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Before the
Federal Communications Commission
Washington, D. C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of:)
)
Billed Party Preference for 0+) CC Docket No. 92-77
InterLATA Calls)

**COMMENTS
OF THE
UNITED STATES TELEPHONE ASSOCIATION**

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SUMMARY

In its comments, USTA provides estimates for the costs to implement BPP for small, independent telephone companies. According to USTA, the total planning costs based on an analysis of 3,459 end offices is estimated to be \$328.59 M. The categories of expense which would be incurred include equal access end office trunks and rearrangements, operator service system and access tandem upgrades, operator service center upgrades, end office OSS7 functionality, additional facilities and outside plant transition, customer solicitation and load and operator planning.

Because of the significance of these costs, appropriate recovery of the investment and expense required to implement and operate BPP is necessary. The Commission should not mandate BPP, particularly for smaller exchange carriers, until cost recovery is assured. Further, BPP cannot be accomplished on a "flash cut" basis.

Based on its understanding of the potential problems with such a requirement and given the fact that other carriers, in effect, already have the benefits of 10 digit line number based cards, USTA recommends that the Commission not adopt any requirement for 14 digit screening that requires service provider identification on the PIN in LIDB. USTA also opposes a requirement to include commercial credit cards in the national validation structure for telephone calls.

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**COMMENTS
OF THE
UNITED STATES TELEPHONE ASSOCIATION**

The United States Telephone Association (USTA) respectfully submits its comments in the above-referenced proceeding. USTA is the principal trade association of the exchange carrier industry. Its members provide over 98 percent of the exchange carrier-provided access lines in the U.S.

The Commission has issued a Further Notice of Proposed Rulemaking to update the record established thus far regarding the costs of implementing Billed Party Preference (BPP). The Commission states that it will mandate BPP only if it concludes that the benefits of BPP outweigh the costs and that the benefits cannot be achieved through alternative, less costly measures. USTA has participated in the proceeding since its inception and appreciates this opportunity to update the record on the estimated cost for small, independent exchange carriers to implement BPP.

I. CONVERSION REQUIREMENTS TO SUPPORT BPP.

As USTA stated in its previous comments, in order to offer BPP, all equal access exchange carrier end offices will have to

be modified to differentiate between 1+ and 10XXX+0+ interLATA calls. However, approximately 900 equal access end offices are not equipped with SS7, and would require the addition of SS7 in order to provide the basic functions of BPP. Of these offices, about 66 are not supported by their manufacturer for the necessary upgrade and would, therefore, require replacement.

The burden of upgrading switches to support BPP will affect telephone companies in different ways. Companies that have not converted to equal access may not be required to make any changes except to poll their customers to determine carrier preference for calls which will require routing decisions to be based on LIDB queries. Other companies may be forced to replace their only switching system. However, ordering the implementation of BPP could serve as a major disincentive for companies to upgrade to equal access in the future because of the additional costs that would be incurred. Implementation of BPP would require a company to incur costs to convert to SS7 (many companies have converted to equal access while maintaining multifrequency (MF) signaling) and to implement the traffic splitting function.

To support BPP, all equal access end offices will require separated trunk facilities in order to direct 0+ and 0- calls to an Operator Service System (OSS) while maintaining the capability to route 10XXX dialed calls directly to the designated interexchange carrier. New facilities from equal access end offices to the OSS and the interexchange carrier may have to be built, depending upon the individual facilities utilized by each

company.

Updates for every OSS would be required. This would include adding a new form of OSS signalling within the SS7 protocol so that additional information could be provided to the interexchange carrier when an OSS forwards calls to it. This information includes the called number, the calling card number and the type of billing, if appropriate. The records in LIDB for every working line will require population with information identifying a primary preferred carrier, an alternate preferred carrier and an international preferred carrier. Ongoing administrative costs to maintain, update and add new information will be required. Other expenditures and investment may be necessary, depending upon the company.

II. SPECIFIC COST ESTIMATES TO IMPLEMENT BPP.

Larger exchange carriers have been able to estimate the cost of implementing BPP, and they are expected to update those estimates in their own comments. Smaller exchange carriers have had difficulty in attempting to estimate the costs of implementing BPP. The service structure of BPP previously had not been clearly defined and smaller carriers utilize a wide variety of equipment produced by many different manufacturers. These factors made cost estimates difficult to obtain. Now that the industry has a better understanding of the BPP service structure, USTA has been able to collect additional data which more accurately characterizes BPP's effects on exchange carriers.

Some areas of uncertainty remain regarding the exact costs that BPP will impose. It is impossible for USTA to know what the precise costs will be for a particular company. The estimates provided here represent USTA's best effort to develop a broad estimate of the costs of BPP for the segment of the industry addressed by this filing.

USTA's estimates are based on an analysis of 3,459 end office switches. USTA excluded switches operated by the BOCs, GTE, Sprint, Cincinnati Bell and Southern New England Telephone (SNET).¹ USTA also excluded remote switches. Only the host switch is counted as an end office. USTA estimates the total planning costs for these switches operated by smaller telephone companies to implement BPP as follows:

Capital Investment:

Equal Access End Office (EAEO) Trunks and Rearrangements	7.42	M
OSS/Access Tandem Upgrades	20.50	M
Operator Service Center Upgrades	8.40	M
End Office OSS7 Functionality	271.98	M
Additional Facilities and Outside Plant Transition	1.23	M
Customer Solicitation and Load	8.56	M

Recurring Annual Expense:

Operator Planning	10.50	M
Total Planning Estimate:	328.59	M ²

¹These companies have filed their own cost studies.

²In an ex parte submission dated July 20, 1993, USTA estimated the planning costs for independent telephone companies to implement BPP at \$215.272 M. USTA has been able to update this estimate due to several factors. First, USTA now has a better understanding of the requirements of BPP deployment and has been able to obtain new cost estimates from equipment

USTA describes each of the categories of expense below.

A. EAEO Trunks and Rearrangements

This category includes an estimate of the costs that would be incurred to accommodate the additional shift of traffic from end offices that are currently equipped for equal access. Currently, all interLATA 0+ dialed traffic is routed to the interexchange carrier identified by the customer's Primary Interexchange Carrier (PIC). If BPP is implemented, the office must route all interLATA 0+ dialed traffic to an OSS in order to determine which carrier will handle the traffic. Some traffic will still go directly to the interexchange carrier because of 10XXX dialing but, under BPP, the majority of the traffic will shift to trunk groups terminating at the OSS. In most cases, the end office would have already established a route to an OSS in order to respond to 0- or 0+ intraLATA calls.

vendors. However, the Commission should note that some of the vendors which provided cost estimates to USTA cautioned that the estimates were to be used for planning purposes only. Second, several cost factors were not included in the ex parte submission. It was not possible to provide separate cost estimates for OSS/Access Tandem upgrades. In addition, the ex parte, utilizing 1992 data, assumed 70 operator locations and included USTA's estimate for Sprint, Cincinnati Bell and SNET end offices. The estimates provided above are based on 21 locations. Customer solicitation and LIDB data load were not included in the ex parte. Third, the estimates for EAEO SS7 functionality included in the ex parte were based on an average cost per access line. The updated estimates for these costs are calculated on a cost per switch basis. Finally, alternate access billing service (AABS) costs are not included in the updated estimates. The prior study assumed that independent companies would provide AABS to support BPP. It is now more likely that smaller telephone companies may simply add more operators.

B. Operator Service System/Access Tandem Upgrades.

This category includes an estimate of the costs needed to upgrade all OSSs to include the additional functionality required by BPP and to implement the new operator services signaling protocol (OSS7) required on existing SS7 links from the OSS to the signaling network.

C. Operator Service Center Upgrades.

The shift of traffic from direct routing to the interexchange carrier to OSS handling will require that existing OSSs be expanded. This will include the addition of new operator system positions and capacity, as well as any building expansions that may be necessary. An estimate of these costs is reflected in the operator service center upgrades category.

D. End Office OSS7 Functionality.

This category reflects an estimate of the costs to upgrade 723 end offices which are now equipped with SS7 to the OSS7 standard. It also includes an estimate of the costs of initially equipping 914 equal access end offices that are not currently equipped to SS7 and the costs of further upgrades to the OSS7 standard.³ Also included in this figure are the replacement costs of 66 end offices which are currently equal access and which are not supported by the manufacturer for upgrade to SS7 or

³Switch manufacturers are supporting BPP using SS7 signaling only. Implementation of BPP using modified MF signaling is not available.

BPP functionality.⁴ Because of the significance of these costs, implementation of BPP should not be used as the sole reason to force replacement of these offices or to require extraordinary investments in offices that are not otherwise cost justified.

The cost estimates to equip offices that have not been converted to equal access for BPP are considerable. As noted above, this may serve as a strong disincentive for smaller telephone companies to proceed with switch modernization. USTA's estimate does not include the costs required to replace or upgrade non equal access end offices. A non equal access office must route all of its 0- and 0+ traffic to an OSS (there is no 10XXX dialing by definition). Presuming that the OSS will be upgraded to comply with BPP requirements, all calls placed from that office will be handled by the carrier designated by the billed party's preference. USTA believes that this complies with the basic intent of BPP and would not require either upgrade or replacement of these offices.

E. Additional Facilities and Outside Plant Transition.

Most smaller exchange carriers contract their operator service functionality to third party providers. Many of these exchange carriers currently contract with AT&T to provide their

⁴The greatest service anomalies in a BPP environment would occur on calls placed from an equal access switch which has not been converted to BPP. For 0+10D dialed interLATA calls, instead of routing to an OSS to determine the customer's billing preference, the call will continue to be routed to the interexchange carrier identified by the PIC of the originating line.

operator services. AT&T has advised USTA that it will not deploy BPP capability at its contracted operator service sites. If this occurs, all smaller telephone companies utilizing AT&T for provision of their operator services will be required to rehome their OSS traffic from AT&T to new OSS locations. In many cases, this will require the establishment of new routes and will also require traffic shifts. The method for shifting the traffic will vary according to the individual switch. In some cases, costs and administrative burdens will be considerable. USTA believes that there are slightly fewer than 3,000 trunks from smaller telephone companies covered by this filing that home on AT&T owned and operated OSS positions.

USTA's estimate includes the costs of establishing new trunk facilities, as well as planning costs, connection charges and administrative costs associated with these changes. It should be noted that current OSS operators will be required to handle this additional traffic. These operators cannot be expected to be aware, at this time, of the additional traffic that these changes will generate and, therefore, are unlikely to include these costs in their own estimates.

F. Customer Solicitation and Load.

Currently, every line in the United States has a corresponding record in a LIDB that can be interrogated to determine specific information relative to that line. In the case of bill to third party and collect calls, the BPP model

requires carrier determination as a result of interrogation of the record for the line to be billed. Thus, the service provider will have to ballot the entity or person responsible for remitting billing charges for each line to determine a primary preferred carrier, an alternative preferred carrier and an international preferred carrier. This information will be required for each line, regardless of whether the line is equal access. The amount shown above is USTA's estimate of the costs to poll customers to determine their preferences, to provide the information to the LIDB owner/operator and to defray amounts billed to the telephone company by the LIDB owner for loading the data as well as allocated costs for LIDB upgrades necessary to accommodate this additional information.

G. Operator Planning Estimate.

The figure in this category is an estimate of the total recurring annual costs for employment and training of the additional operators needed to handle calls requiring live operator intervention.

III. BPP CONVERSION CONSIDERATIONS.

If mandated, conversion to BPP cannot be accomplished on a nationwide "flash cut" basis. All carriers will need time to determine the methods that must be utilized to accommodate BPP and to plan for the conversion. During the conversion period, some locations will be able to offer BPP, others will not. Time

schedules for accomplishing LIDB upgrades and obtaining and loading the additional information required can be expected to cause anomalies in services during the transition to BPP. The Commission should consider the service variations and the customer confusion that will occur during the transition to BPP as part of its cost/benefit analysis.

IV. RECOVERY OF BPP CONVERSION COSTS.

Because of the significance of the costs described above, appropriate recovery of the investment and expense required to implement and operate BPP is necessary. The Commission should not mandate the implementation of BPP, particularly for smaller exchange carriers, until cost recovery is assured. In addition, the Commission's rules should discourage the use of automatic dialing or any additional mechanism to circumvent BPP. Access code dialing, as is currently available, could pose an additional cost recovery problem. Implementation of BPP will require considerable investment that may not otherwise be made. Provision of convenient methods for circumvention of BPP could result in the stranding or underutilization of any BPP-related investments.

USTA urges the Commission to seriously address the issue of cost recovery before mandating BPP. Smaller exchange carriers should be allowed additional time to understand the parameters of BPP service and should not be forced to incur any cost to implement BPP if it would be uneconomical to do so.

V. IMPLEMENTATION OF 14 DIGIT SCREENING IN LIDB.

The Notice proposes that carriers other than exchange carriers be permitted to issue 10 digit line number calling cards. This would require that records other than those of the LIDB owner be housed in the same hardware platform. It also would require that when a query was made to LIDB, the choice of interexchange carrier would depend on information derived from the PIN, and not the PIC, for that line. This would have to be accomplished by screening for validity and carrier identification on the PIN, or the last four digits of the calling card number.

Implementation of such a capability in LIDB could raise questions regarding cost recovery and fraud. The additional investment in software and hardware platforms to accommodate large numbers of possible PINs in LIDB are likely to be considerable. Any additional investment would have to be recovered by increased charges for queries to LIDB for all users. It may not be equitable to implement a measure for the benefit of carriers with considerable alternatives for the issuance of credit cards that will also raise the price of basic validation services for all users.

In addition, the use of a PIN number to determine carrier identity would require that LIDBs be capable of storing a very large number of possible PINs. In addition to the increased cost, such a capability would greatly raise the fraud exposure of the owner/operators of LIDB platforms. Any requirement for the addition of such a capability should include measures to

ameliorate fraud exposure. The LIDB platform owners/operators have the expertise to determine the detailed conditions that should apply to the addition of this capability. The Commission should carefully consider the information supplied by these entities.

It may not be necessary for the Commission to adopt new requirements to permit other entities to issue 10 digit line number cards. The current service structure already permits the use of such cards. Any carrier that wants to offer its services to a customer can convince the customer to specify that carrier as its preferred carrier. Any carrier that is not the PIC can instruct the customer to dial its 10XXX code before dialing 0+ a number. The line numbered calling card will be validated with the PIN already chosen by the customer or assigned by the card issuer. BNA requirements permit service providers to obtain all of the information necessary to directly bill the customer, or service providers can utilize the billing services of the issuing carrier.

Based on its understanding of the potential problems with such a requirement and given the fact that other carriers, in effect, already have the benefits of 10 digit line number based cards, USTA recommends that the Commission not adopt any requirement for 14 digit screening that requires service provider identification on the PIN in LIDB.

VI. INCLUSION OF COMMERCIAL CREDIT CARDS IN THE NATIONAL VERIFICATION STRUCTURE.

The Commission has suggested that commercial credit cards also be utilized as a basis for billing charges for telephone calls. USTA recommends that, as noted above, the Commission carefully evaluate the full implications of such a requirement.

If commercial credit cards are to be used, the card number must be able to be entered by the caller when the call is placed. That would require that all elements of the network be able to recognize, store and transmit the data entered. The database in which the card validation record would be stored must be identified unambiguously to route the query. The database would also be required to house and return the same three carrier identities for each valid account maintained by the exchange carriers. In order to accomplish this, the numbering format utilized by the commercial card issuer must be constrained. The industry would have to clearly identify the constraints that must be observed by any card issuer in order to be included in the national verification structure. The Commission should not adopt any rules that would permit a commercial credit card issuer to demand inclusion in the existing validation structure without regard to the implications for other entities.

In addition, any such requirement should not permit commercial credit card holders to demand housing of those records in existing databases, as this would raise additional, complex issues. It is unlikely that the Commission will obtain sufficient data in this proceeding upon which to make a decision

on this issue. Until the implications of a requirement for inclusion of commercial credit cards in the national validation structure for telephone calls are clearly understood and the implications on existing operators are evaluated, USTA opposes any such requirement.

VII. CONCLUSION.

USTA urges the Commission to consider carefully the cost estimates and the issues raised herein before determining whether to mandate BPP. In any event, based on the potential costs identified by USTA, BPP should not be required to be implemented by small telephone companies.

Respectfully submitted,

UNITED STATES TELEPHONE ASSOCIATION

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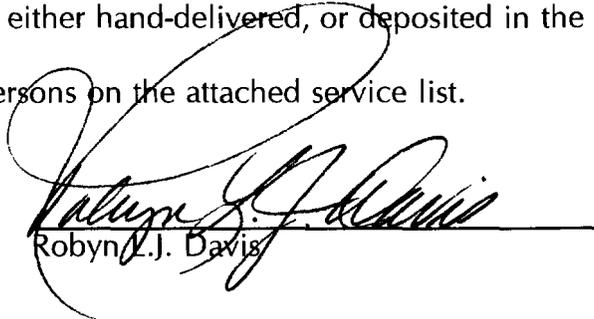
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CERTIFICATE OF SERVICE

I, Robyn L.J. Davis, do certify that on August 1, 1994 copies of the 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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