



# CIRF

## **Converging Industries Research Foundation**

*Practical Solutions for Communications Policy*

---

### **Loop Dreams: The Price of Connection for Local Service Competition**

*Executive Summary*

**July 21, 1995**

*Presentation at the July 1995 NARUC Meeting  
San Francisco, CA*

---

# Loop Dreams: The Price of Connection for Local Service Competition

*Executive Summary*

**July 21, 1995**

*Presentation at the July 1995 NARUC Meeting  
San Francisco, CA*

---

## Telecommunications Industries Analysis Project

**Carol Weinhaus**

Telecommunications  
Industries Analysis Project

**Sandra Makeef**

Iowa Utilities Board

**Peter Copeland**

U S West

**Harry Albright**

Ameritech

**Mark Jamison**

Sprint

**John Bosley**

NYNEX

**Terry Monroe**

New York Public Service Commission

**Paul Vasington**

Massachusetts Department of Public  
Utilities

**Dan Harris**

Bell Atlantic

**Sanford Berg**

University of Florida

**Bob Lock**

Illinois Commerce Commission

**Teresa Pitts**

Washington Utilities and Transportation  
Commission

**Glen Sims**

SBC Communications

**Fred Hedemark**

AT&T

**John Monfils**

Anchorage Telephone Utility

**Jim Sichter and Jim Dunbar**

Sprint

**Pete Martin**

BellSouth Telecommunication

**Larry Little**

GTE

**Linda Garbanati**

Bellcore

**Agenia Clark**

NorTel

**Hitoshi Imafuku**

NTT America, Inc.

**Yoko Nishioka**

InfoCom Research, Inc.

**Gordon Calaway**

NECA

---

## Project Information

---

### List of Participants in the Telecommunications Industries Analysis Project

June 27, 1995

State Regulators

NARUC representatives from:  
Illinois Commerce Commission  
Iowa Utilities Board  
Massachusetts Department  
of Public Utilities  
New York Public Service Commission  
Ohio Public Utilities Commission  
Washington Utilities and  
Transportation Commission

Regional Holding Companies

Ameritech  
Bell Atlantic  
BellSouth  
NYNEX  
Pacific Telesis  
SBC Communications Inc.  
US WEST

Independents

Anchorage Telephone Utility  
GTE  
Sprint Local Telecom Division

Interexchange Carriers

AT&T  
Sprint

Foreign Domestic

InfoCom Research, Inc.  
NTT America

Local, National, and  
International Services

BT  
France Telecom North America

Materials Manufacturers

Corning

Telecommunications Equipment Manufacturers

Nortel

Sponsors:

Corporation for Public Broadcasting

Assisting with *public* data:

Bellcore  
Federal Communications Commission  
National Exchange Carrier Association

---

## Project Information, cont.

---

### Background on the Telecommunications Industries Analysis Project

The goal of the Telecommunications Industries Analysis Project is to provide information to support the development of alternative communications policies to meet the needs of stakeholders in an environment that includes competitive and non-competitive markets, federal and state regulatory jurisdictions, and a proliferation of new services made possible by technological advances. The purpose of the project is to produce research and analysis which will assist policy makers in making informed decisions.

The project is a neutral forum of communications industry stakeholders exploring multiple viewpoints of selected issues. This forum incorporates the following elements:

- II **Broad representation:** The current forum includes foreign and domestic local exchange carriers (LECs), interexchange carriers (IXCs), materials and equipment manufacturers, and federal and state regulators. The project actively seeks expansion of this forum to include other communications industry representatives such as competitive access providers, cable television companies, computer companies, electric power utilities, or publishers.
- II **Multiple viewpoints:** Participants are required to play an active role in the research and analysis, to represent their own interests, to understand and to assist in developing others' perspectives, and to work toward the common goal of representing multiple views. Since papers reflect multiple viewpoints and ideas, authors and reviewers may not agree with particular views or approaches expressed in the papers. The objective is to lay out ideas and options to assist policy makers in their decisions.
- II **Analysis and results of alternative policies:** Research tools, including a jointly produced data base and computer software models, and data analysis developed by this forum create a common language for examining issues. The common language allows the participants to focus on underlying issues. Appropriate computer software tools, including modifications to existing tools, are developed.
- II **All data, analysis methods, and results are public:** Data used by this project must be publicly available on a nationwide basis. Research products become public domain information.
- II **Neutral setting:** The project resides in a neutral setting, free of partiality, thereby ensuring objective and independent research.

---

## **Project Information, cont.**

---

### **What the Project has Done**

The project has conducted public workshops at the national meetings of the telecommunications industry regulators. The project's research papers have been the basis for meetings with the Federal Communications Commission (FCC), Congressional staffs, the Congressional Research Service, and the National Telecommunications Information Administration.

The project has also produced a number of papers plus software modeling tools for the analysis of financial impacts of new technology deployment and of changes in the financial structures themselves

---

# Loop Dreams: The Price of Connection for Local Service Comparison

## *Executive Summary*

---

### **Objective**

This paper compares the current price of basic local service with the major cost component of basic service, the loop. The paper seeks to point out areas of current local service cost allocation and pricing policies that will conflict with the introduction of competition into the local service market. This is the first in a series of papers that will address the issues related to the interconnection of competing local exchange carriers (LECs).

### **Why are Loop Costs and Prices Important?**

The introduction of competition into the local service market requires the incumbent LEC to develop charges for connections offered to the competing networks. There are two reasons why proper prices are important for the the loop-defined as the connection between the customer's premise and the central office:

- To ensure that there is no discrimination in the price charged to the competitor
- To ensure that subsidies do not exist that would foster uneconomic competition.

While parties involved can usually agree that access to the loop is essential for the development of local competition, disagreements generally include costs and prices for the loop.

### **Key Questions for Developing Connection Charges among Competing Networks**

The paper sets the stage by discussing the need to unbundle/resale rates. The paper lays out the framework and issues related to the following questions:

- What is the cost of a loop?
- How are loop costs recovered today?
- What is an appropriate loop charge to a competitor?
- Should the loop charges to the competitor be imputed in the incumbent Local Exchange Company's (LEC) local service rates?
- Should there be price distinctions based upon how the service is used or who uses it?

### **Local Service Rates Compared to Loop Costs**

To assist decision makers in answering these questions, this paper uses a variety of definitions for the cost of a local loop: embedded, embedded without overheads, current proxy costs (incremental costs), future costs (for fiber technology), and unbundled rates. **Figure 1** shows that on average the embedded loop costs<sup>1</sup> exceed the flat rate residential local service rate, including the Subscriber Line Charge (SLC).<sup>2</sup> Making the same comparison with the business rates shows that in most cases the business local service rate

---

<sup>1</sup> Costs for local service are understated in the comparison because local service has other cost components. Local service also includes the costs for switching, transport and operator service.

<sup>2</sup> The SLC is included to determine if a customer taking only local service is generating sufficient revenue to recover the revenue requirement of the loop.

---

## **Loop Dreams: The Price of Connection for Local Service Comparison**

### ***Executive Summary, cont.***

---

including the SLC is sufficient to cover average embedded cost. The difference between costs and rates may be much greater due to customer location and the density of customers in an area.

#### **Policy Issues**

The introduction of competition into the local service market conflicts with the following current cost pricing policies:

- Allocation of loop costs to various services.
- Pricing basic local service below cost.
- Recovery of fixed costs on a usage basis.

#### **Results of Current Policies**

##### **▪ Over and Under Recovery of Costs**

The allocation of loop costs to other than basic local service and the resulting pricing will mean that customers that take only local service will not cover the cost of their service. The recovery of fixed loop costs from usage sensitive rates results in over recovery of costs from some customers and under recovery from others.

##### **▪ Markets without Competition**

The current policies are consistent with markets that have no competition since in total a company recovers its costs. In fact, these policies have been used to promote universal service by keeping basic service rates affordable.

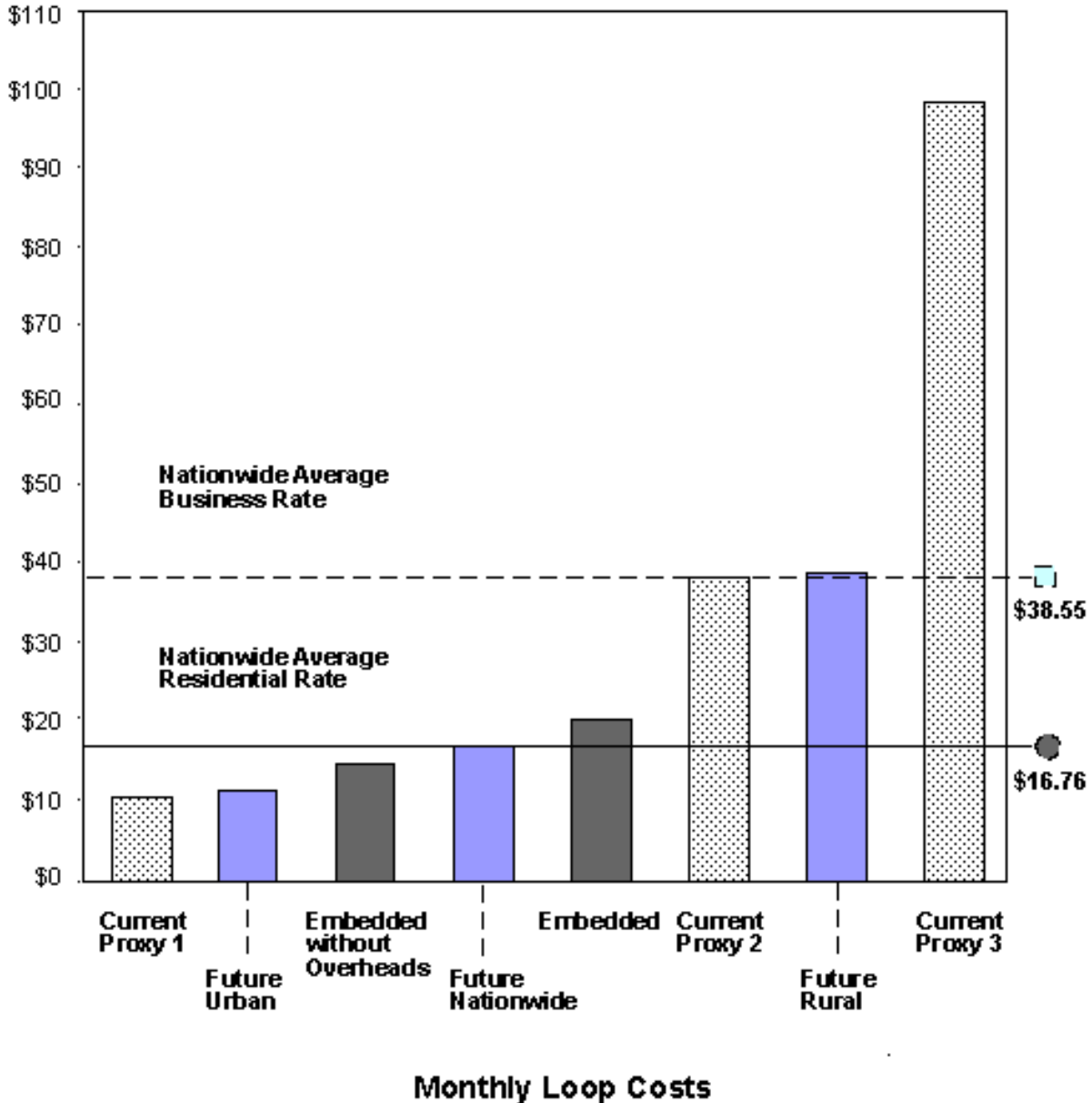
##### **▪ Markets with Competition**

The introduction of competition makes the current policies unworkable. Companies have the incentive to serve only those customers that are profitable. Furthermore, the introduction of competition will necessitate development of an appropriate charge to competitors for the use of the incumbent LEC's loop facilities. In order for viable local competition to develop, regulators and companies must develop effective and workable solutions to these challenges.

# Loop Dreams: The Price of Connection for Local Service Comparison

## Executive Summary, cont.

Figure 1: Comparison of 1993 National Average Residential and Business Rates with Loop Costs



Costs: Embedded costs are from the Federal Communications Commission (FCC), *Monitoring Report*, CC Docket No. 87-339, Prepared by Federal and State Staff for the Federal-State Joint Board in CC Docket No. 80-286, May 1995, Table 3.3.; embedded costs without overheads are from NECA data for the calculation of the 1994 Universal Service Fund based on 1993 data. Other costs are developed in the paper.

Rates: The 1993 nationwide average residential rate is an unlimited service base rate of \$13.21 and subscriber line charges (SLCs) of \$3.55 for a total of \$16.76. The 1993 nationwide average business rate is an unlimited local calling rate of \$34.85 and SLCs of \$3.70 for a total of \$38.55. Jim Lande, *Reference Book: Rates, Price Indexes, and Household Expenditures for Telephone Service*, Federal Communications Commission, Industry Analysis Division,

---

**Loop Dreams: The Price of Connection for  
Local Service Comparison**

***Executive Summary, cont.***

---

Washington, DC, July 1994, Table 2, page 19, and Table 3, page 26.