

- (b) the demand for the dial-up SMS/800 rate element reflects the expectation, based on current usage and estimates from potential users, that an average of 1.8 dial-up access services would be ordered by each SMS/800 user.
- (c) the demand for 9.6 Kbps dedicated access assumes that at the inception of national service 22 Resp Orgs would use two links: a primary access link and a backup link for access from a second (alternate) site. Most of the growth in 9.6 Kbps links is expected to materialize in the early months of national SMS/800 operation and would flatten out thereafter.

All of the assumptions used in the demand forecast reflect reasonable expectations based on prior experience and information from SMS/800 users.

Estimates of cost for labor intensive items (such as Bellcore's operation of the NASC in 1993 and the development of software for SMS/800) are not based on a specific labor wage rate. The mix of personnel with wide variations in expertise and salary levels within each Bellcore department and the use of sophisticated laboratory equipment and facilities by some departments is not conducive to the use of a specific wage rate.

Bellcore estimates the cost of its services and products primarily on the basis of anticipated effort (or headcount) required to satisfy a customer's requirements. An average annual headcount dollar rate for each department participating in the provision of a specific service or product is applied to its headcount estimates to determine the estimated cost. Each department's annual dollar rate per headcount is fully loaded to reflect benefits, taxes, depreciation and other overhead costs and it is applied indiscriminately to the headcount for all services provided by a department.

Estimates of the cost of other items/services, such as the Data Center and NASC operation by Lockheed Information Management Services Co. that are obtained under contract do not reflect any assumptions by the BOCs as to each provider's internal labor wage rate, depreciation or tax expense used in pricing its services.

4. The SMS/800 Tariff rates are reasonable.

The Designation Order cites petitioners' argument that the rates are excessive because the tariff understates demand.

The BOCs' demand forecast is well reasoned and was fully explained in both the D&J and reply comments. To reiterate, the BOCs based the 10% growth factor for the Customer Records rate element on user surveys and Resp Org surveys conducted by the NASC in March 1992 and January 1993. This growth factor is also consistent with projections made by other entities.¹⁷ Additionally, knowledge about what was already in the system (i.e., existing customer base) was factored into the demand forecasts.

The intent of the BOCs was to file a tariff that only recovers cost, i.e., did not include either profit or loss. If actual experience shows that this is not occurring with the SMS/800 Tariff, the BOCs will address the issue. However, more than a few months' worth of data will be required to identify any emerging trend.

III. INFORMATION REQUESTED BY THE FCC AS SPECIFIED IN QUESTIONS NO. 12-14 OF APPENDIX C OF ITS JULY 19, 1993 DESIGNATION ORDER. QUESTIONS NO. 1-11 ARE DIRECTED AT SOUTHWESTERN BELL AND ARE ANSWERED SEPARATELY IN SOUTHWESTERN BELL'S DIRECT CASE.

¹⁷In June 1992, Link Resources Corp. estimated that the compound annual growth rate in 800 numbers would be 9.6% for the period 1990 to 1995. (Voice Response-Based 800 Services - Market Overview, Interactive Voice Services Forecast, 1990-1995)

Question 12: Provide, by category, and by Part 32 account, a projection of the total annual costs for the SMS/800 System, for each year used in your representative period. Explain how these costs are apportioned between regulated and unregulated services.

The information in Table A, provided in response to this question, is based on and consistent with cost data contained in the SMS/800 Tariff filings (included herein as Attachments 1 through 4). No unregulated services are provided by SMS/800. The annual costs displayed in Table A are categorized as tariff (provided to Resp Orgs) and contract (provided to SCP owners).

The costs shown in Table A are categorized as Administrative or Product Development costs in accordance with the instructions in Attachment C of the designation order. Administrative costs consist of costs incurred for the ongoing operation and administration of the SMS/800 from May 1, 1993 through December 31, 1997. Product Development costs consist of "start-up" costs incurred in 1992 and 1993 to upgrade existing SMS/800 facilities and operations for national 800 Data Base Service and to prepare for the transition of the NASC operation from Bellcore to an independent third-party

provider. Both categories of cost are being recovered over the 56 month study period.

All SMS/800 costs are classified as expense items in account 32.6124 (General Purpose Computer Expense) and are allocated between tariffed Resp Org services and contracted SCP owner services on the basis of the cost of rate elements used by each. The rate elements are displayed throughout the worksheets in Attachment 1. The net present value of the costs for each rate element shown in Appendix 1, Exhibit 8 in Attachment 1 was used to calculate the split between tariff and contract services in Table A. The annual costs in Table A were also previously filed and are shown in Attachment 2.

TABLE A

SMS/800 COSTS

	<u>ADMINISTRATIVE</u> <u>COSTS</u>	<u>PRODUCT</u> <u>DEVELOPMENT</u> <u>COSTS</u>	<u>TOTAL</u> <u>COSTS</u>
1993 Tariff	\$18,877,676	\$22,291,040	\$41,168,716
Contract	<u>5,451,058</u>	<u>3,646,513</u>	<u>9,097,571</u>
Total	24,328,734	25,937,553	50,266,287
1994 Tariff	27,058,014	-----	27,058,014
Contract	<u>8,008,602</u>	<u>-----</u>	<u>8,008,602</u>
Total	35,066,616	-----	35,066,616
1995 Tariff	28,412,874	-----	28,412,874
Contract	<u>7,529,190</u>	<u>-----</u>	<u>7,529,190</u>
Total	35,942,064	-----	35,942,064
1996 Tariff	27,472,080	-----	27,472,080
Contract	<u>7,759,486</u>	<u>-----</u>	<u>7,759,486</u>
Total	35,231,566	-----	35,231,566
1997 Tariff	28,506,874	-----	28,506,874
Contract	<u>8,001,276</u>	<u>-----</u>	<u>8,001,276</u>
Total	36,508,150	-----	36,508,150
<hr/>			
1993-97 Tariff	130,327,518	22,291,040	152,618,558
Contract	<u>36,749,612</u>	<u>3,646,513</u>	<u>40,396,125</u>
Total	167,077,130	25,937,553	193,014,683

Question 13: Explain the nature of the contracts with the SCP owners for updating the SCPs and provide the specific charges, by SCP owner, that will be assessed to the SCP owners for updating SCPs for the period May 1, 1993 through April 30, 1994.

The contracts for SMS/800 services provided to SCP owners will be between the BOCs, acting jointly as the service provider, and each prospective SCP owner. Under the terms of the contract, the BOCs will provide the SCP owner with the appropriate customer record downloads, as well as allow direct access to the SMS/800 for purposes of SCP administration and network management. The contracts also provide the necessary SMS/800 software support and maintenance, as well as the ongoing support of the NASC and the Kansas City Data Center (KCDC) in maintenance and trouble resolution.

The contracts for all SCP owners are identical and include the following rate schedule:

CONTRACTUAL CHARGES FOR SCP OWNER/OPERATORS

1. SMS/800 Access, monthly recurring charge
- per 9.6 Kbps dedicated access \$ 2,194.57

- Dial-up access, 2.4 and 9.6 Kbps
(may be used for emergency backup
for Dedicated Access) \$ 298.46

- 2. 800 Record translation, validation and
downloading services. Applied monthly
for each Network served. \$ 5,039.15

- 3. Data Base administration support and
network managements services. Applied
monthly for each Data Base (SCP)
served. \$10,716.94

- 4. Customer-requested off-line Reports.
Applied for each report requested. \$ 39.57

- 5. Service Establishment, non-recurring
charge
 - Initial (first) logon identity \$ 1,535.37
 - Each additional logon identity \$ 433.85

The expected annual charges for each of the SCP owners will vary depending on the number of databases deployed, the number of data links terminated on the SMS/800, the number of logon identities obtained, the number of

networks they maintain and the number of reports requested.

Question 14: Explain the nature of the contracts with Bellcore, Data Base Service Management, Inc., and Lockheed Information Management Services Co. and provide specific charges, by entity, that each of these entities will charge to the Bell Operating Companies for the period May 1, 1993 through April 30, 1994.

BELLCORE:

The BOCs obtain software support and maintenance for the SMS/800 software system and the BILL/800 software system under the BOC/Bellcore Service Agreement. The Service Agreement requires that Bellcore and the BOCs agree annually to the work program and budget for the following year.

The current work program for SMS/800 software support includes system software maintenance, testing of new features and new releases, problem resolution, requirements support for enhancements, development of enhancements, application and user support including documentation, and performance and capacity monitoring and planning.

The current work program for BILL/800 support includes software maintenance, hardware operations and rendering bills for both the Resp Orgs and the SCP owners. The total cost associated with the provision of SMS/800 software support and BILL/800 software support and operation for the period May 1, 1993 through April 30, 1994 is:

SMS/800	\$10,500,000
BILL/800	\$ 773,333
Total	\$11,273,333

DATABASE SERVICE MANAGEMENT, INC. (DSMI):

The planned contract between the BOCs, acting jointly, and Database Service Management, Inc. (DSMI) will cover the support requirements the BOCs deem necessary in fulfilling their role as the joint provider of SMS/800 services.

These services, which DSMI will provide on behalf of the BOCs, include: a) subcontractor oversight such as monitoring of contract related costs and performance; b) user billing oversight as well as collections and handling of inquiries; c) User Group support including acting as the single point of contact for escalation of customer service issues and process/procedure concerns;

d) coordination of system planning, training, user documentation, etc.; and e) support for the BOCs as they jointly respond to service-related regulatory activities. DSMI will act as the interface between the BOCs and subcontractors involved in the provision of services to the BOCs. Those subcontractors include: Lockheed IMS for NASC support, Southwestern Bell Telephone Company for the data center hardware support, and Bellcore for SMS/800 and BILL/800 software systems.

Until the planned contract is in place, these services are being provided by DSMI as part of the Bellcore work program for 1993.

The estimated cost for DSMI support for the period from May 1, 1993 through April 30 1994 is \$903,666.

LOCKHEED IMS COMPANY:

The contract for ongoing operation of the 800 NASC will be a contract between the BOCs, acting jointly, and Lockheed IMS Company. The contract will include a phase-in period running from June 1, 1993 through November 30, 1993, followed by an ongoing operations phase covering the period from December 1, 1993 through May 31, 1994. The BOCs, at their option, will be able to extend the

contract for four additional years, in one year increments.

During the phase-in period, Lockheed IMS will construct the NASC facility, install all necessary hardware, furniture, communications systems, software systems, etc., as well as complete the staffing and training of the work force.

Once in operation, the Lockheed NASC will provide system administration, user support, and system support for the SMS/800 system and its users. Lockheed IMS will provide the day-to-day user interface for both the Resp Orgs and the SCP owners.

Total estimated Lockheed costs for the period from May 1, 1993 through April 30, 1994 are \$2,034,668.

IV. CONCLUSION

The BOCs have shown, from the factual information presented in this Direct Case, that the terms and conditions in the BOCs' tariff fully comply with the Commission's Rules and Orders on 800 Data Base Service and are both reasonable and nondiscriminatory. The BOCs have shown in their Direct Case that the prices for services rendered by the BOCs to the

customers under tariff and contract are fair and reasonable as are the costs on which those prices are based. The BOCs have shown in their Direct Case that the rates are based on cost and that the costs have been appropriately allocated.

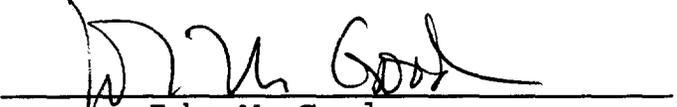
The Commission will also undoubtedly agree with the BOCs that it is not their responsibility to become industry enforcers of Resp Org conduct. The Commission has stated that 800 subscribers should have the widest possible choice of Resp Orgs. There will naturally be a high level of competition among the Resp Orgs. Resp Orgs who do not respond to customers' requests in a timely manner will quickly lose customers to more responsive Resp Orgs. Competition in the marketplace should provide the necessary enforcement of Resp Org conduct.

Based on the information the BOCs have provided in this Direct Case, the Commission should conclude that tariff terms, conditions, and rates are just and reasonable and that the SMS/800 Tariff can stand as is and warrants no further investigation.

Respectfully submitted,

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THE BELL ATLANTIC TELEPHONE COMPANIES
BELLSOUTH TELECOMMUNICATIONS, INC.
THE NYNEX TELEPHONE COMPANIES
PACIFIC BELL AND NEVADA BELL
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ATTACHMENT 1

(Source: SMS/800 Tariff No. 1, Transmittal 1, Appendix 1 filed March 5, 1993; and SMS/800 Tariff No. 1, Transmittal 2, Appendix 1, Exhibits 7, 8 and 8, filed April 8, 1993)

Cost Allocation Methodology

An allocation methodology was used to assign NASC and SMS/800 costs to each of the rate elements. Each cost item was analyzed individually to determine its relationship to specific rate elements in order to allocate the costs in an appropriate manner. Each cost item was treated as follows:

Ongoing Cost of Data Center Operation

The 1993 costs identified for the operation of the data center are shown as Exhibit 1. These costs consist of:

1. Network equipment and facilities, including front-end processor needed to provide communications access for customer's links. (Exhibit 1, lines 1-4)
2. Storage hardware (tape and disk drives) for 800 number customer record data. (Exhibit 1, lines 5-6)
3. Central processor used to respond to and execute customer requests for SMS/800 services. (Exhibit 1, lines 7-9)

Network costs are attributable almost entirely to the SMS/800 rate elements. A special study of discrete costs and demand projections was used to determine the relative, weighted cost of each type of connection offered. In addition, a portion of the network costs were allocated to SCP operators (Exhibit 2, line 8). Ratios reflecting the relative weighted cost relationships were then used to distribute total network costs to each type of connection.

Storage costs are assigned to the Customer Record Administration rate element in their entirety.

Central processor costs are attributable to most rate elements. A two-step analysis was used to determine the appropriate distribution of these costs. Lines of computer code developed for each SMS/800 software application and platform function were identified and distributed to each rate element. Then, study data reflecting approximately one month's measurement of internal

computer transactions for each software application and software function was used to identify the relative magnitude of processing for each application and platform. Since the relationship between rate elements and software applications and platforms had been established and quantified in the first step, the relationship was extended to transactions so that they could be assigned to rate elements. As in the case of the network costs, a portion was allocated to SCP operators. The lines of code analysis is shown in Exhibit 3. The transactions analysis is shown in Exhibit 4. This approach is reasonable since in a national database environment, the volume of transactions would increase, but relationships between service elements, applications platforms and transactions are expected to remain fairly constant. Total SCP assigned costs are displayed on Exhibit 1, line 17.

SMS/800 Upgrade

The cost of upgrading the hardware and software at the data center is virtually identical in nature to the ongoing costs of the center, and supports the same rate elements. Consequently, the distribution ratios developed for the data center's ongoing cost were also applied to the upgrade cost.

Cost of NASC Operation

Since NASC costs are labor-intensive, a modified Task Oriented Costing (TOC) study was used to allocate NASC personnel resources to the rate elements they support. Each person working in the Service Center was interviewed individually to determine the primary tasks that he or she expected to perform in a national SMS/800 environment and how often he or she would be performing them. Each task was then analyzed and associated with the particular rate elements it supports. A summary of the TOC study results is shown in Exhibit 5.

Cost of Software Support

This cost item includes software maintenance, site support and software development for new features. The software maintenance and site support dollars were distributed on the basis of the lines of code analysis shown in Exhibit 3. This approach is reasonable because nearly all software modules are affected by software development activities and data center upgrading for national 800 Service. It cannot be assumed that pre-existing modules are stable and would thus require less maintenance than newer modules.

The cost of software development for new features was distributed by associating each new feature, and its individual cost, with the rate element it supports. The distribution of software support costs is shown in Exhibit 6. The distribution of software enhancements required for new features is shown in Exhibit 7.

Cost of Billing System Development

The cost of the BILL 800 System is directly related to all rate elements offered. It was therefore distributed in the same proportion as the total allocation of costs to each rate element.

Cost of NASC Transition Activities

These costs are directly related to NASC operations, therefore, the NASC distribution was used to allocate the cost of the NASC transition and related activities.

Third-Party Start-Up Costs

Effective December 1, 1993 the administration of NASC will be moved from Bellcore to an independent, third-party. The arrangement requires that the independent entity selected to assume responsibility for the NASC administration operate in parallel with Bellcore during a transition period. Transition costs are included in this item. The distribution of NASC costs was used to allocate these costs.

Cost of MGI Testing and Development

These costs were distributed directly, and only, to the MGI Testing and Development/Activation elements.

The assignment of total NASC and SMS/800 costs to each rate element is shown in Exhibit 8. The calculation of levelized costs for each rate element is shown in Exhibit 9. A detailed description of cost items is provided as Exhibit 10.

NASC/SMS SERVICE ELEMENTS - DISTRIBUTION OF DATA CENTER 1993 COSTS

ITEM NO	DATA CENTER COSTS	CUST REC ADMINISTR		SMS ACCESS [RO&SCP] (D)	TRANSLATION & VALIDATION		DATA BASE ADMIN & SUPPORT		SERVICE ESTABLISH [RO&SCP] (H)	REPORTS (special) [RO] (I)	MGI DEVELOP		TOTAL (K=A TH J)
		[RO] (A)	(A)		[SCP] (E)	(E)	[SCP] (G)	(G)			[RO] (J)	(J)	
NETWORK													
1	COMPUTER HARDWARE	-	-	1,912,372	-	-	-	-	-	-	-	-	1,912,372
2	COMPUTER SOFTWARE	-	-	153,640	-	-	-	-	-	-	-	-	153,640
3	COMMUNICATIONS EQUIPT AND FACIL	-	-	1,300,248	-	-	-	-	-	-	-	-	1,300,248
4	INVESTMENT COST	-	-	244,384	-	-	-	-	-	-	-	-	244,384
STORAGE (DASD)													
5	TAPE DRIVES	61,648	-	-	-	-	-	-	-	-	-	-	61,648
6	DISK DRIVES	2,811,949	-	-	-	-	-	-	-	-	-	-	2,811,949
CENTRAL PROCESSOR (1)													
7	HARDWARE	6,242,207	-	-	148,258	1,087,600	11,849	9,224	-	-	-	-	7,499,136
8	SOFTWARE	1,186,226	-	-	28,174	206,680	2,252	1,753	-	-	-	-	1,425,085
9	INVESTMENT	1,218,006	-	-	28,929	212,217	2,312	1,800	-	-	-	-	1,463,264
10	SUB-TOTAL	11,520,036	3,610,644	205,381	1,506,497	16,413	12,777	-	-	-	-	-	16,871,726
11	% DISTRIBUTION OF SUB-TOTAL	68.280	21.401	1.217	8.929	0.097	0.076	-	-	-	-	-	100 %
COMMON COSTS (2)													
12	PERSONNEL	1,932,881	605,823	34,451	252,764	2,746	2,151	-	-	-	-	-	2,830,816
13	FLOOR SPACE	154,884	48,545	2,761	20,254	220	172	-	-	-	-	-	226,836
14	MISCELLANEOUS	220,781	69,199	3,935	28,872	314	245	-	-	-	-	-	323,346
15	1993 COST TOTAL (3)	13,828,582	4,334,211	246,508	1,808,387	19,692	15,345	-	-	-	-	-	20,252,724
8 MONTH PORTION (4)													
16	5/1/93 - 12/31/93 (8/12)	9,219,075	2,889,480	164,226	1,205,595	13,128	10,230	-	-	-	-	-	13,501,734
16A	% DISTRIBUTION OF 8 MONTH COST	68.281	21.401	1.217	8.929	0.097	0.076	-	-	-	-	-	100.00 %
17	TOTAL SCP COST \$ (5)	-	1,240,367	164,226	1,205,595	-	-	-	-	-	-	-	2,610,188
18	TOTAL RESP-ORG COST \$ (6)	9,219,075	1,649,113	-	-	13,128	13,225	-	-	-	-	-	10,891,541

NOTES:

- (1) TOTAL COST DOLLARS IN COL. A ARE DISTRIBUTED TO SERVICE ELEMENT COMPONENTS BASED ON PERCENTS DEVELOPED ON EXHIBIT 4 LINE 15 (ANALYSIS OF SMS TRANSACTIONS).
- (2) TOTAL COST DOLLARS ARE DISTRIBUTED TO INDIVIDUAL COST ITEMS BASED ON PERCENTAGES DEVELOPED ON LINE 11 ABOVE.
- (3) THE SUM OF LINES 10, 12, 13, AND 14 ABOVE.
- (4) REPRESENTS 8 MONTHS OF TOTAL 1993 COST (LINE 15 ABOVE).
- (5) COLUMNS E & G: TOTALS ON LINE 16; COLUMN D: EXHIBIT 2, LINE 10, COL. F (42.927%).
- (6) COLUMNS H & I: TOTALS ON LINE 16; COLUMN D: EXHIBIT 2, LINE 9, COL. F (57.073%).

NASC/SMS - SMS ACCESS COST RELATIONSHIPS

ATTACHMENT 1
APPENDIX 1
EXHIBIT 2 OF 10

LINE NO	SMS ACCESS RELATIONSHIPS	1993 COST (A)	UNIT TOTAL(5) COST DEMAND (B) (C)		WTD COST (D=B*C)	% TOTAL (E=D/DTOT)	TOTAL 1993 COST (F=E*A)	% DMD DISTRIB (G=C/CTOT)
1	SMS ACCESS (1)	2,889,464	-	-	-	-	-	-
2	RESP-ORG: DIAL-UP LN (2.4&9.6)	-	103.84	12,527	1,300,804	15.256 %	440,817	63.780
3	RESP-ORG: 9.6 DEDICATED LINE	-	908.45	2490	2,262,041	26.530 %	766,575	12.678
4	RESP-ORG: 56.0 DEDICATED LINE	-	2,190.62	595	1,303,419	15.287 %	441,712	3.029
5	SCP - 9.6 DEDICATED LINE	-	908.45	4029	3,660,145	42.927 %	1,240,360	20.513
6	TOTAL	-	-	19,641	8,526,409	100 %	2,889,464	100
7	TOTAL RESP-ORG COST \$ (2)	-	-	-	-	-	1,649,104	-
8	TOTAL SCP COST \$ (3)	-	-	-	-	-	1,240,360	-
9	% DISTRIBUTION TO RESP-ORG (4)	-	-	-	-	-	57.073	79.487
10	% DISTRIBUTION TO SCP (4)	-	-	-	-	-	42.927	20.513

NOTES:

- (1) SOURCE FOR COLUMN A: EXHIBIT 1, COLUMN D, LINE 16.
- (2) TOTAL OF COLUMN F, LINES 2, 3, AND 4.
- (3) COLUMN F, LINE 5.
- (4) PERCENT DISTRIBUTION CALCULATED FROM RELATIONSHIP OF LINES 7 AND 8 TO LINE 6, COLUMN F.
- (5) SOURCE FOR COLUMN C: EXHIBIT 1 (MAIN TEXT), LINES 2A, 2B, AND 2C.

NASC/SMS SERVICE ELEMENTS - SMS LINES OF CODE DISTRIBUTION

ITEM NO	SOFTWARE	CUST REC ADMINISTRATION		TRANSLATIONS & VALIDATION(1)		DATA BASE ADMIN & SUPPORT		SERVICE ESTABLISH		REPORTS (special)		MGI DEVELOP		TOTAL (lines/code) (K = A TH J)
		[RO]	(A)	[RO]	[SCP]	[SCP]	(G)	[RO&SCP]	(H)	[RO]	(I)	[RO]	(J)	
APPLICATION FUNCTIONS														
1	APPL SAMP, SCP ADM, NET MGMT	-	-	-	-	173,192	-	-	-	-	-	-	-	173,192
2	MASS CHANGE	30,178	-	-	-	30,179	-	-	-	-	-	-	-	60,357
3	SCP LOAD	18,829	-	-	-	-	-	-	-	-	-	-	-	18,829
4	DATA COMMUNICATIONS MANAGER	482	-	-	-	-	-	-	-	-	-	-	-	482
5	EXECUTIVE	1,190	-	-	-	1,190	-	-	-	-	-	-	-	2,380
6	MECHANIZED GENERIC INTERFACE	32,395	-	-	-	-	-	-	-	-	-	-	-	32,395
7	BILLING	16,755	-	-	-	-	-	-	-	-	-	-	-	16,755
8	CUSTOMER RECORD INPUT	95,470	-	-	-	-	-	-	-	-	-	-	-	95,470
9	CUSTOMER RECORD DATA BASE MGR	11,215	-	-	-	-	-	-	-	-	-	-	-	11,215
10	NUMBER ADMINISTRATION	47,133	-	-	-	-	-	-	-	-	-	-	-	47,133
11	CUSTOMER RECORD OUTPUT	-	-	-	55,848	-	-	-	-	-	-	-	-	55,848
12	REPORTS (ALL)	19,310	-	-	1,484	6,351	884	1,474	-	-	-	-	-	29,483
13	SECURITY	3,825	-	-	-	534	1,040	-	-	-	-	-	-	5,199
14	SMS LOAD	42,626	-	-	-	-	-	-	-	-	-	-	-	42,626
PLATFORM FUNCTIONS														
15	SCP/SMS ADMINISTRATION	12,500	-	-	-	12,500	-	-	-	-	-	-	-	25,000
16	DATA COMMUNICATIONS MANAGER	97,000	-	-	-	7,000	-	-	-	-	-	-	-	104,000
17	SECURITY	13,500	-	-	-	4,500	-	-	-	-	-	-	-	18,000
18	EXECUTIVE	9,250	-	-	-	9,750	-	-	-	-	-	-	-	19,000
19	MAILBOX	10,184	-	-	-	3,616	1,200	-	-	-	-	-	-	15,000
20	SUB-TOTAL (L1 THRU L19)	461,642	-	-	57,110	248,812	3,124	1,474	-	-	-	-	-	772,162
21	PERCENT OF TOTAL LINES/CODE	59.786	-	-	7.398	32.223	0.405	0.191	-	-	-	-	-	100
SHARED FUNCTIONS														
22	COMMON (DISTRIBUTION BASED ON L	218,862	-	-	27,076	117,960	1,481	699	-	-	-	-	-	386,078
23	TOTAL (L20 + L22)	680,504	-	-	84,186	366,772	4,605	2,173	-	-	-	-	-	1,138,240

NASC/SMS SERVICE ELEMENTS - ANALYSIS OF SMS TRANSACTIONS

ITEM NO	SOFTWARE	CUST REC ADMINISTR		SMS ACCESS	TRANSLATION & VALIDATION		DATA BASE ADMIN & SUPPORT		SERVICE ESTABLISH [RO&SCP] (H)	REPORTS (special) [RO] (I)		MGI DEVELOP [RO] (J)	TOTAL (transactions) (K = A TH J)
		[RO]	(A)		[SCP]	(E)	[SCP]	(G)		[RO]	(I)		
1	<u>APPLICATION FUNCTIONS</u> EXECUTIVE		4,352	-	-		4,353		-		-		8,705
2	SCP ADMINISTRATION		43,322	-	-		179,777		-		-		223,099
3	DATA COMMUNICATIONS MANAGER		9,201	-	-		-		-		-		9,201
4	CUSTOMER RECORDS - IN		187,749	-	-		-		-		-		187,749
5	CUSTOMER RECORDS - OUT		-	-	49,728		-		-		-		49,728
6	NUMBER ADMINISTRATION		13,415	-	-		-		-		-		13,415
7	REPORTS (ALL)		43,171	-	3,273		14,199		1,977		3,295		65,915
8	SECURITY		6,064	-	-		896		1,745		-		8,725
9	<u>PLATFORM FUNCTIONS</u> EXECUTIVE		33,847	-	-		35,676		-		-		69,523
10	SCP ADMINISTRATION		11,050	-	-		11,050		-		-		22,100
11	DATA COMMUNICATIONS MANAGER		1,851,761	-	-		133,632		-		-		1,985,393
12	SECURITY		22,655	-	-		7,552		-		-		30,207
13	MAILBOX		4,461	-	-		1,584		526		-		6,571
14	TOTAL		2,231,069	-	53,001		388,719		4,248		3,295		2,680,331
15	PERCENT OF TOTAL		83.239	-	1.977		14.503		0.158		0.123		100.00

DISTRIBUTION OF TASK TIME TO PROPOSED SERVICE ELEMENTS – SUMMARIZED RESULTS – TOC STUDY OF ANTICIPATED 1993 OPERATIONS

ITEM NO		CUST REC		TRANSLATION & VALIDATION [SCP] (E)	DATA BASE ADMIN & SUPPORT [SCP] (G)	SERVICE ESTABL (2) [RO&SCP] (H)	REPORTS (special) [RO] (I)		MGI DEVELOP [RO] (J)	TOTAL (K = A TH J)
		ADMINISTR [RO] (A)	SMS ACCESS [RO&SCP] (D)							
	% OF TASK TIME (1)									
1	TOTAL TASK % ASSIGNED TO SCP	–	28.73	5.36	156.53	2.23	–	–	–	192.85
2	TOTAL TASK % ASSIGNED TO RO	931.21	53.00	–	–	22.98	–	–	–	1,007.19
3	COMBINED TASK % (L1 + L2)	931.21	81.73	5.36	156.53	25.206	–	–	–	1,200.04
	<u>DISTRIBUTION OF NASC RESOURCES TO SERVICE ELEMENTS AS A PERCENT OF 100</u>									
4	% OF 100 ASSIGNED TO SERVICE ELEMENT BASED ON LINE 3 (3)	77.60	6.81 (4)	0.45	13.04	2.10 (5)	–	–	–	100.00 %
5	% OF L4 ASSIGNED TO SCP	–	1.397	0.45	13.04	0.27	–	–	–	15.157 %
6	% OF L4 ASSIGNED TO RESP-ORG	77.60	5.413	–	–	1.83	–	–	–	84.843 %
7	TOTAL % (L5 + L6)	77.60	6.81	0.45	13.04	2.10	–	–	–	100.00 %

NOTES:

- (1) TOTAL NASC PERSONNEL INTERVIEWED = 12; {100% * 12 = 1200% TOTAL}
- (2) SERVICE ESTABLISHMENT DISTRIBUTED TO ITS RATE/CHARGE ELEMENTS AS FOLLOWS:
 - 20% OF 10.50% TO NON-RECURRING CHARGE = 2.1%
 - 10% TO FIRST LOG-ON REQUEST = 1.05%
 - 10% TO SUGSEQUENT LOG-ON REQUESTS = 1.05%
 - 80% OF 10.50% TO RECURRING CHARGE = 8.4%
- (3) DISTRIBUTIONS WERE MADE TO EACH SERVICE ELEMENT BASED ON RATIOS DEVELOPED BY DIVIDING EACH COMPONENT IN LINE 3 BY 1200 THEN MULTIPLYING BY 100.
- (4) COLUMN D DISTRIBUTION SOURCE: EXHIBIT 2, LINE 9, COL. G (79.487%) & LINE 10, COL. G (20.513%).
- (5) COLUMN H DISTRIBUTION SOURCE: EXHIBIT 3 (MAIN TEXT), NOTE** (RO 87.068% & SCP 12.932%).

NASC/SMS SERVICE ELEMENTS - DISTRIBUTION OF 1993 SOFTWARE SUPPORT COST

ITEM NO	SOFTWARE SUPPORT	CUST REC		TRANSLATION & VALIDATION [SCP] (E)	DATA BASE ADMIN & SUPPORT [SCP] (G)		SERVICE ESTABL (3) [RO&SCP] (H)	REPORTS (special) [RO] (I)	MGI DEVELOP [RO] (J)		TOTAL (K=A THRU J)
		ADMINISTR [RO] (A)	SMS ACCESS [RO&SCP] (D)								
1	SOFTWARE MAINTENANCE (1)	4,153,046	-	513,765	2,238,377	28,133	13,268	-			6,946,520
2	SOFTWARE DEVELOPMENT	<u>2,893,030</u>	=	=	<u>660,450</u>	=	=	=			<u>3,553,480</u>
3	1993 TOTAL COST	7,046,076	-	513,765	2,898,827	28,133	13,268	-			10,500,000
4	% DISTRIBUTION OF TOTAL COST	67.105	-	4.893	27.608	0.268	0.126	-			100 %
5	8 MONTH PORTION (2) <u>5/1/93 - 12/31/93 (8/12)</u>	4,697,384	-	342,510	1,932,551	18,755	8,845	-			7,000,000

NOTES:

(1) SOURCE IS EXHIBIT 3, LINE 21 (PERCENT OF TOTAL LINES/CODE).

(2) REPRESENTS 8 MONTHS OF TOTAL 1993 BUDGET (LINE 3 ABOVE).