



## Automating Repetitive IT Tasks: A Survey of Desktop and Server Management

### ■ INTRODUCTION

Corporate IT departments spend significant time and resources managing their server and desktop computers. Many of these tasks – patch management, inventory, new machine deployment, and many others – are very repetitive and time consuming. IT groups, especially those in the mid-market, are looking for cost savings through automating these tasks.

The following report is based on a survey conducted in June 2006 to examine the current state of task automation for desktop and server management tasks. This report examines current levels of adoption of task automation for a range of systems management tasks.

### ■ SURVEY METHODOLOGY

An independent database of IT professionals was emailed and invited to participate in a Web survey conducted via Zoomerang. There were a total of 249 respondents, representing a variety of IT functions including hands-on professionals, team managers, and business owners with many participants indicating that they had multiple roles. Respondents were not compensated for participating in this survey but were offered a copy of the final report.

This survey was sponsored by KACE, the leader in affordable IT automation appliances. The sponsor was not revealed to participants.

### ■ DETAILS

#### Current challenges with IT task automation

Participants were asked what their greatest challenge was in automating network or systems management tasks. Only 5 participants (2%) stated that they did not have any challenges. Among those with challenges, cost of commercially available tools was cited as the main challenge. See **Figure A** for a breakdown of responses. Note that *tools* refers to commercially available automation tools.

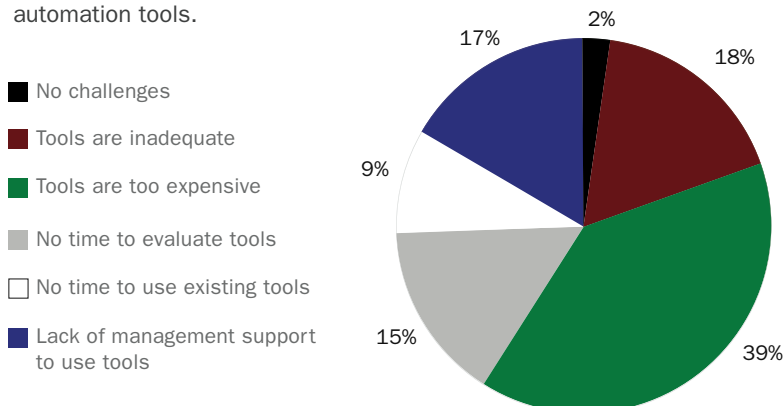


Figure A: Greatest Challenge in IT Task Automation

### ■ SUMMARY OF FINDINGS

- IT task automation remains a concern for participants with only 5 participants (2%) saying they did not face challenges with automation. The biggest challenge cited was the cost of commercial tools.
- Mid-size and small companies are significantly behind larger organizations in their adoption of IT task automation. Large companies cited 82% of tasks automated compared to 54% for mid-size companies and 29% for small organizations.
- Patch Management is the task most automated by participants and is also the task participants are most likely to automate in a new environment.
- 81% of the companies reported having an Application Installation/Usage Policy, but only 34% are using automated tools to enforce the policy, significantly lower than any other task surveyed.
- Participants cited ease of maintenance and speed to deployment as the most compelling benefits of an IT Server Appliance.
- IT professionals at mid-size companies are most frequently required to work outside of regular hours – 87% of IT professionals in mid-size companies work evenings, weekends, or late at night compared to 80% at large companies and 66% at small companies



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### ■ IT TASK AUTOMATION ADOPTION DRAMATICALLY HIGHER IN LARGER ORGANIZATIONS

Participants were asked specific questions about automation for the following IT tasks: Patch Management, Software Inventory, Hardware Inventory, Security Enforcement, Software Distribution, New Machine Deployment, and Help Desk Ticket Management. For this survey, we defined small organizations as those with less than 100 server or desktop computer nodes, midsize companies as those with 100-5000 nodes, and large companies as those with more than 5000 nodes.

For the tasks specified, large organizations have a very high level of IT automation – 82%. This is significantly higher than reported by those in mid-size organizations at 54%. Small organizations show a very low level of automation with only 29% of these tasks automated. The task most frequently automated among all participants was Patch Management. The least frequently automated task was New Machine Deployment.

In general, each individual IT task tended to follow the trend of higher levels of adoptions in larger organizations. However, there were two clear exceptions:

1. Software Distribution was heavily automated in large organizations. At 94% it was the most automated task. For small organizations this was exactly the opposite and was the second least automated task at 18%.
2. Security Enforcement showed the opposite trend of adoption in relation to company size. At 51%, security enforcement was the most automated task for small companies, yet this same task was the second least automated among large organizations.

See **Figure B** for a breakdown of the percentage of respondents who reported automating specific tasks by company size.

	Patch Management	Software Inventory	Hardware Inventory	Security Enforcement	Software Distribution	New Machine Deployment	Helpdesk Ticket Management
All	73%	56%	56%	53%	51%	42%	54%
Small	39%	26%	28%	51%	18%	23%	16%
Mid-size	76%	56%	55%	44%	50%	41%	58%
Large	90%	84%	84%	77%	94%	65%	81%

**Figure B: Task Automation by Company Size**



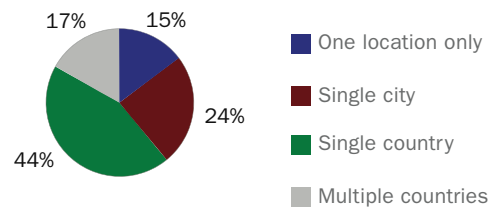
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### IT TASK AUTOMATION AND MID-SIZE COMPANIES

Small and mid-sized companies are significantly behind their larger counterparts in the amount of automation they have undertaken in their organizations. In general, mid-sized companies have begun their automation efforts, but are not yet fully automated. 19% of mid-sized companies have only one or no tasks automated, with Patch Management being the task most frequently automated first. Only 17% had automated all tasks surveyed.

In small companies, there is significantly less automation with 44% having only one or no tasks automated and only 4% being fully automated.

The vast majority of mid-size companies must deal with the overhead of managing server and desktop computers distributed throughout multiple locations. Only 15% of participants from mid-size companies have responsibility for only one location. See **Figure C** for detailed breakdown of locations.



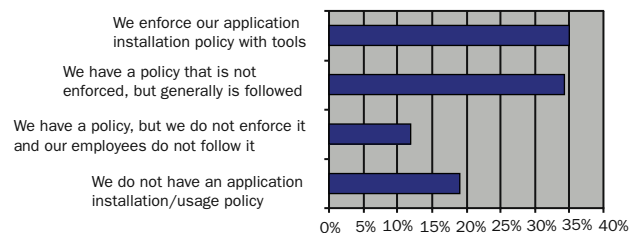
**Figure C:** Geographic Distribution of Servers and Desktop Computers in Mid-size Companies

### PATCH MANAGEMENT CITED AS “IT TASK TO AUTOMATE FIRST”

Automating Patch Management appeared to have the highest return for participants as 42% of respondents ranked it as the task they would automate first if they started a new job at a company that did not automate any of these tasks. This was significantly more than the second highest area, Security Enforcement, at 17% or the third highest, Software Distribution, at 15%.

### APPLICATION INSTALLATION/USAGE POLICY ENFORCEMENT LAGGING IN AUTOMATION

Participants were asked a separate question about application installation and usage policies and enforcement. This was one area where automation lagged behind the results seen in other areas. A majority of companies (81%) report having an Application Installation/Usage Policy for their organization but only 34% of participants reported automating application installation policy enforcement. This is significantly lower than any of the other IT tasks in the survey and an area that should see considerable focus given the compliance requirements now affecting most IT organizations. See **Figure D** for more details.



**Figure D:** Application Installation/Usage Policy Enforcement



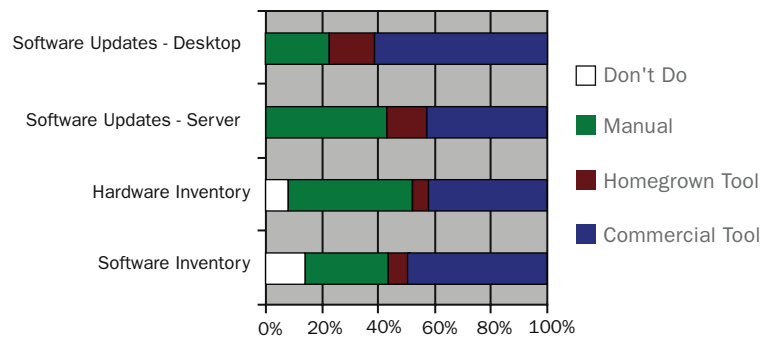
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### ■ IT APPROACH TO TASK AUTOMATION VARIES GREATLY

Among participants, the specific approach used – manual, homegrown tools or commercial tools – for a given IT task was varied. See **Figure E** for a detailed breakdown.

Even between tasks that appeared to have similar requirements, the approach taken was frequently different. Almost twice the number of participants reported manually updating software on servers, 43%, compared to those doing manual Software Updates on desktop computers, 23%. Since the vast majority of both server and desktop computers being managed by participants run Windows (so the tools available for Software Updates are fairly similar) it is surprising to see the large percentage of servers still being updated manually when compared to this same task for desktop computers.

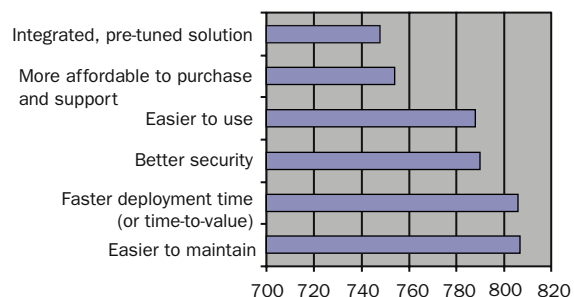
Participants reported that Hardware Inventory was handled manually or not done at all slightly more than half of the time (52%). Software Inventory showed somewhat higher levels of automation with only 43% of participants handling this task manually or not at all. Compared to Software Updates, significantly fewer participants used homegrown tools for doing Inventory. This may reflect the greater difficulty of creating and maintaining homegrown tools for inventory purposes.



**Figure E:** Approach Used for Select IT Task

### ■ IT SERVER APPLIANCES PERCEIVED AS BEING EASY TO MAINTAIN AND FAST TO DEPLOY

Participants were asked questions about IT server appliances, defined as an IT solution where software is fully bundled on server hardware from a single vendor. More than half of participants (62%) owned or planned to purchase an IT server appliance. Participants ranked the potential benefits of an IT appliance, and identified ease of maintenance and speed of deployment as the most compelling benefits. Expectation of benefits seemed to be in line with the benefits delivered as the rankings were consistent between participants who owned appliances and those who did not. See **Figure F** for a breakdown of benefit rankings against a possible score of 1015.



**Figure F:** IT Server Appliance Benefits Ranked



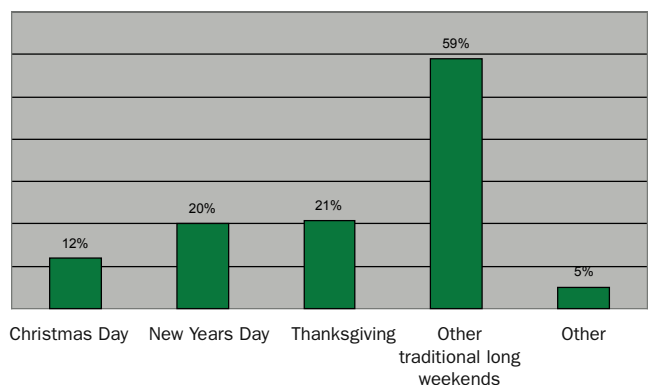
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### ■ ROUTINE IT TASKS CONTINUE TO REQUIRE SIGNIFICANT WORK OUTSIDE OF REGULAR BUSINESS HOURS

Participants were asked a series of questions about when they performed routine, non-emergency, system management tasks like software upgrades, inventory, patch management, and security vulnerability assessment. Only 20% of respondents are able to do non-emergency IT tasks that may interrupt employee access to applications during a standard Monday-Friday work week. Of the remaining 80%, the majority (64%) work evenings and weekends, with 17% reporting that they work late at night.

Mid-size companies required the most work outside of regular hours with only 13% doing routine tasks during the normal work week compared to 20% for large companies and 34% for small companies. Similarly, IT professionals at mid-size companies do more work late at night (25%) compared to 20% at large companies and 13% at small companies.

An incredible 68% of respondents had been required to work a major holiday to do routine IT tasks, and the larger the company, the more holidays worked: only 58% of those at small companies were required to work holidays compared to 68% at mid-size companies and 84% at large companies. Long weekends such as Memorial Day and Labor Day were cited as the most commonly worked holidays. See **Figure G** for more detail.



**Figure G:** Holidays Worked Doing Routine IT Tasks

### ■ VARS EVALUATED BY PRICE AND QUALITY OF SUPPORT

Participants were asked to identify their main consideration when evaluating a VAR or reseller for system and network management. Price was selected most frequently with 25% of responses, followed closely by quality of support with 23%. Local representation and knowledge of the respondent's business ranked last, with each receiving 4% of participant responses.



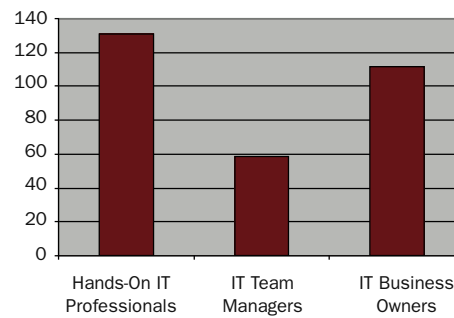
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### ■ PARTICIPANT PROFILE

There were a total of 249 respondents, representing a variety of IT responsibilities. See **Figure H** for a detailed breakdown of the roles of participants. Note that many participants indicated that they had multiple roles.

More than 760,000 server and desktop computers were managed by participants. While almost every kind of desktop or server computer was represented in the survey, participants overwhelmingly managed Windows desktop and servers (95.5%) compared to UNIX (2.2%), Macintosh (1.2%), and Linux (1.1%).

Participants represented a mix of company sizes with the majority of participants (65%) from the mid-market. For this survey we defined small organizations as those with less than 100 server or desktop computer nodes, midsize companies as those with 100-5000 nodes, and large companies as those with more than 5000 nodes.



**Figure H:** Survey Participant Roles

### ■ ABOUT KING RESEARCH

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### ■ ABOUT KACE

KACE, a privately-held technology company, is the leader in IT automation appliances. The KBOX™ by KACE product line delivers easy-to-use, comprehensive IT automation appliances that are affordable and really work. KACE is headquartered in Mountain View, California, and has offices in Charlotte, North Carolina and Chicago, Illinois. To learn more about KACE and its product offerings, please visit [www.kace.com](http://www.kace.com).

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