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business solutions
by IBM and SAP

IBM mySAP.com
Sizing and Planning Questionnaire

Send completed questionnaire to either your local IBM contact or:

North and South America	IBM Americas Techline Solutions Sizing
by E-mail	eSizings@us.ibm.com
or Fax	+1 770 659 5245
Europe, Middle East, and Africa	IBM EMEA Techline
Web	http://w3-5.ibm.com/support/emea/techline
Asia, Pacific	IBM SAP International Competence Center
by E-mail	isicc@de.ibm.com
or Fax	+49 6227 73 1052

For more information about IBM mySAP.com solutions, go to
http://www.ibm.com/erp/sap

For online entry of data from this questionnaire, go to

http://service.sap.com

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1.0 CONTACT INFORMATION

Please fill in the information on the following contact points. If unknown or not applicable, leave blank.

Company Name	
Street Address	
City, State/Province Zip/Postal Code, Country	
Industry	
Short Business Description	

Customer Contact			
Title			
Phone Number		**Fax Number**	
E-mail Address			

SAP Contact			
Phone Number		**Fax Number**	
E-mail Address			

SAP Value Added Reseller			
VAR Contact			
Phone Number		**Fax Number**	
E-mail Address			

IBM ERP Specialist			
Phone Number		**Fax Number**	
E-mail Address			

Business Partner Company			
Contact			
Phone Number		**Fax Number**	
E-mail Address			

2.0 INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Before completing the questionnaire, read the *Important Notes* on the next several pages. Then follow the six steps below.

1. Read all of the Important Notes. (Section 3)
2. Complete the general sizing questions, providing special notes or comments about your mySAP.com project. (Section 4)
3. Complete the SAP user-based sizing questions. (Section 5)
4. Optional: Complete the SAP quantity structure-based sizing questions. (Section 6)
5. Return the questionnaire to IBM, or, enter the data directly into the QuickSizer at web address: http://service.sap.com   (you will need an OSS User ID and an SAP customer number which you can get from your local SAP representative).

3.0 IMPORTANT NOTES

3.1 Purpose of the Questionnaire

The purpose of this questionnaire is to collect information that will be used to estimate the IBM hardware resources required to run the basic mySAP.com application suite in S/390, AS/400, RS/6000, Netfinity, NUMA-Q or mixed environments. The sizing estimate results will include recommendations for CPU(s), memory, and disk. In addition, information from the sizing questionnaire may be used by an IBM sales representative or business partner to develop an IBM hardware configuration to support the proposed mySAP.com installation.

3.2 What is a Sizing Estimate?

A sizing estimate is an approximation of the hardware resources required to support a mySAP.com implementation. It is a pre-sales effort based on information available at a point in time, providing an entry into understanding the customer's hardware requirements. Customers' actual experiences will vary from the sizing estimate for many reasons, including batch and reporting workloads, and custom code. The degree of variability can range from small to very significant.

Most likely, there will be software, server, and network requirements that are not addressed by this sizing estimate. For example, many mySAP.com installations run software for systems management, EDI translation, file transfer, help desk management, etc. To determine the complete hardware and software configuration required for your mySAP.com implementation, we recommend that you work with an mySAP.com specialist who will help you to develop the overall system architecture.

Sizing the hardware requirements for each customer's mySAP.com implementation is an *iterative process*, which may be refined and repeated a number of times. If you are in the early stages of planning, you will probably have limited information about your planned mySAP.com environment. In this case, we can complete the sizing estimate with general information about the numbers of users your IBM mySAP.com system needs to support. When you are further along in your mySAP.com implementation planning, you will know more about mySAP.com, the mySAP.com applications you plan to use, and your potential mySAP.com transaction activity. At that time, you may request another sizing estimate based on more detailed information. In any case, after receiving the results of a sizing estimate, you may choose to revise your input and request a re-sizing.

It is important to understand that the sizing estimate is a pre-sales effort mainly based on benchmark performance data; it should not replace capacity planning for installed systems. You can use the sizing estimate for pre-installation planning; however, once you are in the process of implementing mySAP.com, you should work with an IBM/SAP Capacity Planning consultant to monitor and predict the ongoing resource requirements e.g. for your production R/3 system.

The IBM/SAP sizing methodology is continually reviewed and revised to provide the best possible estimate of the IBM hardware resources required to run mySAP.com. Guidelines for sizing mySAP.com come from a number of sources, including SAP, SAP R/3 benchmarks, and customer feedback. Based on information from these sources and your completed sizing questionnaire, we will analyze your mySAP.com requirements and recommend an IBM hardware configuration.

Customer results may vary, and IBM assumes no liability for actual results that differ from the sizing estimate.

3.3 How to Obtain Assistance

The questionnaire was designed so that you can answer it without detailed knowledge of mySAP.com. To make sure that you are using the latest version of this questionnaire, or if you have any questions about it, please contact:

For North and South Americas:
- To obtain a softcopy of the questionnaire, please *go to http://www.ibm.com/erp/sizing*. For questions, you can reach the IBM Sizing Center at 800-IBM-0222 in North America or 770-835-6690. You may also e-mail us at *eSizings@us.ibm.com*.
- To obtain a Faxed copy of the questionnaire, use the IBM FAX Server by calling 800-IBM-4FAX and requesting document number 8636.

For Europe, Middle-East and Africa:
- Contact the IBM EMEA Techline at *http://w3-5.ibm.com/support/emea/techline*.

For Asia, Pacific:
- Contact the IBM SAP International Competency Center at *isicc@de.ibm.com*.

For additional information on IBM and mySAP.com, go to http://www.ibm.com/erp/sap.

3.4 User-Based vs. Quantity structure Based Sizing

You must decide whether you want a *user-based* sizing or a *quantity structure-based* sizing. If you have limited information about your planned mySAP.com implementation, we suggest a user-based sizing. If you have more detailed knowledge of mySAP.com and your planned implementation, you may prefer a quantity structure-based sizing. Since the quantity structure-based sizing requires more detailed information, it may provide a more accurate estimate of the hardware resource requirements. To determine if you have enough information to complete a quantity structure-based sizing, read Section 6 *Quantity structure-Based Sizing Questions*. If you do select the quantity structure-based sizing, you must answer the quantity structure-based sizing questions, as well as the user-based sizing questions. When we complete the sizing estimate, we will evaluate both the user-based and quantity structure-based sizing results, and recommend the larger of the two solutions.

3.5 IBM/SAP Sizing Methodology and Terminology

Sizing Methodology

The objective of the IBM/SAP sizing methodology is to estimate the hardware resources required to support your *peak hour of business processing*. Our sizing philosophy is that if we size the hardware to provide acceptable response time for the peak application workload, then all workloads outside of the peak hour should also provide acceptable response time.

Your first step in the sizing process is to identify your organization's peak hour of processing. Next, you will complete the sizing questionnaire, providing information about your planned mySAP.com online and batch processing for the peak hour. In the Sizing Center, we will use the IBM/SAP sizing tools to convert your questionnaire responses into potential mySAP.com workload and estimate the hardware resources required to support the system.

Note: For quantity structure-based sizings, some customers cannot identify specific application volumes for the peak hour. In those cases, we will accept average yearly volumes.

**Identifying the Peak Hour of Processing**

Before you can specify your online and batch transaction volumes, you must identify your peak hour of processing. The peak hour is the busiest hour of activity from an information-processing standpoint. It is the hour in which the CPU utilization is the highest. In identifying your peak hour, consider how your processing volumes vary throughout the year and select a peak hour during the busiest time of the year. If you do not know the peak hour, you may need to survey the user departments of the various mySAP.com modules.

Typically, the peak hour occurs somewhere between 8:00 a.m. and 6:00 p.m., but this can vary. In the illustration on the next page, the thick line shows the transaction volumes for all of the SAP R/3 modules used in one organization, with the peak hour occurring from 10:00 a.m. to 11:00 a.m.

Identifying the Online Processing Volumes

Once you have identified the peak hour, you must identify the mySAP.com functions that will be in use during that hour (refer to the illustration below). For a user-based sizing, you will identify the mySAP.com modules that will be active during the peak hour and the numbers of users of each module. For a quantity structure-based sizing, you will breakdown the modules by transaction and specify the number of transactions to be processed during the peak hour. For example, in a user-based sizing, you would indicate that 20 Financial Accounting (FI) users will be active; for a quantity structure-based sizing, you would specify some number of FI transactions like A/P Payments, A/R Invoices, GL Postings, etc.

Note: It is important to understand that you should not include every mySAP.com module/transaction to be used by your organization. Instead, you should report only those mySAP.com modules/transactions that will be active during the peak hour.

Identifying the Peak Processing Hour and SAP Transaction Workload
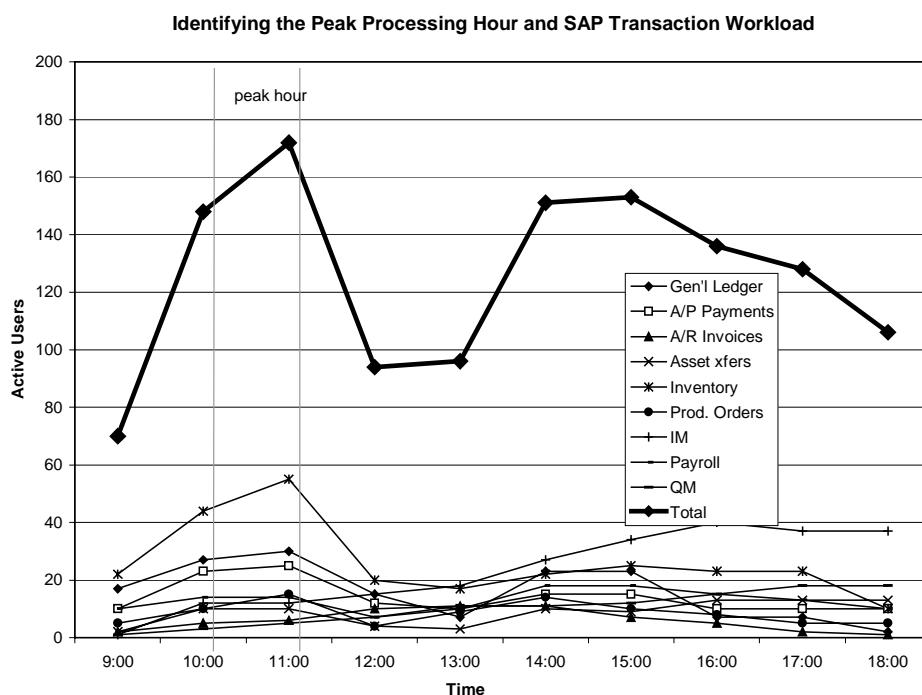
Identifying the Batch Processing Workload

The next step is to identify the batch processing workload. For a user-based sizing there is heasdroom being taken into the calculation by the SAP quicksizer. For a quantity structure-based sizing, you will identify the batch quantity structure volumes for the peak hour in the input "quantity structure II" section of the SAP quicksizer.

Note: In most organizations, the peak hour occurs during the day and includes both online and batch processing. However, for some organizations, overnight batch processing actually requires more CPU resources than the daytime workload (i.e., the peak hour occurs at night with little or no online activity). If this is the case for your organization, you must request a quantity structure-based sizing and provide application volumes for the batch jobs that will run during the peak hour. We will size your system to accommodate this batch workload.

Sizing Assumptions

This sizing estimate will predict the resources required to support your mySAP.com activity with default values for CPU utilization, batch, spool, and reporting. The default values have been determined as a result of our experience with many mySAP.com projects and sizings. You may, however, change one or more of the default sizing assumptions. The sizing assumptions and default values are listed in Section 4.12.

3.6 Special Instructions for Installed R/3 Customers

In general, this sizing exercise is intended for new mySAP.com implementations. However, customers who are expanding an existing SAP R/3 installation with new application modules or additional users may use a sizing estimate to help determine the additional resource requirements. In these cases, the sizing estimate must be used in conjunction with an *IBM Insight for SAP R/3 Analysis*, a no-charge IBM offering that provides a workload analysis of the customer's currently installed R/3 system.

When the sizing request accompanies an Insight Analysis, the information provided in the sizing questionnaire should reflect the user or transaction volumes for the new workload only, not the workload for the existing SAP R/3 system. When specifying the user or transaction volumes, only the new SAP R/3 modules or new users should be listed in Sections 5 and 6 of the questionnaire. To complete the sizing estimate, we will obtain the resource requirements for the existing system from the results of the Insight Analysis and the new workload requirements from the sizing questionnaire.

For more information about *IBM Insight for SAP R/3*, go to *http://www.ibm.com/erp/sap/insight.*

4.0 GENERAL SIZING QUESTIONS

In this section, you will tell us about your hardware/software environment. Some of the subsections require responses; others are optional.

4.1 *Current System*

Answer the following questions about your currently installed SAP R/3 system (if applicable).

Note: This sizing exercise is intended for new R/3 implementations and for customers who are expanding an existing R/3 installation with new R/3 modules or additional users (refer to the Special Instructions for Installed R/3 Customers in Section 3.6).

Question	Non-Production	Production	Neither
Are you currently running mySAP.com in production and/or non-production? (Check ✔ all that apply)			
Current mySAP.com software release?			n/a
Current hardware systems/models for mySAP.com?			n/a
Current R/3 database system?			n/a
Comments:			

4.2 *mySAP.com System Landscape* (required)

A system landscape consists of the mySAP.com systems and clients that are needed for production. Once the system landscape has been defined, you create an implementation strategy for the setup and maintenance of the systems and clients within this landscape.

IBM and SAP strongly recommend having a three-system landacape. A three-system landscape is comprised of a a development system, a quality assurance system and a production system. This configuration ensures the proper management and testing of changes to the mySAP.com system before applying them to the live production environment. While the development and quality assurance systems could be implemented on a single server, the production system has to be implemented on its own separate system.

System Landscape Definitions	
Production System	A system that contains live business data to which users have access.
Development System	A system used for ongoing customization of the mySAP.com components and/or the development of new components.
Quality Assurance System or Consolidation System	A system that enables complete testing of upgrades and new software modules prior to implementation in the production system. This system may also be used to test modifications to system components, such as the operating system, device drivers, new hardware components, etc.
Technical Sandbox	A system that is used for Basis or DBA training and testing.
Staging System	A system that is populated with "live" data that may be used for end-user training.

Production System Requirements
You will provide detailed information on the production system requirements in Sections 5 and 6.

Non-Production System Requirements
In addition to the development and quality assurance systems, you may want to add other non-production systems to the landscape. In the table on the next page, specify the non-production system requirements. Check all of the non-production systems that will be included in the landscape.

For each system you check, write the number of users who will be active concurrently during that system's peak processing hour and the total amount of disk space you want to allocate to the system. If no amount of disk is specified, the minimum requirements for the chosen mySAP.com version will be applied. The quality assurance system recommendation will have the same amount of disk space as the production system to allow replication and

simulation of the production system data.

Non-Production Systems	Number of active users?	Disk space for this system?	Planned Installation Date
Development System		GB	
Quality Assurance System		GB	
Technical Sandbox System		GB	
Staging System		GB	
Other		GB	
Comments:			

Question	Answer
Did you consult with your SAP implementation partner to complete the non-production system questions above? (Circle one) If you answered **no**, before ordering the non-production system(s), you must work with your implementation partner to determine the requirements for each system (i.e., number of users and disk space), and then request a re-sizing for the system.	yes or no

4.3 *Planned Hardware Platform* (required)

Which hardware platform(s) would you like to consider for this sizing estimate? Check ✔ a database server and one of its application server options. If you want to consider more than one application server option, please describe each scenario in the comments section below.

Note: For customers with smaller system requirements, a two-tier configuration in which one server provides both the database and application server functions may be appropriate.

✔	Database Server	Application Server(s)					
	S/390 (OS/390)		RS/6000		RS/6000 SP		Netfinity
	RS/6000 Standalone (AIX)		RS/6000		RS/6000 SP		Netfinity
	RS/6000 SP (AIX)				RS/6000 SP		
	Netfinity (NT, Linux)						Netfinity
	AS/400 (OS/400)						AS/400
	NUMA-Q (PTX)						Netfinity
Comments:							

4.4 Production System Software Versions

Technology Questions	✓	Answer Options
What release of mySAP.com do you plan to install? (Check ✓ one)		Release 4.6 (default)
		Release 4.5
		Release 4.0
		Other, specify:
What database software do you plan to use with mySAP.com? (Check ✓ one)		IBM DB2 (default)
		Oracle
		Informix
		Other, specify:

4.5 Network Interface

Network Questions	✓	Answer Options
What LAN network attachment do you want on your servers for connection to the client systems? (Check ✓ one)		Ethernet 100 Mbps (default)
		Token-Ring 16 Mbps
		Other, specify:
S/390 Only – Which network communication technology do you want between the S/390 database server and the RS/6000 or Netfinity application servers? (Check ✓ one)		Gigabit Ethernet, ATM 155, or Fast Ethernet via an OSA-Express attachment
		FDDI, Fast Ethernet, or ATM 155 via an OSA-2 attachment
		ESCON (MCA, PCI, or 2216)
		Other, specify:

4.6 Preferred Disk Technology

Disk Technology Questions	✓	Answer Options
Please indicate your preferred disk technology? (Check ✓ one)		SCSI
		SSA
		ESS
		Other, specify:

4.7 Scalability

Critical business applications such as mySAP.com commonly require hardware upgrades over time to meet increasing needs. The IBM server options ensure scalability to provide our customers with a path for future growth. In some sizing scenarios, several different server configurations may be able to address the sizing requirements, but the configuration options may vary in terms of their scalability.

In order for us to make the best sizing recommendation, it is important that we know how important the server scalability is to your organization. Please answer the scalability questions below.

Scalability Questions	✔	Answer Options
How important is it that the hardware configuration recommended by IBM addresses scalability for future growth? (Check ✔ one)		Very Important
		Important
		Not so Important
Comments:		

4.8 High Availability

IBM servers offer a wide range of features to address high availability. Some features come as standard, others are optional. In order for us to better determine which high availability options should be included in the recommended configuration, please indicate your preferences for high availability.

High Availability Questions	✔	Answer Options
Do you want a failover system for the production system? (e.g., Microsoft Cluster Server, HACMP, MIMIX). (Check ✔ one) If you answer **yes**, you must answer the next two questions.		Yes
		No (default)
In failover mode, what percentage of your total workload needs to run on the backup system? (Specify a percentage)		100% (default)
To which system or server do you want to failover? (Check ✔ one)		Application server (default)
		Development system
		Test system
		Separate server in idle standby
		Other, specify:
Do you want a Uninterruptable Power Supply (UPS) inlcuded in the configuration? (Check ✔ one)		Yes, for all servers
		Only for the production system
		No
Netfinity Only – In case of a disk failure, do you want hot-spare disks in the servers in order to be able to reconstruct the RAID secured configuration? (Check ✔ one)		Yes, on database servers
		No
Do you want to have redundant network attachments in your servers, whenever possible? (Check ✔ one)		Yes, for all servers
		Only for production servers
		No

4.9 Backup/Restore

Backup/Restore Questions	✔	Answer Options
Do you want a backup device included in the proposed configuration? (Check ✔ one)		Yes
		No
If you answered **yes**, do you want to have an unattended (automatic) backup, or an attended (operator-assisted) backup? (Check ✔ one)		Unattended (default)
		Attended
Do you want to consider a network attached (shared between servers), or a direct attachment (dedicated to a server) backup device? (Check ✔ one)		Network backup
		Direct attachment
		IBM to make recommendation
What is your production system backup window? (Specify *nn* number of hours)		Specify:
Do you want to do online or off-line backups? (Check ✔ one)		Online
		Off-line
Which tape media would you prefer to use for backup/restore of your system data? (Specify type of tape media)		Specify:

4.10 Project Phases and Growth

By default, this sizing estimate will predict the resources required to support the mySAP.com activity you describe in Sections 5 and 6 of the questionnaire. If desired, you can use this section to request sizing estimates for specific project phases. A project phase may be the implementation of one or more mySAP.com business applications, growth in terms of additional users, or growth in business volumes. See the example below.

Example of Project Phase Descriptions
Phase 1 *Implement Sales & Distribution, Materials Management, and Financial Accounting in Raleigh (20 users).*
Phase 2 *Implement Sales & Distribution, Materials Management, and Financial Accounting in Atlanta (add users).*
Phase 3 *Implement Human Resources in Atlanta (add an mySAP.com business component and users).*
Phase 4 *Factor in 20% business growth over one year (add 20% to the overall SAP R/3 workload).*

If necessary, copy and fill-out questionnaire Section 5 (user-based sizing questions) and/or Section 6 (quantity structure-based sizing questions) for each phase, and submit these pages along with your completed questionnaire.

Phase	Description	Start Date / Production Date	System Install Date
1			
2			
3			
Comments:			

4.11 Additional Comments

Please note any additional comments or requirements for your mySAP.com project. For instance, you might want to provide sizing information from previous SAP installations in your company. Or, you might specify hardware requirements that you want us to take into account for model homogeneity or reuse of existing equipment.

Comments:

4.12 Sizing Assumptions

Based upon our experience with many SAP R/3 projects and sizings, the configuration proposed by IBM uses the sizing default values listed below. If you wish, you may change one or more of the sizing assumptions.

Questions	Default
Power user think time (user characteristics are described in Section 5)	10 seconds
Standard user think time (user characteristics are described in Section 5)	30 seconds
Occasional user think time (user characteristics are described in Section 5)	360 seconds
Amount of data created daily per user?	1.5 MB
Data retention period for disk storage?	1 year
Number of working days per year?	Asia/Pacific 300 Americas 250 Europe 200
Number of working hours per day (online and batch)?	08:00 – 16:00

5.0 QUESTIONS FROM THE SAP QUICKSIZER

Print version

of the Quick Sizer Input Screens

December 2000

Please note that the Quick Sizer is subject to regular changes several times per year. Please make sure you have the most current version available. Enter data online, if possible.
 (http://service.sap.com/quicksizing)

SAP R/3 Standard

mySAP.com Workplace Users
Enter the number of active users who will use the mySAP.com Workplace. _____

Users				
		Low	Medium	High
FI	Financial Accounting			
FI-AA	Asset Accounting			
TR	Treasury			
CO	Controlling			
EC	Enterprise Controlling			
SD	Sales & Distribution			
MM	Materials Management			
LE-WM	Warehouse Management			
QM	Quality Managerment			
PM	Plant Maintenance			
CS	Customer Service			
PP	Production Planning			
PS	Project System			
PA	Personnel Management			
PA-PD	Personnel Development			
BC	Basis Components			
BWP	Business Work Place (office work)			
User Totals	(Excluding mySAP.com Workplace users)			

Enter any kind of additional information with regard to this project here.

SAP Business Information Warehouse

Note that the Business Information Warehouse is sized seperately from the project.

Users

Please specify the different user types that will use the SAP Business Information Warehouse.

Low	Medium	High

InfoCube

Additionally, you can specify the amount of data records in an InfoCube:

Enter any kind of additional information with regard to this project here.

CRM Customer Relationship Management

Users

Please enter the number of CRM users and how they will work with the system:

	Low	Medium	High
Activity Management			
Opportunity Management			
Customer Orders			
Internet Sales			
Customer Interaction Center			
Mobile Sales			
Mobile Service			

CRM Server

This questionnaire is for disk sizing of the CRM Middleware and the Consolidated Database (CDB). For more information refer to the documentation on sizing CRM in the Media Center. For information on the input fields, refer to the online help.

Total number of customers and prospects	
Total number of offered products	
Number of layers of your organization	
Total number of sales documents	
Average number of line items per sales document	
Total number of service orders	
Total number of your installed technical objects	
Retention period for the above objects in months	

6.0 APPENDIX: SAP QUICKSIZER HELP SCREENS

Following you can find all the help documentation being available in the SAP quicksizer for the different input screens and the result screen.

User-based input

Term	Definition
User-based sizing	For sizing we assume active users who go through a given number of business processes in a given time period. Since not all active users equally put load on the system or consume system resources, we distinguish between three categories to represent typical activity patterns of users: low, medium, and high. Comment: In case some of your users work with several different components attribute them to the component they work with most of the time.
Low / occasional User	An occasional user is logged on and consumes system resources. We assume that the occasional user accesses the system from time to time, fitting the work profile of an information user or an executive. From a technical viewpoint, this user type typically performs around 400 dialog steps (equivalent to approximately 400 screen changes) per week. Assuming a working week of 40 hours, this amounts to ten dialog steps per hour or one every six minutes. In this column you enter the number of users who are logged on and use it every once in a while during the day. Comment: For calculating the optimum memory consumption we assume that these users typically work during peak hours. For minimum requirements they are omitted. Also, they have no influence on disk sizing.
Medium User Accountant / Clerk	We assume that this user definition represents the work profile of accountants, clerks or office personnel. From a technical viewpoint, this user type typically performs around 4,800 dialog steps per week. Assuming a working week of 40 hours, this amounts to 120 dialog steps per hour or one every 30 seconds. In this column you enter the number of users who are logged on and use it regularly during the day.
High User Data entry user, Telesales User, Power User	We assume that this user definition represents the work profile of users in the telesales environment, data entry users or power users such as application developers. From a technical viewpoint, this user type typically performs an average of around 14,400 dialog steps (screen changes) per week. Assuming a working week of 40 hours, this amounts to 360 dialog steps an hour or on every 10 seconds. In this column you enter the number of users who are logged on and use it intensively during the day.
CS Customer Service	Application component that can be used to process services. Customer service mainly comprises the following functions: • Structuring and management of technical objects for which services are to be performed (for example, technical systems, machines) • Management of data regarding warranties and business partners • Creation of service requests • Planning and execution of the requested services • Billing of the costs that arise as a result of the services • Monitoring of call processing to ensure dates and agreed response times
PA: Personnel Administration & Payroll Accounting	Personnel Administration and Payroll Accounting from the Human Resource (HR) component includes the following areas: Personnel Administration, Benefits, Compensation Management, Recruitment, Personnel Time Management, Incentive Wages, Business Trip Management and Payroll Accounting.
PD: Personnel Planning & Development	Personnel Planning and Development includes the following areas: Organizational Management, Personnel Development, Workforce Planning, Training and Event Management and Room Reservations Planning.
BWP Business Workplace	The Business Workplace provides a standard working environment in which every SAP user can carry out their share of the business and communication processes in the

	enterprise. There, they receive all e-mails, faxes, tasks and telephone calls all in one central location with preview and calendar functionality. These work items are assigned to them in the course of SAP Business Workflow or they were sent to them from people or from SAP applications. This can include the following actions: • Processing work items • Receiving and sending mails • Administrating documents and work processes • Distributing and processing companywide and group internal information

SAP BW Business Information Warehouse Sizing Input

Infocube	The central data container for reporting and evaluations. InfoCubes contain two types of data, namely key figures and characteristics. An InfoCube is a number of relational tables, that are put together according to the star schema: A large fact table in the center Surrounded by several dimension tables The fact table is set up in order to save all key figures on the lowest level of detail, while the dimension tables are used to save the characteristics that are required both in reporting and in the evaluations of these key figures. Dimension tables are seen as being independent of one another. Only the fact table connects the dimensions with the key figures. Therefore, all of the data is stored multi-dimensionally in the InfoCubes.

CRM Customer Relationship Management

Activity Management	Within Activity Management, your employees can: Create business activities to document any interaction they have with customers o Create tasks to manage their own workload o Manage their work in the Application Workplace o View appointments and activities in the calendar o Access the fact sheet for valuable information about business partners o Access the Business Workplace for using workflow items The two main elements in Activity Management are the application workplace and the calendar. Each provides a different view of your workload and you can switch between them. The calendar displays all your appointments in a daily, weekly, or monthly overview. The inbox, on the other hand, provides you with a personal workplace or file manager, where all your activities, whether they have been given fixed appointments or not, are clearly sorted into different folders.
Opportunity Management	The Opportunity describes the sales prospects, their requested products and services, the sales prospect's budget, the potential sales volume and an estimated sales probability. This information becomes concrete in the course of the sales cycle, and can be displayed and evaluated in the system. Opportunity Management provides the framework for presenting sales projects from the very start, and tracking their progress. In this way, it provides the basis for an analysis and optimization of your enterprise. Users in Opportunity Management can use the following functions: o Presentation of the Sales Cycle o Reason for Status o Working With Products o Management of Attachments o Transferring Data for Sales Volume Forecast o Classification of Opportunities o Texts in Opportunities o Opportunities - Fast Change

Customer Orders	In CRM, customer orders can be created in different ways, for example by a telesales agent in the Call Center or by customers via the Internet.
Internet Sales	This component allows electronic business activities to take place between companies and consumers as well as only between companies. Using SAP Internet Sales, manufacturers, shippers, wholesalers, and retailers can sell their products directly via the World Wide Web. The following components are contained in CRM Internet Sales: - Business-to-Consumer (B2C) Internet Sales - Business-to-Business (B2B) Internet Sales - Business-to-Reseller (B2R) Internet Sales
Customer Interaction Center	The Customer Interaction Center (CIC) is a key technology of Customer Relationship Management with mySAP.com. It is designed as a multi-channel, blended business process interaction center. To empower call centers to provide the highest level of customer service. It provides robust technology for contact center operations. It tightly integrates a highly customizable and full-featured front office with your back-office as well as your entire range of customer-centric processes. The customer Interaction Center is the common state-of-the-art technology for any business transactions via phone, email, letter or face to face. It's used in the following CRM Business Scenarios: Service Interaction Center, Telesales and Telemarketing. Highlights of CIC include: Processing inbound and outbound telephone calls with customers and other business partners using Computer Telephony Integration (CTI) technology as middleware. An Email Office system for processing incoming and outgoing emails. Also included are Planned Activities for the agent to execute. An Interactive Intelligent Agent (IIA) for problem analysis and Interactive Solution Search along with Frequently Asked Questions. The IIA Intelligent Agent is an easy to use tool that provides a wide range of users access to solutions from various knowledge bases. For more information, see Interactive Intelligent Agent. A comprehensive Interaction History log to provide one view of a customer. This enables agents to view planned and historical activities along with sales and service orders. Interactive Scripting to guide an agent through a telesales, outbound campaign or technical support interaction.
Mobile Sales & Service	Mobile Sales allows sales teams to work offline and to synchronize their data with the R/3 System. In this way, it supplies all the information required for optimal customer interaction. Such information can include real-time updates on: - Business partners - Contact persons - Products and services - Opportunities - Activities This component contains functions allowing sales representatives to: Coordinate their activities, including marketing and advertising campaigns Present product lines and compare them to competitive products Create quotations and orders immediately on site Ensure that orders are correct and confirmable, including configuration, pricing, and delivery data Coordinate the transmission, retrieval, and storage of inbound and outbound information Mobile Service allows field service representatives to review daily service visit agendas, prepare service jobs, report on time spent and materials used as well as reporting on malfunctions encountered. It also enables field personnel to enter information on actions performed to fulfill service obligations. Hint: Here you can also enter users who use Handheld Sales and Handheld Service.
Customers & Prospects	This field refers to the number of individual customers or companies prospects your organization is in touch with. This number is usually much higher than the number of customers alone contact persons at customers

Number of products	In general, you would enter the number of products you sell. However, this number can increase if you have the following additional products in the CRM System: Products that are not produced any longer but are still on stock currently not being produced or sold but still kept as master data for historical reasons for your own requirements, if, for example, you have spare parts, office products, or merchandizing material
Organization Layers	Information about customers and propects must be made available for different kinds of interested parties. For example, the same customer information is shared by a sales representative in the field who is in touch with the customer and his superior at the company. The top manager might want to have a look at the data as well. In this case you would enter three layers. If you have different organizations by products, product groups or customer groups with key account managers, the number of layers is higher.
Service Objects	If you use your CRM System within a Mobile Service Scenario, you should enter the number of machines or objects that you plan to administrate with your system on a long run. This can be photocopiers, printing machines as well as any other installation of your products.

Result Page

Results for user-based input	These results are obtained from your input on the user-based screen. The Quick Sizer uses this information to determine CPU, database and memory consumption. The results are calculated to meet an average CPU utilization of 33% on the dialog part, as was stipulated by SAP and its hardware partners in order to leave sufficient room for other activities such as batch; reporting, printing, and possible interfaces.
	Comment: When you configure your hardware, make sure you only change this average CPU utilization in very few and specific cases.
Results for quantity-structure-based input	These results stem from your input in the screens for quantitiy structure and for IBUs. The sizing categories obtained from the expected data throughput of the SAP system is calculated to meet an average CPU utilization of 65%, thus enabling good response times at a relatively high consumption.
	Comment: When you configure your hardware, make sure you only change this average CPU utilization in very few and specific cases.
Memory requirements	These results are obtained from your input on the user-based screen.
	Minimal requirement for main memory on the database server in MB. Amount of main memory on the database server in MB for optimal throughput and optimal response time. Minimum requirement for main memory on the application server in MB. Amount of main memory on the application server in MB for optimal throughput and optimal response time.
CPU Sizing Categories	The following table gives you an overview of the required CPU capacity.

Category	Up to (number of SD benchmark users)	Up to (number of SAPS)
0	Personal SAP Demonstration / Development System	
1	25	125
2	50	250
3	100	500
4	200	1000
5	300	1500
6	400	2000
7	800	4000
8	1200	6000
9	1600	8000
10	2000	10000
11	2400	12000

12	2800	14000
13	3200	16000
14	3600	18000
15	Please contact a hardware partner of your choice or SAP	

Comment: * A pure user-based sizing should be less than category 6 equating to 400 SD benchmark users. We recommend this because user-based sizing has very basic assumptions. For larger systems you should fill in the throughput you expect. If you need advice, contact the hardware partner of your choice or SAP.

Categories 0-10   Sizing is ok

Categories 11-14   You should check your Sizing with a hardware partner of your choice or with SAP.

Category 15   Check your Sizing with a hardware partner of your choice or with SAP.

Disk sizing categories	Comment: If you do not enter any value for the retention period in the quantity structure page, the system calculates with a default retention period of twelve months.

Sizing categories for the required disk space capacity in GigaByte (GB).

Category	Disk Range in GB
0	5…15
1	16…25
2	26…35
3	36…50
4	51…70
5	71…100
6	100…130
7	130…160
8	160…190
9	190…220
10	220…250
11	250…280
12	280…310
13	310…360
14	360…400
15	> 400

Data archiving

These results are obtained from your input on the screen for quantity structure . SAP Data Archiving enables you to remove data belonging to completed business processes from the database, and to write it to archive files. This helps to keep database growth under control and to maintain overall system performance levels, while still allowing access to the archived data if necessary.

The given disk-size categories are calculated on the basis of the annual growth in data volumes and the residence times of the objects. The residence time is the minimum length of time which a data object must remain in the system, before it is allowed to be archived.

If the average residence time is less than 12 months, we recommend that you define an archiving concept during the implementation project. If this applies to your input, there is a comparison value to the disk category which is based on a residence time of 12 months.

If the comparison value is equal to or greater than the disk category, then we strongly recommend that you define an archiving concept during the implementation project.

	For more information, see the SAP Service Marketplace homepage for data archiving.
SAP BW	The results are obtained from your input for the Business Information Warehouse. The following table contains an overview about SAP Business Information Warehouse sizing categories.

No. of norm. users	RAM in GB	Disk in GB	DB & Appl Configuration
0…40	> 1	30…50	2 CPUs in central system
40…80	> 1.5	50…100	2 - 4 CPUs in central system
80…200	> 1.75	100…200	2 - 4 CPUs for DB server
200…400	> 2	200…1000	2 - 4 CPUs per application server 6 CPUs for DB server 2 CPUs per application server
> 400	4	> 1000	8 CPUs for DB server 2 CPUs per application server

SAPS	SAP Application Benchmark Performance Standard 100 SAPS are equivalent to 2,000 fully processed order line items per hour. 6,000 dialog steps (screen changes) with 2,000 postings or 2,400 SAP transactions.