The “POT Bay”:
Several BOCs Attempt to Obstruct Interconnection

...Again

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Summary

Several state regulatory agencies and the Federal Communications Commission have recently required local exchange carriers (LEC) to provide physical collocation for competitive access providers (CAPs), interexchange carriers and end users. While this progress towards competition in the local exchange market is welcome, it is just a beginning. Legally requiring collocation is one thing, implementing collocation fairly is quite another.

In fact, actually achieving comparably efficient interconnection once it has been required by regulators is much harder than people might think. For example, TCG’s experience with physical collocation in some Bell Operating Company (BOC) central offices has been frustrated in part by excessive charges for interconnection and in part by unreasonable BOC engineering demands. One important example is BOC insistence on the interconnector supplying and paying for a point-of-termination bay (POT Bay).

The POT Bay is unnecessary. Telephone companies should be ordered to eliminate it. At the very least, charges for it should be minimal. Regulators should assure that this is the case.
Interconnection is Nothing New

Since the beginning of the Bell System, telephone companies have been interconnecting directly with other telephone companies. Long distance companies have interconnected directly with local exchange carriers, and LECs have interconnected directly with other LECs. No POT Bay is required for such interconnections. But for interconnection by competitors, some BOCs have insisted that a POT Bay be installed as a point of demarcation between the LEC and the competitive interconnectors.

What is a POT Bay?

The POT Bay is a device placed between a competitor's network and the natural point of interconnection to the network of a local exchange carrier. It is located between a LEC's main distribution frame (MDF), which directs traffic to proper channels for distribution throughout the LEC network, and the interconnector's collocated equipment or "cage" (see figure). The POT Bay usually consists of a metal frame, cross connecting cabling (generally coaxial cable or copper cabling), and in some cases, cross-connect panels (a fuse box). The interconnector's cabling enters the Pot Bay from one side and connects to "bridge" cabling which connects to the telephone company's cables on the other side.
What Does a POT Bay Do?

From an engineering point-of-view, a POT Bay is completely unnecessary; no bridge is required, because the two sets of cables can be directly linked. From an economic point of view, a POT Bay is wasteful and uneconomical.

A POT Bay serves no useful engineering purpose.
Every engineering function that is performed by the POT Bay can be performed, at a lower cost, by allowing the interconnecting network to connect its cables directly to a LEC's MDF. The POT Bay creates economic inefficiencies for both the interconnecting network and the LEC.

A POT Bay does not serve as a test point.
The test point for viability of circuits is at the MDF.

A POT Bay does not serve as a technical point of demarcation.
The MDF, not the POT Bay, is the technical point of demarcation. For example, when TCG interconnects with New York Telephone Company (NYTel), the monitoring point for TCG is the LEC MDF. The POT Bay serves only as the administrative point of demarcation, which means that TCG is responsible for maintaining the system up to the POT Bay; NYTel is responsible for maintaining the other side. It is more efficient, technically and economically, to let the interconnecting company maintain the interconnection from one technical point to another (in other words, all the way to the LEC MDF).

A POT Bay creates an extra point of possible failure.
The more physical barriers that exist, the more possible points of failure also exist.

A POT Bay unnecessarily adds exorbitant costs to interconnection.
Ameritech, BellSouth, NYNEX, Pacific Bell, and Southwestern Bell currently require the use of POT Bays for interconnection to their networks. These LECs have proposed exorbitant tariffs for creating and utilizing the POT Bay. For example, Southwestern Bell proposes to charge a $21,863 non-recurring charge to build a POT Bay, and wants to charge a monthly recurring charge of $329.

TCG believes this to be at least 10 times the actual initial cost, and sees no justification for a recurring charge, since nothing is regularly “done” by the LEC to the POT Bay.

* On June 4, 1993, the Southwestern Bell Telephone Company modified its expanded interconnection tariffs that it had filed previously with the Federal Communications Commission. Southwestern Bell reduced the non-recurring charge to $2,743.00 and the monthly rate to $41.34.

TCG appreciates the price reduction but still sees no justification for the POT Bay.
Why Do LECs Want POT Bays?

LEC's have always tried to delay competitive interconnection with devices and procedures.

The POT Bay is another in a long line of telephone industry tactics of erecting unnecessary barriers to prevent access to the telephone network. For many years it was illegal for customers of the public network to attach anything to the network. However, this changed in 1968 as a result of the landmark Carterfone Decision, which gave customers the right to attach equipment to the public network, thus beginning the unbundling of the Bell monopoly.

The Bell System responded to the Carterfone Decision by requiring that any piece of equipment provided by a customer could be connected to the public switched network only through a "protective connecting arrangement (PCA)," a device which was leased to the customer for a fee by the Bell System. Bell claimed that the PCA was necessary to protect the public network from "harmful" non-Bell equipment (even though no instance of harm occurring to the network from faulty customer-provided equipment had been documented).

However, the PCAs were useless and unnecessary, and actually degraded network service. In 1975, the FCC replaced the PCA with the Part 68 Registration Program, which certified which equipment could safely be connected directly to the public network.

Later, Judge Harold Greene, the federal district judge presiding over the U.S. antitrust suit against AT&T, found that the protective coupling arrangement was merely another attempt by the Bell System to foreclose competition in the terminal equipment market by erecting the PCA as an unreasonable barrier to network interconnection. Most affected telephone companies eventually refunded most of the fees they had charged on the PCAs.

Apparently not having learned a lesson from the Carterfone Decision, most of the Bell Operating Companies have invented a 1993 version of a PCA: the POT Bay. To their credit, GTE, Bell Atlantic and U.S. West allow direct interconnection, recognizing that, like the PCA, the POT Bay is an unnecessary and useless piece of equipment. Its only purpose is to inhibit interconnection and stall competition.
What Should Be Done?

Eliminate the POT Bay altogether. Allow the interconnecting carrier to connect its cables directly into the LEC’s MDF.

Regulators should require LECs to eliminate the POT Bay altogether, in order to simplify the technical process of interconnection and eliminate the needless expense associated with it. Direct interconnection will increase the infrastructure’s reliability. Direct interconnection will lower costs for both the interconnecting network and the LEC and its captive customers, the ratepayers.

A second-best regulatory decision is to assure that LECs insisting on Pot Bays do not charge more than the actual, direct costs of installing and maintaining them; these costs are nominal.

Today’s interconnecting competitive networks are managed and operated by experienced engineers. These managers must offer their customers high performance and reliability. There is no reason to fear that those who operate such quality networks cannot be trusted to connect their networks directly to the facilities of the LECs.

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1. CAPs are also known as AAVs (alternative access vendors), or ALTs (alternative local telecommunications service providers). As the oldest and most successful CAP, TCG provides services in fifty communities in nine states and is expanding rapidly.

2. The Carterfone Decision extended the 1956 Hush-a-Phone Decision to include the interconnection of all types of telephone equipment to the public switched network, provided that the devices were “privately beneficial, but not publicly harmful.” The Hush-a-Phone Decision allowed customers to attach non-AT&T-manufactured acoustic devices to AT&T phones.
