

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RAO LETTER 21

Revised: September 8, 1992
Released: September 8, 1992
DA 92-1225

Responsible Accounting Officer

Re: Classification of Remote Central Office Equipment for Accounting Purposes.

We believe that some carriers are improperly classifying remote switches as circuit equipment rather than as switching equipment as required under Part 32. The inconsistency among carriers in classifying remote switches appears to be the result of confusion between a remote switch and a remote terminal of a concentrator. In order to increase uniformity in the Part 32 classification of remote switches, we are issuing definitions in this letter to differentiate between a remote switch and a remote terminal of a concentrator. This letter is limited to defining a remote switch and a remote terminal of a concentrator because that appears to be the area of confusion; it does not cover any other remote central office equipment.

Remote Switch: A unit that performs some, but not necessarily all, of the basic switching functions.¹ The remote switch may be wholly or partially controlled by a control unit or processor located in another switch, i.e., the "host" switch, but it is classified as a switch if the capability to provide a switched path is at the remote location. The remote switch may depend on the host switch for such functions as routing, billing, traffic measurement and custom calling. Calls between subscribers served by the same remote switching unit can be switched in the remote unit. When this occurs, the voice path does not extend to the host switch; however, a link to the host switch may be required for call control purposes. The Commission's rules require that the cost of remote switches be included in Account 32.2211, Analog electronic

¹ The basic switching functions are: 1) Attending - monitors for off-hook signals; 2) Control - determines call destination and assigns call to available line or trunk; 3) Busy testing - determines whether the called line/trunk is busy; 4) Information receiving - receives control and busy test results; 5) Information transmitting - transmits control and busy test results to tell the alerting and interconnection functions whether to complete the call; 6) Interconnection - connects subscriber line to subscriber line or subscriber line to trunk; 7) Alerting - rings the called subscriber's line or other signalling means if the call is destined for another exchange; 8) Supervising - monitors for call termination so the line can be released. See, e.g., Telecommunication System Engineering, Second Edition, Roger L. Freeman, Wiley Interscience, 89-90 (1989).

switching, or Account 32.2212, Digital electronic switching.²

Remote Terminal of a Concentrator: A concentrator consolidates subscriber lines, and thereby facilitates the use of lesser amounts of loop plant to serve a greater number of end users. A concentrator has a terminal located at the central office and a remote terminal. All calls are switched by the central office switch to which the concentrator is connected. The voice path will always extend to the host switch even for calls between subscribers served by the same remote terminal of a concentrator. If the voice path or control link between the central office and the remote terminal fails, service will be interrupted even for calls between subscribers served by the same remote terminal. The Commission's rules require that the cost of equipment used to reduce the amount of loop plant otherwise required to serve a given number of subscribers by utilizing carrier systems, concentration stages or combinations of both is to be included in Account 32.2232, Circuit equipment.³

The distinguishing attribute between a remote switch and a remote terminal of a concentrator is that a remote switch can provide the switched path for calls between its directly connected local subscribers and a remote terminal of a concentrator cannot. A remote terminal of a concentrator depends on the host switch to switch all calls and the voice path always extends to the host switch.

This Responsible Accounting Officer letter supersedes RAO Letter 21 as issued August 7, 1992, and is issued pursuant to authority delegated under §0.291 of the Commission's Rules, 47 C.F.R. §0.291. Petitions for reconsideration under Section 1.106 of the Commission's Rules, 47 C.F.R. §1.106, and applications for review under Section 1.115 of the Commission's Rules, 47 C.F.R. §1.115, must be filed within 30 days of the date of this letter. See 47 C.F.R. §1.4(b)(2).⁴

If you have any questions, please contact Gary Seigel at (202) 634-1861.

Sincerely,

Kenneth P. Moran

Kenneth P. Moran
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Common Carrier Bureau

² See 47 C.F.R. §§32.2211-32.2212. Class B companies would record these costs in Account 32.2210, Central office-switching. See 47 C.F.R. §32.2210.

³ See 47 C.F.R. §32.2232. Class B companies would record these costs in Account 32.2230, Central office-transmission. See 47 C.F.R. §32.2230.

⁴ In view of this action, we hereby dismiss without prejudice the petition for reconsideration filed September 1, 1992, by Shenandoah Telephone Company and the request for clarification filed September 4, 1992, by the National Exchange Carrier Association, Inc.