

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

COMMISSION ADVISORY & COMPLIANCE DIVISION
Telecommunications BranchRESOLUTION NO. T-13026
October 26, 1988RESOLUTION

Pacific Bell. Order authorizing revision of Public Packet Service to reflect extension of time for provisional tariff; increases in certain usage sensitive rate elements; expansion of service into new LATAs; addition of optional features; and minor changes to tariff text.

SUMMARY

Pacific Bell (Pacific) by Advice Letter No. 15459, filed October 3, 1988, requests authority under Section 454 of the Public Utility Code to make effective the following tariff revisions:

1. Extension of the Public Packet Switching (PPS) provisional tariff status for one year to November 6, 1989.
2. Increases in tariffed usage rates for each segment (128 characters) transmitted and for each minute of connection to PPS network via Public Dial Connection access.
3. Provision of Busy Call Forwarding, Busy Call Forwarding-Extended, Delayed Call Forwarding, and Busy and Delayed Call Forwarding; four optional calling features for Private Dial Connection access to PPS Service.
4. Expansion of PPS Service offering into LATAs (Local Access and Transport Area) 3 (Sacramento) and 6 (San Diego).
5. Changes to tariff text for clarification.

This Resolution authorizes the above changes with the following exceptions:

1. Orders hearings on the viability of Pacific's PPS Service. Said hearings shall be consolidated with A 88-08-031, Pacific's application for enhanced services. In the interim, the provisional tariff is extended to an indefinite future date which will be determined in the Commission's decision on A-88-08-031. Pacific's provisional tariff for PPS, which is considered basic service by the Federal Communications Commission (FCC), has little chance of becoming a viable service offering (i.e. compensatory) without the provision of protocol conversions classified as enhanced service by the FCC. The pricing

of packet switching will be reviewed during the hearings to determine if and under what conditions PPS Service should be continued.

2. Delays the effective date for usage rate element increases in Advice Letter 15459 until December 6, 1988. This will provide time for users to make any necessary changes in their service prior to the increased rates going into effect.
3. Denies without prejudice Pacific's request to expand PPS service into other LATAs. This issue will be reconsidered in A-88-08-031, Pacific's enhanced service application.

PPS Service customers were notified of the rate increases on October 3, 1988. To date only DRA (Division of Ratepayer Advocates) has protested the Advice Letter. CACD staff learned on October 21, 1988 that Telenet had not received a copy of the advice letter. Pacific Bell forwarded a copy by facsimile machine on October 21, 1988.

On Tuesday, October 25, 1988, CACD received two (2) letters generally in support of Pacific's offering, except for the purposed increase in rates. The letters, one from Globenet, a packet-switching-only interexchange carrier and value added network, and the other from Data America Corp., a new company offering inter-LATA exchange carrier services.

BACKGROUND

Transmission of data records using packet switching has been performed on government and private data networks since the late 1960's. Packet switching is a technique for assembling and sending data information in discrete groups or "packets", usually in sizes of 128 or 256 characters per packet. In addition to the user's information stored in each packet, there are also embedded source and destination address codes and elaborate error checking and signaling parameters. The transmission of data by means of addressed packets allows many users to occupy a transmission channel simultaneously. Circuit routing can be handled separately for each packet, making packet switching very efficient and essentially non blocking as each packet can be sent over the most economical route available at the time it is transmitted. This is unlike conventional data switching where the utility provides a dedicated end-to-end physical path for the exclusive use of the user during the duration of the data transmission. Packet switching has been demonstrated to be an efficient and highly reliable method, where large volumes of data can be transmitted easily with minimal error. It is a competitive service, with companies like Telenet, Tymnet, AT+T and others having extensive interstate packet switched networks.

Network pricing for packet switching is usage sensitive. Charges are based on quantity of information (packets) transmitted and not the time or distance involved. Additionally, there are connection charges for users at points where packet switches or access concentrators are located and available for user entry and exit to the network. Access to the packet switched network is through tariffed public switched telephone network access rates, or via private leased lines at Schedule B1 rates.

Pacific's PPS service is a basic network service that provides IntraLATA network transport for low speed data (i.e. less than or equal to 56 kilobits per second). Pacific has 9 customers. It is considered a basic service since it only provides protocol conversions of X.25 to X.25, X.25 to X.75, and asynchronous to asynchronous. Protocol is a set of rules for communicating. It details for example how a packet is constructed and what it must contain. The FCC has determined these protocol conversions to be basic and not enhanced by the definitions it established in its Computer II Inquiry Decision. That decision defined "enhanced services" as services offered over common carrier transmission facilities used in interstate communications which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information: provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information. Protocol conversions of asynchronous to X.25 or X.75 are considered enhanced by the FCC.

The packet networks use a standard synchronous traffic communications protocol standard called X.25, which was developed by the International Telegraph and Telephone Consultative Committee (CCITT). That protocol, which defines the physical, electrical, and functional characteristics of the communications links with the customers terminal equipment, ensures consistent and orderly information exchanges between customers with non-compatible terminals and computers. The CCITT also established a protocol called X.75 which is a standard for data transmission between networks. Synchronous data communications have system clock timing information embedded in the data stream so that the receiver and transmitter clocks can be synchronized.

Asynchronous protocol does not use synchronized clocks for transmitting data, but instead requires special start and stop coding with each character sent. Most personal computers use asynchronous transmission and host/data base computers use a variety of other protocols such as SNA, SDLC, Bisynchronous or X.25 for transmission. Conversion of protocols such as asynchronous, SNA, etc. to X.25 or X.75, which will allow for easier and more widespread communication by end users who have different terminal equipment, is considered an enhanced service.

Pacific Bell filed for PPS Service on a provisional basis in Advice Letter 15154 on September 8, 1986, modified with First, Second, and Third Supplements filed September 12, October 16, and 31, 1986 respectively. Advice Letter 15154 was protested by

Telenet Communications Corporation (Telenet) and Tymnet-McDonnell Douglas Network System Company (Tymnet) in a jointly filed protest on September 27, 1986.

The protest focused primarily on Pacific's alleged low rates, high demand projections, and the provision of an enhanced protocol conversion, asynchronous to X.75 and vice versa, in violation of FCC decisions. The staff found that contrary to Pacific's claims that the FCC had ruled in decisions that the asynchronous to X.75 was basic, the FCC had made no decision on the basic or enhanced nature of this conversion and had no immediate plans to do so. Studies by Pacific estimated proposed rates and charges to be above costs even if demand was reduced by as much as 75% of original estimates, even after removal of the enhanced protocol conversion. The Commission authorized the service on a two year provisional tariff basis (without the protested protocol conversion) on November 5, 1986, in Resolution No. T-11070.

Pacific Bell's Advice Letter No. 15459, filed on October 3, 1988, requests the Commission make effective the following tariff revisions:

1. Extension of Existing Tariff

The current two year provisional tariff, approved by the Commission in T-11070, expires on November 6, 1988. Unless the provisional service is extended or made permanent prior to that date, Pacific will be required to discontinue the service to existing customers. In its advice letter, Pacific requests a one year extension of its provisional tariff to November 6, 1989, together with certain modifications discussed in items below.

Although Pacific was granted a two year provisional tariff to November 6, 1988, it in effect had only about one and a half years of PPS service. This was because Pacific filed Application 86-12-010 for a rehearing of Resolution T-11070, because it contained the following statement. "In any case it should be clearly understood that if this service turns out to not be profitable, the stockholders, and not the ratepayers, shall assume all risks and be responsible for any losses." The Commission modified this statement in Decision No. 87-03-087, on March 25, 1987. As a result Pacific did not really begin its marketing effort for PPS Service until after the decision was issued.

Pacific's existing tariff for basic PPS service is not compensatory (see recorded data under "Discussion"). Pacific believes that it can make the service compensatory by providing Net Protocol Conversion (i.e. the enhanced protocol conversions discussed above) on a non tariffed basis, and by increasing prices. Pacific believes that a minimum period of twelve months following the addition of Net Protocol Conversion is necessary in order to properly evaluate the value/profitability of PPS service.

2. Increase in Usage Rate Elements

Pacific, after reviewing the service structure, competitive environment, and customer demand, believes that optimum profitability of PPS may be achieved by increasing usage rate elements. These increases, by themselves, will not make the service compensatory without the addition of Net Protocol Conversion. Pacific proposes to increase the following usage rates:

RATE ELEMENTS	CURRENT RATE	PROPOSED RATE	DIFFERENCE	PER CENT CHANGE
Per Segment				
Peak	0.00035	0.0005	0.00015	42.7
Off-Peak	0.00030	0.0005	0.00020	66.7
Public Dial Port				
Per Minute Charges				
Initial Minute				
Peak	0.0071	0.02	0.0129	181.7
Off-Peak	0.0071	0.02	0.0129	181.7
Each Additional Minute Charges				
Peak	0.0036	0.01	0.0064	171.8
Off-Peak	0.0030	0.01	0.0067	203.0

The above rate elements do not apply to all customers, nor do they constitute the total charges for PPS Service. Since all other rate elements remain the same, the actual increase experienced by the customer will depend on actual usage of the service, with high usage customers experiencing the greatest increase. The estimated total monthly increase for PPS Service subscribers would range from approximately 20% to 120%.

3. Addition of Optional Features with Private Dial Connection

Pacific proposes the addition of four optional features with Private Dial Connection, a PPS Service option where customers pay extra for a private telephone number for access to PPS Service. The optional features are Busy Call Forwarding, Busy Call Forwarding-Extended, Delayed Call Forwarding, and Busy and Delayed Call Forwarding. These optional features are installed on the voice switch side of the Private Dial Interface facility. The rates and charges for the features are referenced to the rates and charges in Schedule Cal.P.U.C. No. A5.4.3.D.1.

4. Expansion of PPS Service to other LATAs

The current offering services 9 customers within LATAs 1 (San Francisco) and LATA 5 (Los Angeles). Each of these areas is presently served by eight packet switches. Pacific proposes expansion into LATAs 3 (Sacramento) and 6 (San Diego). Pacific estimates that the additional revenue generated will more

than cover the additional \$500,000 in cost. The expansion will make PPS Service more attractive to large customers, and allow Pacific to be more competitive.

5. Changes to Tariff Text

Pacific is proposing tariff text changes for the purpose of clarifying the tariff. Input received during the time the tariff has been in effect, from sources internal and external to Pacific, indicated a need to make language changes to reduce the possibility of any customer confusion on the tariff.

PROTEST

On October 20, 1988 DRA protested Advice Letter No. 15459 for the following reasons:

1. The service is not compensatory at this time because the rates do not recover the costs.
2. The proposed rate increases are not sufficient to recover the costs of the service.
3. It is inappropriate to expand the service without a review of Pacific Bell's comprehensive proposal on "Open Network Architecture" of which PPS will be a part. DRA suggests that in order to expedite the review of PPS Service it should be consolidated with A.88-08-031, Pacific Bells Enhanced Service Application.

On Tuesday, October 25, 1988, CACD received two (2) letters generally in support of Pacific's offering, except for the proposed increase in rates. The letters, one from globenet, a packet-switching-only interexchange carrier and value added network, and the other from Data America Corp., a new company offering inter-LATA exchange carrier services.

Globenet competes with other value added carriers such as Tymenet and Telenet. It supports packet switching expansion into additional LATAs, the addition of new features but not the rate increase. However the company concludes that due to the overriding importance of the service expansion that Pacific's filing should be approved.

Data America Corp., supports expansion but not the rate increase because Data America would then have to flow through its increase to its customers.

CACD have addressed the need for a rate increase because the service is simply not compensatory. CACD also addressed expansion of the service to new LATAs and will consider that matter during hearings in A.88-08-031.

DISCUSSION

Pacific was granted a two year provisional tariff by the Commission in lieu of a permanent tariff because Pacific may not have accurately predicted the cost, revenue, and profitability of the new PPS Service offering. The provisional tariff allowed the Commission to reserve judgment on a permanent approval of the service offering so that Pacific could test the rate structure, and substantiate the cost, revenue and profitability of PPS Service. The Commission wanted to give Pacific every opportunity to demonstrate the service was compensatory because Pacific had spent large sums of money implementing and testing the service without Commission approval, and much of the new plant was in rate base and was being paid for by the California ratepayers.

During the provisional tariff Pacific, as ordered, submitted detailed tracking reports to the Commission. The financial data from these reports are summarized as follows:

DESCRIPTION	1983	1984	1985	1986	1987	1988 thru April
Revenues	0	0	0	0	46.7	34.1
Expenses	18.1	2,543.8	2,047.5	1,504.4	3,248.3	1,083.7
Capital	0	8,409.7	43.3	220.0	238.5	26.3

- Notes: 1. Numbers in table are in thousands of dollars
2. Expenses do not include depreciation, income tax, or return on investment.

Even though Pacific delayed five months in implementing the new offering while waiting for a decision on its petition for rehearing of T-11070, it is clearly evident from the above data that basic PPS Service is not compensatory now nor will be in the near future without changes. Pacific believes however, that even though the service is not compensatory now, it will be if it both increases rates and offers Net Protocol Conversion. The basic service, without Net Protocol Conversion, could never be made compensatory by just raising rates, because rate increases that exceed those proposed will probably only reduce the number of users. Pacific is therefore requesting the Commission for a year extension of its provisional tariff to demonstrate that PPS Service will be compensatory with the higher rates it proposes and the offering of free Net Protocol Conversion.

Although there is some question as to whether Pacific's basic PPS Service would be viable if it added the Net Protocol Conversion, there can be no question that PPS Service will not be compensatory at this time without it. The offering of Net Protocol Conversion (enhanced service), however, is part of Pacific's pending Application No. 88-08-031 on enhanced services. Application A 88-08-031 will consider the major regulatory policy issues that will arise in regard to deployment of enhanced services. This is to ensure that the interests of

ratepayers, both end users and enhanced service providers, are balanced with the interests of the utilities this Commission regulates.

Pacific's Advice Letter 15459 has been protested and is clearly controversial. The Commission's Advice Letter Process was never intended to handle highly controversial matters. We believe the questions and issues brought out in the protests can not be fully addressed in a resolution, especially based on the past history of Pacific's PPS Service offering. A public hearing is therefore ordered to resolve the issue of whether Pacific should continue to offer the service, the price of the service, and the new expiration date of the provisional tariff if the service is to be continued. Because the success or failure of this offering is tied so closely to Pacific's offering of Net Protocol Conversion, which is being considered in A-88-08-031, the hearings shall be consolidated with A-88-08-031.

Until a decision is reached in A-88-08-031 on Pacific's PPS Service, Pacific will be allowed to continue offering the service. It would be premature to have the provisional tariff expire without further investigation, because packet switching is a service that will be used in future enhanced offerings such as electronic mail, ISDN (Integrated Switched Digital Network), etc. The existing rates will however be raised to the levels proposed in Pacific's Advice Letter 15459. This increase is necessary to reduce the revenue deficiency. Because of the magnitude of the increase for the heavier users, the effective date of the increases should not become effective until December 6, 1988 to allow users to make any service changes they deem appropriate.

Pacific's proposal to expand the service to LATA's 3 and 6 will be denied without prejudice at this time. The issue will be addressed by the Commission in A-88-08-031.

With the exception of the above changes, the remainder of the changes in Advice Letter No. 15459 will be allowed to go into effect on November 6, 1988.

FINDINGS

We find that the rates, charges and conditions authorized in this Resolution are just and reasonable; therefore, good cause appearing,

IT IS ORDERED that:

(1). Hearings be held on the viability of Pacific's PPS Service, which is a competitive service that is not compensatory at this time. Hearings shall be consolidated with Pacific's Application 88-08-031 on enhanced services. All protests on Advice Letter 15459 will be addressed in A.88-08-031.

(2). The provisional tariff offering be extended until the Commission renders a decision on the viability of service.

(3). Consideration of expansion of the offering to other LATAs is denied without prejudice at this time, but will be reconsidered by the Commission during hearings ordered on this offering.

(4). Increases in tariff rates in Advice Letter 15459 shall become effective on December 6, 1988.

(5). Authority is granted to make the tariff revisions contained in Advice Letter No. 15459, with the proposed modifications discussed above, effective on November 6, 1988.

(6). All tariff sheets filed under Advice Letter No. 15459 shall be marked to show that such sheets were authorized by Resolution of the Public Utilities Commission of the State of California No. T- 13023.

The effective date of this Resolution is today.

I certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting of October 26, 1988. The following Commissioners approved it:

STANLEY W. HULETT
President
DONALD VIAL
FREDERICK R DUDA
JOHN B. OHANIAN
Commissioners



Executive Director