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CS Docket 98-178

Alexandra M. Wilson
Chief Policy Counsel

January 6, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Salas
Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Re: CC Docket No. 98-176 -- Written Ex Parte Presentation

Dear Ms. Salas:

Pursuant to Section 1.1206(b)(1) of the Commission's Rules, enclosed for filing in the above-referenced proceeding are two copies of a letter sent today by Alex Netchvolodoff, Vice President - Public Policy, Cox Enterprises, Inc., to Chairman William Kennard. Identical letters were also sent to Commissioners Susan Ness, Michael Powell, Harold Furchtgott-Roth and Gloria Tristani.

Please do not hesitate to contact me should you have any questions about this matter.

Sincerely yours,

Alexandra M. Wilson

Alexandra M. Wilson
Chief Policy Counsel

Enclosures

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Alexander V. Netchvolodoff
Vice President of Public Policy

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

The Honorable William Kennard
Chairman
Federal Communications Commission
1919 M Street, NW #804
Washington, DC 20554

Dear Chairman Kennard:

Enclosed is an analysis, prepared by Cox counsel, that demonstrates the weakness and incompleteness of AOL's *Ex Parte* filing dated December 9, 1998 (CC Docket 98-176) in the Commission's Section 706 proceeding. To summarize, AOL has stated as fact that Canadian regulators and cable operators have mutually agreed upon "[t]he technical terms . . . to afford multiple Internet service providers fair access to cable high-speed Internet access networks." On the basis of the record in the Canadian proceeding, this is not an accurate characterization. More troubling, as noted in Cox counsel's memorandum, is the fact that AOL has chosen to omit in its December 9 *Ex Parte* filing the key document in the Canadian proceeding (available on the Internet) that notes just how tenuous, difficult, and unresolved are many of the issues surrounding third party residential access for ISPs.

Sincerely,



Alexander V. Netchvolodoff

Enclosure

Dow, Lohnes & Albertson, P.L.L.C.

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MEMORANDUM

TO: Alex Netchvolodoff

FROM: Jim Burger
Erik Phelps

DATE: January 5, 1999

RE: AOL *Ex Parte* Presentation: "Third Party Residential Access for ISPs"

In a December 9, 1998 *ex parte* presentation, AOL submitted two documents to members of the Commission's technical staff. The first, entitled "Third Party Residential Internet Access: Point of Interconnect Network Design" ("Network Design Document"), was prepared by Tekton Internet Associates, Inc. ("Tekton"). The second, a "Technical Report on the Status of Implementation of Access for Internet Service Providers" was prepared by the Canadian Cable Television Association ("CCTA"). Both documents had been previously submitted to the Canadian Radio-Television and Telecommunications Commission ("CRTC"). AOL characterized these documents as "the technical terms mutually agreed upon by Canadian regulators and cable operators to afford multiple Internet service providers fair access to cable high-speed Internet access networks." This appears to be a mischaracterization.¹

Moreover, AOL chose to provide the Commission staff with only part of the story. The part that was omitted was not quite so favorable to AOL's position. The Network Design Document prepared by Tekton explicitly stated in its first paragraph that it "follows and builds on the 'Third Party Residential Internet Access Proposed Service Definition' delivered to the CCTA in February of 1998" ("Service Definition Document") and further noted that it "does not address the business processes necessary to support [the proposed solution]." Those "business processes," described in the Service Definition Document prepared by Tekton, but not provided to Commission staff, illustrate some of the obvious practical problems associated with the solution AOL proposes to the Commission.

¹ The Network Design Document is a proposal submitted in what appears to be an open docket. The CCTA document appears to be a quarterly status report pursuant to CRTC Telecom Decision 98-9. Neither document nor any other material available from the CRTC implies that these documents were "mutually agreed upon by Canadian regulators and cable operators to afford multiple Internet Service Providers fair access to cable high-speed Internet access networks." In fact, the Canadian Association of Internet Providers ("CAIP") attacks the CCTA Technical Report as presenting "a one sided view of certain issues relating to third party access arrangements which ... could leave the Commission with the impression that the [Canadian ISPs] are in agreement with the contents of the CCTA reports." (CAIP letter of December 10, 1998.)

Moreover, another Tekton document, that preceded the one provided to FCC staff, and, as discussed herein, was not supplied to the FCC by AOL, explicitly states that the document was filed under a docket that began with a Telecom Decision made by Canadian regulators which "mandated, on a preliminary basis" the access to cable networks described therein. Moreover, Telecom Decision CRTC 98-9 is premised on a core conclusion made by Canadian regulators that high speed (above 64 Kbps) and low speed (below 64 Kbps) "access services" are separate and distinct markets, a dubious proposition. (See generally, AT&T's and TCI's Joint Reply to Comments and Joint Opposition to Petitions to Deny or Impose Conditions, CS Docket No. 98-178, Section III. C., filed November 13, 1998.)

The Service Definition Document submitted by Tekton may have been omitted because it contains comments such as these:

“The Internet itself is not well suited to providing multiple Internet Service Providers non-discriminatory access to what is, in effect, a local area network.”

“The Data over Cable infrastructure is, like other local area networks that it resembles, a shared medium; unlike private line services or ADSL ... [t]his means that customers on the Data over Cable infrastructure can communicate directly with each other, offering many more opportunities for customers to negatively impact each other if the service is not correctly designed and managed.”

In addition to those general statements alluding to the difficulty of providing third party ISP's the right to access a cable operator's network, the Tekton Service Definition Document details a number of the practical problems associated with such a result. Examples include:

1. Section 2.2.2 alludes to a fundamental problem with allowing third parties to provide services directly to consumers over the cable operator's network. Third parties may desire access to subscribers in areas where the cable operator is unable or unwilling to provide the type of service desired. Who will decide how, when, and at what cost the cable operator will continue to expand the data services available over its network? Under the proposal submitted to Canadian regulators, the third party ISP would “require the ability to procure the [access to the cable network] services incrementally according to its own ability to develop the market for its value-added product.” In practical terms, this means that AOL must be able to dictate to a cable operator what network upgrades to undertake based on AOL's “ability to develop its market for its value-added product. The Customer [ISP] ... may also wish to exert direct control over the amount of wide-area transmission bandwidth allocated to” Data-over-Cable.
2. The diagram in Section 3.1, which shows the network design with only three additional ISPs tacked onto the cable network, begins to indicate the complexity inherent in affording access to any of 4,000 additional ISPs that desire it. It is important to note that an ISP tacked onto the cable network in the manner described provides no additional connectivity services above and beyond those provided by the cable operator. In the telephone network, the ISP performs the value added service of taking telephone modem signals, converting them to IP, and then presenting them to the public Internet. The network design proposed here does nothing more than take what is already pure IP traffic and force it to a specific ISP router. Moreover, this type of installation would be required at every single head-end where the cable network operator offers data services.
3. Section 4.2 details how a residential subscriber would order services from an ISP, describing the process necessary simply to get the service installed or removed. The proposal contemplates two separate trips (one by the ISP, one by the cable operator) to a subscriber's home and precise coordination by the cable operator with any of the 4,000 ISP's that desire access. Section 6.2.1, which expands upon this process, notes that it “assumes” that the cable network operator and the ISP are scheduled to go to the customer's home in immediately back-to-back timeslots.
4. Section 5 notes explicitly that the document does not deal with delivering value-added services to the Subscriber (e-mail, news, personal web pages, etc.). In addition to the fact that many subscribers would consider these services (especially e-mail) to be essential, the primary reason for

omitting these is likely the unnecessary redundancy associated with having each of up to 4,000 ISPs provides such services within each cable network.

5. Section 8 describes, in overview detail form only, the processes necessary to provide customer support to customers of an ISP who use the cable network. Unfortunately, the document simply assumes that the cable network operator and the ISP can easily coordinate trouble ticket processing and response to customers. Left out is any indication of how difficult customer support calls with no clear indication of responsibility might be handled. Would the ISP be able to require the cable operator to check out physical connectivity? How would this be scheduled and coordinated among up to 4,000 ISPs? The precise inter-relationships and processes necessary to provide customer support in the proposed environment are omitted.

Even the Network Design Document supplied to the Commission's technical staff by AOL is rife with problems and issues that remain unaddressed and unresolved. Here is an example of what is not in the "Third Party Residential Internet Access: Point of Interconnect Network Design" document prepared by Tekton and submitted to the Commission staff by AOL:

1. The document explicitly states that it does not address the "business processes" necessary to make the proposed solution work. (Section 1) In short, the document proposes a solution while acknowledging that it does not even examine how the solution might actually work in the real world.
2. How, at what rate, and on what basis an ISP would be charged for accessing the cable network is not even addressed. (Section 4.4). The Network Design Document does not acknowledge that costs will undoubtedly vary from cable system to cable system, and will depend on the type of equipment installed, the potential for cable modem penetration, and any of dozens of other factors.
3. The routing scheme proposed by the network design; static, source-address based routing at the Point of Interconnect ("POI") router, is both inefficient and directly in conflict with traditional Internet configurations. Moreover, the Network Design Document glosses over the fact that the cable operator is solely responsible for POI router maintenance, which could have hundreds, or thousands of destination ports, and a corresponding number of static routes to be configured. (Sections 4.5 and 5.4).
4. The network design briefly alludes to the proposed network design being "subject to the capacity of the specific hardware devices installed." (Section 5.1.1) This severely understates an inevitable problem of the proposed design. If any ISP (and content provider)² is allowed to sell services directly to residential subscribers, the cable network operator's planned capacity expansion, and the capital, personnel and management expenses that accompany such expansion, would be subject to the whim of thousands of other companies' marketing efforts. As the Service Definition Document notes, this is precisely what the Canadian system envisions.

² Both the Network Design Document and the Service Definition Document implicitly acknowledge that third parties entitled to access under the proposal would not be limited to the approximately 4,000 traditional ISPs. The "Customer" in the Tekton proposal is anyone who "offers value-added services to its Subscribers." (Network Design Document, Section 2.1, Service Definition Document, Section 1.3). There is no principled distinction in the Tekton proposal between an ISP and any of the thousands of content providers and portal sites on the Internet. Nothing would prevent a content provider (especially those who already offer services such as e-mail and website hosting; e.g., Yahoo, Geocities, Excite, etc.) from marketing directly to consumers in the same manner as ISPs. The independent members of CAIP made this precise point in a recent criticism of the CCTA proposal (see *supra* note 1) stating: "In the view of the Independent members of CAIP, the higher-speed access arrangements contemplated by the Commission in Decision 98-9 are not limited to arrangements for ISPs. Rather they apply to all types of service providers utilising these arrangements."

5. The Network Design Document correctly acknowledges the critical nature of the cable modem termination system and the HFC network. As a result, it makes the cable operator responsible for everything up to and including the cable modem (Section 5.1.2.2), and for configuring the cable modem for any subscriber from any ISP. Moreover, the Network Design Document would force the cable operator to configure the modem in such a way that every subscriber is guaranteed a service level commitment. This would appear to limit subscribers' choices by preventing the cable operator from offering different tiers of service to customers willing to pay more for guaranteed bandwidth.
6. The "demarcation point" for allocating duties regarding provisioning between the cable operator and the ISP is **within the subscriber's computer**. The proposed network design requires DHCP configuration, and acknowledges that only one DHCP server entity, necessarily managed and maintained by the cable operator, is appropriate within any discrete network. (Section 5.1.2.3).
7. The entire DHCP configuration, IP address allocation and routing configuration must ultimately be managed by the cable operator. The cable operator would be required to report certain information to any and all ISPs (thousands) that use the cable network and to coordinate certain network management and other necessary evolutionary changes relating to addressing with each and every ISP.