EX PARTE OR LATE FILED

ORIGINAL

COLUMBIA
BUSINESS
SCHOOL

Columbia University
Graduate School
of Business

809 Uris Hall
New York NY 10027
212 854 4222
Fax 212 932 7816

Columbia Institute for
Tele-Information

RECEIVED

DEC 26 2000

FCC MAIL ROOM

December 22, 2000

Magalie R. Salas, Esq.
Secretary
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

RE: EX PARTE FILINGS for CC Docket Nos. 99-68 (Inter-Carrier Compensation for ISP-Bound Traffic), 96-98 (Local Competition), CC Docket No. 96-98 (Local Competition), CC Docket Nos. 96-262 (Access Charge Reform), 94-1 (Price Cap Performance Review), 99-249 (Low-Volume Long Distance Users), 96-45 (Universal Service).

Dear Ms. Salas:

After submitting the Columbia Institute for Tele-Information's ("CITI") *ex parte* notice for our December 13th "Stakeholder Workshop" in the above-referenced dockets, we discovered several typographical errors in the minutes. The Institute is refilling these corrected minutes to supercede those contained in our initial *ex parte* notice.

I hope that this does not cause you any inconvenience.

Sincerely,

Kenneth R. Carter, Esq.
Deputy Director, CITI

cc: attendees

ATTENDEES

Jim Alleman	University of Colorado/CITI
Michael Altschul	CTIA
Rebecca Arbogast	FCC
Jonathan Askin	ALTS
Bob Atkinson	CITI
Jay Atkinson	FCC
Dorothy Attwood	FCC
Chris Barnekov	FCC
Scott Bergman	FCC
Rebecca Beynon	FCC
Bob Blau	BellSouth
Jerry Brock	George Washington University
Mary Brown	Worldcom
Ken Carter	CITI
Bob Crandall	Brookings Institution
Larry Darby	Darby Associates
Pat DeGraba	Charles River Associates
Gary Epstein	Latham & Watkins
Gerry Faulhaber	FCC
Claudia Fox	FCC
Jordan Goldstein	FCC
Frank Gumper	Verizon
Bert Halprin	Halprin, Temple, Goodman & Maher
Dale Hatfield	FCC
David Hotstetter	SBC
Jane Jackson	FCC
Stacy Jordan	FCC
Dick Juhnke	Sprint
Michael Katz	University of California-Berkley
John Kure	Qwest
Jonathan Lee	CompTel
Joseph Levin	FCC
Joel Lubin	AT&T
Richard Metzger	Lawler, Metzger & Milkman
Johana Mikes	FCC
Paul Moon	FCC
Chris Murray	Consumers Union
John Nakahata	Harris Wiltshire & Grannis
Eli Noam	Columbia Business School/CITI
Mike Noll	USC-Annenberg/CITI
Carl Northrop	Paul, Hastings, Janofsky & Walker LLP, and PCIA
Tricia Paoletta	Level 3
Robert Pepper	FCC
Tamara Preiss	FCC

Jeff Prisbey	FCC
Brad Ramsey	NARUC
Jim Schlichting	FCC
Florence Setzer	FCC
Bill Sharkey	FCC
Virginia Sheffield	Genuity
Larry Strickling	CoreExpress, Inc.
Walt Strack	FCC
Pete Sywenki	Sprint
Doug Webbink	FCC
Cheryl Tritt	Morrison & Foerster
Paul Vasington	Commissioner, Mass. DTE
Kathy Wallman	Wallman Strategic Consulting
Paul Zimmerman	FCC
Jesscia Zufolo	NARUC

COLUMBIA INSTITUTE FOR TELE-INFORMATION

A Sloan Foundation Center on the Telecommunications Industry

COLUMBIA BUSINESS SCHOOL

CITI Interconnection Pricing Workshop
Minutes
(corrected)

On Wednesday, December 13, 2000, the Columbia Institute for Tele-Information (CITI) convened a "Stakeholder Workshop" for experts from constituencies that have significant stakes in interconnection compensation systems. The Workshop addressed the seemingly intractable problem affecting the telecommunications business: the mechanisms by which networks compensate one another for carrying and terminating traffic.

The existing interconnection systems, each based on how the traffic is classified (local, long distance, wireless, Internet), are being blurred as technology and services "converge." The Workshop's primary objective was to determine if stakeholders can agree on what a unified interconnection compensation system should look like, taking into account the possible impact of such a system on consumer rates and related public policy concerns. The Workshop also sought to identify the chief areas of disagreement, providing the stakeholders and policymakers with a clearer understanding of the issues.

Robert Atkinson, Executive Director of CITI, convened the meeting at 10:00 AM. He noted the ground rules for the discussion at the workshop. Atkinson stated the purpose of the workshop was to see if there is any consensus on how to resolve intercarrier interconnection compensation disputes. To encourage a free flow of ideas and comments, he asked all attendees to agree that all comments would be "off the record," in the sense that no attendee would use the comments made by another attendee in other fora. No attendee objected to this ground rule.

Eli Noam, Professor of Economics and Finance at Columbia Business School, and Director of CITI, welcomed the attendees and noted the historical significance of interconnection as a means to implement policy.

Agenda

The Workshop adopted the proposed agenda. (Attachment 1)

Agenda Item 1: Current Interconnection Systems

The Workshop started with a brief summary of the existing interconnection pricing systems followed by a review of alternative theories and proposals. Five participants made brief presentations on how interconnection compensation systems currently work.

John Nakahata of Harris Wiltshire & Grannis described the different types of fixed-wireline networks and typical access charges. (Attachment 2). Michael Altschul of CTIA described the mobile telephone (i.e., CMRS) interconnection regime. He described the types of interconnection. (Attachment 3).

Carl Nothrop of Paul, Hastings, Janofsky & Walker LLP, representing PCIA, explained paging-LEC termination compensation. He stated that most traffic is within an MTA and that the LEC pays for all or most of the transport to the paging carriers' point of interface. He estimated that interconnection costs in the paging industry are on the order of multimillion dollars per year, but not greater. He handed out a summary of paging interconnection agreements. (Attachment 4).

Jonathan Askin from ALTS described interconnection between incumbent LECs and competitive LECs. He said that per minute charges typically range from 0.27¢ to 0.55¢, but are coming down toward 0.10¢ per minute in recent agreements.

Virginia Sheffield from Genuity described Internet interconnection such as private peering, public peering and transit, and how they differ from the system of access charges used by LECs and IXCs.

Two other types of interconnection were noted during the discussion: between CMRS providers and between CLECs.

One academic observed that the per minute termination rates for different types of calls wireless, paging, and interexchange were 0.3¢, 0.4¢, 0.55¢, respectively. He further observed that the spread between these rates was already quite small and that the rate structure problem was likely to converge based on technological pressures. He also suggested that measures other than minutes might be used. One such measure for termination access charges might be based on the number of information packets.

Agenda Item 2: Guiding Principles: What should an "ideal" interconnection system be? What should it avoid?

Bob Atkinson of CITI distributed "Some Principles for Discussion" to stimulate discussion on what principles should go into reforming the interconnection regime. (Attachment 5). One attendee suggested an additional principle: minimizing cash payments to reduce arbitrage incentives.

One participant posed the question of whether reforming interconnection regimes was "worth the candle." An attorney present suggested that the benefits of reforming the current regime might not be worth the costs. An industry representative stated that any new form of compensation should minimize incentives for gaming and arbitrage, by minimizing intercarrier payments. It was observed that minimizing payments should focus service providers on serving retail customers and not on arbitrage. However, one observer replied that arbitrage is a self-rectifying method which drives prices to costs.

Another participant suggested that the fundamental question to ask in considering whether creating a new regime is worthwhile is one of market power. If incumbent carriers do not have the market power to "tip" the market in their favor by making other carriers interconnect as customers, then new regulation is not necessary. It was also suggested that it should be unnecessary to regulate interconnection between similar size carriers, because these networks will negotiate efficient interconnection agreements. However, regulation is needed where one firm has the market power to affect competition.

It was further suggested that the decision to institute a new regime was a policy question, whose outcome is based largely on political power. The uncertainty and major "political angst" associated with creating a new regime may act as a disincentive to investment and innovation.

The discussion turned to questioning what is wrong with the *status quo* and whether the *status quo* creates distortions in consumer welfare and investment, and encourages arbitrage. It was observed that changes to the *status quo* should not cause uncertainty and delay, require constant intervention, lead to resource misallocation and under investment; and deter innovation.

It was suggested that bill-and-keep interconnection pricing would create an incentive for carriers to minimize costs.

Agenda Item 3: Explanation of alternative proposals

Pat DeGraba from Charles River Associates and formerly of the FCC's Office of Plans and Policy presented a summary (Attachment 6) of a proposed new system of interconnection charges called Central Office Bill-and-Keep (COBAK). The purpose of COBAK is to eliminate the problems of the current system of wireline interconnection by reducing regulatory arbitrage, eliminating access monopolies, minimizing the need for regulatory decision-making, and eliminating pressure on retail rates. COBAK is a default interconnection regime, to be implemented if carriers cannot reach negotiated solution. There is the expectation that carriers would negotiate efficient interconnection arrangements against the COBAK default. COBAK is based on two rules: 1) there are no termination charges for loops and serving central office switching and 2) the calling party's network incurs the cost of transport to the called party's serving central office. The COBAK model was built on the rationale that both the called and calling parties "cause" costs so that it is economically sound to recover interconnection costs from both parties. This system is described in OPP Working Paper Number 33: Bill and Keep at the Central Office as the Efficient Interconnection.

Jay Atkinson of the FCC Common Carrier Bureau staff described the paper "Competitively Neutral Network Interconnection", which was released as OPP Working Paper 34. This paper suggested that a default bill-and-keep is competitively neutral and encourages efficient subscription and interconnection.

Agenda Item 4: Discussion of alternative proposals

Comments were made addressing the COBAK concept (OPP Working Paper Number 33). One participant noted that end user charges are rate-regulated, making it politically difficult to recover all of the cost of the local loop and central office switching directly from end users. The problem of defining what constitutes a "central office" was also raised. One industry representative raised the issue of how deaveraging would effect the recovery of costs now made through terminating access charges, SLCs, and PICCs.

One observer stated that we know the drawback of the existing regimes, but asked what might be the problems inherent in a new system? One issue posed is how to handle situations where traffic exchanged between carriers is unbalanced, citing the example of high volume originators (such as telemarketers) or instances of unbalanced incoming traffic which could create money pumps. Another potential pitfall cited is that turning telecommunications rates into flat end user charges could stifle growth and innovation.

One observer pointed out the industry has just sorted out radical change in interconnection over the last four years. In light of that consideration, it may not be worthwhile to start over by changing the system (i.e., "The devil you know versus the devil you don't know.")

Another participant observed that the rapid changes taking place in the Internet make it inadvisable to apply the old regulatory system of telecommunications interconnection for circuit switched networks to networks which will likely transition entirely to packet switched networks. This transition is likely to take place over the next 5 to 10 years.

One participant questioned what were the implications of always-on services such as DSL when per minute compensation charges designed for on/off networks are used.

Agenda Item 5 Summary & Conclusion. Any consensus? Any "next steps"?

Bob Atkinson ended the discussion and asked for input on potential next steps. A representative from the FCC asked the participants to keep an open mind in light of the FCC's long-term goals and further noted that the FCC may adopt an NOI on some interconnection pricing issues in January.

The moderator concluded the workshop at approximately 5:00 PM and thanked the participants.

Prepared by: ______________________

Kenneth R. Carter
Deputy Director, CITI
December 22, 2000

Exhibits

Attachments (Distributed During the Workshop)

Attachment 1:
Agenda.

Attachment 2:
Overview of Interstate Access Charges for Price Cap LECs, John T. Nakahata, Harris, Wiltshire & Grannis, LLP.

Attachment 3:
Cellular Mobile Carrier to Local Exchange Carrier Switched Interconnection Configurations (Type 1, Type 2A, and Type 2B), Michael Altschul, CTIA.

Attachment 4:
LEC-Paging Interconnection Agreements, Carl Northrop, PCIA.

Attachment 5:
Some Principles for Discussion, Bob Atkinson, CITI.

Attachment 6:
COBAK Interconnection, Patrick DeGraba, Charles River Associates.

Other Papers Made Available to Attendees:
OPP Working Paper Number 34: Bill and Keep at the Central Office as the Efficient Interconnection, Patrick DeGraba, OPP.

OPP Working Paper Number 34: A Competitively Neutral Approach to Network, Jay Atkinson, Common Carrier Bureau.

Diagram on Interconnection Types, Dale Hatfield, FCC.

White Paper on Interconnection, James Alleman, University of Colorado – CITI.

Interconnection Problems: A Framework for Discussion, Gerald W. Brock, The George Washington University.

The Theory of Access Pricing and Interconnection, Mark Armstrong, Oxford University.