S/390 NEEDS AND COMPETENCIES SURVEY

DCTA, Inc.

Thank you very much for participating in our survey on the availability of S/390 and large-systems skills in the Information Technology workforce. DCTA Inc. is currently conducting research with organizations such as yours in preparation for developing a white paper on this subject.

It is well documented that University Computer Science and MIS programs are not producing enough graduates to meet the needs of business. It is also widely believed that students entering the workplace lack the necessary skills in Information Technology to become effective employees without extensive retraining by their employers. What is not documented is quantitative information on the lack of specific S/390 skills and education available to university and college students (a general problem since few schools teach S/390-related topics today) or the effect of this lack upon American business and business worldwide. The goal of our white paper is to assess and quantify the problem, and to attempt to identify and promote possible remedies available to universities, colleges, technical schools and employers.

This survey assesses your organization's needs and lacks with regard to IT professionals in the area of S/390 competencies, including your ability or inability to obtain appropriately educated and trained workforce, and the effect of not having those employees upon your information technology plans and directions. It is intended to be conducted via an in-person or telephone interview, or it may be filled out and returned by the appropriate person in your organization: please decide which is appropriate for your organization. If you aren't the right person please forward this survey to the right person in your organization.

The survey is available in Word, PDF and TXT formats from:
http://www.dcta.com/pub/S390Survey.xxx (where "xxx" is "doc" or "pdf" or "txt").

If you would like to establish an in-person or telephone interview please contact Dave Thewlis at 707-442-0547 or e-mail me at <dthewlis@dcta.com>. Otherwise please fill out the survey (contact me if you have any questions) and return it to me in one of the ways indicated at the bottom of the survey.

Please note that while we would like to be able to identify your company as having participated in the survey, ALL RESPONSES WILL BE KEPT CONFIDENTIAL. The data will be summarized and no specific attributions to individual companies or individuals will be made without their explicit approval. We will be happy to provide you and your company with a copy of the final report, which should be published by midsummer, 1999.

Thank you for your time and attention.

David C. Thewlis, President
DCTA Inc.
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In filling out this survey, please answer the questions as they relate to IT professionals, typically those working in or for the central IT organization (if you have one). You may include or exclude subsidiary organizations depending on which approach you feel best represents your organization and its relative difficulties in finding, training and keeping skilled employees, but please be consisitent throughout the survey.

Finally, if you have additional comments on any question please write them in whether or not we provided a place. Thank you again for your assistance and please contact us if you have any questions.

SECTION I, COMPANY/ORGANIZATION PROFILE

Date of Survey   _____/_____/1999

Name of Organization _____
Location   _____
Person Responding   _____
Title   _____
E-Mail address   _____
Telephone number   _____

1. Which of these best describes the business your company or organization is in? Check one.

Communications	____
Computer products & services	____
Distribution & Retail	____
Finance, Securities & Banking	____
Industrial & Manufacturing	____
Insurance	____
Public Sector	____
Other	____

If Other, please explain: _____
_____
_____

2. Please approximate the relative size of your organization

_____	Number of Employees (entire enterprise)
_____	Number of IT Employees
_____	Annual Revenue
_____	Annual IT Budget (dollars)
_____	Annual IT Budget (as a percentage of overall enterprise budget)
_____	Rank in Industry (if appropriate)
_____	Other metric which compares your organization to other similar organizations
	Please explain _____

_____
_____

3. Please approximate the percentages of your IT workload that run in the following environments. Use any metric which you feel best describes the relative magnitude or importance to your company (transactions, MIPS, revenue generated...)

Existing Workload		New Workload		2005 Workload	
Windows/NT	_____%	Windows/NT	_____%	Windows/NT	_____%
Unix	_____%	Unix	_____%	Unix	_____%
S/390	_____%	S/390	_____%	S/390	_____%
Other(explain)	_____%	Other	_____%	Other	_____%
Total	100 %	Total	100 %	Total	100 %

Metric Used: _____

Please Explain Other : _____

_____

4. What will be the three most significant application or business solution undertakings for your company or organization in the next few years?

i._____

_____

ii. _____

_____

iii _____

_____

5. What Platform(s) have you chosen upon which to run these implementations?

i. ___Windows/NT ___Unix ____S/390 ___Other(explain)_____

ii ___Windows/NT ___Unix ____S/390 ___Other(explain)_____

iii.___Windows/NT ___Unix ____S/390 ___Other(explain)_____

6. If your organization intends to implement applications for the following areas and they are not mentioned above, please indicate which platforms are most likely to be used.

Enterprise Resource Planning (ERP)?　　　　___Windows/NT ___Unix ___S/390 ___Other
　　　　　　　　　　　　　　　　　　　　　Explain Other _____
Customer Relationship Management?　　　　___Windows/NT ___Unix ___S/390 ___Other
　　　　　　　　　　　　　　　　　　　　　Explain Other _____
Supply Chain Management?　　　　　　　　___Windows/NT ___Unix ___S/390 ___Other
　　　　　　　　　　　　　　　　　　　　　Explain Other _____
e-Business?　　　　　　　　　　　　　　　___Windows/NT ___Unix ___S/390 ___Other
　　　　　　　　　　　　　　　　　　　　　Explain Other _____

SECTION II, IT PROFESSIONAL EMPLOYMENT ISSUES

7. Please approximate the number of IT professionals your company employs in each of the following broad groups. Where people have cross platform responsibilities please approximate based upon comparative time required to fulfill the duties.

	S/390	Unix	Win/NT	Other
Application Programmers*	_____	_____	_____	_____
System Analysts	_____	_____	_____	_____
Operations Personnel	_____	_____	_____	_____
Systems Professionals*	_____	_____	_____	_____
Network Specialists	_____	_____	_____	_____
Others	_____	_____	_____	_____
Total	_____	_____	_____	_____

Note: "Application Programmers" includes webmasters and web content developers. "SystemsProfessionals" includes System Programmers & Administrators, Performance Specialsts, Change Managers, etc.

8. Do you have openings in these categories now? _____Yes _____No
   How many by broad category?

	S/390	Unix	Win/NT	Other
Application Programmers*	_____	_____	_____	_____
System Analysts	_____	_____	_____	_____
Operations Personnel	_____	_____	_____	_____
Systems Professionals*	_____	_____	_____	_____
Network Specialists	_____	_____	_____	_____
Others	_____	_____	_____	_____
Total	_____	_____	_____	_____

Note: "Application Programmers" includes webmasters and web content developers. "SystemsProfessionals" includes System Programmers & Administrators, Performance Specialsts, Change Managers, etc.

9. Please indicate by platform whether you expect the overall numbers of unfilled openings in your organization to rise or fall in the future?

S/390 Platform	_____rise	_____fall	Why?_____
Unix	_____rise	_____fall	Why?_____
Windows/NT	_____rise	_____fall	Why?_____
Other	_____rise	_____fall	Why?_____

10. By platform, how much difficulty are you experiencing in filling your IT personnel needs?

	S/390	Unix	Win/NT	Other
I do not have any unfilled need	_____	_____	_____	_____
Little difficulty	_____	_____	_____	_____
Some difficulty	_____	_____	_____	_____
Great deal of difficulty	_____	_____	_____	_____
I cannot find the people I need	_____	_____	_____	_____

11. In your estimation, how long does it take for a new IT employee (on the average) to become productive in the following broad platform areas:

	0-6 mos	6-12 mos	13-18 mos	19-24 mos	>2years
Desktop Client	_____	_____	_____	_____	_____
Windows NT	_____	_____	_____	_____	_____
Unix	_____	_____	_____	_____	_____
S/390	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

If any of these platforms takes significantly longer than others, can you explain why? _____
_____

12. What specific skills would you want in new S/390 hires. Rank in order of preference (1-5) for applications developers, then systems professionals:

Appl	Sys	
____	____	ADSM
____	____	Assembler
____	____	C,C++
____	____	CICS
____	____	COBOL
____	____	DB/2
____	____	IMS/DB
____	____	JAVA™
____	____	JCL and Utilities
____	____	Object-Oriented Development (Component Broker, VisualAge, VisualGen)
____	____	OS/390 Component Knowledge (DFSMS, TSO, ISPF, etc.)
____	____	OS/390 Dump Reading and Debug Skills
____	____	OS/390 Networking (SNA, TCPIP)
____	____	OS/390 Security Services
____	____	OS/390 Systems Management
____	____	OS/390 Unix Services
____	____	S/390 Architecture
____	____	TPF
____	____	VM/VSE
____	____	VSAM
____	____	Others-please list_____

13. What are the top <u>S/390</u> skills shortages you face across all areas? Please rank the top 1-5.

     _____ ADSM
     _____ Assembler
     _____ C,C++
     _____ CICS
     _____ COBOL
     _____ DB/2
     _____ IMS/DB
     _____ JAVA™
     _____ JCL and Utilities
     _____ Object-Oriented Development (Component Broker, VisualAge, VisualGen)
     _____ OS/390 Component Knowledge (DFSMS, TSO, ISPF, etc.)
     _____ OS/390 Dump Reading and Debug Skills
     _____ OS/390 Networking (SAN, TCPIP)
     _____ OS/390 Security Services
     _____ OS/390 Systems Management
     _____ OS/390 Unix Services
     _____ S/390 Architecture
     _____ TPF
     _____ VM/VSE
     _____ VSAM
     _____ Others-please list _____
        _____

14. How do you currently obtain your S/390 education for your employees after they are hired? Please rank the choices that apply.

     _____ On the job training
     _____ Classes from IBM
     _____ Classes from non-IBM source
     _____ In-house training
     _____ University or College
     _____ Trade school
     _____ Other, please specify _____

15. In hiring new S/390 IT personnel, please approximate the percentage which comes from each of the following categories:

     _____ Only hire S/390 experienced people already in the marketplace
     _____ Hire people experienced on other platforms and convert them to S/390
     _____ Hire University or College CS/MIS graduates and train them on S/390
     _____ Hire University or College CS/MIS graduates with S/390 experience
     _____ Hire Trade School graduates and train them on S/390
     _____ Other- please explain _____
        _____
     _____ _____
     100%

16. Please rank the following factors in significance as they relate to selecting the platform upon which to run a new application. (1 is most significant, 2 is next, etc.)

_____ Price/Performance of platform
_____ Life Cycle Cost
_____ Platform Architecture
_____ Availability/Lack of availability of skilled resources
_____ Availability of Solution Software
_____ Available capacity on existing platform
_____ Other-please explain _____
_____
_____

17. Have you ever decided to move an application off the S/390 platform due to skills shortages?

_____ yes   _____ no

If yes, please explain in some detail. _____
_____
_____

18. Have you ever chosen a non-S/390 platform for a new application because you couldn't find S/390 skills?   _____yes   _____no

If yes, please explain in some detail. _____
_____
_____

SECTION III, UNIVERSITIES AND COMPUTER SCIENCE/MIS GRADUATES

19. Do you know of any College or University that prepares its CS/MIS students such that they are S/390 educated and can become productive quickly?

_____ Yes, name of College or University _____
_____ No

20. Is there any basis for a salary premium for graduates that have S/390 skill?
_____ Yes
_____ No
If yes, why? _____

21. If you feel there is such a basis, can you estimate a percentage premium that you would pay?_____

22. Which of the following best describes today's University or College CS/MIS graduates? Please rank those that apply.

_____ Good theoretical background, little practical experience
_____ Totally desktop or Unix focused, don't understand enterprise environment
_____ Excellent skills, practical focus, exactly what we need
_____ Broadly based, good background upon which I can build the skills I need
_____ Other, please explain: _____
_____

23. Do you have any kind of co-op or internship program with a local college or university?
[If your organization is a college or university, do you have a program with a local business?]
_____ Yes _____ No

If yes, what is the benefit to you in the relationship? _____
_____
_____

24. Would you be willing to work with a local college or university if they were interested in developing some S/390 course content or internship programs? *[If your organization is a college or university, would you work with a local business to do this?]*
_____ Yes _____ No

If yes, can you explain what you would be looking for? If no, can you tell us why?
_____
_____
_____

25. If you responded "yes" to question 24, how would this benefit you and your organization?

_____ Graduate hires would be better educated and trained

_____ Existing employees could attend courses to hone or develop skills

_____ Other, please explain _____

_____

_____

26. We are very interested in your comments on how Universities and Colleges might better prepare students for employment if you feel that improvements can be made. This survey is intended to focus on these issues, but any additional comments you can provide will help us understand your perspective better and prepare a better report.

_____

_____

_____

_____

_____

27. May we name your company as a participant (without disclosing any specific information about your responses?

_____Yes   _____No

28. May we quote you personally if appropriate? (We will contact you about specific quotes we might want to use.)

_____Yes   _____No

29. If we have any questions, may we contact you for more details?

_____Yes   _____No

If yes, please check at the beginning of the survey to be sure we have a valid e-mail address or telephone number for you..

Thank you for your participation! If you filled out this survey yourself as opposed to participating in an in-person or telephone interview, please return it to us in one of the following ways:

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