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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Forward-Looking Mechanism	)	CC Docket No. 97-160
for High Cost Support for	)	
Non-Rural LECs	)	
	)	

Reply Comments of the
Rural Utilities Service

Introduction

The Rural Utilities Service (RUS) appreciates the opportunity to offer reply comment to the Commission on the issue of a Forward-Looking Mechanism for High Cost Support for Non–Rural LECs.

Background

In the RUS August 8, 1997, Comments on central office switching structure issues, RUS compares costs calculated as suggested in the Further Notice of Proposed Rulemaking (FNPR) to the costs actually paid by RUS borrower local exchange carriers (LECs) for host switches. The table (Table 3 to the August 8 filing) reporting actual comparisons is reproduced below. The formula in the FNPR is: Host Switch Cost = $185,374 + $107 per line. Table 3 shows that the formula generally underestimates the costs of hosts with less than 5,000 lines.

This table contains 21 host switch cost comparisons. The formula underestimated the costs of four of these switches by more than 50%. We have been asked if these cases are anomalies, if they represent feature-laden switches which will support many services beyond the adopted "core services", or if these cases represent reasonable switch applications that should be supported by the universal service support mechanism.

The purpose of these reply comments is to answer this question of relevancy for these four switch purchases.

The Four Switches

The Kansas Switch

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Table 3 shows a 253 line host switch that cost $1,540,904, whereas the suggested formula estimated the cost at $212,445. This switch belongs to a Kansas cooperative LEC, and was purchased through competitive bidding. The switch is equipped to support 10 remotes serving a total of 1277 additional lines, which explains almost all of the high cost. It also provides TR-303 remote interfacing capability ($100,656) and equal access capability (included in the base bid), which are core service requirements. The only non-core feature required in the specification is voice mail, which cost ($74,892). As is the case in almost all RUS central office equipment purchases, custom calling features were required in the base bid. RUS estimates that this adds about $6,000 to the cost of a host switch, which is not a significant amount.

The contract for this host also included the 10 remote switches. These were handled as bid alternates. Including these alternates, the total initial contract amount was $1,852,416.

The New Mexico Switch

Table 3 shows an 820 line host switch that cost $977,080, which was calculated to cost $273,114 by the suggested formula. This switch belongs to a New Mexico commercial LEC, and was purchased under a negotiated contract which included other equipment and was originally bid at $3,016,251. The host is equipped to support 13 remote switches equipped to serve 5489 lines, and both host and remotes were purchased in the contract. Of these 13 remotes, eight serve areas previously served by conventional exchange (Class 5) switches and five create new wire centers within existing exchanges. No non-core features were included in this switch contract.

The Colorado Switch

Table 3 shows an 850 line host switch that cost $620,200, which was calculated to cost $276,324 by the suggested formula. This switch belongs to a Colorado commercial LEC, and was purchased under competitive bidding. The switch supports one 810 line remote, which was included under the $917,170 contract. The host included several non-core service features:

ISDN	$56,708
Voice Mail	2,633
Alarm Autodial	1,260
Time and Weather	3,675
Conference Bridge	12,175

In addition, this switch and its remote were purchased with a slightly higher number of wired-only lines (about 30% of equipped lines) than is the norm for RUS projects. In the case of the host switch, this only added an estimated $17,400 to the cost of the switch. The base bid included ISDN capability which was not priced separately but which added significantly to the price.

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The Georgia Switch

Table 3 shows one other switch that cost over 100% more than the suggested formula predicts. This switch is a 3,810 line host that cost $1,243,673. Using the suggested formula, the cost of this switch would be estimated at $593,044. This switch was purchased by a commercial LEC in Georgia under a competitive bidding procedure. The host is configured to support 10 remote switches, which will serve another 8,720 lines, and which were included in the $2,772,500 contract. Non-core service features purchased were data lines ($18,455) and ENET ($85,000).

Analysis

The host switches with the highest per-line cost on Table 3 have several things in common. They all serve remotes which have total line counts that are about equal to or that exceed the line counts of the hosts. They serve 9, 13, 1 and 10 remotes, respectively. They are not lavishly featured. Only one included ISDN capability. Three were bought under competitive bidding. The fourth was bought from the manufacturer of that LEC's other digital switches under a negotiated procedure. Although other manufacturers participate in the RUS market, all four of these switches were bought from either AT&T or Northern Telecom, manufacturers who (with new names) are very active in the largest LEC markets.

Conclusion

In the RUS August 8, 1997,filing the cost of switches bought by RUS borrower LECs was compared with the FNPRM's suggested formula for calculating switch purchases, and the results were presented in Table 3. Of the 21 switch cost comparisons run, the suggested formula was close (less than 10% high or low) or exceeded the actual purchase price only 6 times. It underestimated the purchase price for 15 switches. It underestimated the actual purchase price by more than 50% four times. In this filing the RUS has examined those four switches, and found the following:

The four switches were not lavishly featured;

Three of the four switches were bought under competitive bidding, and;

All four of the host switches were equipped to support relatively large numbers of remote switches and remote switch lines.

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If the suggested formula is used in proxy models to compute appropriate switch investments, many rural areas will receive insufficient universal service support.

The RUS appreciates this opportunity to comment.

Dated: 8/18/97

Administrator
Rural Utilities Service

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Calculated vs. Actual Costs
Host Offices

Number of Lines	Actual Cost	Calculated Cost *	Cost Differential
75	$ 81,000	$ 193,399	58%
120	$ 115,589	$ 198,214	42%
150	$ 121,319	$ 201,424	40%
253	$ 1,540,904	$ 212,445	-625%
443	$ 164,290	$ 232,775	29%
460	$ 354,675	$ 234,594	-51%
560	$ 467,603	$ 245,294	-91%
598	$ 329,951	$ 249,360	-32%
674	$ 163,218	$ 257,492	37%
684	$ 315,709	$ 258,562	-22%
820	$ 977,080	$ 273,114	-258%
850	$ 620,200	$ 276,324	-124%
960	$ 451,225	$ 288,094	-57%
1,412	$ 526,088	$ 336,458	-56%
1,779	$ 429,417	$ 375,727	-14%
2,100	$ 766,053	$ 410,074	-87%
2,615	$ 490,666	$ 465,179	-5%
2,714	$ 526,839	$ 475,772	-11%
2,830	$ 596,830	$ 488,184	-22%
3,810	$ 1,243,673	$ 593,044	-110%
4,760	$ 663,650	$ 694,694	4%

* $185,374 + $107 per line

Table 3 of August 8, 1997 RUS Filing

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