

1 **Historical Background**
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3 **Q. To put this issue in perspective, would you please briefly discuss the history of**
4 **intrastate toll competition in the State of Alaska?**

5 A. Yes. On November 21, 1986, GCI filed a petition before the Alaska Public Utilities
6 Commission for the adoption of proposed regulations allowing statewide intrastate toll
7 competition in Alaska. Public hearings on this petition (in Docket No. R-86-2) were held
8 April 7-9, 1987, at the conclusion of which GCI requested the opportunity to redraft and
9 refile its proposal. The request was granted on April 16, 1987, and the redrafted proposal
10 was filed on July 17, 1987. After hearings held February 17-18, 1988, the Commission's
11 "Omnibus Telecommunications Order" was issued on June 16, 1988, deferring the issue of
12 competitive entry until various preliminary matters had been resolved.

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14 The prefatory issues were duly disposed of, and following public meetings on November
15 27-28, 1989, the Commission issued its Order Addressing Objectives; Rejecting Proposed
16 Regulations; and Establishing Procedure in Docket R-86-2 (December 28, 1989). In this
17 Order the Commission restated its public interest objectives in telecommunications and
18 rejected GCI's proposed regulations. It established instead a procedure for developing
19 regulations under which competitive entry into the intrastate toll market would be allowed,
20 consistent with the stated objectives. Thereupon the Commission set forth the general criteria
21 to be followed, directing its Staff "to assist in developing such regulations at the earliest
22 possible date." [Order No. 14, p. 11.]

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25 Ben Johnson Associates, Inc. was retained by the Staff to help develop the proposed
26 regulations for intrastate toll competition, pursuant to the directives set forth in the
27 Commission's Order. Our goal in that endeavor was derived directly from that Order: to
28 develop an approach which would "allow intrastate competition within the framework of the
29 Commission's objectives." [Order No. 14, p. 5.] Chief among those objectives was the

1 promotion and preservation of universal service, which in Alaska encompasses the provision
2 of both local and statewide toll services.

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4 **Q. Was the issue of natural monopoly prominent in your analysis?**

5 A. Yes. We were acutely aware of the natural monopoly characteristics of toll transmission
6 facilities in sparsely populated areas. Where these characteristics prevailed, effective
7 competition was unlikely to be sustained. If more than one firm served such a market,
8 society would incur the cost of wasteful duplication of facilities. And if regulation was
9 removed, customers would lack protection if the market returned to its natural monopoly
10 state, or if the carriers tacitly colluded, thereby effectively maintaining a shared monopoly.
11 Therefore, the Commission needed to preserve regulatory barriers to facilities-based entry in
12 markets that could not support more than one efficient toll carrier.

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14 **Q. What were your recommendations in that proceeding?**

15 A. For several reasons, including that of natural monopoly, we proposed to designate some
16 areas of the Alaska toll market as "competitive" and the remainder as "noncompetitive,"
17 limiting facilities-based competition to the competitive areas. The designations would reflect
18 traffic and channel densities and geographic
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20 locations--the pivotal characteristics in determining the capability of specific toll routes
21 to sustain more than one or two efficiently-operated facilities-based carriers.

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23 We recommended that the competitive areas be initially contained within 25-mile circles
24 surrounding Anchorage, Fairbanks, and Juneau, plus any locations that sustained enough
25 traffic to require at least 50 voice-equivalent intercity channels. All other locations within the
26 state would initially be included in the noncompetitive category, but favorable results in the
27 designated competitive areas could lead to expansion of the list of such areas.

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1 Facilities-based intrastate toll competition would be allowed only on routes that both
2 originated and terminated in designated competitive areas. For traffic either terminating or
3 originating in noncompetitive locations (or both), competitors would be limited to reselling
4 the transmission services of the monopoly carrier (e.g., Alascom).

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6 **Q. Would you explain why you proposed to limit competition to this degree?**

7 A. Yes. Our cost analyses in that proceeding indicated that toll routes with low traffic densities
8 requiring a small number of channels generally cannot fully exploit the potential economies of
9 scale or density. While new and emerging technologies may have generally lower costs, we
10 did not anticipate that they would deviate greatly from this general pattern--that is, we
11 doubted that the low density toll routes in Alaska could efficiently sustain more than one
12 facilities-based toll carrier.

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14 From the existing cost data, we determined that allowing multiple facilities-based carriers to
15 operate on these routes would create inefficiencies, eliminating one of the primary benefits of
16 competition. That is, since no carrier would be able to exploit the applicable economies of
17 scale, costs would be higher for all carriers and thus for customers. Moreover, the instability
18 associated with natural monopolies that are opened to competition (e.g., failed entry and
19 stranded investment, the danger of renewed monopoly or of oligopoly) would not be
20 desirable from a public policy perspective. Hence, we recommended that facilities-based
21 competition be prohibited in low-density areas.

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23 **Q. How did the Commission respond to these conclusions and recommendations?**

24 A. For the most part the Commission accepted our proposals. In Docket No. R-90-1, the
25 Commission adopted regulations governing competition in the provision of intrastate
26 interexchange telecommunications services--specifically, in Order No. 6 (September 6,
27 1990) and Order No. 9 (December 21, 1990). These regulations have restricted facilities-
28 based competition to certain high-volume routes in the state; elsewhere, competition has
29 been achieved through the resale of the wholesale services of Alascom.

1 **Q. Since Alascom thereby became the wholesale supplier of services in bulk to its**
2 **retail competitors in rural areas, how were these rates established?**

3 A. The wholesale rates of Alascom were the principal concern in Docket U-90-68. In that
4 proceeding, my firm conducted a detailed analysis of Alascom's short-run and long-run
5 marginal and average costs. Our analysis followed the same basic methodology employed in
6 the study submitted by our firm on behalf of the Commission Staff in Docket U-87-25,
7 Alascom's previous rate case.

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9 The study in Docket U-90-68 used more current data and was structured to provide costs
10 in a format useful for designing wholesale, rather than retail, rates. In that docket, I
11 discussed the cost patterns for serving various areas of the state. I commented on the fact
12 that Alascom's average costs (per channel and per minute) declined as the number of circuits
13 and the volume of traffic increased. I also noted that marginal costs were lower than average
14 costs, and-- particularly on terrestrial routes--were often very low.

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16 These cost patterns existed because a substantial part of the cost of transmission facilities
17 were fixed investments that did not vary with the number of channels or traffic volumes. The
18 widespread pattern of declining average cost was most pronounced for the terrestrial
19 technologies we studied--microwave and fiber optics. We noted that satellite technologies
20 also involved economies of scale and, thus, declining average costs. But the angle of decline
21 was less steep, because the proportion of fixed costs was smaller.

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23 As a result of this analysis and the cost patterns it revealed, I recommended that access rates
24 be set in three categories, each related to the density level. Additionally, as previously
25 discussed, given the circumstances at that time, it was not in the public interest to allow
26 duplicate facilities throughout the state. In encouraging a transition towards effective
27 competition, it was more appropriate to require Alascom to furnish the wholesale services
28 competitors would need in order for them to provide ubiquitous service.

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1 **Q. Did the Commission adopt your recommendations in Docket U-90-68?**

2 A. Yes, the Commission accepted a stipulation which, for the most part, was consistent with
3 our position. In Alascom's current wholesale tariff, our proposed cost categories have been
4 employed for switched transport service. The rate for the Category III areas, within which
5 no duplicate transport facilities are permitted, is more than 21 times the rate for Category I
6 areas, which are classified as high density. By purchasing this wholesale service, GCI has
7 been able to compete in the rural parts of the state; however, it has been limited by the
8 technical and cost characteristics of Alascom's facilities.

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10 **The Current Situation**

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12 **Q. You have explained in some detail the historical basis of the current system for**
13 **providing intrastate toll service in Alaska. Since you are now recommending that**
14 **GCI be granted its requested waiver, does that mean that the historical concerns**
15 **regarding natural monopoly and costs are outdated?**

16 A. Not necessarily. While a demonstration project and limited waiver are appropriate,
17 circumstances do not yet justify eliminating or changing the Commission's rules which
18 prohibit facilities-based competition in rural, low-density areas. Nevertheless, it is reasonable
19 to take a modest step towards increased competition in the rural areas. Conditions within the
20 telecommunications industry generally, and the Alaska market specifically, are not static. In
21 fact, conditions are dynamic, and it is appropriate for the Commission to encourage
22 movement towards a lower cost structure and a higher degree of competition. The
23 demonstration project will allow the Commission to determine
24 if GCI's proposed technology is viable, and it will give GCI an opportunity to
25 demonstrate its ability to operate low cost, reliable communications facilities in a variety
26 of different rural, low density locations.

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28 **Q. Specifically, what changes in the market in the last five years make such a**
29 **demonstration project appropriate?**

1 A. There have been changes in the political and economic climate and in technology. In the first
2 place, as the Commission is aware, there is a strong tide running in favor of increased
3 competition and reduced regulation, both across the nation and within Alaska. Wherever
4 experiments in broader competition have been tried, they appear to have demonstrated
5 some degree of success. Furthermore, the policy of the Alaska Legislature has been to
6 encourage competition in all areas unless good cause can be shown to the contrary. In AS
7 42.05.800, the legislature declared that:

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9 (2) facilities based, long distance service should be provided competitively wherever
10 possible;...

11 (6) the commission should provide for competition in a timely manner and should adopt
12 regulations that eliminate inappropriate impediments to entry for long distance carriers fit,
13 willing, and able to provide service.

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15 Furthermore, Section 42.05.810(c) provides that the Commission may prohibit
16 competitively installed facilities at any given location "only if it determines that installation of
17 facilities in that location is not in the public interest."

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19 In the second place, technological advances appear to have reduced the costs (and thus the
20 risks) of competition in rural areas. In particular, it should be noted that the fixed costs
21 associated with satellite technology may have declined, as a result of miniaturization of
22 electronic components, advances in digital technology, and the like. To the extent fixed costs
23 have declined, natural monopoly characteristics will have diminished.

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