I. Introduction

In 1988, in Computer Inquiry III (CI-III), the FCC established Open Network Architecture (ONA) rules by which Regional Bell Operating Companies (RBOCs) could offer Enhanced Services without locating these services in structurally separate subsidiaries. After legal challenges to the CI-III framework, the FCC has issued a Notification of Proposed Rulemaking in which it considers the possibility of reverting to a requirement for structural separation. It has invited comments from industry.

Booz·Allen & Hamilton believes there is a compelling argument in Favor of CI-III rules. This argument breaks down into three key parts:

KEY ARGUMENTS IN FAVOR OF CI - III RULES

- Under CI-III rules, The RBOC's current and near-term service offerings contribute to the public good and have not harmed competitors
- Under CI-II rules, The RBOC's ability to offer these services would be diminished, and therefore the public good would be reduced and The RBOCs would be harmed
- Competitors would not be materially advantaged by structural separation (except by the weakening or elimination of a major competitor) because current safeguards against anti-competitive behavior are effective

At U S WEST's request, this document focuses on the evidence to support the first of these arguments. The other arguments are addressed in other documents. The evidence is broken down into three parts as described in **Table I.1: Benefits of the Current Rules Environment**. Evidence is first presented which demonstrates that the market for Enhanced Services is flourishing under existing rules. The second and third parts of this document present evidence about the two most important sectors that RBOCs have been involved in: Voice Messaging and Enhanced Fax Services. In Voice Messaging, the RBOCs have played an important role in developing the residential and small business sectors. In the Enhanced Fax market, the RBOC's participation has

increased public awareness of the product in a rapidly growing sector, even though they themselves have not been very successful in capturing share.

TABLE 1.1: BENEFITS OF THE CURRENT RULES ENVIRONMENT

KEY ARGUMENT	FACT BASIS
• A robust ESP market has evolved under the existing non-structural separations policy	• There are a large number of participants & growing revenues in each key Enhanced Services segment • U S WEST (and RBOC) retail market share in those segments in which they participate is fairly low • Most Independent Players regard U S WEST as a valuable partner rather than a competitor
• The participation of the RBOCs has stimulated the development of the Voice Messaging Market	• RBOC Voice Messaging has increased the size of the VM market but equipment providers are also thriving, • RBOC Participation has resulted in much lower prices for consumers • The RBOCs have greatly expanded the base of subscribers who use voice messaging services, especially in the residential and small business segments • However, many independent Voice Messaging Service Providers are still thriving • There are minorities/geographies who depend on U S WEST for service • There are user constituencies that would not otherwise be served (e.g. Parent-Teacher link)
• The participation of the RBOCs has stimulated the development of the Enhanced Fax Services Market	• Enhanced Fax Services have thrived • U S WEST promotional spend has increased awareness of the Enhanced Fax category • The RBOCs have captured little share but Service Bureaus have grown significantly

II. THE ENHANCED SERVICES MARKET

II. The Enhanced Services Market

II.1. Growth in Enhanced Services

The Enhanced Services Market has exhibited healthy growth since the entry of the RBOCs at the end of the 1980's. Their participation has not impeded development of this market.

Services offered over the telephone network, which act on the content of transmitted information or involve the subscriber in interaction with stored information, fall under the title of Enhanced Services. The Enhanced Services market consists of several major segments:

- Voice Messaging: this service enables users to receive messages when they are either away from their phone or, in some cases, on another call. Different systems provide additional capabilities such as the ability to retrieve messages remotely, to forward them to other parties' "voicemail" boxes. or to notify the user that a message has arrived by paging or calling another designated telephone number.

  - Equipment Sales: Voice Messaging can be provided by a piece of equipment attached to the individual line - a Telephone Answering Device (TAD), which is common among residential users and small businesses, or through a voice messaging system which can support many "mail boxes", often in conjunction with a PBX.

  - Voice Messaging Services: many companies, including the RBOCs now provide Voice Messaging Services which enable subscribers to obtain voice messaging capabilities without buying their own equipment. Calls to their telephone which are not answered are diverted to a distant voice messaging system and they are given access codes to recover and process messages.

- Audiotex: this service involves use of a voice platform to provide various kinds of information and services, accessed using a touch-tone key pad, often via a menu system. Applications are mainly from

businesses offering information to consumers, and are often entertainment oriented, including horoscopes, personal ads, TV soap updates, games and adult entertainment. However there is increasing interest in using Audiotex to automate routine business processes such as order taking.

- Online Databases/Transaction Processing: Online Database service enables subscribers to access databases of text and video information, to be read on screen or downloaded, as well as communications, transactions and entertainment services. This market is divided into two key segments. The commercial segment, which currently comprises the bulk of the market ($11.7BN in 1994) and which has been growing relatively slowly, serves mainly professional customers in sectors such as brokerage, credit, financial news, legal and marketing information. The residential segment ($800MM in 1994) has been growing much more rapidly. One of the biggest areas of growth is in provision of access to the Internet.
  Transaction Processing service enables companies to transmit and process financial transactions from automatic teller machines (ATMs), credit- and debit-card purchases, and automated clearinghouses (ACH) or settlement functions. ATM transaction services are usually provided by banks. Point of sale purchase transactions, which require immediate verification and authorization, are sometimes handled by third party service providers who store the databases of card issuers. Some ACH transactions are handled by third parties but the majority are handled by the issuers.

- E Mail: this service allows text or other data to be transmitted from a terminal or PC. Most services enable users to store and forward documents, to receive receipts indicating that messages have been read, and to broadcast messages to customized distribution lists. These services are often bundled into Value Added Network Services (VANS) or consumer online services.

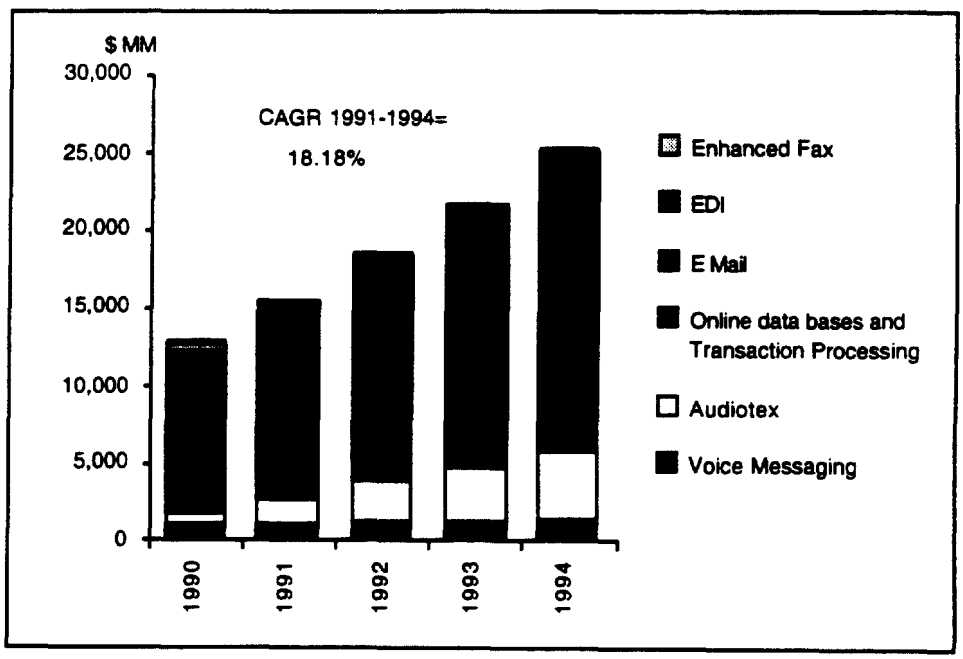
- EDI: This enables firms, often with different information systems, to exchange detailed information on orders, inventories, leadtimes with

their suppliers and customers which reduces errors, decreases response times and facilitates Just in Time Processes. These services are often offered via VANS

- Enhanced Fax: this service breaks into four main applications. Broadcast fax enables users to send a fax to multiple destinations at once. Fax retrieval allows users to dial up and order information to be faxed to a fax machine that they indicate. Store and Forward capabilities allow users to send a fax even when the recipient machine is busy. The system will store the fax and attempt to resend it for several hours. Another service that is offered, sometimes in conjunction with E mail, is a fax mail box, where a fax is stored when it is received and the subscriber can download the fax from his mail box to the fax machine of his choice when it is convenient.

All these segments combined yield a market which has grown at 18% for the last three years and which is worth over $25.4BN in 1994.

EXHIBIT II.1: GROWTH IN ENHANCED SERVICE REVENUES[1]



[1] *Voice Messaging Services excludes sales of business premise equipment and Telephone Answering Devices, and also exclude wireless based Voice Messaging Services.*

Source: Frost and Sullivan, Insight Research, Goldman Sachs, Marketfinders, Booz Allen Analysis

II.2. Enhanced Service Providers

All the segments of the Enhanced Services Market are richly populated by successful players other than the RBOCs. RBOC presence in these markets has not reduced competition. In fact, they have only achieved significant penetration of one segment - voice messaging services. Furthermore, most Enhanced Service Providers in U S WEST's territory regard U S WEST as a reliable provider of basic services which enable their enhanced service offerings.

Each of the Enhanced Service segments has a large number of players. Competition is generally quite healthy but the rapid growth ensures that there are many winners in each segment. Table II.1 shows some of the major players in each segment, with market shares, where available, and recent segment growth.

TABLE II.1: ENHANCED SERVICE PROVIDERS

SEGMENT	SELECTED MAJOR PROVIDERS (MARKET SHARE WHERE AVAILABLE)	SECTOR REVENUE CAGR (1991-94)
Voice Messaging[1]	Octel, Voice-Tel, VoiceCom (5%), AT&T (<1%), MCI (<<1%), Sprint (<<1%), Scherers Communications, Envoy Global, Dial-Com, Ameritech (3%), Bell Atlantic (10%), Bell South (11%), NYNEX (4%), Pacific Bell (5%), Southwestern Bell (4%), US West (7%)	55%
Audiotex	Call Interactive, Info-access, Sherers Communications, US Audiotex	41%
Online data bases and Transaction Processing	Compuserve, Prodigy, America Online, Dialogue, Genie, Delphi, AT&T-INN, Disclosure, Dow Jones, Dun & Bradstreet, Newsnet, Reuters, Thompson, ADP, Equifax, First Data Resource, New York ACH, VISA, Deluxe Data Systems, Remittance Processing Service	15%

[1] *Shares in this segment are of Service revenues, excluding equipment sales*

E Mail	AT&T (16%), Sprint (5%), MCI/BT (5%), GEIS (11%), Advantis (1%), Compuserve, Prodigy, America Online,	22%
EDI	BT Tymnet, GEIS, Advantis, Sterling Software, Harbinger, AT&T, Sprint	17%
Enhanced Fax	AT&T (6%), Sprint (7%), MCI (7%), C&W (3%), LDDS (<1%), RBOCs (7%), Xpedite (11%), Mediatel (2%), GTE, SNET, Advantis, GEIS, Technology Solutions, PR Newswire, World Data Delivery, Instant Information, Marketfax, Actionfax	44%

Source: Insight Research, Frost and Sullivan, Marketfinders, Goldman Sachs

The RBOCs participate to some degree in nearly all these service segments, as demonstrated by the records of the Comparably Efficient Interconnection (CEI) Plans which they are obliged to file with the FCC for all Enhanced Service products that they plan to offer. They have also filed plans for several services, especially video-related ones which they are currently developing.

TABLE II.2: RBOC CEI FILINGS FOR EXISTING AND PLANNED ENHANCED SERVICE CATEGORIES

[redacted]

CURRENT SERVICES

Voice Messaging	X	X	X	X	X	X	X
Online Databases		X		X	X		X
Audiotex	X						X
Electronic Mail		X			X		
EDI	X	X	X	X	X	X	X
Transaction Processing							X
Enhanced Fax Services	X	X	X				X

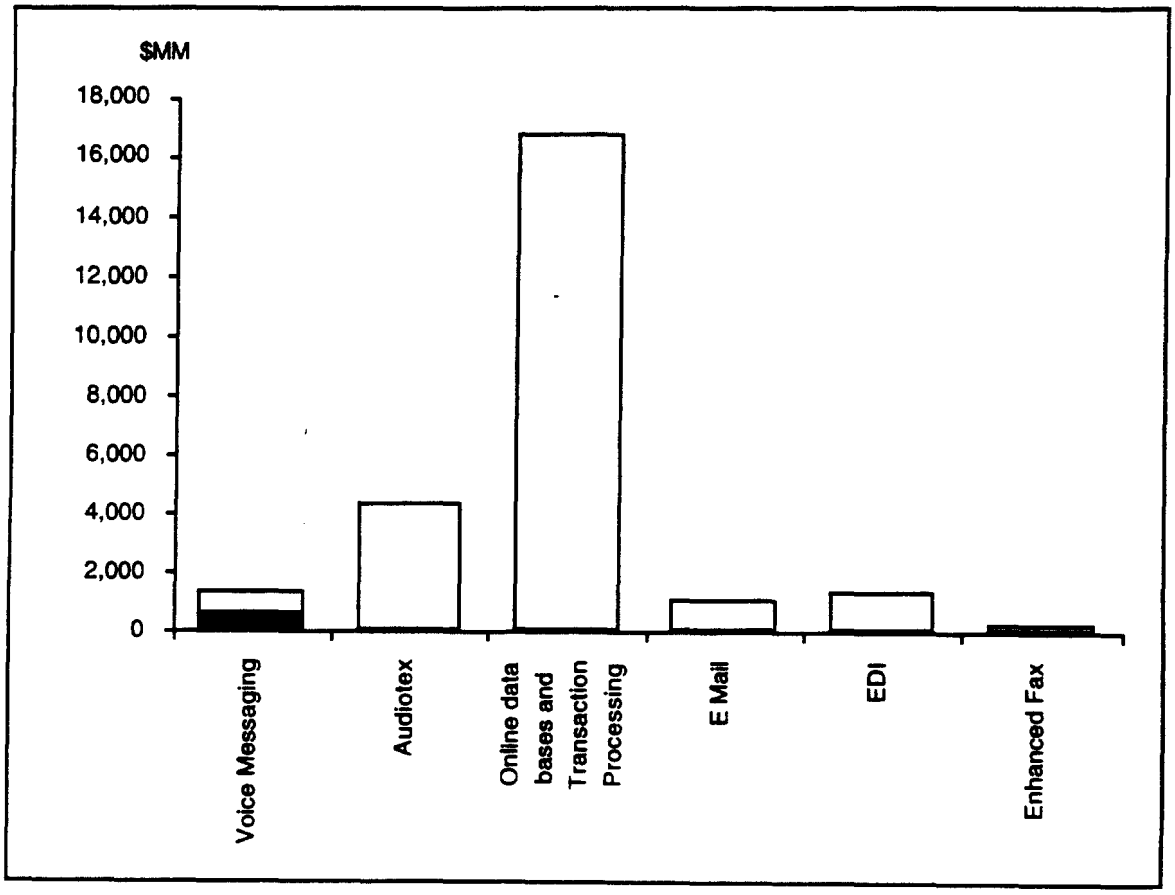
SERVICES IN DEVELOPMENT

Interactive Voice Services with Call Count		X					
Video Server		X					

Level Two Video Gateway		X		X			(X)[1]
Video & Text Programming, Interactive		X		X			X

However, RBOCs have attained very little penetration in any of the segments except Voice Messaging. This demonstrates clearly that they do not have a monopolistic position in Enhanced Services. There are many other players in each segment which are competing successfully, in many cases more successfully than the RBOCs.

EXHIBIT II.2: RBOC SHARE OF ENHANCED SERVICE MARKETS



Source: Insight Research, Frost and Sullivan, Marketfinders

The RBOC's participation in Voice Messaging and Enhanced Fax is discussed below in more detail. They have scant participation in the other Enhanced Service markets:

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[1] *In development but no CEI plan filed*

- Audiotex: The RBOCs have introduced a number of local services, including traffic information and directory services. Pacific Telesis, for example, offers a Daily Reporter service in conjunction with its voice messaging service whereby programs on topics such as sports and weather can be downloaded to voice mail boxes. The RBOCs entry, whilst still on a small scale, is helping to overcome the poor image of Audiotex services created through fraudulent and misleading activities of some players in this market

- Online Databases: RBOC participation here has also been very limited. U S WEST set up a Joint Venture with France Telecom in 1991 but it was not a success and they withdrew from the market in 1994. NYNEX also discontinued its "Info-Look" gateway after two years, and Pacific Telesis abandoned its product "California-on-line" before it was even introduced.

- Email, EDI and Transaction Processing: The RBOCs have experimented with these services, but they have not achieved significant penetration in any of them.

U S WEST holds frequent discussions with non-affiliate Enhanced Service Providers (ESPs) in its territory about its compliance with the Open Network Architecture rules (which govern the way it offers the various elements of service that are required for Enhanced Services). These rules are designed to ensure that the RBOCs own Enhanced Service businesses do not receive preferential treatment. Most ESPs regard U S WEST as a reliable supplier.

III. VOICE MESSAGING

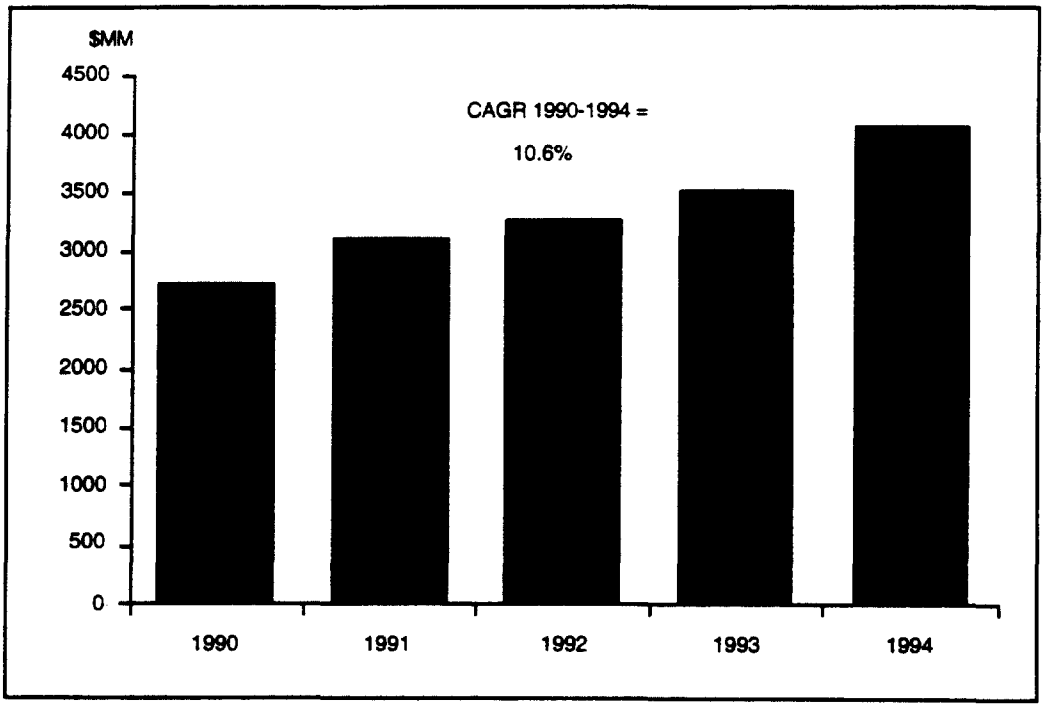
III. Voice Messaging

III.1. Market Growth

The Total Voice Messaging Market, including both equipment and services has shown healthy growth in the last few years. RBOC revenues have grown dramatically. but sales of Voice Messaging Equipment, which compete directly with Voice Messaging Services, have continued to expand as well.

The Voice Messaging Market, including sales of business premise equipment and Telephone Answering Devices, has, in aggregate, grown quite rapidly since the RBOCs entered the market, It has increased from $2.7BN in 1990 to $4.1BN in 1994. This reflects continued increases in penetration of TADs, from 35% of US Households in 1990 to 66% in 1994. It also reflects more than a doubling of the number of subscribers to Voice Messaging Services. Currently, more than 9MM people use these services, up from only 4MM in 1990.

EXHIBIT III.1: TOTAL VOICE MESSAGING MARKET (EQUIPMENT AND SERVICES)[1]



Source: Yankee Group, Frost and Sullivan, NATA

[1] *Includes: Telephone Answering Devices; Business Voice Messaging Equipment; Service Bureau, RBOC, IXC and Independent LEC Voice Messaging Service revenues*

There are different factors driving the growth by each major provider segment:

- Business VM equipment: the growth in this market has slowed to an average of 7% in the last four years (down from 52% per year between 1986 and 1990) as the market reaches saturation. Prices have also declined due to healthy competition – the largest player, Octel, has only 18% of the market. There is a trend towards integration of Voice Messaging systems with other messaging applications such as Email which will stimulate some additional growth.

- Telephone Answering Devices: partly spurred by the arrival of affordable voice messaging services from the RBOCs, TAD equipment vendors have introduced machines with significantly improved features. A switch to digital technology has increased reliability, and facilitates introduction of features such as Caller ID, multiple mail boxes, call blocking, call logs, remote notification and voice announcements. With these improvements, the only major benefit that messaging services have over TADs is the ability to take a message when the phone is busy. On the other hand, TADs allow callers to screen calls, and, they usually have a visual message indicator, which many users prefer. Consequently, TADs continue to provide strong competition to providers of VM services in the residential and small business sectors.

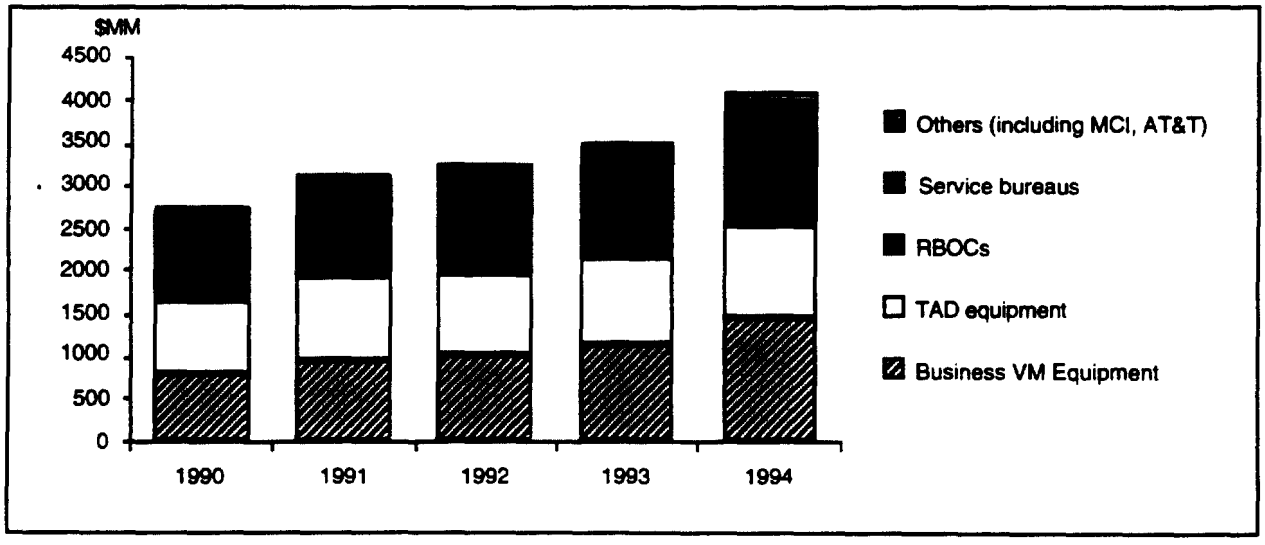
- Voice Messaging Services

  - RBOCs: The RBOCs launched voice messaging services in 1990. These services have been targeted at the residential segment. They have experienced extremely rapid growth, which reflects the fact that their services are priced substantially lower than the previously available services which were targeted at business users (see below). Nonetheless, in total lifetime costs they are still much more expensive than TADs, and consequently the number of subscribers (nearly 5MM in 1994) is small compared to the installed base of TADs (64MM in 1994).

- Service Bureaus: These have traditionally offered service to businesses. Only 10% of their revenue came from the residential segment in 1994, mainly from professional users such as doctors and lawyers. Service Bureaus were the first to offer automated voice messaging, but many also already offered live answering, which is much more costly to provide than automated voice messaging. (In 1994, about 75% of Service Bureau revenue still came from live answering).

- IXCs and Independent LECs: These players make up the tail end of the service market. The IXCs offer national voice messaging services almost exclusively to large businesses which span several regions. AT&T was the only IXC provider in the market until it dropped out in December 1993. MCI entered in 1994. Given that the IXC service was priced at a premium to local or regional services, it has been a difficult sell and MCI currently has less than 1% share of service revenues. The Independent LECs offer similar services to the RBOCs and have about 6% of the service market.

EXHIBIT III.2: VOICE MESSAGING MARKET BY VENDOR TYPE (EQUIPMENT AND SERVICES)



Source: Frost and Sullivan, NATA, Yankee Group, BAH Analysis

III.2. Voice Messaging Service Pricing

RBOCs entered the market in 1990 and have driven the prices for Voice Messaging Services down considerably. This has enabled large segments of the population to buy the service which could not previously afford it.

Prior to the entry of the RBOCs, Service Bureaus typically charged $15-25 for a voice mail box. They charged substantially more for live answering services - sometimes up to $170 per month. RBOCs have been offering services at much lower prices since 1990. In real terms, these prices have been flat since their entry.

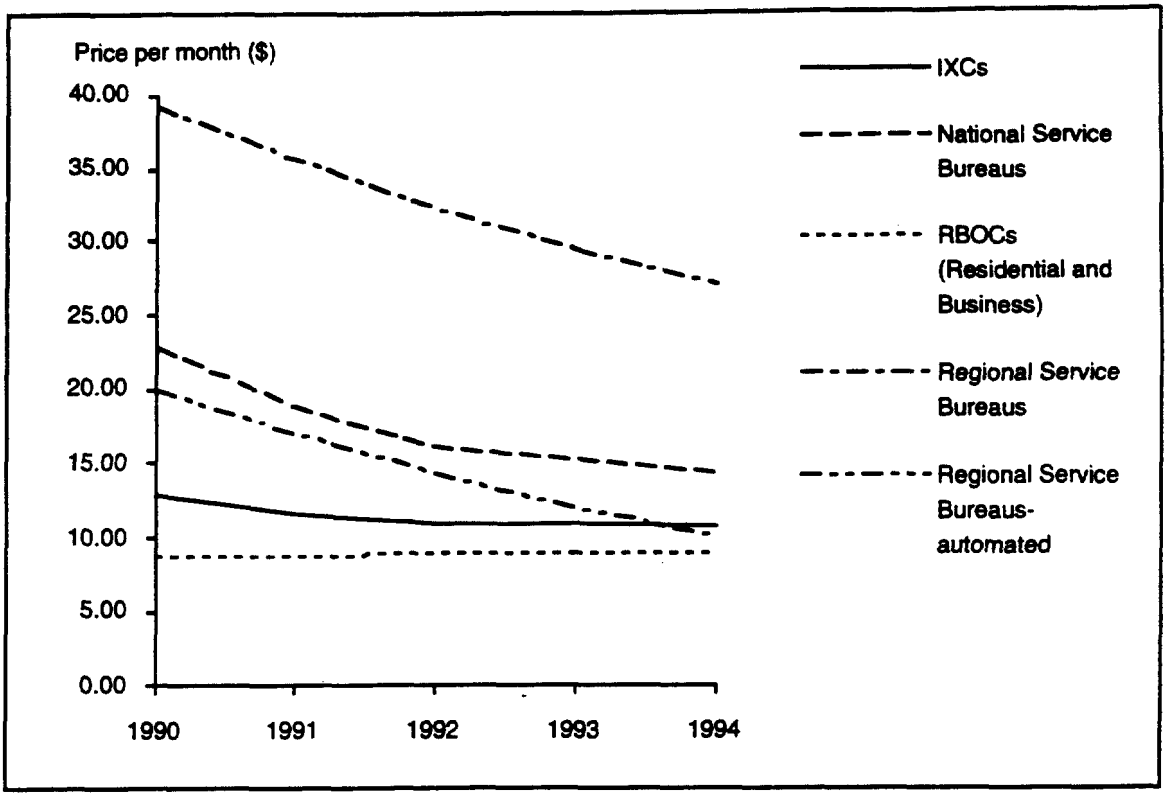
TABLE III.1: RBOC RESIDENTIAL VOICE MESSAGING BASIC SERVICE PRICING ($/MONTH)

RBOC	1990	1991	1993	1995
Ameritech	6-8.00	Varies	5.25	6.75
Bell Atlantic	3.00	5.00	6.25	6.50
Bell South	6.45	3.95	6.95	6.50
NYNEX	6.00	6.13	5.95	6.00
Pacific Telesis	4.95	4.95	5.95	6.50
Southwestern Bell	5-6.00	5.50	5.95	5.95
U S WEST	6.95	6.95	6.45	6.95
AVERAGE	**5.69**	**5.50**	**6.11**	**6.45**
Real Prices ($1990)	5.69	5.28	5.52	5.66

Source: Yankee Group, IMF (Retail Price Index)

This has forced Service Bureaus to lower prices for basic Voice Messaging Services. For example Octel (Tigon), one of the largest Voice Messaging Service Bureaus, offered Voice Messaging for $15-25 in 1992 but has now lowered its prices to the $10-20 range. The price can be even lower with volume and long term discounts. The average price paid for Service Bureaus offering local automated voice messaging has now fallen from $20 per month to $10. However, since RBOCs do not offer live answering, the Service Bureaus have tried to recover some of their revenues by putting up prices for live answering (the average price has risen from about $70 to $80 per month).

EXHIBIT III.3: VOICE MESSAGING SERVICE PRICES



Source: Frost and Sullivan, Yankee Group, BAH Analysis

III.3. Voice Messaging Subscribers

The RBOCs participation in the market has greatly expanded the number of users in both the residential segment and the small business segment.

The prices that RBOCs are offering has greatly expanded the base of subscribers in the residential segment and the small business segment. RBOCs have brought this service to an entirely new segment of users for whom Service Bureau prices were much too high. In the residential sector, the total number of subscribers has expanded from 1.0MM in 1990 to 4.2MM in 1994. RBOC subscribers have risen from 240K in 1990 to 3.2MM in 1994. Service Bureau subscribers have stayed just about flat at between 400K and 500K.

EXHIBIT III.4. RESIDENTIAL VOICE MESSAGING SERVICE SUBSCRIBERS

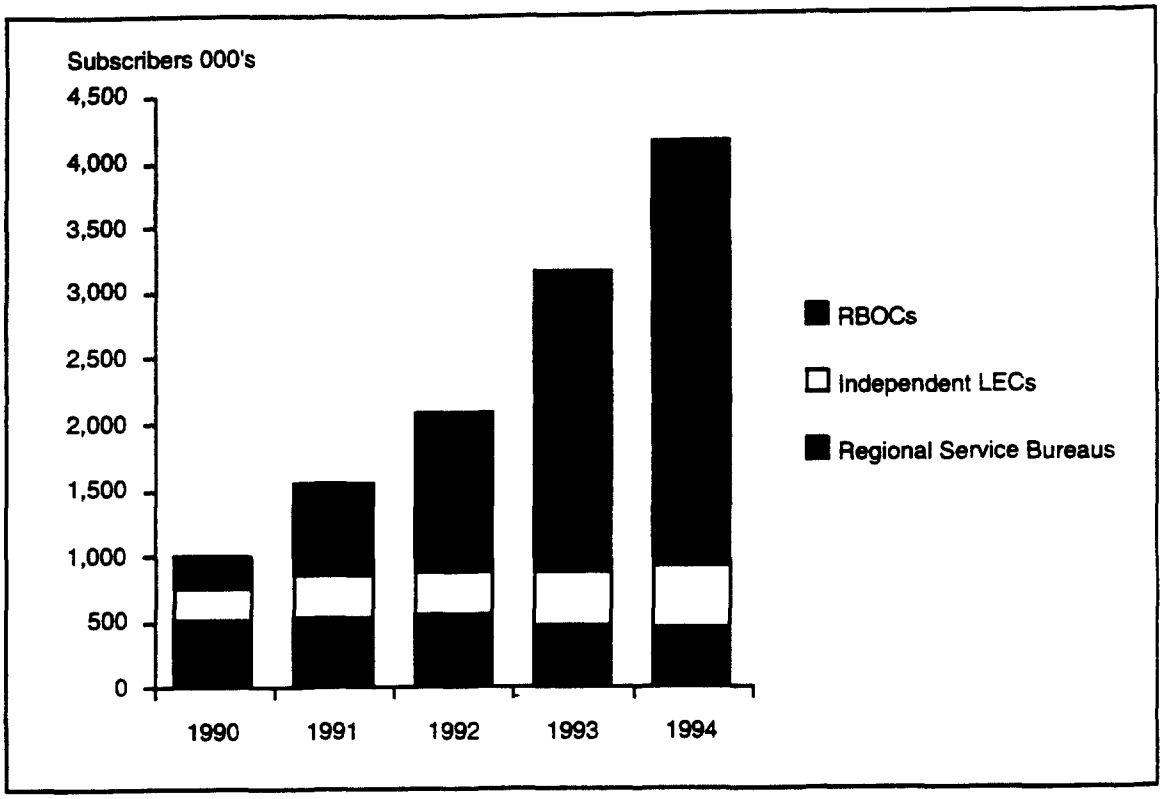
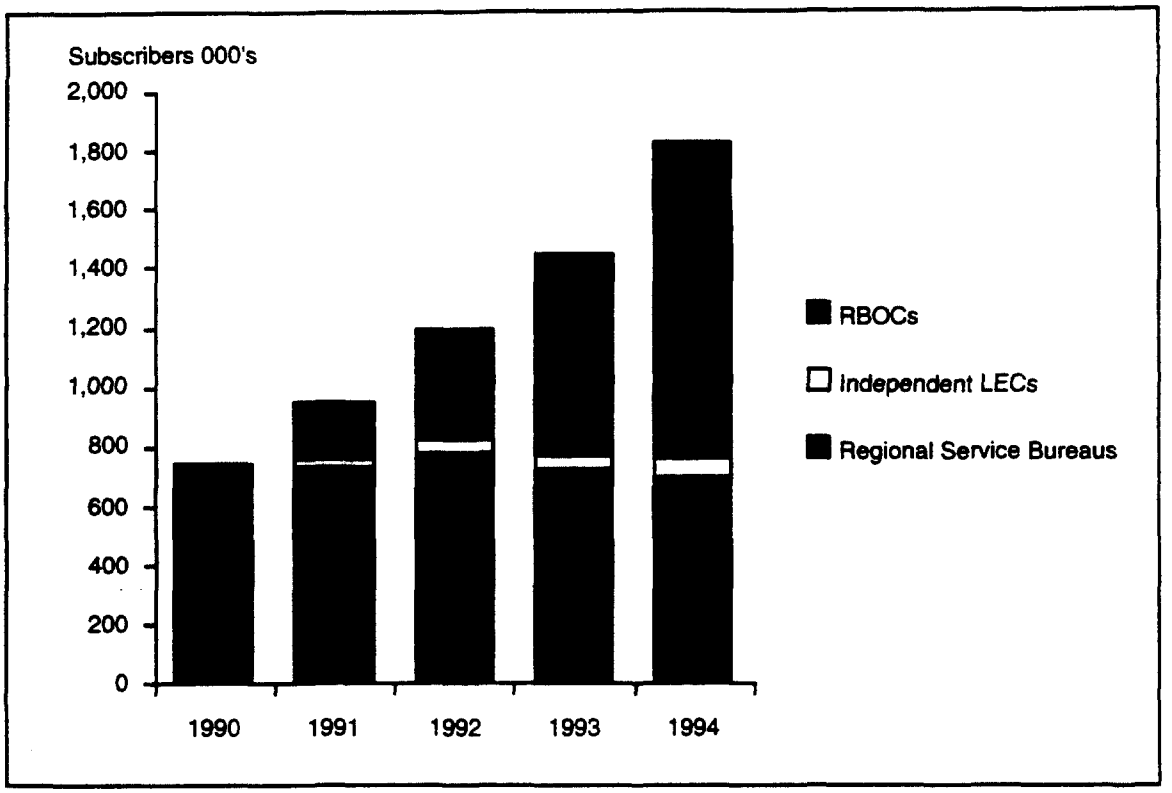


EXHIBIT III.5: SMALL BUSINESS VOICE MESSAGING SERVICE SUBSCRIBERS



Source: Frost and Sullivan, Yankee Group, BAH Analysis

A similar trend is has also taken place in the small business segment. The number of subscribers in the small business segment has risen from 740K in 1990 to 1,800K in 1994. RBOC subscribers have risen from a few thousand in 1990 to 1.1MM in 1994 and Service Bureau subscribers have stayed flat at around 700K subscribers.

III.4. Service Bureau Performance

Even though the RBOCs have signed up large numbers of subscribers in the residential and small business segments, the independent Service Bureaus have maintained their subscriber base and many companies have thrived, partly through targeting the business market with a larger range of products and functions.

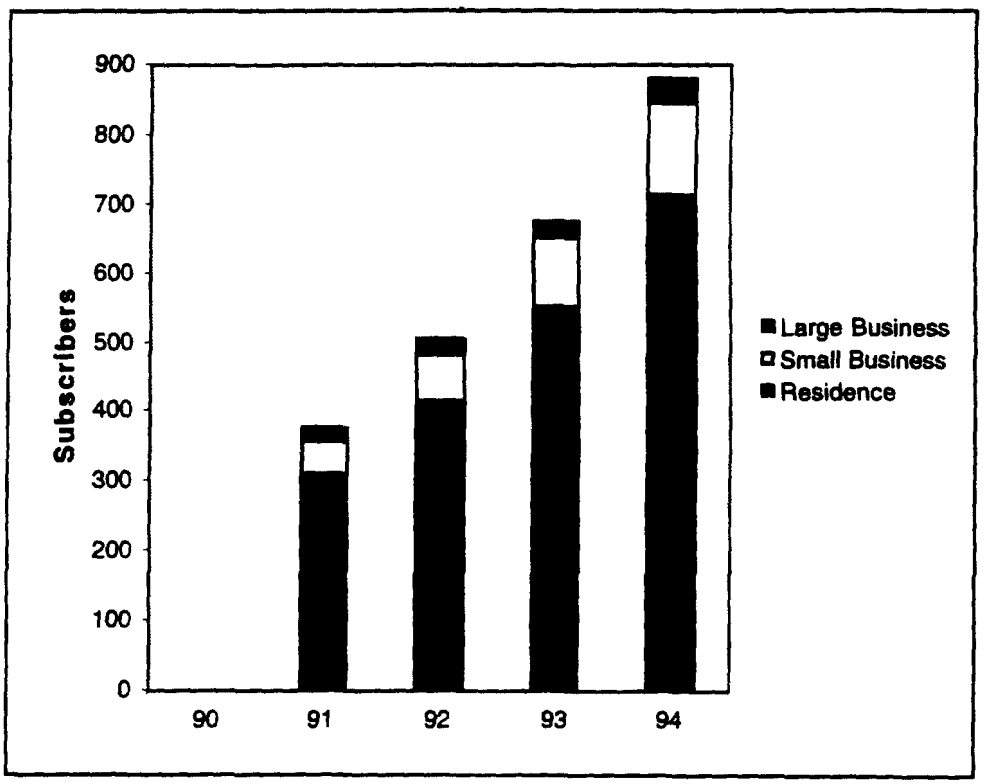
RBOC competitive offerings have forced Service bureaus to reduce prices for Voice Messaging Service especially in the residential segment (which never represented their core business) and grow other parts of their business (in particular, equipment). Nonetheless, many players are still thriving. Voice-Tel, VoiceCom and Octel, the three major Service Bureaus, have all expanded dramatically in the last couple of years. Service Bureaus, in general, have expanded their services to offer combined live and automated answering services, cellular phones and pagers, 1-800 numbers, voice and fax messaging, domestic and international long distance calling, speed dialing, conference calling, travel reservations, voice response-based field activity management reporting, secretarial services and even voice messaging equipment sales. There has been a consolidation as well, as the Bureau's try to achieve the economies of scale of larger players. For example, VoiceCom more than quadrupled its revenues from $15M to 65M in 1993 when it acquired Async from MCI and the voice services division of Wang Information Services. Voice Bank, a smaller Service Bureau, based in Georgia has also bought out a number of small players in its region and plans to acquire bureaus in other areas as well.

III.5. U S WEST's role in the Voice Messaging Services Market

U S WEST has focused almost exclusively on the residential segment. Besides bringing an affordable service to this segment in general, it has benefited certain parts of the populations through the introduction of special products which would not be provided by independent Service Bureaus.

The RBOC emphasis on the subscriber segment described in **Section III.3** is reflected in the break down of U S WEST's own subscriber base, which is heavily skewed towards the residential segment. 95% of U S WEST's subscribers are residential customers. U S WEST is providing a real benefit to the community by providing this service to a whole new set of customers. Most Voice Messaging Service Bureaus in U S WEST's territory do not even regard U S WEST as a direct competitor because they are pursuing a different segment of the market.

EXHIBIT III.6. U S WEST VOICE MESSAGING SUBSCRIBERS



Source: U S WEST

In serving this market U S WEST has developed special voice messaging services to serve various niche segments of customers which a Service Bureau would be unlikely to choose to serve.

- Rural and low income areas: U S WEST provides Voice Messaging Services in a large number of rural areas and in areas in which low income groups are predominant. See **Appendix 1: Maps of U S WEST Voice Messaging Service Customers.**

- Minority Oriented Products: Customers in Albuquerque and Santa Fe can buy Spanish voice at no extra charge. The service will be extended to Arizona in May 1995

- Parent Teacher Link: U S WEST has developed a voice messaging system for use in schools. Schools are provided with mailboxes for use by each of their teachers. They can leave messages about matters such as homework, athletic events or cafeteria menus. They can also broadcast messages to selected groups of parents or individual ones if they subscribe to the service. Parents can call in and check the public messages or leave messages for the teacher. This service has generated a very enthusiastic response among both Parents and Teachers alike. Transcripts of focus groups held with teachers and parents are included in **Appendix II: Transcript of Parent Teacher Link Focus Group.** Similar services are available for other groups such as youth activity groups and charities.

TABLE III.2: FOCUS GROUP RESPONSES TO PARENT TEACHER LINK

GROUP	EXAMPLE RESPONSES	TRANSCRIPT REFERENCE[1]
Parents	• I get a call daily from [teacher]. She lets us know what the class is doing, for a particular class.	5.20
	• It is good to know for sure what they have to do that night for homework. If it is a project that they have, even for week, then I want to know about it.	5.1
	• They had assignment tests today and Jennie did not tell me; you know, it is one of those things that escapes the mind. I would not have heard that message; I would not have known she had to study for it	3.49
	• I think it helps; it is feed back for them and you are more likely to communicate a small message that you do not want to bother to send [by mail]	8.7
	• There is so many walls thrown up between parents and teachers and this is one way to break them down.	13.32
	• [US West] have a good tool that the schools should use	15.6
	• This is something that you can do quickly. You do not have to necessarily see the person face to face and it also saves the teacher time.	17.44

[1] *See Appendix II: Transcript of Parent Teacher Link Focus Group*

TABLE III.2 (CONTINUED): FOCUS GROUP RESPONSES TO PARENT TEACHER LINK

GROUP	EXAMPLE RESPONSES	TRANSCRIPT REFERENCE[1]
Teachers	• I do a lot of communicating as far as one on one, sending messages back	8.16
	• If you are communicating with the parents that makes your job easier and it benefits the children as well as the parents	12.12
	• It...keeps me organized too, in the sense that I have to put everything on once per week, so I have to have myself very well planned out.	12.20
	• I like the fact that you can use it at any time. You are not going to waste time. I can do it at 10.30 or 11.30 at night. I do not need to wake them up and [I can] still leave that message	12.34
	• Parents feel more comfortable sending me a message later in the evening	12.42
	• I do not call parents as often or as quickly if they do not have voice messaging	13.13
	• I have a lot of very intense parents, very concerned parents and....communication is the best line. It helps everybody	13.45
	• It is an efficient way to communicate	13.27
	• The big picture is that it was a great idea	14.29

[1] *See Appendix II: Transcript of Parent Teacher Link Focus Group*

Articles from the local press about the plan are presented in **Appendix III: News Articles about Parent Teacher Link**. The service was also commended in a news spot on Phoenix Channel 10 News. The transcript of this is presented in **Exhibit III.6: Transcript of News Spot on Parent Teacher Link**

EXHIBIT III.6: TRANSCRIPT OF NEWS SPOT ON PARENT TEACHER LINK

You wonder whether your child tells the truth when you ask him if there is homework tonight and he says, no.

Frustrated you can't reach a teacher to answer a simple question?

US WEST hopes they have the answer.

A cutting edge voice mail system is now in three schools and blaming the family dog for chewing up an assignment just became obsolete.

This is Nancy Gunty, seventh grade science class at Saint Thomas the Apostle Catholic school. She hopes her students are paying attention; but just in case, (telephone sound).

Hi, this is Mrs. Gunty from Saint Thomas, and this is the assignment for seventh grade science for the week of January 23rd.

(Parent listening). Today in science we studied stars, the different characteristics of stars and how they are formed. For homework tonight, the student need to do exhibition M19.

Before Core Bellan even gets home from school, her mother hears her teacher's voice message: "Thanks Mrs. Gunty; we will talk to you soon about Cory's progress in science".

Tell me what you like about this voice mailing system. What I like about it is that it fosters so much communication between parent and teacher and the school. A lot of times I will dial in with a simple question that needs to be answer but that I would not dream of disturbing a teacher at night, after, her kids are in bed and she needs quiet time. I can do it at my convenience and then she message me back, which is great because she does not interrupt that I am doing. So, you can always plan a conference for something that is very important; but just for the everyday, it is great!

So, some day we are all going to be connected to each other through Voice Mail.

That is our hope; that is our hope and more customers would be using Voice Mail. It is really the way of the future and how we are going to communicate.

And we heard our own future through Saint Thomas' principal's Voice mail message: There will be a special presentation on the channel ten news, this evening at 10:00 o'clock. The presentation will be done by June Thomsen, one of the news casters for Channel 10 who visited our school today.

IV. ENHANCED FAX SERVICES

IV. Enhanced Fax Services

IV.1. The Enhanced Fax Services Market

The Enhanced Fax Services Market is still relatively small but growing very rapidly. RBOCs have participated in this market since 1990 and their involvement has not impeded the market's growth.

The market for Enhanced Fax services is still fairly small but growing rapidly. It breaks into four main application areas:

- Fax Broadcast: this service enables a user to send one fax to multiple recipients without having to resend the fax each time. The systems generally establish directories of destination fax numbers which the user can select or modify.

- Fax Retrieval: this service, otherwise know as fax-on-demand or fax-response allows a user to telephone into an organization and, by using a series of voice prompts, select a file, which could include brochures, announcements or other information. This file will then be faxed to the number designated by the user.

- Fax Mailbox: this service enables a user to receive a fax at a mailbox where it is stored until the user accesses the box remotely using a password, and instructs the system to send the fax to the nearest fax machine. This preserves confidentiality and enables the user to receive a fax anywhere without having to give out the number of a specific fax machine.

- Fax Overflow: this service is also know as never-busy-fax. When a user's machine is busy, incoming faxes are diverted to a storage location and forwarded when the fax machine becomes available.

In combination, these services represented a market of $106MM in 1991 and $300MM in 1994 which reflects an annual growth of 42%.