

RECEIVED

MAR 20 2000

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

In re Applications of)
)
SPRINT CORPORATION,)
Transferor,)
)
and)
)
MCI WORLDCOM, INC.,)
Transferee,)
)
for Consent to Transfer Control)
of Corporations Holding Commission)
Licenses and Authorizations Pursuant)
to Sections 214 and 310(d) of the)
Communications Act and Parts 1,)
21, 24, 25, 63, 73, 78, 90, and 101)

CC Docket No. 99-333

REPLY DECLARATION OF DANIEL KELLEY AND JOHN O'DWYER

March 17, 2000

Declaration of Daniel Kelley and John O'Dwyer

1. My name is Daniel Kelley. Along with Robert Mercer, I filed a Declaration that accompanied the MCI WorldCom/Sprint merger Application. A summary of my background and my resume can be found there.

2. My name is John P. O'Dwyer. I am an Associate Telecommunications Consultant for HAI Consulting, Inc. in Boulder, Colorado. I received a B.S. in Industrial and Systems Engineering from Ohio University in 1997. I received an M.S. in Telecommunications from the University of Colorado in 1999. While at the University of Colorado I interned with HAI Consulting. During my internship with HAI Consulting I worked on various software development and data analysis projects. Some of these projects included: developing a ring algorithm to efficiently connect switches for the HM 5.0a modeling software and developing auction software used in FCC wireless auctions. After graduation from the University of Colorado, I spent five months with Level 3 Communications, Inc. as a Network Optimization Specialist. I returned to HAI Consulting in October of 1999 where I continue to work on various telecommunications-related software and data analysis projects.

3. We were asked by MCI WorldCom and Sprint to evaluate the extent to which interexchange carriers ("IXCs") have built transmission facilities in various parts of the country.

4. We find that after the merger of MCI WorldCom and Sprint, LATAs containing 98.4 percent of U.S. households will be served by three or more competitive, facilities-based carriers. The number of carriers and the extent of their networks are both increasing. Even in those limited cases where there are fewer than three carriers in a

LATA, there are prospects for additional entry. The significant growth in the number and size of fiber carriers is the result of entry and expansion by smaller regional carriers as well as continued deployment of facilities by the larger IXCs.

Overview

5. At the request of MCI WorldCom, HAI identified IXC presence by LATA.¹ We began with data gathered for MCI WorldCom at the time the MCI/WorldCom merger was pending.² We used these data to identify the LATAs in which points of presence (“POPs”) had been established by the carriers included in the earlier analysis. In addition to MCI, MCI WorldCom, and Sprint, these carriers included AT&T, Broadwing (formerly IXC), Cable and Wireless, Frontier, Williams, and Qwest. We used several methods to identify any additional LATAs served by these carriers and to identify LATAs served by carriers not included in the original analysis.

6. Additional IXCs were identified using several sources, including analyst reports, the FCC’s TRA worksheets, the FCC’s most recent Fiber Deployment Update, and other industry reports. For each carrier identified, we searched for information regarding network deployment on their respective web sites. Most of the carriers publish network maps that show actual and planned fiber deployment. In some cases, company press releases reported network construction progress. We then associated network nodes on company maps with individual LATAs.

7. For the additional carriers we identified, we assumed a competitive presence in a LATA only when it seemed clear to us that the carrier had actual long-haul fiber under its control located in the LATA. In other words, for these carriers we did not

¹ We are continuing to refine and update this analysis.

² See Second Declaration of Dennis W. Carlton and Hal S. Sider, CC Docket No. 97-211, March 19, 1998.

include locations using leased facilities.³ This is a conservative assumption. Companies such as Level 3 are building extensive long-haul fiber networks, but we do not include their existing leased POPs in our totals. In many cases, IXCs are sharing fiber routes. Where a carrier has an ownership interest in the fiber, such as an Indefeasible Right of Use (“IRU”), we treated that carrier as an independent competitor.

8. We also identified the number of lines and household counts for each LATA.⁴ This allowed us to identify the percentage of population and lines served by each carrier.

Results

9. The summary results are shown in the following Table. The Table assumes that MCI WorldCom and Sprint are merged. That is, where both carriers are present in a LATA, only one of the two is counted. The Appendix contains the complete results.

Facilities-based Competition Post-Merger of MCI WorldCom, Inc. and Sprint

Number of Carriers	Number of LATAs	Percent Households	Percent Households Cumulative	Percent Lines	Percent Lines Cumulative
10 or more	11	19.9	19.9	21.3	21.3
5-9	85	58.6	78.6	59.8	81.1
4	38	10.5	89.1	9.3	90.4
3	44	9.3	98.4	8.1	98.5
Less than 3	15	1.6	100.0	1.5	100.0

³ We were unable to locate a GTE long distance network map. Instead we used the GTE Internetworking Map as the basis for their locations. Some of these may be served with leased facilities. However, GTE has an extensive fiber network and markets long distance service throughout the country.

⁴ These data come from databases in HAI’s TELRIC cost model, version 5.0a (“HM 5.0a”). A description of the derivation of these data can be found in HM 5.0a, Model Description, January 28, 1998, Section 5, Inputs Data.

10. Our data show that there are two LATAs that have Sprint or MCI WorldCom POPs, but not both. Four LATAs are served by neither. In these cases the merger has no effect on the number of carriers.⁵

Discussion

Comparison to Prior Analysis

11. The original Carlton and Sider analysis differs from ours in several respects. First, they focused only on the largest carriers. Second, they reported POPs that may have been served through leased facilities. Third, they reported POPs that were planned for deployment but were not yet operational. They reported that 23.5 percent of the population resided in LATAs with 10 carriers. When we add POPs served with leased facilities to our counts, we estimate that 55.3 percent of the population will be served by 10 or more carriers after the merger. Less than one percent of the population will be served by fewer than three carriers under this assumption.

Network Under Construction

12. Had we added nodes on networks under construction, there would be dramatically more carrier locations shown in the Tables. For example, an examination of the Level 3 web site indicated that only the cities of Dallas and Houston are now served by the Level 3 fiber network. However, Level 3 has an extensive nation-wide network under construction that is expected to be largely complete this year. Level 3's leased network has POPs in 24 LATAs.⁶ Other carriers with extensive network additions underway are AEP, Caprock, ENRON, GST, McLeod, Norlight, Pathnet, Teleglobe,

⁵ It is interesting to note that in the two LATAs served by only one of the merging companies, there are at least two other carriers present. Neither WCOM nor Sprint has facilities in Alaska, but there are three carriers with fiber in the state.

⁶ As noted, these leased facilities are not included in our analysis.

Telergy, Touch America, Williams and Qwest. We estimate that carriers are planning to add 64 cities to their networks in 2000.

The Role of Electric Companies

13. In the course of our research we identified a number of fiber networks owned and operated by subsidiaries of electric utility companies. This source of capacity is significant because many of these companies are building fiber networks in less densely populated areas of the country. Touch America, a subsidiary of Montana Power, and Allegheny Communications are examples. Other large electric companies with communications subsidiaries and fiber networks or plans to build them are American Electric Power and ENRON. Smaller companies such as Telergy and the SMP Electric Cooperative are building fiber networks to serve rural areas.

Potential Expansion

14. In certain cases IXC fiber routes pass through LATAs where the carrier has chosen not to locate a POP. In other instances a fiber route may pass "near" a LATA. In both of these cases, it would be a relatively simple matter to extend the network to that particular LATA. There are potentially 64 POPs that could be added by carriers that pass through but do not serve a particular LATA. Of these, 37 are in the LATAs with four or fewer post-merger IXCs.

LATAs with a Small Number of Carriers

15. We investigated a number of the LATAs showing a small number of carriers. Many of these LATAs are served by independent telephone companies that are likely in the long distance business.⁷ Others are relatively close to large cities that have facilities that could be extended. Some are served by electric power companies that are

in the fiber optic business but have not yet deployed fiber in those particular areas.

CLECs located in some of the LATAs could build fiber to adjacent LATAs. Some examples follow.

16. The Macomb and Olney, Illinois and Couer D'Alene, Idaho LATAs are served by GTE, which certainly has the ability to build a fiber link to an adjacent LATA, if it has not done so already. Couer D'Alene Idaho is only 40 miles from Spokane Washington, which is served by five fiber carriers. Of the 12 LATAs with two or fewer post-merger carriers affected by the merger, at least four are served by independents.

17. Finally, two Navajo Indian reservations are currently served by AT&T. (MCI WorldCom serves these LATAs through an arrangement with US West, which has a waiver to provide service there.) The competitive status of these two LATAs will not be affected by the merger. However, as an illustration of how widely deployed fiber is becoming, there are current plans to build competitive fiber through the Navajo Indian reservation in the Four Corners area of Colorado, Utah, New Mexico and Arizona. Obtaining Bureau of Land Management authority is apparently the only remaining obstacle.⁸ This fiber would presumably be available to LATAs 980 and 981, which are adjacent.

18. Looking at the 12 LATAs that both have fewer than three carriers and are affected by the merger, four have competitive fiber running through, four have leased fiber and one has planned fiber. The four remaining LATAs contain 0.3 percent of the population.⁹

⁷ <http://resource.tamerica.net/psn/latas/latas.htm>

⁸ See Lewis McCool, "BLM Fees Threaten Fiber-optics Project," Durango Herald, Feb. 1, 2000.

⁹ Evansville, Indiana has both potential and planned fiber.

Network Ubiquity

19. The larger fiber carriers (other than AT&T and MCI WorldCom/Sprint) reach or will reach a substantial portion of the U.S. population. For example, we estimate that Qwest now has POPs in LATAs that contain 80.8 percent of all households.¹⁰ Carriers or customers who wish to terminate calls in LATAs they do not serve will have access to capacity on regional carrier networks, including the networks being built by electric companies. A market in bandwidth, which will facilitate such transactions, is evolving. For example, Bandwidth.com describes itself as a “[business to business] e-commerce company that saves businesses time and money spent procuring dedicated broadband connectivity via Reverse Auctions, RFQs, Carrier-to-Carrier brokering, and Co-building services.”¹¹

20. Professor Jerry A. Hausman, on behalf of SBC, alleges that “the proposed transaction reduces the number of carriers serving virtually all LATAs in the U.S. from three to two.” Hausman Aff. ¶ 38. This statement is misleading. First, his analysis includes only nine carriers. We identified 37 carriers with intercity fiber facilities. By focusing on a narrow subset of carriers, he ignores the many smaller carriers who are providing competitive alternatives in less densely populated LATAs. Second, several of the carriers in his study do serve a high proportion of the population. See *id.*, Table 2. For example, he shows that Qwest, Williams and Frontier each serves more than 72 percent of the population. See *id.*

21. Professor Hausman’s Table 3 purports to demonstrate the population affected by the reduction in the number of long distance networks. When we compare

¹⁰ This is consistent with Professor Hausman’s estimate that 81% of the population is served by Qwest. See Hausman Aff., Table 2.

our data for the carriers he studies with his data, the results are similar. However, a different picture emerges when other carriers are included. The Table below compares Professor Hausman's results with ours for those LATAs that begin with fewer than six carriers and are affected by the merger.¹² A significantly lower proportion of the population is affected when all carriers are taken into account. Less than one percent of the population is limited to two carriers as a result of the merger.

Population Affected by the Reduction in the Number of Long Distance Networks

Number of Carriers		Percent of Population	
Before Merger	After Merger	Hausman	HAI
3	2	10.2	0.8
4	3	7.8	3.4
5	4	9.2	6.4

22. After the merger there will be a significant group of carriers that serve a large percentage of the population as well as a host of regional networks, many of whom are serving less densely populated LATAs. These smaller carriers have demonstrated the ability to work with one another to construct and operate facilities. A larger carrier serving the most populated LATAs should find it relatively easy to purchase terminating access from regional carriers in order to provide ubiquitous terminations.¹³ Today there are multiple resellers even in the LATAs that are served by fewer than three carriers.

¹¹ See <http://www.bandwidth.com/>.

¹² Like Hausman, we included carriers with leased facilities in this computation.

¹³ NTS Communications advertises that it "provides switched services for numerous long distance subsidiaries of independent telephone companies throughout Texas, Oklahoma and New Mexico, and is expanding this capability to other regions." The company also provides nationwide termination for 1+ resale. See http://www.ntscom/bus_pgs/nts_carrier_services_switched.html.

RBOC Entry

23. Finally, this analysis reflects the entry of Bell Atlantic in New York. However, it does not reflect SBC in Texas, which has a pending Section 271 Application. In the next two years it can reasonably be expected that SBC would win Section 271 approval in Texas. This would add facilities-based competition to 16 Texas LATAs, including two that today show three or fewer post-merger competitors. Other RBOCs may win approval as well, although they are not reflected in the analysis.

Attachment
Post Merger Networks by LATA

LATA Number	LATA Name	Total Included Networks	Total Lines in LATA*	Percentage of Lines by LATA	Total Households in LATA	Percentage of Households by LATA
358	CHICAGO ILLINOIS	12	6,801,768	3.6299%	3026350	2.9940%
560	HOUSTON TEXAS	12	3,512,914	1.8748%	1693404	1.6753%
552	DALLAS TEXAS	11	3,992,324	2.1306%	1925913	1.9054%
128	EASTERN MASS	11	4,228,833	2.2568%	2223272	2.1995%
628	MINNEAPOLIS MINN	11	2,256,038	1.2040%	1101461	1.0897%
132	NEW YORK METRO NY	11	8,660,561	4.6219%	4506094	4.4580%
340	DETROIT MICHIGAN	10	3,951,225	2.1087%	2035338	2.0136%
336	INDIANAPOLIS INDIANA	10	1,569,888	0.8378%	807013	0.7984%
666	PHOENIX ARIZONA	10	2,393,887	1.2776%	1315317	1.3013%
234	PITTSBURGH PA	10	1,927,588	1.0287%	1165528	1.1531%
332	SOUTH BEND INDIANA	10	582,751	0.3110%	336394	0.3328%
438	ATLANTA GEORGIA	9	3,727,540	1.9893%	1887038	1.8669%
558	AUSTIN TEXAS	9	854,321	0.4559%	411219	0.4068%
920	CONNECTICUT	9	2,165,432	1.1556%	1295557	1.2817%
656	DENVER CO	9	2,691,161	1.4362%	1275484	1.2619%
730	LOS ANGELES CA	9	11,426,626	6.0981%	5094223	5.0399%
224	NORTH JERSEY NJ	9	4,750,590	2.5353%	2256097	2.2320%
228	PHILADELPHIA PA	9	3,892,802	2.0775%	2167427	2.1443%
566	SAN ANTONIO TEXAS	9	1,272,691	0.6792%	686822	0.6795%
722	SAN FRANCISCO CA	9	6,356,701	3.3924%	2635342	2.6072%
356	SOUTHEAST WISCONSIN	9	1,642,536	0.8766%	919831	0.9100%
520	ST LOUIS MISSOURI	9	2,489,894	1.3288%	1406910	1.3919%
236	WASHINGTON DC	9	3,741,672	1.9968%	1606649	1.5895%
325	AKRON OHIO	8	828,387	0.4421%	470431	0.4654%
238	BALTIMORE MARYLAND	8	1,780,617	0.9503%	940240	0.9302%
320	CLEVELAND OHIO	8	1,662,949	0.8875%	843011	0.8340%
324	COLUMBUS OHIO	8	1,666,038	0.8891%	909826	0.9001%
348	GRAND RAPIDS MI	8	1,624,398	0.8669%	886068	0.8766%
652	IDAHO	8	641,747	0.3425%	372277	0.3683%
524	KANSAS CITY MISSOURI	8	1,638,868	0.8746%	900863	0.8912%
470	NASHVILLE TENNESSEE	8	1,267,168	0.6763%	764668	0.7565%
672	PORTLAND OREGON	8	1,951,282	1.0414%	1024752	1.0138%
426	RALEIGH N CAROLINA	8	806,452	0.4304%	414073	0.4097%
248	RICHMOND VIRGINIA	8	836,749	0.4466%	461443	0.4565%
732	SAN DIEGO CA	8	2,306,576	1.2310%	1015644	1.0048%
674	SEATTLE WASHINGTON	8	2,901,094	1.5482%	1583896	1.5670%
952	TAMPA FLORIDA	8	2,339,416	1.2485%	1410485	1.3954%
668	TUCSON ARIZONA	8	657,047	0.3506%	389178	0.3850%
334	AUBURN-HUNTINGTON IN	7	345,373	0.1843%	193546	0.1915%
922	CINCINNATI OHIO	7	1,065,720	0.5687%	655909	0.6489%
632	DES MOINES IOWA	7	772,193	0.4121%	425095	0.4206%
540	EL PASO TEXAS	7	400,659	0.2138%	203105	0.2009%

Attachment
Post Merger Networks by LATA

LATA Number	LATA Name	Total Included Networks	Total Lines in LATA*	Percentage of Lines by LATA	Total Households in LATA	Percentage of Households by LATA
664	NEW MEXICO	7	1,031,442	0.5505%	572655	0.5665%
490	NEW ORLEANS LA	7	1,036,606	0.5532%	614938	0.6084%
252	NORFOLK VIRGINIA	7	1,060,396	0.5659%	563329	0.5573%
536	OKLAHOMA CITY OK	7	1,263,426	0.6743%	745360	0.7374%
130	RHODE ISLAND	7	673,401	0.3594%	399612	0.3953%
726	SACRAMENTO CA	7	1,573,949	0.8400%	720913	0.7132%
460	SOUTHEAST FLORIDA	7	3,941,422	2.1034%	2195164	2.1717%
136	SYRACUSE NEW YORK	7	1,027,788	0.5485%	646501	0.6396%
326	TOLEDO OHIO	7	770,580	0.4112%	452168	0.4473%
538	TULSA OKLAHOMA	7	810,706	0.4327%	485033	0.4799%
134	ALBANY NEW YORK	6	886,002	0.4728%	557583	0.5516%
734	BAKERSFIELD CA	6	363,542	0.1940%	179225	0.1773%
140	BUFFALO NEW YORK	6	1,179,097	0.6293%	656422	0.6494%
635	CEDAR RAPIDS IOWA	6	439,649	0.2346%	249195	0.2465%
658	COLORADO SPRINGS CO	6	579,632	0.3093%	319826	0.3164%
246	CULPEPER VIRGINIA	6	286,759	0.1530%	179626	0.1777%
634	DAVENPORT IOWA	6	477,291	0.2547%	269844	0.2670%
328	DAYTON OHIO	6	865,506	0.4619%	498521	0.4932%
670	EUGENE OREGON	6	763,031	0.4072%	433139	0.4285%
424	GREENSBORO NC	6	1,012,853	0.5405%	583885	0.5777%
452	JACKSONVILLE FL	6	841,835	0.4493%	503851	0.4985%
346	LANSING MICHIGAN	6	478,933	0.2556%	254885	0.2522%
462	LOUISVILLE KENTUCKY	6	934,873	0.4989%	537711	0.5320%
542	MIDLAND TEXAS	6	250,658	0.1338%	129337	0.1280%
350	NORTHEAST WISCONSIN	6	810,761	0.4327%	499108	0.4938%
458	ORLANDO FL	6	1,368,088	0.7301%	781923	0.7736%
974	ROCHESTER NEW YORK	6	570,060	0.3042%	345075	0.3414%
562	BEAUMONT TEXAS	5	268,606	0.1433%	168916	0.1671%
650	BILLINGS MT	5	214,800	0.1146%	122270	0.1210%
226	CAPITAL PENNSYLVANIA	5	1,142,400	0.6097%	683941	0.6766%
422	CHARLOTTE NC	5	1,460,697	0.7795%	825633	0.8168%
564	CORPUS CHRISTI TEXAS	5	401,625	0.2143%	235211	0.2327%
222	DELAWARE VALLEY NJ	5	1,263,418	0.6743%	678089	0.6709%
924	ERIE PENNSYLVANIA	5	248,253	0.1325%	156115	0.1544%
728	FRESNO CA	5	871,965	0.4653%	422937	0.4184%
430	GREENVILLE SC	5	684,994	0.3656%	434188	0.4296%
488	LAFAYETTE LOUISIANA	5	443,687	0.2368%	287480	0.2844%
554	LONGVIEW TEXAS	5	428,923	0.2289%	253408	0.2507%
544	LUBBOCK TEXAS	5	253,104	0.1351%	139158	0.1377%
468	MEMPHIS TENNESSEE	5	996,117	0.5316%	595023	0.5887%
480	MOBILE ALABAMA	5	374,841	0.2000%	240929	0.2384%
352	NORTHWEST WISCONSIN	5	339,580	0.1812%	226051	0.2236%
448	PENSACOLA FL	5	401,809	0.2144%	245807	0.2432%

Attachment
Post Merger Networks by LATA

LATA Number	LATA Name	Total Included Networks	Total Lines in LATA*	Percentage of Lines by LATA	Total Households in LATA	Percentage of Households by LATA
133	POUGHKEEPSIE NY	5	510,497	0.2724%	326871	0.3234%
720	RENO NEVADA	5	426,905	0.2278%	218763	0.2164%
344	SAGINAW MICHIGAN	5	610,737	0.3259%	375578	0.3716%
740	SAN LUIS OBISPO CA	5	429,584	0.2293%	215177	0.2129%
676	SPOKANE WASHINGTON	5	781,722	0.4172%	484199	0.4790%
522	SPRINGFIELD MISSOURI	5	538,346	0.2873%	343710	0.3400%
534	TOPEKA KANSAS	5	471,236	0.2515%	278447	0.2755%
660	UTAH	5	1,398,593	0.7464%	688882	0.6815%
556	WACO TEXAS	5	329,711	0.1760%	199720	0.1976%
126	WESTERN MASS	5	530,073	0.2829%	313430	0.3101%
322	YOUNGSTOWN OHIO	5	379,507	0.2025%	225827	0.2234%
550	ABILENE TEXAS	4	132,901	0.0709%	74159	0.0734%
546	AMARILLO TEXAS	4	258,518	0.1380%	144457	0.1429%
476	BIRMINGHAM ALABAMA	4	1,107,721	0.5912%	691407	0.6840%
638	BISMARCK NORTH DAKOTA	4	220,315	0.1176%	119127	0.1179%
254	CHARLESTON WV	4	503,410	0.2687%	331351	0.3278%
472	CHATTANOOGA TN	4	388,633	0.2074%	235322	0.2328%
724	CHICO CA	4	308,105	0.1644%	173712	0.1719%
456	DAYTONA BCH FL	4	271,462	0.1449%	178473	0.1766%
432	FLORENCE S CAROLINA	4	331,705	0.1770%	226069	0.2237%
939	FT MYERS - EA FL	4	676,953	0.3613%	460169	0.4553%
648	GREAT FALLS MT	4	345,638	0.1845%	207638	0.2054%
570	HEARNE TEXAS	4	116,597	0.0622%	70636	0.0699%
482	JACKSON MISSISSIPPI	4	1,122,403	0.5990%	746517	0.7385%
923	LIMA-MANSFIELD OHIO	4	370,567	0.1978%	230810	0.2283%
958	LINCOLN NEBRASKA	4	296,879	0.1584%	184622	0.1827%
528	LITTLE ROCK ARKANSAS	4	1,004,282	0.5360%	616507	0.6099%
250	LYNCHBURG VIRGINIA	4	232,405	0.1240%	145096	0.1435%
446	MACON GEORGIA	4	326,682	0.1743%	184582	0.1826%
120	MAINE	4	824,404	0.4400%	561962	0.5560%
976	MATTOON ILLINOIS	4	102,926	0.0549%	68674	0.0679%
736	MONTEREY CA	4	262,975	0.1403%	121623	0.1203%
478	MONTGOMERY ALABAMA	4	506,439	0.2703%	327945	0.3244%
122	NEW HAMPSHIRE	4	878,243	0.4687%	528573	0.5229%
232	NORTHEAST - PA	4	923,400	0.4928%	599630	0.5932%
644	OMAHA NEBRASKA	4	762,319	0.4068%	395644	0.3914%
464	OWENSBORO KENTUCKY	4	420,488	0.2244%	277878	0.2749%
721	PAHRUMP NEVADA	4	883,167	0.4713%	447547	0.4428%
973	PALM SPRINGS CA	4	212,970	0.1137%	132755	0.1313%
376	QUINCY ILLINOIS	4	102,309	0.0546%	57489	0.0569%
620	ROCHESTER MINNESOTA	4	459,720	0.2453%	269571	0.2667%
951	ROCKY MOUNT N CAROLINA	4	571,416	0.3050%	399638	0.3954%
961	SAN ANGELO TEXAS	4	135,495	0.0723%	80616	0.0798%

Attachment
Post Merger Networks by LATA

LATA Number	LATA Name	Total Included Networks	Total Lines in LATA*	Percentage of Lines by LATA	Total Households in LATA	Percentage of Households by LATA
354	SOUTHWEST WISCONSIN	4	772,218	0.4121%	420301	0.4158%
364	STERLING ILLINOIS	4	135,464	0.0723%	74597	0.0738%
738	STOCKTON CA	4	840,232	0.4484%	440811	0.4361%
953	TALAHASSEE FLORIDA	4	214,404	0.1144%	117684	0.1164%
342	UPPER PENINSULA MI	4	208,381	0.1112%	128563	0.1272%
654	WYOMING	4	278,008	0.1484%	161019	0.1593%
832	ALASKA	3	334,954	0.1788%	160397	0.1587%
444	ALBANY GEORGIA	3	364,629	0.1946%	212290	0.2100%
230	ALTOONA PENNSYLVANIA	3	523,439	0.2793%	353316	0.3495%
420	ASHEVILLE NC	3	375,276	0.2003%	233427	0.2309%
220	ATLANTIC COASTAL NJ	3	369,335	0.1971%	218630	0.2163%
442	AUGUSTA GEORGIA	3	310,369	0.1656%	187932	0.1859%
492	BATON ROUGE LA	3	404,893	0.2161%	246479	0.2438%
484	BILOXI MISSISSIPPI	3	197,700	0.1055%	125880	0.1245%
138	BINGHAMTON NEW YORK	3	400,290	0.2136%	267097	0.2642%
932	BLUE FIELD WV	3	50,277	0.0268%	36635	0.0362%
956	BRISTOL-JOHNSTON TN	3	350,231	0.1869%	228691	0.2263%
568	BROWNSVILLE TEXAS	3	360,944	0.1926%	212008	0.2097%
362	CAIRO ILLINOIS	3	157,763	0.0842%	107916	0.1068%
370	CHAMPAIGN ILLINOIS	3	206,764	0.1103%	108133	0.1070%
436	CHARLESTON SC	3	374,482	0.1999%	233432	0.2309%
928	CHARLOTTESVILLE VA	3	97,607	0.0521%	56688	0.0561%
256	CLARKSBURG WV	3	301,202	0.1607%	207287	0.2051%
434	COLUMBIA S CAROLINA	3	548,672	0.2928%	340900	0.3373%
624	DULUTH MINNESOTA	3	200,006	0.1067%	120749	0.1195%
949	FAYETTEVILLE N CAROLINA	3	448,449	0.2393%	320397	0.3170%
366	FORREST ILLINOIS	3	141,978	0.0758%	88053	0.0871%
454	GAINESVILLE FL	3	618,437	0.3300%	440255	0.4356%
646	GRAND ISLAND NE	3	236,784	0.1264%	138316	0.1368%
240	HAGERSTOWN MARYLAND	3	324,202	0.1730%	199187	0.1971%
927	HARRISONBURG VA	3	57,488	0.0307%	35562	0.0352%
834	HAWAII	3	746,088	0.3982%	423965	0.4194%
477	HUNTSVILLE ALABAMA	3	417,078	0.2226%	273151	0.2702%
474	KNOXVILLE TENNESSEE	3	651,715	0.3478%	416349	0.4119%
450	PANAMA CITY FL	3	194,952	0.1040%	128459	0.1271%
368	PEORIA ILLINOIS	3	313,863	0.1675%	172771	0.1709%
937	RICHMOND INDIANA	3	94,562	0.0505%	62509	0.0618%
244	ROANOKE VIRGINIA	3	506,357	0.2702%	326946	0.3235%
360	ROCKFORD ILLINOIS	3	277,930	0.1483%	137762	0.1363%
242	SALISBURY MARYLAND	3	208,694	0.1114%	129352	0.1280%
440	SAVANNAH GEORGIA	3	529,019	0.2823%	314636	0.3113%
486	SHREVEPORT LOUISIANA	3	592,641	0.3163%	389028	0.3849%
630	SIOUX CITY IA	3	173,643	0.0927%	108946	0.1078%

Attachment
Post Merger Networks by LATA

LATA Number	LATA Name	Total Included Networks	Total Lines in LATA*	Percentage of Lines by LATA	Total Households in LATA	Percentage of Households by LATA
640	SOUTH DAKOTA	3	466,768	0.2491%	261910	0.2591%
374	SPRINGFIELD ILLINOIS	3	276,077	0.1473%	139846	0.1384%
938	TERRE HAUTE INDIANA	3	91,365	0.0488%	60903	0.0603%
548	WICHITA FALLS TEXAS	3	151,137	0.0807%	84359	0.0835%
532	WICHITA KANSAS	3	754,691	0.4028%	425666	0.4211%
428	WILMINGTON NC	3	268,521	0.1433%	165324	0.1636%
466	WINCHESTER KENTUCKY	3	747,066	0.3987%	491596	0.4863%
338	BLOOMINGTON INDIANA	2	342,586	0.1828%	205543	0.2033%
636	BRAINERD-FARGO ND	2	524,808	0.2801%	303183	0.2999%
960	COUER D-ALENE IDAHO	2	149,990	0.0800%	98436	0.0974%
929	EDINBURG VIRGINIA	2	21,653	0.0116%	14657	0.0145%
330	EVANSVILLE INDIANA	2	235,357	0.1256%	132566	0.1312%
921	FISHERS ISLAND NY	2	189	0.0001%	171	0.0002%
526	FORT SMITH ARKANSAS	2	301,369	0.1608%	172928	0.1711%
977	MACOMB ILLINOIS	2	86,767	0.0463%	48816	0.0483%
978	OLNEY ILLINOIS	2	71,410	0.0381%	47932	0.0474%
530	PINE BLUFF ARKANSAS	2	152,471	0.0814%	99512	0.0984%
626	ST CLOUD MINNESOTA	2	241,067	0.1287%	146225	0.1447%
124	VERMONT	2	477,196	0.2547%	282971	0.2800%
521	WESTPHALIA MISSOURI	2	148,693	0.0794%	84077	0.0832%
980	NAVAJO TERRITORY AZ	1	14,766	0.0079%	11504	0.0114%
981	NAVAJO TERRITORY UT	1	347	0.0002%	254	0.0003%

RECEIVED

MAR 20 2000

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Declaration of Frederick R. Warren-Boulton and Serdar Dalkir

I. QUALIFICATIONS

My name is Frederick R. Warren-Boulton. I am a principal of MiCRA, a Washington-based economics consulting and research firm specializing in antitrust litigation and regulatory matters. I received a B.A. degree from Yale University, an M.P.A. from the Woodrow Wilson School of Princeton University, and a Ph.D. in Economics from Princeton University. From 1972 to 1983 I was an Assistant and then Associate Professor of Economics at Washington University in St. Louis. From 1983 to 1989, I served as the chief economist for the Antitrust Division of the U.S. Department of Justice, first as Director of its Economic Policy Office and then as Deputy Assistant Attorney General for Economic Analysis.

Since leaving the government, I have served as a Resident Scholar at the American Enterprise Institute, a Visiting Lecturer of Public and International Affairs at the Woodrow Wilson School at Princeton University, and Research Associate Professor of Psychology at The American University. As a principal at MiCRA, I have served as an expert witness or consultant on a number of mergers and other antitrust matters, including as the expert witness for the Federal Trade Commission in *FTC v. Staples and Office Depot*, and for the States and the Department of Justice in *State of New York ex rel and United States of America v. Microsoft Corporation*. As part of my direct testimony in *Staples*, I used stock market data to calculate the daily estimate of the probability of the merger occurring, the effect of the merger on the share prices of the parties, the effect of the merger on the share prices of competing firms, and the effect of the merger on the prices for office products.

My publications in the general field of industrial organization include papers on public policy toward mergers and several on the use of stock market analysis to predict the competitive impact of mergers. A complete description of my background and papers can be found in my Curriculum Vita, a copy of which is included in Appendix 1 of this Declaration.

My name is Serdar Dalkir, I am an associate at MicRA. I have a Ph.D. in Economics from Cornell University (1995). Before joining MicRA I was a consultant at the World Bank. I contributed to the economic analysis in *FTC v. Staples* and published on the effects of mergers on prices and the countervailing efficiencies. A copy of my Curriculum Vita is included in Appendix 1.

II SCOPE AND CONCLUSIONS

I have been asked by counsel for MCI WorldCom to comment on Drs. Carlton and Sider's analysis of the effect of the announcement of the MCI WorldCom - Sprint merger on the stock prices of competing suppliers of long distance service, and to evaluate their conclusion that:

The stock prices of rival long distance suppliers, including AT&T and others, rose relative to the level expected based on general market conditions following the announcement. This stock market evidence supports the view that the proposed transaction is likely to adversely affect competition. (Carlton and Sider, paragraph 8)

I have also been asked to respond to the assertion made by CWA in their Comments that because "Warburg Dillon Reed ...estimates that the present value of the projected synergies range from \$ 25 billion to \$ 30 billion – the precise amount of the premium (\$ 30.7 billion) that MCI WorldCom is willing to pay for Sprint's long distance business," the merger must result in

less competition and higher prices for long distance.

In order to assess both these comments, I carried out a detailed analysis of stock market data, using the same methodology as in my testimony in *Staples*. Changes in the stock prices of firms that could be affected by a merger reflect the market's assessment of both the probability that the transaction will be approved and the effects on competitors and on the merging parties in the event that the merger is approved and consummated. The first step is to calculate the daily value of the market's estimate of the probability of the merger occurring, based on the relationship of the share prices of the merging parties on that day relative to the prices that would prevail if the merger closed. The changes in the stock prices (net of movements in the stock market) of rival long-distance suppliers, such as AT&T, are then regressed against the daily changes in this probability to determine the market's estimate of the effect of the merger on the future profitability of those rivals. I then use the same procedure to determine the market's estimate of the effect of the merger on the market values of MCI WorldCom and Sprint separately, and on the combined value of the merging firms.

I reach the following conclusions:

- (1) The event study performed by Drs. Carlton and Sider is fundamentally flawed and cannot be used to estimate the effect of the merger on the profitability of rival long distance carriers. There are two reasons for this. First, the effect of this merger cannot be reliably evaluated using the event "window" -- October 5 and 6 -- employed by Drs. Carlton and Sider. The assumption behind using that (or any) time period as the event window is that the market's estimate of the probability of the merger increased substantially during that period. Since October 5 and 6 include the announcement date of the merger -- October 5 -- this would often be a reasonable assumption. However, once a complete time series for the estimated probability of

the merger is calculated, it is clear that there was no significant “event” during the period analyzed by Drs. Carlton and Sider. As a result, no conclusion can be drawn from their analysis as to the financial market’s belief about the likely effect of this merger on long distance service prices. Second, even if the two day event window chosen by Carlton and Sider were a meaningful period for study, they failed to hold constant for the effects of other significant events that occurred during that period (e.g., changes in the probability of the AT&T - Media One merger) and that had a separate and major effect on the stock price of AT&T.

- (2) When the effects of the merger are properly analyzed over the entire relevant period, it becomes clear that changes in the probability of the merger have no statistically significant effects on the share prices of AT&T and the other long distance rivals, and that any estimated effects are unstable (positive in some periods and negative in others). No significant effect on rival share prices is observed even when the relationship is estimated over the more recent period, after market participants have had time to evaluate the likely effect of the merger on long distance prices. Contrary to Carlton and Sider, there is thus no support for any inference that the financial markets expect that this merger will result in higher prices for long distance.
- (3) CWA’s assertion that a market premium in excess of the present discounted value of synergies implies an increase in long distance prices is simply incorrect as a matter of economic principles. Unless financial markets view a merger as a strategic blunder by the merging parties, the market value for the merging parties combined must rise, and will always rise by more than the present value of synergies. This is particularly the case for this merger, since the increase in the combined market value also reflects efficiencies and strategic gains to the merging parties (as well as to consumers) in markets other than for long distance, notably local exchange.

III ESTIMATING THE PROBABILITY OF THE MERGER OVER THE RELEVANT TIME PERIOD

The initial studies that examined the effect of mergers on the share prices of rivals did so by picking one or more “event windows” -- days or periods during which the merger was believed to become much more (or less) likely, and then examining the abnormal returns to rivals during each of those periods.¹ The “event window” most often chosen was a short period around the announcement date, since the announcement of the merger was presumed to be “news” that would greatly increase the market’s estimate of the probability of the merger occurring. Similarly, a short period around an announcement by an antitrust agency that it would oppose a merger was assumed to be a period during which the market’s estimate of the probability of a merger fell significantly.

This methodology suffered from at least four shortcomings. First, and most important, the formal announcement of a merger might not be “news” to the market: information about the merger may have been leaked, or the merger may simply have been generally anticipated.² As a result, the change in the probability of the merger may be too small to be useful in assessing the

¹ See the studies cited by Carlton and Sider in footnote 46.

² One way to check for the possibility that no new information reached the market during the announcement period is to look at trading activity. Drs. Carlton and Sider did confirm that trading volume for Sprint stock was high for October 4 through 6. But while abnormally high trading volume may be a good indication that news has hit the market during a given period, it also may signal news unrelated to this merger, or news that could affect the probability of this merger in unanticipated ways. (For example, the BellSouth offer for Sprint could reduce the probability of the MCI/Sprint merger occurring). In addition, trading can be generated by news that causes investors to come into greater agreement as to the probability of a merger even if that news does not greatly increase the mean estimate of the probability of that merger. Thus, high volume is not a sufficient condition for a significant change in the probability of the merger in question to have occurred.

market's understanding of the effect of the merger upon rivals. Second, even if the market's estimate of the probability of a merger increased significantly during the announcement period, it is important to know by how much, since the full expected effect of the merger on the share price of a rival is equal to the effect observed during a period divided by the change in the probability of the merger during that period. Third, there may be multiple "events" which should be examined and whose effects ideally should be combined. And fourth, even if the market's assessment of the probability of a merger increased by a large amount when the merger was formally announced, it may take time for the market to assess the likely effects of the merger on product prices and, hence, on the share prices of rivals.³

These problems can be resolved by moving away from discrete event windows and instead calculating a continuous probability of the merger. As has long been recognized in the financial press, the "closer" are the share values of the merging parties to those that would result if the merger is consummated, the higher the market's estimate of the probability of the merger. Similarly, the closer the share values approach the share prices that would be expected if the merger were not consummated, the lower the market's estimate of the probability of the merger.⁴

³ When news of a merger first becomes available, financial analysts are initially concerned about estimating the effects on the merging parties. Only after they have assessed those effects do analysts typically focus on how a merger is likely to affect rivals, and the market's assessment of those effects tends to coalesce over a longer period of time. Therefore, for any given change in the probability of the merger, the period immediately following a merger's announcement is likely to provide relatively poor information as to the market's ultimate assessment of how the merger will affect rivals.

⁴ More precisely, the probability of a merger is given by

$$\pi = (a(V_b - V^b) - (V_s - V^s)) / (V^s - a V^b)$$

where a is the terms of the stock exchange, V_b and V_s are the actual market prices, and V^b and V^s the hypothetical "but for" market prices in the absence of the merger, of the buyer and the seller respectively. For a derivation, see Robert H. McGuckin,

Figure 1 plots the estimated daily value, from September 15, 1999 to February 18, 2000, for the market's estimate of the probability that the MCI WorldCom merger with Sprint would occur. The data confirm each of the events (each marked with a vertical line in Figure 1) discussed by Carlton and Sider. In particular, the probability of the merger:

- Falls by 10 percentage points (from 24% to 14%) on September 23. ("Press reports of potential bids for Sprint by WorldCom and Duetche (sp.) Telekom were reported on September 23, although Sprint was widely discussed in the press as a potential merger candidate in prior months and years." Carlton and Sider, paragraph 52.)
- Falls by 5 percentage points (from 30% to 25%) on September 30. ("FCC Chairman William Kennard publicly stated that a merger of MCI and Sprint might face opposition from the FCC.")
- Rises by 13 percentage points (from 34% to 47%) on October 4. ("BellSouth made a bid for Sprint...Sprint accepted MCI WorldCom offer." Carlton and Sider, paragraph. 53.)
- Falls by 7 percentage points (from 47% to 40%) on the 5th ("Kennard again expresses concern").
- Rises by 17 percentage points (from 40% to 57%) on October 6th ("Several analysts issued favorable comments about the proposed transaction and the likelihood that it would be approved." Carlton and Sider, paragraph 54).

The striking fact that emerges from this time series is the extent to which this merger was anticipated, as shown by the small change -- 10 percentage points, from 47% to 57% -- in the

Frederick R. Warren-Boulton and Peter Waldstein, "The Use of Stock Market Returns in Antitrust Analysis of Mergers," *Review of Industrial Organization*, 7-1 (1992), pp. 1-11. The "but for" market prices for MCI WorldCom and for Sprint FON are their share prices after adjusting for movements in the market (proxied by the S&P 500), other news (e.g., the change in the probability of the AT&T-MediaOne merger) and other identifiable events unrelated to this merger (for a listing of those dates and events, see Appendix 2).