expected to grow by 25.9% a year through 1999.[39] The BOCs are major providers in the consumer segment of the voice mail market, but, as Hausman and Tardiff state, "there are literally thousands of firms providing voice messaging services, and the BOCs are far from enjoying a dominant position."[40] By one estimate, total revenues for voice mail services used in the residence market (including part- and full-time employees working in the residence) reached $258 million in 1993, and are expected to increase to $839 million by 1998, with growth decreasing from 30% in 1993 to 23% in 1998 as a result of some small amount of market saturation and because early adapters will already have subscribed to the service.[41]

Other means of providing public voice mail services include CPE, service bureaus, cellular carriers, and IXCs. The tremendous growth forecast for public voice mail services is driven by continued penetration of the consumer market, integration of IVR and fax-on-demand with traditional messaging services, and call-completion services for the cellular market. Southwestern Bell began offering residential voice mail services in 1991, and today, all BOCs are offering some form of public voice mail service,

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[39] Id.

[40] Jerry A. Hausman and Timothy Tardiff, "Benefits and Costs of Vertical Integration of Basic and Enhanced Telecommunications Services," April 6, 1995, p. 4 (Hausman/Tardiff) (copy attached as Exhibit A).

[41] The PELORUS Group, Value-Added Services To The Residence, September 1994, p. 234.

although as noted below, not all BOCs are included in the following list by Insight of public voice mail providers:[42]

- Bell Atlantic - has separate residence and business offerings;
- Bell Atlantic Mobile - single-number call-management offering;
- Bell South - voice messaging service with enhanced features, approximately 840,000 subscribers at end of 1993, some 85% of them residential;
- McCaw Cellular Communications Inc. - offers four voice messaging services to Cellular One users;
- NYNEX - exploring combining on-line information services with its messaging services, on-line Yellow Pages;
- Tigon - national voice messaging provider offering a wide range of services and features;
- Voice-Tel - provides business-to-business voice messaging services for clients with multiple locations or mobile employees, 235,000 subscribers served by 120 franchised service centers.

The voice messaging market is very unconcentrated. The Hausman/Tardiff study states that "the BOCs and GTE combined account for about one-sixth of voice messaging revenues combined. However, individual LEC market shares are much lower. BOC market shares for voice messaging services range from around 6 percent for Bell Atlantic, Bell South, and Pacific Telesis, to about 1 percent for NYNEX. Competition continues to be very strong for voice messaging customers, with both service prices and equipment prices decreasing at a rapid rate."[43] Further, the cellular voice messaging revenue share is expected to increase from 9% of the total market in 1993 to 13% by the end of the decade with a

[42] Insight, pp. 72-76.

[43] Hausman/Tardiff, p. 10.

corresponding drop in the national carrier services' share from 10% to 6% over the same period.[44]

Public E-mail

Public E-mail (1994 revenues of $1.26 billion) represents about 6.6% of the total enhanced services market and is expected to grow by 25% a year through 1999.[45] E-mail allows text and other data to be transmitted electronically and is provided to public markets by VANs, IXCs, on-line service providers, the Internet and, to a limited extent, by BOCs.[46] Insight expects much of the growth in public E-mail to be in mobile applications with the advent of Personal Communications Service (PCS) and hand-held personal communicators. Insight lists the following selected public E-mail vendors and their estimated number of subscribers:[47]

Company	Subscribers
AT&T	700,000
Sprint	350,000
MCI	200,000
BT Tymnet	500,000
GEIS	400,000
Advantis	100,000
CompuServe	1,500,000
Prodigy	2,000,000
America On-line	450,000
Internet	over 15 million

[44] "Services, Not Equipment, Will Grow U.S. Voice Messaging Market." As reported in Telco Business Report, Vol. 12, No. 4, February 13, 1995.

[45] Insight, p. 85, Table V-1.

[46] Id., p. 7.

[47] Id., p. 49.

Electronic Data Interchange (EDI)

EDI (1994 revenues of $.98 billion) represents about 5% of the total enhanced services market and is expected to grow by 35% a year through 1999.[48] Providers include VANs, EDI specialists, and increasingly the IXCs and BOCs. Insight lists the following six major EDI providers:[49]

- AT&T Co. - EDI network offers gateways to all major VANs, also offers conversion service for partners without EDI capability;
- Advantis - offers full range of EDI services;
- BT Tymnet - provides full EDI services;
- Harbinger*EDI - provides a comprehensive set of products and services to assist companies in implementing or expanding EDI;
- National Electronic Information Corp. (NEIC) - nationwide clearinghouse for electronic health care filing for more than 80 payers;
- Sterling Software - offering EDI network services, management and communications software, education, and database services to over 50,000 customers in over 68 countries.

Enhanced Fax

Enhanced Fax (1994 revenues of .198 billion) represents 1.0% of the total enhanced services market and is expected to grow by 10% a year through 1999.[50] This relatively slow growth is expected in part because E-mail can be a substitute for enhanced fax. Use of enhanced fax is not yet widespread and it is not clear if the applications will be widely accepted in the market. IXCs, BOCs, and service bureaus offer enhanced fax services.

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[48] Id., p. 85, Table V-1.

[49] Id., pp. 76-79.

[50] Id., p. 85, Table V-1.

IV. NO FURTHER UNBUNDLING OF BOC NETWORKS IS NECESSARY OR APPROPRIATE AS A PRECONDITION TO ALLOWING INTEGRATED BOC ENHANCED SERVICES.

As demonstrated in the preceding section, the record clearly shows that the current level of BOC unbundling has permitted tremendous growth for virtually all non-BOC ESPs, and is expected to continue to permit such growth for the foreseeable future. Therefore, the Ninth Circuit's concern that the BOCs' ONA unbundling as approved by the Commission to date might not be adequate to successfully promote overall enhanced service competition -- even with the BOC's participation in the market on an integrated basis -- is not borne out by the documented facts.

Furthermore, the Commission is taking actions in other dockets to ensure that even more BOC unbundling is occurring and will take place in the future. For example, the Commission's Expanded Interconnection and Local Transport Restructure proceedings (CC Docket Nos. 91-141 and 91-213) have resulted in requirements that BOCs unbundle special access and switched access transport and provide interconnection arrangements, so that other transport providers can provide those components of telecommunications transmission competitively, if they wish. These dockets have resulted in the type of "more fundamental unbundling" that California III said the Commission should have considered prior to completely eliminating structural separation for BOC enhanced services.[51] Thus, this aspect of the California III

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[51] 39 F.3d at 927-930.

concern has been addressed by the Commission and is now a reality, to the extent there has been demonstrable market demand.

Moreover, in the Commission's Intelligent Network (IN) proceeding (CC Docket No. 91-346), the Commission has proposed to require that Tier I LECs (which includes all BOCs) implementing intelligent networks offer third parties mediated access to their service management systems (SMS) within 12 months of the Commission's anticipated Order (an Order is expected in the near future -- the NPRM was released in August 1993 and a complete record has been before the Commission since December of 1993).[52] Even in the absence of any requirement to provide third party access to IN, LECs are already experimenting with ways to provide such access to non-LEC service providers. This, too, is a type of more fundamental "unbundling" of BOC networks.

In adopting the BOC ONA plans, the Commission struck a careful balance between encouraging the most efficient interconnection arrangements possible and avoiding inefficiencies that would result from unnecessary fundamental unbundling of the sort that some parties no doubt will advocate in this proceeding. Competitors' requests for substantial unbundling are made in an effort to force the BOCs to provide network components that are difficult to duplicate at minimal cost in order to supplement their competitive networks. Other competitors, including many ESP providers but particularly IXCs such as MCI, have used unbundling

[52] In the Matter of Intelligent Networks, CC Docket No. 91-346, Notice of Proposed Rulemaking, released August 31, 1993, para. 2.

as a way to obtain lower prices, and they therefore seek further unbundling to gain a price advantage over existing providers of access services.

For example, competitors have tried to get individual components that comprise BOC access service priced such that the sum of the component parts is less than the overall price of the existing BOC access service package. This would enable them to avoid some or all of the contribution associated with implicit support for universal service that is currently included in the BOCs' bundled service prices. Competitors often hide these self-serving motives behind unsupported claims that complete unbundling is necessary for competition to develop.

The Commission's unbundling policies should be guided by economic efficiency to create proper incentives for innovation and investment, and the conditions that attract efficient new providers, while discouraging inefficient entry. Unbundling policies should enhance competition where it can actually take place by giving efficient competitors in the "retail" end user market access to facilities regulators deem to be "essential," while not forsaking economic efficiency and public policy goals. Fostering too liberal a regulatory policy, by using a needlessly broad definition of what are truly "essential" facilities, would harm incumbent firms and their stockholders by causing a de facto transfer of their profits to firms that are not as efficient in providing services to the end user market. Too stringent a policy, in the form of a restrictive definition of "essential facilities," could harm the competitive process in end user markets, to the detriment of both consumers and such policy goals as infrastructure development. The Commission should continue this prudent path of focusing on economic efficient interconnection criteria to guide any additional unbundling examination. History shows that current unbundling and interconnection requirements are more than adequate, and have allowed effective competition to develop rapidly in the entire enhanced services market.

Economic theory further supports the current level of BOC unbundling. Applied economics indicates that the value of an unbundling policy depends on the state of competition in the downstream "retail," end user markets that require intermediate productive inputs from the upstream "wholesale" market. If the downstream market is competitive or even only contestable, further unbundling of the productive inputs cannot make it more efficient. However, further unnecessary unbundling would impose additional costs on the incumbent (BOC) providers that could adversely impact the various public utility obligations imposed upon them. The reason for adopting any unbundling policy should be to ensure open access to the BOC's sunk facilities, if these facilities are truly essential and represent a barrier to entry in the downstream market. If, on the other hand, competition in the downstream market flourishes and free entry and exit are possible, as is clearly the case today in the enhanced services market, the BOCs' network and bundled service offerings cannot be considered entry barriers. Mandated further unbundling is unnecessary and is not in the public interest. It is undisputable from the record amassed over the last four years, and the forecasts for the future, that competition in the enhanced service market is flourishing. This is further demonstrated by the large number of market participants, who are experiencing enormous growth and success; free entry and exit is occurring in the enhanced service market.

In summary, the record evidence shows that the Ninth Circuit's concern over the level of unbundling required under current BOC ONA plans was unjustified (the general enhanced services market has been expanding exponentially under the current level of unbundling), and that in any event the Commission has already taken steps to require further unbundling where that makes economic sense. The Commission should conclude from all the evidence that the benefits of full structural relief outweigh the costs by a substantial margin, and that <u>even if</u> there is some increased risk of access discrimination under structural relief and the current level of unbundling, that risk is more than outweighed by the overall public interest benefits of continued BOC structural integration of enhanced services.

V. THE BENEFITS OF INTEGRATED BOC ENHANCED SERVICES TO DATE HAVE BEEN SUBSTANTIAL.

As explained in the "Public Voice Mail" subsection of Section III above, the BOCs have played a major part in helping to bring Voice Messaging Service (VMS) enhanced services to the mass market. BOCs have also helped bring E-mail and IVR services to the mass market. No party can contest the simple fact that, prior to structural relief for BOC enhanced services, the residence markets for such services were dramatically underserved. Thus, while the BOCs cannot and do not claim to be directly responsible for the overall explosion in enhanced service growth as the actual providers of all such services, it is a fact that in the markets the BOCs have chosen to enter they have brought mass market service to many consumers who were not previously being served by any other market participants to any significant degree.

Since 1990, the number of enhanced service customers served by BOCs has grown from 160,000 to nearly 6 million. No party can seriously contend that these numbers do not reflect a significant public interest benefit. The benefits of BOC structural integration are patently obvious on the record, were explicitly acknowledged even by the Ninth Circuit in California III,[53] and should be acknowledged (once again) by the Commission in choosing to (once again) eliminate structural separation for all BOC enhanced services, pursuant to the Commission's existing CEI and ONA requirements.

VI. THE COSTS OF RETURNING THE INDUSTRY TO HIGHLY INEFFICIENT COMPUTER II STRUCTURAL SEPARATION WOULD BE EXCESSIVE AND ARE CLEARLY OUTWEIGHED BY THE BENEFITS OF CONTINUED STRUCTURAL INTEGRATION FOR BOC ENHANCED SERVICES.

Today, the BOCs are allowed to offer enhanced services on an integrated basis with their basic services pursuant to

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[53] See 39 F.3d at 925, there referring to the substantial benefits of integrated BOC voice mail as a "substantial cost of structural separation" because structural separation clearly prevented BOC mass market offerings of voice mail prior to 1992.

nonstructural safeguards, including cost accounting safeguards and the BOC ONA plans. In the NPRM, the Commission is seeking comment on whether a return to structural separation would better serve the public interest.[54] It is readily apparent from the record that a return to structural separation is not in the public interest. There is clearly demonstrated evidence that the non-structural regime has and continues to serve the public interest. Thus, SWBT is vehemently opposed to a return to structural separation. The BOCs have not and cannot successfully engage in access discrimination in today's less restrictive environment, and there is no justification for returning to the inefficiency and repression of structural separation.

While it would not provide any benefits to customers, structural separation would, however, impose substantial costs upon the BOCs and would saddle them with insurmountable disadvantages in the highly competitive enhanced services market. The BOCs would be relegated to the extreme sidelines and would no longer have a viable chance of effectively participating in this growing and important market. The market, and the millions of existing and potential customers, would be deprived of the fruits of the skill, talent, and technical expertise the BOCs can and have brought to this market. This would not serve the public interest.

SWBT has previously commented extensively on the oppressive costs of structural separation to the public and to the BOCs, and has demonstrated that there are no advantages of

[54] NPRM, para. 13.

structural separation over nonstructural safeguards. SWBT will only highlight the major points here, but incorporates these earlier comments herein by reference.[55] As SWBT predicted in its earlier Computer III comments, economies of scope realized under today's environment have allowed the BOCs to mass market Voice Messaging Services to the consumer market. History has shown that this progress would be dramatically more difficult, if not impossible, in a structural separation environment.

In addition, structural separation could heavily influence BOC investment decisions regarding new technologies and retard the development of fundamental infrastructure evolution. This is because the BOCs would likely not consider potential revenues associated with enhanced services in justifying their capital investment under a structurally separated environment.

Another obvious and potentially significant cost to customers is the fact that structural separation requirements could completely prevent the BOCs from providing customers the benefits of network functions and services that will be made possible by new technologies (e.g., ATM, Frame Relay, SONET, CCS7, ISDN and AIN) if they, or inherent capabilities within the technology, were deemed enhanced under Commission rules (because, history has shown, BOCs will not choose to offer many enhanced services if burdened with the expensive, unnecessary constraint of structural separation). As Hausman and Tardiff show, lost consumer welfare

[55] See SWBT's Comments in CC Docket No. 90-623, filed March 8, 1991, pp. 6-40 (copy attached as Exhibit B).

from telecommunications services which are not offered or are delayed typically far exceeds lost consumer welfare from imperfect regulation which may result in higher prices from less competition.[56] The "harm" to consumers, if any, from nonstructural safeguards, is less than what it would be with a return to structural separation.

For example, Common Channel Signaling (CCS) using the Signaling System 7 (SS7) protocol has been introduced within the national telecommunications market very successfully in recent years. Since this concept incorporates digital data communications between nodes, the information transferred can be "telecommunications" or "data communications" transmitted over the same physical network. By integrating these services together a tremendous efficiency has been developed. If the telephone industry were required to operate basic telecommunications separate from enhanced communications a whole series of adverse effects would ensue based on the present CCS system. Today these "services" are communicated over the same system, some of which are tariffed per regulation and some of which operate outside of regulated tariff, apparently as enhanced services. Integration of these uses benefits the United States economy.

If a separation policy based on determination of use were imposed, the regulatory burden would certainly bring the process to its knees. The FCC and the state regulators would be required to determine on a message-by-message basis or even a parameter-by-

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[56] <u>Hausman/Tardiff</u>, pp. 12-20.

parameter basis which CCS communications were enhanced and which were basic telecommunications. This would be needed for the BOCs to logically separate the services. Clearly, such a result would not be in the best interest of policy makers nor the public.

In addition to these public interest "costs" which would potentially inhibit infrastructure development and limit consumer enhanced services, structural separation would impose substantial monetary costs upon the BOCs because they could no longer take advantage of the natural efficiencies that arise from integration. These efficiencies arise because some inputs can be shared or used jointly if the two products (i.e., enhanced and basic services) can be offered on an integrated basis.

Efficiencies from joint production processes are realized by firms across all industries, and there is nothing anticompetitive about realizing such efficiencies. In fact, the cost advantages and resulting profit potential that arise from these efficiencies are a primary driver of competitive markets. Many of the BOCs' established ESP competitors have considerable resources themselves, producing and offering their services on an integrated basis. For example, MCI is offering a range of services on an integrated basis without any of the many regulatory restrictions imposed upon the BOCs. MCI recognizes the significant advantages that arise from integrated operations and from offering services on an integrated marketing basis, as the following quotes by Larry Harris, MCI's senior vice president of public policy, clearly show.[57] Mr. Harris is quoted to say: "We will tie ourselves to several cellular operators and be an enhanced service provider." To fulfill this vision, MCI will repackage under its potent brand name services it has leased, market its wireless partners' services nationally via extensive advertising campaigns, and offer "bundling" -- giving customers options that combine cellular services and other offerings. According to Mr. Harris, MCI believes that "the more we offer our customers, the better chance they won't 'churn off' our long-distance service." Customers will receive a single billing statement and may be offered usage discounts.

The ability to market enhanced services on an integrated basis is particularly important to the BOCs if they are to compete successfully with other vendors (e.g., MCI and AT&T) that <u>are</u> able to offer services on an integrated basis. Sales of messaging services to mid-sized and large businesses will be bundled with other enhanced services, as voice messaging providers increasingly become one-stop shopping sources.[58] This trend suggests that many carriers will start offering "total" communications solutions packages, combining long distance, "800" access, wireless, fax mail, interactive voice response, information audiotex, and both tele- and videoconferencing. The BOCs are precluded by regulation

[57] As quoted in "MCI's Approach to Wireless: Go With What You Know," Phillips Business Information, Wireless Business and Finance, Vol. 2, No. 5, March 1, 1995.

[58] "Services, Not Equipment, Will Grow U.S. Voice Messaging Market," Telco Business Report, Vol. 12, No. 4, February 13, 1995.

and the Modification of Final Judgment (MFJ)[59] from offering some of these services, or from developing flexible, market-driven service packages. Competitors face none of these restrictions. They can enter any market, develop their services in any way they deem best, create the service packages customers want in pricing configurations expected to be most profitable, and sell the various services through a central marketing arm or single point of contact. These are tremendous competitive advantages in today's highly competitive markets.

For example, Advantis, a jointly-owned venture of IBM and Sears, does not have a dedicated sales team. Instead, it relies on the global IBM sales force of approximately 30,000 IBM reps in the U.S. and 300 IBM sales reps internationally, and relies on both IBM and Sears for most of its business marketing.[60] Other examples include: SprintNet (the Sprint Data Group and Sprint International provide domestic and international product management and market planning for SprintNet);[61] British Telecom (BT) has an integrated North American sales force that can sell all of BT North America's voice and data offerings, and Syncordia's outsourcing services.[62]

Additionally, Sprint Corporation recently announced a partnership with three cable TV companies (Comcast Corporation, Cox

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[59] United States v. American Telephone & Telegraph Co., et al., 552 F. Supp. 131 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 103 S. Ct. 1240 (1983).

[60] NBI, VAN Markets: 1993 Edition, pp. 58-59.

[61] Id., p. 70.

[62] Id., p. 31.

Cable Communications, Inc., and Tele-Communications, Inc.) to offer one-stop shopping for wireline and wireless services. The new venture will market packages of local exchange, long distance, cable TV and wireless services under Sprint's brand name.

And, of course, AT&T's acquisition of McCaw Cellular Communications <u>and</u> its recent announcement to resell local exchange service in the Rochester market indicates AT&T's intention to jointly market and package long distance and cellular services, as well as long distance and local exchange services for its customers. Certainly, the packaging of all three services (long distance, local exchange and cellular or PSC) in qualifying markets cannot be far off.

The availability of both wireline and wireless services will enable both the Sprint venture and AT&T/McCaw to offer an unprecedented range of services on an integrated basis without many of the regulatory burdens placed on the BOCs. The ability of all carriers to offer such one-stop shopping and service packaging is a marketing tool that will have ever-growing consumer appeal. In fact, the Hausman/Tardiff study supports the trend in telecommunications markets to offer services on an integrated or bundled basis. The study cites a recent article characterizing regulation as "anachronistic" because it prevents customers from receiving services on the basis they want. The study quotes:

> Amid all the rhetoric about telecommunications reform, you don't hear much about bundling. But this poorly understood rule banning carriers from packaging equipment and tariffed services under a single price tag is getting increased scrutiny from critics, who call it

> an anachronism. They say that the bundling rule is a regulatory straightjacket that makes it unnecessarily difficult for users to get integrated network solutions.[63]

Today, under integrated BOC marketing, CallNotes (VMS) is sold by existing SWBT service representatives as an integral part of their selling function. Appropriate costs are captured based upon the amount of time a service representative spends on that product. If SWBT's affiliated ESP company had to staff a stand-alone sales force to handle the sales volume experienced in 1994, additional employees would have to be hired, equipped, housed, supervised, etc. This force would considerably increase the cost of sales which could well price SWBT's affiliate VMS offering completely out of the market. Consequently, absent structural relief, SWBT's affiliate may not offer VMS given the substantial increase in cost of sales.

It is critical to note that the advantage BOCs do receive via structural integration is certainly not anticompetitive in effect. If it were, we would not see industry data that so clearly show BOCs to be minor players in the enhanced service market. As shown above, non-BOC ESPs have so many crucial advantages over BOCs that structural integration is the bare minimum that BOCs need to be able to compete. BOCs cannot offer long distance services in a package with enhanced services, nor cellular services with enhanced services features, nor tariffed services on a streamlined basis,

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[63] David Rohde, "Carrier Deals Raise a Bundle of Questions," Network World, February 6, 1995, as cited in Hausman/Tardiff, pp. 18-19.

nor cable TV services without more onerous regulation than their competitors, nor can they manufacture their own equipment as their integrated ESP competitors can. These are tremendous marketing advantages to the BOCs' competitors.

Not only do competing ESPs realize cost savings from the increased efficiency that results from integrated production, but they also have a powerful advantage in the marketplace. The ability to offer one-stop shopping for a customer's complete telecommunications needs, and the ability to offer a wide range of service packages tailored to individual customers using any combination of technologies are extremely important selling points in this competitive market. The BOCs are much more restricted in what kinds of service packages they can offer and how they can produce, price and sell them, even under the current, less restrictive nonstructural safeguards environment. These restrictions make it more difficult and costly for the BOCs to compete with other unregulated providers. Reimposing structural separation would take away the one important efficiency that the BOCs have (as contrasted with the many advantages enjoyed by their competitors) and that has made it even possible for the BOCs to participate in the enhanced services market. Thus, structural relief is essential for BOCs to be able to continue to contribute to the growth of mass market enhanced services in the United States. Moreover, further BOC entry makes products available to a broader market and creates a broader market for all enhanced services by helping increase customer knowledge about such services. The result is added benefit to consumers and other ESPs.

VII. CONCLUSION

The record evidence shows beyond question that the benefits of BOC structural integration for enhanced services far outweigh the costs of structural separation -- even with the current level of unbundling of BOC networks/services -- and therefore the Commission should again conclude that BOCs should be allowed to continue structurally integrated enhanced services under the existing nonstructural safeguards and ONA plans.

Respectfully submitted,

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Exhibit A

BENEFITS AND COSTS OF VERTICAL INTEGRATION OF BASIC AND ENHANCED TELECOMMUNICATIONS SERVICES

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BENEFITS AND COSTS OF VERTICAL INTEGRATION OF BASIC AND ENHANCED TELECOMMUNICATIONS SERVICES

I. Introduction

The FCC is in the process of reviewing its policies to determine the form in which the Bell Operating Companies (BOCs) may participate in the enhanced services market.[1] FCC regulation of enhanced services has previously addressed two potential problems, cross subsidization and access discrimination. The FCC has established two regulatory measures that significantly reduce the risk of cross subsidization. Price cap regulation, which breaks the link between direct costs and rate changes, does not allow the BOCs to raise prices above the rate caps approved by the FCC. The BOCs, therefore, do not have the incentive to set lower rates for regulated services used in the provision of enhanced services in the hope that they can increase prices for other regulated services. In addition, the FCC has implemented cost accounting rules, including detailed joint cost rules, cost allocation manuals, reporting requirements and accounting audits, that increase the ability to identify cross subsidization.

Access discrimination can arise when preferential network access is given to an BOC's affiliated enhanced services provider over a non-affiliated enhanced service provider. The FCC decided that network unbundling, in the form of discrete cost-based services and features, for services required to provide enhanced services would insure that BOCs could not discriminate against their competitors. The FCC's Open Network Architecture (ONA) framework and its unbundling policy were designed to accomplish network unbundling for features used by non-affiliated enhanced services providers to compete with the BOCs. In its recent remand decision, the Ninth Circuit required the FCC to explain and justify its decision to allow BOCs to offer all enhanced services on an integrated basis, given the current state of unbundling.[2] The FCC's investigation is, however, broader in scope than the minimum requirements set out by the Ninth

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[1] Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20, Notice of Proposed Rulemaking (released February 21, 1995).

[2] California v. FCC, 39 F 3d 919 (9th Cir. 1994) ("California III")

Circuit. An important factor in the FCC's reconsideration will be determining whether the economic benefits to be gained by permitting vertical integration of BOC basic and enhanced services exceed the possible costs imposed on consumers of not requiring structural separation.

This paper identifies and quantifies the potential benefits and costs of vertical integration of basic and enhanced telecommunications services. In particular, we find that joint production facilitates the offering of new products and services, which provide large benefits to consumers. Focusing on voice messaging -- to date the most prominent Regional Bell Operating Company enhanced service -- we calculate that the delay in making this service available has cost consumers well over $1 billion annually. The cost to consumers of delay has exceed well over $10 billion since 1981. In addition, the extra production costs that would be incurred by foregoing the economies of scope from joint production would amount to over $100 million annually. In contrast, (1) the enhanced service markets in which the BOCs operate are robustly competitive, (2) the existing Open Network Architecture rules followed by the BOCs are designed to offer nondiscriminatory access at prices that avoid cross-subsidies, and (3) all available evidence shows that these rules are working as intended and that the enhanced service market is thriving. It is clear that any benefits to competition that may arise from structural separation are far outweighed by the loss of benefits and extra costs we have identified which arise from structural separation.

The remainder of this paper has five sections. We first describe the economic principles that should guide telecommunications competition. In Section III, we examine the state of competition in information and enhanced services markets. Next, in Section IV, we measure the benefits from offering new telecommunications services. Section V quantifies the costs of structural separation. The final section summarizes our findings.

II. Economic Principles for Economically Efficient Competition

Telecommunications markets are generally very dynamic, compared to most other markets. Products are proliferating, new firms are joining the fray, and existing firms are adjusting through alliances, mergers, and the like. The market for enhanced telecommunications services is no exception. For voice messaging, which accounts for the bulk of the BOCs' enhanced service revenues, Frost & Sullivan estimated that 1993 revenues from voice messaging services were $1.4

billion and that the market is expected to grow at a rate of 12.7 percent annually through the year 2000.[3] In addition, revenues from competing voice messaging CPE are an equivalent amount and are growing at double digit rates.[4] In total, voice messaging revenues are approaching $3 billion annually. Further, there are literally thousands of firms providing voice messaging services, and the BOCs are far from enjoying a dominant position. For dynamic markets like these, it is especially important that firms be able to compete on their own merits, absent regulatory rules that help or hinder particular firms. In this section, we discuss the economic principles for efficient competition in dynamic markets.

A. Telecommunications competition (including enhanced services markets) is characterized by firms competing on the basis of unique scope economies

Telecommunications has always been characterized by economies of joint production, or scope economies. With the convergence of industries -- telephony, information, etc. -- the importance of scope economies is even greater. For example, AT&T has recently acquired McCaw, which provides cellular services, including voice messaging; Sprint has formed a venture with major cable television firms, and was the high bidder at the recently concluded broadband PCS spectrum auction. Clearly, although the BOCs have long possessed economies of scope, other competing firms have their own unique economies. To provide the greatest benefits to consumers, it is essential that all firms be able to employ these economies. The results of this type of competition are lower prices for consumers and greater availability of new services in a timely fashion. Measures that unduly restrict the employment of scope economies, such as onerous structural separation requirements, will reduce the benefits from competition and harm consumers.

Economists are close to unanimous in believing that, whenever feasible, effective competition produces results superior to those of comprehensive economic regulation. The potential benefits of introducing competition into regulated markets generally are of two major

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[3]Frost & Sullivan, U.S. Voice Messaging Service Markets, Report 5172-63 (Dec. 1994).

[4]NATA, 1993-94 Telecommunications Market Review and Forecast 171 (1994).

kinds: moving prices into closer correspondence with economic costs, and dynamic improvements in productive efficiency and in product or service offerings. Competition will concentrate on the services whose prices are held above marginal or incremental costs and tend to drive those prices down to the economically proper and efficient levels. Competition also tends -- unless it is distorted by regulation -- to improve the efficiency with which services are provided, by weeding high-cost firms out of the market and by exerting pressure on the survivors to improve the quality of their offerings and to be innovative in developing and offering new services and service combinations. Thus, telecommunications regulation should allow firms to employ their economies of scope so that services can be produced at minimum cost, and should allow these firms to be free to introduce innovative services which creates large gains in consumer welfare.

III. BOC Participation in the Enhanced Services Market Has Led to Lower Prices and Greater Output

BOC participation in the enhanced services market has been good for consumers. Consumer welfare increases when prices decrease. In the voice messaging services segment, which is the primary segment of current BOC participation, prices have decreased significantly since BOC entry. The range of the price decrease has been from about $30 per month in 1990 to $5-15 per month currently. An additional increase in consumer welfare arises when a new product is offered to a segment of consumers for the first time. BOC success in offering voice messaging to the "mass market" of residential and small business customers has been phenomenal. Over the past 5 years BOC subscriptions have increased from essentially zero to over 6 million subscriptions.[5] Growth for the rest of the decade is forecast at around 12 percent per year. No anticompetitive effect has occurred in voice messaging or other segments of the enhanced services market. Thus, BOC participation has been pro-competitive and has increased consumer welfare.[6]

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[5]"Voice Messaging," Telephony, Feb. 20, 1995, at 23.

[6]For BOC entry to have an anticompetitive effect, output would need to be lower than it would have been if the BOCs had been prohibited from participation. No party can seriously claim that output would have been higher without BOC participation. Effects on individual