

*Comments of USTA
August 16, 1996*

A monthly charge is superior to a one-time charge because this will not punish carriers who sign up new customers who may have already paid a one-time charge to their original carrier. Customers who pay a one-time charge may be surprised to be re-assessed such a charge when they switch carriers; it may even disincenent them to change carriers. Thus, a one-time charge would be inconsistent with the principle that customers change carriers based on price and service quality, not the costs of regulatory mandates. Moreover, a one-time charge is likely to be much larger than some customers can afford, and at the very least would engender customer complaints and reduce demand for telecommunications services.

CONCLUSION

USTA recommends that the Commission adopt rules to implement a cost recovery mechanism for local number portability consistent with the legal interpretations and policy proposals described above. We applaud the Commission for its diligent efforts to implement the requirements of the Telecommunications Act, and urge the Commission to be equally diligent in ensuring that local number portability cost recovery is truly competitively neutral, and furthers competition based on the price and quality of telecommunications services, not based on regulatory-created disadvantages.

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Respectfully submitted,

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Appendix A

Independent Telephone Companies Under 2% of the Nation's Access Lines Located With Operations in the Top 100 Metropolitan Statistical Areas (MSAs)

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
Philadelphia, PA (4)	C-Tec Corporation - Chester County Conestoga Tel. Co. - Birdsboro, PA
Detroit, MI (6)	Deerfield Farmers Tel. Co. - Petersburg, MI Century Tel. Co. - Monroe, LA
Houston, TX (7)	Fort Bend Tel. Co. - Rosenberg, TX Lufkin-Conroe Tel. Co. - Lufkin, TX Sugar Land Tel. Co. - Mission Bend, TX
Atlanta, GA (8)	Blue Ridge Tel. Co. - Fayetteville, GA Standard Tel. Co. - Cornelia, GA Frontier - Rochester, NY
Boston, MA (9)	Contoocook Valley Tel. Co. - Contoocook, NH Granite State Tel. Co. - S. Weare, NH Dunbarton Tel. Co. - Dunbarton, NH
Dallas, TX (11)	Lake Dallas Tel. Co. (Century) - Corinth, TX
Minneapolis, MN (12)	Baldwin Telecom - Baldwin, WI Frontier- St. Croix - New Richmond, WI Century Tel./NW Wisconsin - Hammond, WI Spring Valley Tel. Co. - Spring Valley, WI Bridgewater Tel. Co. - Monticello, MN Eckles Tel. Co. - New Prague, MN Lakedale Tel. Co. - Annandale, MN Scott Rice Tel. Co. - Prior Lake, MN Sherburne County Rural Tel. Co. - Big Lake, MN Amery Telcom - Amery, WI

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
St Louis, MO (16)	Egyptian Coop. Assn - St. Libory, IL Grafton Tel. Co. - Grafton, IL Harrisonville Tel. Co. - Waterloo, IL Home Tel. Co./St. Jacob - St. Jacob, IL Madison Tel. Co. - Hamel, IL Bourbeuse Tel. Co. - Sullivan, MO Fidelity Tel. Co. - Sullivan, MO Orchard Farm Tel. Co. - Bel-Mor, MO Steelville Tel. Exchange - Steelville, MO
Phoenix, AZ (17)	Gila River Tel. - Chandler, AZ
Pittsburgh, PA (19)	Bentleyville Tel. Co. - Bentleyville, PA Citizens/Kecksburg - Mammoth, PA Alltel Penna. - Westmoreland County, PA Marianna/Scenery Hill Tel. Co. - Marianna, PA North Pittsburgh Tel. Co. - Gibsonia, PA
Cleveland, OH (20)	Century Tel. Co. - Monroe, LA
Newark, NJ (25)	Warwick Valley Tel. Co. - Warwick, NY
Denver, CO (26)	Bijou Tel. Coop. Assn. - Byers, CO Eastern Slope Rural Tel. Assn.. - Hugo, CO
Portland, OR (27)	Tel. Utilities of Oregon - Wilsonville, OR Canby Tel. Assn. - Canby, OR Cascade Utilities, Inc. - Estacada, OR Molalla Tel. Co. - Molalla, OR
Kansas City, KS (28)	Mokan Dial, Inc. - Louisburg, KS Alma Tel. Co. - Alma, MO Citizens Tel. Co./MO - Corder, MO

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
Cincinnati, OH (30)	Cincinnati Bell, Cincinnati, OH Sunman Tel. Co. - Sunman, IN
San Jose, CA (31)	Evans Tel. Co. - Turlock, CA
Fort Worth, TX (33)	Alltel/TX - Godley, TX
Indianapolis, IN (34)	Clay County Rural Coop. - Cloverdale, IN Hancock Rural Tel. Corp. - Maxwell, IN Comm. Corp. of Indiana - Clayton, IN Home Tel. Co. of Pittsboro - Pittsboro, IN Home Tel. Co. - St. Paul, IN Smithville Tel. Co. - Ellettsville, IN
Milwaukee, WI (35)	North-West Tel. Co. (Pacific Telecom, Inc.) - Delafield, WI
Sacramento, CA (36)	Foresthill Tel. Co. - Foresthill, CA Roseville Tel. Co. - Roseville, CA Citizens Telecom
San Antonio, TX (37)	Guadalupe Valley Tel. Co. - New Braunfels, TX
New Orleans, LA (41)	Lafourche Tel. Co. - Larose, LA Reserve Tel. Co. - Reserve, LA
Charlotte, NC (43)	Concord Tel. Co. - Concord, NC Pineville Tel. Co. - Pineville, NC Fort Mill Tel. Co. - Fort Mill, SC Rock Hill Tel. Co. - Rock Hill, SC Yadkin Valley Tel. Membership Corp. - Yadkinville, NC
Greensboro, NC (48)	Alltel Carolina - Denton, NC Lexington Tel. Co. - Lexington, NC North State Tel. Co. - High Point, NC Randolph Tel. Co. - Liberty, NC Yadkin Valley Tel. Co. - Yadkinville, NC

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
Rochester, NY (49)	Ontario Tel. Co. - Clifton Springs, NY Alltel/NY - Red Jacket - Manchester, NY Ogden Tel. Co. - Spencerport, NY Rochester Tel. Co. - Rochester, NY
Las Vegas, NV (50)	Rio Virgin Tel. Co. - Mesquite, NV Moapa Valley Tel. Co. - Overton, NV
Nashville, TN (51)	North Central Tel. Coop. - Lafayette, TN DeKalb Tel. Co. - Alexandria, TN
Memphis, TN (53)	Century Tel. of N. Mississippi - Olive Branch, TN Hillington Tel. Co. - Bartlett, TN
Oklahoma City, OK (55)	Oklahoma Comm. Systems - Inola, OK McCloud Tel. Co. - Oklahoma City, OK Pioneer Tel. Coop., Inc. - Kingfisher, OK
Grand Rapids, MI (56)	Allendale Tel. Co. - Allendale, MI Drenthe Tel. Co. - Zeeland, MI Century Tel. Co.
Louisville, KY (57)	Alltel of KY - Mt. Washington, KY
Jacksonville, FL (58)	Alltel Florida - Callahan, FL
Raleigh, NC (59)	Mebane Home Tel. Co. - Mebane, NC
Austin, TX (60)	Century Tel. Co. - Monroe, LA San Marcos Tel./Century - San Marcos, TX
Dayton, OH (61)	The Champaign Tel. Co. - Urbana, OH Germantown Indep. - Germantown, OH Alltel Ohio, Inc. - Covington, OH Century Tel. Co. - Monroe, LA

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
Albany, NY (64)	Taconic Tel. Corp. - Chatham, NY Pattersonville Tel. Co.- Rotterdam Junction, NY State Tel. Co. - Coxsackie, NY
Birmingham, AL (66)	Blountsville Tel. Co. - Blountsville, AL Hopper Tel. Co. - Walnut Grove, AL Alltel Alabama - Ashville, AL Oneonta Tel. Co - Oneonta, AL Ragland Tel. Co. - Ragland, AL
Greenville, SC (67)	Alltel S. Carolina - Campobello, SC Chesnee Tel. Co. - Chesnee, SC Yadkin Valley Tel. Membership Corp. - Yadkinville, NC
Fresno, CA (68)	Kerman Tel. Co. - Kerman, CA The Ponderosa Tel. Co. - Oneals, CA
Syracuse, NY (69)	Alltel NY/ Fulton - Brewerton, NY
Tulsa, OK (70)	Bixby Tel. Co. - Bixby, OK Shidler Tel. Co. - Shidler, OK
Tucson, AZ (71)	Tohono O'Odham Utilities - Sells, AZ
Akron, OH (73)	Western Reserve Tel. Co. - Aurora, OH
Omaha, NE (75)	Farmers Mutual Coop - Oakland, IA Walnut Tel. Co. - Walnut, IA
Tacoma, WA (77)	Tel. Utilities of Wash., Inc. - Cheney, WA Mashell Telecom, Inc. - Eatonville, WA
Scranton, PA (78)	Hancock Tel. Co. - Archibald, PA
Knoxville, TN (79)	Concord Tel. Exchange - Farragut, TN Tennessee Tel. Co./Halls Crossroads - Knoxville, TN

Metropolitan Statistical Area (and Rank)	Independent Telephone Company(s)
Gary, IN (80)	Northwestern Indiana Tel. - Hebron, IN
Allentown, PA (82)	Palmerton Tel. Co. - Bowmanstown, PA
Harrisburg, PA (83)	Denver and Ephrata Tel. Co. - Ephrata, PA
Springfield, MA (86)	Granby Tel. and Tel. - Granby, MA
Baton Rouge, LA (87)	East Ascension Tel. Co. - Gonzales, LA
Little Rock, AR (90)	Alltel Arkansas - Greenbrier, AR
Charleston, SC (92)	Home Tel. Co. - Moncks Corner, SC St. Stephen Tel. Co. - St. Stephen, SC
Ann Arbor, MI (95)	Ogden Tel. Co. - Blissfield, MI Deerfield Tel. Co. - Petersburg, MI Shiawassee Tel. Co. - Perry, MI
Mobile, AL (96)	Gulf Tel. Co. - Foley, AL
Wichita, KS (97)	Southern Kansas Tel. - Clearwater, KS Wheat State Tel. - Potwin, KS
Columbia, SC (98)	Pond Branch Tel. Co. - Gilbert, SC

**This Table is not intended to be an exhaustive compilation; rather it reflects information gathered to date from industry sources and from a USTA member survey. USTA will provide the Commission with further information as it becomes available. The USTA member survey is available in the "tech exchange" portion of USTA's World Wide Web site: <http://www.usta.org>.*

Appendix B

Local Number Portability Architecture

The Notice, in Par. 216, states that the number portability costs of facilities shared by all carriers include, *inter alia*, the costs for uploading, downloading, and querying number portability database information. This formulation suggests some confusion about directly querying the SMS database, and how uploads and downloads are accomplished. The facilities shared by all carriers includes the SMS, which receives uploads from carriers, and provides downloads to individual carriers' databases. It is these databases, not the SMS, which receive queries and provide information in response.

Much of the architectural structure that is required for LNP using LRN is based on claims made in the Weber patent.¹ There are architectural parallels between this and 800 service.² In the case of any Weber structure network, a database that is the repository of all of the records that are required to process calls directed to it by the system is an essential element of the network. In the case of 800 service, query requests are processed at multiple mated pair databases, termed service control points (SCPs). The records, however, are originated and developed in a different database, termed a service management system (SMS). Each one of the SCP pairs is loaded with records from the SMS on a periodic (usually daily) process referred to as "downloading". In the case of 800 service, the SMS is national in scope, and is loaded with routing information by responsible organizations (RespOrgs).

In the LRN structure, the number of records and transactions required is anticipated to be so large that a single national database would be impractical. We therefore anticipate that multiple SMSs will be implemented dependent on balancing of local regulatory and business conditions. Unlike the 800 SMS, however, the LRN SMS must be loaded by individual telecommunications service providers in order to develop a record for each customer that has ported his number from one service provider to another.

¹ AT&T US Patent No. 4,191,860 "Data Base Communication Call Processing Method" commonly referred to as "the Weber patent", granted Mar. 4, 1980. While the Weber patent may have expired by the time LNP is deployed, the fundamental electrical principles continue to be manifested in network designs, including LNP. These principles apply during which a network element recognizes that additional instructions are required. Call processing is then suspended for a brief period during which a query for routing instructions is formulated and transmitted across a packet based signaling network to a database, which then responds with a message to the originating source. The call is then routed in accordance with the instructions received. LRN adds significant functionality to the Weber patent structure, but is dependent on the Weber structure as its basis. Many of the issues involved in the Weber patent were explored on the record in the proceedings of CC Docket 86-10.

² We must emphasize that the technology on which LNP/LRN is based is much more advanced than that used for 800 Database service. These comparisons are useful only because there is significant familiarity with the structure and functions of 800 service.

The SMS is the repository of multiple customer routing instructions; in current implementations, the SMS cannot also be expected to respond to "live" network queries for routing instructions. In order to accomplish that, (and consistent with the 800 structure), the records are downloaded periodically to subtending SCPs. It is these databases that receive and respond to real time requests for call processing instructions. A query-response sequence from the SCP is often referred to as a "database dip." Each carrier that requires access to call processing instructions will be faced with a "make or buy" decision in regard to dips. The choice will be to build and operate its own SCPs or to buy "dips" from another source. For these reasons, the costs for downloads must be explicitly established. USTA expects that, as in the case of 800 service, the download costs will be related to the number of records involved, and the technology involved in the process.³

The cost of dips can be expected to vary considerably depending on the conditions attendant to deployment, operation and the amount of traffic on the individual SCPs. For these reasons, variations between the price of dips in different locations must be recognized as a normal aspect of operations. It is possible that separate entities not involved in either the SMS operation or call processing might determine to make a business out of operating SCPs. The structure should be sufficiently "open" to permit any or all of these scenarios.⁴

When a customer moves to a new service provider, either the "donor" or the "recipient" carrier must advise the SMS that the customer is no longer served from the switch originally assigned the terminal number in that switch's NPA/NXX combination. In addition, the "recipient" office must provide input to the SMS to provide information as to the customer's new location so that calls dialed with the previously assigned number can be correctly routed to the new serving switch. It would be efficient for these two steps to be performed by the "recipient" carrier. The SMS must also conduct a check to ensure that the two messages are consistent in order to accept the routing instructions.⁵

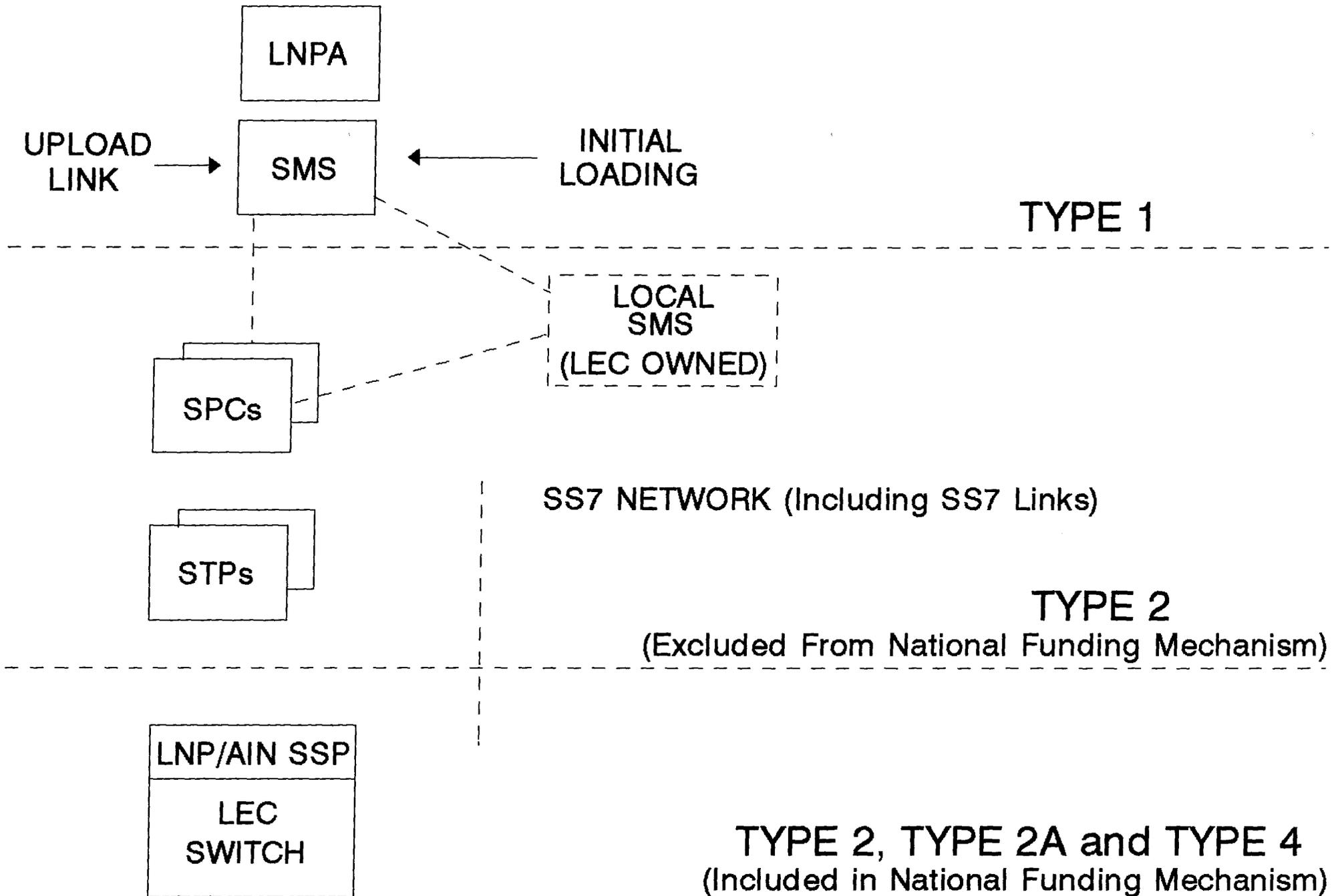
This description was prepared, with the assistance of counsel, by Paul Hart, Vice President, Technical Disciplines, USTA.

³ It is possible that an SCP operator might not want to receive all of the records in a given SMS, but only that portion of them required. Also, downloading on a broadband, high speed basis would be less expensive on a per record basis than for slower means. This structure also reflects similar sensitivities to these variables as does the 800 structure.

⁴ It is possible that in future systems, it might become practical to combine the SMS and SCP functions on a single platform. However, the functions must continue to be separable, because only the SMS operator could actually operate such a combination. In order to preserve the option for other participants to exercise business judgment in deciding whether to make or buy their dips, the functions must be identified separately in both business and electrical terms.

⁵ This is necessary to ensure that cutovers are accomplished at both locations at the same time and to prevent errors that could result in "porting" a new NPA/NXX when it might not be necessary. There are additional functions that are dependent on downloading from the SMS of information as to which NPA/NXXs are ported that are described supra.

APPENDIX C



CERTIFICATE OF SERVICE

I, Carl McFadgion, do certify that on August 16, 1996 copies of the foregoing Comments of the United States Telephone Association were either hand-delivered, or deposited in the U.S. Mail, first-class, postage prepaid to the persons on the attached service list.


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