
McLean & Brown

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The Intercarrier Compensation Debate: Bill & Keep – Bad for Universal Service and for Rural America

Editor' Note: This Special Edition of the Issue Update is adapted from remarks made by M&B President Glenn Brown at the NARUC Summer Meetings in Denver Colorado, July 25, 2003.

Recently there has been discussion within the telecommunications industry regarding the need to reform intercarrier compensation – the means by which carriers compensate each other for the origination and termination of traffic on each other's networks. In April of 2001, the FCC issued an NPRM requesting comment on two staff working papers titled *Bill and Keep at the Central Office as the Efficient Interconnection regime*¹, and *A Competitively Neutral Approach to Network Interconnection*.² These papers presented two alternative visions for a "Bill and Keep" (B&K) regime for intercarrier compensation – COBAK and BASICS, respectively. Under both B&K regimes, carriers would be responsible for collecting all costs of originating and terminating traffic on their networks from their own end-user customers, and switched access charges, reciprocal compensation, and other forms of intercarrier compensation as we know them today would cease to exist. (For a summary of the comments received by the FCC on this NPRM, see *Issue Update* August 21, 2001).

Recently, a number of parties including RBOCs, IXCs and CMRS providers have begun a campaign to encourage the FCC to adopt some form of B&K as the single methodology for intercarrier compensation. But mandatory B&K, as will be shown in the remainder of this paper, would be bad for rural consumers and bad for universal service. Better alternatives for fixing intercarrier compensation can and must be found.

To understand why a pure B&K environment poses particular problems for rural telephone companies and the customers they serve, it is necessary to

understand the fundamental operating challenges that rural carriers face. Most rural companies serve sparsely populated areas where the cost of providing basic telecommunications service is high. Indeed, the reason why many of these areas are served by independent companies today is that in the early days of the telephone industry these areas were bypassed by the old Bell System precisely because they were costly to serve. Rural companies typically offer their basic service product at rates well below cost, with the explicit blessing and support from government at both the federal and state levels. The Telecommunications Act of 1996 formalized the national goal of providing citizens in all regions of the nation, including rural, insular and high-cost areas, with services and prices comparable to those in urban areas.³

Today, rural telephone companies recover the costs of serving their customers from three sources:

- End User Rates,
- Intercarrier Compensation, and
- Universal Service Funds.

If a pure B&K regime were to be put in place, rural companies would only have two sources to recover their revenues – end users, and the universal service fund. To understand the problems that this would create, it is useful to look at the amount of revenue that rural carriers currently derive from intercarrier compensation.

<u>Study Area Size</u>	<u>Avg. Intercarrier Comp.</u>
Under 500 Lines	\$42/line/month
Under 1,000 Lines	\$32
Under 5,000 Lines	\$23
Under 10,000 Lines	\$19
Under 20,000 Lines	\$18
Under 50,000 Lines	\$16

¹ OPP Working Paper Series #33, by Patrick DeGraba, December 2000.

² OPP Working Paper Series #34, by Jay M. Atkinson and Christopher C. Barnekof, December 2000.

³ Telecommunications Act of 1996, Section 254(b)(3).

It is important to realize that these numbers are averages, and that in the most extremely rural areas the actual company revenue can be several times this level. Rural intercarrier compensation charges are high, in part, due to the lower volumes and longer distances involved in transporting and switching traffic in remote rural areas. It is also worth noting that a substantial majority of current intercarrier revenue is in the intrastate jurisdiction. On average, the nationwide ratio of intrastate to interstate revenue for rural telephone companies is 3 to 1. In some states the ratio is significantly higher. The total intercarrier compensation revenue received by all rural rate-of-return carriers in 2003, state and interstate, is approximately \$2.25 billion.

Many of the arguments advanced in support of mandatory B&K revolve around the perception that the current system is “broken” and cannot accommodate the different levels and forms of compensation that currently exist. Furthermore, the proponents of mandatory B&K argue, the current evolution of network technology makes it impossible to maintain a coherent system of intercarrier compensation. However, rather than totally discarding the entire concept of intercarrier compensation, a more rational approach would be to identify and fix the problems that exist in the current intercarrier compensation system. In this way policy makers can better assure the achievement of the twin goals of the 1996 Act – universal service and competition.

Many of the current problems with intercarrier compensation can be traced to exemptions that have been built into the current system, as well abuse and fraud within the system. The problems are further complicated by the often disparate rate levels in the interstate and intrastate jurisdictions, and the growing difficulty in telling the difference between the two.

A good example of the exemptions built into the current system is the ISP/ESP exemption. Almost twenty years ago, Enhanced Service Providers (ESPs) were granted an exemption from access charges. This exemption was granted, in part, because of the emerging or “nascent” nature of this

industry. Today the ISP industry has grown to gargantuan proportions, yet it still uses the transport and local termination network virtually for free. The wireless industry was also given advantageous treatment in its early development, yet we are now at a point where the number of wireless phones is approaching the number of wireline lines. We are now observing a large scale migration of long distance minutes from the wireline to the wireless networks, not so much because of superior networks or technology, but because of the disparate ways in which they are regulated and charged for network usage. Both the wireless and VoIP industries depend on the ubiquitous transportation and termination capabilities of the local telecommunications network. Now may be the time to seriously look at whether the “infant industry” advantages still make sense in today’s market environment, or whether they may now indeed be a cause of some of the problems.

One way to visualize the problems experienced in reporting and billing usage under the current regimes is to imagine a network with marbles of different colors moving through the system. Assume that red marbles are charged four cents, blue marbles are charged two cents, and white marbles are free. If it is not entirely obvious what color a marble should be, or if it is possible for a player to disguise the true color of its marble, should it be surprising that over time we would be seeing more and more white marbles move through the system?

Problems such as these have caused some parties to call for a “unified” system of intercarrier compensation. Many have called for that system to be mandatory Bill and Keep for all traffic, at a unified price of zero. This is a “solution” that will create serious unintended consequences including driving up the size of an overburdened universal service fund, raising rates of rural consumers to potentially un-affordable levels, and creating dramatic shifts in network usage that will drive up network costs with no compensating revenue.

The term “Bill and Keep” is itself somewhat of a misnomer. If it really meant what it said - that local carriers would bill their customers for usage of the

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network (local, long distance, internet access, etc.) and keep the revenue - then this might represent a workable solution. However B&K is not about "billing" anything, much less "keeping" it. What B&K is really about is requiring local carriers to carry the traffic of other service providers at no charge. To avoid confusion it might be helpful to call this plan what it really is. Rather than calling it "Bill and Keep", it would be more descriptive to call it a requirement to "Carry Without Compensation", or CWOC.

A B&K (or CWOC) regime would have a significant and chilling impact on rural carriers. A carrier serving remote areas of rural Nebraska that previously received \$60 per line per month of intercarrier compensation would face difficult choices. Already high local rates could not be raised much higher, particularly given the economically depressed nature of the region. While increases in universal service funding might pick up some portion of the shortfall, it clearly could not pick up all. To the extent that this increased support became portable to wireless carriers serving the more densely populated areas of this territory, it would further increase their windfall support while at the same time relieving them of any obligation to pay compensation for the origination and termination of calls. There would be little incentive to make further investments in the network, and even less ability to do so. All of this at the same time as policy makers are trying to provide incentives to deliver broadband services to rural America.

And why are we even considering this? In any other capital intensive industry with an asset as valuable as the ubiquitous wireline local loop, it would be considered absolutely nuts to suggest giving away usage of that asset for free. Only in the sometimes upside down world of telecom pricing would intelligent well-educated people be sitting around discussing this as if it were a viable policy option.

There is one additional factor that deserves consideration in this debate. If the price for network usage were to be changed from its current levels to zero, this would have immediate and profound impact on network usage levels and patterns.

History provides many examples of the unintended consequences of changes in price on network usage. One example of this occurred here in Denver in the mid 1960s. Prior to the implementation of the "METRO 65" plan, Denver had been divided into "zones", and there was a usage charge for calls between zones. It was thought that by removing these zone charges that customer service and satisfaction would be increased. The result was just the opposite. When the inter-zone charges were removed, calling volumes soared, overwhelming the ability of the network to handle the load. Calling across town became difficult and frustrating, and customer ire was fierce. It took years to clean up the mess.

In contemplating change on the magnitude of B&K, it must also be recognized that most large long distance users do not use the switched network today. Most large users have designed networks using special access services that minimize their overall costs. If switched access were to become "free", there would be no reason to continue paying for these (now expensive) special access networks. This would require costly network rearrangements without any compensation, as well as the need to dramatically increase the call handling capacity of the public switched network. All of this would happen with no incremental revenue, and with the loss of significant amounts of both switched and special access revenues.⁴ The resulting shortage of facilities would have significant impact on service quality for consumers.

Another good example of the impact of free carriage on message volumes is spam on the Internet. If you like spam, you're going to love B&K.

Alternative Solutions

There are three steps that policy makers can take in the short run to begin to address problems with the current intercarrier compensation regime.

First and foremost, policy makers must fix the current universal service system. Here again, history teaches us a lesson. In implementing the 1996 Act three important tasks had to be accomplished – reform universal service, reform the access charge regime, and implement interconnection arrangements that would allow local competition. Unfortunately, the timing worked out to be exactly the opposite; with interconnection being done first, access reform second and universal service last. This failure to first implement sustainable and rational universal service reforms may indeed be contributing to some of the problems we are experiencing today. Before further intercarrier compensation reforms are made, the problems with the current universal service system must be fixed.

Fortunately, the Joint Board and the FCC have two proceedings underway that can lead to sustainable long-term universal service solutions that will allow for successful intercarrier compensation reform.

In the *Contribution Methodology* proceeding, the Joint Board and the FCC are appropriately seeking to broaden the funding base for universal service mechanisms. The current methodology assesses only interstate end-user revenues, and surcharges are currently approaching 10%. By broadening the

⁴ It should be noted that the current intercarrier compensation revenues shown on page 1 reflect switched access only. Losses of special access revenue would be in addition to this. Special access currently comprises 43% of the NECA pool interstate revenues.

base to assess both interstate and intrastate revenues, the contribution level can be stabilized at a reasonable level that can allow for necessary incremental growth in the fund size. It is also important to further broaden the base of contributors to include broadband and VoIP services. As mentioned earlier, these services benefit from the ubiquitous availability of basic telecommunications connectivity, and thus should contribute to its preservation and support. Furthermore, if broadband service becomes defined in a way that precludes its participation as a funding source, the long-term sustainability of the funds will again be put at risk as more and more telecom services evolve towards broadband applications.

The other necessary component of universal service reform is under consideration in the Joint Board's *Portability* proceeding. The current system bases the amount that a competitive ETC receives on the support paid to the wireline incumbent. The Joint Board is currently considering proposals to base support for other ETCs, such as wireless carriers, on their specific costs. It would make absolutely no sense to increase the amount of support to ILECs to compensate for access charge reductions, and the pay that same level of support to carriers who do not even pay access charges in the first place.

The second short term fix is for policy makers to firmly establish and articulate the principle that when someone uses an asset that belongs to someone else to create value for their customers, then the owner of the underlying asset deserves fair compensation. Once it is firmly established that appropriate compensation is due, then the energy of the various industry segments, as well as policy makers, can be focused on finding the right long-term intercarrier compensation solutions that serve the public interest, encourage efficient competition, and assure the preservation of universal service.

Finally, there are things that policy makers can do short of full intercarrier compensation reform, including appropriate rate rebalancing, that will help to minimize short term problems:

- If there is a significant disparity between state and interstate access, then that disparity must be reduced.
- If end-user rates are significantly below statewide averages, then they should be increased.
- The residual revenue should be replaced through an intrastate universal service mechanism.
- Responsible fixes should be implemented in the way in which network usage is measured and billed. Carriers must be responsible for the truthful identification of the origin and termination of their traffic.

- Default terminating arrangements should be implemented for cases where compensation mechanisms have yet to be implemented, or the parties cannot reach agreement on an appropriate mechanism.

To facilitate the development of a long-term sustainable solution, policy makers should initiate a broad inquiry that would seek to establish the appropriate intercarrier compensation mechanism(s) that would serve the public interest, advance universal service and promote competition. Unlike the previous NPRM, this process should not begin with the premise that B&K, or any single mechanism, is always the correct solution. It is likely that in many situations, particularly when traffic loads are balanced and costs are comparable, B&K may indeed be the preferred mechanism. It is also highly likely that in other situations other mechanisms, either negotiated among the parties or implemented by regulators, may offer a better policy solution. The development of innovative compensation mechanisms should also be encouraged. One alternative currently under study would establish "capacity-based" charging mechanisms. These could function similar to the way in which water is often sold, basing usage charges on diameter of the "pipe". There are also proposals to establish a common per minute rate that would be applied to all types of traffic.

In the final analysis there may not be one single "silver bullet" solution that solves all of the many issues involved in intercarrier compensation, but rather a "menu" of reasonable alternatives that will allow the efficient and seamless interconnection of networks, and the preservation of high quality and affordable service to all Americans.

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