

Chapter 4. Three ICAIS Models: Applying Competition Policy to Marketplace Scenarios

We have identified three near-term outcomes:

1. Extension of the status quo;
2. Tier-1 ISPs consolidate network management in ways similar to how telecommunication carriers manage deployment of international satellite and submarine cables;
3. Rapid deployment of additional long haul transmission capacity leads to a robustly competitive marketplace, making bandwidth a tradeable commodity. We will subject each scenario to antitrust/competition policy scrutiny.

I. Scenario One: The Status Quo Continues

Reasonable people can disagree whether the status quo raises legitimate antitrust/competition policy concerns. Concentration of ownership and control over long haul bandwidth can create both incentives and opportunities for operators of such essential facilities to act in a “cartelized” and anticompetitive way. However, we have yet to see such coordinated behavior, nor can we conclude that the unilateral decision of any one or more Tier-1 ISP can have a markedly anticompetitive impact on the market for Internet transport and access to Internet-mediated services and content.

One might conclude that Tier-1 ISPs have raised the cost of an essential service element to competitors, thereby demonstrating that the Tier-1 ISPs have engaged in an illegal price squeeze. However, one could just as well conclude that the international data transport marketplace break into the natural segments of:

- Global backbone, long haul carriage, and
- Regional or local carriage.

Under this sort of market segmentation, Tier-1 ISPs in effect do not compete with smaller ISPs such that the decision to raise access and transit fees does not constitute a price squeeze. In a nutshell, the status quo has generated major disputes, because different stakeholders perceive the Internet marketplace differently. Without a shared baseline in terms of market definitions, these perceptions will differ, particularly as to whether universally understood anticompetitive practices have occurred.

Arguments that anticompetitive practices have occurred

Proponents of regulatory and other types of relief to Tier-1 ISP peering policies argue that prices to smaller ISPs have increased without justification. Tier-1 carriers need not meet in a smoke filled room to collude. The term “conscious parallelism” refers to the uncoordinated, but identical pricing decisions by erstwhile competitors. This practice frequently occurs in commercial aviation as carriers signal pricing strategies

implicit through their ticket reservation systems. A carrier seeking to raise rates hopes that competitors will match the fare increase, thereby making the initiating carrier's rate hike "stick." Should the other carriers not follow up with the same rate hike, the initiating carrier typically lowers its rates to the previous level.

Tier-1 ISPs can collude and conspire to raise the costs of their data bandwidth access and transit service through a series of seemingly unilateral decisions. While one Tier-1 ISP may initiate the decision to abandon public peering, it cannot make this decision stick unless and until all other Tier-1 ISPs undertake the same change in peering policy. In the absence of a cost-based or demand-based justification, the decision to change peering policies may reflect a decision by the Tier-1 ISPs to foist costs onto other ISPs with an eye toward bolstering their own profitability and market dominance. This attempt to dominate, if not monopolize the data transport marketplace should trigger antitrust/competition policy safeguards designed to protect consumers and competitors from attempts to tilt the competitive playing field in favor of one select group of market player.

Arguments that anticompetitive practises have not occurred

Tier-1 ISPs justify their revised peering policy as a rational and cost-based response to changed circumstances. The Internet has largely made the transition from infant industry incubation to a maturing, commercial, private industry. The largest ISPs can no longer ignore differences in ISP size, traffic streams, amount of bandwidth available, subscriber population, number of peering or interconnection sites, and scope of content hosted. ISPs have had to wean themselves from government subsidies, and they must pay close attention to the requirements and expectations of their investors.

Greater sensitivity to the bottom line requires ISPs to scrutinize telecommunication transport costs and to determine whether they have borne a fair, and not excessive share of costs. This attention has triggered greater vigilance against free-ridership, which in this context refers to the previous ability of smaller ISPs to exploit public peering for access to bandwidth, content, network functionality and transit services, at levels well in excess of what they might contribute for use by other ISPs and their subscribers.

The decision to change peering policies and to shift the financial burden to smaller ISPs responds to the legitimate rebalancing of the data transport financial burden. Because North American ISPs have contributed to the creation and hosting of keenly desired content, and have upgraded their networks to provide pathways capable of handling multimedia applications, they have a commercial opportunity to recoup their investment and to capture the fruits of their labour. Accordingly, a change in peering policy reflects the need to recover ever-increasing network infrastructure upgrade costs and to charge what the market will bear for the services and content provided.

II. Scenario Two: Tier-1 ISPs Behave Like their Telecommunications Carrier Counterparts

The second near-term scenario involves cartel-like behaviour akin to the historical behaviour of international telecommunication monopoly carriers. The model is quickly disappearing within the telecommunications world, and is not sustainable. This view sees an ironic outcome: just as the international telecommunications marketplace grows increasingly competitive, consolidation among Tier-1 ISPs makes the backbone data transport market increasingly concentrated and cartelized. While market concentration and high market share by itself does not signal an anticompetitive market, the incentive and perhaps the opportunity to engage in such practices increases.

Tier-1 ISPs may choose as a frame of reference the "old school" and "clubby" international telecommunication environment that served as the predominant industrial model from the onset of telegraphy until the late 1980s. During that time period, international submarine cable consortia and international/regional satellite cooperatives largely managed the global telecommunication marketplace. By management we mean that the carriers made facilities deployment decisions collectively, going so far as to allocate usage between cable and satellites. This management process emphasized carrier convenience, conservation of capital and a collective shouldering of risk.

Centralized management may seem anachronistic and ludicrous in this time of privatization, liberalisation, deregulation, competition and globalization. But we should note that these descriptive characteristics of the telecommunication marketplace have appeared only recently. Few incumbents will willingly part with guaranteed market share and a quiet life for drastically more volatility, risk, uncertainty and hard work – despite the potential for greater rewards as the fruits of competition. Tier-1 ISPs have managed to acquire market share through superior business skills, efficient operations, the first to market ("early mover") advantage and access to plenty of capital to fund growth. Additionally, these ventures have benefited by opportunities to purchase market share through strategic mergers and acquisitions. Having secured a dominant market share, the Tier-1 ISPs surely have every incentive to try to sustain their comparative advantage and to perpetuate their market dominance.

Arguments that anticompetitive practices have occurred

The rationale that Tier-1 ISPs will sustain their marketplace dominance lies primarily in the view that they must take affirmative and anticompetitive steps to foreclose outsiders and smaller ISPs from bringing technological and other innovations to market. This view parallels the charge that the Microsoft Corporation violated antitrust/competition policies in order to sustain its monopoly. Faced with the potential for lost market dominance, in either their core market (i.e., personal computer operating systems) or developing markets (i.e., Web browser software) Microsoft allegedly engaged in predatory and strong-arm tactics. The company offered free of charge a Web browser which consumers previously had to buy, possibly evidence of predatory pricing.

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The company also allegedly forced personal computer manufacturers to feature this software as a condition for the opportunity to buy the popular Windows operating system. Collectively the alleged activities of Microsoft extended the company's market dominance by leveraging inelastic demand for access to its computer operating system in order to secure market dominance in a new and heretofore separate market for Web browsers.

Tier-1 ISPs can sustain their market dominance by leveraging the inelastic demand for the popular content they host. One could argue that Tier-1 ISPs link this demand for vital content with the somewhat more elastic demand for bandwidth capacity, with the result that smaller ISPs incur a comparatively higher financial burden. Tier-1 ISPs have every incentive to press their marketplace advantage by managing deployment of Internet backbone routes and controlling access to facilities that may be considered bottlenecks.

Arguments that anticompetitive practises have not occurred

The strongest argument that Tier-1 ISPs cannot operate as a cartel, now or in the future, is that telecommunications carriers can no longer do so. The Intelsat, Inmarsat, Intersputnik and Eutelsat cooperatives face robust facilities-based competition from privately operated satellite systems. The traditional submarine cable consortia comprised of the incumbent carriers now face direct competition from new carrier ventures. Simply put, even if the Tier-1 ISPs could manage to engage in cartel-like behaviour, any market entry barriers attempted would inevitably prove impossible to thwart newcomers.

With the proliferation of routing options in Asia/Pacific, Tier-1 ISPs will not have the ability to discipline the marketplace. At least in theory, smaller ISPs displeased with new peering policies of any incumbent Tier-1 ISPs will increasingly have the opportunity to secure backbone transmission services from new carriers, e.g., Global Crossing, Level 3, Pacific Gateway Exchange, FLAG Telecommunications, etc.. Such "self-help" cartel-defeating options are detailed in chapter 3.

III. Scenario Three: Exchanges and Markets – Long Haul Data Transmission Becomes a Fungible Commodity

Scenario Three extends the currently experienced extraordinary demand for bandwidth with equally impressive roll-outs of new capacity using state of the art circuit multiplication technologies. While one side of the calculus may skew the supply of data transmission capacity temporarily toward either glut or scarcity, this scenario involves a fundamental reshaping of the industry and the manner by which carriers provision capacity and customers acquire it.

In this scenario, telecommunications transport capacity becomes fungible and tradeable like bushels of corn and other commodities. A spot market for data

transmission bandwidth means that the market has become robustly competitive; that all suppliers become "price takers" with no single supplier, or group, or Tier-1 ISP any longer in a position to set prices. Market price-setting in real time juxtaposes with the current model that largely relies on direct negotiations, and significant price differentials based on volume requirements, traffic route, and consumer/reseller demand elasticities. In this current environment, suppliers can price differentiate based on user characteristics and general market conditions. A commodity market environment operates more dynamically and in closer relation to immediate marketplace conditions.

These bandwidth exchanges and markets are described in other section of this *Study*. There are several on-line bandwidth exchanges. Although they collectively handle a very small percentage of total international bandwidth sales, their importance and growth cannot be overestimated. These exchanges represent the true commodification of international bandwidth, rendering data transmission no different to agricultural products, natural gas or spare electricity capacity.

Arguments that anticompetitive practices have occurred

Few situations exist where one or more suppliers can successfully corner or manipulate a commodity market. However, that does not suggest that some players do not attempt to affect the market, or that such endeavours do not have an impact.

The anticompetitive practices that generate an impact do not eliminate supply, but create temporary negative effects on supply that can quickly trigger a price increase. Attempts to coordinate supply of a commodity, like oil, do not always work, as individual suppliers or governments have incentives to "cheat" and capture market share at higher per-unit prices. However, efforts to discipline suppliers can work, particularly when the number of suppliers is manageable, as is the case with the Tier-1 ISPs.

Even in a commodity market, suppliers may attempt to collude and operate a cartel. The anticompetitive practices exercised represent attempts to fix prices often by setting a price floor target, with supply geared to sustain that level. Suppliers may have some success calibrating supply to a target price, but such management typically cannot work over the long term as evidenced by the fluctuations in commodities over time.

Antitrust/competition policy agencies may have difficulties in policing telecommunication bandwidth markets, just as they do in regulating commodities futures and stock markets. Tier-1 ISPs may try to raise prices in a commodity trading marketplace, but the success of such activities depends largely on whether they can control the options available to resellers and end users. For example, effective price fixing in the submarine cable marketplace will prove unsustainable unless equally effective price fixing takes place in satellite markets as there are increasingly abundant choices between either transmission medium.

Arguments that anticompetitive practices have not occurred

In a market able to reflect nearly immediate changes in prices, any significant impact on price can trigger close scrutiny. What Tier-1 ISPs may be able to achieve in closed-door negotiations and non-disclosure agreements may well not be possible in an environment where spot markets offer such quick responsiveness. Under these conditions, Tier-1 ISPs should be disinclined to risk exposure and potential civil/criminal culpability for attempts to fix prices and to collude with other suppliers.

Scenario Two offered Tier-1 ISPs some degree of legitimacy to meet and manage the marketplace, in ways similar to what cooperatives do to ensure the supply of some commodities, e.g., milk. A Dairy Board can meet and attempt to "stabilize" the price of milk, complete with price floors, ostensibly to promote the widespread availability of such an essential product and as well to promote the apparent public benefit of sustaining agricultural policy objective, e.g., family-owned farms. In Scenario Three no such legitimate forum exists and presumably each and every supplier must respond to marketplace conditions.