

## II. General Observations

### Q. Do you have any general observations to make about telecommunications competition in Hawaii and the Commission's role in bringing it about?

A. Yes. Ever since Adam Smith, it has been recognized that a fully competitive market is ideally self-correcting and that *market forces* beyond the control of any single firm will balance supply and demand, establish and maintain prices that tend toward marginal cost, and maximize both economic efficiency and consumer choice. And for almost as long it has been recognized that some real world markets are less than fully competitive. As a result, some firms with market power have been restrained by regulation from various kinds of anticompetitive behavior. Telecommunications is in the process of moving away from a tightly regulated market towards a more competitive market, and there are strong differences of opinion as to the proper sequence of steps along that path.

Some believe that the best approach is to eliminate as much regulation as quickly as possible, to free the competitors, large and small, new and entrenched, and "let the games begin." GTE Hawaiian Tel seems to share this view. Thus, when the Company talks of "positioning itself for competition," and "establishing a level playing field" it seems to view itself as just another company that, just incidentally, happens to have nearly 100% of the lines, switches, and customers in the state.

But the reason for monopoly regulation in the first place was that some companies grew so large and so powerful that they controlled their markets, set the prices, and eliminated or precluded competition. Freeing these dominant firms from regulation does not ensure a free market. Where there is still market power, as in GTE Hawaiian Tel's case, there will still be market dominance, until and unless true competition emerges.

I believe that the best way to ensure an effectively competitive telecommunications market is to proceed gradually and deliberately. Consistent with Act 225, section 51(8) and with Hawaii Administrative Rules, section 269-38, with each incremental step towards an effectively competitive market, there can be a responsive incremental loosening of regulation. But we should not put the cart before the horse. Regulatory changes (including increased

pricing flexibility and rate rebalancing for GTE Hawaiian Tel) should primarily be a response to demonstrated competitive pressures, rather than a prelude to the promise of future competition.

In my view the Commission should be slow to dismantle the existing regulatory mechanisms, including the present rate structure, until it is proven to be inadequate or inconsistent with the trend towards competition, and until adequate thought has been given to the most appropriate replacement. There is every good reason to maintain, as long as they continue to work, key elements of a regulatory system that has survived the test of time, and has helped make our telecommunications the envy of the world.

**Q. Would you please provide the Commission with a brief explanation of the historical context and economic rationale for continuing to regulate the prices of local exchange company services and network elements?**

A. Yes. To fully understand the costing and pricing requirements in Hawaii Act 225 and the 1996 Telecommunications Act (TA96), it is helpful to place these laws into their historical and economic context.

During the past several decades, the telecommunications industry has been slowly evolving away from a regulated monopoly structure towards a more competitive one. Government policy has encouraged this trend, in an effort to achieve more rapidly the benefits of effective competition (which include lower prices, higher service quality, and enhanced technological progress).

In the FCC jurisdiction and in the majority of the states, regulatory policy has been evolving over the last decade away from the traditional rate of return form of regulation toward alternative approaches which recognize, and encourage, a movement away from monopoly conditions. In most state jurisdictions, at the initiative of regulators or legislators or both, regulation has been evolving away from the classic rate base, rate of return approach. Today, regulation often includes price-cap mechanisms, segregation of competitive and monopoly services, and other procedures designed to maintain universal service and protect the public from market power, while encouraging a more rapid transition toward effective competition. Simultaneously, the approach used in designing most telecom rates has been evolving away

from setting prices exclusively based upon embedded cost and value of service. Prices have increasingly been regulated on the basis of market conditions and forward-looking economic costs.

Act 225 and TA96 represent another giant step forward along this road, mandating further movement away from the traditional regulated monopoly industry structure, and towards pricing based upon economic costs and competitive market forces. The FCC explains:

Historically, regulation of this industry has been premised on the belief that service could be provided at the lowest cost to the maximum number of consumers through a regulated monopoly network. State and federal regulators devoted their efforts over many decades to regulating the prices and practices of these monopolies and protecting them against competitive entry. The 1996 Act adopts precisely the opposite approach. Rather than shielding telephone companies from competition, the 1996 Act requires telephone companies to open their networks to competition. [FCC, First Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, et al.*, Docket No. 96-98 (FCC August 8, 1996) (the *Interconnection Order*), Para. 1.]

As many economists have pointed out, it is not enough for the government to simply declare monopoly protections a thing of the past and to allow competitors to enter the local exchange markets. Because of the enormous capital requirements involved and the reluctance of many consumers to change carriers, the transition from monopoly to competitive conditions is likely to take many years.

**Q. Why does the industry need continued government encouragement in order to become effectively competitive?**

A. There are several reasons why the industry is unlikely to evolve towards effective competition without substantial governmental encouragement. First, in static terms telecommunications is a declining cost industry, in which economies of scale, scope, and density are prominent. Hence, the vast infrastructures assembled by the incumbent LECs under protected monopoly conditions cannot be readily duplicated, at least, not within just a few years. Technological changes and the dynamic trend towards declining costs mitigate this problem, but in the absence

of mandatory resale and unbundling requirements, the task facing a new entrant is still overwhelming. Economies of scale and scope create a significant barrier to entry, because new facilities-based carriers face very high costs per unit until they can gain a substantial share of the market. This entry barrier is reinforced by difficulties faced by new entrants in quickly capturing market share from the incumbent carriers. Most notably, many customers will be reluctant to experiment with a service so vital to their business operations or daily lives, and few will willingly endure the costs and aggravation of changing their telephone numbers.

The approach adopted in Act 225 and the 1996 Telecom Act imposes regulatory requirements on the incumbent carriers that will have the effect of reducing barriers to entry and encouraging competitors to enter the market. The Act allows competitors to enter the market in at least three different ways, and two of these options will require relatively little capital, since they do not require the new carrier to build all of its own facilities. As the FCC explains:

The Act contemplates three paths of entry into the local market -- the construction of new networks, the use of unbundled elements of the incumbent's network, and resale. The 1996 Act requires us to implement rules that eliminate statutory and regulatory barriers and remove economic impediments to each. We anticipate that some new entrants will follow multiple paths of entry as market conditions and access to capital permit. Some may enter by relying at first entirely on resale of the incumbent's services and then gradually deploying their own facilities. This strategy was employed successfully by MCI and Sprint in the interexchange market during the 1970's and 1980's. Others may use a combination of entry strategies simultaneously -- whether in the same geographic market or in different ones. Some competitors may use unbundled network elements in combination with their own facilities to serve densely populated sections of an incumbent LEC's service territory, while using resold services to reach customers in less densely populated areas. [*Interconnection Order*, para. 12.]

In effect, TA96 reduces barriers to entry by requiring the incumbent LEC to provide its competitors with the right to resell its retail services at discounted wholesale prices, and by requiring the incumbent LEC to rent portions of its network to competitors on an unbundled basis, at regulated, cost-based prices.

**Q. It is clear that prices can be set too high. Is there also a danger associated with**

**underpricing?**

- A. Yes. To encourage vigorous competition, the Commission should set prices which are neither extremely high nor extremely low. If network elements are priced too low, there will be little or no incentive for new entrants to invest in their own network facilities. The ultimate effect could be to limit the extent and depth of competitive forces in the state.

As proceedings and regulatory activities in many jurisdictions attest, both the technological milieu and the tides of public policy favor increased local exchange competition. However, merely reducing barriers to entry will not be sufficient to achieve effective competition. In evaluating the issues in this proceeding, the Commission should strive towards a result which helps encourage a rapid transition to truly effective competition. Effective competition forces all firms in the industry to adapt their products and services to the demands of consumers, drives prices downward toward the actual cost of service, and promotes productive efficiency, to the benefit of society as a whole.

For the public interest to be served, however, competition must be real (i.e., effective) and not merely nominal. Clearly, in many areas telecommunications market conditions of this description will take considerable time to develop. Until such competitive conditions exist, the Commission must continue to act to prevent the undue exercise of market power by the Company.

In toll markets the competition provided by both facilities based and resale carriers has expanded the choices available to consumers in terms of both the number of service providers and the kinds of services available. Consumer choice is an important element of competitive markets. From a customer's perspective, the availability of choices within the retail portion of the market is far more important than the availability of multiple providers of the various facilities that carry traffic across a city or state. Even when there is only one firm carrying the traffic on a particular route, consumers can benefit from firms that compete through resale.

However, it is important to realize that in the long distance market, most resellers have installed their own switching capacity. The competition created by resellers in the long-distance market has proven to be quite significant in promoting innovation in both services and technologies, as resellers have attempted to gain retail market share. Many of the innovations

offered by the larger long-distance carriers originated with smaller resellers. These firms try to compete not only on the basis of price but also by their innovative offerings. Some of these new reseller services--such as account codes developed by the customer that list on the bill calls falling within various predetermined categories--have helped businesses cut costs and increase efficiency, to the benefit of their customers. Thus, the benefits of retail competition not only inure to the users of the competitive services but spread out to other consumers as well, increasing the overall public welfare.

Retail competition tends to result in more efficient use of the underlying facilities, even when these facilities belong to only one monopoly carrier. A large portion of the cost is fixed or sunk once the facilities are installed. Consequently, system costs exhibit sharply declining average costs as the volume of traffic carried on them increases. In most toll markets, retail competition has helped stimulate the overall volume of toll traffic, thereby improving the cost structure of the industry. Similar benefits can be envisioned in the local markets, where resale competition may promote increased volumes of FAX traffic and computer traffic (including higher bandwidth services such as ISDN) as well as ordinary voice traffic. With appropriate unbundling and resale rules, retail competition could promote increased use of the existing facilities, due to the new entrants' promotional efforts, price cutting, and innovations.

Compared with the investment required to install loop facilities, entry into the retail end of the telecommunications market (including switching) is relatively easy, enabling resellers to operate on a relatively small scale in towns and neighborhoods with densities and volumes too low to support the efficient operation of more than one or two carriers that have installed their own loop or transmission facilities..

If the Commission were to allow switching rates lower than TSLRIC, the effect could be to delay or retard the development of intense, effective competition. Carriers would have relatively little incentive to install their own switching facilities in the state. If carriers can "rent" for less than they can "buy" a switch, they will have relatively little incentive to make the financial commitment required by the latter option.

From a public interest perspective, this would not be a desirable result. Competitive pressures will be more intense and the degree of competitive innovation will be greater if at least

some of the competing local exchange carriers invest in their own end office switching equipment. By providing dial tone to their customers, competing carriers will not be as dependent upon GTE Hawaiian Tel, will be likely to obtain greater knowledge about their customers, and will be more likely to implement innovative service offerings and rate designs.

In sum, the encouragement of effective competition in the local exchange market can promote various policy goals that are natural outgrowths of a competitive market. Achieving the benefits of effective competition, however, depends heavily on the Commission's regulatory decisions. If competition and its attendant benefits are to survive and flourish, the Commission should pursue policies that reduce barriers to entry and encourage at least some carriers to invest in at least some facilities of their own. Switching, for example, is an area where economies of scale are not extreme, and facilities based entry is relatively practical even for small carriers. If the Commission underprices the unbundled switching element, it will unnecessarily discourage fledgling competitors from investing in their own switching equipment, to the ultimate detriment of the public.