



Computer Facility Consolidation Feasibility Study Workload Survey



Instructions to fill out the Survey

Purpose

The Survey captures Quantitative and Qualitative Information regarding the following Categories:

- Server Environment - Windows, Unix, Linux, Netware, iSeries, IBM Mainframe, Unisys Mainframe
- Data Storage Environment - Direct Attach Storage, SAN, NAS
- Network Environment - LAN, WAN, MAN
- Service Level Agreements
- Disaster Recovery
- Power Requirements
- Facility

The data is used to support the Analysis and Financial Model to support the Data Center Consolidation Feasibility Study

PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE YOU START FILLING OUT THE SURVEY

1. Please request each Computer Facility with the following criteria to fill the survey. If an Agency has more than one computer facility, please make copies of this survey and request each Computer Facility to fillout the survey

CRITERIA:

A Computer Facility which hosts more than 10 Servers

(OR)

A Computer Facility with area greater than 250 Sq. Ft

2. The Surveys are due no later than February 1st 2008

PLEASE READ THE FOLLOWING INSTRUCTIONS WHILE FILLING OUT THE SURVEY

1. Fill out the Agency Information in [Agency Information Sheet](#)
2. Review the Instructions on filling the [Workload Input Sheet](#)
3. Fill the data in [Workload Input Sheet](#). Please review the color coding scheme on the Input Sheet to identify data input cells
4. Fill the data in [Facility Input Sheet](#). Please review the color coding scheme on the Input Sheet to identify data input cells. Also, Please review the sample examples to understand the types of answers expected for the questions.

In case of any ambiguity in key terms, please refer to the [Definitions for Key Terms](#) Worksheet

In case of additional clarifications/questions regarding the survey, please do not hesitate to send an e-mail to trwuser@laspbs.state.fl.us or call (850)921-1978. All clarifications/questions will be answered no later than two business days

PLEASE READ THE FOLLOWING INSTRUCTIONS AFTER THE SURVEY IS FILLED OUT

Please e-mail this survey to trwuser@laspbs.state.fl.us after the Survey is filled out

Computer Facility Contact Information

Computer Facility Name	
Agency Name	
Computer Facility Location	
Contact Name	
Contact Phone	
Contact E-mail	

Add more rows for Additional Contacts

Instructions to fill Workload Input Sheet

Category	ID	Survey Question	Explain Text
Pwr.	1	Is all of the equipment in the data center protected by a UPS? Yes/No	UPS - Uninterruptible Power Supply
Pwr.	2	If not, what equipment is not protected by a UPS?	Please provide as much information as possible to help develop the financial model
Pwr.	3	Please list makes (vendor) model number, rated power capacity and current utilization of all UPS units in use?	
X86.	1	Total Number of X86 Based Servers with 0-2 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	2	Total Number of X86 Based Servers with 3-4 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	3	Total Number of X86 Based Servers with >4 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	4	Total Number of Physical X86 Based Servers (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	5	Total Number of File and Print Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	6	Total Number of Email, Messaging and Calendaring Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	7	Total Number of Web or HTTP Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	8	Total Number of Application Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	9	Total Number of Database Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	10	Total Number of Infrastructure (DNS, DHCP, AD, Domain Server) Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	11	Total Number of Servers used to support Help Desk Service(Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item D</p> <p>This service includes the centralized or consolidated receipt and resolution of IT system problems for department users. The service includes the positions, assets, and services that receive, log, dispatch, track, and resolve customer requests. This service includes dedicated technical assistance, training, and consulting services specifically related to the Helpdesk Service.</p> <p>Examples of costs associated with this service include helpdesk operators and related staff, helpdesk servers and software, call center infrastructure, helpdesk training, and software.</p>
X86.	12	Total Number of Servers used to support IT Security/Risk Mitigation Service (Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item E</p> <p>This service includes the implementation of measures to reduce risk and ensure continuity of agency IT services. The service includes the positions, assets, and services associated with planning, implementing, directing, assessing, and coordinating the physical and logical security of all agency information and recovering critical IT and agency services needed in the event of a disaster. This service also includes the resources needed to test, manage, and implement business continuity and disaster recovery plans (e.g., Continuity of Operations Plan) but does not include resources needed to address normal "break/fix" or standard availability requirements.</p> <p>Examples of costs associated with this service include the security director and related staff, off-site backup systems and procedures for activating necessary information systems in a new location, training within this activity, security consulting services, security policy, security systems, and specific security hardware and software tools not included in any other IT service.</p>
X86.	13	Total Number of IT Support Service for Agency Financial and Administrative Service (Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item F</p> <p>This service enables users to perform the fiscal, administrative, and executive management support functions of the agency. Typical functions include accounting and general ledger, procurement and contract management, property management, human resources, forms management, correspondence tracking, legislative affairs, and planning and budgeting. This service includes the positions, assets, and services associated with the operation and maintenance of the systems that support the agency's fiscal, administrative, and executive management support functions.</p> <p>Examples of costs associated with this service include personnel, hardware, and software needed to maintain and operate agency performance monitoring and various tracking systems used by the agency executive management team, and the agency-based business systems that receive data from or provide data to the State's enterprise administrative systems (e.g. FLAIR, LAS/PBS and SPURS). IT personnel that directly support the State's enterprise administrative systems, but are not in agencies that own these systems, should also be included in this service.</p>
X86.	14	Total Number of servers used to support IT Administration and Management Service(Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item G</p> <p>This service enables the management and administration of the agency's IT program or function that is responsible for prioritizing and tracking IT projects as well as the planning, developing, managing, and operating of agency IT systems. The service includes the positions, assets, and services associated (in whole or in part) with IT planning, budgeting, and investment control, IT procurement and contract management, IT project planning and management, and the overall coordination of IT work in the agency.</p> <p>Examples of costs associated with this service include the positions of CIO, Data Center Director, IT managers, and administrative staff for the IT organization. The operational costs should include the systems used for budgeting, accounting, personnel, and customer relations activities directly related to IT, and for research and development not specifically included in any other IT activity. Costs for plant and facilities, such as data centers, computer rooms, data center office space, and related lease, maintenance, insurance, and utility costs should be included.</p>
X86.	15	List Other Logical Servers:	If there are other Logical Server Categories that are not identified in the list (Win.6 through Win.10), Please provide the information.
X86.	16	Total Number of X86 Based Logical Servers (logical servers)	
X86.	17	Total Number of Servers less than 2 years old (physical servers)	Please provide the total servers that are aged less than 2 years old
X86.	18	Total Number of Servers between 2 and 5 years old (physical servers)	Please provide the total servers that are aged between 2 and 5 years old
X86.	19	Total Number of Servers more than 5 years old (physical servers)	Please provide the total servers that are aged more than 5 years old
X86.	20	Total Number of Servers for which age is not known (physical servers)	Please provide the total servers for which the age is not known.
X86.	21	Total Number of Physical X86 Based Servers (physical servers) Note: should be the same as X86.4	

Instructions to fill Workload Input Sheet

Category	ID	Survey Question	Explain Text
X86.	22	Total Number of Virtualized Server Instances (Logical Server Instances Running on a Virtualization Host Server)	
X86.	23	Total Number of Non Virtualized Server Instances	
X86.	24	Total Number of Virtualized and Non Virtualized Server Instances (Note: Should be the same as X86.12)	
X86.	25	Total Number of Virtualization (e.g. VMWARE...) Host Servers (Physical Servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
X86.	26	Total Number of Production Servers	
X86.	27	Total Number of Non Production Servers (Development/Test)	
X86.	28	Total Number of Disaster Recovery Servers	Please note the servers that are used for Disaster Recovery (Physical Servers)
X86.	29	Total Logical Servers with Windows Operating System (any version)	
X86.	30	Total Logical Servers with Linux Operating System (any version)	
X86.	31	Total Logical Servers with Netware Operating System (any version)	
X86.	32	Total Logical Servers all Operating Systems (Note: Should be the same as X86.12)	
iSrs.	1	Total Number of Physical iSeries Based Servers	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
iSrs.	2	Total Number of Installed CPWs (Commercial Processing Workloads)	Please refer to Definitions of Key Terms worksheet for definition of CPW
iSrs.	3	Total Number of Servers less than 2 years old (physical servers)	Please provide the total servers that are aged less than 2 years old
iSrs.	4	Total Number of Servers between 2 and 5 years old (physical servers)	Please provide the total servers that are aged between 2 and 5 years old
iSrs.	5	Total Number of Servers more than 5 years old (physical servers)	Please provide the total servers that are aged more than 5 years old
iSrs.	6	Total Number of Servers for which age is not known (physical servers)	Please provide the total servers for which the age is not known.
iSrs.	7	Total Number of Physical iSeries Based Servers (physical servers)	Please do not fill this cell
iSrs.	8	Total Number of Logical Partitions (LPARs)	
iSrs.	9	Total Number of Production Servers	
iSrs.	10	Total Number of Non Production Servers (Development/Test)	
iSrs.	11	Total Number of Disaster Recovery Servers	Please note the servers that are used for Disaster Recovery (Physical Servers)
Unx.	1	Total Number of Unix Based Servers with 0-2 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	2	Total Number of Unix Based Servers with 3-4 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	3	Total Number of Unix Based Servers with >4 Processors (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	4	Total Number of Physical Unix Based Servers (physical servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	5	Total Number of File and Print Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	6	Total Number of Email, Messaging and Calendaring Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	7	Total Number of Web or HTTP Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	8	Total Number of Application Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	9	Total Number of Database Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	10	Total Number of Infrastructure Servers (Logical Servers)	Please note that the Servers should be Logical Servers not Physical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	11	Total Number of Servers used to support Help Desk Service(Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item D</p> <p>This service includes the centralized or consolidated receipt and resolution of IT system problems for department users. The service includes the positions, assets, and services that receive, log, dispatch, track, and resolve customer requests. This service includes dedicated technical assistance, training, and consulting services specifically related to the Helpdesk Service.</p> <p>Examples of costs associated with this service include helpdesk operators and related staff, helpdesk servers and software, call center infrastructure, helpdesk training, and software.</p>
Unx.	12	Total Number of Servers used to support IT Security/Risk Mitigation Service (Logical Servers)	<p>Schedule IV C - Non Strategic IT Service, Item E</p> <p>This service includes the implementation of measures to reduce risk and ensure continuity of agency IT services. The service includes the positions, assets, and services associated with planning, implementing, directing, assessing, and coordinating the physical and logical security of all agency information and recovering critical IT and agency services needed in the event of a disaster. This service also includes the resources needed to test, manage, and implement business continuity and disaster recovery plans (e.g., Continuity of Operations Plan) but does not include resources needed to address normal "break/fix" or standard availability requirements.</p> <p>Examples of costs associated with this service include the security director and related staff, off-site backup systems and procedures for activating necessary information systems in a new location, training within this activity, security consulting services, security policy, security systems, and specific security hardware and software tools not included in any other IT service.</p>

Instructions to fill Workload Input Sheet

Category	ID	Survey Question	Explain Text
			Schedule IV C - Non Strategic IT Service, Item F
			This service enables users to perform the fiscal, administrative, and executive management support functions of the agency. Typical functions include accounting and general ledger, procurement and contract management, property management, human resources, forms management, correspondence tracking, legislative affairs, and planning and budgeting. This service includes the positions, assets, and services associated with the operation and maintenance of the systems that support the agency's fiscal, administrative, and executive management support functions.
			Examples of costs associated with this service include personnel, hardware, and software needed to maintain and operate agency performance monitoring and various tracking systems used by the agency executive management team, and the agency-based business systems that receive data from or provide data to the State's enterprise administrative systems (e.g. FLAIR, LAS/PBS, PeopleFirst, SPURS, and MyFlorida Marketplace). IT personnel that directly support the State's enterprise administrative systems, but are not in agencies that own these systems, should also be included in this service.
Unx.	13	Total Number of IT Support Service for Agency Financial and Administrative Service (Logical Servers)	
			Schedule IV C - Non Strategic IT Service, Item G
			This service enables the management and administration of the agency's IT program or function that is responsible for prioritizing and tracking IT projects as well as the planning, developing, managing, and operating of agency IT systems. The service includes the positions, assets, and services associated (in whole or in part) with IT planning, budgeting, and investment control, IT procurement and contract management, IT project planning and management, and the overall coordination of IT work in the agency.
			Examples of costs associated with this service include the positions of Chief Information Officer, Data Center Director, IT managers, and administrative staff for the IT organization. The operational costs should include the systems used for budgeting, accounting, personnel, and customer relations activities directly related to IT, and for research and development not specifically included in any other IT activity. It also should include costs associated with agency management participation in IT management and investment control activities. Costs for plant and facilities, such as data centers, computer
Unx.	14	Total Number of servers used to support IT Administration and Management Service(Logical Servers)	
Unx.	15	List Other Logical Servers:	If there are other Logical Server Categories that are not identified in the list (Win.6 through Win.10), Please provide the information.
Unx.	16	Total Number of Other Unix Based Logical Servers (Logical servers)	
Unx.	17	Total Number of Servers less than 2 years old	Please provide the total servers that are aged less than 2 years old
Unx.	18	Total Number of Servers between 2 and 5 years old	Please provide the total servers that are aged between 2 and 5 years old
Unx.	19	Total Number of Servers more than 5 years old	Please provide the total servers that are aged more than 5 years old
Unx.	20	Total Number of Servers for which age is not known	Please provide the total servers for which the age is not known.
Unx.	21	Total Number of Physical Unix Based Servers (physical servers) Note: should be the same as Unx.4	
Unx.	22	Total Number of Virtualized Server Instances (Operating System Partitions on a Virtualization Host Server)	
Unx.	23	Total Number of Non Virtualized Server Instances	
Unx.	24	Total Number of Virtualized and Non Virtualized Server Instances (Note: Should be the same as Unx.12)	
Unx.	25	Total Number of Virtualization (e.g. VMWARE...) Host Servers (Physical Servers)	Please note that the Servers should be Physical Servers , not Logical Servers . Please refer to Definitions of Key Terms worksheet for definitions on the Physical Server and Logical Server
Unx.	26	Total Number of Production Servers	
Unx.	27	Total Number of Non Production Servers (Development/Test)	
Unx.	28	Total Number of Disaster Recovery Servers	Please note the servers that are used for Disaster Recovery (Physical Servers)
Unx.	29	Total Number of IBM AIX Based Servers(Physical Servers)	Please identify UNIX Servers provided by Vendor IBM and running the operating system AIX
Unx.	30	Total Number of Sun Solaris Based Servers(Physical Servers)	Please identify UNIX Servers provided by Vendor SUN Micro Systems and running the operating system Sun Solaris
Unx.	31	Total Number of HP HPUX Based Servers (Physical Servers)	Please identify UNIX Servers provided by Vendor HP and running the HP UNIX Operating System
Unx.	32	List Other Unix Variant Based Servers (Physical Servers)	Identify any other UNIX flavors used in the data center
Unx.	33	Total Number of Other Unix Variant Based Servers (Physical servers)	Please do not fill this cell
Gro.	1	What was the growth rate for logical servers in this location over the past year?	Please categorize by Unix and X86 Server Types
Gro.	2	What is the expected growth rate for logical servers in this location for the next year?	Please categorize by Unix and X86 Server Types
Gro.	3	What is the expected annual growth rate for logical servers over the next 5 years?	Please categorize by Unix and X86 Server Types
Gro.	4	What percentage of new servers implemented in the past year were actually logical server images versus physical machines?	Please categorize by Unix and X86 Server Types
Gro.	5	What percentage of new servers implemented in the next year will be logical server images versus physical machines?	Please categorize by Unix and X86 Server Types
Gro.	6	What percentage of new servers implemented in the next 5 years will be logical server images versus physical machines?	Please categorize by Unix and X86 Server Types
Gro.	7	Expected usable life for a physical server in years	
Misc.	1	Total Number of high availability server clusters at the location	
Misc.	2	Please list vendors for DBMS	
Misc.	3	Please list top 5 vendors for Data Center Management Software	
Zos.	1	Total number of Physical Mainframe Computers	
Zos.	2	Total number of Mainframe CPU's	
Zos.	3	Total Number of Cabinets or Cabinet Equivalents of Equipments	Please indicate standard size computer cabinets or racks for computers and their peripherals
Zos.	4	Total number of Installed MIPS	MIPS can be either Gartner or Watson Walker MIPS
Zos.	5	Total number of Installed MIPS (12 months ago)	MIPS can be either Gartner or Watson Walker MIPS
Zos.	6	Total number of Installed MIPS (24 months ago)	MIPS can be either Gartner or Watson Walker MIPS
Zos.	7	7X24 Utilization Percentage of the Installed MIPS	MIPS can be either Gartner or Watson Walker MIPS
Zos.	8	7X24 Utilization Percentage of the Installed MIPS (12 month ago)	
Zos.	9	7X24 Utilization Percentage of the Installed MIPS (24 month ago)	
Zos.	10	Average annual growth rate of installed MIPS projected for the next 5 years	
Zos.	11	Total amount of Usable Storage in Gigabytes Installed to Support above workload	Please refer to Definitions for Key Terms worksheet for definition of Usable Storage

Instructions to fill Workload Input Sheet

Category	ID	Survey Question	Explain Text
Zos.	12	Please provide the make, model & quantities of IBM Mainframe computers and CPU's installed	
Zos.	13	Do you utilize a Parallel Sysplex configuration at your site to provide for High Availability for mainframe services? If so, please briefly describe the configuration	Parallel Sysplex is an IBM product that improves the High Availability of mainframe services
Uny.	1	Total number of Physical Mainframe Computers	
Uny.	2	Total number of Mainframe CPU's	
Uny.	3	Total Number of Cabinets or Cabinet Equivalents of Equipments	Please indicate standard size computer cabinets or racks for computers and their peripherals
Uny.	4	Total number of Installed MIPS	Please provide IBM Equivalent MIPS
Uny.	5	Total number of Installed MIPS (12 months ago)	Please provide IBM Equivalent MIPS
Uny.	6	Total number of Installed MIPS (24 months ago)	Please provide IBM Equivalent MIPS
Uny.	7	7X24 Utilization Percentage of the Installed MIPS	
Uny.	8	7X24 Utilization Percentage of the Installed MIPS (12 month ago)	
Uny.	9	7X24 Utilization Percentage of the Installed MIPS (24 month ago)	
Uny.	10	Average annual growth rate of installed MIPS projected for the next 5 years	Please provide IBM Equivalent MIPS
Uny.	11	Total amount of Usable Storage in Gigabytes Installed to Support above workload	Please refer to Definitions for Key Terms worksheet for definition of Usable Storage
Uny.	12	Please provide the make, model & quantities of Unisys Mainframe computers and CPU's installed	
Str.	1	Total Amount of Direct Attached Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	
Str.	2	Total Amount of SAN or NAS Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	Please refer to Definitions for Key Terms worksheet for more information on SAN and NAS
Str.	3	Total Amount of Data Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	
Str.	4	Total Amount of Direct Attached Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	
Str.	5	Total Amount of SAN or NAS Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	Please refer to Definitions for Key Terms worksheet for more information on SAN and NAS
Str.	6	Total Amount of Data Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	
Str.	7	Total Amount of Direct Attached Storage in Gigabytes Associated with the Unisys Mainframe Environment (Usable Storage)	
Str.	8	Total Amount of SAN or NAS Storage in Gigabytes Associated with the Unisys Mainframe Environment (Usable Storage)	Please refer to Definitions for Key Terms worksheet for more information on SAN and NAS
Str.	9	Total Amount of Data Storage in Gigabytes Associated with the Unisys Mainframe Environment	
Str.	10	Please list top three hardware vendors for Storage Management Systems	
Str.	11	Is there Synchronous Replication? If so, Please explain applications and configurations. Please explain any distance limitations	
Str.	12	Is there Asynchronous Replication? If so, Please explain applications and configurations	
Net.	1	Total Number of LAN Connections (Ethernet Ports) Installed in the Data Center (Switch Ports whether utilized or not)	
Net.	2	Total Number of SAN Connections (Fiber Channel Ports) Installed in the Data Center (Switch Ports whether utilized or not)	
Net.	3	Total Number of WAN or MAN Connections with Bandwidth greater than T1 Speed (1,544 mb/s)- exclude internet connections)	
Net.	4	Total Number of WAN or MAN Connections with Bandwidth at T1 Speed (1,544 mb/s) - exclude internet connections)	
Net.	5	Total Number of WAN or MAN Connections with Bandwidth less than T1 Speed (1,544 mb/s) - exclude internet connections)	
Net.	6	Total Number of Internet Access Connections with Bandwidth equal to T1 Speed (1,544 mb/s)	
Net.	7	Total Number of Internet Access Connections with Bandwidth equal to DSL Speed	
Net.	8	Total Number of Internet Access Connections with Bandwidth greater than DSL Speed	
Net.	9	Is there a MAN Connection to another Data Center or to the Disaster Recovery Site?	
Net.	10	Total Number of Traditional PBX's (Each cabinet equals one unit, eg, PBX takes up 3 cabinets, enter 3)	
Net.	11	Total Number of other Legacy Voice Equipment (IVR's VRU....)	
Net.	12	Total Number of VOIP Servers	
Sla.	1	Are there formal service level agreements in place with the users (Yes/No)	Is the level of service formally defined. If so, please answer yes
Sla.	2	What level of availability is specified in the SLA for Mainframe Applications? If there is no SLA, what level do the users expect?	Availability is defined as the ratio: System Uptime/ (System Uptime + System Downtime)
Sla.	3	What level of availability is specified in the SLA for non-Mainframe Applications? If there is no SLA, what level do the users expect?	Availability is defined as the ratio: System Uptime/ (System Uptime + System Downtime)
Sla.	4	Does the availability specified in Sla.2. refer to business hours or 7 x 24?	
Sla.	5	When a problem occurs, what is the mean time to restore (MTTR) services that the users expected	Please refer to Definitions for Key Terms worksheet for more information on MTTR
Dis.	1	In the event of a disaster what is the Recovery Point Objective (RPO) for applications and services	

Instructions to fill Workload Input Sheet

Category	ID	Survey Question	Explain Text
Dis.	2	In the event of a disaster what is the Recovery Time Objective (RTO) for applications and services	
Dis.	3	What is the main Disaster Recovery Strategy for this data center?	
Dis.	4	How often is the Disaster Recovery System Tested	Example Options Include: 1. External service provider, e.g. SunGard 2. Reciprocal agreement with another agency 3. Self recovery i. Hot site (immediately available) ii. Warm site (available within 3 days) iii. Cold site (available more than three days but less than 1 week) iv. Other v. No D/R
Dis.	5	Please describe any Disaster Recovery Contracts in Place? Who is the contract with? What are the fixed annual costs associated with these contracts?	

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center
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Data Importance for Analysis - Color Coding

Note: Please input data in data in the following Cells with color coding identified in the following table

	Critical
	Important
	Good to have

Additional instructions to help fill the Survey

Data Center Power Workload

Pwr. 1 Is all of the equipment in the data center protected by a UPS? Yes/No
 Pwr. 2 If not, what equipment is not protected by a UPS?



Answer: Insert comments here to explain specifics regarding equipment not protected by UPS
 -- Type of Equipment
 -- Number of Devices
 -- Why is it not protected by UPS

#	Type	Number of Devices	Why are these devices not protected by UPS?
0	Windows Server	15	Because it is a test lab
1			Model 4123
2			Model 4123
3			Model 4123

Add more rows if necessary

Pwr. 3 Please list makes (vendor) model number, rated power capacity and current utilization of all UPS units in use?

Note: Utilization can be determined by accessing the front panel of most portable or DC class UPS units. This is how Gartner will determine the power requirements for you data center, please be as accurate and inclusive as possible

#	Description	Make	Model	Rated Power (Capacity)			Utilized Power	
				Volts	Amps	KVA	KVA	AMPS
0	example	APC	Model 4123	754 kw			322 kw	322 kw
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

Add more rows if necessary

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center
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Pwr. 4 Please list makes and models of generators and utilization when the DC load is being born by the generator

#	Description	Make	Model	Rated Power (Capacity)			Utilized Power	
				Volts	Amps	KVA	KVA	AMPS
0	example	APC	Model 4123	754 kw			322 kw	322 kw
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

X86 Based Server Workload Information (Includes Intel X86 compatible processors)

Physical X86 Servers by # of Processors (CPU's)— Dual Core counts as 1 processor			
X86. 1	Total Number of X86 Based Servers with 0-2 Processors (physical servers)	1	33%
X86. 2	Total Number of X86 Based Servers with 3-4 Processors (physical servers)	1	33%
X86. 3	Total Number of X86 Based Servers with >4 Processors (physical servers)	1	33%
X86. 4	Total Number of Physical X86 Based Servers (physical servers)	3	100%

Please make sure that Total adds up i.e., X86.4 = (X86.1 + X86.2 + X86.3)

Logical X86 Servers by Usage			
X86. 5	Total Number of File and Print Servers (Logical Servers)	1	7%
X86. 6	Total Number of Email, Messaging and Calandaring Servers (Logical Servers)	1	7%
X86. 7	Total Number of Web or HTTP Servers (Logical Servers)	1	7%
X86. 8	Total Number of Application Servers (Logical Servers)	1	7%
X86. 9	Total Number of Database Servers (Logical Servers)	1	7%
X86. 10	Total Number of Infrastructure (DNS, DHCP, AD, Domain Server) Servers (Logical Servers)	1	7%
X86. 11	Total Number of Servers used to support Help Desk Service(Logical Servers)	1	7%
X86. 12	Total Number of Servers used to support IT Security/Risk Mitigation Service (Logical Servers)	1	7%
X86. 13	Total Number of IT Support Service for Agency Financial and Administrative Service (Logical Servers)	1	7%
X86. 14	Total Number of servers used to support IT Administration and Management Service(Logical Servers)	1	7%

X86. 15 List Other Logical Servers:

#	Type	Count
0		1
1		1
2		1
3		1
Total		4

Add more rows if necessary

X86. 16	Total Number of X86 Based Logical Servers (logical servers)	14	100%
---------	---	----	------

Please make sure that Total adds up i.e., X86.16 = (X86.5 + X86.6 + X86.7 + X86.8 + X86.9 + X86.10 + X86.11 + X86.12 + X86.13 + X86.14 + X86.15)

Workload Input Sheet					
Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center		Not Physically Located within the Data Center	
Physical X86 Servers by Estimated Age					
X86. 17	Total Number of Servers less than 2 years old (physical servers)	1	25%	1	25%
X86. 18	Total Number of Servers between 2 and 5 years old (physical servers)	1	25%	1	25%
X86. 19	Total Number of Servers more than 5 years old (physical servers)	1	25%	1	25%
X86. 20	Total Number of Servers for which age is not known (physical servers)	1	25%	1	25%
X86. 21	Total Number of Physical X86 Based Servers (physical servers) Note: should be the same as X86.4	4	100%	4	100%
Please make sure that Total adds up i.e., X86.21 = (X86.17 + X86.18 + X86.19 + X86.20)					
Logical X86 Servers (Operating System Instances)					
X86. 22	Total Number of Virtualized Server Instances (Logical Server Instances Running on a Virtualization Host Server)	1	50%	1	50%
X86. 23	Total Number of Non Virtualized Server Instances	1	50%	1	50%
X86. 24	Total Number of Virtualized and Non Virtualized Server Instances (Note: Should be the same as X86.12)	2	100%	2	100%
Please make sure that Total adds up i.e., X86.24 = (X86.22 + X86.23)					
Virtualization Host Servers (Physical Servers that Host Logical Server partitions or instances)					
X86. 25	Total Number of Virtualization (e.g. VMWARE...) Host Servers (Physical Servers)	1	100%	1	100%
Physical X86 Servers by Business Criticality					
X86. 26	Total Number of Production Servers	1	100%	1	100%
X86. 27	Total Number of Non Production Servers (Development/Test)	1	100%	1	100%
X86. 28	Total Number of Disaster Recovery Servers	1	100%	1	100%
Logical X86 Servers by Operating System					
X86. 29	Total Logical Servers with Windows Operating System (any version)	1	33%	1	33%
X86. 30	Total Logical Servers with Linux Operating System (any version)	1	33%	1	33%
X86. 31	Total Logical Servers with Netware Operating System (any version)	1	33%	1	33%
X86. 32	Total Logical Servers all Operating Systems ((Note: Should be the same as X86.12)	3	100%	3	100%
Please make sure that Total adds up i.e., X86.31 = (X86.28 + X86.29 + X86.30 + X86.31)					
iSeries Server Workload Information					
Physical iSeries Servers by # of Processors (CPU's)-- Dual Core counts as 1 processor					
iSrs. 1	Total Number of Physical iSeries Based Servers	1	100%	1	100%
iSrs. 2	Total Number of Installed CPWs (Commercial Processing Workloads)	1	100%	1	100%
Physical iSeries Servers by Estimated Age					
iSrs. 3	Total Number of Servers less than 2 years old (physical servers)	1	25%	1	25%
iSrs. 4	Total Number of Servers between 2 and 5 years old (physical servers)	1	25%	1	25%
iSrs. 5	Total Number of Servers more than 5 years old (physical servers)	1	25%	1	25%
iSrs. 6	Total Number of Servers for which age is not known (physical servers)	1	25%	1	25%
iSrs. 7	Total Number of Physical iSeries Based Servers (physical servers)	4	100%	4	100%
Please make sure that Total adds up i.e., iSrs.7 = (iSrs.3 + iSrs.4 + iSrs.5 + iSrs.6)					
Logical iSeries Servers (Operating System Instances)					
iSrs. 8	Total Number of Logical Partitions (LPARs)	1	100%	1	100%
Physical iSeries Servers by Business Criticality					
iSrs. 9	Total Number of Production Servers	1	100%	1	100%
iSrs. 10	Total Number of Non Production Servers (Development/Test)	1	100%	1	100%
iSrs. 11	Total Number of Disaster Recovery Servers	1	100%	1	100%

Workload Input Sheet																						
Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center		Not Physically Located within the Data Center																		
Unix Operating System Based Server Workload Information																						
Physical Unix Servers by Processor																						
Unx. 1	Total Number of Unix Based Servers with 0-2 Processors (physical servers)	1	33%	1	33%																	
Unx. 2	Total Number of Unix Based Servers with 3-4 Processors (physical servers)	1	33%	1	33%																	
Unx. 3	Total Number of Unix Based Servers with >4 Processors (physical servers)	1	33%	1	33%																	
Unx. 4	Total Number of Physical Unix Based Servers (physical servers)	3	100%	3	100%																	
Please make sure that Total adds up i.e., Unx.4 = (Unx.1 + Unx.2 + Unx.3)																						
Logical Unix Servers by Usage																						
Unx. 5	Total Number of File and Print Servers (Logical Servers)	1	7%	1	7%																	
Unx. 6	Total Number of Email, Messaging and Calendaring Servers (Logical Servers)	1	7%	1	7%																	
Unx. 7	Total Number of Web or HTTP Servers (Logical Servers)	1	7%	1	7%																	
Unx. 8	Total Number of Application Servers (Logical Servers)	1	7%	1	7%																	
Unx. 9	Total Number of Database Servers (Logical Servers)	1	7%	1	7%																	
Unx. 10	Total Number of Infrastructure Servers (Logical Servers)	1	7%	1	7%																	
Unx. 11	Total Number of Servers used to support Help Desk Service(Logical Servers)	1	7%	1	7%																	
Unx. 12	Total Number of Servers used to support IT Security/Risk Mitigation Service (Logical Servers)	1	7%	1	7%																	
Unx. 13	Total Number of IT Support Service for Agency Financial and Administrative Service (Logical Servers)	1	7%	1	7%																	
Unx. 14	Total Number of servers used to support IT Administration and Management Service(Logical Servers)	1	7%	1	7%																	
Unx. 15	List Other Logical Servers:																					
	<table border="1"> <thead> <tr> <th>#</th> <th>Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td>1</td> </tr> <tr> <td>1</td> <td></td> <td>1</td> </tr> <tr> <td>2</td> <td></td> <td>1</td> </tr> <tr> <td>3</td> <td></td> <td>1</td> </tr> <tr> <td colspan="2">Total</td> <td>4</td> </tr> </tbody> </table>	#	Type	Count	0		1	1		1	2		1	3		1	Total		4			
#	Type	Count																				
0		1																				
1		1																				
2		1																				
3		1																				
Total		4																				
Add more rows if necessary																						
Unx. 16	Total Number of Other Unix Based Logical Servers (Logical servers)	4	100%	4	100%																	
Please make sure that Total adds up i.e., Unx.16 = (Unx.5 + Unx.6 + Unx.7 + Unx.8 + Unx.9 + Unx.10 + Unx.11 + Unx.12 + Unx.13 + Unx.14 + Unx.15)																						
Physical Unix Servers by Estimated Age																						
Unx. 17	Total Number of Servers less than 2 years old	1	25%	1	25%																	
Unx. 18	Total Number of Servers between 2 and 5 years old	1	25%	1	25%																	
Unx. 19	Total Number of Servers more than 5 years old	1	25%	1	25%																	
Unx. 20	Total Number of Servers for which age is not known	1	25%	1	25%																	
Unx. 21	Total Number of Physical Unix Based Servers (physical servers) Note: should be the same as Unx.4	4	100%	4	100%																	
Please make sure that Total adds up i.e., Unx.21 = (Unx.17 + Unx.18 + Unx.19 + Unx.20)																						
Logical Unix Servers (Operating System Instances)																						
Unx. 22	Total Number of Virtualized Server Instances (Operating System Partitions on a Virtualization Host Server)	1	50%	1	50%																	
Unx. 23	Total Number of Non Virtualized Server Instances	1	50%	1	50%																	
Unx. 24	Total Number of Virtualized and Non Virtualized Server Instances (Note: Should be the same as Unx.12)	2	100%	2	100%																	
Please make sure that Total adds up i.e., Unx.24 = (Unx.22 + Unx.23)																						
Virtualization Host Servers (Physical Servers that Host Logical Server partitions or instances)																						
Unx. 25	Total Number of Virtualization (e.g. VMWARE...) Host Servers (Physical Servers)	1	100%	1	100%																	
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Unx. 26	Total Number of Production Servers	1	100%	1	100%																	
Unx. 27	Total Number of Non Production Servers (Development/Test)	1	100%	1	100%																	
Unx. 28	Total Number of Disaster Recovery Servers	1	100%	1	100%																	
Physical Unix Servers by Unix Variant																						
Unx. 29	Total Number of IBM AIX Based Servers(Physical Servers)	1	14%	1	14%																	
Unx. 30	Total Number of Sun Solaris Based Servers(Physical Servers)	1	14%	1	14%																	
Unx. 31	Total Number of HP HPUX Based Servers (Physical Servers)	1	14%	1	14%																	
Unx. 32	List Other Unix Variant Based Servers (Physical Servers)																					
	<table border="1"> <thead> <tr> <th>#</th> <th>Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td>1</td> </tr> <tr> <td>1</td> <td></td> <td>1</td> </tr> <tr> <td>2</td> <td></td> <td>1</td> </tr> </tbody> </table>	#	Type	Count	0		1	1		1	2		1									
#	Type	Count																				
0		1																				
1		1																				
2		1																				

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center
3	1		
Total	4		
Add more rows if necessary			
Unx. 33	Total Number of Other Unix Variant Based Servers (Physical servers)	7	7 100%
Please make sure that Total adds up i.e., Unx.32 = (Unx.28 + Unx.29 + Unx.30 + Unx.31)			

Server Growth Rates Pertaining to the X86 and Unix Environments

Gro. 1	What was the growth rate for logical servers in this location over the past year? Year over year growth rates means what is the difference in the number of physical servers as of now vs. 12 months earlier. This can be expressed as a percentage growth rate or as an absolute number of servers	X86 Servers Unix Servers	ex. -10%	ex. 15%
Gro. 2	What is the expected growth rate for logical servers in this location for the next year? Year over year growth rates means what is the difference in the number of physical servers as of now vs. the number projected 12 months from now. This can be expressed as a percentage growth rate or an absolute number of servers	X86 Servers Unix Servers	ex. -5%	ex. 20 servers
Gro. 3	What is the expected annual growth rate for logical servers over the next 5 years? Year over year growth rates means what is the difference in the number of physical servers as of now vs. the number projected 12 months from now. This can be expressed as a percentage growth rate or an absolute number of servers	X86 Servers Unix Servers	ex. 35 servers	ex. 25 servers
Gro. 4	What percentage of new servers implemented in the past year were actually logical server images versus physical machines?	X86 Servers Unix Servers	10% 10%	10% 10%
Gro. 5	What percentage of new servers implemented in the next year will be logical server images versus physical machines?	X86 Servers Unix Servers	20% 20%	20% 20%
Gro. 6	What percentage of new servers implemented in the next 5 years will be logical server images versus physical machines?	X86 Servers Unix Servers	20%	20%
Gro. 7	Expected usable life for a physical server in years After this period the server will be replaced with new hardware and software. Note: If nothing is entered here, we will assume 5 year life with 20% of servers being replaced annually	X86 Servers Unix Servers	 20% Years	 20% Years

Miscellaneous Questions pertaining X86 and Unix Environments

Misc. 1	Total Number of high availability server clusters at the location	1	1 100%										
Misc. 2	Please list vendors for DBMS	<table border="1"> <thead> <tr> <th>#</th> <th>Vendor</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Example: Oracle</td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>3</td> <td></td> </tr> </tbody> </table>		#	Vendor	0	Example: Oracle	1		2		3	
#	Vendor												
0	Example: Oracle												
1													
2													
3													
Add more rows if necessary													
Misc. 3	Please list top 5 vendors for Data Center Management Software	<table border="1"> <thead> <tr> <th>#</th> <th>Vendor</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Examples: HP Openview, CA Unicenter, IBM Tivoli</td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>3</td> <td></td> </tr> </tbody> </table>		#	Vendor	0	Examples: HP Openview, CA Unicenter, IBM Tivoli	1		2		3	
#	Vendor												
0	Examples: HP Openview, CA Unicenter, IBM Tivoli												
1													
2													
3													
Add more rows if necessary													

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center																				
Misc. 4	Please list the total number of high volume printers																						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">#</th> <th style="width: 30%;">Make and Model</th> <th style="width: 25%;">Print Volume</th> <th style="width: 40%;">Internal/External</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Example: Xerox</td> <td>Example: 9 Million Copies</td> <td>Internal Example: Reports External Example: Checks, Warrants, Drivers License Renewals, Tax Statements</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="background-color: #ADD8E6; padding: 2px;">Add more rows if necessary</p>	#	Make and Model	Print Volume	Internal/External	0	Example: Xerox	Example: 9 Million Copies	Internal Example: Reports External Example: Checks, Warrants, Drivers License Renewals, Tax Statements	1				2				3					
#	Make and Model	Print Volume	Internal/External																				
0	Example: Xerox	Example: 9 Million Copies	Internal Example: Reports External Example: Checks, Warrants, Drivers License Renewals, Tax Statements																				
1																							
2																							
3																							
Misc. 5	What is the Disaster Recovery Plan for Printing Services?																						
	<p style="background-color: #ADD8E6; padding: 2px;">Answer:</p>																						

IBM Mainframe Operating System Based Server Workload Information

Zos. 1	Total number of Physical Mainframe Computers	1	1
Zos. 2	Total number of Mainframe CPU's	1	1
Zos. 3	Total Number of Cabinets or Cabinet Equivalents of Equipments	1	1
Zos. 4	Total number of Installed MIPS	1	1
Zos. 5	Total number of Installed MIPS (12 months ago)	1	1
Zos. 6	Total number of Installed MIPS (24 months ago)	1	1
Zos. 7	7X24 Utilization Percentage of the Installed MIPS	%	%
Zos. 8	7X24 Utilization Percentage of the Installed MIPS (12 month ago)	%	%
Zos. 9	7X24 Utilization Percentage of the Installed MIPS (24 month ago)	%	%
Zos. 10	Average annual growth rate of installed MIPS projected for the next 5 years	%	%
Zos. 11	Total amount of Usable Storage in Gigabytes Installed to Support above workload	1 GB	1 GB
Zos. 12	Please provide the make, model & quantities of IBM Mainframe computers and CPU's installed		
	<p style="background-color: #FFFF00; padding: 2px;">Answer:</p>		
Zos. 13	Do you utilize a Parallel Sysplex configuration at your site to provide for High Availability for mainframe services? If so, please briefly describe the configuration		
	<p style="background-color: #FFFF00; padding: 2px;">Answer:</p>		

Unisys Mainframe Operating System Based Server Workload Information

Uny. 1	Total number of Physical Mainframe Computers	1	1
Uny. 2	Total number of Mainframe CPU's	1	1
Uny. 3	Total Number of Cabinets or Cabinet Equivalents of Equipments	1	1
Uny. 4	Total number of Installed MIPS	1	1
Uny. 5	Total number of Installed MIPS (12 months ago)	1	1
Uny. 6	Total number of Installed MIPS (24 months ago)	1	1
Uny. 7	7X24 Utilization Percentage of the Installed MIPS	%	%
Uny. 8	7X24 Utilization Percentage of the Installed MIPS (12 month ago)	%	%
Uny. 9	7X24 Utilization Percentage of the Installed MIPS (24 month ago)	%	%
Uny. 10	Average annual growth rate of installed MIPS projected for the next 5 years	%	%
Uny. 11	Total amount of Usable Storage in Gigabytes Installed to Support above workload	1	1
Uny. 12	Please provide the make, model & quantities of Unisys Mainframe computers and CPU's installed		

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center
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Answer:

Data Storage Workload

Str. 1	Total Amount of Direct Attached Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	1	50%	1	50%
Str. 2	Total Amount of SAN or NAS Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	1	50%	1	50%
Str. 3	Total Amount of Data Storage in Gigabytes Associated with the Windows, Unix, Linux and Netware Server Environments (Usable Storage)	2	100%	2	100%

Str. 3.1 What is the expected annual growth rate of the storage specified in Str.3
Please provide the answer in either a percentage or absolute number of GB

Str. 4	Total Amount of Direct Attached Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	1	50%		
Str. 5	Total Amount of SAN or NAS Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	1	50%	1	50%
Str. 6	Total Amount of Data Storage in Gigabytes Associated with the IBM Mainframe Environment (Usable Storage)	2	100%	2	100%

Str. 6.1 What is the expected annual growth rate of the storage specified in Str.6
Please provide the answer in either a percentage or absolute number of GB

Str. 7	Total Amount of Direct Attached Storage in Gigabytes Associated with the Unisys Mainframe Environment (Usable Storage)	1	50%		
Str. 8	Total Amount of SAN or NAS Storage in Gigabytes Associated with the Unisys Mainframe Environment (Usable Storage)	1	50%	1	50%
Str. 9	Total Amount of Data Storage in Gigabytes Associated with the Unisys Mainframe Environment	2	100%	2	100%

Str. 9.1 What is the expected annual growth rate of the storage specified in Str.9
Please provide the answer in either a percentage or absolute number of GB

Str. 10 Please list top three hardware vendors for Storage Management Systems

#	Vendor
0	Example: IBM, EMC
1	
2	
3	

Add more rows if necessary

Str. 11 Is there Synchronous Replication? If so, Please explain applications and configurations. Please explain any distance limitations
Answer:

Str. 12 Is there Asynchronous Replication? If so, Please explain applications and configurations
Answer:

Data Center Network (LAN, MAN, SAN and WAN) Workload Information

Net. 1	Total Number of LAN Connections (Ethernet Ports) Installed in the Data Center (Switch Ports whether utilized or not)	1			
Net. 2	Total Number of SAN Connections (Fiber Channel Ports) Installed in the Data Center (Switch Ports whether utilized or not)	1	1	1	1
Net. 3	Total Number of WAN or MAN Connections with Bandwidth greater than T1 Speed (1.544 mb/s)- exclude internet connections)	1	1	1	1
Net. 4	Total Number of WAN or MAN Connections with Bandwidth at T1 Speed (1.544 mb/s) - exclude internet connections)	1	1	1	1
Net. 5	Total Number of WAN or MAN Connections with Bandwidth less than T1 Speed (1.544 mb/s) - exclude internet connections)	1	1	1	1
Net. 6	Total Number of Internet Access Connections with Bandwidth equal to T1 Speed (1.544 mb/s)	1	1	1	1
Net. 7	Total Number of Internet Access Connections with Bandwidth equal to DSL Speed	1	1	1	1
Net. 8	Total Number of Internet Access Connections with Bandwidth greater than DSL Speed	1	1	1	1
Net. 9	Is there a MAN Connection to another Data Center or to the Disaster Recovery Site?	Yes/No	1	1	1

Answer:

Net. 10	Total Number of Traditional PBX's (Each cabinet equals one unit, eg. PBX takes up 3 cabinets, enter 3)	1			
Net. 11	Total Number of other Legacy Voice Equipment (IVR's VRU...)	1	1	1	1
Net. 12	Total Number of VOIP Servers	1	1	1	1

Workload Input Sheet

Data Element Identifier	Description of Data to Be Provided	Physically Located within the Data Center	Not Physically Located within the Data Center
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Workload Input Sheet				
Data Element Identifier	Description of Data to Be Provided		Physically Located within the Data Center	Not Physically Located within the Data Center
Service Levels				
Sla. 1	Are there formal service level agreements in place with the users (Yes/No)			
Sla. 2	What level of availability is specified in the SLA for Mainframe Applications? If there is no SLA, what level do the users expect?	Mission Critical Apps. Important Apps. Other Apps.	ex. 99.5% No SLA	ex. 99.5%
Sla. 3	What level of availability is specified in the SLA for non-Mainframe Applications? If there is no SLA, what level do the users expect?	Mission Critical Apps. Important Apps. Other Apps.	ex. 99.5% No SLA	ex. 99.5%
Sla. 4	Does the availability specified in Sla.2. refer to business hours or 7 x 24?		ex. 7/24	ex. 7/24
Sla. 5	When a problem occurs, what is the mean time to restore (MTTR) services that the users expected	Severity 1 Severity 2 Others	ex. 2 hours ex. 8 hours ex. 3 days	ex. 2 hours ex. 8 hours ex. 3 days
Disaster Recovery				
Dis. 1	In the event of a disaster what is the Recovery Point Objective (RPO) for applications and services RPO = how much is it acceptable to lose in a DR situation. RPO of 24 hours means last 24 of updates may be lost <i>If this is left blank on the survey Gartner will assume 24hr RPO, implying daily backups to tape and rotation of the tapes to a secure or off-site location. If there are no applications that fit the category, please enter NONE</i>	Mission Critical Apps. Important Apps. Other Apps.	ex. 15 mins ex. 24 hours ex. 1 week	ex. 15 mins ex. 24 hours ex. 1 week
Dis. 2	In the event of a disaster what is the Recovery Time Objective (RTO) for applications and services RTO = how quickly must an application or services be restored in the event of out outage <i>If this is left blank on the survey Gartner will assume a 10 days RTO is acceptable</i> <i>If this is left blank on the survey Gartner will assume a 10 days RTO is acceptable. If there are no applications that fit the category, please enter NONE</i>	Mission Critical Apps. Important Apps. Other Apps.	ex. 2 hours ex. 72 hours ex. 2 weeks	ex. 2 hours ex. 72 hours ex. 2 weeks
Dis. 3	What is the main Disaster Recovery Strategy for this data center? Answer: Example Options Include: 1. External service provider, e.g. SunGard 2. Reciprocal agreement with another agency 3. Self recovery i. Hot site (immediately available) ii. Warm site (available within 3 days) iii. Cold site (available more than three days but less than 1 week) iv. Other v. No D/R			
Dis. 4	How often is the Disaster Recovery System Tested Answer:			
Dis. 5	Please describe any Disaster Recovery Contracts in Place? Who is the contract with? What are the fixed annual costs associated with these contracts? Answer:			

Facility Input Sheet
Data Importance for Analysis - Color Coding

Note: Please input data in data in the following Cells with color coding identified in the following table

	Important
--	-----------

Facility

- Fac. 1 How large is the computer room and related rooms (Some Data Centers use multiple rooms to host the auxiliary infrastructure to support Data Center. For example, a data center can use a separate room for telecom infrastructure, cooling and electrical equipment (UPS, generator, switch gear). We are looking for the total amount of space occupied by the entire data center.) sq. ft.
- How large are the computer room's that are used to house the IT equipment? This would just be the space that is made up by rooms that are used to IT equipment (Server, Storage, Network Devices, etc) If UPS or cooling equipment is also housed in the same room, then count this space as well.
- Fac. 2 Is the computer room and related space referred to in Fac.1 a raised floor environment? yes or no
- Fac. 3 What is the height of the raised floor? inches
- Fac. 4 Please describe the building that contains the data center and how the data center fits into the building.
- Example: The computer room is contained on the 4th floor of the Orlando field office. It is not really a data center. It is just an old conference room where we installed some raised floor and computers several years ago.*
- Fac. 5 Is data center housed in a facility specifically designed to house a data center or is it built out in standard office space?
- Example: It is not really a data center. It is just an old conference room where we installed some raised floor and computers several years ago.*
- Fac. 6 Is there sufficient room available to expand the computer room portion of the data center if and when this is required? If so by how much could the computer room space be expanded.
- Example: There is enough space to increase the computer room space by approximately 50%*
- Fac. 7 Is there sufficient room to install a new generator or new UPS systems if these are required?
- Example: There is enough space to increase the computer room space by approximately 50%*
- Fac. 8 What portion of the data center floor space is currently occupied?
- Example: About 70% of the 50,000 Sq ft. space is occupied by racks. However, the racks themselves are probably approximately 70% full. Also 20% of data center space is used by cooling and telecom equipment*
- Fac. 9 What is the age of the Data Center. Please specific for each of the various components. Please also indicate the remaining years of useful life that you expect to receive from each component before a major upgrade or replacement expenditure is required. If further explanation is required, feel free to provide it in the space below
- | | | Age | | Expected Remaining Life | |
|----------|-----------------------------|-----|-------|-------------------------|-------|
| Fac. 9.1 | Age of Building | | Years | | Years |
| Fac. 9.2 | Generator | | Years | | Years |
| Fac. 9.3 | Uniterruptable Power Supply | | Years | | Years |
| Fac. 9.4 | Cabling Plant | | Years | | Years |
| Fac. 9.5 | Chiller | | Years | | Years |
| Fac. 9.5 | Air Handlers | | Years | | Years |
- Further explanation if required.*

Facility Input Sheet

Power

- Pwr. 1 Does the computer room have a dedicated connection to the power company or does it utilize a connection that is shared with the rest of the building. What is the size of this utility company circuit? What is the current utilization of this circuit? What utility company provides your power?
- Example: The computer room shares 1000 amp circuit with 4 other tenants in the building. The building manager had indicated that it is only 20% utilized. Florida Power Company is our utility vendor.*
- Pwr. 2 Is there an onsite utility company substation or transformer that supplies power to the data center? If so, please describe the setup.
- Example 1: No, Our computer room only has a single feed from Florida Power Company*
- Example 2: Yes, our data center has a dedicated utility company substation. It provides a maximum of 200 amp power*
- Pwr. 3 Does the data center have a redundant connection to the utility through a second substation/transformer? If so, please describe this set up.
- Example: We have an onsite transformer. It is managed by Florida Power.*
- Pwr. 4 Is the data center protected by back up generators? If so, how many and what is the capacity of these generators?
- Example: Yes, we have a backup Generator. It is a diesel power Caterpillar 1.2 MW generator*
- Pwr. 5 Is the data center protected by redundant back up generators? If so, please describe the redundancy
- Example 1: No we do not have redundant generators.*
- Example 2: Yes, Options: Single or non-redundant, n+1 generators*
- Pwr. 6 If there is a generator please describe any regular testing procedures associated with it.
- Example: We contract with a vendor that comes in and performs a monthly start up test and does refueling. We do not test actually transferring the data center load to the generator.*
- Pwr. 7 Is all of the IT Workload (Server, Storage and Network) and related equipment protected by Uninterruptible Power Supplies? If not, please describe what equipment is and is not protected by UPS's
- Example: All of the IT equipment is protected by the UPS, except the Test Lab which is not on the UPS. The test lab has about 50 servers and 10 network switches in it.*
- Pwr. 8 What electrical loads is the generator sized and configured to take on in the event of a power failure? In general we would expect it to completely power the protected load connected to the UPS, support required cooling facilities (chillers, CRAC units, etc) and provide basic lighting. Please indicate if this is the case and explain any variations.
- Example: The generator is sized to support the entire IT load and cooling system necessary for the data center.*
- Pwr. 9 Are these UPS's configured in a redundant fashion (meaning that if one UPS failed, is the other engineered to pick up the load from the failed one). If so, please describe how this works.
- Example: We have UPS redundancy. There are two 900kva UPS that each could support the entire data center load. Under normal circumstances they both carry a load equal to about 40 percent of their capacity?*
- Pwr. 10 Is power distributed to the IT equipment through Power Distribution Units (PDU's) or directly from circuit breakers? If so, what is the number and capacity of the PDU's?
- Example: Power is distributed through 4 75kw PDU's*

Facility Input Sheet

Pwr. 11 Does your data center provide redundant power paths (redundant UPS's and PDU's) which allows critical IT equipment to have two different power supplies which in turn are plugged into separate power paths? If so, please describe how thi works.

Example: In general we do not have PDU redundancy. However a couple of racks that contain critical servers have been wired to take electrical feeds from two different PDU's

Pwr. 12 Does your data center provide redundant power paths (redundant UPS's and PDU's) which allows critical IT equipment to have two different power supplies which in turn are plugged into separate power paths? If so, please describe how thi works.

Example: No, we do not have redundant power paths

Security and other Critical Systems

Sec 1 Is the computer room secured by an electronic card key system? If so who has the ability to access this space?

Example: No card key access. Physical keys are required. 11 members of the data center staff have keys

Sec 2 Is there a 7x24 guard and/or video surveillance of who goes in and out of the computer room. Please describe any security access procedures that are in place.

Example: Yes there is a 7x24 externally contracted guard. All visitors are required to show ID and be escorted by data center personnel

Sec 3 Please describe the fire protection systems installed in the data center. Is there a dry or chemical system? Are there wet systems? Are there smoke detectors both above and below the raised floor?

Example: There is an old Halon fire suppression system. There is also a backup wet system. There are smoke detectors only above the raised floor.

Sec 4 Please describe the flood protection systems installed in the data center. Are there water detectors below the raised floor?

Example: No water detection system

Sec 5 How are the fire, flood and other critical system alarmed? If an alarm goes off how are personnel notified of the alarm situation?

Example: All systems are wired to central alarm board that is monitored by 7x24 guard

Cooling

Coo. 1 What is the capacity of the cooling plant and how many of these are there? Usually this is expressed in "Tons". Wha kind of cooling system is it?

Example: We use a chilled water system. There is one chiller with a capacity of 150 Tons.

Coo. 2 Is the cooling plant dedicated to the data center or shared by other functions, tenants in the building?

Example: No, the cooling plant is shared with other tenants in the building

Coo. 3 How may CRACs (Computer Room Air Conditioner) (Air Handlers) are installed in the computer room. Are they configured for redundancy? Please explain?

Example: We have two air handlers installed. Either one of these air handlers can keep the data center cool

Coo. 4 Is there a special cooling system for the data center or does it just rely on the normal system that heats and cools the rest of the building. If the latter is the case, does cooling for the data center shut down at the end of the day and on weekends or does it run 7x24.

Example: No. The data center relies on the normal system. The cooling for data center will be shut down at the end of the day

Coo. 5 Explain any redundancy built into the cooling system. Are there redundant chillers (or equivalent)? Are there redundant cooling distribution paths (pipes and feeds from chillers) and pumps? Are there redundant Air Handlers? Please explain redundancy provided

Facility Input Sheet

Coo. 6 What is the cooling capacity of the Chillers (or equivalent). Typically this is expressed in "tons". What percentage of the capacity is allocated to the data center vs. to other uses.

Coo. 7 How many Air Handling Units are in the data center? What is the capacity of each unit?

Network

Net. 1 Is there fiber optic connectivity to the building? Are there diverse fiber entrances? Are there diverse fiber connections back to more than one telecom company central office?

Example: There is fiber optic connectivity through AT&T/BellSouth. There is only one fiber entrance/path.

Net. 2 How many and which telecom vendors currently provide telecom services in the data center?

Example: AT&T and MCI both provide services in the data center

Net. 3 Describe any data center LAN redundancy. Are critical servers outfitted with multiple LAN cards that are then plugged into multiple LAN switches?

Example: There is no LAN switch redundancy. Servers plug into a single LAN switch

Net. 4 Describe any data center WAN/MAN redundancy. Are there multiple circuits so that the failure of a single circuit will

Example: The data center has two high speed frame relay connections to the WAN. If one fails the other can carry the traffic until service is restored

Staffing

Stf. 1 Is there a 7x24 operations staff assigned to monitor the data center? If so please explain the shifts and the number o resources that are involved in providing this services? If not, please explain how off hour support and trouble resolution is handled.

Answer:

Geographic Risks

Geo. 1 Is the data center located in an area that is prone to natural disasters such as flooding, earthquakes, hurricanes, tornadoes or wild fires? If so, has the facility been hardened against these risks?

Answer:

Geo. 2 How reliable is the local power grid. How many outages a year are there at the facility? Do these outages typically impact the data center?

Answer:

Facility Input Sheet

Geo. 3 Is the data center located in a portion of the building that would be particularly susceptible to flood or water damage, such as in a basement on the first floor?

Answer:

Geo. 4 Is the building properly grounded to be able to survive lightning strikes without damage to sensitive IT equipment?

Answer:

Facility Costs

Fcs. 1 Are the current data center facilities owned by the State or Leased/Rented?

Answer:

Fcs. 2 If lease/rented, what is the annual cost associated with renting or leasing the current data center facilities?

Answer:

Fcs. 3 How old is your Data Center infrastructure (Non-IT Infrastructure such as power, facilities etc.)?

Answer:

Fcs. 4 What are the annual costs associated with maintaining the current data center facility

#	Description	Annual Costs
1	MEP (Mechanical, Electrical, Power) Equipment Maintenance	
2	Security officer/guard staffing costs	
3	Generator maintenance and fuel costs	
4	Annual building repair and maintenance costs	
5	Cleaning/Janitorial costs	
6	Projected Data Center Upgrade Costs/ Budgets	
7	_____	
8	Other costs	

Known Issues or Existing Data Center

Kno. 1 Have you conducted an assessment of your data center facility in the past 5 years (either in-house or by a external service provider)

Answer:

Kno. 2 If so, are there any known issues regarding facility, power, security, cooling?

Answer:

Kno. 3 Please describe the annual costs/budgets for upgrades of these facilities?

Answer:

		Definitions of Key Terms
Worksheet	Key Terms	Definitions
Workload and Personnel	Virtualization	In computing, virtualization means to create a virtual version of a device or resource, such as a server, storage device, network or even an operating system where the framework divides the resource into one or more execution environments. Even something as simple as partitioning a hard drive is considered virtualization because you take one drive and partition it to create two separate hard drives. Devices, applications and human users are able to interact with the virtual resource as if it were a real single logical resource. Server Virtualization is the partitioning a physical server into smaller logical servers.
Workload and Personnel	Physical Server	A physical servers is a computer or device on a network that manages network based resources. For example, a file server is a computer and storage device dedicated to storing files. A user on the network can store files on the server. A print server is a computer that manages one or more printers, and an applications server is a computer that provides applications. A database server is a computer system that processes database queries. Physical server may be dedicated, meaning that they perform no other tasks besides their server tasks or they may be partitioned into multiple Logical Servers.
Workload and Personnel	Logical Server	A logical server is an instance of an operating system running on a Physical Server. Normally, a Physical Server (not running Virtualization software) will contain only one Logical Server. A Physical Server running Virtualization software may contain multiple Logical Servers. Virtualization is a method of partitioning a physical server computer into multiple logical servers that each has the appearance and capabilities of running on its own dedicated machine. Each partition is its own Logical Server which runs its own instance of a full-fledged operating system. Each logical server can be independently rebooted. The practice of partitioning a single server so that it appears as multiple servers has long been common practice in mainframe computers, but has seen a resurgence lately with the development of virtualization software and technologies for other architectures. Virtualization tools from VmWare, Microsoft and Novell/Zen are typically used to create logical servers.
Workload and Personnel	Direct Attached Storage (DAS)	Direct attached storage (DAS) is the term used to differentiate non-networked storage from SAN and NAS. In direct attached storage, the hardware is connected to an individual server. There may be more than one server but storage for each server is managed separately and cannot be shared.
Workload and Personnel	SAN (Storage Area Network)	Storage Area Network (SAN) is a high-speed sub network of shared storage devices. A storage device is a machine that contains nothing but a disk or disks for storing data. A SAN's architecture works in a way that makes all storage devices available to all servers on a LAN or WAN. As more storage devices are added to a SAN, they too will be accessible from any server in the larger network. In this case, the server merely acts as a pathway between the end user and the stored data. Because stored data does not reside directly on any of a network's servers, server power is utilized for business applications, and network capacity is released to the end user.
Workload and Personnel	NAS (Network Attached Storage)	A network-attached storage (NAS) device is a server that is dedicated to nothing more than file sharing. NAS does not provide any of the activities that a server in a server-centric system typically provides, such as e-mail, authentication or file management. NAS allows more hard disk storage space to be added to a network that already utilizes servers without shutting them down for maintenance and upgrades. With a NAS device, storage is not an integral part of the server. Instead, in this storage-centric design, the server still handles all of the processing of data but a NAS device delivers the data to the user.
Workload and Personnel	Workstations As Servers	Whether to count a workstation as a server depends on what the device is doing. If you are using a workstation as a server, i.e. if it is running a NOS and providing services like a server such as file/print, e-mail, or application hosting, count it as a server. Note that though it is recognized that some organizations make cheap, single purpose servers out of devices like this, Gartner does not recommend this as a best practice. If the workstation is running a NOS, but is not being used as a server, then don't count it as a server. An example of this would be using someone's workstation as a server just to share documents.
Workload and Personnel	Appliances vs. Servers	Appliance: A self-contained computer system specialized for network use. Its applications are pre-installed, and access to setup and configuration is via a Web browser. Server appliances may provide a single application or several applications; for example, a single device may provide file server, Web server, mail server and firewall capabilities. There is a recognized difference between proprietary Appliances and other Servers. Servers should be counted as servers, but Appliances should not. Costs for appliances, however, should be included.
Workload and Personnel	Dual Core Processors	Dual core processors should be counted as 2 processors for one server
Workload and Personnel	Print Server	A print server, or printer server, is a computer or device to which one or more printers are connected, which can accept print jobs from external client computers connected to the print server over a network. The print server then sends the data to the appropriate printer that it manages.
Workload and Personnel	File Server	A file server refers specifically to a computer on which a user can map or mount a disk drive or directory so that the directory appears to be on the machine at which the user is sitting. A file server refers specifically to a computer on which a user can map or mount a disk drive or directory so that the directory appears to be on the machine at which the user is sitting.
Workload and Personnel	MIPS	The number of MIPS (million instructions per second) is a general measure of computing performance and, by implication, the amount of work a larger computer can do. For large servers or mainframes, MIPS is a way to measure the cost of computing: the more MIPS delivered for the money, the better the value. Historically, the cost of computing measured in the number of MIPS has been reduced by half on an annual basis for a number of years.
Workload and Personnel	Cluster	A computer cluster is a group of loosely coupled computers that work together closely so that in many respects they can be viewed as though they are a single computer. The components of a cluster are commonly, but not always, connected to each other through fast local area networks. Clusters are usually deployed to improve performance and/or availability over that provided by a single computer, while typically being much more cost-effective than single computers of comparable speed or availability.
Workload and Personnel	MTTR	The average time it takes to repair a failed component.
Workload and Personnel	Usable Storage	When counting storage capacity, include installed storage minus any RAID overhead. For example striped RAID capacity is generally 80% of total capacity whereas replicated capacity (Mirroring) is generally 50% of installed capacity. Usable storage is the amount of storage that is available to the operating system on the server.
Workload and Personnel	CPW (Commercial Processing Workload)	CPW (Commercial Processing Workload) is a measure used in IBM's AS/400 and iSeries line of computers to compare computer system models in terms of how efficiently each system processes a typical workload of commercial applications involving frequent database access. The CPW also represents a test of database commitment control, concurrent data access by many users, and a range of updating complexity.
Workload and Personnel	X86	The Servers that use the processors from Intel, AMD, VIA etc. belong to this category
Workload and Personnel	Raised Floor	A raised floor (also raised flooring) is a type of floor used in office buildings with a high requirement for servicing, such as IT data centers, to carry cables, wiring, electrical supply and sometimes air conditioning or chilled water pipes. Additional structural support and lighting are often provided when a floor is raised enough for a person to crawl or even walk beneath.
Workload and Personnel	LAN, WAN, MAN	Local Area Network, Wide Area Network, Metropolitan Area Network
Workload and Personnel	PBX	Private Branch eXchange

Definitions of Key Terms		
Worksheet	Key Terms	Definitions
	VOIP	Voice Over IP
	UPS	Uninterruptible Power Supply
	DNS	Domain Naming Service
	DHCP	Dynamic Host Configuration Protocol
	AD	Active Directory
	UPS	Uninterruptible Power Supply



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