



## **Inaugural Uptime Institute Annual Data Center Industry Survey**

May 2011

### **Survey Sample Size:**

**525** Data Center Owners and Operators (71% based in North America)

### **Key Statistics**

52% of respondents said their data center budget increased in 2011, with 27% saying it increased by more than 10%

36% said their data center facility would run out of power, cooling and/or space in 2011-2012

62% said they would handle demand for more data center facilities by consolidating servers, while 40% will build a new data center and 29% will lease colocation space. 20% claimed they will move IT workloads to the **cloud**

80% of respondents said they have built a new data center or renovated an existing data center in the past five years; 60% also claimed they would build a new data center or perform renovations and/or upgrades in the next 3 years

### **Cloud Computing**

74% of respondents are currently considering cloud computing for their data center needs

Only 5% of respondents are considering or implementing public cloud computing over the next 12 months. A majority of respondents (42%) are considering or implementing a private cloud option, with 27% choosing a hybrid method

Respondents claimed their primary driver for considering cloud computing was scalability and flexibility (61%), with 25% looking to reduce costs, 9% running out of capacity and only 5% to reduce staffing burdens

### **Energy Consumption**

73% claimed that the real estate/facilities department pays the utility bill (showing a huge disconnect with IT and energy consumption); 8% of respondents said they don't even know who pays the bill

58% said reducing data center energy consumption was very important to the company overall, with only 3% claiming it is not important at all

The top reasons motivating organizations to pursue energy efficiency in the data center were:

- Economic – 87%
- Compliance or Regulation – 13%
- Keeping Pace with Peers in the Industry – 11%
- Pressure From Customers – 3%
- Corporate Social Responsibility Initiative – 45%
- Free Up Data Center Capacity – 37%
- PR/Marketing – 4%

27% of respondents claimed they do not measure PUE in their data center

24% of respondents have an annual PUE of between 1.6 and 1.79

50% of respondents find the U.S Green Building Council's LEED initiative important

50% of respondents also felt the Energy Star rating system is important

Only 45% felt that carbon reporting was important

Respondents implemented (or will implement in 2011) the following power-saving strategies:

- Hot aisle/cold aisle containment (77%)
- Liquid cooling (18%)
- Power-down features on servers (22%)
- Direct current power (7%)
- Server virtualization (82%)
- Raise inlet air temperatures (57%)
- Air-side economizers (25%)
- Water-side economizers (21%)
- Power monitoring, benchmarking (or other metric) (67%)
- Modular data center design (34%)
- VFDs on chillers, CRAH or pumps (46%)

90% of respondents claimed they currently have a raised floor in their data centers, but only 48% said they would use a raised floor in future data centers

### **Containerized Data Centers**

Only 4% have deployed containers; 55% are not interested in containers at all

79% of respondents claimed their average supply air temperature was between 65–77°F/18-25°C

40% of respondents control the temperature of the computer room from the cooling unit return, while only 12% control it at the server inlet

### **Staffing**

32% of respondents feel their data centers are currently understaffed with only 1% feeling they are overstaffed.

61% claimed budget is a significant constrain on their staffing needs. 21% felt qualifications were a constraint.

69% of respondents have 24 X 7 staffing presence at their data centers. 21% do not, and 10% have only security present.

### **About Uptime Institute**

[Uptime Institute](http://uptimeinstitute.org), an independent division of The 451 Group, is an unbiased third-party research, education and consulting organization focused on improving data center performance and efficiency. The Institute serves all stakeholders of the data center industry, including enterprise and third-party operators, manufacturers, providers, and engineers. Uptime Institute Professional Services is the data center management and engineering consulting arm of Uptime Institute. It delivers due diligence assessments and Certifications of site infrastructure and site management in accordance with the [Tier](#) and [Operational Sustainability](#) Standards. Serving clients worldwide, Uptime Institute Professional Services delivers consulting, Certifications, and Accreditations to facilities and professionals in 50 countries.

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