ASSESSMENT OF FEDERAL OPPORTUNITIES

FOR

CBIS. BUSINESS DEVELOPMENT

INPUT

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M&S 459/01 1/93

JULY 1993

ASSESSMENT OF FEDERAL OPPORTUNITIES FOR CBIS BUSINESS DEVELOPMENT

Submitted to
Cincinnati Bell Information Systems Inc.

INPUT®

San Francisco • New York • Washington D.C. • London • Paris • Frankfurt • Tokyo

Published by
INPUT
1953 Gallows Road, Suite 560
Vienna, VA 22182-3934
U.S.A.

Assessment of Federal Opportunities for CBIS Business Development

Printed in the United States of America.

YCI • 647 • 1993

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Executive Summary

1. Technical competency and a good track record/reputation are the two most frequently mentioned factors for success as a systems integration vendor.

2. Vendors perceived as top systems integration vendors are: Electronic Data Systems, Computer Sciences Corporation, IBM, Planning Research Corporation, Martin Marietta, and Science Applications International Corporation.

3. Top vendors based on overall performance ratings are Martin Marietta, Boeing Computer Services, Electronic Data Systems, DynCorporation, Computer Sciences Corporation, and IBM.

4. The top vendors by specific performance task are:

Requirements Analysis:	Martin Marietta
Systems Engineering:	Martin Marietta
Applications Development	Martin Marietta
Network Engineering	Electronic Data Systems
Network Operations	Cincinnati Bell Corporation
Customer Service	Boeing Computer Services

5. By area of expertise, the top-performing vendors are:

Technical Expertise:	Electronic Data Systems Computer Sciences Corporation Martin Marietta
Program Management Expertise:	Electronic Data Systems Martin Marietta
Contract Administration Expertise:	Electronic Data Systems Martin Marietta IBM

Applications Expertise:	Electronic Data Systems Planning Research Corporation IBM Martin Marietta
Network Expertise:	Electronic Data Systems Martin Marietta

6. Agencies generally believe that larger companies are the top systems integration vendors.

7. Cincinnati Bell Information Systems is considered a top-performing vendor when agencies consider specific functional tasks.

8. The major issues facing federal agencies are:

   Interoperability
   Customer Service
   Business Process Re-engineering

9. Technologies viewed by federal agencies as most important within their categories are ranked from most important to least important:

   Networks (network management)
   Software (application development tools and information engineering)
   Processing (client/server)
   Hardware (desktop power)
   Standards (EDI)

10. The potential for the systems integration market is clouded by whether federal budget problems will interfere with agencies acting on integration needs. Overall, requirements are expected to grow. Agencies believe they are incapable of providing in-house talent to perform desired functions.

Objectives

Cincinnati Bell Information Systems (CBIS) is an internationally recognized provider of high-quality strategic computer software and information management systems and services. Its reputation for high-quality systems and services extends into the federal government market.

In order to assess the company's potential to grow business in the federal information technology market, CBIS is conducting primary market research. INPUT was selected to perform the data collection, analysis, and synthesis portion of the research. The focus of this research is:

- The composition and characterization of customer needs and prioritizations
- Perceptions of federal clients regarding CBIS as a viable contractor, particularly as compared to its competitors

This information will be suitable for CBIS in its development of marketing, sales, and communication programs for the federal government during fiscal years 1994 and 1995.

Related to opportunities within the technology groups and agencies identified by CBIS, INPUT's data collection and market analysis will aid CBIS's decisions regarding which opportunities to approach, how to prioritize them, and what market/sales strategies would be most appropriate and cost effective.

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The Study

INPUT's study included the following activities:

1. CBIS's past performance in federal contracts was evaluated in terms of agency opinions. INPUT obtained this information through interviews of agency officials. The list of contacts provided by CBIS formed the initial base for identifying candidate officials. This list was augmented to include other officials INPUT believed would be able to offer valuable information on the multifaceted interests of CBIS. Oversampling was performed to assure the most complete and reliable representative responses regarding the research questions.

2. INPUT based its research questionnaire and interview scripts on the draft list of questions provided by CBIS. This list was expanded to cover all the issues contained in the study. The plan was to take no more than 20 minutes per interview in order to obtain participation and to optimize the time available to conduct the study.

3. In order to assure the highest level of response from key officials, INPUT transmitted copies of the survey document to prospective interviewees ahead of time and where possible prearranged appropriate times to conduct the interviews. A copy of the cover letter for the transmission is shown in Appendix A.

4. INPUT searched its extensive data bases for long-term and short-term opportunities relevant to CBIS's interests. These data bases include agency program plans, budget information, projected spending levels, and past awards to competing vendors who have served the agencies interviewed.

5. The information collected in this study was analyzed by INPUT's senior staff to determine value and relevance to CBIS's interests, and with respect to likely agency contracting scenarios.

6. A final report and executive briefing was prepared for CBIS's senior staff to discuss the study findings and to provide an opportunity for further discussions about the material used in the study and any other information which may be helpful to CBIS in preparing its marketing and business development plans.

Conduct of the Study

The study was performed at INPUT's office in Vienna, VA. Visits to agency offices in the Washington, D.C. metropolitan area occurred, but only as became necessary to gather essential data and information not otherwise available. The large majority of data and information was gathered via telephone and from INPUT's market research data bases.

The final briefing was prepared to take place at CBIS's site in Fairfax, Virginia.

CBIS outlined an intensive requirement with a tight completion deadline. In order to meet the final delivery date specified by CBIS, INPUT took the following steps after the contract was awarded:

- Prepared study planning documents
- Developed questionnaire
- Identified target interviewees
- Faxed questionnaire package to interviewees
- Collected opportunity data
- Conducted interviews and tabulated data
- Analyzed opportunity data and qualitative results of the interviews
- Developed quantitative tables and charts, final documentation, and reports
- Presented final report and executive briefing

Throughout the study, INPUT discussed completed activities, problems, and proposed corrections with CBIS personnel. Status was reported at least weekly to the Virginia and Maitland, Florida offices.

The Questionnaire

The questionnaire was developed from suggested questions and guidance provided by Cincinnati Bell Information Systems (CBIS). Additional guidance was obtained from research staff at CBIS's Maitland, Florida office and from INPUT's commercial market research unit in Teaneck, New Jersey. Content of material, organization and presentation of the questionnaire were reviewed and accepted by CBIS prior to initiation.

The questionnaire was administered by INPUT's staff of research analysts. Results of the interviews were reviewed, tabulated, and analyzed by INPUT's senior research staff. A copy of the questionnaire is shown in Appendix B.

The Interviews

The federal government is a constantly changing environment. Various forces continuously disrupt daily routine. While such disruption is not always undesired, it does interfere with a smooth, orderly collection of marketplace data.

There is no ideal time during the federal agency annual budget and program cycle to conduct market research. Complexities interleave every agency behavior. These complexities generate severe attitude biases among officials, and, in turn, can be expected to affect decision-making. Because this study addressed opinions and attitudes, the presence of such bias was acceptable. The biases can be expected to reflect the complex developments immediately prior to and during the study period.

Some of the major sources of bias recognized during this study are discussed below.

- National Performance Review—Under the leadership of Vice President Gore, approximately 150 senior officials were appointed to conduct analysis of government programs in all major agencies with the intent of restating what the government should do and how—essentially preparing recommendations toward restructuring the business of agencies. The impact of the NPR on this study was felt; namely, by isolating key individuals from the questionnaire pool, and raising issues with existing programs which would be candidates for systems integration approaches.

- Budget Approval Delay—Approval of President Clinton's budget was delayed in Congress until early April. Program funding was uncertain until budget definition could be established. Reshaping of major programs continues as a result of this delay.

- Senior Appointees Not in Position—The appointment of officials to key agency positions, those which usually influence policy setting and program definition, has been seriously delayed. The lack of leadership from key positions has caused confusion among career officials regarding program definition, priorities, and funding levels.

The success rate of the interviews was also influenced by the presence of other researchers who had already solicited agencies' opinions regarding their systems integration programs. Although INPUT was successful in getting responses from agency officials who had already been approached

by other researchers, it was impossible to determine accurately how many refusals were due to this competition for officials' time.

Many secretaries in the federal government are well-trained to screen telephone calls for their managers. This filter works well in protecting the limited time available to officials for their normal responsibilities. Getting beyond these "gatekeepers" is normally difficult, and there were problems during this study. Fortunately, many officials consider reporting their interests and needs to researchers part of their responsibility in assuring accurate awareness of the marketplace. Their direct interaction with vendors is severely limited by prohibitions in law, as well as guidance from oversight officials. Discussing material that will reach vendors and perspective contractors through market research indirectly communicates agency issues.

As a result of the unstable picture created by late budget approval, vacant key positions, and the activities associated with restructuring government, attitudes toward participation in this study varied. While some officials expressed a willingness to participate, even an interest in the study itself, others refused. Finding the correct person, and playing "telephone tag," took the majority of time during the interview process. Apart from activities related to the National Performance Review (NPR), uncertainties created by budget delay, and the prospect that existing planning would have to be revised, many officials were interested in the study. Some expressed a strong desire to talk about their programs and the problems they anticipated in the next few years.

Table 1 provides a breakdown of interview activities. Finding the correct person to interview took the majority of time during the interview phase. A list of contacted agencies is provided in Appendix C.

TABLE 1

Questionnaire Results Profile

Agencies	Targeted	95	
	Contacted	93	
	Participated	37	
Individuals	Contacted	287	
	Participated	51	
	Still promised	18	
	No response	164	
	Refusals	55	
	No explanation		20
	Procurement sensitive		3
	Too busy		8
	Referred to another		19
	Too many surveys		1
	Not qualified		4

Results of the Study

This section discusses the agency responses to the questions. Tables present the data captured and used to support the analysis phase of the study.

Question 1. Factors Critical to Successful Systems Integration

Respondents were asked to name the conditions or factors which in their opinion would characterize a successful systems integration vendor. Table 2 shows the distribution of factors identified. The frequency with which each factor was identified appears in the Total column. The rank order columns provide a count of the occurrences of each factor as they were ranked by the respondents. The rank order score is calculated by multiplying the number of occurrences by the value of the choice and then adding the products together.

TABLE 2

Performance Factors for Successful Systems Integration

Success Factors Mentioned	Rank Order of Responses						
	1st	2nd	3rd	4th	5th	Total	Score
Technical Competency	9	7	7	1		24	96
Track Record/Reputation	12	6	1		1	20	89
Quality of Product Offered	5	3	1			9	40
Maintain the Schedule	4	2	1	4		11	39
Project Management Skills	3	3	2	1		9	35
Stay Within Budget/Costs	1	1	4	5		11	31
Meet Requirements & Specs	3	2	1	2		8	30
Customer Service Orientation	2	5				7	30
Know Business Functions	3	1	3			7	28
Know the Mission	3		1	1		5	20
Flexibility/Responsiveness		3	2			5	18
Know Federal Policies	1	1	1	2		5	16
People Integrity/Commitment	2	1			1	4	15
Broad Skill Level	1	2		1		4	15
Business Process Re-engineering	1	1				2	9
Multivendor Capability	1		1			2	8
National Support Structure		2				2	8
Financial Stability		1		2		3	8
Know Customer Priorities		1	1			2	7
Cost Administration	1				1	2	6
Supplier Partnerships		1		1		2	6
Rightsizing Experience	1					1	5
Price/Performance/Value	1					1	5
Access to Personnel		1			1	2	5
8(a) Certification		1				1	4
Contract Vehicle		1				1	4
Good Judgment			1			1	3
Ingenuity			1			1	3
Appropriate Methodologies				1		1	2
Clear Invoices					1	1	1
Marketing					1	1	1

Total number of respondents to the question: 47

Technical competency (24 responses) and track record/reputation (20 responses) were identified as the factors most critical to successful systems integration. Track record/reputation was identified as most critical the most often. No other factors were mentioned as frequently as either of these two factors.

The 31 factors listed in response to question 1 are grouped into the following categories of performance. This grouping was done to control overlap between different but related factors. This grouping was suggested by other questions proposed by CBIS in the questionnaire. Table 3 shows a breakout of rankings of each technical factor. Table 4 shows a breakout of rankings of program management factors. Table 5 shows a breakout of rankings for contract administration factors. Table 6 shows a breakout of rankings for awareness of function factors. Table 7 shows a breakout of rankings for company profile factors.

TABLE 3

Rank Order of Technical Factors

	Rank Order of Responses/ Frequency of Responses						
Technical	1	2	3	4	5	n	s
Competence	9	7	7	1	0	24	96
Quality Products	5	3	1	0	0	9	40
Meet Requirements	3	2	1	2	0	8	30
Broad Skill Level	1	2	0	1	0	4	15
Ingenuity	0	0	1	0	0	1	3
Appropriate Methodologies	0	0	0	1	0	1	2
Total	18	14	10	5	0	47	186

n = number of responses for this factor
s = the score calculated for each factor

TABLE 4

Rank Order of Program Management Factors

Program Management	Rank Order of Responses/ Frequency of Responses						
	1	2	3	4	5	n	s
Project Management	3	3	2	1	0	9	40
Flexible/Responsive	0	3	20	0	5	1	8
Access to Personnel	0	1	0	0	1	2	5
Total	3	7	22	1	6	12	53

n = number of responses for this factor
s = the score calculated for each factor

TABLE 5

Rank Order of Contract Administration Factors

Contract Administration	Rank Order of Responses/ Frequency of Responses						
	1	2	3	4	5	n	s
Maintain Schedule	4	2	1	4	0	11	39
Stay Within Budget	1	1	4	5	0	11	31
Cost Administration	1	0	0	0	1	2	6
Contract Vehicle	0	1	0	0	0	1	4
Clear Invoices	0	0	0	0	1	1	1
Total	6	4	5	9	2	26	81

n = number of responses for this factor
s = the score calculated for each factor

TABLE 6

Rank Order of Awareness of Function Factors

Awareness of Function	Rank Order of Responses/ Frequency of Responses						
	1	2	3	4	5	n	s
Customer Service	2	5	0	0	0	7	30
Know the Business	3	1	3	0	0	7	28
Know the Mission	3	0	1	1	0	5	20
Know Federal Policies	1	1	1	2	0	5	1
Know Customer Priorities	0	1	1	0	0	2	7
Total	9	8	6	3	0	26	101

n = number of responses for this factor
s = the score calculated for each factor

TABLE 7

Rank Order of Vendor Profile Factors

Vendor Profile	Rank Order of Responses/ Frequency of Responses						
	1	2	3	4	5	n	s
Track Record	12	6	1	0	1	20	89
Customer Service	2	5	0	0	0	7	30
Know Federal Business	1	1	1	2	0	5	16
People Integrity	2	1	0	0	1	4	15
Financial Stability	0	1	0	2	0	3	8
National Support	0	2	0	0	0	2	8
Rightsizing Experience	1	0	0	0	0	1	5
8(a) Status	0	1	0	0	0	1	4
Supplier Partnerships	0	1	0	1	0	2	4
Contract Vehicle	0	1	0	0	0	1	4
Marketing	0	0	0	0	1	1	1
Total	18	19	2	5	3	47	184

n = number of responses for this factor
s = the score calculated for each factor

After grouping the factors, it is evident that both technical competence and a company's performance profile dominate the issues that drive agency officials' opinions regarding successful systems integration vendors. Within each grouping, specific factors that drive that issue can be seen. For example, in Table 3, the first three factors all deal with active performance and account for 89% (166/186) of the weight of the group. The remaining three factors are passive. Similarly, in the other groups the top factors are active.

Question 2. Top-Ranked Systems Integration Vendors
(based on factors in Question 1)

Respondents were then asked to name up to three vendors which in their opinion had been successful, given the factors identified in answer to question 1. It is important to note that specific companies were not prompted by the interviewer when the question was asked. Agency officials voluntarily identified companies that came to mind when considering top-performing contractors.

In Table 8, vendors (full names are provided in Appendix D) are identified with counts indicating how many times that vendor had been mentioned as top performer, given the factors specified earlier in answering question 1. The factors are represented by numeral codes on the longitudinal axis of the table. The codes are identified in Table 9. The code of "0" indicates that the vendor had been mentioned as a top performer, but no factors were given to characterize its top performance. There were 17 occurrences in which no factors were given. In addition to these 17 responses, 10 responses gave only one factor, 9 responses gave two factors, and 12 responses gave three factors.

Although there were 31 different performance factors mentioned in response to question 1, not all of them were referenced when asked which factors could be associated with the top-performing vendors mentioned in response to question 2.

Table 8 shows EDS (18), CSC (15), IBM (13), PRC (11), MM (8), and SAIC (8) as the most frequently mentioned top-performing systems integration vendors.

TABLE 8

Top-Performing Vendors Based on Factors Identified

Company	Top Performance Factors/Frequency of Mention																			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	20	21	24	25	29	30
AIT				1	1	1															
AMS	1																				
ANDERSEN	1																				
AT&T		1	1	2														1			
B'AERO					1								1	1							
BCS										2											
CACI					1				1												
CBIS				1		1	1	1	1				1								
CBSI	1																				
CDSI										1											
CISCO																				1	
CSC	1	1		5						4			1				1		1		1
DEC							1						1								
EDS	2			5	1			1		4			1		2	1	1				
FED DATA	1																				
F'AERO	1																				
GTE				1						1											
HUGHES	1																				
IBM	2	1		2			1	2	1	1					1	1		1			
ITT										1											
MM	2			2						1			1		2						
PRC	1			1	1	1	1	1		3											
SAIC	2						1	1		1								1			
SYSCON	1																				
SYSTEMH				1			1														
TRW				1									1	1							
UNISYS/PAR				2					1				1	1	1						
VIST				1																	
Company	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	20	21	24	25	29	30

Total number of respondents: 30

TABLE 9

List of Factors Associated with Top-Performing Systems Integration Vendors

Code	Factor
0	No specific factor identified
1	Know the business function
2	Know customer priorities
3	Technical competence
4	Stay on schedule
5	Stay within budget
6	Flexibility and responsiveness
7	Quality product and service
8	Meets specifications and requirements
9	Track record, reputation, experience
10	Know the mission of the organization
11	Broad skill base
12	Project management skills
13	Methodologies
14	Cost administration
15	National support structure
16	Rightsizing knowledge
17	Business process re-engineering experience
18	People integrity
19	Know federal policies
20	Customer service-oriented
21	Financial stability
22	Access to personnel/communication
23	8(a) certification
24	Supplier partnerships
25	Ingenuity
26	Multivendor capability
27	Contract vehicle
28	Good judgment
29	Telecommunication solutions
30	Price/Performance/Value
31	Clear invoices

The factors related to the two issues of technical competence and the vendor's performance profile were grouped so as to see more clearly which vendors had been mentioned in these critical areas. In Table 10, CSC, EDS, and IBM are the most frequently mentioned. Table 11 lists vendors most frequently mentioned as top performers in the Vendor Profile group. EDS and CSC are again most frequently mentioned. Only EDS and CSC appeared in both major categories. Factors are listed in Table 9.

TABLE 10

Top-Rated Vendors in the Technical Group

Technical Group Vendors	Factors/Frequency of Mention					
	3	7	8	13	25	Total
CSC	5	0	0	0	1	6
EDS	5	1	0	0	0	6
IBM	2	2	1	0	1	6
UNISYS/PAR	2	0	1	1	0	4
CBIS	1	1	1	0	0	3
AT&T	2	0	0	0	0	2
B'AERO	1	0	0	1	0	2
MM	2	0	0	0	0	2
PRC	1	1	0	0	0	2
SAIC	0	1	0	0	1	2
TRW	1	0	0	1	0	2
AIT	1	0	0	0	0	1
CACI	0	0	1	0	0	1
CITE	1	0	0	0	0	1
SYSTEMHOUSE	1	0	0	0	0	1
VIST	1	0	0	0	0	1

TABLE 11

Top-Rated Vendors in the Vendor Profile Group

Vendor Profile Vendor	Factors/Frequency of Mention				
	9	20	21	24	Total
EDS	4	2	1	1	8
CSC	4	0	1	0	5
IBM	1	1	1	0	3
PRC	3	0	0	0	3
BCS	2	0	0	0	2
MM	1	0	0	1	2
AT&T	0	0	0	1	1
CDSI	1	0	0	0	1
CITE	1	0	0	0	1
ITT	1	0	0	0	1
SAIC	1	0	0	0	1

Question 3. Rated Performance of 15 Selected Vendors

A list of 15 large and small systems integration vendors representing civilian and defense contract experience was presented. Respondents were asked to rate each vendor based on their overall perception of performance in the federal government. Table 12 presents the results of this evaluation. Responses of "no opinion," "don't know," or no answer are not recorded in the table. A rank order score (not shown) for each vendor was calculated by multiplying the number of occurrences by the value of the choice and then adding the products together. The mean was obtained by dividing the result by the number of mentions (#) for each vendor. The relatively high mean for each of the vendors indicates a somewhat high regard for systems integrators in general. The mode is the most frequently mentioned rating for the vendor.

TABLE 12

Vendor Ratings

Firm	Ratings/Frequency of Mention Outstanding Unsatisfactory							
	#	5	4	3	2	1	Mean	Mode
MM	24	7	11	4	1	1	3.9	4.0
BCS	17	1	14	1	1	0	3.9	4.0
EDS	27	8	11	5	2	1	3.9	4.0
DYNC	5	1	2	2	0	0	3.8	3.4
CSC	29	3	14	12	0	0	3.7	4.0
IBM	26	4	11	9	2	0	3.7	4.0
GDS	14	1	9	3	0	1	3.6	4.0
PRC	21	3	9	7	2	0	3..6	4.0
SAIC	20	2	10	6	2	0	3.6	4.0
CBIS	14	2	6	4	1	1	3.5	4.0
ORK	4	0	2	2	0	0	3.5	4.0
PAR	8	1	2	5	0	0	3.5	3.0
AT&T	16	1	6	8	1	0	3.4	3.0
CBSI	6	0	1	5	0	0	3.2	3.0
CDSI	12	0	2	6	4	0	2.9	3.0

Total responses to this question: 29

Table 12 identifies the same vendors mentioned as top performers as were shown in Table 8. It is worth noting that the same vendors were mentioned as top performers when asked about them directly, and when asked for vendors who satisfied certain performance factors. Table 13 shows these two sets of vendors together. Numbers of mentions are shown in parentheses.

TABLE 13

Comparison of Ratings of Top-Performing Vendors

Mentions from Table 8	Mentions from Table 12
EDS (18)	CSC (29)
CSC (15)	EDS (27)
IBM (13)	IBM (26)
PRC (11)	MM (24)
MM (8)	PRC (21)
SAIC (8)	SAIC (20)

Question 4. Ratings of Vendors Within Functional Tasks

Respondents rated vendors according to their performance of specific tasks related to systems integration. In general, respondents rated only those vendors that had been selected as top performers in question 3. The tasks are numbered from 1 to 11, and are identified below in Table 14. The average rating on the scale of 5 (outstanding) to 1 (unsatisfactory) is shown in each cell along with the number of mentions for that vendor in the tasks. Blank cells indicate no mention of the vendor's performance for that task.

TABLE 14

Rating of Selected Systems Integration Vendors by Function

	Tasks Mean Ratings/Frequency of Mention										
Vendor	1	2	3	4	5	6	7	8	9	10	11
AT&T	3.0/7	3.3/7	2.3/6	3.1/9	3.4/8	2.4/5	2.0/1	2.3/9	–	5.0/1	2.0/1
BCS	4.0/3	4.0/3	4.3/3	4.3/3	3.7/3	3.3/3	–	5.0/4	4.0/2	5.0/1	4.0/2
CBIS	3.3/6	3.7/6	3.3/6	4.3/4	4.5/6	3.7/6	3.3/3	4.0/8	4.0/3	3.0/1	3.6/5
CBSI	3.0/2	3.0/2	4.0/3	4.0/1	4.0/2	2.9/1	–	4.0/3	2.5/2	–	5.0/1
CDSI	3.3/3	3.3/4	3.6/5	4.0/3	3.5/2	3.9/1	2.0/1	3.0/5	2.5/2	–	2.5/2
CSC	3.7/9	3.9/10	3.4/10	3.4/8	3.6/8	3.3/6	3.3/4	3.3/11	3.0/8	3.5/4	3.3/9
DYNC	3.0/1	4.5/2	3.9/1	–	5.0/1	5.0/1	–	4.0/2	3.0/1	–	–
EDS	3.9/8	4.2/9	3.8/9	4.4/9	4.3/9	3.6/5	3.5/2	3.9/11	3.3/6	5.0/1	3.6/8
GDS	3.8/4	4.3.4	3.8/4	3.3/4	3.3/4	3.5/4	2.0/1	3.5/4	3.7/3	4.0/1	4.0/2
IBM	3.3/9	3.3/9	3.1/9	3.6/9	3.5/8	2.8/5	3.3/3	3.6/10	3.00/5	3.9/4	3.3/6
MM	4.1/7	4.4/9	4.3/7	4.2/9	4.1/8	4.0/6	3.7/3	4.1/8	3.7/6	4.0/3	4.0/5
ORK	4.0/1	-	2.0/1	2.0/1	2.0/1	–	–	3.0/2	2.5/2	–	–
PAR	3.0/1	3.0/1	4.0/1	4.0/1	3.0/1	–	–	4.0/2	–	–	4.5/2
PRC	4.0/6	3.8/6	3.5/6	3.2/5	2.8/4	2.8/4	4.0/1	3.2/5	3.5/2	4.0/1	3.4/5
SAIC	3.4/7	3.5/8	3.3/6	3.3/6	3.3/4	3.1/8	4.0/1	3.1/7	3.0/4	2.7/3	3.2/5

TASKS:
1. Requirements Analysis
2. Systems Engineering
3. Applications Development
4. Network Engineering
5. Network Operations
6. Business Process Re-engineering
7. Geographic Information Systems
8. Customer Service
9. Decision Support
10. Image Processing
11. Outsourcing

Number of respondents to this question: 11

In examining each task in Table 14, some vendors appear more consistently than others as agency selections of best contractors. These vendors are shown in Table 15 rated as 1st, 2nd, and 3rd. Numbers in parentheses represent mean rating and number of respondents.

TABLE 15

Top-Rated Vendors by Functional Task

TASKS	Top-Rated Companies		
	1st	2nd	3rd
1. Requirements Analysis	MM (4.1/7)	PRC (4.0/6)	BCS (4.0/3)
2. Systems Engineering	MM (4.4/9)	GDS (4.3/4)	EDS (4.2/9)
3. Applications Development	MM (4.3/7)	BCS (4.0/3)	CBSI (4.3/4)
4. Network Engineering	EDS (4.4/7)	CBIS (4.3/4)	BCS (4.3/3)
5. Network Operations	CBIS (4.5/6)	EDS (4.3/9)	MM (4.1/8)
6. Business Process Re-eng.	MM (4.0/6)	CBIS (3.7/6)	EDS (3.6/5)
7. Geographic Info. Systems	MM (3.7/3)	CSC (3.3/4)	CBIS, IBM (3.3/3)
8. Customer Service	BCS (5.0/4)	MM (4.1/8)	CBIS (4.0/8)
9. Decision Support	CBIS (4.0/3)	MM (3.7/6)	GDS (3.7/3)
10. Image Processing	MM (4.0/3)	IBM (3.8/4)	CSC (3.5/4)
11. Outsourcing	MM (4.0/5)	EDS (3.6/8)	CBIS (3.6/5)

Question 5. Expectations of Growth in the Federal SI Market

Almost three-fourths of polled agency officials responded that they believed their organization's use of systems integrators would increase through FY 1998. When asked to estimate what percent the increase would represent, they had some difficulty. Agencies that already contracted out for systems integration indicated that use would continue at an increased but not great rate. Still, the rate of use would be high. Some indicated that while the requirement for systems integration would increase, funding was not likely to increase. Therefore, percents of increase are mixed between actual need and projected funding. Table 16 shows the distribution of responses to this question, and Table 17 shows the rates of growth anticipated by the respondents. Table 18 shows the calculation of mean percent increase anticipated for systems integration over the next five years.

TABLE 16

Anticipated Change in the Systems Integration Market

	Responses	Percent
Increase	34	72.3
No change	9	19.1
Decrease	4	8.5

Number of responses to this question: 47

TABLE 17

Anticipated Percent Change in the Systems Integration Market

	Number of Responses	Mean
Increase	29	23.2%
Decrease	2	35.0%

(5 respondents who indicated an increase could not estimate by how much.)

TABLE 18

Distribution of Anticipated Systems Integration Growth Rate Scores

	Anticipated Percent Increase								
	5	10	15	18	20	25	40	50	100
Number of Scores	3	7	4	1	6	2	1	4	1

Mean = 23.207

Question 6. Rating of Companies by Types of Expertise

The top vendors by areas of perceived expertise were identified by the respondents. Table 19 lists these vendors based on the frequency of mention.

TABLE 19

Top-Performing SI Vendors by Expertise

Vendor	Frequency of Mention					
	Technical	Program	Contract	Applications	Network	Total
EDS	11	11	8	10	10	50
MM	8	8	8	5	5	34
CSC	10	5	4	4	2	25
PRC	5	5	4	7	4	25
IBM	5	3	6	5	3	22
BCS	3	5	3	3	4	18
CBIS	2	5	2	2	2	13
SAIC	3	3	2	3	1	12
AT&T	2	2	1	0	4	9
UNISYS/PAR	1	1	2	3	1	8
CBSI	1	0	1	1	4	7
GDS	0	1	3	1	1	6
8(a)s	1	1	1	1	2	6
AIT	1	1	1	1	1	5
GTE	0	0	1	1	1	3
MCI	1	1	0	1	0	3
SYSCON	0	0	0	1	1	2
SYSTEMHOUSE	1	0	0	1	0	2
TRW	1	0	0	0	1	2
BATTELLE	0	0	0	0	1	1
CDSI	0	0	0	1	0	1
DEC	1	0	0	0	0	1
DYNC	1	0	0	0	0	1
GE	1	0	0	0	0	1
HUGHES	0	0	0	0	1	1
ORK	0	0	0	1	0	1
ROBBINS	0	1	0	0	0	1
SRA	0	0	0	1	0	1

Number of respondents: 27

Table 20 shows an abbreviated list of the top performing vendors in each area of expertise. Number of mentions appears in parenthesis.

TABLE 20

Abbreviated List of Top-Performing SI Vendors by Expertise

Technical	Program	Contract	Applications	Network
EDS (11)	EDS (11)	EDS (8)	EDS (10)	EDS (10)
CSC (10)	MM (8)	MM (8)	PRC (7)	MM (5)
MM (8)	4 tied (5)	IBM (6)I	BM,MM (5)	4 tied (4)

Question 7a. Ranking of Issues by Importance

Respondents ranked the level of importance to their organization of several issues. Table 21 shows the ranking of functional issues. Table 22 shows the ranking of technical issues. Table 23 shows the ranking of program managerial issues. The total number of mentions for each issue appears as n. The total number of respondents to question 7 was 43.

TABLE 21

Ranking of Functional Issues

Functional	Rank Order/Frequency of Mention							
	1	2	3	4	5	6	7	n
BPE	20	7	5	3	2	2	0	39
Organizational Integration	19	6	2	1	0	2	1	31
Integrate Legacy Systems	7	8	4	2	1	4	0	26
Resource Protection	6	5	6	5	3	0	0	25
Decentral Infrastructure	9	4	6	3	2	0	0	24
Protect Legacy Systems	5	3	4	4	3	2	2	23
Agency Consolidation	7	5	0	3	2	1	3	21

TABLE 22

Ranking of Technical Issues

Technical	Rank Order/Frequency of Mention							
	1	2	3	4	5	6	7	n
Interoperability	22	12	3	2	2	1	1	43
Standards	15	5	8	2	4	2	2	38
LANS/WANS	11	7	6	5	4	4	0	37
Distribution Process	11	10	3	5	0	2	4	35
Security	5	7	4	1	2	4	9	32
Data Flow	6	4	7	4	2	4	1	28
Image Process	3	1	2	2	3	1	13	25
FTS 2000	3	2	1	2	1	2	11	22
Internal SI	2	1	3	3	3	3	1	16

TABLE 23

Ranking of Managerial Issues

Managerial	Rank Order/Frequency of Mention							
	1	2	3	4	5	6	7	n
Customer Service	30	8	1	0	0	0	0	39
TQM	5	8	7	4	2	3	1	30
CIM	10	8	5	3	1	0	2	29
Best Value	7	6	7	4	5	0	0	29
Lack of Resources	7	3	2	5	1	2	4	24
Field Consolidation	2	0	6	3	2	2	2	17
Centralized Budget	2	3	1	0	5	3	0	14

Question 7b. Two Most Important Issues (from 7a.)

Respondents identified which two issues are most important to their agencies today from the top issues already ranked in question 7a. This second selection represents the "most important of the important" to the officials. Table 24 shows the frequency at which these top issues were mentioned. The n column gives the number of times each issue was mentioned as a top issue.

TABLE 24

Frequency Scores for Issues

List I.	n	List II.	n	List III.	n
Organizational Integration	6	Standards	7	Customer Service	15
Agency Consolidation	3	Interoperability	15	Field Consolidation	1
Resource Protection	1	Distributed Processing	3	CIM	4
Business Process Re-eng.	12	LANS/WANS	2	Lack of Resources	4
Decentralized Infrastructure	5	Internal SI	1	Best Value	2
Integrated Legacy Systems	2	Security	2	Central Budget	1
Protection of Legacy Systems	3	Improved Data Flow	2	TQM	3
		Image Processing	1		
		Follow-on to FTS 2000	1		

From Table 24, the three top information technology issues currently in the minds of agency officials are interoperability, customer service, and business process re-engineering. The reasons given by the respondents for these ratings are listed for each issue in Table 25.

TABLE 25

Agency Comments Given for Choices of Top Issues

Interoperability (15)
Attention to cost containment
Equipment can communicate
Get entire agency into the same technology environment
Supports strategies planned for the future
Communication is critical
"Control of information" mentality still exists
Agency requires it
Data sharing is critical
Share data across multiple platforms
Essential for "information highways" and "rightsizing"
Integrate and interoperate voice and data to control (program)
Customer Service (15)
Nothing else matters
Demanded by organization management
Everything contributes to this endpoint
Biggest handler of complaints/contractor labor violations
Must keep customers happy
Drives all things
Services organization
No service - no business Perform fee for service
Existing programs are fragmented. There is no focus on service delivery.
Need to keep customers
Customers demand it
Serve the needs of the (agency)
Competitive pressures and threats
Requires reliable systems
Business Process Re-engineering (12)
Reinventing government
TQM Coordination - business issue
Customer and supplier - economic impact
Provide high-quality customer service
New administration - take advantage of technology
All use of technology depends on it
Set new directions for developing systems
TQM and BPR go together
Must change stovepipe systems

Question 8a. Importance of Groups of Technologies

Respondents were asked to rate the importance of different technologies within different categories. The results appear under each category (a) through (f) in Table 26. The total number of respondents to this question was 49.

TABLE 26

Importance Rating of Selected Technologies

Table (a). Hardware	5	4	3	2	1	Mean	Number
a. RAID	2	6	17	8	16	2.4	49
b. D.C. Automation	11	11	16	7	4	3.4	49
c. Desktop	17	19	9	3	1	4.0	49
d. Displays	13	15	15	3	3	3.7	49
Table (b). Processing	**5**	**4**	**3**	**2**	**1**	**Mean**	**Number**
a. Client/Server	25	17	7	0	0	4.4	49
b. Open Systems	20	21	4	2	1	4.2	48
c. On-line	14	17	11	6	1	3.8	49
d. Distrib. Proc.	19	18	8	3	1	4.0	49
Table (c). Standards	**5**	**4**	**3**	**2**	**1**	**Mean**	**Number**
a. UNIX	11	16	9	5	5	3.5	46
b. POSIX	11	19	12	1	4	3.7	47
c. GOSIP	16	18	6	3	4	3.8	47
d. EDI	17	18	6	2	4	3.9	47
Table (d). Software	**5**	**4**	**3**	**2**	**1**	**Mean**	**Number**
a. CASE	15	16	9	4	4	3.7	48
b. Info Engineering	21	16	4	4	4	3.9	49
c. Software Re-use	11	11	14	7	4	3.4	47
d. Zero Maintenance	9	16	7	6	10	3.2	48
e. Application Development Tools	15	19	11	2	2	3.9	49
Table (e). Networks	**5**	**4**	**3**	**2**	**1**	**Mean**	**Number**
a. WANS	26	20	3	0	0	4.5	49
b. LANS	33	14	2	0	0	4.6	49
c. Network Management	39	9	0	0	0	4.7	48
d. Wireless	5	16	15	9	4	3.2	49
Table (f). Applications	**5**	**4**	**3**	**2**	**1**	**Mean**	**Number**
a. Health Care	11	4	3	2	28	2.3	48
b. Imaging	13	22	12	1	1	3.9	49
c. Office Automation	15	23	8	0	3	4.0	49
d. Other	12	0	0	0	1	4.7	13

Question 8b. Frequency Distribution Within Each Group (8a)

Respondents were then asked to list up to three of the technologies rated highly in question 8a which they believed were extremely important to their agency. Table 27 shows the six categories of technologies and the number of times each technology was mentioned as extremely important. The number of mentions of each technology is shown in parentheses.

TABLE 27

Technologies Listed as Extremely Important to Agencies

Hardware	(8)
Desktop power	(6)
Processing Modes	(23)
Open Systems	(9)
Client/Server	(8)
Software	(26+3 technologies not mentioned)
CASE	(8)
Info Engineering	(7)
Appl. Development Tools	(6)
Functional Applications	(5)
Networks	(39+2 technologies not mentioned)
Network Management	(15)
LANS	(14)
WANS	(10)
Other	(5+1 technology not mentioned)

Total respondents to this question: 47

Question 9. Growth Markets in the Federal Government

Respondents were asked to indicate from a list of target market segments which ones would sustain the greatest growth through FY 1998. Table 28 lists the market segments and the number of mentions of each. Anticipated percent growth is shown in the columns of the table. The "0" column indicates growth, but no percentage was mentioned.

TABLE 28

Anticipated Growth Segments of the Federal Market Through FY 1998

	Percent of Growth/Frequency of Mention																			
	0	5	7	10	12	15	20	25	30	35	40	50	75	80	100	200	500	1000	n	%
Client/Server	14	3	–	9	–	4	4	4	–	–	1	1	–	1	1	–	–	–	42	14.6
SI	15	3	1	10	–	3	–	2	–	1	–	2	–	–	2	–	–	–	39	14.2
Net Syst	10	5	–	7	1	4	4	2	–	–	1	–	3	–	–	–	–	–	37	15.2
EDI	11	2	–	9	–	3	5	2	–	–	–	2	–	–	1	1	1	–	37	32.2
Distri Proc	11	4	1	10	–	1	1	3	–	1	1	2	–	–	–	–	–	–	35	11.8
BPR	12	5	2	2	1	4	4	1	1	–	–	2	1	–	–	–	–	–	35	12.6
Imaging	12	5	–	8	–	2	1	2	1	–	–	2	1	–	–	–	–	–	34	12.1
CASE	9	5	–	4	–	1	1	4	1	–	1	1	–	–	–	–	–	–	27	11.9
GIS	5	6	1	5	–	1	4	2	2	–	–	–	–	–	–	–	–	–	26	11.2
Prof Svc	9	6	1	2	–	4	–	3	–	–	–	–	–	–	1	–	–	–	26	11.2
Ob Tech	6	3	1	4	–	2	–	1	2	–	1	–	–	1	1	–	–	1	23	60.7
Ent Netws	–	6	–	7	–	3	1	2	–	–	1	–	2	–	–	–	–	–	22	18.4
Outs	4	1	–	4	–	2	3	1	1	–	–	–	–	–	1	–	–	–	17	16.5

Total respondents to this question: 43

Examining the spread in Table 28, it would be useful to reject the extreme scores and recalculate the anticipated percent growth for each of the market segments. The results of the corrected anticipated growth rates are shown in Figure 29. The number of responses after high and low scores are removed is in parenthesis.

TABLE 29

Corrected Anticipated Growth for Market Segments

Segments	n	Percent of growth
Entire Networks	(20)	12.7
Client/Server	(27)	19.0
Distribution Processing	(22)	14.2
SI	(22)	16.1
Outsourcing	(12)	15.9
Network Systems	(24)	14.1
EDI	(25)	27.8
Imaging	(21)	14.7
CASE	(17)	15.8
BPR	(21)	17.0
Object Technology	(16)	24.8
GIS	(19)	11.9
Professional Services	(16)	12.0

Obviously, the total amounts of anticipated growths would require significant budget adjustments that cannot be met. The indications of high growth potential are more likely anticipation of need, or desires in a more perfectly aligned world. The significance of the numbers lies in the relative strengths of each, and an overall sense of what is or will be required by federal programs that depend on information technology for support.

Summary

The purpose of this study was to examine the composition and characterization of federal agency needs for systems integration, and to determine agency perceptions of selected systems integration vendors. The method used in this examination was to interview federal agency officials who have understanding of the requirements, related issues, and vendor performance.

The information sought in this study is not readily available. Agencies maintain no data which focuses on the systems integration market. This is in part due to the lack of a concise definition of what systems integration is. Agencies view systems integration only in a practical sense—that is, its definition is cast in terms of their program requirements. Because of sensitivities inherent in the procurement process toward treatment of vendors and distribution of opinion data, agency officials are reluctant to discuss evaluations of vendor performance. Improper communication of such information can lead to legal actions that in the past have resulted in significant personal loss. Nevertheless, agencies do communicate their opinions when protection is offered to assure personal anonymity.

In this study, in order to assure a satisfactory sampling, overtargeting was necessary. Twice as many agencies were contracted than targeted, and three times the anticipated number of participants were contracted than desired. Even with oversampling, the response rate in this study was lower than planned. Several factors contributed to this smaller representation.

- Unavailability of key officials assigned to the National Performance Review teams
- Uncertainty of program direction because of empty senior policy-setting positions
- Overcommitment to program restructuring resulting from late budget definition
- Sensitivity of the information sought in the questionnaire

Although smaller numbers were obtained, they were large enough to support differentiation between issues, and they provided consistent information for accurate summaries.

Top Critical Success Factors

Two factors stood out as almost unanimously used to assess top systems integration performance from vendors. Technical competency and reputation for outstanding track record were by far the most highly regarded evaluation factors. Even when these factors were treated as group variables, they still ranked highest in frequency of mention.

When examining the sub-factors of these two major factors, it could be seen that when agencies consider critical factors, they view active performance as more influential than passive performance. For example, while a factor such as successful partnerships may be important to agency officials, timely delivery or flexible service components of contract performance were considered more critical.

The vendors rated top systems integration performers were consistently named, regardless of the basis of the question. Agency officials were asked to name successful vendors based on critical factors, and they were asked to rate specific vendors. The same vendors were named as top performers in response to both questions.

The vendors mentioned most frequently as top performers include:

- Electronic Data Systems
- Computer Sciences Corporation
- International Business Machines
- Planning Research Corporation
- Martin Marietta Corporation
- Science Applications International Corp.

These vendors are all large companies, with significant experience throughout the entire federal government. Among the smaller to mid-size companies, Cincinnati Bell Information Systems was consistently mentioned as the top performer. When examining specific tasks that are performed as part of systems integration, CBIS is mentioned almost as frequently as the larger companies identified above. It is the only small to mid-size company that was mentioned as a top performer in these major categories.

When asked about their opinions regarding technology-related issues that are important to their agencies, officials again showed consistency in their responses. In functional issues, business process re-engineering and organizational integration were most frequently mentioned. In issues related to technologies, interoperability was most frequently mentioned. In managerial issues, customer service was the most frequently mentioned.

Technologies most important to agencies in the opinion of officials include the following:

Hardware: Desktop technologies
Processing: Client/server
Standards: EDI
Software: Application development tools and information engineering
Networks: Network management
Applications: Office sutomation

Agency officials had trouble responding to questions about anticipated growth potential for systems integration. Almost three-fourths of the respondents thought there would be measurable growth in the market, specifying that the rate of growth caused frustration. Agencies already involved in systems integration believed that requirements would continue, but percent growth would be low. Agencies with little or no experience in systems integration believed that growth would occur. In these cases, even small growth would represent a large percent increase. Other agencies believed that requirements would grow, but availability of supporting funding would not. So the percent of growth would be low for spending, but it would be high for requirement. In general, agencies acknowledged a growing need for systems integration. They believe they are incapable of providing the necessary talent with in-house resources and would have to rely on contracted vendors. Even central organizations such as Defense Information Systems Agency (DISA) are incapable of providing the necessary integration support.

Growth markets identified consistently by agency officials, with the number of mentions, include the following:

Client/server	42
Systems integration	39
Network systems	37
Electronic commerce	37
Distributed processing	35
Business process re-engineering	35
Imaging	34
Object technologies	23

Actual anticipated growth rates for these market segments varied slightly above 10%, which is fairly conservative given an overall lack of understanding of the broad budget picture and doubts about federal spending in the out years. Mentions of electronic commerce and object technology carry an emotional factor concerning the belief in the necessity of these technologies in conducting future business rather than any real belief that the market segments will actual grow significantly.

Agency officials appear to be confused about their direction in the near term. Factors which contribute to this confusion include:

- Budget reduction
- Resource limitation
- Increasing requirements
- Growing demands for integration

Agency officials are forthright in their assessments of the difficulties they face in program execution.

- They acknowledge the existence of problems.
- They are asking for help from the vendor community.
- They are refocusing their business definitions.

A positive attitude exists among the leaders.

- The National Performance Review is being supported.
- TQM and BPR are aggressively pursued.
- Systems integration is being outsourced.
- Agencies are expressing a service orientation.

Agencies are demanding service and performance from suppliers as partners.

A list of anticipated opportunities for systems integration vendors is provided in Appendix E of this report. This list is a subset of INPUT's opportunity data base, Procurement Activity Reports (PAR). This list does not represent the entire federal government's plans for obtaining systems integration support, but it represents qualified activities for which funding has been identified, and which are therefore worth investigating for near future business.

Appendix A: Cover Letter

INPUT®

1953 Gallows Road, Suite 560, Vienna VA 22182 Tel. (703) 847-6870
Fax (703) 847-6872

May 3, 1993

Dear Agency Official:

Systems integration is a major focus of many Federal government agencies. A significant portion of its available budget dollars is dedicated to solutions based on systems integration. Therefore, understanding issues inherent in agency needs and systems integration functional requirements would improve the quality of vendor proposals, and would thereby assure the best responses to agency solicitations.

INPUT is currently conducting market research regarding systems integration issues important to the Federal government. The information it obtains deals with the role of systems integrators as contractors to agencies, and what characteristics agency decision-makers regard as important in selecting the best contractors.

Your participation in this research will assist potential vendors understand the criteria the government believes is critical to successful program development, implementation and operation. You are one of more than 100 agency officials participating in this survey. All resulting data compiled from this study will be presented in aggregate form. Neither you nor your agency will be identified in the results. Only aggregate data will be presented in the final report.

Thank you for your participation in this important effort. Please indicate to the interviewer your interest in receiving a copy of the executive summary resulting from this research.

Sincerely,

Robert W. Deller, Ph.D.
Manager, Federal Program

Attachment:

Appendix B: Questionnaire

CONFIDENTIAL

INPUT Questionnaire

Project Code/Catalog No. | | Y | C | I |

Study Title: Federal Vendor Perceptions

Interviewer Initials | | | |

Interview Date | | | | | | |

QC Initials | | | |

QC Date | | | | | | |

Data Entry Initials | | | |

Data Entry Date | | | | | | |

Type of Interview:

- ☐ Agency Policy Level
- ☐ Agency Program Manager
- ☐ Telephone
- ☐ On-site
- ☐ Fax

Agency: _____

Address: _____

_____

_____

City/State/Zip: _____

Phone: _____

Respondent(s):

Name Title

_____

_____

_____

Referrals:

_____

_____

Comments:

_____

_____

RES250/01
2/89

Vendor Perception Questionnaire
Agency Confidential

1. What conditions/factors would you ascribe as critical to vendors who are successful in the federal systems integration (SI) market? Please rank them in order of importance to your agency.

List Factors	Rank Order 1=Most Important
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. Based on your choice of the most important critical factors in Question 1, please name three companies who you think are successful SI vendors in the federal market.

Name 3 Vendors	Why? Based on What Factors?
_____	_____
_____	_____
_____	_____

Based on your overall perception of each of the following, please indicate if their performance as an SI vendor in the federal government is outstanding (5), above average (4), average (3), below average (2), or unsatisfactory (1).

Circle the number that corresponds with your choice.

	Outstanding				Unsatisfactory	No opinion/ Don't know
AT&T	5	4	3	2	1	0
Boeing Computer Services (BCS)	5	4	3	2	1	0
Cincinnati Bell Information Systems (CBIS)	5	4	3	2	1	0
Computer Based Systems Inc. (CBSI)	5	4	3	2	1	0
Computer Data Systems Inc. (CDSI)	5	4	3	2	1	0
Computer Sciences Corporation (CSC)	5	4	3	2	1	0
Dyncorp	5	4	3	2	1	0
Electronic Data Systems (EDS)	5	4	3	2	1	0
Grumman Data Systems (GDS)	5	4	3	2	1	0
IBM Federal	5	4	3	2	1	0
Martin Marietta (MM)	5	4	3	2	1	0
Orkand	5	4	3	2	1	0
Paramax	5	4	3	2	1	0
Planning Research Corporation (PRC)	5	4	3	2	1	0
Science Applications International Corp. (SAIC)	5	4	3	2	1	0

4. Now rate, based on your opinion, each company's performance for the following function areas. Indicate if their performance has been generally outstanding (5), above average (4), average (3), below average (2), or unsatisfactory (1). Indicate (0) if no opinion or don't know.

Enter appropriate number in each column.

Function Area	AT&T	BCS	CBIS	CBSI	CDSI	CSC	Dyn-Corp.	EDS	GDS	IBM	MM	Orkand	Paramax	PRC	SAIC
a. Requirements analysis	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
b. System eng., design & integration	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
c. Applications development	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
d. Network eng., design & integration	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
e. Network operations, mgmt., & admin.	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
f. Business process re-engineering	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
g. Geographic information systems	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
h. Customer service	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
i. Decision support	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
j. Document/ image mgmt.	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
k. Outsourcing*	___	___	___	___	___	___	___	___	___	___	___	___	___	___	___

*Outsourcing is also referred to as facilities management (COCO or GOCO) and may include management of applications.

5. Do you expect your organization's use of systems integrators to increase, decrease or remain the same through FY1998? By what percent do you expect SI use to change?

	Check One	Enter Percent Change
Increase	_____	_____
No change	_____	
Decrease	_____	_____

6. Who, in your view, are the top three systems integrators in each of the following specialties?

List the Top 3 Vendors for Each Area of Specialization

Technical Expertise	Program Management Expertise	
_____	_____	
_____	_____	
_____	_____	
Contract Administration Expertise	Applications Expertise	Networking Expertise
_____	_____	_____
_____	_____	_____
_____	_____	_____

7a. Please rank the level of importance for each issue in the following three groups. Use 1=most important; leave blank those issues which do not impact your agency.

	Rank (1= most important)
Organizational integration	____
Agency consolidation	____
Resource protection	____
Business process re-engineering	____
Decentralized infrastructure	____
Integrated legacy systems	____
Protection of legacy systems	____
Other : _____	____

	Rank (1= most important)
Standards	____
Interoperability	____
Distributed processing	____
LANs/WANs	____
Internal SI	____
Security	____
Improved data flow	____
Image processing	____
Follow-on to FTS 2000	____
Other: _____	____

	Rank (1= most important)
Customer service	____
Field consolidation	____
Corp. Information Mgt. (CIM)	____
Lack of internal resources	____
Best value buys	____
Centralized budget control	____
Total Quality Mgt (TQM)	____
Other : _____	____

7b. Of the top three issues ranked above, which two are most important to your agency today and why?

List Issues	Why?
_____	_____
_____	_____

3a. For each of the following six groups, please rate the importance of each technology to your organization's future systems through FY1998. Use 5 to mean extremely important and 1 to mean not at all important.

Circle one number for each technology.

	Extremely Important				Not at all Important
RAID	5	4	3	2	1
Data center automation	5	4	3	2	1
Desktop power	5	4	3	2	1
Information displays	5	4	3	2	1
Other: _____	5	4	3	2	1
Client/server	5	4	3	2	1
Open systems	5	4	3	2	1
On-line transaction	5	4	3	2	1
Distributed processing	5	4	3	2	1
Other: _____	5	4	3	2	1
UNIX	5	4	3	2	1
POSIX	5	4	3	2	1
GOSIP	5	4	3	2	1
EDI	5	4	3	2	1
Other: _____	5	4	3	2	1
CASE	5	4	3	2	1
Info engineering	5	4	3	2	1
SW reuse	5	4	3	2	1
Zero maintenance	5	4	3	2	1
Appl. development tools	5	4	3	2	1
Other: _____	5	4	3	2	1
WANs	5	4	3	2	1
LANs	5	4	3	2	1
Network management	5	4	3	2	1
Wireless LANs	5	4	3	2	1
Other: _____	5	4	3	2	1
Health care	5	4	3	2	1
Imaging	5	4	3	2	1
Office Automation	5	4	3	2	1
Other: _____	5	4	3	2	1

8b. Which three of the technologies rated above are extremely important to your organization's future systems through FY1998 and why?

Indicate Technologies	Why?
_____	_____
_____	_____
_____	_____

9. Which of the following segments of the federal IT market do you expect to sustain the greatest growth through FY1998? Estimate the percentage of annual growth you anticipate.

Market	Check all that apply	Enter Percent of Annual Growth
Enterprise networks	_____	_____
Client/server processing	_____	_____
Distributed processing	_____	_____
Systems integration	_____	_____
Outsourcing	_____	_____
Network systems	_____	_____
Electronic commerce/EDI	_____	_____
Imaging systems	_____	_____
CASE	_____	_____
Business process re-engineering	_____	_____
Object-oriented technologies	_____	_____
Geographic information systems	_____	_____
Professional services	_____	_____
Other: _____	_____	_____

THANK YOU FOR YOUR PARTICIPATION

(Blank)

Appendix C: List of Participating Agencies

Agriculture	APHIS Extension Service Headquarters/IRM Soil Conservation Service Stabilization and Conservation
Army	C4
Commerce	NOAA Headquarters/IRM
DOD	DISA/CIM DISA/DITSO DISA/JIEO DLA
EPA	Headquarters/IRM RTP
FEMA	Headquarters/IRM
GSA	IRM Service FTS 2000 Office
HHS	FDA PHS HCFA SSA
HUD	Headquarters/IRM
Interior	Headquarters/IRM USGS
Justice	FBI Headquarters/IRM

Labor	Headquarters/IRM
NASA	Headquarters/IRM Langley
Navy	NCTC
OPM	Headquarters/IRM
Transportation	FAA Headquarters/IRM
Treasury	BATF FMS Headquarters/IRM
USPS	Headquarters/IRM
VA	Headquarters/IRM

Appendix D: List of Vendor Name

AIT	Advanced Integrated Technology
AMS	American Management Systems
ANDERSEN	Andersen Consulting
AT&T	American Telephone and Telegraph
B'AERO	Bell Aerospace
BATTELLE	Battelle Institute
BCS	Boeing Computer Services
CACI	CACI Corporation
CBIS	Cincinnati Bell Information Systems
CBSI	Computer Based Systems Incorporated
CDSI	Computer Data Systems Incorporated
CISCO	CAI/CISCO
CSC	Computer Sciences Corporation
DEC	Digital Equipment Corporation
DYNC	DynCorporation
EDS	Electronic Data Systems
FED DATA	Federal Data Corporation
F'AERO	Ford Aerospace
GDS	Grumman Data Systems
GE	General Electric Company
GTE	General Telephone and Electronics
HUGHES	Hughes Information Systems
IBM	International Business Machines
ITT	International Telephone & Telegraph Company
MCI	MCI Corporation
MM	Martin Marietta Corporation
ORK	Orkand Corporation
PAR	Unisys/Paramax Corporation
PRC	Planning Research Corporation

ROBBINS	Robbins Gioia Corporation
SAIC	Science Applications International Corporation
SRA	Systems Research and Applications
SYSCON	SYSCON
SYSTEMHOUSE	System House
TRW	TRW Corporation
UNISYS/PAR	Unisys/Paramax Corporation
VIST	VIST
8(a)s	Small Minority/Disadvantaged Businesses

Appendix E: List of Contract Opportunities

FEDERAL SYSTEMS INTEGRATION OPPORTUNITIES

June 4, 1993

Program	Acronym	Department	Agency	Status	RFP Date
BANYAN VINES LNS		AIR FORCE		OPEN	UNK
COMBAT WEATHER SYSTEMS	CWS	AIR FORCE		OPEN	07/01/94
COMMON MAPPING STANDARD DATABASE PREPARATION SYSTEM DEVELOPM	CMS	AIR FORCE	ESC	OPEN	04/01/93
INTELLIGENCE DATA HANDLING SYSTEM	IDHS	AIR FORCE		OPEN	11/01/94
ACQUISITION INFORMATION MANAGEMENT PROGRAM	AIM	ARMY	RDA	OPEN	07/01/9Z
STANDARD INSTALLATION/DIVISION PERSONNEL SYSTEM 3 - SYSTEM D	SIDPERS-3	ARMY	ISSAA	OPEN	12/25/93
INTEGRATED LIBRARY SYSTEMS		ARMY		OPEN	03/26/93
JOINT AIR/SEA/LAND PRECISION STRIKE DEMONSTRATION PROGRAM	JPSD	ARMY	COE	OPEN	02/20/93
COMMAND INFORMATION MANAGEMENT SYSTEM	CIMS	ARMY	SSDC	OPEN	06/01/93
CLINICAL MANAGEMENT SYSTEM	CMS	ARMY	ISSAA	OPEN	UNK
TECHNICAL MANUAL PUBLISH ON DEMAND SYSTEM	TMPODS	NAVY		OPEN	04/02/93
NTCS-A SYSTEMS INTEGRATION AND TECHNICAL SERVICES	NTCS-A	NAVY	NTCS-A	OPEN	05/01/94
SYSTEMS INTEGRATION, DESIGN, DEVELOPMENT, OPERATIONS, AND MA	SIDDOMS	DEFENSE	OASD	OPEN	02/17/93
DEFENSE INDUSTRIAL ENGINEERING SUPPORT SYSTEM	DIESS	DEFENSE	OASD	OPEN	06/14/93
DEFENSE TECHNICAL INTEGRATION SERVICES	DTIS	DEFENSE	DISA	OPEN	05/07/93
DEFENSE COMMISSARY INFORMATION PROGRAM	DCIS	DEFENSE	DECA	OPEN	09/01/93
DECA INTERIM BUSINESS SYSTEM	DIBS	DEFENSE	DECA	OPEN	03/15/93
INTEGRATED INFORMATION MANAGEMENT PROGRAM	FEDCAC 107	AGRICULTURE	USFS	OPEN	10/16/92
PATENT APPLICATION MANAGEMENT SYSTEM	PAMS	COMMERCE	PTO	OPEN	12/01/93
AUTOMATED TRADEMARK SYSTEM	ATS	COMMERCE	PTO	OPEN	12/01/93
IBM 370 TOTAL SYSTEMS RECOMPETITION	IBM 370	HHS	PHS	OPEN	10/01/96
IMPAC/CRISP MODERNIZATION	IMPAC II	HHS	NIH	OPEN	05/17/93

Program	Acronym	Department	Agency	Status	RFP Date
RELATIONAL DATABASE SYSTEM		HHS	SSA	OPEN	10/01/93
FIP RESOURCES FOR CENTRAL AND SCIENTIFIC SUPPORT SERVICES		HHS	NIH	OPEN	06/01/93
FINANCIAL SYSTEMS MAINTENANCE, ENHANCEMENT AND INTEGRATION S		STATE		OPEN	03/01/93
FBI FIELD OFFICE INFORMATION MANAGEMENT SYSTEM	FOIMS	JUSTICE	FBI	OPEN	10/01/93
COMPUTER ASSISTED DISPATCH AND REPORTING ENHANCEMENT 11	CADRE II	JUSTICE	INS	OPEN	06/01/93
AUTOMATED NATIONWIDE CENTRAL INTAKE FACILITY WITH SUPPORT SE	NCIF	JUSTICE		OPEN	08/31/92
IAFIS SYSTEM INTEGRATION	IAFIS-SI	JUSTICE	FBI	OPEN	04/15/93
SYSTEMS TO AUTOMATE AND INTEGRATE LOGISTICS	SAIL	TRANS	USCG	OPEN	10/01/93
INTEGRATED FINANCIAL MANAGEMENT SYSTEM	IFMS	TRANS	OST	OPEN	04/01/94
TRANSPORTATION INTEGRATED ACQUISITION DATA SYSTEM	TRIADS	TRANS	OST	OPEN	01/01/94
TAX SYSTEMS MODERNIZATION EFFORT	TSM	TREASURY	IRS	PART. AWD	10/01/93
CORPORATE SYSTEMS MODERNIZATION/ MIMOR IMAGE ACQUISITION	CSM/MIA	TREASURY	IRS	OPEN	07/31/92
INTERAGENCY BORDER INSPECTION SYSTEM	IBIS	TREASURY	USCS	PART. AWD	UNK
TREASURY INFORMATION PROCESSING SYSTEM	TIPS	TREASURY	IRS	OPEN	05/04/93
TRACKING AND DATA RELAY SATELLITE SYSTEM	TDRS II	NASA	GSFC	OPEN	10/01/93
SYSTEMS INTEGRATION FOR THE SPACE SHUTTLE PROGRAM	SSP	NASA	JSC	OPEN	11/01/93
CONSOLIDATED DISTRIBUTION SYSTEM, DATA DISTRIBUTION EQUIPMEN	CDS	NASA	JSC	OPEN	01/11/93
LANDSAT 7 DATA AND OPERATIONS SYSTEM	LDOS	NASA	GFSC	OPEN	04/12/93
VETERANS BENEFITS ADMINISTRATION MODERNIZATION PLAN	VBA MODERNIZ	VA	VBA	PART. AWD	01/01/93

(Blank)