

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Restoring Internet Freedom))))	WC Docket No. 17-108
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Comments of Interisle Consulting Group

Executive Summary

The Commission over the past decade has taken a range of positions on how it should ensure that the public has access to all legal Internet content sites while not over-regulating the Internet itself, or overstepping its legal boundaries. In the present Docket, it proposes rolling back a number of measures taken in recent years that essentially treat the Internet itself as a public network, equivalent to the PSTN. We concur that some of the regulatory steps taken in recent years were excessive, especially with regard to their impact on smaller service providers¹. However, we also recognize that there are structural issues in the Internet service marketplace that should be acknowledged, and we recognize that consumer welfare is a key obligation on the Commission’s part. The Commission should therefore adopt policies that balance the needs of providers and the fundamental freedom of the Internet against possible harm caused by excessive concentration of market power.

We present an approach to resolving the structural problems that resulted from the vertical integration that has become the norm for market dominant ISPs within the United States, but within a rational interpretation of the current and historical statutory foundation for regulation of communications and information services. While we acknowledge the concerns of those advocating for policies based on “network neutrality,” we recognize the constraints imposed by current statutes. At the same time, we also recognize that many smaller ISPs, whether wireline or wireless, have been adversely impacted by current FCC policies, which often have the

¹ Interisle provides FCC-related consulting services to the Wireless ISP Association and concurs in its Comments. These comments are proffered by Interisle itself and address a more general range of issues.

undesirable effect of limiting access to the Internet in smaller markets not served by the major ISPs.

The approach we encourage the FCC to pursue is based on sound technical aspects of modern layered protocols, while at the same time adhering to the current statutory structures governing telecommunications and information services. This approach effectively avoids the polarized debates based on ideologies that are often not supported by the technical issues, or the statutory environment in which rational regulations must be framed. By recognizing the reality that Internet services necessarily operate over underlying telecommunications, the FCC can better define its own role in regulating telecommunications in a manner consistent with current statutes. Furthermore, when a provider chooses to vertically integrate their telecommunications services with their Internet services, then they are still offering telecommunications that come under the FCC's purview, but bundled within an Internet service offering.

We thus recommend that the Commission acknowledge that even a vertically-integrated offering of broadband Internet access service consists of two distinct layers, lower-layer local broadband transmission and higher-layer Internet service itself. Title II authority has always applied to the transmission layer, but should be removed from the Internet. Instead, most large, vertically-integrated ISPs should be allowed the option of making their local facilities available on just and reasonable, nondiscriminatory terms, as a safe harbor, whether provided using a lower-layer protocol or using IP to a regional IP aggregation point. If they choose not to avail themselves of the safe harbor options, then their bundled offering should conform to the "four freedoms".

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Vertical integration caused the controversy

As the Commission rightly notes, the Internet itself is an information service, and under the Computer II rules, was considered to be an enhanced service. However, an enhanced service *by definition* was the payload of a basic service. In the corresponding terminology of the Telecom Act, an information service is *by definition*² the payload of telecommunications, though the latter definition does not *require* that the telecommunications be offered as a separate service, as it was under Computer II.

When Computer II (as modified by Computer III) was in full effect, prior to 2002, incumbent local exchange carriers were required to provide their enhanced services across basic services that were available to others. There was a reasonably clear bright-line distinction between the two layers, telecommunications, which was subject to Title II regulation, and Internet, which was not. There were *also* self-provisioned ISPs, companies that were *not* ILECs, who were not subject to Computer II, which technically was only a restriction on LEC marketing of enhanced services. Competitive fiber, wireless and cable systems were all self-provisioned ISPs. Their underlying telecommunications was not offered as a separate service. In a series of orders culminating in the 2005 *Wireline Broadband Order*, the Commission ended all Computer II obligations on ILECs, allowing them to withdraw their underlying telecommunications services from the market. Thus they too came to offer only vertically integrated “broadband” services.

Almost immediately in 2005, the “network neutrality” kerfuffle arose. Prior to that, there was a choice of ISP available across the ILEC DSL facilities, as DSL (in its raw form) was tariffed as Special Access, and customers had a wide choice of potential ISPs via the ILEC facilities. To be sure, the ILEC-affiliated ISPs themselves had the lions’ share of the market. Had the ILECs not demanded the right to take 100% of the market, there would likely have been no talk about “network neutrality”. Instead, the threat of competition *at the ISP layer* would have either kept ILEC behavior in check or actual competition would have wooed away the most disgruntled customers. History may show that this was a very poor choice on the part of the ILECs who requested the change. But at this point in time the vertically-integrated model of service has become embedded in the domestic industry’s mindset.

² “The term “information service” means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information *via telecommunications*...” 47 U.S.C.153(20)

A telecommunications service is essentially neutral by definition, so the “network”³ was unaware of its content, but the Internet service did not have to be. Indeed an Internet service *must* be aware of its content in order to maintain service, and actively manage traffic flows. The problem was that without competition *at the ISP layer*, behavior perceived as unfriendly to consumers *in the provision of Internet services per se* had no recourse in the form of alternative ISPs, other than the possible narrow choice of a cable/ILEC duopoly. Thus the response of the consumer advocates was to demand regulation of the Internet, rather than to provide open access to telecommunications facilities.

The Commission has clear regulatory authority over telecommunications services. Its authority over information services is limited at best. An information service, however, may be subject to Federal Trade Commission regulation – if it is not common carriage, then the FTC’s plenary jurisdiction over business activities is not excluded, as it is under Title II. This could protect against many kinds of abuse including privacy and the misuse of market power.

At 11, the Commission asks,

In the 2002 Cable Modem Order, the Commission classified broadband Internet access service over cable systems as an “interstate information service.” The Commission did so based on the “functions that cable modem service makes available to its end users,” on the fact that the “telecommunications component is not, however, separable from the data-processing capabilities of the service,” and is an information service “regardless of whether subscribers use all of the functions provided as part of the service, such as e-mail or web-hosting, and regardless of whether every cable modem service provider offers each function that could be included in the service.”

This was arguably true in the case of cable, whose DOCSIS networks were not engineered for open access, though it is not impossible to do so. The Commission cites the Brand X case at 12, “In June 2005, the Supreme Court decisively upheld the Commission’s 2002 classification of broadband Internet access service over cable systems as a lightly-regulated Title I information service.” But the Court was not very decisive in its language. It stretched the limits of Chevron

³ In classic Internet terminology, a “network” is the layer beneath the IP layer. An internet is created in the payload of its underlying networks, which could be carrier networks, private telecommunications, or LANs.

deference. The Court noted the difference between cable and DSL and specifically allowed dissimilar regulation; it did not obligate DSL to be deregulated. Then at 14 the Commission notes, “In the 2005 Wireline Broadband Classification Order, the Commission classified broadband Internet access service over wireline facilities as an information service. In reaching this conclusion, the Commission relied on the plain text of the Act,” but it didn't. It simply allowed the ILECs to stop providing the telecommunications service layer to others, thus revoking Computer II.

The Internet layer⁴ had always been information service. The Commission at 34 quotes a *dissenting opinion* by Judge Brown of the DC Circuit who noted, “[b]y incorporating [the] FCC’s distinction between ‘enhanced service’ and ‘basic service’ into the statutory scheme, and by placing Internet access on the ‘enhanced service’ side, Congress prohibited the FCC from construing the ‘offering’ of ‘telecommunications service’ to be the ‘information service’ of Internet access.” The Judge was correct. By 1996, retail Internet access via dial-up was already widespread and there were a few cable modems and DSL connections, while commercial connections via Frame Relay and DS1 circuits (both then tariffed as Special Access) were also common. The carrier circuit was a telecommunications service; the Internet service was an information service. It seems clear that this distinction was obvious at the time of the Telecommunications Act, which tried to memorialize it. Vertical integration *by telecommunications common carriers* was not, however, foreseen by the Act. Both *Brand X* and subsequent Commission decisions were thus only upheld with a heavy dose of Chevron deference⁵.

What is “Internet access”?

Semantically, there are two very different meanings of “Internet access service”, as well as of the related term “broadband”. One is the service provided using IP, the actual Internet itself, at the retail access point. That’s what ISPs do, whether self-provisioned or relying on third-party facilities, as had been the norm prior to 2002. The other is “access to ISPs”, which is a bit-neutral

⁴ This refers to the TCP/IP protocol suite, from IP up through the application protocol, when used by the Internet.

⁵ From the Cornell Legal Information Institute (https://www.law.cornell.edu/wex/chevron_deference): One of the most important principles in administrative law, established by the Supreme Court in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). The case raised the issue of how courts should treat agency interpretations of statutes that mandated that agency to take some action. The Supreme Court held that courts should defer to agency interpretations of such statutes unless they are unreasonable.

telecommunications service, what telcos had provided whether it was dial-up or broadband. By using the two meanings interchangeably, the rules and history can be distorted. We thus propose that the terms be clarified when used, so that the distinction between the two layers, (1) broadband transmission service *to* the ISP facilities and (2) the Internet content itself, be recognized and consistently applied.

At 27, the general issue of the two parts of Internet access comes to the fore:

We believe that Internet service providers offer the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.... In short, broadband Internet access service appears to offer its users the “capability” to perform each and every one of the functions listed in the definition—and accordingly appears to be an information service by definition. We seek comment on this analysis. Can broadband Internet users indeed access these capabilities? Are there other capabilities that a broadband Internet user may receive with service? If broadband Internet access service does not afford one of the listed capabilities to users, what effect would that have on our statutory analysis? More fundamentally, we seek comment on how the Commission should assess whether a broadband provider is “offering” a capability. Should we assess this from the perspective of the user, from the provider, or through some other lens?

Indeed the Internet does meet the definition of an information service. The problem is that it does the communications part so well that it has become a functional substitute for telecommunications services, for many applications. This is consistent with the Commission’s observation at 36 that “even before the *Cable Modem Order*, the Commission recognized that Internet service providers marketed the speed of their connections.” That is still largely the case today although, to be sure, too much other differentiation in service could have run afoul of the *Open Internet Order* or *Title II Order*. And now the availability of regulated telecommunications services from the carriers (including wholesale services that may be of use to ISPs) is being reduced, because everyone uses the Internet. This is where layered approaches are needed, and the Commission has been lax in promoting them.

These bundled-application reasons for defining Internet service as an information service were superficial. The real reason that the Internet is an information service is that Internet packet switching, unlike telecom service, is a complex computing problem. Between the fluidity of the (not PSTN) address blocks, the vast amount of spam, DDoS, and other hazards, the activities of an ISP go far beyond blindly forwarding packets even if the ISP provides no applications per se.

The issue behind the public concern is that monopoly owners of transmission facilities no longer make them available to competitive ISPs, and these facilities are thus a bottleneck. Should this be the FTC's job now, if these services are no longer to be treated as common carriage? That may be correct, but we stand by our earlier proposal for how, ideally, to slightly open up service.⁶

A safe harbor could encourage open networks without regulating the Internet

We (Interisle) suggested in our Comment in docket GN 14-28 that providers using rivalrous facilities (including telcos, cablecos, and mobile carriers) be required to choose from either of two approaches. Either provide the underlying telecom as a separate service (as applied to only LECs in Computer II), or provide utterly neutral packet transport in the first leg of their Internet service, *from* a retail subscriber up *to* a regional aggregation point. Third-party ISPs or content providers could thus be ensured of access to customers, bypassing the carrier's own (otherwise unregulated) Internet service. In such cases there would be no regulation of Internet per se, just regulated availability of what would effectively be true Title II facilities-based access services.

We reiterate that proposal here, though we recognize that the Commission may not wish to make it mandatory. Instead, we propose that these options constitute a “safe harbor”, and the Commission would take no additional regulatory role on a provider's Internet payload carried over such facilities.

At 35 the Commission inquires more directly: “More broadly, we seek comment on the text, structure, and purposes of the Communications Act and the Telecommunications Act, as well as any additional facts about what Internet service providers offer, how broadband Internet access service works, and what broadband Internet users expect that might inform our analysis.” At 53 it again seeks comment on “restoration of the information-service classification for broadband Internet access service”.

⁶ <https://www.fcc.gov/ecfs/filing/6017984346>

The Acts themselves clearly distinguish between carriage, which is what telecommunications service is, and its content, which is what an information service is. The Act grants the Commission no authority over content *per se*. Information services were intended to be treated as the payload of telecommunications, and as such is a somewhat broader category than the Computer II definition of enhanced services as those using telecommunications *services*. Thus an information service need not make use of a telecommunications service sold as such, but it is not telecommunications.

The problem arises because the Acts presumed the existence of a nationwide public telecommunications network which would provide a wide variety of telecommunications services, more than just the voice PSTN, on a wholesale and retail basis. By permitting the ILECs to withdraw these offerings, and to not provide access to fiber-based broadband telecommunications services at all, retail users have had to turn to IP-based services as substitutes, and wholesale customers, such as independent ISPs, have been shut out of some markets.

There is no hard and fast rule that IP cannot be part of a telecommunications service, independent of the Internet itself, which simply happens to be an application of IP. Indeed most PSTN providers have begun to use IP within their networks, inasmuch as IP *per se* is simply a multiplexing header, the same one *used by* Internet-based information services. Absent some kind of “neutral” local/regional transmission service, whether or not it uses IP, many subscribers are forced to make do with Internet-based information services, and therefore place an expectation of neutrality upon them.

In exchange for an essentially unregulated Internet service, incumbent service providers, including cable operators who in some cases have essentially stepped into ILECs’ shoes⁷, should provide wholesale and retail broadband telecommunications services as separate offerings. These should be priced at “just and reasonable” rates, such that they are not more costly than the equivalent retail services that make use of them, though their rate structures may differ.

⁷ In some cases Incumbent LECs have grandfathered or discontinued outright their DSL services, and even some residential telephone services. Cable operators have often thus become the sole provider of wireline service in some areas.

Internet services themselves, from the IP layer on up, whether provisioned atop telecommunications carrier services or self-provisioned by other competitive providers such as WISPs, should have their classification as information services restored. This should apply end to end, to both access and backbone providers. This simple layered model, of content above carriage, dates back to the first Computer Inquiry almost 50 years ago and is still valid today. The Internet is not a public switched network, even though it is sometimes used as a substitute for one.

Section 706 vs. Title II authority

At 19, Section 706 is described as “newly-claimed regulatory authority”. Section 706 is also discussed in more detail at 100:

Section 706. We seek comment on whether section 706(a) and (b) of the 1996 Act are best interpreted as hortatory rather than as delegations of regulatory authority. Such an interpretation generally is reflected in the Commission’s approach to section 706 prior to 2010. The text of these provisions also appears more naturally read as hortatory, particularly given the lack of any express grant of rulemaking authority, authority to prescribe or proscribe the conduct of any party, or to enforce compliance. Although some courts have held that the Commission’s post-2010 interpretation of section 706(a) and/or (b) as a grant of regulatory authority was not unreasonable, we seek comment on whether interpreting those provisions as hortatory nonetheless is the better reading.

Section 706 was an “outside section” of the Telecom Act, unlike most sections, and thus not an amendment to the Communications Act of 1934. It also lacked an enabling clause. Thus it was indeed primarily hortatory, except for its request for the Commission to make annual reports. These points were not emphasized when it was brought to the Court. Thus it would be legally unwise to seek a Section 706 solution. Its earlier use of Section 706 was based on a tortured reading that has been referred to as a “triple-bank shot”.

In the case of vertically integrated services, the Commission may be able to exercise its authority over the telecommunication portion of the service in order to ensure that the narrow bottleneck facility of retail Internet access is not abused. But this should only apply when and if a provider with market power and making use of rivalrous facilities or spectrum (i.e., an ILEC, CATV, or CMRS carrier) insists on only providing vertically-integrated services. **In such a case the telecommunications capability is essentially being offered only through the bundle.** The

Commission does have Title II authority over that underlying capability to the extent that it can only be accessed via an information service, whether or not the customer wants the higher-layer functions of the information service. **A pure Internet service provisioned over an unaffiliated third party's facilities, over competitive facilities, or by a small provider should remain a pure information service, not subject to FCC regulation.**

Intermodal competition

The Commission's decisions over the past 17 years have, in general, limited most consumers' choices of provider for Internet service to those ISPs that own their own transmission facilities to the end user. Absent the common carrier obligation on telephone companies, the only competition is intermodal competition between facilities owners. In most urban areas, a cable/telco duopoly has become the norm, and now some telephone companies, including Verizon, have grandfathered their DSL offerings and only offer broadband service where they have fiber facilities. They have also reduced fiber to the home construction.

At 39, the Commission asks, "How should we evaluate the prior Commissions' predictions of intermodal competition given the 4,559 Internet service providers now in the market? How many providers would likely have entered the market if traditional Title II regulation had been the norm?" These two questions are quite distinct. As to the first: Intermodal competition remains limited. Most WISPs are small local providers and while they do compete with each other in many areas, many choose not to compete with cable. Mobile internet is only a satisfactory competitor for fixed service for the lowest-volume users. Satellite remains a niche market, constrained by capacity and functionally impaired by speed-of-light delays.

As to the second: The public Internet itself would never have happened had Title II regulation applied to the Internet at the outset. The Internet is a rapidly-evolving phenomenon, not a network *per se*, and no one could have predicted its future in 1992, when commercial ISPs began to proliferate under the protection of *Computer II*. A few providers might have taken the effort to file whatever forms the Commission would have required, but the very flexible nature of Internet peering relationships is, by design, entirely market-driven and entirely different from the Commission's traditional model of intercarrier compensation and interconnection. This could happen because the ISP was an *enhanced service* provider, not a carrier. While much of Title II

was forborne in the *Title II Order*, by then the Commission, the public, and the existing ISP community had some idea of what the parameters of the industry looked like. This reduced the harm from reclassification, though it tends to calcify the Internet going forward and may limit some kinds of important innovation. But the reclassification itself should not have applied to the Internet.

At 40, the Commission then asks,

The Commission has previously concluded that Congress formally codified information services and telecommunications services as two, mutually exclusive types of services in the Telecommunications Act. The Title II Order did not appear to disagree with this analysis, finding that broadband Internet access service was a telecommunications service and not an information service. We believe this conclusion regarding mutual exclusivity is correct based on the text and history of the Act. We seek comment on this analysis.

It must be understood, as it is not today, that information services and telecommunications services are not mutually exclusive but *complementary*. The Act codifies the long-standing precedent that information services are the *content* of telecommunications. Broadband Internet *service* is thus a *bundle* of the two. There are sound technical reasons why some providers, including many WISPs and mobile providers, cannot unbundle the two layers. But there are no such reasons applicable to telephone company monopolies, whether fiber or copper, and it is possible, though not as easy, to unbundle cable.

Historical distinctions

This goes back to what was said above about “Internet access”, a term that is ambiguously applied to two distinctly different functions. These two functions, transmission and Internet, are different and should be treated differently. The latter is naturally competitive while the former has aspects of natural monopoly.

At 41, the Commission delves again into history:

We thus seek comment on any evidence that the court in the MFJ thought that Internet access service was a telecommunications service. Did the court and the Department of Justice intend to exclude Internet access services from the prohibitions on what Bell

Operating Companies could offer? Did the court and the Department of Justice intend for Internet access services to be regulated via tariff (as other telecommunications services were)? We similarly seek comment on any evidence that the Commission in the Computer Inquiries thought that Internet access service was a basic service.

The Internet as we have known it for the past quarter century did not exist in 1981 when the MFJ was being drafted. (While Internet Protocol itself dates back to 1974 and there was a federal government Internet, it was closed to the public.) There were however a number of online computer services, and several competitive packet-switched networks that provided access to them. Earlier Commission rulings had detariffed packet switching networks such as Telenet and Tymnet. Even the 1968 *Computer I* decision clearly left remotely-accessed computing on the unregulated side of the line, though computer networks could be “hybrid” until *Computer II* clarified things. The MFJ followed shortly after *Computer II* and largely preserved its essence, inasmuch as it limited the RBOCs to regulated intraLATA services and moved almost all BOC unregulated activities into the AT&T residuary. Thus while Internet access did not exist *per se*, the lower-layer access portions were a basic service clearly left to be tariffed by the RBOCs (who did initially tariff DSL as Special Access, once they offered it) while the higher-layer portions clearly would have been seen as an enhanced service and, under the MFJ, left with AT&T Corp. This would have also been required because the Internet crosses LATA boundaries. Even non-dominant interLATA telecommunications services were also in the process of being deregulated.

Consumer harm

Advocates for stronger regulation and for preserving Title II have suggested that a parade of horrors was about to occur had the Commission not stepped in. We agree with the Commission’s view that these threats were blown out of proportion – there would have been no reason for most ISPs to have selectively blocked much content, for instance, had the content provider not paid a fee. We do note however that the bulk of Internet traffic *since* the first *Open Internet Order* has become video. That places a much heavier load on access networks than all other applications combined. It is quite possible that some ISPs would have requested some additional funding from large video providers, if only to boost their network capacity in order to support video, had there been no regulations precluding it. This would have been consistent with the nature of the

Internet's peering model, where *mutual benefit* rather than PSTN-style mechanical accounting is, or at least was, the standard. It is also possible that some ISPs could have offered lower-cost services that *de*-prioritized video, in order to provide better access to other applications.

At 50, "Is there evidence of actual harm to consumers sufficient to support maintaining the Title II telecommunications service classification for broadband Internet access service? Is there any evidence that the likelihood of these events occurring decreased with the shift to Title II?" We see little evidence of actual harm having occurred before the shift to Title II.

We do however note that in 2005, when the *Wireline Broadband Order* removed the right of independent ISPs to lease ILEC DSL as Special Access, *some* large providers were actively looking at options to make expanded use of Deep Packet Inspection. Some DPI manufacturers were promoting application-specific pricing, and suggested replacing IP-layer access services with application-specific services based, for example, on IMS (IP Multimedia Subsystem) and the related IPsphere scheme, with application use priced based on a value of service model. The "network neutrality" kerfuffle did have the salutary effect of squelching these activities. If the Commission's policies permit, in effect, a monopoly on urban fixed ISP access, and treat it entirely as an information service with no open transmission component, then it is conceivable that such schemes will make a comeback. That would in turn put pressure to regulate *all* ISPs again, which is precisely what we hope to avoid. Some small ISPs do make use of DPI-based systems in order to improve the Quality of Service of sensitive flows, compared to "Best Efforts"⁸, and excessive regulation of the Internet flows themselves has put a cloud over use of such systems.

First sale

It is worth noting that the "traditional" arguments for calling an ISP an enhanced/information service are themselves weak. These include, as noted in the NPRM at 27, bundling of email, web hosting, DNS, and other higher-layer services with the access itself. These are of course information services, which roughly correspond to the older category of enhanced services. *Computer II* described enhanced services by enumerating every significant remote computer application of the day, essentially everything but voice, which was subject to newly-invented

⁸ Such use of DPI is a palliative to the Internet's lack of a foundation for applications to indicate their QoS requirements, not a heavy-handed scheme such as IPsphere or the non-voice use of IMS.

switched access charges (ENFIA). For example, “protocol conversion”, an often-recited part of the definition of enhanced services, was a controversial topic at the time Computer II was adopted because the common computer terminals of the day included both “IBM-compatible” synchronous block-mode terminals and “dumb” asynchronous terminals. Protocol converters allowed the latter to emulate the former and thus communicate with mainframes. This could be provided competitively outside of the network, and was not a voice call; thus it was enhanced.

But the real distinction should be simpler than that. The only service that has monopoly characteristics is the one at the bottom of the protocol stack – raw wire, cable, or other bit transport, including BDS. Routers, in contrast, are computers. And if the raw transport is readily available, the ISP function is naturally competitive. So the real nexus of regulation, including Title II, should be the bottom of the stack. The raw bit transport should be available for sale, from telco and cableco, as Title II common carriage. Anything done above that, even simple resale, should be viewed as competitive.

Restoring this model would create a sort of “first sale doctrine” for telecommunications. (The first sale doctrine is the legal concept that the purchaser of a book, recording, or other copyright-protected medium retains the right to resell it without paying the copyright holder again. Royalties are only collected on the first sale.) This would be a simple regulatory framework unconcerned with content: Once the regulated telecommunications service is sold, any further resale is not regulated as such, and is treated as an information service *or* subject to forbearance (if required by statutory definitions). This approach was not taken in the Computer II era (or even in the Telecom Act) because it would have gutted ENFIA revenues, in particular via Feature Group A⁹ services, which are now largely obsolete¹⁰. That explains why essentially everything *but* voice done within the payload of a basic service was “enhanced”. Take away the complex language needed to protect ENFIA (which the Commission has already largely phased out in its intercarrier compensation orders) and the Computer II model did essentially that.

⁹ Feature Group A refers to the use of a regular “line side” telephone subscriber circuit to originate or terminate a long-distance call. This was commonplace before Equal Access was introduced in the 1980s, and more recently was used by calling card services that used local access numbers, and some VoIP services.

¹⁰ For the phase-out of switched access (originally Exchange Network Facilities for Interstate Access) charges, see FC 11-161, Report and Order and Further Notice of Proposed Rulemaking in CC Docket 01-92 *Developing an Unified Intercarrier Compensation Regime*. We note that *originating* access remains to be dealt with.

Contrast this with the view of the *Open Internet Order* and the *Title II Order*. These reversed the presumption, and placed regulatory burdens upon resellers, including what used to be called value-added resellers (a category that evolved into ISPs). Only the *top* of the protocol stack, the application content itself, remained unregulated. This was misguided. The Commission could simplify its entire regulatory model by adopting a first sale doctrine of telecommunications. While this would directly deregulate *non-facilities-based* ISPs, it would also provide a basis by which facilities-based ISPs would be deregulated if they separately offered the underlying transport. Consumer protection would in such cases flow from the resulting competition provided *by* non-facilities-based ISPs thus enabled to use the telecommunications services.

Voluntary provision of common carriage

At 65, the Commission notes that the *Wireline Broadband Order* permissively allowed carriers to detariff broadband *transmission*, the lower-layer service. While the largest carriers have detariffed their offerings, many small rate-of-return carriers have seen fit to keep their transmission (DSL) tariffed and open to unaffiliated ISPs. There is no good reason to prohibit this.

Frankly, given the fact that the entire “network neutrality” kerfuffle erupted in response to the *Wireline Broadband Order*, which itself was issued when the ILECs who chose to invoke it already had the lions’ share of the higher-layer Internet business, the carriers’ gains in evicting those last few ISPs from their tariffed services were more than made up for in the costs of dealing with the *Open Internet Order*, the *Title II Order*, and related matters. Granting a *mechanism* by which the customers not satisfied with the mass-market offering of the facility owner can access a third-party ISP across ILEC and cable facilities can moot the misplaced demand for regulation of ISPs per se, without costing the ILECs and cable companies a substantial loss of business. Carriers who voluntarily offer lower-layer service at just and reasonable rates should likewise be allowed to treat it as a “safe harbor” against any further regulation of their Internet offerings.

This is not inconsistent with the language of the *Wireline Broadband Order* itself, which predicted, citing statements from carriers, that ILECs would continue to make their DSL service

broadly available on commercial terms.¹¹ While some carriers did make it available to some ISPs for some period of time, such arrangements have largely expired, and in most cases only DSL technology in service at the time of that Order, which is now obsolete, was made available.

Privacy

We agree that the FTC is the appropriate agency for regulating ISPs' privacy practices. While there has been an outcry against the Commission's recent vacating of its own privacy rules, those rules never took effect, and were only made necessary by the *Title II Order's* preemption of FTC jurisdiction. The FCC and FTC each have specialized expertise and privacy matters, beyond CPNI, fall into the responsibilities of the FTC.

Pole attachments

In theory, Title II status granted ISPs pole attachment rights that were not *necessarily* available beforehand. But the Commission can regulate pole attachments for private carriage, as well as for radio transmission. Some states have had a policy of allowing non-common carriers to attach. Some of the middle mile networks built under the BTOP program were built by non-LECs who nonetheless were granted attachment rights. While pole attachment is a complex problem that the Commission has been addressing separately, removing Title II status from an information service should not become a reason to remove pole attachment rights. If there is a legal issue involved in so doing, the ISP can voluntarily offer common carrier (BDS) services *as well as* Internet services. While these would be a secondary offering, the ILECs themselves have detariffed so many of their services in many states that they too often only have token common carrier services using their own poles or attachments.

Internet conduct standards

In principle, the Commission has at best only limited authority to define the conduct of an information service, inasmuch as it is content, not carriage (telecommunications). If a provider offers the underlying transmission layer (e.g., DOCSIS, DSL, Ethernet or PON) on a wholesale basis to third-party ISPs, at an effective price no higher than its own retail price for a similar

¹¹ "Given the nature and history of the broadband Internet access services industry, we expect that wireline broadband transmission will remain available to ISPs and others without any *Computer Inquiry* requirements." *Wireline Broadband Order* at 74.

level of service, then it could be deemed to have met a safe harbor standard, at which point its Internet offering is a pure information service and market forces should be allowed to operate, subject to FTC constraints on anticompetitive behavior.

We also recommend that *ex ante* rules that define appropriate behavior take into account market power. Large facilities-based LEC and cable ISPs that are associated with content providers have far more incentive and ability to behave in anticompetitive ways than small providers such as WISPs, municipal networks, and local fiber networks.

It is these vertically-integrated services with market power that pose the question: If the only access to the carriage is via the content layer, what limitations on conduct in the content layer are reasonable as a substitute for common carriage? Because their telecommunications is essentially being sold *through* the Internet offering, the Commission may be able to exercise its fundamental authority over telecommunications to ensure that the bundled services are not managed in a way that causes consumer harm.

“Bright line” rules that prohibit blocking and throttling of traffic (subject to reasonable network management) are thus entirely reasonable, as are rules prohibiting *discriminatory* paid prioritization. Service terms should be clearly disclosed to customers, though it must be noted that “best efforts” Internet services have a certain unpredictable nature. Customer privacy should also be respected, including those portions that fall within the FCC’s purview.

With regard to the non-discrimination standard, we emphasize the distinction between *differentiated services* and discriminatory behavior. Differentiated services may be pro-consumer, as they may, for instance, support application-specific quality of service requirements. So-called “throttling” may be beneficial if it permits low-volume applications to continue to operate in the presence of an application that uses a large share of the available capacity (e.g., HDTV), and is not applied for the purpose of commercial discrimination against certain providers.

So-called “paid prioritization” becomes a problem when a service provider’s own affiliate, or a selected outside party, is offered options that are not made available to other, similarly-situated parties. This could take into account whether or not an edge provider has collocated a server at the ISP’s location, or made other arrangements to lower the ISP’s cost of providing service to

that edge provider. If an access provider charges for the quantity of data transferred, then a zero-rated service is likewise not harmful if it is generally offered to all qualified content providers. This is akin to 800 service on the PSTN. Refusing to allow a party of purchase such an arrangement when others can is where problems arise, though it is unclear where the jurisdictional boundary between the FCC and FTC lies in such cases.

The no-blocking rule is a useful guideline but must be seen as tempered by “reasonable network management”, with the understanding that blocking for purposes of traffic engineering, fair access, and management of unwanted traffic is beneficial. Spam, for instance, is often blocked. A general rule of Internet peering is that any provider that tolerates spamming is itself blocked, as does a provider who does not block a third provider who tolerates spamming. This “mutually assured destruction” rule dates back to the 1990s and helped do away with “pink contracts” with spammers. A spam-friendly ISP would thus not be able to serve *any* customers, as it is the entire ISP, not just identified spam, that is blocked by that policy. Blocking is also used to prevent denial of service attacks. No one argues that this is not reasonable. Some subscribers could also request a “curated” service that blocks “undesirable” content. This is a valid *option* to offer. Of course such a service should have its general terms disclosed, and if it is a facilities-based provider with market power, access to a non-curated service should also be provided.

Thus the sorts of harm that were feared by “network neutrality” advocates can be prevented by the Commission even as it removes Title II status from ISPs. We propose that large vertically-integrated carriers be given three options. Two of these are “safe harbor” choices, providing a lower-layer access service or having an unfiltered local retail IP service. The third option is for the ISP to be held to a general standard of good conduct consistent with the “four freedoms”.

Respectfully submitted by Interisle Consulting Group, LLC and its principals

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