



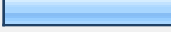




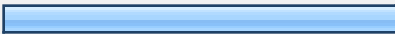





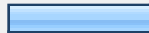
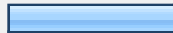
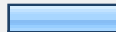
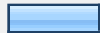



Security in the Virtualized Data Center

1. Which of the following <u>SERVER</u> operating systems does your organization use? (check all that apply)				
			Response Percent	Response Count
AIX			21.8%	116
Apple OS X Server			14.3%	76
Debian			6.8%	36
HP/UX			21.7%	115
Red Hat Enterprise Linux			45.8%	243
Solaris			37.1%	197
SUSE Linux Enterprise Server			15.4%	82
Ubuntu			11.5%	61
Windows Server			90.6%	481
Other (please specify)			12.2%	65
			<i>answered question</i>	531
			<i>skipped question</i>	0

2. Approximately what percentage of your CURRENT server population is running a single instance OS on a physical							
Current							
	None	less than 10%	10%	20%	30%	40%	50%
Percentage of CURRENT servers that are single OS:	1.1% (6)	5.9% (31)	2.5% (13)	4.6% (24)	6.9% (36)	5.4% (28)	14.2% (74)





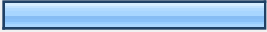
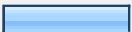

3. Which of the following virtualization Hosts and Hypervisors are in use within your organization? (check all that apply)

		Response Percent	Response Count
AIX LPAR and/or WPAR		12.1%	62
Citrix XenServer		17.5%	90
HP-UX vPars and/or nPars		7.0%	36
IBM System z		9.7%	50
Microsoft Hypervisor		25.5%	131
Novell SUSE Xen-based Virtualization		6.6%	34
Red Hat Virtualization		10.3%	53
Solaris Containers		10.1%	52
Solaris xVM		5.6%	29
VMware ESX		60.3%	310
VMware ESXi		31.1%	160
None		8.8%	45
Other (please specify)		6.8%	35
		<i>answered question</i>	514
		<i>skipped question</i>	17

4. What is the AVERAGE number of guest operating systems per virtual host/hypervisor? (Estimate if necessary)			
		Response Percent	Response Count
2-3		21.3%	109
4-6		25.0%	128
7-9		16.6%	85
10-12		13.5%	69
13-15		4.7%	24
More than 15		11.0%	56
No Virtual Servers		7.8%	40
answered question			511
skipped question			20

5. Please estimate what percentage of your servers will be VIRTUALIZED by the end of 2009 and 2010? (Choose one answer)							
2009							
	None	less than 10%	10%	20%	30%	40%	50%
Percentage of Servers that will be virtual:	7.1% (36)	12.6% (64)	8.3% (42)	11.0% (56)	12.2% (62)	8.3% (42)	11.4% (58)
2010							
	None	less than 10%	10%	20%	30%	40%	50%
Percentage of Servers that will be virtual:	2.4% (12)	6.7% (34)	6.3% (32)	8.9% (45)	8.3% (42)	6.7% (34)	9.5% (48)

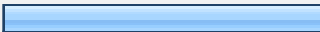

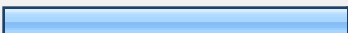
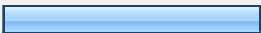
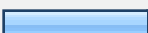

6. If you are among the more than 50% of organizations who are using VMware products, please CHECK ALL THAT APPLY to your organization




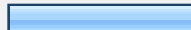
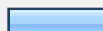

		Response Percent	Response Count
We are using VMware primarily for non-critical systems		23.2%	117
We are using VMware for both critical and non-critical systems		54.2%	273
We are increasing our usage of VMware versus other virtualization technologies		40.7%	205
We are decreasing our usage of VMware versus other virtualization technologies		4.6%	23
We may evaluate other non-VMware virtualization platforms in the future		40.1%	202
Don't use VMware		18.8%	95
Other (please specify)		1.6%	8
		<i>answered question</i>	504
		<i>skipped question</i>	27

7. Please respond to the following statements regarding security and compliance of your physical servers (one OS per device) compared to your virtual servers.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Response Count
Our PHYSICAL servers are completely secured from unauthorized access.	3.6% (18)	7.2% (36)	8.9% (44)	52.1% (259)	28.2% (140)	497
Our VIRTUAL servers are completely secured from unauthorized access.	3.2% (16)	7.0% (35)	18.1% (90)	51.5% (256)	20.1% (100)	497
Our PHYSICAL servers are completely compliant with the regulations that govern us.	2.2% (11)	4.0% (20)	16.5% (82)	50.5% (251)	26.8% (133)	497
Our VIRTUAL servers are completely compliant with the regulations that govern us.	3.0% (15)	4.0% (20)	27.8% (138)	43.3% (215)	21.9% (109)	497
	<i>answered question</i>					497
	<i>skipped question</i>					34

8. When deploying virtualized systems, which of the following are potential concerns to you? (Select all that apply)

		Response Percent	Response Count
External threats		48.7%	242
Internal threats		45.5%	226
Auditing of administration, configuration and other activities		52.7%	262
Overall compliance of virtualized systems with regulations (SOX, HIPAA, PCI-DSS)		39.4%	196
No specific concerns at this time		21.7%	108
Other concern/s (please specify)		5.2%	26
		<i>answered question</i>	497
		<i>skipped question</i>	34

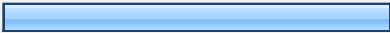
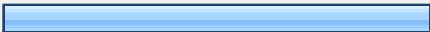

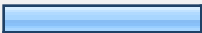
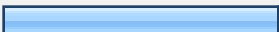
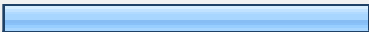
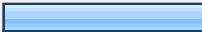


9. How are security issues affecting your plans to deploy virtualization within your organization? (Choose one)			
		Response Percent	Response Count
We are not adopting virtualization because of security concerns.		3.6%	18
We are proceeding cautiously with virtualization due to security concerns.		26.6%	132
We have no concerns about security and are proceeding to virtualize systems.		24.5%	122
We have some concerns about security but we are proceeding anyway.		28.2%	140
I'm not sure/don't have access to this information.		14.3%	71
Other (please specify)		2.8%	14
		<i>answered question</i>	497
		<i>skipped question</i>	34



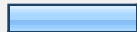
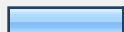
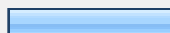
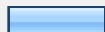

**10. Rank each of the issues below on their likelihood of slowing down your virtualization deployment plans?
SCALE: 1 = will not slow down deployment; 5 = will slow down deployment)**

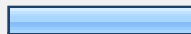

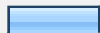


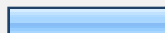
	1 Will not slow deployment	2 Unlikely to slow deployment	3 Unsure	4 Could slow deployment	5 Will slow deployment	Response Count
Security issues	18.3% (90)	26.6% (131)	12.4% (61)	30.4% (150)	12.4% (61)	493
Compliance issues	18.1% (89)	24.1% (119)	17.4% (86)	31.6% (156)	8.7% (43)	493
Operations and Process Issues	12.0% (59)	25.2% (124)	17.4% (86)	36.3% (179)	9.1% (45)	493
Vendor Selection	27.8% (137)	33.3% (164)	21.3% (105)	15.2% (75)	2.4% (12)	493
Staffing limitations	14.6% (72)	28.8% (142)	19.3% (95)	28.4% (140)	8.9% (44)	493
No compelling ROI.	22.1% (109)	23.9% (118)	29.6% (146)	16.6% (82)	7.7% (38)	493
No budget	14.0% (69)	17.0% (84)	20.9% (103)	26.6% (131)	21.5% (106)	493
Other issues? (please comment)						5
answered question						493
skipped question						38

11. In general, across your virtual and physical UNIX/Linux systems, how are Access Control and Security Policies enforced?					
	Will continue to use	Plan to use in the future	Plan to stop using	Do not use / Have no plans to use	Response Count
Access Control Lists	68.0% (330)	10.9% (53)	1.4% (7)	19.6% (95)	485
Role-Based Access Control	55.7% (270)	20.6% (100)	1.9% (9)	21.9% (106)	485
Sudoers	41.4% (201)	11.8% (57)	4.9% (24)	41.9% (203)	485
Active Directory	64.9% (315)	12.6% (61)	2.5% (12)	20.0% (97)	485
LDAP Directory	57.1% (277)	12.8% (62)	2.9% (14)	27.2% (132)	485
NIS	20.2% (98)	10.7% (52)	9.5% (46)	59.6% (289)	485
Etc/password	48.7% (236)	8.7% (42)	11.3% (55)	31.3% (152)	485
Host-based Intrusion Prevention	44.7% (217)	24.1% (117)	2.9% (14)	28.2% (137)	485
Network-based Intrusion Prevention	55.3% (268)	21.0% (102)	2.9% (14)	20.8% (101)	485
Host-based Data Leak Prevention	25.4% (123)	29.1% (141)	3.1% (15)	42.5% (206)	485
Network-based Data Leak Prevention	32.8% (159)	26.8% (130)	2.7% (13)	37.7% (183)	485
Other (please specify)					10
<i>answered question</i>					485
<i>skipped question</i>					46







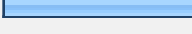
12. For the following statements, which of these apply or are TRUE for your organization. (Please check all that apply.)

		Response Percent	Response Count
We don't share root password access to any of our systems.		59.5%	287
For our PHYSICAL servers, we can log and audit all actions and commands performed.		65.8%	317
For our VIRTUAL servers, we can log and audit all actions and commands performed.		52.1%	251
We have never failed a compliance audit.		30.1%	145
We are very satisfied with our logging and auditing reports for compliance.		42.1%	203
For terminated employees, we can immediately shut off access to ALL their UNIX and Linux accounts.		56.2%	271
We are very confident that we have no orphaned accounts on our servers.		30.7%	148
We are very satisfied with our ability to manage privileged user accounts.		49.8%	240
None of these are true for our organization.		8.7%	42
		Comment?	4
		answered question	482
		skipped question	49

13. Which of the following most accurately describes your role in your organization?			
		Response Percent	Response Count
IT Executive		6.2%	30
IT Director		7.5%	36
IT Manager		19.3%	93
Security, systems, or network architect		17.5%	84
System administrator		24.9%	120
IT Consultant		14.6%	70
Other		10.0%	48
	Other (please specify)		43
	answered question		481
	skipped question		50

14. How many servers do you have in your organization overall? Please include both virtual and single OS servers in your estimate.			
		Response Percent	Response Count
Less than 50		28.1%	135
50-99		12.7%	61
100-249		13.7%	66
250-499		13.3%	64
500-999		8.1%	39
More than 1000		24.1%	116
	answered question		481
	skipped question		50

15. Approximately how many people are in your organization, a total of all sites?

		Response Percent	Response Count
Less than 250		24.7%	119
250-499		10.6%	51
500-999		5.8%	28
1000-2499		12.5%	60
2500-4999		8.7%	42
5000-10,000		8.7%	42
More than 10,000		28.9%	139
		<i>answered question</i>	481
		<i>skipped question</i>	50