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Issues: Geographic Market and Cross-

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Witness: Robert W. McCausland
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Case No. TO-2004-0207

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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. TO-2004-0207

PHASE I

DIRECT TESTIMONY

OF ROBERT W. McCAUSLAND

ON BEHALF OF

SAGE TELECOM, INC.

December 18, 2003

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DIRECT TESTIMONY OF

ROBERT W. McCAUSLAND

CASE NO. TO-2004-0207

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PHASE I DIRECT TESTIMONY

OF

ROBERT W. McCAUSLAND

CASE NO. TO-2004-0207

I. <u>BACKGROUND AND PURPOSE OF TESTIMONY</u>

- 2 O. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Robert W. McCausland. My business address is 805 Central Expressway
- 4 South, Suite 100, Allen, Texas 75013-2789.

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5 O. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

- 6 A. I am the Vice President—Regulatory Affairs for Sage Telecom, Inc. ("Sage"). I am
- 7 responsible for all aspects of Sage's regulatory compliance and authority, regulatory
- 8 policy formulation and implementation, tariffs, traffic exchange contracts,
- 9 interconnection agreements, and legislative relations.

10 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE WITHIN THE 11 TELECOMMUNICATIONS INDUSTRY.

- 12 A. I have nearly twenty years' of broad management-level experience within the,
- telecommunications industry which I describe here at a very high level: My current
- responsibilities at Sage are described above. Prior to joining Sage, I was a consultant
- to CloseCall America, Inc. Before that, I was Allegiance Telecom's Vice President of
- Regulatory and Interconnection. I have also worked for MFS Communications
- 17 Company, where my responsibilities included collocations and unbundled loop
- implementation, and for Bell Atlantic, where my areas of responsibility included the

negotiation of early CAP collocation and interconnection arrangements, switched and special access product line management, the negotiation of the company's first region-wide interconnection agreements for wireless carriers, service cost study development, and various functions within areas of state and federal regulatory. Attached to my testimony is Schedule JWM-1, which consists of my resume.

6 O. WHAT ARE THE PRIMARY PURPOSES OF YOUR TESTIMONY?

- 7 A. The primary purposes of my testimony are to:
- 8 (1) provide a brief description of Sage and the company's markets and customers;
- 9 (2) present Sage's stance on the relevant geographic market and cross-over points for 10 the State of Missouri, along with supporting rationale; and to
- 11 (3) highlight many of the implications of this proceeding to Sage and to Missouri 12 consumers.

II. BRIEF DESCRIPTION OF SAGE TELECOM, INC.

14 A. <u>Business Operations</u>

- 15 Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF SAGE AND ITS OPERATIONS IN MISSOURI.
- 17 A. Sage is a competitive local exchange carrier ("CLEC") licensed to provide basic and
 18 intrastate interexchange telecommunications services in all portions of the State of
 19 Missouri that are served by Southwestern Bell Telephone Company d/b/a SBC Missouri
 20 ("SBC Missouri"), Sprint Missouri, Inc d/b/a Sprint, GTE d/b/a Verizon, and Spectra

Communications Group, L.L.C.¹ Sage is also certificated to provide telecommunications services in Arkansas, California, Illinois, Indiana, Kansas, Michigan, Oklahoma, Ohio, Texas, and Wisconsin.

Q. WHAT IS SAGE'S MARKET FOCUS?

A. Sage has identified a particular customer need or niche in today's evolving local exchange market; an area of customer demand that Sage is well-equipped to address. Sage's primary business focus is on providing competitive local and interexhange telecommunications services to residential and small business customers in *suburban communities and in some rural and urban areas of* Missouri. Sage's target market evolves from broader areas during the initial rollout phase to neighborhoods and community areas in the follow-up marketing phase; however, Sage does not decline to serve any residential or commercial customers within the geographic areas in which it is offering service areas as long as the customer meets the requirements contained in Sage's Commission-approved tariffs (Sage just does not continue to market to certain areas).

16 Q. HAS SAGE BEEN SUCCESSFUL IN IMPLEMENTING ITS MARKET FOCUS 17 IN MISSOURI?

A. Yes. Currently Sage serves approximately 32,700 residential and small business customers in Missouri. Of that number, approximately 94% are residential customers and 6% are small business customers. As further evidence of Sage's success,

See Case No. TA-2002-29; In the Matter of the Application of Sage Telecom, Inc. for a Certificate of Service Authority to Provide Basic Local Telecommunications Service in the State of Missouri and to Classify Said Services and the Company as Competitive; Order Granting Certificate to Provide Basic Local Telecommunications Services (Sept. 24, 2001); Case No TA-2002-30; In the Matter of Application of Sage Telecom, Inc. for a Certificate of Service Authority to Provide Competitive Intrastate Interexchange Telecommunications Services within the State

approximately 9% are rural; 52% are suburban, and 39% are urban customers. Based on my understanding of the markets in Missouri, I am not aware of any other CLEC that has focused on *residential and small business customers* that way that Sage has.

4 Q. HOW DOES SAGE PROVIDE SERVICES TO ITS CUSTOMERS?

Sage provides basic local exchange service to customers *exclusively* through access to SBC Missouri's UNE-Platform ("UNE-P"). Sage provides intraLATA toll services in Missouri through use of SBC Missouri's UNEs. Sage provides other long distance service to its customers through arrangements with long distance carriers. Furthermore, Sage has traditionally leased voice mail service capacity from a third-party provider and used that capacity to serve its customers; however, Sage is in the process of deploying its own voice mail platform.

12 Q. DOES SAGE OWN SWITCHES OR TRANSMISSION FACILITIES USED TO PROVIDE SERVICE TO ITS CUSTOMERS?

14 A. No. Sage does not own any switches or other transmission facilities. However, as just
15 referenced, Sage is in the process of deploying its own voice mail platform and intends
16 to continue to evolve towards providing more value-added, differentiated products to its
17 customers.

B. Sage's Service Offerings

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19 Q. WHAT ARE THE TYPES OF SERVICES PROVIDED BY SAGE IN MISSOURI?

A. Basically, Sage's product offerings are based on combining or packaging local, toll (intrastate), and long distance (interstate) offered at a flat monthly rate. The Company

of Missouri and to Classify Said Services and the Company as Competitive, Order Approving Interexchange

was one of the first to pioneer this type of bundling of products in accordance with consumer demand, particularly in the exurban areas. The bundled product offerings also include unregulated features, such as Caller ID, Call Waiting and voice mail, and other features that can be obtained in addition to the bundled offer. offerings contains a set number of "long distance" (intraLATA and interLATA) minutes that the customer may use as part of the flat monthly fee. Then, if the customer uses more than the allotted amount of long distance minutes, Sage charges a per minute rate for long distance calls. Sage has bundled offerings for residential and small business customers.

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DOES SAGE MARKET ITS UNE-P BASED SERVICES THROUGHOUT THE 10 Q. ENTIRE STATE OF MISSOURI?

A. No. Although Sage is authorized to provide service within the exchanges of various 12 incumbent local exchange companies, Sage only provides service within areas served 13 by SBC Missouri and, even there, Sage does not perpetually target all customers and 14 all areas. 15

DOES SAGE HAVE ANY PLANS TO SERVE ITS MISSOURI CUSTOMERS Q. 16 USING FACILITIES THAT IT DEPLOYS TO "BYPASS" SBC? 17

No, Sage does not currently plan to deploy local bypass facilities, nor does Sage 18 Α. believe that it would be able to serve residential and small business customers that are 19 dispersed over such wide geographic areas through bypass facilities. Rather, Sage 20 plans to continue to utilize SBC Missouri's UNE-P service, packaged with the long 21 distance service cited above, and possibly packaged with other services that Sage may 22 be able to obtain from other providers or that Sage may be able to provide itself. 23

1 Q. WHAT SBC-MISSOURI AREAS ARE TARGETED BY SAGE?

A. Sage targets many of the suburban areas spread across SBC Missouri's operating area as well as neighborhoods and community areas where initial customer response rates exceed average customer response rates.

5 Q. WHAT CUSTOMERS ARE TARGETED BY SAGE?

- A. Sage targets and serves exclusively mass market customers, *i.e.*, residential and small business customers whose premises are served through DS-0/voice grade level facilities. Most such customers purchase a single line; however, a few have multiple lines, although typically not more than five or six.
- 10 Q. PLEASE DESCRIBE SAGE'S INITIAL PROCESS FOR TARGET
 11 MARKETING MASS MARKET CUSTOMERS WITHIN AREAS OF SBC
 12 MISSOURI'S OPERATING TERRITORY.
- First, NPA/NXXs within SBC Missouri's operating areas are identified along with 13 the customers' names and addresses associated with those NPA/NXXs. Then the 14 NPA/NXX name and address list is supplemented with results of a zip-code and 15 16 exchange boundary analysis. Finally, screening of the list takes place to address any apparent anomalies and to help ensure adherence to do-not-call rules. 17 resulting list is used for mailers sent to the residential and small business addresses 18 19 within the target areas. The resulting list may also be used by telemarketers that Sage sometimes hires to contact target-area customers who are not listed on the do-20 not-call lists. 21

1 Q. ARE THERE OTHER WAYS THAT SAGE TARGET MARKETS MASS MARKET CUSTOMERS? IF SO, PLEASE DESCRIBE SUCH.

- A. Yes. Sage also relies on word-of-mouth type marketing. A great deal of marketing in this industry is built on word-of-mouth and maintaining good customer relations and a good reputation. Also, as addressed above, Sage "repeat markets" neighborhoods and community areas where initial response rates exceed average response rates.
- 8 Q. DOES SAGE UTILIZE MASS MEDIA MARKETING OR "DOOR-TO-DOOR" MARKETING APPROACHES?
- 10 A. No, Sage does not utilize either a mass media or door-to-door marketing approach.
- 11 **O.** WHY NOT?
- 12 A. Sage does not believe that such approaches could be cost effective due to the 13 spending characteristics of geographically-dispersed mass market customers in rural 14 and suburban markets. Sage's early experimentation with targeted mass media 15 advertising in another state was not productive.
- 16 Q. DOES SAGE MARKET ITS UNE-P BASED SERVICES TO CUSTOMERS IN
 17 MISSOURI BASED ON THE METROPOLITAN STATISTICAL AREAS
 18 ("MSAs") DEFINED BY THE U.S. OFFICE OF MANAGEMENT AND
 19 BUDGET?
- 20 A. No.

III. THE GEOGRAPHIC MARKET DETERMINATION

2 A. <u>The Importance of the Geographic Market Determination</u>

A.

3 Q. WHY IS THE DETERMINATION OF A GEOGRAPHIC MARKET IMPORTANT TO THIS PROCEEDING?

In Paragraph 493 of the *Triennial Review Order*², the Federal Communications Commission ("FCC") found "competitors [such as Sage] to be impaired without access to the incumbent LEC's switch on a national level when serving the mass market" and authorized "state commissions to play a fact-finding role . . . to identify where competing carriers are not impaired without access to unbundled local circuit switching." Under the Triennial Review Order, this Commission has the "discretion to determine the contours of each [geographic] market" as a prerequisite for determining whether or not the presumption of competitive impairment should be lifted.

The delineation of geographic areas for application of the impairment test under the *Triennial Review Order* is paramount to the Commission's ability to fairly judge and implement the impairment test. For example, if the geographic market is defined too broadly such that it incorporates both metropolitan and urban areas and customers as well as Sage's primary market, suburban and certain rural and urban areas and customers, then Sage and its customers will be detrimentally affected in the event the Commission applies a non-impairment decision to the broad geographic area. In Sage's view, this Commission is charged with the task of defining a geographic market smaller than the State, yet not "so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market."

² Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, FCC Docket No. 01-388, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No.

- Q. DID THE FCC GIVE ANY GUIDELINES TO STATE COMMISSIONS ON HOW TO CREATE THESE GEOGRAPHIC MARKETS FOR PURPOSES OF EXAMINING WHETHER OR NOT TO REBUT THE PRESUMPTION OF COMPETITIVE IMPAIRMENT?
- Yes. The FCC gave some factors that Commission should take into consideration such as

 "the locations of customers actually being served (if any) by competitors, the variation in

 factors affecting competitors' ability to serve each group of customers, and competitors'

 ability to target and serve specific markets economically and efficiently using currently

 available technologies," among other factors, in geographically dividing Missouri for

 purposes of the Commission's analysis. However, as I am sure all parties will agree,

 there are numerous ways to do so within the parameters defined by the FCC.

12 B. Sage's Recommended Geographic Market Definition

13 Q. WHAT DO YOU THINK WOULD BE THE CORRECT GEOGRAPHIC MARKET FOR THE COMMISSION'S IMPAIRMENT ANALYSIS?

A. It is Sage's position that the Commission should take the geographic market definition standards set forth in the *Triennial Review Order* and overlay them onto actual CLEC network deployment to determine mass market geographic boundaries in Missouri. The *Triennial Review Order* directs the Commission to consider real operational factors, including: (1) CLEC use of self-provisioned switches to serve various groups of customers; and (2) how impairment varies geographically. I believe that applying these two key standards to CLEC facilities deployed in Missouri will yield the result that the individual SBC Missouri wire center is the appropriate geographic market for the mass market impairment analysis.

^{96-98,} Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, FCC 03-36, (rel. Aug. 21, 2003) ("Triennial Review Order").

IV. THE THRESHOLD BETWEEN ENTERPRISE AND MASS MARKET

- Q. A LARGE PART OF THIS PROCEEDING INVOLVES THE PROVISIONING
 OF UNBUNDLED LOCAL SWITCHING TO MASS MARKET CUSTOMERS.
 HOW DOES SAGE DEFINE THE TERM "MASS MARKET"?
- 5 A. Sage defines mass market as the base of customers served by any DSO/analog/voice grade loop.

7 Q. HOW WOULD SAGE DEFINE THE TERM "ENTERPRISE MARKET?"

Sage has no definition for the term "enterprise market" since we do not traditionally A. 8 9 serve, nor do we actively market to, mid-sized or large business customers. Sage targets and serves exclusively mass market customers, i.e., residential and small business 10 customers whose premises are served through DS-0/voice grade level facilities. Most 11 such customers purchase a single line; however, a few have multiple lines, although 12 typically not more than five or six. However, for purposes of my testimony, you could 13 say that "enterprise market" customers are those served by greater than DS-0/voice grade 14 level facilities. 15

16 Q. DID THE FCC DEFINE MASS MARKET IN THE TRIENNIAL REVIEW ORDER?

18 A. Yes, the FCC stated:

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Mass market customers consist of residential customers and very small business customers. Mass market customers typically purchase ordinary switched voice service (Plain Old Telephone Service or POTS) and a few vertical features. Some customers also purchase additional lines and/or high speed data services. Although the cost of serving each customer is low relative to the other customer classes, the low levels of revenue that customers tend to generate create tight profit margins in serving them. The tight profit margins, and the price sensitivity of these customers, force service providers to keep per customer costs at a minimum. Profits in serving these customers are very sensitive to administrative,

marketing, advertising, and customer care costs. These customers usually resist signing term contracts.³

In addition, the FCC noted that mass market is "defined as DS0" in the Executive Summary of the *Triennial Review Order*.⁴

5 Q. IS SAGE'S DEFINITION CONSISTENT WITH THE FCC'S GUIDANCE ON THIS ISSUE?

7 A. Yes, it is. In addition, the FCC's definition clearly delineates Sage's target market within suburban and certain rural and urban areas of Missouri.

9 Q. DO YOU BELIEVE THAT ENTERPRISE MARKET FACILITIES SHOULD PLAY A ROLE IN THIS PROCEEDING?

No, this proceeding should examine the provisioning of unbundled local switching exclusively to residential and small business customers whose premises are served through DS-0/voice grade level facilities -- in other words -- mass market customers as Sage defines them. It is interesting to note that even the FCC had some difficulty distinguishing between mass markets and enterprise markets in data gathering. The FCC noted in the *Triennial Review Order* that "[t]he data supplied do not generally distinguish between mass market and enterprise services, but they provide some clues about the state of competition in the mass market." This Commission must be vigilant and must take a microscopic view all evidence provided to ensure that data applicable to the enterprise market is not used to satisfy the triggers for the mass market impairment analyses and thereby ultimately harm Missouri consumers.

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³ Triennial Review Order, ¶ 127.

Id. at \P 7.

⁵ *Id.* at fn. 120.

1 Q. WHAT WOULD BE THE IMPACT OF MIXING ENTERPRISE AND MASS 2 MARKET CUSTOMERS AND FACILITIES FOR PURPOSES OF THE MASS 3 MARKET IMPAIRMENT ANALYSIS?

A. Clearly, the inclusion of small and medium enterprise markets and, even worse large enterprise markets and facilities in an analysis of mass market impairment would skew the results, most likely to the determent of the mass market providers, customers, and competition and possibly to the benefit of a few executives of CLECs that serve the enterprise market using facilities that they have placed in concentrated areas. There are definite consumer implications under any of these scenarios; therefore, the Commission should continue to take great care in evaluating possible consumer impacts at every stage of this proceeding.

12 Q. WHY DO YOU BELIEVE THAT THE INCLUSION OF ENTERPRISE MARKET 13 CUSTOMERS AND FACILITIES IN THE MASS MARKET IMPAIRMENT 14 ANALYSIS WOULD SKEW THE RESULTS?

15 A. Let me turn to the *Triennial Review Order* for assistance in this answer. In Paragraph
16 128 of the *Triennial Review Order*, the FCC defines Small and Medium Enterprise
17 customers as:

Small and medium enterprises are willing to pay higher prices for telecommunications services than the mass market. Indeed, they are often required to do so under business tariffs. Because their ability to do business may depend on their telecommunications networks, they are typically very sensitive to reliability and quality of service issues. These customers buy larger packages of services than do mass market customers, and are willing to sign term contracts. These packages may include POTS, data, call routing, and customized billing, among other services. Although serving these customers is more costly than mass market customers, the facts that enterprise customers generate higher revenues, and are more sensitive to the quality of service, generally allow for higher profit margins. The higher profit margins and greater emphasis on quality of service can provide a greater incentive to competing

carriers to provision their own facilities, and the higher revenues make it easier to cover the fixed costs of installing such facilities.⁶

In Paragraph 129 of the *Triennial Review Order*, the FCC defines Large Enterprise customers as:

Large enterprises demand extensive, sophisticated packages of services. Reliability of service is essential to these customers, and they often expect guarantees of service quality. The services they might purchase include an internal voice and data network, local, long distance, and international POTS service to one or multiple locations, provisioning and maintenance of a data network such as ATM, frame relay or X.25, and customized billing. The large revenues these customers generate, and their need for reliable service and specialized equipment to serve them, provide a large incentive to suppliers to build their own facilities where possible, and carry these customers' traffic over their own networks.⁷

Right in the definitions, the FCC has found that the larger the customer, the higher the incentive a competitive carrier has to "build [its] own facilities where possible, and carry these customers' traffic over their own networks." This incentive should mean that where Enterprise customers are being served by competitive carriers, there is a higher likelihood that the competitive carriers have built their own facilities and have their own switches. Thus, if Enterprise Market switches were counted toward the impairment triggers, the triggers would be more easily met. The FCC was clear that this should not be the case when it stated, in Paragraph 501 of the *Triennial Review Order*, that, for example, the Self Provisioning trigger is met "when three or more unaffiliated competing carriers each is *serving mass market* customers in a particular market with the use of their own switches."

I cannot restate strongly enough the importance of this Commission being vigilant and taking a microscopic view of all evidence provided to ensure that data

Id. at ¶ 128.

applicable to the enterprise market is not used to satisfy the triggers for the mass market impairment analyses. Otherwise, mass market competition in Missouri may be unnecessarily and unjustifiably extinguished to the advantage of SBC and a few CLECs that serve only the enterprise market in concentrated areas.

Α.

V. CONCLUSION

7 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

Sage is a CLEC utilizing UNE-P in order to provide service to a particular customer niche in Missouri –*suburban communities and some rural and urban areas*. Sage, its customers, and consumers in general have a vested interest in seeing that the Commission makes an accurate and complete analysis of the presumption of competitive impairment in mass market switching. To do so, the Commission must make a granular analysis based on focused and relevant geographic market areas, such as wire centers. Furthermore, in defining the appropriate market, the Commission should include all customers that are served by DS0/voice grade level loops, regardless of whether they are residential or small business customers, to be mass market customers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

19 A. Yes.

Id. at ¶ 129.

- SYNOPSIS OF RESUME -

ROBERT W. McCAUSLAND SAGE TELECOM, INC. 805 CENTRAL EXPRESSWAY SOUTH, SUITE 100 ALLEN, TX 75013-2789 (O) 214-495-4704 (F) 214-495-4790

WORK RESPONSIBILITIES, EXPERIENCE AND KEY ACCOMPLISHMENTS:

PRESENT

SAGE TELECOM, INC.

Vice President - Regulatory Affairs

Department head responsible for all aspects of the company's regulatory compliance and authority, regulatory policy formulation and implementation, tariffs, traffic exchange contracts, interconnection agreements, and legislative relations.

2002/2003

SELF-EMPLOYED ENTREPRENEUR

Consultant to CloseCall America, Inc.

 Expert Witness in Maryland PSC Case No. 8927 (CloseCall's formal complaint against Verizon).

SEPT. 2, 1997 TO FEB. 10, 2001

ALLEGIANCE TELECOM, INC.

Vice President - Regulatory and Interconnection

- Department head responsible for all aspects of the company's regulatory authority and interconnection agreements.
- Grew department from start-up stage to mature organization with annual budget of over \$2.1 million; built exceptional, high-performance team.
- Achieved competitive local telecommunications service, domestic and international long distance regulatory certification with the FCC and with regulators in 22 states and the District of Columbia.
- Developed, filed and maintained effectiveness of the company's state and federal tariffs.
- Achieved interconnection agreements with ILECs, other CLECs and wireless companies throughout the U.S.
- Determined and implemented the company's regulatory policies and positions.
- Filed pleadings with regulators in numerous dockets and proceedings; devised and filed Allegiance's famous "Anti-Backsliding" Petition with the FCC.
- Provided expert testimony and lobbied regulators and legislators throughout the U.S.
- Negotiated the company's first off-tariff access service agreement with a major interexchange carrier.

SYNOPSIS OF RESUME - ROBERT W. McCAUSLAND (Continued)

- Corporate Officer responsible for ensuring companywide compliance with law enforcement and national security-related laws and rules; holds Top Secret U.S. Government Security Clearance.
- Oversaw the company's involvement in numerous telecom associations nation-wide; active three-year member of the ALTS Operating Board.

OCT. 24, 1994 TO SEPT. 1, 1997

MFS COMMUNICATIONS COMPANY, INC. (Acquired by WorldCom, Inc. in 1997.)

MAY, 1997 TO SEPT. 1, 1997

Senior Director, Industry Interface Management

Involved in the establishment of processes and procedures for inter-company operations support systems interfaces.

JAN. 24, 1997 TO MAY, 1997

Senior Director, ILEC Collocation Implementation

 Responsible for the management of existing and the implementation of new CO collocation interconnection arrangements nationally.

JULY 1, 1996 TO JAN, 24, 1997

Senior Director, Regulatory Compliance

- Responsible for ensuring ILEC compliance with interconnection agreements nationally.
- Managed the CO collocation regulatory process nationally; frequent contact with FCC staff as well as key state regulatory personnel; significantly influenced the outcome of the FCC's August 8, 1996, First Report and Order.
- Through a combination of negotiation and litigation, reestablished MFS physical collocation arrangements with Ameritech, Bell Atlantic, BellSouth, Southwestern Bell, and US West.
- Established new forms of interconnection with ILECs nationally.

JULY 1, 1995 TO JULY 1, 1996

Director, Collocation/Unbundled Loops

- Built a high-performance team and led the implementation of the first unbundled local loop interconnection arrangements outside of NYNEX territory; numerous examples of precedent-setting implementations include the first-ever use of unbundled loops within the territories of Bell Atlantic, Ameritech, SNET, RTC and Pacific Bell; set the stage for similar implementations in the territories of BellSouth, Southwestern Bell, and US West.
- Significantly expanded MFS' CO collocation interconnection arrangements throughout the nation (both physical and virtual collocation) while concurrently handling numerous federal regulatory filings and commission contacts.

OCT. 24, 1994 TO JULY 1, 1995

Director, Marketing - Carrier Services

- Managed the forced conversion of the largest number of physical collocation arrangements in the nation to virtual collocation (as a result of the June, 1994, decision of the U.S. Court of Appeals).
- Significantly stepped up MFS' regulatory lobbying efforts in order to secure improvements to existing virtual collocation tariffs of the ILECs.

Page 2 of 3

SYNOPSIS OF RESUME - ROBERT W. McCAUSLAND (Continued)

| MARCH 1984 TO OCT., 1994 | BELL ATLANTIC CORPORATION |
|--------------------------|--|
| 1991 TO 1994 | Regional Product Manager - Access and Collocation ■ Developed Bell Atlantic's first collocation tariff; created the terms and conditions and managed the development of service costs; formulated and implemented key regional practices and processes for both virtual and physical collocation. ■ Managed the Switched Access Feature Group D product line regionally. ■ Actively participated in regulatory proceedings throughout Bell Atlantic territory. ■ Implemented the nation's first "PIC Switchback" |
| 1990 | options for IXC accounts. Regional Manager - Access Implementation |
| 1000 | Restructured Switched Access rates in Maryland, Virginia and West Virginia. |
| 1989 TO 1990 | Product Manager - RCC/Cellular Interconnection ■ Deployed the region's first LATAwide Paging access service, achieving national recognition for Bell Atlantic. ■ Achieved first-year savings of nearly \$500,000 by moving Wireless Type 2 billing to an in-house system. ■ Developed Bell Atlantic's first regional Wireless Type 2 agreements. |
| 1988 | Product Manager - Financial Analysis & Reg. Support ■ Regionalized and implemented Bell Atlantic's competitive-bidding process for Special Access services. |
| 1987 | Assistant Staff Manager - FTS-2000 Bid ■ Developed costs and rates for major services bids to Martin Marietta Corporation, AT&T and Sprint. ■ Prepared business case financials for the Martin Marietta bid. |
| 1986 | Staff Supervisor - Service Costs ■ Developed costs and rates for customized and individually-priced services. |
| 1984 TO 1986 | Staff Supervisor - Rates and Tariffs/Access Services ■ Administered C&P Telephone's Special Construction, CATV and IIMTS tariffs. |
| BEFORE 1984 | Various Positions in Retail Management, Retail Sales, Wholesale Sales, Recreation (Supervisory) and Inventory Management |
| EDUCATION | MARSHALL UNIVERSITY Huntington, West Virginia, BBA, 1981 |