

DACUM Research Chart for Computer Support Specialist

(see last page for alternate titles)

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Duties		← Tasks →				
A	Perform Customer/Support Service	A-1 Respond to customer* request (*end user/client)	A-2 Determine customer needs/wants	A-3 Determine whether to provide service on site	A-4 Determine whether to resolve remotely	A-5 Determine whether to escalate request
B	Troubleshoot Technical Issues	B-1 Confirm the problem symptoms	B-2 Retrace steps to determine possible causes of problem	B-3 Gather relevant information from available resources (e.g., customer, manuals, research)	B-4 Examine indicators (e.g., lights, error messages)	B-5 Eliminate possible causes of problem
C	Maintain Information Systems	C-1 Maintain network-based software (e.g., e-mail, server, database)	C-2 Monitor hardware status	C-3 Maintain user accounts	C-4 Set permissions (access levels)	C-5 Maintain network security
D	Support Information Systems Hardware	D-1 Install hardware	D-2 Determine hardware requirements	D-3 Perform hardware upgrades	D-4 Install peripheral devices	D-5 Perform preventive maintenance on hardware
E	Support Information System Network	E-1 Test network equipment (e.g., cables, routers, hubs)	E-2 Determine network requirements	E-3 Install network equipment (e.g., cables, hubs, routers)	E-4 Configure network equipment	E-5 Monitor network (e.g., performance, equipment, status)
F	Support Software	F-1 Install software	F-2 Uninstall software	F-3 Test software	F-4 Configure software	F-5 Upgrade software
G	Educate Customers	G-1 Train customers	G-2 Develop course materials	G-3 Write Knowledgebase articles	G-4 Develop content for publications	G-5 Promote training programs
H	Support Web Development	H-1 Perform customer needs analysis	H-2 Prepare customer web proposal	H-3 Design web pages	H-4 Write web content	H-5 Create web graphics
I	Perform Administrative Tasks	I-1 Schedule training	I-2 Inventory information systems assets	I-3 Duplicate media (e.g., CDs, diskettes, manuals)	I-4 Maintain software licenses	I-5 Maintain support logs (e.g., call history, trouble tickets)
J	Continue Professional Development	J-1 Pursue academic advancement	J-2 Pursue advanced technical training	J-3 Maintain professional certifications	J-4 Participate in professional organizations	J-5 Attend conferences/seminars

A-6 Perform on-site service	A-7 Resolve request remotely	A-8 Escalate customer request	A-9 Follow customer service procedures	A-10 Perform customer follow-up (e.g., calls, surveys)		
B-6 Implement solutions by trial & error methodology	B-7 Isolate the cause of the problem	B-8 Duplicate the symptoms of the problem	B-9 Correct the cause of the problem			
C-6 Monitor system performance	C-7 Perform back-ups (e.g., system, data, network)	C-8 Perform restores (e.g., system, data, network)	C-9 Monitor license usage	C-10 Install network software	C-11 Upgrade network software	C-12 Plan for disaster recovery
D-6 Repair hardware	D-7 Optimize hardware performance	D-8 Move information systems	D-9 Assist users with hardware requests			
E-6 Configure remote access	E-7 Maintain network diagram/labels	E-8 Repair network equipment	E-9 Upgrade network equipment	E-10 Configure wireless equipment	E-11 Integrate broadband connectivity	E-12 Integrate telephony equipment
F-6 Develop databases	F-7 Develop programs (e.g., batch files, applications, macros)	F-8 Warehouse data	F-9 Perform data mining	F-10 Evaluate software	F-11 Perform applications research (e.g., patches, versions, content, functionality)	F-12 Optimize software performance
G-6 Recommend training (e.g., hardware, software)	G-7 Maintain self-help resources	G-8 Develop "Frequently Asked Questions" resource				
H-6 Update web page content	H-7 Publish web site	H-8 Test web page usability	H-9 Script data pulls (e.g., ASP, Perl, DHTML)	H-10 Develop web applications (e.g., Javascript, Java)	H-11 Optimize web pages	H-12 Analyze web performance
I-6 Develop graphs, charts, spreadsheets	I-7 Participate in meetings	I-8 Organize workspace	I-9 Process forms (e.g., purchase, request, trouble tickets)	I-10 Order supplies, equipment, and software	I-11 Write reports (e.g., technical, status, performance)	I-12 Update information systems documentation
J-6 Read trade publications	J-7 Participate in mentoring program	J-8 Network within the industry	J-9 Participate in non-technical training (e.g., time management, sexual harassment, Covey's 7 Habits)			

C-13 Optimize network systems	C-14 Integrate networked systems					
E-13 Optimize network performance	E-14 Assist users with network requests					
F-13 Recommend software	F-14 Assist users with software requests					
H-13 Develop we style-guide						
I-13 Generate correspondence (e.g., e-mail, voice mail)	I-14 Respond to correspondence (e.g., e-mail, voice mail)	I-15 Document procedures (e.g., ISO 9000, installation, warranty)	I-16 Coordinate computer support projects (e.g., outsourcing, contractors, training)	I-17 Provide feedback to developer/engineer	I-18 Provide feedback to support personnel (e.g., facilities, applications support, vendors)	

General Knowledge and Skills

Project management skills
Communication skills:
- Report writing
- Listening
- Presentation
Computer application skills:
- Word processing
- Spreadsheet
- Database
- Graphics
Keyboarding skills
Internet skills
Problem solving skills
Time management skills
Record keeping skills
Organizational skills

Acronyms/Terms

LAN = Local Area Network
WAN = Wide Area Network
ASP = Active Server Pages
Perl = Automoted software commands
DHTML = Dynamic Hyper Text Mark-up Language
ISO 9000 = International Standards Organization
TCP/IP = Transmission Control Protocol/ Internet Protocol
CSU/DSU = Channel Service Unit/Data Service Unit (translates broadband signals to narrowband signals)
Optimize = Improve performance
Escalate = Assign to higher skill level
Java script = Automated software commands
Telephony = Telephone-computer integration

Future Trends/Concerns

Future trends:

Internet expansion
Web migration
Ubiquitous computing
Telephony-desktop integration
Increase in e-commerce
Paperless office
Wireless connectivity
Telecommuting
Virtual desktop
Voice recognition acceptance

“Smart” office & home
E-learning
Broadband integration
Concerns:
Privacy
Security
Accelerated obsolescence
Changing social habits
Change in workforce
Loss of definition between work & home life
Lack of qualified applicants

Worker Behaviors

Groomed
Resourceful
Self-motivated
Patient
Positive attitude
Logical
Team-oriented
Self-starter
Tolerant to stress
Quick thinker
Innovative
Friendly
Customer-focused
Adaptive
Responsible
Proactive
Organized
Multi-tasked
Polite

Alternate Job Titles

Broadband = High capacity Internet connection
Peripheral device = Device attached to peripheral system
Warehouse data = Compile data from multiple sources to one location
Data mining = Extracting useful data from large data pools
Scripting = Automated software commands
Systems Operator
Technical Assistant
Computer Operator
Instructional Technologist
Customer Support Division Senior Technician
Server/Network Support Specialist
P.C. Support Specialist
P.C. Systems Analyst
Program Support Specialist
Software Support Specialist
Help Desk Technician
Systems Technician
Product Support Technician

Equipment/Tools/Supplies/Materials

Computer (desktop/portable)
Software
Office supplies
Cable tester
Network monitor (sniffer)
Printer
Toolkit—screwdrivers, pliers, chip puller, multitool tool, flashlight
Circuit tester
Calculator
Scanner
Cart
Telephone/headset
Pager/cell phone/radio
Copier
Fax
CD duplicator
Diskettes, CDs
Labelmaker
Networking supplies—cables, hubs, routers, switches, bridges, modem banks, CSU/DSU
Modem
Server
TCP/IP table
Websafe color palette