

ORIGINALDecision No. 71608

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

CARL BOWLES,

Complainant,

vs.

PACIFIC TELEPHONE & TELEGRAPH CO.,

Defendant.

Case No. 8248

JOHN L. SALVERSON,

Complainant,

vs.

PACIFIC TELEPHONE & TELEGRAPH,

Defendant.

Case No. 8275

EARL W. KING,

Complainant,

vs.

PACIFIC TELEPHONE & TELEGRAPH,

Defendant.

Case No. 8282

Allan M. Myerson, for Carl Bowles, complainant.
Arthur T. George; Pillsbury, Madison & Sutro,
 by William E. Mussman and James B. Atkin, for
 The Pacific Telephone and Telegraph Company,
 defendant.

Keith E. Pugh, Jr., for Marcom, Inc., intervenor.
Louis Andrego, for the Commission staff.

O P I N I O N

By his complaint filed August 17, 1965, Carl Bowles, doing business as Superior Sales Company, located in Oakland, California, requests an order of the Commission requiring The Pacific Telephone &

Telegraph Company (hereinafter referred to as Pacific) to install on his business premises a Marcom Call Diverter, or in the alternative to allow him to purchase a diverter from Marcom, Inc. (hereinafter referred to as Marcom) and have it installed on said premises.

Public hearings were held before Commissioner Grover and Examiner Daly at San Francisco and covered a period of eighteen days. The matter was submitted on June 23, 1966, subject to the receipt of concurrent opening and closing briefs, the latter being filed on August 15 and 16, 1966.

The complaints of John L. Salverson, Earl W. King and D. James Altieri were filed at approximately the same time as that of Bowles. Although all of the complaints were consolidated for the purpose of hearing, only Bowles appeared. No appearance was made on behalf of the other complainants and Pacific made a motion to dismiss, which was taken under submission. Pursuant to a written request, the complaint of Altieri was subsequently removed from calendar pending determination of these proceedings.

The Call Diverter in question is manufactured by Marcom. The instrument is an attachment, which is designed to transfer calls from one telephone to another. When connected to two separate telephones located at the customer's premises the Diverter, operating on call progress tones, such as audible ring and dial tone, as well as periods of silence, is activated by an incoming call on one line. Upon being activated it seizes the second line and dials a preset number and when answered bridges the two lines so that the calling party may speak directly to the person receiving the diverted call.

Complainant Bowles is engaged in the sale and installation of automatic equipment such as pressure gauges, thermometers, and solenoid valves, which are used to maintain temperature pressure. Many of the plants that he services operate on a 24-hour a day basis and in the event of a breakdown his customers assertedly must reach him immediately. According to Mr. Bowles his business needs and requirements can be satisfied only through the use of the Marcom Call Diverter, which Pacific has refused to make available to him. Mr. Bowles wishes to transfer all incoming calls, during his absence from the office, to his home, where his wife would be able to answer. On certain occasions, he testified, he would want his calls diverted to the plants of his customers.

On December 3, 1965, Marcom petitioned to intervene on the ground that Pacific's refusal to provide the diverter service was an unreasonable discrimination. Also, it indicated a desire to present witnesses who could allegedly testify as to the service and convenience of the Diverter. Authority to intervene was granted by Commission order dated December 7, 1965.

By its answer as amended Pacific admits that Marcom had offered to sell the Diverter to Pacific, but alleges that the offer was refused because, according to Pacific, field tests of the Diverter had indicated defects inherent in its design and construction which rendered the service inefficient, inadequate and otherwise not in the public interest. As a result, Pacific decided that it should not offer this service to its customers. Pacific takes the position that it has a legal obligation as a public utility to furnish and maintain adequate, efficient, just and reasonable service, instrumentalities, equipment and facilities as required by Section 451 of the Public Utilities Code.

Marcom was incorporated in 1962 by the Odom brothers, the inventors of the Call Diverter. The main office is located in Oakland. Because of the foreign attachment rule Marcom has restricted its offer of the Call Diverter to telephone companies and has made no offer of its product to the public generally. Although the Call Diverter was first offered to Western Electric in 1962, the product has not been accepted by the Bell System for customer use. Marcom has concentrated therefore on the independent telephone companies throughout the United States as an outlet for its product. As of December 1965, five independent telephone companies in California were providing Call Diverter service to sixteen customers and twenty-two diverter units were in operation.

Marcom contends that the Bell System has a history of prejudice and bias towards the Call Diverter because it was not invented at the Bell Laboratory. Although the Call Diverter was eventually subjected to a test at the Bell Laboratory and to field tests conducted in New Jersey and in San Bruno, California, Marcom claims that the tests were improperly handled and that the Bell System throughout these occasions demonstrated a complete lack of cooperation and good faith.

In December 1964, forty Marcom Call Diverters were purchased by the Bell Laboratory. Ten were retained in the Bell Laboratory for technical analyses and thirty were placed in field locations (ten in each of two New Jersey locations, Trenton and Englewood, and ten in the San Bruno area). The field test participants were selected by the telephone company. Selection was limited to customers having two telephones on their premises and excluded customers who were using an alternate service such as an answering

service or answering device. Installation of the units and customer instruction as to use were accomplished by telephone company employees. The instructions given followed those provided by Marcom. It was the position of the Bell System that had Marcom representatives participated in each step of the product trial, much of its objectivity would have been lost. According to a witness from the Bell Laboratory the essential purpose was to test a production line Diverter under normal operating conditions in order to measure its technical performance just as if it had been purchased routinely by the telephone company and offered to subscribers and installed as any other piece of telephone equipment.

In August of 1965, the Bell Laboratory issued a memorandum of its analysis (Exhibit 15) and a memorandum covering the results of the field tests (Exhibit 14). Based upon information contained in these reports in addition to personal use of the Marcom Call Diverter, Mr. Cornell, assistant vice president of Pacific, issued a written opinion dated in November of 1965, recommending that the Call Diverter not be standardized in the Pacific system for the following reasons:

1. The Diverter introduces a substantial delay in the progress of a call.
2. The device often disconnects during conversation.
3. A very high percentage of false billing conditions result from use of the Diverter.
4. The Diverter extends the length of the switched connection by at least two additional subscriber loops, which results in a substantial transmission loss.
5. Before cut-through a calling party on a diverted call hears only audible ringing and will have no indication of the call's progress, such as a busy condition on the telephone line to which the call is being transferred.

6. The device will not operate at all with certain central office equipment such as ONI-CAMA (automatic message accounting) or where switchboard operators are employed.

To better understand the details of the test a brief description of how the Diverter works will prove helpful. For the sake of simplicity the four telephone lines will be referred to as L-1 (calling party), L-2 (called party), which is connected by the Diverter to L-3 (also located on the customer's premises) and L-4 located at the diverted premises.

- Step 1 - A call is originated from L-1 (located anywhere) to L-2, which is associated with Diverter equipment. The call goes through the central office associated with L-1 and rings the telephone station associated with L-2; L-2 may or may not be associated with the same central office which services L-1.
- Step 2 - The Diverter circuitry recognizes ringing and places L-3 on an "off hook" condition. (If the calling party abandons the call at this point, ringing stops and after 14 seconds of silence the Diverter releases circuits on L-2 and L-3.)
- Step 3 - Diverter circuitry waits for dial tone on L-3, then dials over L-3 to a preset telephone number (L-4).
- Step 4 - The station associated with L-4 rings. (If L-4 is busy, the calling party on L-1 will not know it - he only hears ringing as explained in Step 1. Therefore, the Diverter will not release circuits until the calling party assumes a "no answer" and abandons the call.)
- Step 5 - If the call is answered by a person at a station associated with L-4, this person must keep silent for 6 seconds. After this period a 2-second burst of tone informs him that a diverted call is being connected. At the end of the tone the Diverter connects L-1 and L-2 to L-3 and L-4 and a call from L-1 to L-4 is established.
- Step 6 - When the call is bridged the Diverter is then set to recognize dial tone. When the parties hang up, the Diverter will disconnect in 10 seconds of dial tone.

On the first audible ring of L-2 after L-1 dials, the Diverter in effect takes the receiver of L-3 off hook and waits for dial tone on L-3, which takes about five-tenths of a second. After

a delay of seven-tenths of a second the Diverter then commences to dial the preset number. Dialing takes approximately 10.3 seconds. Establishing a connection with L-4 depends upon the central office and the time can vary from 1 second to 25 seconds. Allowing two audible rings for L-4 to answer requires about 10 seconds. With a period of six seconds of silence after L-4 answers and two seconds for the Diverter tone, there is a total time ranging from approximately 31 seconds to 55 seconds from the time of first audible ring on L-2 and the bridging of L-1 and L-4. In terms of audible rings heard by the party on L-1, this would range from 6 to 10 rings.

According to Pacific most business phones are answered on the second ring; however, it admitted that on calls to a residence the time to answer is increased.

As previously stated the field tests were conducted in Englewood, which has a No. 5 Crossbar central office, Trenton, which has a No. 1 Step-by-Step central office and San Bruno, which has a No. 1 Crossbar central office. Englewood had an overall total of 585 events, Trenton had 736 events and San Bruno 782 events. In each of the central offices, appraisal equipment was installed which made pen tracings on paper tape and charted the steps of every call. In addition, the progress of each call was observed by an operator up to the time that conversation commenced.

The following is a summary of the more important aspects of the tests:

	Location		
	Englewood	Trenton	San Bruno
Normally completed calls.	150	206	181
Premature cut-off.	56	39	69
L-1 abandons before AR on L-3; no cut-thru.	16	9	28
L-1 abandons in less than 4 AR's on L-3; no cut-thru.	27	45	43
L-1 abandons after 5 or more AR's on L-3; no cut-thru.	26	69	22
L-1 abandons, L-4 answers, GT's < 5 Sec.	11	7	35
L-1 abandons, L-4 answers, GT1 > 5 Sec.	5	3	4
L-1 abandons, L-4 answers, GT2 > 5 Sec.	98	131	222
Improper action L-2 or L-3.	113	112	73
Busy or overflow, no cut-thru.	36	60	61
Busy or overflow, cut-thru, GT < 5 Sec.	8	5	5
Busy or overflow, cut-thru, GT > 5 Sec.	9	5	13
Cut-thru during AR, L-4 answers.	13	17	4

AR - Audible Ring

GT - Glare Time is the time period commencing immediately after a talking path has been established. (If toll charges apply to the talking path, billing is certain to commence in five seconds.)

< = Less than.

> = More than.

GT1 - Glare Time on L-1.

GT2 - Glare Time on L-3.

The following is a percentage tabulation of the events for the entire test:

<u>Description</u>	<u>Percentage</u>
1. Abandoned calls.	45.7%
2. Abandoned after answer on L-4.	29.2
3. L-1 abandons before audible ring on L-3.	3.1
4. L-1 abandons before 4 audible rings on L-3	6.6
5. L-1 abandons after 5 audible rings on L-3	7.0
6. L-1 abandons before cut-thru and L-4 answers and abandons in less than 5 seconds.	3.1
7. L-1 abandons more than 5 seconds after cut-thru and L-4 answers and abandons in less than 5 seconds.	0.7
8. L-1 abandons call and L-4 answers and holds connection for at least 5 seconds.	25.4
9. Premature cut-off.	9.5
10. Cut-thru on busy or overflow; Glare Time greater than 5 seconds.	1.6
11. Cut-thru during audible ring; Glare Time greater than 5 seconds.	0.7
12. False billing condition on L-1*.	3.3
13. False billing condition on L-3*.	25.4

*The test did not indicate what calls were subject to toll charges or a message rate so it can only be said that a false billing condition existed and not that a false charge was in fact made. Billing commences approximately five seconds after the talking path is established.

It is apparent that the major difficulty with the Diverter is the extended time required to divert the call from L-2 to L-4. This results in a high percentage of abandonments. A large portion of these were abandoned in the 8-second period after L-4 had answered. This is probably due to the fact that a call is not bridged by the Diverter until there transpire six seconds of silence and two seconds of diverter tone. Because L-4 cannot tell whether the call is a direct or diverted call, the silence period frequently is not observed and a repeated number of hello's merely retriggers the Diverter for another period of silence, thus delaying bridging of the call.

Another major problem is the false billing condition on L-3. This is primarily attributable to the fact that the Diverter continues to operate for a period of 14 seconds after L-1 abandons. To this problem Mr. Odom suggested an option that would shorten abandon time to 6 seconds.

A third problem of importance is premature cut-off. This occurs after the call has been bridged and the party on L-1 is talking to the party on L-4. At this point the Diverter is looking for dial tone and it is possible that line noise or a person speaking without a vocal break for a period of 10 seconds could simulate dial tone and cause the Diverter to disconnect. Although Mr. Odom claims that it is not possible to cause the Diverter to disconnect by rapid conversation he admitted that line noise could do so, but this, he claims, could be corrected by a mere adjustment of the line amplifier. The disproportionate number of premature cut-offs on three of the Diverters in the San Bruno area would indicate that the line amplifiers were set too high. The same holds true as to one of the Diverters in the Englewood area.

During the course of the hearing Marcom attacked the reliability of the Bell Laboratory test and the field tests. Mr. Krebs, Supervisor of Station Valuation for the Bell Laboratory, testified that the test at the laboratory was conducted with complete impartiality and objectivity, and that the procedures used were typical of those followed by the Laboratory in testing any equipment it is evaluating. It was his opinion that there is nothing inherently wrong with the Diverter; it performs as it was designed to perform. The difficulty, he testified, is that it depends upon progress tones provided by the telephone company, which are not standardized and were never intended to be used as supervisory signals.

Marcom introduced the testimony of two experts who were critical of the field tests. Mr. Werth, a management consultant, testified that the field tests were unreliable because it was not established that the people selected to use the Diverters had any need for such service. Dr. Solomon, professor of statistics, Stanford University, testified that in a total scheme of measurement which has more than one source of variability, it is improper to attribute the variation in the total system to any one source. According to the professor, the Diverter should have been tested on its own and any variable attributable to the telephone system or the human factor should have been discounted. In answer to Mr. Werth's testimony Pacific argues that the field tests were in fact product tests, where the technical operation of the product is the only consideration, and not market tests where need and acceptability are important factors. In response to Dr. Solomon, Pacific took the position that a field test must reflect actual operating conditions, and the Diverter, which in effect becomes a part of the telephone system, has to be tested subject to all of the system's limitations.

In an attempt to make an evaluation of the Diverter based upon the users' experience, Pacific interviewed 18 individuals in the State of California who use or have used Diverters provided by certain of the independent telephone companies. Fifteen of the statements were reduced to writing and signed. Three of the individuals preferred not to sign and their statements were taken in the form of depositions.

One of the depositions was by Lieutenant McCormick of the California Highway Patrol, who was questioned concerning a Diverter located at a substation in Victorville that was used to divert calls after hours and on weekends to the Barstow station. A daily log was kept by the Barstow office on the operations of the Diverter. A continuous and major problem noted in the log was the inability of the diverted party to hear the calling party. According to Mr. Odom the power loss was attributable to certain lines of the telephone company between Victorville and Barstow, which were not of commercial standards, and would cause transmission difficulties even without going through a Diverter. He further testified that a repeater option, or amplifier, had been attached to the Diverter; however, this apparently resulted in line noises. The Diverter was finally moved to the central office exchange in Victorville, where it was put in a control circuit between the telephone office and the patrol station, thus permitting on and off control from the station.

Although several individuals experienced no difficulty with the Diverter, others had problems with abandoned calls, premature cut-off and transmission loss.

Following the field tests the signed statements of users were taken by Pacific and introduced as Exhibit 17.

Depositions of several of Pacific's installers were submitted to offset a charge by Marcom that the installation of the Diverter was done improperly. These depositions set forth in detail the installation procedure that was followed and indicated that considerable thought and care was given to this phase of the test.

Responding to two major problems of the Diverter, namely power loss and the inability of L-1 to hear progress tones on L-3, Mr. Odom testified that Marcom was in the process of developing a repeater option, which has the effect of an amplifier, and a "Splash" circuit, which permits L-1 to follow directly the progress tones on L-3 without creating a billing condition on L-1 until L-4 has answered.

Pursuant to an offer by Mr. Odom, tests of a prototype model of the "Splash" circuit were conducted on June 1, 1966 at Marcom's office in Oakland and on June 6 and 7, 1966 at the Bell Laboratory. The tests made at Oakland were satisfactory, but during the Laboratory test several failures occurred. Mr. Odom testified that he was merely trying to demonstrate a principle and that the circuit would be perfected; however, the "Splash" circuit will not be available for public use for at least two years.

Prior to submission, Marcom substituted attorneys and requested an opportunity to reopen its presentation for the purpose of showing that the Bell System had not acted in good faith in its dealings with Marcom. Marcom offered to prove that the Bell System had exerted strong influence on its subsidiaries and other companies in an attempt to discourage public acceptance of the Diverter until such time as it had developed a call diverter system of its own. The evidence related to two occasions when Marcom was refused the use

of lines for the purpose of demonstrating the Diverter at independent telephone company connections, an alleged attempt to interfere with Marcom's advertising, and alleged delaying tactics.

During March of 1964, Marcom was about to demonstrate the Diverter at an Independent Telephone Association convention in Ohio. Prior to opening Marcom was informed by Ohio Bell that it would not provide the necessary lines. In May of 1964, Marcom was demonstrating the Diverter at the Illinois Independent Telephone Association convention in Peoria, Illinois. According to Mr. Odom he was contacted by a representative of Illinois Bell and was told that the lines would have to be removed. Mr. Odom then called a Mr. Spivy of American Telephone & Telegraph in New York and complained. After discussing the matter with representatives of Illinois Bell, Mr. Spivy contacted Mr. Odom and told him that Illinois Bell had refused to provide the lines. Although Illinois Bell changed its position and the next day offered to provide the lines Mr. Odom refused because he had already dismantled the booth.

The advertising incident related to a letter written by a Mr. Hitchcock of the Bell System wherein he referred to a published letter of Mr. Odom. Mr. Odom testified that his only published letter was contained in an advertisement published in the Wall Street Journal the day after Mr. Hitchcock had written his letter. Because a certain portion of the advertisement, critical of the Bell System, had been deleted, Mr. Odom was of the opinion that the Bell System had prior knowledge of its ad and was responsible for the deleted portion. When confronted with one of his letters that had been published prior to the advertisement, Mr. Odom's memory was refreshed and he admitted that Mr. Hitchcock was referring to this prior letter and not the Wall Street Journal advertisement.

Marcom as a matter of argument contends that the Bell System is attempting to delay acceptance of the Marcom Call Diverter until it perfects a call diversion system of its own. The record, however, clearly demonstrates that the Bell Laboratory has been testing call diverters for many years. Some of those listed were similar in nature to the Marcom Call Diverter. All have been rejected and usually for the same reasons, namely, the extended period of time which is required to divert the call and which results in abandonments, false billings and power loss. At the present time the Bell System has developed and is presently testing a call diversion system. This system requires no additional facilities at the subscriber's premises. All equipment and facilities are located at the central office. The subscriber merely dials an access code, plus a service code and receives a second dial tone. He thereupon dials in the number to which he wants his call transferred and any incoming call is transferred directly and immediately to the diverted telephone. Although this service has been tested in New Jersey, Ohio, Iowa and Massachusetts, it is operational only in a No. 5 Crossbar central office. This service will not be made available to the public generally for a number of years.

Prior to submission Marcom sent a telegram to approximately 100 independent telephone companies throughout the United States that have had experience with the Diverter and requested them to indicate by return wire whether said experience was excellent, acceptable, commercial grade or poor. Forty-four companies responded. Eighteen rated the Diverter as excellent, sixteen rated it as acceptable commercial grade, four rated it as poor, five gave no rating and one merely adopted the testimony of a witness who had appeared in the proceeding.

The owner of an answering service, who serves approximately 3,500 customers through five offices located in the Bay Area, testified that he provides a 24-hour service. According to the witness he offers a personalized answering service to meet the needs of his customers, including a patch service as authorized by this Commission. (Lauria v. The Pacific Telephone & Telegraph Company, Decision No. 70450, dated March 15, 1966, in Case No. 7967.) As a result of that decision, the answering bureau's operator is able to hold the calling party on the line, dial out to the customer and connect the calls so that there is a direct conversation between the parties.

After consideration the Commission finds as follows:

1. Marcom is a California corporation located in Oakland, which manufactures and offers for sale to telephone companies an instrument designed to transfer telephone calls from an attended telephone to one that is unattended.
2. Complainant Bowles, doing business as Superior Sales Company, with a one-man office located in Oakland, California, has made demand upon Pacific to make the Marcom Call Diverter service available to him and has been refused by Pacific.
3. The Marcom Call Diverter has primarily been used and to a varying degree by independent telephone companies throughout the United States. It has not been accepted for customer use by the American Telephone and Telegraph Company or any of its subsidiaries.
4. Based upon a technical test conducted at the Bell Laboratory and field tests conducted in New Jersey and San Bruno, California, Pacific has refused to make the Marcom Call Diverter available to its customers on the ground that said instrument is not an appropriate means for providing call transfer service.

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5. The laboratory test and field tests were conducted in a scientific and an objective manner. The results thereof disclose four significant problems: (1) A large percentage of abandoned calls primarily attributable to the 31 seconds to 55 seconds required to divert a call; (2) a high frequency of false billing conditions primarily on the Diverter customer's telephone, L-3; (3) premature cut-off that is caused by any continuous tone or line noise, simulating ten seconds of dial tone; (4) power loss resulting from two additional subscriber loops.

6. Although the test users indicated mixed reactions toward the value of the Call Diverter a significant number of independent telephone companies throughout the United States rate the Call Diverter as excellent or acceptable commercial grade.

7. There is presently available to complainant Bowles a twenty-four hour answering service, including the patch or bridging feature, which permits his business calls to be diverted to a number of his choice and a direct telephone conversation to ensue. However, such an answering service is not for Bowles a satisfactory substitute for an automatic call diverter because an answering service generally indicates to Bowles' customers that he is not at his place of business and some of them then turn to his competitors instead of further attempting to contact him; although a "personalized" answering service is available, Bowles also testified that the personnel performance of answering service formerly used by him has been unsatisfactory.

8. The installation and use of a Marcom call diverter by Bowles would have no substantial adverse effect upon ordinary telephone service provided by Pacific to Bowles or to Pacific's other subscribers.

Conclusions

Complainant Bowles is requesting that this Commission order Pacific to provide him with a Marcom Call Diverter or in the alternative that he be exempt from Pacific's Foreign Attachment Rule and be permitted to purchase the Diverter directly from Marcom and have it installed upon his business premises.

In the instant proceeding it has been demonstrated that Bowles has a valid need for the type of transfer service herein considered. Neither Pacific nor the parent corporation will deny this need, for it has been established that the Bell System has been experimenting in this area for a considerable length of time and only recently has developed a central office type of transfer service that will eventually be made available to the public generally, but not for many years. The only question to be resolved is whether the Marcom Call Diverter would provide Bowles an adequate service.

Traditionally, telephone companies have been allowed wide discretion in determining the nature and specifications of supplemental equipment and have even been allowed to own and control the great bulk of telephone equipment which is installed on customer premises. Some of the major considerations which have led to this traditional policy may be briefly reviewed:

1. The expertise of a telephone company makes it a superior judge, in the first instance, of the merits of particular telephone equipment. If individual customers were allowed to attach any equipment of their choice, it is almost certain that some of it would be inadequate or even harmful. In this case, however, there has been an extensive public hearing and the design and operation of the Diverter have

been thoroughly explored; in the last analysis, it is the responsibility of the Commission to determine whether or not a particular service is reasonable, and when the record is as complete as this one is, it would be an improper delegation of that responsibility to defer any longer to the utility's expert judgment.

2. A telephone utility should not be held responsible for service deficiencies beyond its control; by prohibiting attachments without the consent of the telephone company, the traditional policy protects the company from unjustified criticism or liability. In this case, the opposition of the company has been made clear, and it will share no part of the responsibility if the Diverter is authorized by formal order of the Commission. If Pacific prefers not to offer the Diverter, Bowles is willing to obtain it directly from Marcom.

3. The integrity of the telephone system as a whole should be protected from attachments which would unreasonably alter the manner in which the system operates. It is this consideration which is critical in this case, for if the Commission were to find that the Diverter would have a substantial adverse effect upon telephone signals, billing, or efficiency (particularly those of subscribers other than Bowles); then the utility should not be required to accept the Diverter into its system.

The record indicates that the principal characteristics and deficiencies of the Diverter are: the relatively high number of abandonments due to the delay in diverting a call (31 to 55 seconds or 6 to 10 rings); premature cut-off; transmission loss; inability

of the calling party to follow progress tones; and the creation of false billing conditions. It appears that some of these deficiencies are correctible and that necessary modifications are available or in the process of development. Thus, the problems of premature cut-off and transmission loss can be ameliorated by adjustment of the line amplifier or by addition of a repeater option, and a "Splash" circuit is being developed which will permit the calling party (L-1) to follow directly the progress of tones on L-3. The burden of the remaining deficiencies, in the main, would fall upon the party who has the Diverter, and in this case that party (Bowles) is fully aware of the burden and is willing to accept it. For example, false billing conditions on L-3 might increase Bowles' telephone bill, but he is prepared to pay any such extra charges as a part of the overall cost of having the Diverter. (False billing conditions on L-1 pose a closer question, because the party who would be liable for possible resulting charges might not be aware of the Diverter nor agreeable to paying for calls which are not completed; however, this condition apparently occurs only once in thirty calls, it will not necessarily result in extra charges in any event, and it will be corrected when the "Splash" circuit is fully developed.)^{1/} ✓

In the case of abandoned calls occasioned by delay in effecting the diversion, the calling party is not prejudiced, for in the absence of the Diverter he would presumably have abandoned anyway when the called party failed to answer. Nor would Bowles be prejudiced by such abandonments; he points instead to the large number of successfully diverted calls which otherwise he would not receive. It is true that Bowles might subscribe to an answering service and might thereby be reached by customers telephoning while he is not at his place of business, but he testified that he had

I/ Unexpected billing to the calling party may also occur where the called party uses an answering service. If the called party is not present and the answering service takes the call for him, the calling party would be subject to applicable telephone charges even if he did not know or approve of the answering service.

found this alternative unsatisfactory. We believe he should be allowed to decide for himself what type of service will best answer his particular needs -- so long as he does not unreasonably burden the utility or other telephone subscribers. The only question in this respect is the possible false billing on L-1, and we find that extra charges thus created will be minimal and can be prevented by the development of appropriate circuitry. All electronic devices are capable of improvement; the telephone itself is still being perfected. It would not be reasonable to deny the public the benefits of the Diverter simply because minor deficiencies have not yet been corrected. We note that a large number of independent telephone companies rated the Diverter as commercially acceptable, and many even rated it as excellent.

The record shows that Pacific is familiar with the Diverter; Pacific may wish to own, provide and maintain it for the complainant rather than having him own, install and maintain it for himself. Complainant's request in this respect is in the alternative. In the order which follows, Pacific will be permitted an appropriate option.

O R D E R

IT IS ORDERED that:

1. Within ten days after the effective date of this decision, The Pacific Telephone and Telegraph Company shall install at the business premises of the complainant Bowles a current model of the Marcom Call Diverter and shall thereafter maintain the same, or, as an alternative, The Pacific Telephone and Telegraph Company shall permit said complainant to install and operate such a Diverter.

2. If The Pacific Telephone and Telegraph Company shall elect to install and maintain the Diverter, the rates and rules therefor shall be such as are agreed upon between said company and Bowles, but subject to this Commission's continuing jurisdiction. Absent such agreement, such rates and rules shall be fixed by further order herein.

3. Within fifteen days after the effective date of this decision, The Pacific Telephone and Telegraph Company shall file herein a report showing its compliance with this decision and the rates and rules agreed upon. If there is no agreement, said report shall state that fact.

4. The complaints in Cases Nos. 8275 and 8282 are dismissed without prejudice.

The effective date of this decision shall be twenty days after the date hereof.

Dated at San Francisco, California, this 29th
day of NOVEMBER, 1966.

President

George T. Trover

Frederick B. Hallock

William C. Bennett

Augustor

Commissioners

Commissioner Peter E. Mitchell, being necessarily absent, did not participate in the disposition of this proceeding.