Questionnaire for focus group participants at AFCOM Symposium Boston event on June 2nd

#16

COMPLETE

Collector: Web Link 3 (Web Link)
Started: Wednesday, May 27, 2015 3:20:54 PM
Last Modified: Wednesday, May 27, 2015 3:25:29 PM
Time Spent: 00:04:34
IP Address: 50.199.223.153

PAGE 1: Welcome

Q1: Name
First name, last name initial

Rich C

PAGE 2: Which of the following do you do in your   position?

Q2: Do you participate in decisions about purchasing equipment for your data center (e.g., servers, software, racks, lighting, cooling equipment)?

Yes

Q3: Do you participate in decisions about servicing or maintaining equipment for your data center?

Yes

Q4: How many data centers, server rooms, and server closets does your company own or operate?

6

Q5: [If more than one data center] For how many data centers are you involved in major equipment purchase and maintenance decisions?

6

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Q6: The majority of the data centers you help manage are:

Localized data centers (500 – 5,000 square feet)

Q7: What is the average number of racks in your typical data center?

<2,000 (please enter the value below) 20

Q8: How many servers are there in your organization as a whole?

< 2,000

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Q9: What type of data centers does your company operate?	Server rooms or closets, Enterprise/corporate data centers
Q10: Which sectors does your data center support? (Name no more than three)	Media and telecommunications
Q11: What state(s) are your data centers located in?	NH, NC, CA, _ international

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Q12: When did you last pursue a major equipment purchase/upgrade for your data center?	Within the last 3 years
Q13: How often do you replace servers in your data centers?	3-4 years
Q14: How often do you make major infrastructure upgrades to your data centers?	annually
Q15: Do you actively participate in the EnergySTAR Buildings, Green Grid, or another third-party energy-efficiency program?	No
Q16: Have you had an energy audit performed by a third party within the last three years?	No

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Q17: Do you track energy use on a regular basis?	No
Q18: If YES, what is the typical electricity consumption (kwh) of one of your data centers?	*Respondent skipped this question*
Q19: Do you track power usage effectiveness (PUE) or any other efficiency measures?	No
Q20: If YES, what is the average PUE of your data centers?	*Respondent skipped this question*
Q21: Do you track server utilization?	No
Q22: If YES, what is the average server utilization rate of your data centers?	*Respondent skipped this question*

Q23: **Do you rent data center space from another company?**

No

Q24: If YES, what percentage of your data center needs are met by renting space from others?

Respondent skipped this question

Q25: **Do you lease or outsource from another company any of the following elements of your data centers?**

Servers	No
Facility management	Sometimes
Maintenance & repairs	Sometimes

Q26: **Do you lease space in your data center(s) to other companies?**

No

Q27: If YES, what percentage of your racks are leased to other companies?

Respondent skipped this question

Q28: **If you lease data center space to or from another company, does the tenant or facility owner typically pay for electricity costs?**

NA

Q29: Regarding Facility Management; has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Isolating hot/cold aisles	NEVER USED; Would consider using in the future
Blanking panels	NEVER USED; Would consider using in the future
Enclose server racks (e.g., strip curtains)	NEVER USED; Would consider using in the future
Data center infrastructure management (DCIM) software	HAS USED; Would use again
Raising temperature set points	HAS USED; Would use again
Variable speed fan drives	HAS USED; Would use again
Energy-efficient air handling units	NEVER USED; Would consider using in the future
Modular facility design for data center expansion	NEVER USED; Would consider using in the future
Air-side economizer	HAS USED; Would use again
Water-side economizer	NEVER USED; Would consider using in the future
Energy-efficiency lighting	HAS USED; Would use again
Predictive modeling of future IT deployments	NEVER USED; Would consider using in the future

Q30: What is the typical facility temperature?   75

PAGE 10: Servers

Q31: Regarding Servers; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Energy efficient server hardware (e.g., power supply, fans, etc.)	HAS USED;Would use again
Underclocking	NEVER USED;Would consider using in the future
Virtualization	HAS USED;Would use again
Decomission idle servers	HAS USED;Would use again
Consolidate lightly used servers	HAS USED;Would use again
Improve data storage efficiently	HAS USED;Would use again
IT power management software	NEVER USED;Would consider using in the future

PAGE 11: [Multi-tenant DCs] Adjust pricing models to incentivize energy   efficiency

Q32: Regarding [Multi-tenant data centers] Adjust pricing models to incentivize energy efficiency; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Space-based pricing	HAS USED; Would use again
Space and power block pricing (differentiate power and energy)	NEVER USED;Would consider using in the future
Space and actual power pricing (differentiate power and energy)	NEVER USED;Would consider using in the future

#17

COMPLETE

Collector: Web Link 3 (Web Link)
Started: Thursday, May 28, 2015 12:38:28 PM
Last Modified: Thursday, May 28, 2015 12:55:57 PM
Time Spent: 00:17:29
IP Address: 204.61.205.150

PAGE 1: Welcome

Q1: Name
First name, last name initial

Gary D

PAGE 2: Which of the following do you do in your position?

Q2: Do you participate in decisions about purchasing equipment for your data center (e.g., servers, software, racks, lighting, cooling equipment)?	Yes
Q3: Do you participate in decisions about servicing or maintaining equipment for your data center?	Yes
Q4: How many data centers, server rooms, and server closets does your company own or operate?	5
Q5: [If more than one data center] For how many data centers are you involved in major equipment purchase and maintenance decisions?	3

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Q6: The majority of the data centers you help manage are:	Localized data centers (500 – 5,000 square feet)
Q7: What is the average number of racks in your typical data center?	<2,000 (please enter the value below) 40
Q8: How many servers are there in your organization as a whole?	< 2,000

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Q9: **What type of data centers does your company operate?**	Server rooms or closets, Enterprise/corporate data centers
Q10: **Which sectors does your data center support? (Name no more than three)**	Other (please specify) Manufacturing
Q11: **What state(s) are your data centers located in?**	Maine, Massachusetts, Minnesota

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Q12: **When did you last pursue a major equipment purchase/upgrade for your data center?**	Within the last 3 years
Q13: **How often do you replace servers in your data centers?**	3 year refresh rate
Q14: **How often do you make major infrastructure upgrades to your data centers?**	+/- every 3 years
Q15: **Do you actively participate in the EnergySTAR Buildings, Green Grid, or another third-party energy-efficiency program?**	No
Q16: **Have you had an energy audit performed by a third party within the last three years?**	No

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Q17: **Do you track energy use on a regular basis?**	Yes
Q18: **If YES, what is the typical electricity consumption (kwh) of one of your data centers?**	51K kWh/mth - 12 month average
Q19: **Do you track power usage effectiveness (PUE) or any other efficiency measures?**	Yes
Q20: **If YES, what is the average PUE of your data centers?**	1,47 annualized - Corporate Data Center
Q21: **Do you track server utilization?**	No
Q22: **If YES, what is the average server utilization rate of your data centers?**	*Respondent skipped this question*

Q23: Do you rent data center space from another company?

No

Q24: If YES, what percentage of your data center needs are met by renting space from others?

Respondent skipped this question

Q25: Do you lease or outsource from another company any of the following elements of your data centers?

Servers	No
Facility management	No
Maintenance & repairs	Yes

Q26: Do you lease space in your data center(s) to other companies?

No

Q27: If YES, what percentage of your racks are leased to other companies?

Respondent skipped this question

Q28: If you lease data center space to or from another company, does the tenant or facility owner typically pay for electricity costs?

Respondent skipped this question

PAGE 9: Facility Management

Q29: Regarding Facility Management; has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Isolating hot/cold aisles	NEVER USED; Would consider using in the future
Blanking panels	HAS USED; Would use again
Enclose server racks (e.g., strip curtains)	HAS USED; Would use again
Data center infrastructure management (DCIM) software	HAS USED; Would use again
Raising temperature set points	HAS USED; Would use again
Variable speed fan drives	NEVER USED; Would consider using in the future
Energy-efficient air handling units	NEVER USED; Would consider using in the future
Modular facility design for data center expansion	NEVER USED; Would consider using in the future
Air-side economizer	NEVER USED; Would consider using in the future
Water-side economizer	NEVER USED; Would consider using in the future
Energy-efficiency lighting	HAS USED; Would use again
Predictive modeling of future IT deployments	NEVER USED;Would not consider
Other (please specify)	Our 'DCIM' is a Building Management System modified to meet our requirements. Note: #30 Below: +/-90D - Hot Aisle / +/-80 Cold Aisle

Q30: What is the typical facility temperature?   80

PAGE 10: Servers

Q31: **Regarding Servers; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**
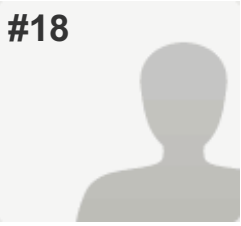
Energy efficient server hardware (e.g., power supply, fans, etc.)	HAS USED;Would use again
Underclocking	DON'T KNOW
Virtualization	HAS USED;Would use again
Decomission idle servers	HAS USED;Would use again
Consolidate lightly used servers	HAS USED;Would use again
Improve data storage efficiently	HAS USED;Would use again
IT power management software	DON'T KNOW

PAGE 11: [Multi-tenant DCs] Adjust pricing models to incentivize energy   efficiency

Q32: Regarding [Multi-tenant data centers] Adjust pricing models to incentivize energy efficiency; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Respondent skipped this question

#18

COMPLETE

Collector: Web Link 3 (Web Link)
Started: Thursday, May 28, 2015 8:03:31 PM
Last Modified: Thursday, May 28, 2015 8:23:35 PM
Time Spent: 00:20:03
IP Address: 207.96.47.16

PAGE 1: Welcome

Q1: Name
First name, last name initial   Mike O

PAGE 2: Which of the following do you do in your position?

Q2: Do you participate in decisions about purchasing equipment for your data center (e.g., servers, software, racks, lighting, cooling equipment)?

Yes

Q3: Do you participate in decisions about servicing or maintaining equipment for your data center?

Yes

Q4: How many data centers, server rooms, and server closets does your company own or operate?

4

Q5: [If more than one data center] For how many data centers are you involved in major equipment purchase and maintenance decisions?

1

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Q6: The majority of the data centers you help manage are:

Localized data centers (500 – 5,000 square feet)

Q7: What is the average number of racks in your typical data center?

<2,000 (please enter the value below) 15

Q8: How many servers are there in your organization as a whole?

< 2,000

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Q9: What type of data centers does your company operate?	Multi-tenant/colocation data centers
Q10: Which sectors does your data center support? (Name no more than three)	Co-location/shared
Q11: What state(s) are your data centers located in?	massachusetts

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Q12: When did you last pursue a major equipment purchase/upgrade for your data center?	Within the last 3 years
Q13: How often do you replace servers in your data centers?	3 to 5 years
Q14: How often do you make major infrastructure upgrades to your data centers?	3 years referring to storage and mainframe not cooling and power distribution equipment
Q15: Do you actively participate in the EnergySTAR Buildings, Green Grid, or another third-party energy-efficiency program?	No
Q16: Have you had an energy audit performed by a third party within the last three years?	No

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Q17: Do you track energy use on a regular basis?	Yes
Q18: If YES, what is the typical electricity consumption (kwh) of one of your data centers?	42000 kWh
Q19: Do you track power usage effectiveness (PUE) or any other efficiency measures?	Yes
Q20: If YES, what is the average PUE of your data centers?	1.9
Q21: Do you track server utilization?	No
Q22: If YES, what is the average server utilization rate of your data centers?	*Respondent skipped this question*

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Q23: **Do you rent data center space from another company?**	Yes
Q24: **If YES, what percentage of your data center needs are met by renting space from others?**	99

Q25: **Do you lease or outsource from another company any of the following elements of your data centers?**

Servers	No
Facility management	Yes
Maintenance & repairs	Yes

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Q26: **Do you lease space in your data center(s) to other companies?**	No
Q27: **If YES, what percentage of your racks are leased to other companies?**	*Respondent skipped this question*
Q28: **If you lease data center space to or from another company, does the tenant or facility owner typically pay for electricity costs?**	no

PAGE 9: Facility Management

Q29: **Regarding Facility Management; has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**

Isolating hot/cold aisles	HAS USED; Would use again
Blanking panels	HAS USED; Would use again
Enclose server racks (e.g., strip curtains)	NEVER USED; Would consider using in the future
Data center infrastructure management (DCIM) software	DON'T KNOW
Raising temperature set points	NEVER USED; Would consider using in the future
Variable speed fan drives	DON'T KNOW
Energy-efficient air handling units	HAS USED; Would use again
Modular facility design for data center expansion	NEVER USED; Would consider using in the future
Air-side economizer	DON'T KNOW
Water-side economizer	DON'T KNOW
Energy-efficiency lighting	HAS USED; Would not use again
Predictive modeling of future IT deployments	DON'T KNOW

Q30: **What is the typical facility temperature?**   72

PAGE 10: Servers

Q31: **Regarding Servers; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**
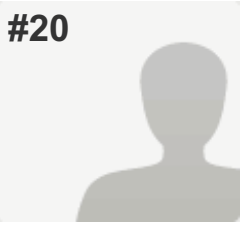
Energy efficient server hardware (e.g., power supply, fans, etc.)	HAS USED;Would use again
Underclocking	DON'T KNOW
Virtualization	HAS USED;Would use again
Decomission idle servers	HAS USED;Would use again
Consolidate lightly used servers	DON'T KNOW
Improve data storage efficiently	HAS USED;Would use again
IT power management software	HAS USED;Would use again

PAGE 11: [Multi-tenant DCs] Adjust pricing models to incentivize energy efficiency

Q32: **Regarding [Multi-tenant data centers] Adjust pricing models to incentivize energy efficiency; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**

Space-based pricing	NEVER USED;Would consider using in the future
Space and power block pricing (differentiate power and energy)	DON'T KNOW
Space and actual power pricing (differentiate power and energy)	DON'T KNOW

#20

COMPLETE

Collector: Web Link 3 (Web Link)
Started: Friday, May 29, 2015 3:09:40 PM
Last Modified: Friday, May 29, 2015 3:19:41 PM
Time Spent: 00:10:00
IP Address: 129.83.31.1

PAGE 1: Welcome

Q1: Name

First name, last name initial   Henry

PAGE 2: Which of the following do you do in your position?

Q2: Do you participate in decisions about purchasing equipment for your data center (e.g., servers, software, racks, lighting, cooling equipment)?

Yes

Q3: Do you participate in decisions about servicing or maintaining equipment for your data center?

Yes

Q4: How many data centers, server rooms, and server closets does your company own or operate?

2

Q5: [If more than one data center] For how many data centers are you involved in major equipment purchase and maintenance decisions?

2

PAGE 3

Q6: The majority of the data centers you help manage are:

Enterprise data centers (> 5,000 square feet)

Q7: What is the average number of racks in your typical data center?

<2,000 (please enter the value below) 100

Q8: How many servers are there in your organization as a whole?

< 2,000

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Q9: What type of data centers does your company operate?	Enterprise/corporate data centers, High-performance/scientific computing
Q10: Which sectors does your data center support? (Name no more than three)	IT services
Q11: What state(s) are your data centers located in?	MA

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Q12: When did you last pursue a major equipment purchase/upgrade for your data center?	Within the last 3 years
Q13: How often do you replace servers in your data centers?	4 years
Q14: How often do you make major infrastructure upgrades to your data centers?	5 years
Q15: Do you actively participate in the EnergySTAR Buildings, Green Grid, or another third-party energy-efficiency program?	Yes
Q16: Have you had an energy audit performed by a third party within the last three years?	No

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Q17: Do you track energy use on a regular basis?	Yes
Q18: If YES, what is the typical electricity consumption (kwh) of one of your data centers?	2.1million kWh / year
Q19: Do you track power usage effectiveness (PUE) or any other efficiency measures?	Yes
Q20: If YES, what is the average PUE of your data centers?	1.3
Q21: Do you track server utilization?	Yes
Q22: If YES, what is the average server utilization rate of your data centers?	don't know

Q23: Do you rent data center space from another company?	No
Q24: If YES, what percentage of your data center needs are met by renting space from others?	*Respondent skipped this question*

Q25: Do you lease or outsource from another company any of the following elements of your data centers?

Servers	No
Facility management	No
Maintenance & repairs	No

Q26: Do you lease space in your data center(s) to other companies?	No
Q27: If YES, what percentage of your racks are leased to other companies?	*Respondent skipped this question*
Q28: If you lease data center space to or from another company, does the tenant or facility owner typically pay for electricity costs?	*Respondent skipped this question*

Q29: **Regarding Facility Management; has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**

Isolating hot/cold aisles	HAS USED; Would use again
Blanking panels	HAS USED; Would use again
Data center infrastructure management (DCIM) software	HAS USED; Would use again
Raising temperature set points	HAS USED; Would use again
Variable speed fan drives	NEVER USED; Would consider using in the future
Energy-efficient air handling units	NEVER USED; Would consider using in the future
Modular facility design for data center expansion	HAS USED; Would use again
Air-side economizer	NEVER USED; Would consider using in the future
Water-side economizer	HAS USED; Would use again
Energy-efficiency lighting	HAS USED; Would use again
Predictive modeling of future IT deployments	NEVER USED; Would consider using in the future
Other (please specify)	High density zone with active rear door refrigerant heat extractors

Q30: **What is the typical facility temperature?**   71

PAGE 10: Servers

Q31: **Regarding Servers; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)**

Energy efficient server hardware (e.g., power supply, fans, etc.)	HAS USED;Would use again
Underclocking	NEVER USED;Would consider using in the future
Virtualization	HAS USED;Would use again
Decomission idle servers	HAS USED;Would use again
Consolidate lightly used servers	HAS USED;Would use again
Improve data storage efficiently	HAS USED;Would use again
IT power management software	NEVER USED;Would consider using in the future

PAGE 11: [Multi-tenant DCs] Adjust pricing models to incentivize energy efficiency

Q32: Regarding [Multi-tenant data centers] Adjust pricing models to incentivize energy efficiency; Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

Respondent skipped this question