incompatible with competition, because: 1) competitors with no carrier-of-last-resort obligations and price averaging requirements can exploit the prices of those who bear these obligations; and 2) states will no longer be able to use the franchise regulation as a tool to ensure a fair return on the investments of telecommunications service providers. Hence, competition requires the use of different tools to achieve public policy objectives.

Although the telecommunications industry is moving toward a more competitive environment, regulation remains a powerful force in this industry, as is evidenced by the fact that these issues are before the FCC and state regulatory commissions throughout the nation. In this transition period, regulatory uncertainty can provide a large impediment to efficient investment.

C. Universal Service and Distributional Equity Goals

Historically, there have been two distributional equity objectives in telephone regulation. The first equity objective is "universal service." To reach this objective, it is necessary that basic telecommunications service is affordable for all households that desire service. To achieve this objective in a regulated environment, regulators maintained the prices of residential services at low, geographically averaged levels that nearly everyone could afford and made lifeline support available for the remaining households. In many instances the price of residential service did not cover the full economic cost of providing this service.

There is nothing exceptional about subsidizing the price of goods or services to make them more affordable.[9] Typically, however, policy-makers fund social equity objectives with taxes and distribute the money directly. In the telephone industry, universal service is funded largely through internal cross-subsidies and distributed with investments and other costs in rural areas. With increasing technological alternatives to the incumbents' landline networks and the onset of competition, entrants can offer customers who are providing the subsidies a means of avoiding this "tax."

The second equity objective is to provide the opportunity for investors to earn a fair return for the use of their capital and the risk of investing in network infrastructure. Fair treatment of investors is based on a constitutional principle (the Fifth Amendment protection of property from taking without just compensation), and it is also good public policy. By creating a social contract between the shareholders of a telephone company and citizens of a state, future investment is encouraged. The typical social contract requires the provider to promise to serve all customers in a given geographic area even if it is not profitable (a carrier-of-last-resort obligation closely tied to universal service goals). In return the shareholders receive a commitment that the state will provide them the fair opportunity to recover their invested capital. This quid-pro-quo provided a powerful economic incentive for private capital investment that

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[9] On a Federal level, there has been some public funding of the public telephone network (e.g., loans at subsidized interest rates to rural telephone cooperatives), but that accounted for only a small share of the total cost of constructing and operating the telephone network.

built the most extensive telephone network in the world. Without a "tax" to provide an explicit subsidy for funding universal service, the loss of the implicit subsidies will remove funds necessary to continue high levels of investment in the infrastructure in rural areas.

D. Competition, Regulation and Public Policy Goals

The Telecommunications Act of 1996 and rapid technological advances are replacing regulation with competition as the primary tool for achieving the public policy goals of: 1) ensuring that telecommunications services are produced and consumed efficiently; and 2) promoting investment and innovation. Thus, regulators on both the federal and state levels need to implement policies that provide efficient, cost-based pricing signals for local exchange and access services to allow market forces to enhance economic efficiency. If basic local and access service prices are set based on costs, competitors will make *technically efficient* investments because the incentives that they receive through market signals (prices) will be based upon cost and demand. As subsidies from usage sensitive services are removed and prices better reflect costs, customers will consume a mix of services which better satisfies their preferences, promoting *allocative efficiency*. Competition will act as a catalyst to promote investment and innovation because market prices will signal to new entrants where profitable investment opportunities exist. Finally, given appropriate universal service support, ILECs and other carriers-of-last-resort will have the wherewithal to serve high-cost customers and promote *equity objectives*.

Maintaining universal service in a competitive environment will require careful reform of existing policies. In setting new universal service policies, there are a number of guiding principles regulators should use.

- Prices for basic residential service should be kept affordable for all customers with specific, explicit subsidies targeted to low income and high cost rural customers.
- Service providers should receive enough support to cover the costs of providing high quality and reliable service to all customers.
- The universal service funding scheme should be competitively neutral; no telecommunications providers should be unfairly disadvantaged by its design.
- Finally, the system should be stable and transparent, meaning the funding is derived from clearly defined and predictable mechanisms, so that carriers can develop business plans and make investment decisions based on a known set of universal service rules.

IV. LOCAL EXCHANGE SERVICES HAVE DRAMATICALLY INCREASED IN VALUE

When considering fundamental changes in the way local telephone and access services are priced, it is important to assess the affordability and value of these services to consumers. As shown in Figure 1, real prices for local telephone service for consumers in the United States have

decreased over the last two decades. Between 1988 and 1997, after adjusting for inflation, the price of telephone service decreased by 15 percent. To the extent that residential service was affordable in the late 1980s, it is even more affordable today relative to other household purchases. During the same time period, the value of local telecommunications services to customers has increased because the quality, reliability and capabilities of the local telephone network have increased dramatically. The local telephone network is a citizen's gateway to numerous complementary services: Internet, FAX, data transmission, toll-free numbers, information services, wireless customers and long distance toll services.

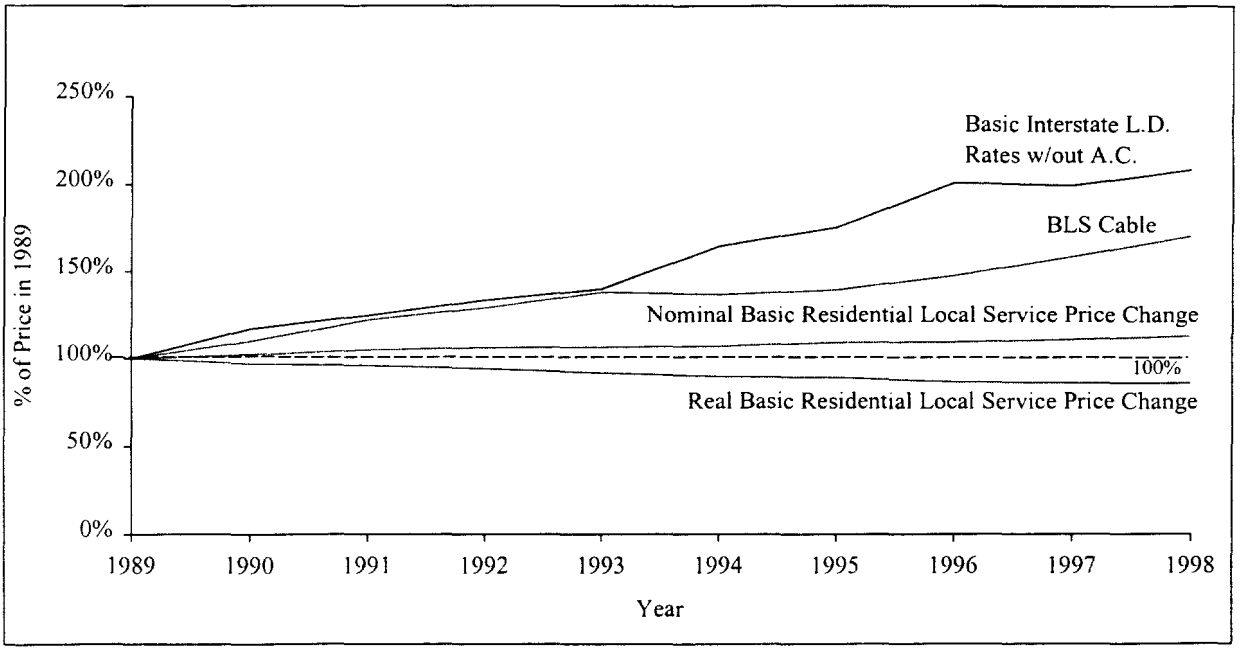
A. Basic Residential Local Exchange Prices

Nominal prices for basic local exchange service have remained stable over time, in part because many prices have been held below cost and cross-subsidized by other services. As shown in Figure 1, since 1987 nominal prices for local exchange service increased more slowly than the nominal prices of basic cable service or basic long distance service net of access charges.[10] In fact, real prices for local exchange service, as calculated by the Bureau of Labor Statistics, have decreased by 15 percent. This negative growth rate has positive implications for the affordability of local telephone service, even if there is an increase in the subscriber line charge, as proposed in the CALLS plan.

[10] Figure 1 shows changes in the basic rates paid by customers who do not select discount plans from their long distance carriers. To the extent that changes in discounted prices are out of sync with changes in non-discounted prices, the interstate price curve is only an approximation of the changes in prices actually paid by consumers.

Figure 1.

Nominal Price Indices for Basic Local, Long Distance (w/out access charges) and Cable TV Services



Source: CPI Cable and Local Telephone Indices from Bureau of Labor Statistics web site
. Basic Long-distance prices from FCC March 1997 Long Distance Rate Book

B. Technological Advances and Increased Value to Consumers

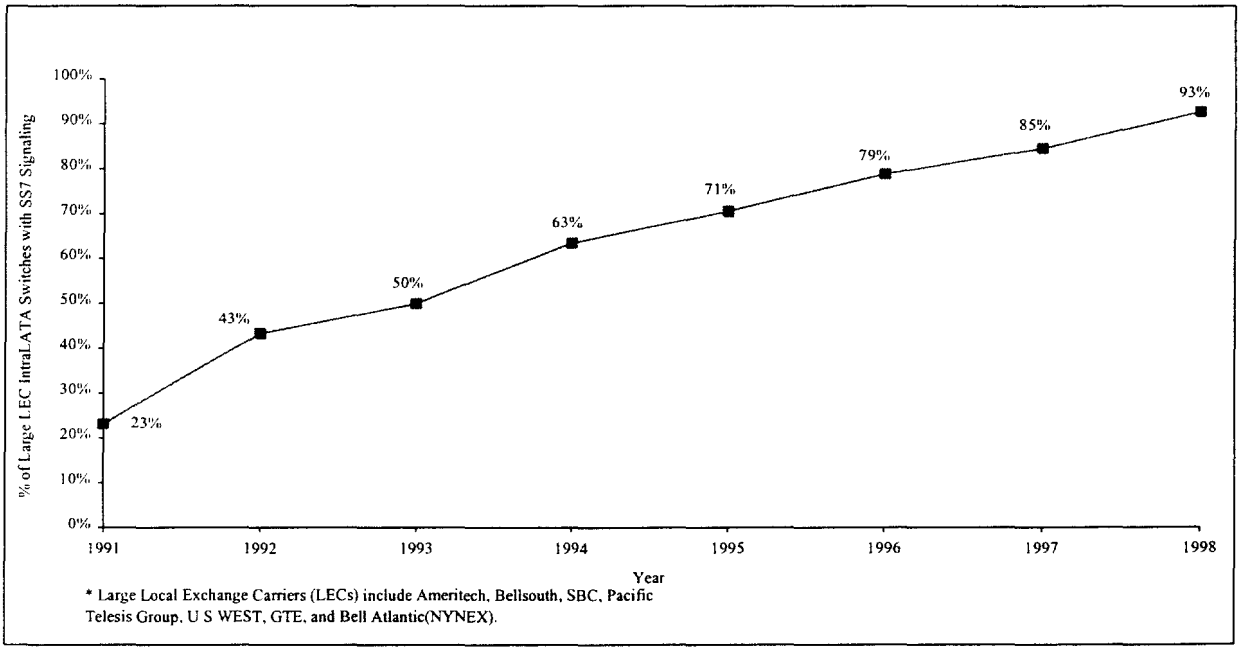
Over the last ten-plus years, a number of new technologies have been integrated into the local exchange network and these technologies have improved the underlying quality, reliability, cost-effectiveness, and functionality of access to the network. These improvements include the deployment of fiber optic transmission facilities, particularly in interoffice transport plant and to a lesser degree in the local loop, improving reliability and functionality and leading to lower costs. Local exchange carriers have also installed digital switches with touch-tone, and advanced signaling capabilities. Digital switches not only improve the quality and reliability of basic services, they also allow telephone companies to offer a wider range of services, such as caller ID, call waiting, call ring back, voice mail and others. And touch-tone services, formerly considered an advanced functionality but now a near ubiquitous basic service, have allowed a wide range of companies - from banks and other financial intermediaries, pharmacies, catalogue retailers and many others - to offer their services electronically via the telephone.

One key advance in local exchange technology within the last 10 years is the pervasive deployment of Signaling System 7 (SS7) technology. In the switch, SS7 provides a protocol for networks and interoffice switches to communicate with each other, speeding call processing and

allowing increases in functionality such as fraud detection, 800 number portability and the deployment of new complementary services.[11] Figure 2 shows that SS7 was rapidly deployed in six large incumbent LEC's networks during the 1990s.

Figure 2

Percent of Total IntraLATA Switches Equipped with SS7 Signaling



Source: "Infrastructure Report 43-07: Switching Equipment," ARMIS Data Retrieval System Federal Communications Commission.

[11] *Infrastructure of the Local Operating Companies Aggregated to the Holding Company Level, 1991-95.* Report released March 1997, Federal Communications Commission. (http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/infra.html).

C. Enhanced Complementary Goods and Services

In recent years there has been an explosion in the number, type, and usage of services which are complementary to local telephone service. Over the same time period, prices for these services fell dramatically. This is important because, when two goods are complementary, their joint consumption increases the value of the services to consumers. As new complements to local telephone service become available (or the price of existing complements decreases) consumers are willing to buy new local telephone services and increase the intensity of their use of existing services. For example, in its report, *Digital Tornado*, the FCC cites studies by AT&T, Bellcore, Bell Atlantic, U S WEST and Pacific Bell, that indicate that, while an average voice call lasts 3-5 minutes, Internet users tend to stay on line substantially longer than voice users with estimated hold times of 17-21 minutes.[12] This section provides a brief description of several services that are complementary to basic local service.

a) InterLATA and IntraLATA Long Distance Services

One of the important complementary services to local telephony is long distance service, including switched access, interLATA, and intraLATA toll services. From 1980 to 1997, the portion of all minutes that are long distance minutes grew from 16 percent to 26 percent.[13]

b) Toll Free Calling and Premium Information Services

Another class of services that are complementary to basic local telephone service are the toll free calling (800, 888, 877) services, premium information services (900, 976), and information services. These services are offered by a large number of businesses and government agencies to provide customer support, information, and entertainment services via the telephone.[14] A recent survey estimated that 89 percent of consumers used toll free telephone numbers for customer service needs, making reservations, and ordering or requesting information on products or services.[15] Other common applications include making financial transactions, collect calling, and paying bills. The revenues generated by the toll-free and premium information services market provide an indication of the enormous value generated by these

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[12] Werbach, Kevin "Digital Tornado: The Internet and Telecommunications Policy" OPP Working Paper Series No. 29, March 1997, pp. 58-59 Office of Plans and Policy, 1919 M Street NW, Washington, DC 20554 http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp29.pdf

[13] "Trends in Telephone Service," FCC Common Carrier Bureau, February 1999, p.12-3.

[14] For example the Federal government offers Medicare referral, Social Security information, veterans affairs, student aid, food and auto safety hotlines, housing and employment discrimination hotlines, postal services, information and reservations for national parks and many other services over toll free numbers.

[15] Staff report (August 17, 1998), *Marketing News*, Marketing Alliances section, p. 2.

services. In 1997 alone, interLATA toll-free revenues were over $11 billion, intraLATA toll-free revenues were $290 million, and 900/976 revenues were approximately $1.5 billion.[16]

The growth in the use of toll-free numbers also indicates that consumers value toll free services. The original 800 numbers were depleted in 1996 after nearly 20 years. Given the increased popularity of toll free calling, it took only two years to deplete almost all of the 888 numbers. As of November, 1998, 99+ percent of the total available 800 numbers and 74 percent of the total 888 numbers were in use.[17]

c) Computing, Data Communications, and Applications

Home PC use, Internet access and fax use have experienced dramatic growth in recent years. An increasing number of households now have personal computers with modems and use them to access Internet and online services for telecommuting, education, information, transactions, and entertainment. A large and growing number of households are using the local network to access the Internet. The majority of customers that dial-up for Internet access from home, however, continue to pay the local network provider the same low prices for their basic local service.[18] A recent publication by the FCC cites from a survey that "nearly 80 million Americans are online today, with a total of 100 million Americans expected online by the end of the year 2000."[19] The FCC goes on to observe that,

> "The average cost of basic telephone service is between 13 and 29 dollars per month...Internet service providers offer unlimited dial-up Internet access (no hourly fees) over that inexpensive phone line...Internet service providers themselves utilize this same phone network to offer an amazing array of Internet services to customers, and the

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16 Frost and Sullivan, see DM News, "Increased Competition Equals Growth for Toll Free Market," July 6, 1998.

17 Britt, Phil, "Toll-free help is on the way, But 888 numbers must last a little longer," Telephony Marketing & Services, November 17, 1997.

18 The number of subscribers accessing the Internet with non-dial-up technologies are dwarfed by dial-up subscribers. Jupiter Communications estimates that as of year end 1999 there will be 32 million dial-up households, 1.2 million cable modem households, 0.4 million DSL households, 0.2 million Internet satellite households and 0.5 million ISDN households. See Jupiter Communications, *Consumer Broadband – Last Mile Strategies*, January 1, 1999 (nexius).

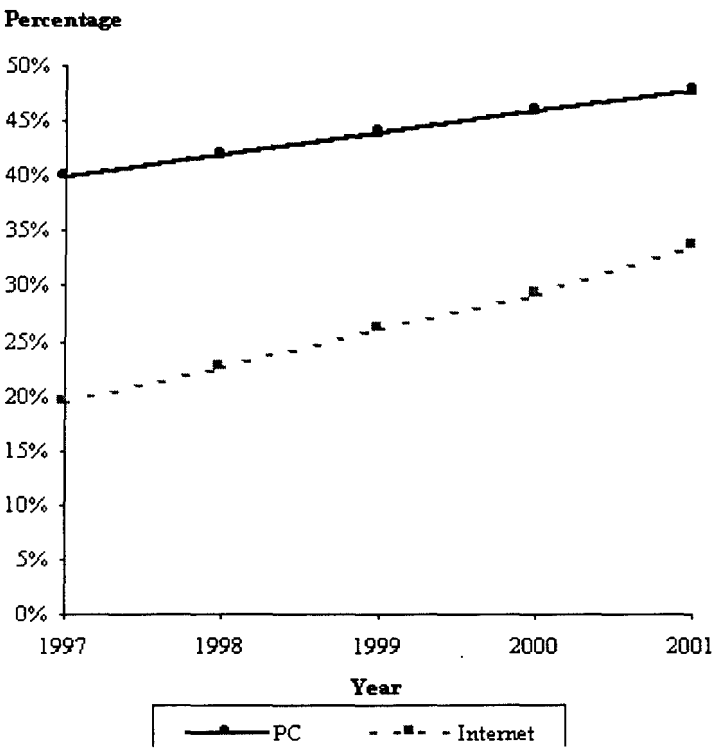
19 Oxman, Jason, The FCC and the Unregulation of the Internet, Office of Plans and Policy, Federal Communications Commission, OPP Working Paper no. 31, July 1999, p. 4. The FCC is citing a survey by Intelliquest, cited at Nua Internet Surveys, http://www.nua.ie/surveys/how-many_online/n_america.html.

affordable use of the telephone network has allowed these providers to offer inexpensive access to the Internet to virtually all Americans."[20]

Figure 3 shows current and projected penetration rates for home PCs and Internet access in the United States.

Figure 3

Projected Penetration of PCs and Internet Services in US Households



Source: "ADSL Coalition UAWG Unveiled; List of UAWG Promoters: Cable Modem 1997-2006," in Cable TV Technology (CTT), February 28, 1998, Paul Kagan Associates, Inc.

Although penetration rates for home PCs and Internet access vary greatly based on demographic factors such as income, education level, ethnicity and geography, there is a growing penetration even among traditionally under-served groups. The National Telecommunications and Information Agency released a report entitled *Falling Through the Net II* which analyzed

[20] Oxman, Jason, The FCC and the Unregulation of the Internet, Office of Plans and Policy, Federal Communications Commission, OPP Working Paper no. 31, July 1999, p. 5.

telephone, computer, and Internet penetration across a range of demographic factors. The NTIA report shows that there has been substantial growth in household computer penetration across different ethnic groups.[21] Furthermore, the study shows that even lower income households have achieved significant computer penetration rates.[22]

The home fax machine is another complementary communications device that is increasing the value of local telephone subscription. Fax prices have declined dramatically, spurring their penetration in recent years. An estimated 4.6 million fax machines were used in homes and home offices in 1997, and fax machine sales in this market were expected grow by almost 15 percent annually through the year 2000.[23] Assuming that there are few households with multiple fax machines, this means that approximately 1 household in 20 uses a fax machine.[24]

The array of complementary services is growing apace, as are the penetrations of current complementary services. In sum, the use of these services increases the value of access to telecommunications networks.

V. CALLS PLAN FOR ACCESS CHARGE REFORM

The sections above describe the environment facing regulators and providers of telecommunications services as they consider the steps required to promote continued

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[21] While the ownership of PCs has grown significantly for minority groups since 1994, white households are still more than twice as likely (40.8%) to own a computer than African-American (19.3%) or Hispanic (19.4%) households. Rates for on-line access are nearly three times as high for Whites (21.2%) as for African-Americans (7.7%) or Hispanics (8.7%). "Falling Through the Net II: New Data on the Digital Divide", NTIA report, 1998, report, http://www.ntia.doc.gov/ntiahome/net2/falling.html and charts http://www.ntia.doc.gov/ntiahome/net2/charts.html.

[22] Overall, the percent of US households with PCs and on-line access increased to 37% and 26%, respectively, as of 1997. Even in households with an annual income between $15,000-19,999, 17% had PCs and 7% had on-line access. "Falling Through the Net II: New Data on the Digital Divide", NTIA report, 1998, report, http://www.ntia.doc.gov/ntiahome/net2/falling.html, and charts http://www.ntia.doc.gov/ntiahome/net2/charts.html.

[23] Faulkner Information Services, "Choosing a Fax Solution," April 1, 1998.

[24] There were 99.7 million U.S. Households in 1997. *Source:* "ADSL Coalition UAWG Unveiled; List of UAWG Promoters: Cable Modem 1997-2006" in *Cable TV Technology* (CTT), February 28, 1998, Paul Kagan Associates, Inc.

infrastructure investments and universal service. In this section I summarize my comments on the current environment and describe how the CALLS proposal is a step in the correct direction.

A. General Comments

The current environment in telecommunications, as it relates to access charges and universal service support, is not conducive to the development of efficient competition, the continued ability of firms to support universal service, or the maintenance of a world class infrastructure that extends to urban and rural customers.

Affordable access to telecommunications networks in rural areas is supported by a pervasive legacy of implicit subsidies, including above cost access prices. In many geographic areas, access prices are well above costs, prices for basic business service are considerably higher than prices for similarly situated residential customers, and prices for urban customers include subsidies for rural customers. Entrants into telecommunications markets and incumbents know that these prices are not sustainable. These prices do not provide the proper signals for entrants to use in their long term business plans, and with increasing local exchange competition, they do not provide the proper wherewithal or incentives for continued investment by incumbents. Moreover, the uncertainty about interstate access prices and the form of future interstate universal service support hampers the development of competition.

On the positive side, the current infrastructure is healthy, telecommunications service is available and affordable to virtually all households, the value that business and residential customers receive from access to telecommunications networks is increasing, and the real price of this service has declined steadily for years. Even without factoring in the remarkable and almost ubiquitous increases in the value of access to telecommunications networks, basic local service has become steadily less expensive relative to the overall price index and the price of other household communications services, such as cable television. Factoring in the increased value of basic telecommunications service, it is clear that there is room for removing some of the need for subsidies targeted at residential service by increasing the overall price of residential service. From a total bill perspective, this is especially true. For many customers across all income groups, increases in monthly subscriber line charges will be offset by decreases in long distance prices.

The needs of maintaining support for universal service and continuing to upgrade rural networks add considerably to the complexity of the transition from regulation to competition in telecommunications. Each year, local exchange carriers invest billions of dollars to upgrade and extend their networks.[25] These investments have increased network quality and reliability with the widespread installation of digital switches, touch-tone and Signaling System 7 (SS7)

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[25] According the Statistics of Communications Common Carriers published by the FCC, the combined capital spending on landline telecommunications networks by incumbent local exchange carriers is in excess of $20 billion per year.

capabilities, and extensive placement of fiber between local switches. In addition to greater quality and reliability, these investments helped create new services, such as call waiting and caller identification, and they fostered the growth of complementary services, such as touch-tone access to a vast array of information services, from government agencies to pharmacies. Network advances are now bringing high-speed data transport services, such as integrated services digital network (ISDN) and asymmetric digital subscriber line (ADSL), to residential consumers. Going forward, a strong telecommunications infrastructure will depend on continued investments of billions of dollars per year. To keep these investments on track and ensure that rural networks are not left behind, it is necessary to bring expected revenues in line with costs and provide explicit universal service support. The CALLS plan takes us in the right direction.

In this section I discuss how the CALLS plan furthers the development of efficient and beneficial competition by addressing legacy conditions that are contrary to economic efficiency and providing conditions that support social policy goals incorporated in the overarching goal of universally affordable access to telecommunications networks. For economic efficiency, the goal is to move to cost-based, market driven prices. The CALLS plan will bring access prices more in line with costs, shift some of the support for universal service onto higher residential subscriber line charges, allow for deaveraging of subscriber line charges, make remaining support more explicit, and reduce regulatory uncertainty.

As stated earlier, there are a number of guiding principles for assessing a plan for maintaining universal service support. Prices for basic residential service should be kept affordable with explicit subsidies targeted to low income and high cost rural customers; service providers should receive enough support to cover the costs of providing high quality and reliable service; the funding scheme should be competitively neutral; and funding should be derived from clearly defined and predictable mechanisms so that carriers can develop business plans and make investment decisions based on a known set of universal service rules. The CALLS plan measures well against these principles.

B. Brief Summary of the CALLS Proposal

Important aspects of the CALLS plan for access charge reform and universal service funding are as follows:

1. **Reduction of Implicit Subsidies**

   a) move switched access prices toward costs with a phased-in reduction of access prices;

   b) reduce the magnitude of the universal service funding requirement by phasing in higher subscriber line charges (SLCs) for residential customers;

   c) reduce the subsidy from business customers to residential customers by reducing the differences among subscriber line charges (SLCs) to residential, small business, and multi-line business customers;

d) simplify charges by combining the presubscribed interexchange carrier (PICC), carrier common line (CCL), and subscriber line charges into one subscriber line charge (SLC);

e) allow for geographic deaveraging of SLCs;

2. **Explicit Support and Affordability**

a) replace implicit subsidies with an explicit federal universal service support of $650 million per year;

b) maintain affordability of basic telephone service by increasing the amount of lifeline support;

3. **Reduction of Regulatory Uncertainty**

a) provide incentives for competitive entry in rural areas by making the universal support funding available to entrants that adopt the obligations to serve; and

b) reduce regulatory uncertainty by freezing rates for at least five years after reaching a target price per minute.

C. Discussion of the Provisions of the CALLS Plan

1. Reduction of Implicit Subsidies and Increased Economic Efficiency

The first set of provisions of the CALLS plan listed above call for a reduction of implicit subsidies. Access charges would be reduced toward cost, and to the extent that these reductions are passed through to lower long distance prices, long distance prices paid by all consumers will decline.[26] Moving toward more cost based prices will send the proper signals to consumers and producers and increase allocation, technical, and dynamic efficiency. Lower priced long distance service will decrease the long distance bill for most consumers even as it increases long distance usage. It is also expected that lower switched access prices will curtail inefficient investments that would otherwise be devoted to bypassing switched access with special access. There will be less cream skimming when there is less cream to skim.

Increasing the SLC on residential services will move the overall price of providing residential service closer to cost. This will reduce the size of the universal service fund required to serve rural residential customers, where the cost of providing basic service is often above the price. In many jurisdictions, below cost pricing of basic residential service is not restricted to the most rural areas. Recall that, overall, real prices of basic residential service have been dropping for several years. I will discuss the impact of the increased SLC on residential customers in relation to the affordability of service in the following section.

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[26] In letters filed with the FCC on February 25, 2000, both AT&T and Sprint made commitments to pass through access reductions from the CALLS plan in the form of lower long distance prices. They also agreed to eliminate minimum monthly charges from their basic schedule services.

The plan will also reduce or eliminate the differences among SLC charges to residential, small business, and multi-line business customers. Coupled with the ability to geographically deaverage SLCs, these provisions will reduce the subsidy from business customers to residential customers and from multi-line business customers to residential and single-line business customers. Bringing residential revenues into better alignment with costs will also provide greater incentives for all competitors to serve residential customers.

Overall, these provisions in the CALLS plan will reduce the size of the support required for universal service and lead to prices that are less encumbered with subsidies. To the extent that subsidies are removed from prices and prices more accurately reflect costs, entrants and incumbents will receive more accurate price signals as the basis for their investment decisions. This is an important step in the process to ensure efficient investment in the telecommunications infrastructure, which is the greatest benefit of the CALLS proposal to consumers.

2. Explicit Support and Affordability

Increasing the subscriber line charge will not remove the need to provide universal service funding. There are many areas in this country where the cost of providing basic service will continue to exceed the monthly charges. In these areas, it remains important to have a high cost fund. To this end, the plan will allot $650 million annually to high cost service areas to help offset the loss of implicit subsidies included in today's switched access prices.[27] This amount will be collected as a percent of retail interstate and international retail revenues. The main advantage of this method of universal service support is the fact that it will be explicit and predictable.

Taking this downward trend of the average real price of local residential service into consideration, even for customers who do not make long distance calls, the average increase in the SLC over the next four years will <u>not</u> make basic local service unaffordable. Today, a single-line residential customer pays a SLC of $3.50 per month to their local exchange company. In addition, most single-line residential customers pay their long distance company approximately $1.50 for a pass through of the presubscribed interexchange carrier charge, with an increase in this charge of 50 cents scheduled for July 1, 2000.[28] The sum of these two charges is approximately $5.00 today and will increase to approximately $5.50 in July. Under the CALLS plan, these two charges will be replaced on July 1, 2000 by a SLC of $4.35. A single-line residential customer, therefore, will pay a monthly charge that is $1.15 lower than the sum of the two charges that they will pay otherwise.

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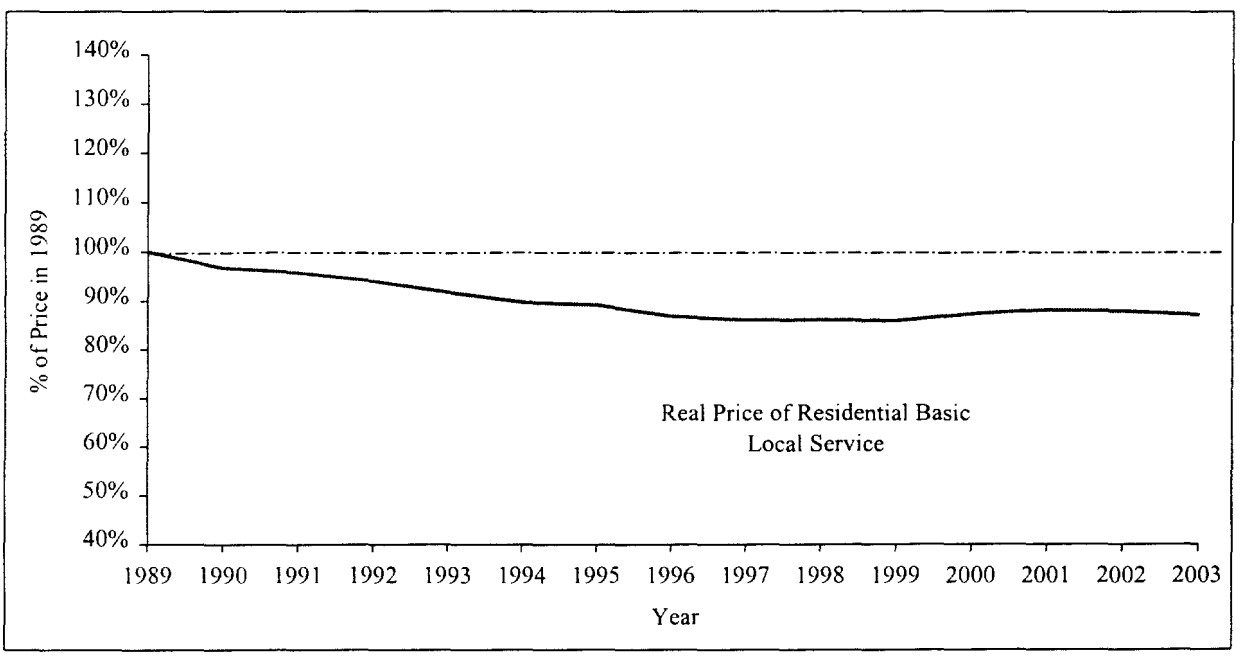
[27] In a number of states it will be necessary to augment this federal universal service funding with state level funding.

[28] For the three largest long distance carriers, the PICC pass through charge is currently $1.51, with an increase of 50 cents scheduled for July 1, 2000.

Even in later years, when the proposed increases in the SLC cap are completed, the effect on the monthly price will be small. For residential customers the cap on the subscriber line charge will reach a maximum of $6.50 per line by July 1, 2003. It is my understanding that the average residential SLC at that time will be approximately $5.80, or 30 cents higher than the sum of the SLC and PICC amounts that will otherwise be in effect on July 1, 2000. This small increase will do no more than bring the average real price of basic local residential service slightly closer to its level of ten years ago. Recall that the real price of basic residential local service has declined steadily over the past decade. The expected impact of the CALLS plan on the real price of basic residential service through 2003 is depicted in Figure 4.

Figure 4

Real Price Index for Basic Local Residential Service Including Proposed Increase in SLC Charges



When all local and long distance telecommunications charges are considered, the CALLS proposal is expected to reduce the bills for most consumers. The long distance members of the CALLS coalition have committed to eliminate the monthly minimum charges now imposed on customers who make few calls. Customers who do make long distance calls will benefit directly from price reductions associated with lower access charges. For low income customers, increases in lifeline support will completely offset the increase in the SLC. For these customers, the elimination of the PICC will represent a savings relative to today's charges.

Factoring in the increased value of basic telecommunications service to a wide range of consumers and the decrease in the real price of this service, it is apparent that there is room to

lower the amount of money needed to subsidize residential service by increasing the subscriber line charge. Given the labor intensive cost structure used to provide residential access to the network, it may be the case that the charges to more and more residential customers are not covering the cost of service. If this is true, or if competitors and incumbents perceive this to be true, it can have a chilling effect on investments in residential neighborhoods. The reverse is true for the effect of raising the flat-rate charges per month. With prices for residential service that cover the cost of service, incumbents have greater incentives and abilities to maintain investments in high quality service and the deployment of innovative and advanced services, and entrants have greater incentives to enter into competition for residential customers. Portable subsidies and geographically deaveraged subscriber line charges may well hasten the development of lower cost, high quality wireless alternatives for serving rural customers.

When all of the changes in the CALLS plan are considered, the net effect will be a reduction in the monthly bills for most customers. From the perspective of the affordability of local service, there is no reason to forgo the benefits that the CALLS plan will deliver in terms of improved efficiency and market performance.

3. Reduction of Regulatory Uncertainty

In the transition from a regulated to a competitive industry, decisions by regulators can dramatically affect the outcome of an investment. Because the actual outcome may favor one group of competitors over another, the overall impact of uncertainty is likely to depress investment. Whether an incumbent or entrant is using a sophisticated business plan or intuition to assess the viability of an investment, uncertainty is a cause for concern. When the uncertainty is caused by major revenue and cost drivers, such as access charges and universal service funding, many investment decisions are delayed to await regulatory clarity. There is, therefore, a real cost of regulatory uncertainty. It is wise for regulators to study an issue long enough to come up with a clear and competitively neutral decision, but the cost of delaying a decision until a marginally better decision is derived can easily overwhelm the benefits from such a delay. One advantage of the CALLS plan is that it is relatively straight-forward and clear. Another is that it strives to be competitively neutral.

A competitively neutral policy decision provides equal opportunities for all efficient competitors. The decision to move toward cost-based access charges does not disadvantage competitive providers, even though it will disadvantage firms, such as competitive access providers, that took advantage of subsidy laden prices. Indeed it addresses a competitively non-neutral situation that allowed the possibility that even inefficient competitors could thrive. Portable subsidies provide an example of how the plan strives to be competitively neutral and reduce regulatory uncertainty. By providing the opportunity for entrants to obtain universal service support, the plan provides equal opportunities for all competitors. There are perhaps more efficient technologies available to serve rural customers, such as fixed wireless, that have not been developed due to the below cost pricing in these areas and the uncertainty about the portability of universal service funding. To the extent that the mechanism for collecting and distributing universal service funds is explicit and understandable, it will reduce regulatory uncertainty and promote efficient investments by entrants and incumbents.

VI. CONCLUSION

An important source of consumer benefits from explicit and predictable universal service support is the continued investment in high quality rural telecommunications networks. In the past, regulatory commissions were able to mandate substantial investments by telecommunications providers, even in high cost areas. In return, regulatory commissions guaranteed fair rates of return on overall investments. The mandate to invest and the guarantee to earn a fair rate of return were mutually dependent. Returns on investments established the wherewithal for the investments and vice versa. Without the wherewithal, the mandate to invest becomes meaningless. You cannot mandate a wingless bird to fly.

An important aspect of the plan proposed by the CALLS is the recognition that access prices and universal service support are intertwined. The public policy goal of universal service established the necessity for funding that led to the legacy of implicit subsidies. To maintain universal service, it is necessary to build new support before, or at the same time that, we unwind the implicit subsidies. Going forward, the investment in high cost areas will rely on explicit and predictable opportunities to earn revenues, including universal support payments, that provide a reasonable return.

The CALLS plan provides a rational transition from subsidy laden access prices toward cost-based prices, and it provides explicit, predictable, and competitively neutral funding for universal service to replace the universal service support that comes from access prices today. Prices for basic residential service will remain affordable, and support will be directed toward the continued development of high quality service in rural areas.

Attachment B

WHY THE PICC WON'T BE "COMPETED AWAY"

Some parties have suggested that, because the long-distance market is perceived as being more competitive than local markets, transferring some interstate loop cost recovery to IXCs, through a PICC charge, will create consumer benefits. They suggest that market pressure will "compete away" the recovery of PICC expenses by IXCs. Based on this supposition, these parties argue that elimination of the PICC, under the CALLS proposal, would somehow shelter ILEC revenue from competition, and deprive consumers of the "benefits" of PICC recovery.[1]

In fact, there are no such benefits. The PICC has proven to be a wasteful and inefficient method of recovery, creating unnecessary costs and confusion. It has impeded the development of competitive local markets. And, three years after its introduction, there is still no sign of its being "competed away."[2] Finally, the Eighth Circuit court has already found that the competitive position of the ILECs is unaffected by whether a portion of loop costs is recovered through the PICC.[3]

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[1] *See, e.g.*, Joint Consumer Commenters at 4: "...its main thrust is to shift costs out of the most competitive rate elements into the least competitive area." *See also* Competition Policy Institute at 1: "the proposal is first and foremost an attempt to shield access revenues of the ILECs by shiftng their recovery to end-user charges."

[2] Vermont agrees (at section IX) that there is no reasonable prospect that PICC charges will be "competed away."

[3] "Whether a LEC allocates all of its loop costs to the end-user or to the IXC, the LEC's comparative position as compared to other suppliers of local exchange facilities remains the same." 153 F.3d 523 (8th Cir. 1998).

1. Competitive firms must recover their costs.

Central to the proposition that PICCs are beneficial is the assumption that competitive firms somehow "forgive" or absorb costs. In fact, the opposite is the case: competitive firms are unable to absorb cost increases, and must pass them along to their customers. There is no such thing as a competitive equilibrium in which firms do not cover their costs.

To an IXC, the PICC charge is an exogenous, or externally given, cost, like a new tax. The IXC cannot reduce this cost by "managing" it better, or by becoming more efficient. Further, it is a predictable, and recurring cost. Sometimes a competitive firm will fail to recover a cost because of changing circumstances. For example, it might invest in new equipment that subsequently becomes less valuable. But a competitive industry will never go on, month after month, failing to recover a recurring, out-of-pocket expense. Since it is the decision to subscribe to local service that triggers the application of the PICC, a customer cannot escape the PICC by changing long distance carriers.[4]

Parties who expect the PICC to be "competed away" appear to assume that competitive firms will somehow take the PICC expense out of their "margins." But competitive firms do not have excess margins, in the sense of extra profits over what is needed to stay in business. In a competitive market, any such margin should have

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[4] A customer may escape the PICC by finding an alternative local carrier. This simply reinforces the point, discussed further below, that loop cost recovery can only be affected by local competition, not by long distance competition.

been "competed away" long ago. Adding a new cost or "tax" to a market does not create any new margin that was not there before.

Finally, firms may have "margins" in the sense of a markup over out-of-pocket cost, which covers common costs. Firms manage this margin through a variety of non-linear, or discounted prices. But again, adding a new out-of-pocket cost to the market does not create any new ability to discount that was not there before.

2. PICCs create new costs.

When IXCs set their pass-through charges to recover the PICC, they must recover not only the PICC itself, but also the additional cost of administration, billing expense, and uncollectibles created by handing the charge first from the ILEC to the IXC and then to the end user. These add-on expenses must then be recovered from end users. This is one of the clearest examples of pure waste created by regulation. The PICC is an inefficient way to recover loop cost, and it's the consumer who must bear the additional cost.

3. The fact is that PICCs have not been "competed away."

At some point, in order to be useful, any theory has to be confirmed by facts. The simple fact is that PICCs have been in place for three years, and there is not the slightest sign of them being "competed away." The vast majority of end users pay the PICC charge, either through their IXCs or directly to the ILEC.[5]

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[5] The current rules allow a customer to "de-PIC" by not selecting a presubscribed long distance carrier. Customers who select this option are billed the PICC directly by the ILEC, so that the PICC becomes, in effect, a SLC.

There has always been a certain "tooth fairy" aspect to the expectations surrounding the PICC. When the PICC was first implemented, some people suggested that IXCs would not pass the charge through to end users, but would somehow "eat" the expense instead. Of course, this was not possible, and IXCs did pass the PICC through.

It was then suggested that PICC pass-through charges would somehow be "kinder and gentler" to small, low-volume users than would be an equivalent recovery through SLCs. This has not happened either. In fact, the opposite is true. The current PICC cap for primary lines is $1.04; the average PICC pass-through charge of the three largest IXCs is $1.51. This difference is caused, in part, by the new costs discussed above. In part, it reflects the difficulty IXCs have in distinguishing primary lines from non-primary lines.

The current version of the theory is that the PICC will be "competed away." Three years after the PICC was introduced, the faithful are still waiting for this to happen. It is not clear why it should have taken so long for the expected competitive outcome to happen, or why PICCs should be "competed away" next year, when that has not happened this year.

4. PICCs interfere with customer choice and competition.

Competitive markets work best when they are able to associate the cost caused by a customer's choice with the choice itself. This allows the customer to "internalize" the cost, considering it fully in choosing to make a given transaction. It also makes it easy to compare different alternatives in the market. Loop costs are caused when

customers decide to purchase services that include loops, such as basic local service.[6] Associating the recovery of the loop cost with this purchase decision allows customers to make informed choices among different providers of local service, and, at the same time, provides local service providers with the correct price signal when making entry and investment decisions.[7]

Competition among IXCs cannot drive cost out of the loop business. Only competition among different providers of loops, or alternative network connections, can do that. IXCs can do nothing to minimize loop costs, and customers cannot escape the cost of their loops by changing IXCs. Therefore, exporting loop cost recovery to an IXC, through a PICC charge, places that recovery in a market where competition among IXCs cannot "compete away" the recovery.[8] In contrast, each local provider can influence the cost of the loops it provides, by becoming more efficient. Further, an end user can affect the cost of his or her local connection by changing local providers.

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[6] The Eighth Circuit has found that the local subscriber "causes" the cost of the loop by making the decision to subscribe. There may be many uses for a given loop, but this is not relevant, since there is only one transaction, and one customer decision, that causes the loop to be provided.

[7] See statement by Dr. Laura Tyson, Attachment A to these reply comments, for a discussion of the importance of loop cost recovery in promoting efficient competition for local service.

[8] Vermont observes "...we are not aware of any basis in the record that would support a conclusion that increasing network efficiencies will allow carriers to forego recovering these charges from customers. The charges are set by the Commission and by the incumbent LEC, and more efficient competition by the IXC cannot reduce them." *See* Vermont Comments at Section IX.

Thus, it is in the local market, and only there, that loop cost recovery can be "competed away."[9]

5. PICC recovery creates a hidden nationwide "pool."

PICCs obscure the customer's choice, not only by exporting part of the loop cost to the long distance bill, but also by spreading that recovery among customers nationwide. For administrative, marketing, and legal reasons, long distance carriers have chosen to average their PICC passthrough charges across the country.

This means, first, that the price signal a customer receives is even less clear. If an end user chooses an ILEC that has high loop costs, the end user will not see the consequences of that choice, because that end user will pay an averaged PICC charge because of rate integration policies. Any CLEC that enters the ILEC's market and operates more efficiently will find it difficult to compete against the ILEC's price, because the CLEC does not benefit from the same averaging mechanism. In effect, the averaging of PICC passthrough charges by IXCs creates a hidden, nationwide pool. Unfortunately, this hidden subsidy flow hinders competition in high cost areas because it is not portable to CLECs, and it also distorts competition in low cost areas by raising prices, but only for ILEC customers.

In contrast, if PICCs are eliminated and replaced by SLCs, as CALLS proposes, then a customer in any given area can make a clear, simple comparison of the charges

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[9] Where local alternatives are available, an IXC might seek to influence customers to choose local providers who do not have PICCs. But this is inherently cumbersome, and it will be difficult for an IXC to communicate to an end user that he or she could get cheaper long distance service by choosing a different local carrier.

that result from choosing either the ILEC or a CLEC as a local service provider in that area.[10] This will promote competition by facilitating informed customer choices.

Given the intensity of the debate over the federal high cost fund, it is curious that more parties have not expressed concern about the fact that the recovery of PICCs by the IXCs acts as a nationwide pooling mechanism, shipping dollars from one state to another. California, for example, has been concerned that it would be a net contributor to the new access universal service fund. In fact, there is today a net outflow of funds from California that dwarfs any effect from the universal service fund. Pacific Bell has a primary PICC today which is below the cap; in the absence of CALLS, this charge is estimated to be just over 60 cents per line. Thus, if CALLS is not adopted, Pacific Bell will charge IXCs 60 cents, and the IXCs in turn will charge each single-line customer a passthrough charge of about $2. The result will be a net outflow from California of about $1.40 for each single-line customer served by Pacific Bell. As the transition built into the current FCC rules proceeds, the flow of funds among states will increase, because PICCs will continue to increase in high cost study areas, even as they are being eliminated in some low cost study areas.[11]

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[10] Iowa agrees (at 4) that "customers do not like the profusion of line items on their bill. A single line charge would be better understood and accepted by customers. It would allow better comparison of the competitive service offerings, both local and long-distance."

[11] Note also that some smaller ILECs have never had a PICC charge, but their customers nonetheless pay the IXC passthrough charge.

6. The PICC charge should be eliminated, and replaced by an SLC.

Debates about end-user charges have always been surrounded by unreasonable expectations. Clearly there is no factual basis for retaining PICC charges in the expectation of creating consumer benefits.

By the end of the five-year CALLS plan, the very idea of distinguishing between local and long-distance service will seem only a distant memory. Vermont itself acknowledges that "the division of loop charges is now pointless" because customers "end up paying the combined total regardless of which carrier ultimately does the billing."[12] The Commission should be guided by what is best for consumers, not by invalid beliefs left over from past debates. The PICC will never be "competed away," but should be replaced—by the reforms proposed in the CALLS plan.

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[12] Vermont Comments at Section IX.