FCC Forum Addressing Combinations of Unbundled Network Elements
June 4, 1998
Alternatives to Collocation
Opening Statement of Robert Falcone of AT&T Corp.

Good Morning. My name is Bob Falcone and I am a Division Manager at AT&T in the Local Services Division. The purpose of this panel as I understand it is to discuss alternatives to the Incumbent LEC collocation proposal for new entrants to recombine unbundled network elements. I open my remarks this morning by stating the obvious. Collocation is not necessary to recombine network elements and no method for recombining elements is as efficient, cost effective or pro-competitive as requiring the ILEC to provide element combinations directly to new entrants as ILECs provide those combinations to themselves.

The ILECs have proposed collocation in one form or another as the exclusive means for CLECs to recombine network elements. During the next panel's discussion on collocation, you will hear about the CLEC community's many concerns with the various collocation schemes proposed by ILECs. All of these schemes, including present practices to implement physical or virtual collocation, the Bell Atlantic "assembly room" concept, the Bell Atlantic virtual collocation proposal using the CON-X robot, and SBC's five varieties of collocation, share the same basic pitfalls for CLECs. They all require extensive and unnecessary manual processes simply to allow customers to change their local service provider. These manual processes are a step backward in the technology timeline for CLECs, they add unnecessary customer outage and delay, and they raise cost and quality concerns for the CLECs and their customers.

I stress the word unnecessary because – even if it is necessary that new entrants themselves recombine elements – it is not necessary that they do it manually. The existing ILEC recent change memory administration system can be modified to permit CLECs to perform the work necessary to recombine elements without the need for extensive manual intervention. Recent change is the process the ILECs use today to combine elements, provide service, and make changes in service for their own customers, and it is also the process they use to allow customers to make tens of millions of changes in long distance service providers each year. Using the same software capabilities, CLECs can combine the functionality of the loop and port elements without all of the customer outage, delay, service degradation, human error, and cost of the various ILEC collocation schemes. The recent change process is simply a much more customer friendly -- and more competitively neutral -- method for recombining the elements than anything that has been offered by the ILECs. In short, recent change is a technically feasible and practicable second best choice for recombination of elements when ILECs insist on disassembling their networks for no technically viable reason, but simply to inconvenience new entrants and customers and stifle the development of competition.

Significantly, no ILEC has argued that the recent change process cannot be used for the purposes AT&T proposes. Instead, they rely on legal arguments or claim that the exact capabilities which ILECs need to utilize this method are not yet built. I will leave the discussion on the legal side to the lawyers. I can report, however, that based on AT&T's analysis of recent change capabilities, the recent change solution could be available in a

relatively short period of time and at a fairly low cost -- especially compared to the high costs of, and delay associated with, collocation. And recent change will eliminate most of the competition-stifling problems that collocation creates.

First, let me explain how recent change works. Recent change processes were developed years ago to provide the operating companies a simple means to update the switch's software. This process is used by the ILECs in their day-to-day operations to separate and combine the loop and port functionality realizing that it makes no engineering sense to physically disconnect wires every time service to a specific location was terminated because, for example, a customer was moving. Practically everyone wants (and gets) local phone service, so it stood to reason that the facilities used to serve those locations wouldn't be idle for long. Thus, the industry uses software systems to enable LECs to disconnect phone lines that are still hardwired in place. Then, when someone new moved into that house or apartment, the telephone company could establish service literally with the "push of a button."

How does this work? As you probably know, telephone switches are just specialized computers. They run on software instructions that control everything that goes on in the network. Recent change is the name used by the industry to describe how the ILEC sends software instructions to the switch to perform a number of functions. Among those functions is the ability to disconnect the functionality of the loop from the functionality of the switch. This is accomplished by a software instruction to the switch that, in effect, terminates the switch's recognition of the loop. By this, I mean that loop functions and

switch functions are now separate, and, absent further recent change instructions, the loop and switch cannot function in combination as they had before. Stated most simply, no dial tone will be provided across the loop and no incoming phone calls will be completed to that loop. This is so, even though the loop transmission facility and switch remain attached. This separation is even more obvious in the case of loops provided over integrated digital loop carrier ("IDLC") systems, where the recent change instruction will entirely terminate any appearance of the individual loop at the switch, even though the transmission facility remains wired to the switch.

ILECs routinely use the recent change capability to disconnect a customer's service. For example, if you call an ILEC service representative to tell her that you want to discontinue service because you're moving next week, does the company send out a technician in a truck to remove the telephone wires that run to your house? No. Do they send a technician over to the main distribution frame in the central office that serves your home and have someone tear wires out? No. They have the customer service agent type a few keystrokes that communicate with the ILEC's provisioning systems that you'll be moving out next Tuesday. Then, on that day, the systems automatically issue a recent change command to discontinue service.

When that happens, are all the wires still in place? Yes. Did anyone touch them? No. But can someone complete a call to your old number, or sneak into your old house and place a call to another end user? No.

Why? Because the ILEC's recent change order disconnected the loop and port serving that location and made calling impossible. The result of this recent change is every bit as effective as if all the wires had been cut.

Creating a way for CLECs to access the ILECs' recent change capability isn't new, either. For years, ILECs have permitted large business customers who use CENTREX services to have remote access to recent change capabilities so those customers could more easily administer the services on the blocks of telephone numbers they are assigned. CENTREX customers are permitted to send recent change messages via an interface which communicates those changes (e.g., line additions or deletions, moves, feature additions or deletions, and code screening features) to the ILEC's switch. The ILEC designates within the interface which lines can be accessed by the CENTREX customers. Some of the more commonly used interfaces include MACSTAR (manufactured by CommTech), CENPAC (American Telecorp), CCRS (Bellcore), and Centrex Mate (Ameritech's self-developed internal system). These interfaces act as a "firewall" that provide the ILECs the network security they require by allowing limited access to the recent change process for the CENTREX users that prevents those users from making any unauthorized changes in the switch.

The existing OSSs used by CENTREX customers could be modified to provide CLECs with the recent change capability they need to combine ILEC elements. Alternatively, a similar interface can be developed that would provide CLECs the ability to perform the

necessary recent changes and at the same time alleviate the ILECs' concerns about network security.

By using remote access to the switch's recent change capabilities, a CLEC can initiate a recent change that connects the loop and switch and restores dialtone to the customer's line. For existing customers who simply want to change their local service provider, the "reconnect" recent change would occur immediately following implementation of the "disconnect" recent change initiated by the ILEC, and would minimize customer downtime.

The following high level process flow briefly describes the steps that will allow the CLECs to use the recent change capability of the switch to combine the elements.

1. The CLEC would initiate a Local Service Request ("LSR") to the ILEC for the unbundled elements.

2. The ILEC would send a FOC (confirming the order) to the CLEC and establish, through the provisioning systems, the customer as a CLEC customer in the recent change firewall interface. The CLEC upon receiving the FOC would generate a "reconnect" recent change message containing the required information which would be held in the buffer of the recent change interface until it receives confirmation that the suspend function is complete.

3. On the due date, the ILEC would initiate a "disconnect" recent change for that customer's line. The recent change interface, having received notification that the disconnect function was complete, would execute the "reconnect" recent change, and thus recombine the functionality of the loop with the functionality of the switch.

It is important to note that neither the recent change process nor the use of system firewalls is new technology. They are both available and readily used in the network on a

daily basis today. However, to allow CLECs to use this process to combine elements some development is required. My understanding is that the cost to accomplish these improvements is estimated at between $500,000 -$3,000,000 per ILEC, depending on the size of the ILEC, and should take approximately 6 months to complete.

In summary, if cooperative parties were asked to collaborate and come up with the best method of allowing CLECs to combine the network elements, collocation would not be their answer. To the extent that ILECs are not required to provide CLECs with combinations of unbundled elements, recent change is the most efficient, cost-effective, pro-consumer, and pro-competitive means of allowing CLECs to combine such elements.