited by the various treaties. For instance Article 6 of Treaty of 1798 could be invoked to prevent any European to stay within native territory without permission. Also British native whether in British territories or in native states were subject to the Indian Telegraph Act of 1876.

But eventually the company was given a license for Secunderabad cantonment on the warning that however unprofitable the exchange could not be extended beyond cantonment limits. It was an ode to the temerity of the private enterprise involved in establishment of telephones in India that the Bombay Telephone Co. offered to sell their patent rights of exchange to Hyderabad in return for Rs. 25,000. The DG of Telegraph pointed out unofficially that this would amount to a free gift since patent rights have no value within the Nizam’s dominions.

³ Proc'd. Sept 1884 No227-233, Internal A, Forgn Dept., NAI

Telegram Subscription Rules 1884

As discussed in Chapter 1, a telephone system was seen as a threat to telegraphy. Telephone networks were small in the beginning. They stayed minor competitors to the telegraph systems for a long period of time. But a certain set of rules created a strange association between the two rivals. These rules allowed telephone subscribers to send and receive telegrams through telephones. This, effectively, allowed the telephone to absorb the role of the telegraph.

The Telegram Subscription Rules and Agency Subscription rules that were created for telegrams to be sent through telephones would have been anathema to the Telegraph Department only three years ago in 1881.⁴ Along with Resolution 303T of 25th October 1883 and Resolution No. 203T of 14th August 1884 the Government had approved sundry other rules which dealt with sending telegram through telephones - Telephone Exchange Telegram Subscription Rules and Telephone Exchange Subscription Rules published in *Supplement to the Gazette of India 16th August 1884*. These rules were incorporated within the licenses too.⁵ Telephone exchanges could now connect to the telegraph offices within their licensed limits with one or more wires and could allow any of its subscribers the opportunity to communicate directly with the Telegraph office.

When a telegram was received for a subscriber at the Telegraph office it could be sent to him as a normal telegram or through the Telephone exchange. Not only that, a range of

⁴ Telephone Exchange License 1884, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁵ The Clause 5 of the license was worded thus "the licensees may use and work the said Telephones, Telephone Exchanges, open telephone offices, telephone and private telephone wires ...in pursuance of the Telegram Subscription Rules made under the Indian Telegraph Act, 1876, and for the time being in force from or to any telegram subscriber at an office occupied by him to or from a Government Telegraph Office."

other options devised. The subscriber had the option of sending his telegram as a telegram, as ordinary post or by a special messenger (if the address was within reasonable distance).⁶

Clearly the above rules gave a considerable advantage to telephones and their users, aligning them with existing networks of communication – namely the telegraph and the post. Legally, at least, telephone subscribers could use their telephones to access any part of the country that was touched by these information networks. In theory this was a phenomenal idea. It had the potential to alter the face of communications. The normally insulated and isolated communication systems could form an alliance of sorts.

This alliance did not come cheap. The subscriber had to pay Rs 60 annually for this connection.⁷ The amount had to be remitted to the Director General of Telegraph Department. The telegram subscriber could send only one telegram at a time. In addition depending on what kind of method was adopted for further delivery, a corresponding fee was charged. The subscriber had to pay ordinary postage if his message was sent as post.⁸ If the message was sent as telegram then the normal tariff under Telegraph Act of 1876 was applied.⁹ And if a special messenger was employed then 2 annas were charged.¹⁰

All sums had to be paid in advance in terms of a deposit with Telegraph officer.¹¹ All charges were to be paid as telegraph stamps attached to telegram message form. The telegram would not be forwarded if the sum deposited was not sufficient for sending. The annual subscription payable to Director General could be paid to the Licensee Telephone Exchange as the agents of the DG.¹² That sum was to be made over by the telephone exchanges to the DG immediately. If a sum payable was in arrears it was to be collected within 21 days or the subscriber was debarred.¹³

⁶ Condition 4, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁷ Condition 2, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁸ Condition 6, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁹ Condition 5, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹⁰ Condition 7, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹¹ Condition 8, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹² Condition 10, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹³ Condition 12, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

To send a message a subscriber had to telephone the exchange. The telephone exchange had to write that on appropriate message forms provided by the Telegraph Department and deliver the forms by messenger at the telegraph office. So the telephone exchange could not phone the messages to the telegraph office. They had to be hand delivered. But the subscribers of the telegram subscription rules, could certainly receive their telegrams on the phone.¹⁴ All messages delivered to a telephone exchange were to be returned to the Telegraph office at the end of each day.¹⁵ The Licensees could not retain a copy of any of the telegrams. Nor could the telephone exchange deal with any press telegrams through this medium.

A complicated system involving all forms of communication – post, telegram, telephone and even messenger on foot was employed. Communication networks were being blended in the service of the public. But this amalgam took away the speed from the telephone. It technically made it reliant on slower mediums of communication. Even so the variety of facilities available, even at the high price charged, was engaging. It was a queer combination and all the more interesting for it.

Strangely, this system was put into practice only from 1890 onward and then too only in Bombay and Calcutta and later while discussing the grant of the same for Ahmedabad, a controversy erupted over these rules.¹⁶ The numbers for those years show the astounding success of these rules. In 1895-96 – 34,458 telegrams were received for transmission at Bombay and Calcutta and 20,520 were delivered by telephone in these two cities.¹⁷ It was a window to a brilliant opportunity in communication. It reflected the vast potential this kind of alliance had. The association between telegraph and telephone was most remarkable and ironic because of the antagonism that had earlier been posited between them. It almost mirrored the odd inter-dependence created in the working of the Telegraph Department and Telephone Companies which the following sections throw light on. It was said to be

¹⁴ Condition 3, Telegram Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹⁵ Condition 6, Agency Subscription Rules, Annexure III, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

¹⁶ The Telegram Subscription Rules were sanctioned in October 1890 for Bombay. They were sanctioned in December 1892 for Calcutta. And in 1898 for Ahmedabad.

¹⁷ Shridharni, *Indian Telegraphs*, Pg. 92

used by traders and merchants to conduct speculation. The Government considered commercial speculation the same as gambling. As discussed below the cost of such a service was already high and was further increased on discovery of the supposed illicit activities carried on by Indian merchants.

Gambling and Speculation through Talking Telegrams

In the first few decades of the functioning of the telephone, the private subscriber base consisted of businessmen and merchants mainly. Aronson observed the same trend in American popular usage.¹⁸ And as in the case of America, it was not just because a telephone directly replaced the ABC instrument in use till then. It was also because they could best afford the high costs of maintaining telephonic communication whether through a company or the Telegraph Department.

The Bombay Telephone Co. was granted permission on 30th October 1890 to connect the Company's Central Exchange with the Central Telegraph Office. The Bengal telephone Co. was given permission for Kolkata on 5th December 1892. Ahmedabad was the third city to have a connection like that. When granting the connection in August 1898 for Ahmedabad the D.G.T warned that the telegraph subscription rules were used in opium gambling and other kinds of speculation. In such cases impersonation and fraud was the biggest liability.¹⁹ Since facts of telegrams were delivered verbally there was no written confirmation or proof of identity of the person and the addressee did not know that the message had originated orally. Oral telegrams minus certifying signatures invited unscrupulous behaviour. The message could be overheard and intercepted to the detriment of the subscriber. Doubts could not be clarified or confirmation obtained very easily since conversation travels over telegraph. They wanted to ensure that only firms of repute were given subscription which guarded their phone.

¹⁸ Sidney. H. Aronson, 'Bell's Electrical Toy' in Ed. Pool, Ithiel de Sola *The Social Impact of the Telephone*, Cambridge, Massachusetts, and London, England, MIT Press, 1977

¹⁹ Letter No. 971 dtd 4th August 1898. The D.G.T alludes to this letter in his own letter No. 85-T dtd 24th August 1899 in Procd. January 1900 1-6 A, CW-Tel, PWD, NAI

Subscribers frequently levied charges against operators who were not always above suspicion. The D.G.T's own enquiries in Bombay showed that their own men were tampered with and divulged telephonic messages. The clerks were employed at Rs. 25 a month and could not be expected to have complete loyalty. Not only that they used the telephone exchange to communicate to subscribers the commercial quotations which they obtained from telegrams passing through signal office. These instances of points of leakage existing in their own system must have forced a shift to certain in the thinking that confidentiality was at stake in the working of telephones by companies.

A letter from G.L.Towers, Chief Superintendent, Bombay Office depicts the modus operandi of the "native" clerks in leaking a message.²⁰ One of the signal room havildars had reported thus:

"About 16 hours cotton opening prices are coming in from Liverpool to several of our subscribers. On the first message reaching passing Clerk A, he before passing it finds occasion to enquire about a message in the Telephone cabinet, and tells Telephone Clerk B the one word the message contains. This clerk at once calls up the Mandi Telephone Exchange and if he is answered by a clerk with whom he is in collusion passes the word on to him. The Telephone clerk gives the word to a peon of ours who is supposed to be on sick leave but who is said to loaf about the Mandi Exchange Office and he rushes off with it to the Marwari Bazar."

The clerks and peon were shadowed and it was discovered that Marwari dalals visited the peon and Clerk A and the Clerk was living a life beyond his means. But the havildar's statements remained uncorroborated. Anyhow the suspicion could not be ruled out since these channels were open to fraud. The Police Inspector was convinced that their biggest subscriber was a "great scoundrel". Mr. Towers added an important note that the clerks and peons were all Maharattas "which also fits in with this complaint". One Yusub Hadjie Allie had complained to Mr. Towers that his messages were made public in the market before they were delivered to him. The clerk gave him his messages only when he asked for them. He also related that certain native clerks were visiting speculation market twice a week to

²⁰ Letter dtd 1st June 1899. Procd. January 1900 1-6 A, CW-Tel, PWD, NAI

one Vurjie Tricum in a very suspicious fashion. Allie was of the same opinion as the officials and said that they could always charge more and then employ "respectable Eurasian or Portugese clerks". Native clerks were becoming clever by clinging to one post. It was clear from the above instances that native clerks were the nefarious element and the involvement of race in placing the blame is not really surprising. What was essential though is that these native clerks were not sought to be replaced not just by the government but also by the users. And not just English but any white-skinned clerk could do the job better. The ostensible reason was that the clerks misspelt code words not knowing the English language but other European brethren may not be particularly proficient in English either. The character was unquestionable of course.

Criminal proceedings had been carried once against the telegraph office for altering a message. Though the telegraph office was held responsible in that particular case the crime could have easily been perpetrated by others since almost all the subscribers were opium speculators. The Bombay Telephone Company had replied to state that they would not jeopardise their business interests with a large number of respectable firms for a few speculators. After this assurance the connection was granted to Bombay Telephone Company in Ahemdabad albeit with certain suspicions as stated above.

Additional problems piled up as the subscription rules were abused. The subscribers were mostly Marwaris. They were a class who as the D.G.T. said "will take all they can get..."²¹ They thought nothing of using the services for twenty one days of grace allowed before refusing renewal of connection. According to the Telegraph Department, in Bombay subscribers numbered 16 out of which 1 was Parsee, 6 were Bantias, 7 were Marwaris, 1 was Brahmin and 1 was Mohammedan. All were speculators. Whereas Bantias dealt in cotton Marwaris speculated in opium and bullion. Marwaris were time and again found to be the culprits in this scheme of things. The problem was considered generic in their class. Later instances at Calcutta show that while some Marwaris exploited the new source of communication others were harassed by it.

²¹ Letter No. 85-T dtd 24th August 1899. Pro. Jan 1900 1-6 A, CW-Tel, PWD, NAI

Five special operators had to be employed for them at Rs. 25 per person. Therefore they had actually been working the connections at a loss. Moreover none of the European and important native firms subscribed. It was mostly used by speculators for confidential business. The Company claimed there were 20 subscribers and they could well be right since they registered users for fewer months than 12 also. The number of subscribers had also been limited by the plague in Bombay three years. Also the benefits of such a connection were not generally known and the Company wanted to publicise further. Irregularities could always be dealt with. The Company realised an amount of Rs 6000 annually from Bombay and Ahemdabad. They had also accumulated evidence from police as to their status.²²

The business could not be carried out without mutual trust between operators of the telephone exchange and telegraph department. That was an element sorely lacking in this relationship. The telephone exchange did not keep a log of the timings of such conversations. It was an annoyance to present records at courts of law and send officials to testify. Mr Allen, Director of Traffic Branch noted that the phone-telegraph connections should be abolished since cases of fraud were multiplying.

On 22nd May 1899 the D.G.T wrote to Bombay Telephone Co. canceling renewal of their connections citing these issues stating that since D.G.T had to the power to grant the connection he also had the power to revoke the connections. The Company challenged the authority of the Telegraph Department to deny connections that were granted in the license. H. Blackwell, the Secretary to Bombay Telephone Co. pointed out that the license from its inception on 30th September 1884 in no way envisaged withdrawal of these services during the 31 years of its existence. Also these connections had been in operation for 10 years by then. The company had a powerful case in their favour.

²² Letter dtd 19th June 1899. Pro Jan 1900 1-6 A, CW-Tel, PWD, NAI

However the fears of the Department were not unfounded. *The Statesman* dated 2nd June 1899 carried the news that forty seven people were being tried at the Court of Rao Bahadur Jivanlal Lakhia, City Magistrate, Surat. The Public Prosecutor Rugnathji V. Tatia contended that many families had been ruined due to the new form of gambling – opium gambling. The speculation was introduced according to him when many refugees fleeing the Bombay plague came to settle in Surat. He gave a fascinating account of how the process of gambling was carried on. The figures of rates from Bombay and Calcutta were added to each other and divided by two to reach an average. At the time of the arrest of these men the rates from Bombay and Calcutta were Rs. 1,122-8-0 and Rs.1, 116 respectively. Their average came to Rs. 1,119-4-0. Therefore those who had bet on number 9 would win.

Calcutta was not faring well either. The Superintendent at Calcutta Office elaborated this intriguing business.²³ There were two kinds of businesses. One dealt with betting on daily fluctuations in prices of opium in Hong-Kong, Calcutta and Bombay telegrams for which were sent at midnight usually. The other dealt with betting on opium rates on the opium sale day. The general average price called the ‘pucca’ average was given to the agents spread in the country against which they received bets laying odds which increased in proportion as the number betted on varies from their chosen one. The fluctuating prices were communicated constantly during the sale and since thousands of rupees were bet each Marwari wanted his message to precede the other Marwari. They bribed the clerks and unscrupulously blamed each other for doing the same. So even though Rs. 2000 per month revenue was obtained the nature of the business was such that it attracted trouble. On opium sale day the Superintendent discovered some 70 messages all prepared to leave except for the “pucca” average which was to be filled at the last moment. This practice was to put to a stop by the Superintendent and a Eurasian clerk was employed in the Telephone cabin.

Certain smaller opium merchants from Calcutta wrote to D.G.T to say that they were suffering as a result of other merchants being able to wire their messages even before their

²³ No. 4329-T dtd 8th Dec 1898, Pro Jan 1900 1-6 A, CW-Tel, PWD, NAI

messages could reach the Telegraph office.²⁴ Therefore, many times knowing this fact deters sending of messages. They could not afford the three different annual charges for normal telephone services, telephone connection to telegraph office and separate charge to telegraph office. Code words were very often misunderstood and mutilated dangerously. Many merchants who had the telephones also disagreed with the practice. Referring to the action taken by the Superintendent by returning the seventy messages prepared for opium sale day on 2nd November 1898 they expressed their concern that but for the timely intervention their position would have been greatly compromised. Many merchants who had the telephones also disagreed with the practice. The telephone was deliberately kept engaged by speculators to thwart other businessmen. Repetition and slow pronunciation were used as tools of deferring a message and keeping competitors waiting.

The D.G.T in 1898 said evaluating the situation that:

“the experience of the past few months and the two disgraceful frauds that have been brought to light make it undesirable that natives should be employed as telephone clerks as they are more liable than European clerks to get on intimate terms with the subscribers and thus be tempted to commit illegal or irregular acts.”

Native clerks if replaced by Eurasian or European clerks would only increase the losses incurred in the system. They were not economically viable replacements. In May of 1898 they were losing on the Calcutta connection at the rate of Rs. 300 per annum and payments were never punctual. It also called for extra supervision and investigation as one Calcutta merchant complained that a rate quoted by him in a telephone telegram was known in the bazaar 20 minutes later. Mr Chappel, the Superintendent in Calcutta Telegraph Office also stated that none of the subscribers were merchants in opium but only bookmakers who bet on the price of opium.

On the firm belief that similar problems were plaguing Telegraph Department in Bombay and Calcutta the D.G.T wrote to Bengal Telephone Co. on 23rd May 1899. The Bengal

²⁴ Letter from Hurdutroy Chamria and others dtd 11th Dec 1899, Pro Jan 1900 1-6 A, CW-Tel, PWD, NAI

Telephone Co. informed that their losses would amount to Rs. 4000 but they left the matter to the good judgement of the Government.²⁵ On 13th June the Superintendent at Calcutta Telegraph Office reported that yet another instance where the biggest opium gambler Rampertap Minani lost Rs. 12,000 on the afternoon of 31st May owing to the telephone clerk omitting a word in the address of a message telephoned to the office. The clerk refuted that the word was ever given while Rampertap claimed that it was told. It was generally held that a message taken down in cipher, specially by a non-European was liable to carry mistakes. Rampertap could also not disconnect from the system till any one of the other firms relied on it. He also informed that men loafed around Booking Office with the intention of getting to know the prices. On opium sale day the Superintendent had to threaten them with police to restore order. The competition in the gambling became so intense that one man tendered 24 messages in a batch at six of the windows on the 1st and threatened to report the matter to higher authorities if receipts were not given in two minutes.

The Statesman printed an extract from the Hindu newspaper on 17th June that opium gambling had come to replace rain gambling which had been suppressed by a concerted effort from the Hindu community and Sir Alexander Mackenzie. Opium gambling was portrayed as a necessary evil which went along with opium trading and its abolition could affect government revenues. Hence, the government was in an apprehensive state. The concerns of revenue aside the connections had become a source of nuisance and unabated corruption.

The D.G.T's suggestion of doing away with the telegram subscription rules was in contravention of the privileges granted to the companies under Clause 3 (e) of their licenses. Its discontinuance could elicit demands for compensation. Even the Advocate General of Bengal was of the opinion that the D.G.T was not competent enough to revoke any order

²⁵ Letter dtd 12th July 1899. Pro Jan 1900, 1-6 A, CW-Tel, PWD, NAI

granted by him to a licensed Telephone Company.²⁶ The government was liable to compensation and unless the Company broke any of the conditions they were entitled to the powers during the continuance of the license. The Governor General in Council had the right to cancel rules made by him.²⁷ But the Telegram subscription rules could not even be cancelled in toto without compensation. Although statutory rules could be cancelled at any time it could not be done to a right that has been exhausted. Once again the state seemed to be on the defensive with its own rules and regulations. It was an unsuspecting victim of gambling here and the fervent enthusiasm that this business was associated with. It was a tough problem to beat.

Therefore, the Notification No. 289 on 12th July 1900 upped the price of telegram subscription to Rs. 150 which was to be paid in advance. The telephone exchange was also regulated to maintain a log of date and time of connection and disconnection.²⁸ The revised licenses granted in 1903 incorporated these same principles.

²⁶ Under clause 3(2) of form of license prescribed in Government of India Resolution No. 203T dated 14th August 1884 permitting establishment without rendering liable to the Company for compensation on account of loss of income that may result from revocation of such orders and the prevention of such operation on part of the Company as contemplated in Clause 5 (2) of the license. Letter No. 1157 dtd 10th Oct 1899. Pro Jan 1900 1-6 A, CW-Tel, PWD, NAI

²⁷ The power under Indian Telegraph Act, 1876 (I of 1876) has been removed by the enactment of section 21 of the General Clauses Act, 1897 (X of 1897) "whereby any Act of the Governor General in Council or Regulation, a power to make orders, rules or bye-laws is conferred then that power includes a power exercisable in the like manner and subject to the like sanction and conditions (if any) to add to amend vary or rescind any orders, rules or bye laws so made."

²⁸ Pro. July 1900 1-2 A, CW-Tel, PWD, NAI

TEMPLE TELEPHONE

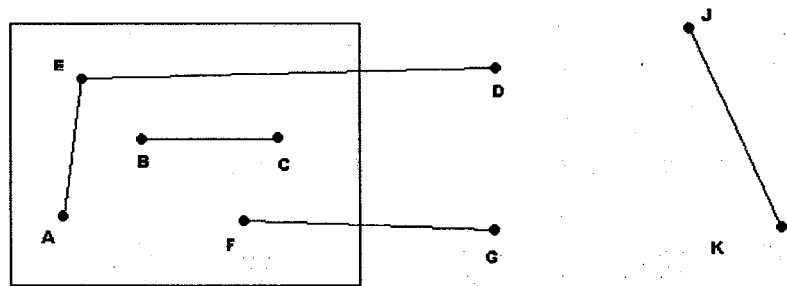
On the other hand another case in point suggests the reluctance on part of the state to interfere in certain matters which were strictly limited to the natives. The Oriental Telephone Co. was charged with breach of license for erecting telephone wires on government land.²⁹ The Agent of the Company maintained that these lines had been built on land sold to the user of those telephone lines. The Company said that no formal contract was made with the Mahant and sold the instruments and materials inclusive of cost to erect them. The DG added that under normal circumstances he would solicit permission to close the line, prosecute the company and press for some small penalty but owing to the “religious sanctity” of the user a complication had been introduced. The user in this case was the Mahant Bhagwandasji, Trustee Tirumala Tirupati Devasthanam for whom the lines had been established connecting lower and upper Tirupati. The Collector of North Arcot had already obliged him by not just granting permission for the erection of post but also felling trees to facilitate doing so. Though the government could have prosecuted the company separately while giving the license to the Mahant the Government of Madras recommended that since the Oriental Co.’s mistake was bonafide legal proceedings were not conducive to the given circumstances. The government did not want a situation to arise where the Mahant might have presented himself to a court of law. Hence the Company was warned and the Mahant was granted a license.

However, the same hospitality was not extended to the Mahant the next time in 1889 he wanted a village Srinivasgaram (10 miles away) to be connected to his residence which was going to become his property.³⁰ But the proposed line was going to pass six villages which were not his property. This was clearly outside the purview of the Company. The Collector of North Arcot thought it to be a passing fancy of the Mahant which was not likely to last long since his tenure could terminate anytime. The D.G.T took it to be an infringement of

²⁹ Pro Aug 1888 29-37 B, CW-Tel, PWD, NAI One of the lines built on 23rd Nov 1887 connecting the Mahant’s house to a temple in the town was on government land while 3/5th of the one built on 6th Feb 1888 to a temple on the hill from the same house was on government land.

³⁰ Pro Oct 1889 No 1-9 A, CW-Tel, PWD, NAI

government right since 35 years to erect all telegraph lines. He feared that they might drift into two telegraph systems – one of the Government of India and one of Oriental Telephone Co.



The license granted in 1883 had allowed connection from within the limits of the exchange area to outside (like E & D and F&G) but it could not put up lines beginning and ending beyond these limits (like J&K). Mallock reasoned that if these licences were granted then there would be no reason to refuse line to Nellore or Hyderabad. Hence, this time the religious sanctity of the Mahant did not prevent the Department from enforcing its regulations strictly.

NATIVE COMPANIES

A native Indian company that was considered for an exchange license was the Rajnagar Trading Co. It received a license for Ahmedabad in January 1895. It was owned by one Maneklal Nathubhai & Co. who wrote on several occasions.³¹ They had defaulted on Clause 6 of the license and had not yet constructed an exchange. The reason cited was that the Ahmedabad Municipality wanted them to charge only Rs. 100. In their memorial the Company had specified that the company was only dependent on this business and their

³¹ He wrote on 18th July 1896, 2nd Sept 1896 and 26th Sept 1896. March 1897, No. 1 to 20 A, CW-Tel, PWD, NAI

novel enterprise was facing the difficulties associated with such an endeavour. Since the government had not imposed any limit there was no need according to them for the Municipality to fix a limit. The Municipality, according to him constituted of Mill owners who were the ones to take connection of telephones. This would allow them to procure the service at less expenditure if the Municipality was going to charge only Rs. 100. Their rates were in fact very low compared to Bombay Telephone Co's rates.

	Rajnagar Trading Co	Bombay Tel Co.
Mills	Rs. 180/annum	Rs. 250/annum
Joint Stock Companies Firms	Rs. 150/annum	Rs. 200/annum
Private Residences	Rs. 100/ annum	Rs. 110/annum

Source: March 1897, No. 1 to 20 A, Civil Works-Telegraph, PWD.

The Company, he contested cannot profit with this imposition especially the other public who might be interested would not be interested once this was revealed.

However, the Collector reported that the real name of the owner was Maneklal Trikamlal who was in jail at present convicted of an offence under the Opium Act by the Railway Magistrate, Baroda and sentenced to six months of rigorous imprisonment.³² The Government revoked the license saying that the company must have known of the Municipality's resolution before applying for the license.³³ Also there was no way to know if enough capital had been subscribed for. At the same time the Bombay Telephone Co. was granted a license for establishing that exchange. Company's Exchange was not allowed to connect to the government offices including police stations. One can conjecture that municipal offices also being government offices the Rajnagar Trading Co. would not have the chance to supply them. Therefore their rates should not have troubled them in the first place. However, the Bombay Telephone Co. established another telephone exchange at Ahmedabad.

³² Letter dtd 2nd Oct 1896 by M.C. Gibb, Acting Collector in March 1897, No. 1 – 20 A, CW-Tel, PWD, NAI

³³ It was revoked on 30th December 1896.

Imperial Publishing Co. a concern owned by one Khosla Brothers of Lahore wanted to open an exchange at Delhi. They applied for the same in the February of 1912. They were also the publishers employed for Imperial Coronation Durbar. They wished to form a syndicate at first and then convert it into a joint stock company. Their application was refused because the government had decided that all future advancements in telephone were to be carried out by the Indian Telegraph Department and the private companies were not to be encouraged in this area anymore.³⁴ This was probably fallout of the fact that the National Telephone Co. had been undertaken by the Post Office after the completion of the time period of its license.

Another company called the Shikarpur-Sukkur Telephone Co. wanted to establish exchanges at Shikarpur and Sukkur and then connect the two (26 miles apart) by trunk lines.³⁵ They wanted to leave the construction and maintenance of the line to the Telegraph Department and licenses. In case of Imperial Publishing Co. though orders were given but no official orders were issued in pursuance of the now accepted policy that future expansion of the telephone system in the country should remaining in the hands of the department and no licenses were to be granted to work the system for gain. They did not want to bring in any more local telephone systems that would have to “buy up eventually.” Moreover trunk lines were only to be erected, maintained and worked by the Telegraph Department alone.³⁶

Conclusion

These instances expose the fluidity of the rules that are established after so much care and discussion. Whatever the discourses at the administrative level may engage with at the functional level the technology was appropriated by the consumers as per their needs. It was also an indicator of how technologies find niche in certain groups like tradesmen, businessmen, shopkeepers and so on. Communication can aid competition and facilitate

³⁴ June 1913, No. 8 – 9 A, Telegraph, C & I, NAI

³⁵ June 1913, No. 8 – 9 A, Telegraph, C & I, NAI

³⁶ June 1910, 7 – 12 A, Telegraph, C & I, NAI

business owned by self. In such a scenario if it is adopted by one the rest would follow regardless. The transition from being mere inventions of interest to actual indispensable instruments of knowledge and control comes from this kind of adoption. As in earlier chapters it was noticed that police and other public institutions were seen as especially suited to the adoption of telephones so were activities like trading and so on.

CONCLUSION

Though the telephone came to India almost as soon as it was invented, its diffusion took a much longer time. Too many expectations were never attached to telephonic enterprise even when it was seen as worthy of so much attention. The Administration Report of the Indian Telegraph Department for 1883-84 read as follows:

“Telephonic enterprise, both by the Department and by Private Companies, has developed in a fairly satisfactory manner, but it cannot be expected that the use of telephone will be appreciated as rapidly in India as in Europe and America.”

Each year the numbers improved very gradually. But it was stated in no uncertain terms that:

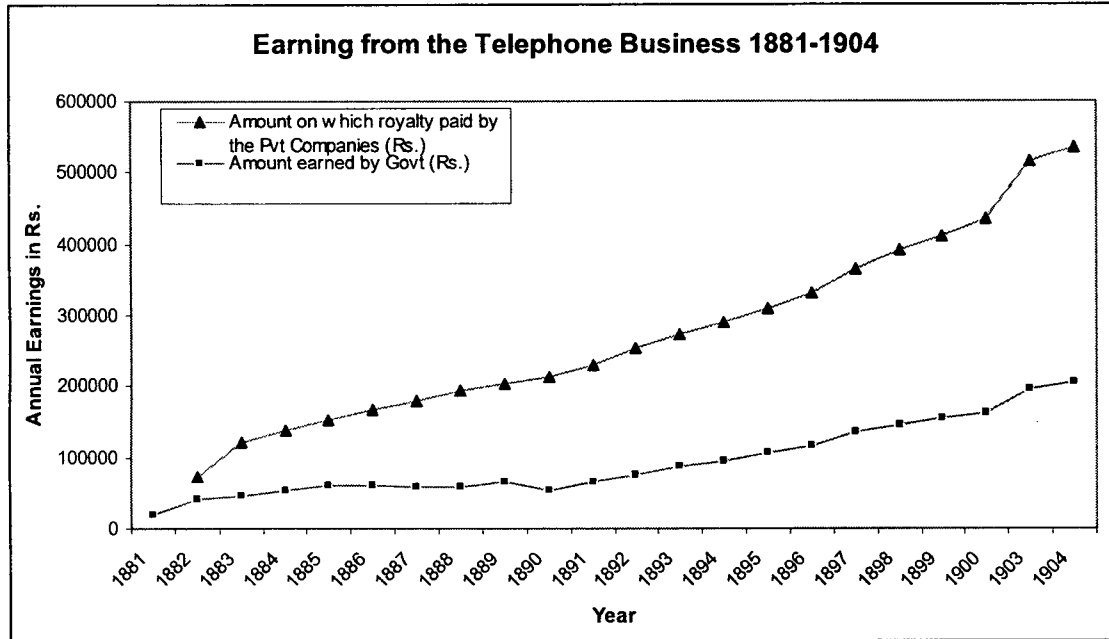
“These results are to a certain extent disappointing and it is hoped that with time the prospect may improve; but, it was foreseen at the outset, that the circumstances of this country did not justify the sanguine expectations of many, as to the rapid development in India of private telephone exchange business.”¹

It was really a moot point whether earlier somber expectations of the telephone were translated into reality, or, the meandering growth later justified the earlier stance.

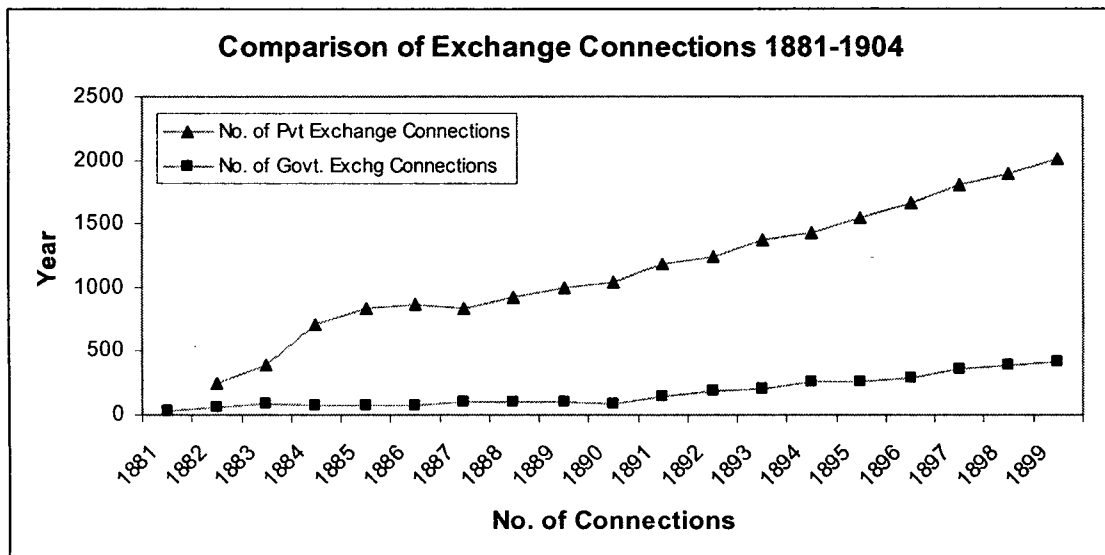
It is evident from the graph below that the government system, running parallel to the private telephone system, was no match in terms of revenue, at least in the first three decades. It was also clear that the government did maintain its promise of not competing with the private telephone companies where licenses had already been granted. However, the growth in the business was sluggish. There was a positive falling off in Governmental receipts in 1886 and again in private line systems in 1887. But there the government had begun to include lines for Railways and Canals under licensed telegraph systems. Even though there was an increase of Rs. 12, 572 in the earnings of the companies in 1887 there was a significant drop off in the number of subscribers and exchange connections. In 1888,

¹ Administration Report of the Indian Telegraph 1886-87. Pg 25, para 86.

there was further increase of the revenue of the company by Rs. 14,500 while the government showed hardly any shift.



Source: Compiled from Administration Reports of Indian Telegraph Department 1880-1905



Source: Compiled from Administration Reports of Indian Telegraph Department 1880-1905

The telephone could have been a tool of consolidation for colonial power just as the telegraph had been. In Headrick's analysis, telecommunication systems were established to pursue imperialistic ends. It is the geo-political makeup of the world that determined the social and geographical spread of selective technologies.² Kern argued for the same, when he opined that the telephone, wireless, railroad and so on created a collectivizing force that universalized time and gave power to monopoly, bureaucracy and government.³ This was not exactly the case for telephone in Colonial India. The post and telegraph served better as instruments of collectivization.

Early writers had concluded that it was the profit motive that stunted the growth of the telephone. "New facilities were slow in coming and new connections hard to get, because the private owners of the line could not be as sensitive to the public's convenience as the Government would have been."⁴ Another reason touted was that among all modes of communication, the telephone was a "city slicker". India was a land of villages. It could not adapt to the rural life and hence, it did not develop. A third vein, developed with respect to Britain, was that the British Post Office was a bureaucratic organization that fumbled in its responses to the advent of a new technology.⁵

As observed in the course of the dissertation both these assumptions were really the result of a simplistic approach. Telephone development could have facilitated the working of government and public alike. Pre-existing structures and conditions shaped its entry and further spread over time. A number of variables and issues played upon telephone's utilization as a tool of communication; it remained underutilised for a long time. Its potential was limited because of competition with the telegraph, introduction of licensed companies

² Daniel R. Headrick, *Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940*

³ Kern, Stephen, *The Culture of Time and Space*, Harvard University Press, Cambridge, Massachusetts, 1983

⁴ Shridharni, Krishnalal, *Story of the Indian Telegraphs: A Century of Progress*, pg 85

⁵ Bennett, *The Post Office and Its Story*. According to him, the Parliament was not supportive and the 'private speculator' got an early start, and the Post Office was busy consolidating telegraph system. Perry, 'The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay', largely argued the same that the British Post Office was motivated by concerns of economics for the British Post Office officials.

who shared a tenuous relationship with the government and lack of demand since it was an expensive instrument to subscribe to.

Bureaucratic contradictions lowered the intensity of the opposition to private capital. These contradictions surfaced in the official discourse often as the bureaucracy harboured several layers of opinion. Local Governments and local bodies such as the municipality, the Military authorities gave views contrary to those of the PWD and Telegraph Department. It was not just concerned with its ordinary interest in convenience, but also it was distinctly clear that to them the Telegraph Department was no different than a commercial concern. Therefore, the Government could never act or implement anything as a monolithic unit. It was dominated by a huge variety of interests.

The private concerns, on the contrary, presented a more united front. They were mindful that their endeavors would be defeated without a common defense. Private vested interests were not easily thwarted. This state – private capital binary produced a most unique system for India. With hindsight we know that technologies like telephony (and other public utilities such as railways) fell into the category of ‘natural monopolies’. It is not argued here that a centralised and monopolised system alone could have brought telephone the success it deserved. But the question of contested rights over the technology made it impossible for the telephone to be used as a well connected network that was not bifurcated for political, economic or any other reasons. Telephone as a technology thrived on the strength of its network. Compared to the telegraphs the telephones were not made a clear government monopoly. Regulations fragmented the network and reduced the benefits of the phone. Different systems continued to be managed by multiple entities – local governments, military, police, companies, Telegraph Department and so on. The multiplicity in directions gave rise to multiplicity in disparate systems and methods of augmenting the business. That could be viewed as one of the important factors in contributing to the listless growth of a revolutionary technology. The diverse hybrid structures existed separately from public exchanges. This was something that was realized very clearly by succeeding Director

Generals especially W. Maxwell. He tried for the first time to induce the various separate exchanges to combine into a common network centrally managed.

Here in comes the social structure. The recurring trope on secrecy found a space in most official discussions on telephone. The trope became attached to the less secure private exchange system and later to the telephone technology itself. The tentative transition of official attitudes from those of apprehension about the telephone technology to accepting it as a sensitive medium but necessary for daily work were well reflected in the succeeding Director Generals who initially began with developing the trope of secrecy (primarily a colonial paranoia) and later actively promoting its use in the public through better charging schemes. The paranoia never really did go away.⁶

Once it was unofficially accepted that private enterprise was not to be given fresh fields for extending its work, the Telegraph Department in its own capacity and after substantial criticism tried to improve upon the earlier dismal standards of development. Tariff was revised and rationalized albeit on hardly something more than educated assumptions. The lack of clear knowledge of original capital outlay, maintenance charges and general charges put a spanner in the working of the Telegraph Department. Certain amount of financial mismanagement could then, also be put in the dock for late flowering of telephony.

The narrative of the state-private capital antagonism was disrupted by events such as the agitation at Calcutta. As the immense uses of telephone became generally known, the state was criticized vehemently for allowing private enterprise to usurp public money to provide a dismal service. All the roles held by the primary actors in the narrative, previous to this, were completely reversed. The agitation was key in dragging out debates on the telephone technology into public space for the first time. The Calcutta agitation of 1923 over increased charge also revealed the fissures in the unity of commercial concerns. The Bengal Telephone

⁶Appendix 9

Co. was singled out as a 'public utility' that was questioned with great severity, over its conduct as a purely commercial concern, by the public.

The native was really conspicuous by his absence in this story. The official nature of sources limited the understanding of the response and reception among the general populace, other than the fact that it was not rousing. There were a number of intriguing ways in which he did surface (always in the masculine one may remember, unlike the inherent female bonding with the telephone as brought out in other studies) but mostly either as part of a lament that Indians had been very slow in making use of the telephone or that certain sections of business community were abusing the instrument. The amorphous body of the public (the taxpaying members) emerged in the arguments of both the Government and the private enterprise but the concerns of the public were never voiced in any other terms.

The conflicts in the history of telephones marked a departure from the technological fables which dot history liberally. It brought into relief the struggles involved in the assimilation and appropriation of a new mechanism to communicate. Its apparent advantages didn't bring it obvious success. However, there was something more endearing about the strangely human noises of this device than the staccato of the telegraph. The pulsating electric current running through the copper veins carried messages to the current navigating switchboard and delivered through the crackling receiver of the telephone. Even Mahatma Gandhi, experimenting with village self-sufficiency at the Wardha Ashram made two exceptions for technology – a watch and a telephone. The structures on which, its development was based, were made stronger only very gradually over time. This giant communicative web gradually covered more and more cities and households.

APPENDICES

1. London Advertisement, dated 20th December, 1880

Telephone Intercommunication - The Post Office has for some time provided a means whereby the renters of wires into postal telegraph offices may be placed at will in direct communication with each other.

Such system has been in operation in Newcastle-on-Tyne, Hull, Middlesborough, Stockton, and other towns for several years.

The instrument used in these cases up to the present time has been the A B C instrument.

Henceforward, in order to meet the convenience of the public, the Post Office will be prepared to provide, for such a system, either the A B C or the telephone instrument.

In the case of the telephone instrument the annual charge to each renter in London will be 15 *l.* if his premises be within half a mile of the Telegraph Office; 19 *l.* if they be more than half a mile, but not more than a mile distant, and at proportionate rates for greater distances.

The renters will not only have the facility offered them of communicating direct with each other, but they will also be enabled to send messages by siren to the Telegraph Office, to be thence transmitted at the ordinary charge to other towns.

Application should be made to the Secretary, General Post Office, and, when several persons in any one neighbourhood have agreed to take wires, immediate steps will be taken to establish a system of intercommunication by telephone instruments.

By order of the Post Master General

Provincial Advertisement, dated December 1880

Telephone Intercommunication- The Post Office has for some time provided a means whereby the renters of wires into postal telegraph offices may be placed at will in direct communication with each other. Such system has been in operation in Newcastle-on-Tyne, Hull, Middlesborough, Stockton, and other towns for several years. The instrument used in these cases up to the present time has been the A B C instrument. Henceforward, in order to meet the convenience of the public, the Post Office will be prepared to provide, for such a system, either the A B C or the telephone instrument. In the case of the telephone instrument the annual charge to each renter will be 14*l.* 10*s.* if his premises be within half a mile of the Telegraph office; 18*l.* if they be more than half a mile, but not more than a mile distant, and at proportionate rates for greater distances. The renters will not only have the facility offered them of communicating direct with each other, but they will also be enabled to send messages by siren to the Telegraph Office, to be thence transmitted at the ordinary charge to other towns. Application should be made to the Secretary, General Post Office, and, when several persons in any one neighbourhood have agreed to take wires, immediate steps will be taken to establish a system of intercommunication by telephone instruments.

2. A Resolution was passed in Simla on October 25, 1883¹, the main points for which have been surmised below:

- a) The Government of India would not give any company a monopoly of Telephone exchanges and reserved the right to grant licenses to more than one Company.²
- b) In case a company wanted to work in a city occupied by Governmental exchange it could apply for transference of exchange.³
- c) The Government could undertake business in places where private agency was not interested.⁴
- d) The license of the company would stand cancelled in case of failure, overcharge or other misconduct with a view to protecting the public.
- e) The right of Government to license more than one company in any town was reaffirmed.
- f) The construction, maintenance and working of all exchanges between government offices would be undertaken by the Government.
- g) Connections would be made as per certain rules between government and private exchanges on payment of certain fees. Delivery of written messages over government wires would also be allowed on certain conditions.
- h) Company would be allowed to connect isolated subscribers beyond limits of their license to their exchange in the form of ultra-radial connections.
- i) The Government alone would operate the trunk lines between licensed exchanges of various towns. They would be erected, maintained and owned by the Telegraph Department and let to the Company at an annual rental. No Company had the right to claim erection of a trunk line.
- j) The initial royalty fixed at the rate of 10% was brought down to 5% with 1% on ultra-radial connections.

¹ Annexure I to Circular Memorandum 1 of 1884, Simla, 11th Sept 1884 Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI. These rules are also given in Shridharni, *Story of Indian Telegraph*, Pg 90-92

² Letter dtd 10th Nov 1881, Annexure I, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

³ Letter dtd 9th Dec 1881, Annexure I, Pro Oct 1884, 84-85 B, CW-Tel, PWD, NAI

⁴ *Ibid.*

- k) In case an exchange is purchased by the Government nothing will be paid for the 'good-will' of the business.

3. Indian Telegraph Act, 1885. Appendix A. No. 78-160, Legislative Department

	The procedure with regard to consulting the Municipality as to the direction of Telegraph lines and the location of the posts to carry them	The practice in regard to the crossing of private property by such lines.
Bengal	The Secretary is written to informing him of the proposed route and requesting permission to erect the line. The position of the post is not mentioned.	Permission is obtained from the owners of the property
Madras	When the direction of the new line is decided on, a tracing of 6" to the mile map, with each post marked is sent to the Municipal Commissioner with a request that he will, if he sees no objection, sanction the proposed route and return the tracing. In the case of the Government telephone lines the application had also to be sent to the Executive Engineer, the Quarter Master General, and the General Commanding before it was sanctioned.	The owners are either written to or personally interviewed and their permission obtained before anything is done.
Bombay	Application is made in each case to the Municipal Commissioner, and after the proposed position of each post has been pointed out to the Engineer, permission is given to erect them. Sometimes there has been difficulty and delay owing to differences of opinion. Since October, 1881, for lines made within the limits of the Bombay Municipality a guarantee has been called for to the effect that this Department are "tenants-at-will" for the ground occupied by each post erected.	Matters have always been arranged with owners without payment or without taking up land.
Rangoon	The Secretary to the Municipality is informed of the proposed route, and consent is as a rule granted, provided the posts are placed so as not to interfere with public traffic or with trees.	When crossing compounds of houses permission is often asked of owners, but when crossing fields it is generally taken for granted by owners that the Government requires the line and no complaints are made so long as no damage is done.

4. The approximate cost has been calculated in accordance with the method suggested in that note, i.e., -

- a. The capital cost of the lines includes establishment and store-keeping charges
- b. The capital cost of telephones, indicators and bells has been arrived at by valuing as per price list all the instruments in use in the system and adding thereto the has been divided by the number of telephones in use including the exchange telephone and half the number of indicators and one-sixth of the number of bells, that is, the cost of an indicator is taken at half that of a telephone and that of a bell at one-sixth.
- c. The cost of line maintenance is calculated on the principle adopted in the case of guarantors of private lines.
- d. The direct cost of maintaining the telephones has been ascertained from Divisional Superintendent; it includes charges or share of charges for the pay of linemen, battery men and horse allowance of Inspecting Signallers.
- e. In calculating the annual cost per telephone the rates of interest and depreciation are the same as those for instruments in private offices. So also is the rate for "General Charges".
- f. The cost of operators represents the pay of operators specially employed which is only in the Mussoorie system.

5. Comparison between charges levied by Indian Telegraph Department, British Post Office and Bengal Telephone Co.

Statement showing telephone rates charged in England and in India										
Particulars	Country	Rate				Total		Remarks		
		Wire	Instrument	Indicator connections	Operators	In Pounds sterling	In rupees			
Private Lines										
Line one mile long with double wire and two instruments	England									
	London	6	4			10	150	For lines upto five miles in Calcutta		
	Provinces	5	4			9	135			
	India									
	Bengal Telephone Co.						150 to 300			
ITD	40	120					160			
Line two miles long with double wire and two instruments	England									
	London	12	4			16	240	Ditto		
	Provinces	10	4			14	210			
	India									
	Bengal Telephone Co.						150 to 300			
ITD	40	120					200			
Line two miles long with double wire and two instruments	England									
	London	18	4			22	330	Ditto		
	Provinces	15	4			19	285			
	India									
	Bengal Telephone Co.						150 to 300			
ITD	120	120					240			
Exchange Connections										
Half Mile	Business Premises	England								
		Provinces					8	120	European Firms Native Firms	
		India								
		Bengal Telephone Co.						Rs. 250		
								Rs. 150		
	ITD	20	60	30	30		140			
	Private	England								
		Provinces					7	105		
		India								
		Bengal Telephone Co.						100 to 150		
ITD		20	60	30	30		140			

Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI											
One Mile long	Business Premises	England									
		Provinces						10	150		
		India									
		Bengal Telephone Co.							Rs. 250		For European Firms
									Rs. 150		For Native Firms
		ITD	40	60	30	30		160			
	Private	England									
		Provinces						9	135		
		India									
		Bengal Telephone Co.							100 to 150		
		ITD	40	60	30	30		160			
The rates for private lines are for single wires in Bengal Telephone Co.											
The rate for wire is 6 pounds per mile in London and 5 pounds in the Provinces against Rs. 40 per mile in India											
The rate for instruments is 2 pounds each in England and Rs. 60 each in India											
Rs. 30 is the minimum charge for operators per connection for 8 hours service when the exchange is worked by this Department, but the rates vary very much, dependent on the number of subscribers.											
Source: Pro May 1902, No. 9-11 A, CW-Tel, PWD, NAI											

6.

36 Desk telephones at Rs. 48.6 plus 10% for storage	Rs. 1,924.50
36 batteries at Rs.3.5 plus 10% for storage	Rs. 138.6
Carriage of above	Rs. 200
Cash outlay in first fitting	Rs. 720
	Rs. 2,983.10
	Rs. 2, 984
15% of Rs. 2,984 for Establishment Charges	Rs. 447.6
Total	Rs. 3,431.60
	Rs. 3, 432

Source: Off Note dtd 18th Feb 1909 by J.F.R in Jan 1914, 3-4 A, Telegraphs, C & I.

Interest at 4% on Rs. 3, 432	Rs. 137.3
Depreciation on Rs. 2800 at 20%	Rs. 240.2
Maintenance and renewal of batteries allowing for annual renewal	Rs. 138.6
Direct maintenance, including cost of battery men, share of cost Inspecting Subordinate Staff, and share of Divisional and Sub-Divisional supervision	Rs. 720
General charges on account of Accounts, Electrician, Direction, etc.	Rs. 82
Total	Rs. 1,318.1 or Rs. 1,320

Source: Off Note dtd 18th Feb 1909 by J.F.R in Jan 1914, 3-4 A, Telegraphs, C & I.

7. Telephone rates implemented in February 1922

Upto 3 miles from exchange	Rs 250/annum
Upto 3 1/2 miles from exchange	Rs. 275/annum
Upto 4 miles from exchange	Rs. 300/annum
Exceeding 4 but not exceeding 7 miles from Exchange	Rs 450/annum
Exceeding 7 but not exceeding 10 miles from Exchange	Rs. 630/annum

Source: Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

8. Proposed alteration to telephone rates in August 1922

Class of Exchange	Equipment for	Radial distance	Annual Subscription	Remarks
A	50 connections	3 miles	Rs. 150	paid quarterly
B	100 connections	3 miles	Rs. 175	ditto
C	250 connections	3 miles	Rs. 200	ditto
D	500 connections	3 miles	Rs. 225	ditto
E	over 500 connections	3 miles	Rs. 250	ditto

Source: Pro Oct 1922, 2 – 3 B, Telegraphs, PWD, NAI

9. File 163/39, 1939, Public, Home

Office Memorandum (Simla, 23rd June 1939, Dept. of Communications – Post and Telegraphs)

I am directed to observe that with the increasing use of the telephone in Government business, it appears desirable to remind all concerned of the possible risks attendant on the use of the telephone for confidential conversations whether through an Exchange or a private telephone line. It should always be borne in mind that there is a possibility that a telephone call may be overheard by telephone operators or, even in the case of automatic systems, by Engineering staff engaged in maintenance and other work, or again in certain circumstances by other subscribers. While it is probably true that most telephone calls are made without being overheard and while the general level of trustworthiness among the staff concerned is considered to be very high, it may be emphasized that nowhere in the world can a telephone conversation safely be regarded as absolutely secret and the possibility of overhearing by staff may occur even in the normal performance of their duties.

2. It is especially desired to stress the risks involved in the case of conversations with countries abroad or ships at sea. In these cases not only is there a risk of incidental overhearing but the danger of deliberate interception cannot be ignored. In the overseas radio-telephone services complex privacy devices are normally used to “Invert” or “Scramble” the speech transmission so as to obviate the risk of overhearing by casual listeners; but it would nevertheless be possible for conversations to be intercepted by

stations having the requisite technical equipment, for example, by foreign stations conducting comparable overseas telephone service.

3. It may be stated as a general principle that matters in respect of which secrecy is important should never be openly discussed over the telephone, and any reference to such matters in case of necessity should be so worded as to disclose no confidential information to a third party who might overhear the conversation.

John Ryson – Secretary to GoI.

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