# Corporate IT Buying Behavior & Customer Satisfaction Study
# x86-based Servers

Fourth Quarter 2014

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**TBR**

TECHNOLOGY BUSINESS RESEARCH, INC.

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# Executive Summary

# Dell narrowly achieved the No. 1 position in x86-based servers satisfaction, with leading scores in service satisfaction and loyalty

## TBR builds its index from 4 key attribute areas comprising 24 total factors

**Rolling 6-Month Mean Satisfaction**

| Attribute | Dell | HP | IBM |
|---|---|---|---|
| Sales Mean Satisfaction | | | |
| Purchase Price/Acquisition Cost | 5.2 | 5.0 | 5.1 |
| One-time Services and Setup | 5.1 | 5.0 | 5.2 |
| Delivery Time and Product Availability | 5.1 | 5.0 | 5.2 |
| Sales Responsiveness | 5.0 | 4.8 | 5.0 |
| Post-purchase Customer Care | 5.1 | 5.0 | 5.1 |
| Online Product Information | 5.1 | 5.0 | 5.1 |
| Product Mean Satisfaction | | | |
| Initial Hardware Quality | 5.4 | 5.5 | 5.3 |
| Ongoing Hardware Reliability | 5.4 | 5.4 | 5.3 |
| Performance | 5.5 | 5.5 | 5.4 |
| Virtualization, Efficiency, Scalability | 5.4 | 5.5 | 5.3 |
| Total Cost of Ownership | 5.3 | 5.2 | 5.2 |
| Management Capabilities | 5.2 | 5.3 | 5.2 |
| Product Design/Features | 5.3 | 5.4 | 5.3 |
| Service Mean Satisfaction | | | |
| Phone Support Availability | 5.2 | 5.1 | 5.1 |
| Phone Support Technical Expertise | 5.2 | 5.0 | 5.1 |
| On-site Response Time | 5.2 | 5.1 | 5.2 |
| On-site Technical Expertise | 5.2 | 5.1 | 5.2 |
| Online Technical Support | 5.2 | 5.0 | 5.1 |
| Ongoing Services and Maintenance | 5.3 | 5.1 | 5.2 |
| Replacement Parts Availability | 5.3 | 5.3 | 5.2 |
| Self-support/Automated Support | 5.1 | 5.0 | 5.0 |
| Social Media Support | 4.5 | 4.4 | 4.7 |
| Loyalty Index | | | |
| Will buy again | 87.4 | 85.1 | 82.6 |
| Would recommend | 85.2 | 82.8 | 78.9 |

**Rolling 6-Month Satisfaction Index**

| | Dell | HP | IBM |
|---|---|---|---|
| Sales Satisfaction Index | 72.5 | 71.2 | 72.9 |
| Product Satisfaction Index | 76.3 | 76.9 | 75.2 |
| Service Satisfaction Index | 73.4 | 71.3 | 72.8 |
| Loyalty Index | 86.3 | 84.0 | 80.8 |
| | | | |
| Importance Multiplier | 99.4% | 99.9% | 100.7% |
| | | | |
| TBR Weighted Satisfaction Index | 74.9 | 74.2 | 74.8 |

SOURCE: TBR 4Q14

Note: Detailed explanation of methodology and calculations can be found in the technical appendix (slide 98).

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Dell led server competitors with increases in product- and service-related attributes, while IBM's satisfaction mirrored the year-ago quarter

## IT decision makers place high importance on performance, reliability and quality attributes

**Rolling 6-Month Mean Satisfaction**

| Attribute | Dell | HP | IBM |
|---|---|---|---|
| Sales Mean Satisfaction | | | |
| Purchase Price/Acquisition Cost | 5.2 | 5.0 | 5.1 |
| One-time Services and Setup | 5.1 | 5.0 | 5.2 |
| Delivery Time and Product Availability | 5.1 | 5.0 | 5.2 |
| Sales Responsiveness | 5.0 | 4.8 | 5.0 |
| Post-purchase Customer Care | 5.1 | 5.0 | 5.1 |
| Online Product Information | 5.1 | 5.0 | 5.1 |
| Product Mean Satisfaction | | | |
| Initial Hardware Quality | 5.4 | 5.5 | 5.3 |
| Ongoing Hardware Reliability | 5.4 | 5.4 | 5.3 |
| Performance | 5.5 | 5.5 | 5.4 |
| Virtualization, Efficiency, Scalability | 5.4 | 5.5 | 5.3 |
| Total Cost of Ownership | 5.3 | 5.2 | 5.2 |
| Management Capabilities | 5.2 | 5.3 | 5.2 |
| Product Design/Features | 5.3 | 5.4 | 5.3 |
| Service Mean Satisfaction | | | |
| Phone Support Availability | 5.2 | 5.1 | 5.1 |
| Phone Support Technical Expertise | 5.2 | 5.0 | 5.1 |
| On-site Response Time | 5.2 | 5.1 | 5.2 |
| On-site Technical Expertise | 5.2 | 5.1 | 5.2 |
| Online Technical Support | 5.2 | 5.0 | 5.1 |
| Ongoing Services and Maintenance | 5.3 | 5.1 | 5.2 |
| Replacement Parts Availability | 5.3 | 5.3 | 5.2 |
| Self-support/Automated Support | 5.1 | 5.0 | 5.0 |
| Social Media Support | 4.5 | 4.4 | 4.7 |
| Loyalty Index | | | |
| Will buy again | 87.4 | 85.1 | 82.6 |
| Would recommend | 85.2 | 82.8 | 78.9 |

## Dell

Year-to-year improvements in mean satisfaction scores of product- and service-related attributes coupled with flat or declining competitor scores resulted in Dell's leading overall score. Total cost of ownership (TCO) remains an area of relative differentiation for Dell, with 4Q14 marking the fifth straight quarter Dell was the No. 1 vendor in the attribute.

## HP

HP's satisfaction scores in product attributes, including the most important attributes to server customers such as performance, ongoing hardware reliability and initial hardware quality, were competitive versus Dell and IBM. HP continues to trail competitors in the majority of sales and service satisfaction attributes, resulting in a narrow but last-place finish.

## IBM

IBM satisfaction scores returned to a level of the year-ago quarter, allowing its competition to gain advantages in areas where IBM had established leadership in 1Q14. IBM's mean satisfaction in sales attributes remained competitive, while product attributes were the most challenged relative to peers in 4Q14.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Customer loyalty depends on differentiated value-added attributes

## Product-related satisfaction is a primary need for customers

Customers are most satisfied in product-related attributes, averaging 5.3 on a 7-point satisfaction scale. The high importance ratings of product satisfaction, along with a high mean satisfaction, show vendors are performing well in areas that matter most to customers. The importance is emphasized by customers' loyalty perceptions. Reliable servers and meeting performance expectations are the top reasons customers will buy again for all vendors.

## No vendor established strengths across the board in 4Q14
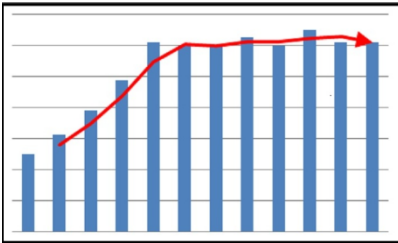
Compared to the previous two quarters when IBM led the industry in most attribute areas, each vendor displayed an area of strength in 4Q14. Dell customers reported higher support satisfaction and customer loyalty, while HP customers reported high satisfaction in product areas. IBM customers rated sales attributes high. Close total satisfaction index scores resulted from vendors exhibiting varied strengths.

## HP customers report unique loyalty challenges versus Dell and IBM

While customers report consistently that they stay loyal to a brand because of quality and performance, HP customers had more varied reasons for considering another vendor. The 15% of HP customers who may not purchase from HP again most commonly cited dissatisfaction with phone support. This is an area to watch for HP, as support services are important to customers who value minimizing server downtime. Dell and IBM customers tended to cite challenges with product quality or expense.

# Product attributes remain the core requirement for earning customers' business, with sales and support services helping vendors differentiate

**Customers rated attributes as critical, important or less important**

- Keeping servers running and performing over the length of the hardware life remains paramount to customers. Product features such as performance; ongoing and initial hardware reliability; and virtualization, efficiency and scalability are critical to customers making x86 server purchases.

- TBR believes emphasis on areas such as management features and maintenance services helps vendors create additional differentiation beyond product attributes.

- Performance
- Ongoing Hardware Reliability
- Initial Hardware Quality
- Virtualization, Efficiency, Scalability
- Total Cost of Ownership (TCO)
- Product Design/Features
- Purchase Price/Acquisition Cost

- Replacement Parts Availability
- Management Capabilities
- Ongoing Services and Maintenance
- On-site Response Time
- Delivery Time and Product Availability
- On-site Technical Expertise
- Phone Support Technical Expertise
- Phone Support Availability
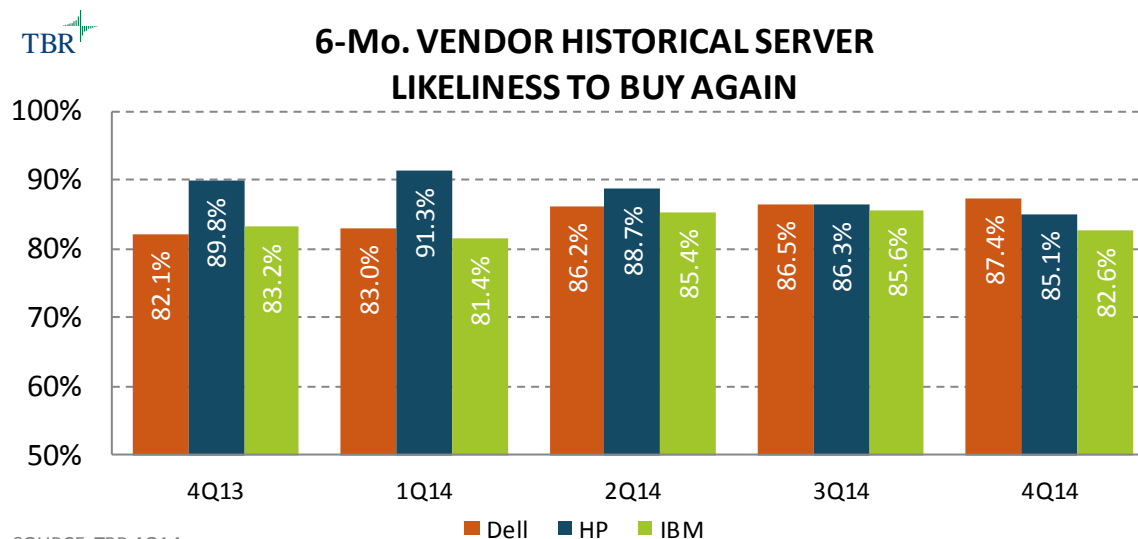- Online Technical Support

- Post-purchase Customer Care
- Self-support/Automated Support
- One-time Services and Setup
- Online Product Information
- Sales Responsiveness
- Social Media Support

*Critical*

*Important*

*Less Important*

*The stacks of attributes shown on the scales above are listed in order of the importance of each attribute to overall customer satisfaction this quarter, with the most important attributes at the top of each stack.*

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# Key Findings

# Dell customers' likeliness to buy again increased in 4Q14 for the 5th consecutive quarter

**6-Mo. VENDOR HISTORICAL SERVER LIKELINESS TO BUY AGAIN**

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 82.1% | 83.0% | 86.2% | 86.5% | 87.4% |
| HP | 89.8% | 91.3% | 88.7% | 86.3% | 85.1% |
| IBM | 83.2% | 81.4% | 85.4% | 85.6% | 82.6% |

SOURCE: TBR 4Q14

## TBR perspective

- Dell's sequential increase in customers' likeliness to buy again in 4Q14 improved its lead as other vendors declined over the same period. Dell was the only vendor to increase its rating in this area year-to-year. Unlike other vendors, satisfaction with Dell's TCO was among the top attributes cited as a reason to buy again.

- Reliability and performance were the primary reasons customers cited they would buy again, similar to previous quarters, followed by ease of server integration. HP customers were the only customers who cited phone support as a primary reason they are unlikely to buy again.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Dell customers reported the same factors promote and detract from loyalty, highlighting the importance of these attributes to decision making

**Top criteria for customers buying again and considering switching**

**6-Mo. DELL LOYALTY: WILL BUY AGAIN**

1%
12%
87%

- Yes
- Maybe
- No
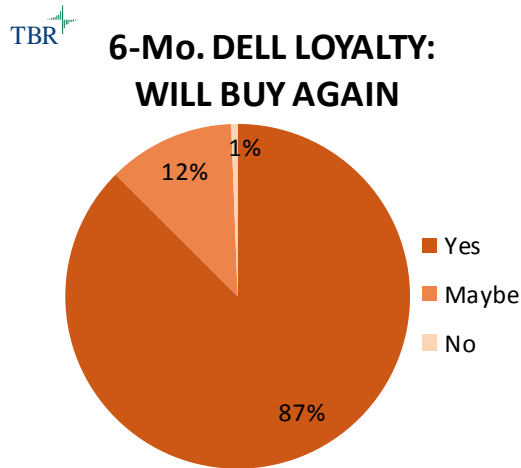
SOURCE: TBR 4Q14

| Yes — Will buy again | % of Yes |
|---|---|
| Servers are reliable | **76%** |
| Server performance meets our expectations | **58.7%** |
| Satisfied with TCO | **40.2%** |
| **Maybe/Will not buy again** | **% of Maybe/No** |
| Servers are not reliable enough | **23.1%** |
| Server performance did not meet our expectations | **20.5%** |
| Dissatisfied with TCO | **20.5%** |

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# HP was the only vendor in 4Q14 with customers citing phone support challenges as a top reason for considering another vendor

**Top criteria for customers buying again and considering switching**

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**6-Mo. HP LOYALTY: WILL BUY AGAIN**

1%

14%

85%

- ■ Yes
- ■ Maybe
- ■ No
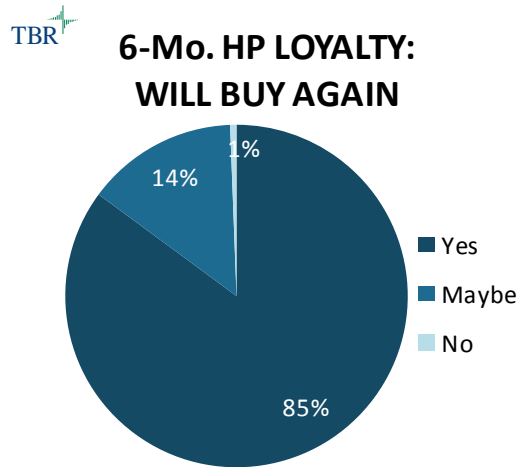
SOURCE: TBR 4Q14

| Yes — Will buy again | % of Yes |
|---|---|
| Servers are reliable | **76.7%** |
| Server performance meets our expectations | **60.7%** |
| Servers integrate well with our IT environment | **45.8%** |

| Maybe/Will not buy again | % of Maybe/No |
|---|---|
| Dissatisfied with phone support | **19.6%** |
| Servers are too expensive | **17.4%** |
| Servers did not integrate well with our IT environment | **15.2%** |
| Sales staff is not responsive enough | **15.2%** |
| We are buying another brand of servers instead | **15.2%** |

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# IBM's customers who are unlikely to buy again report unmet expectations with the total cost of server ownership

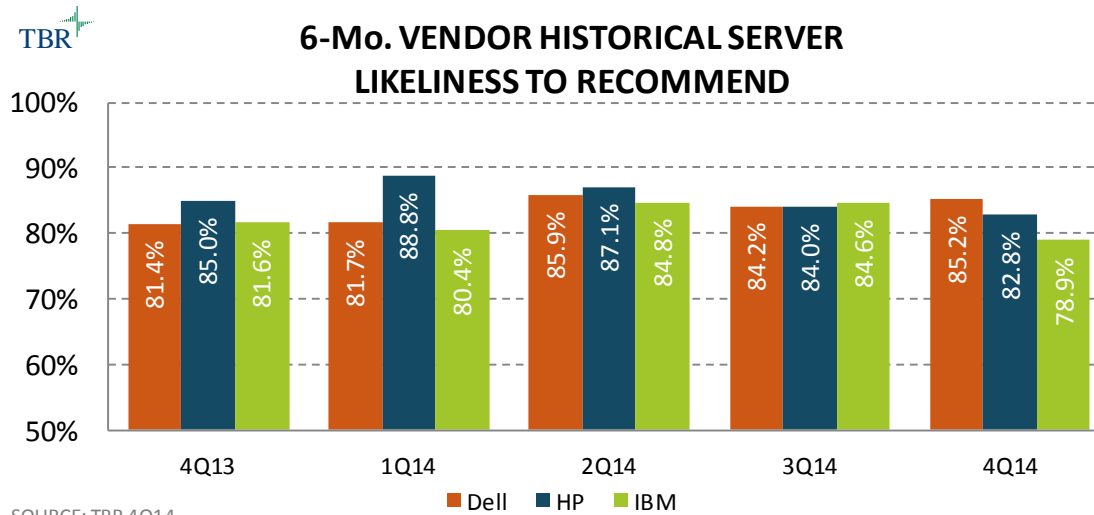**Top criteria for customers buying again and considering switching**

TBR

### 6-Mo. IBM LOYALTY: WILL BUY AGAIN



- 🟩 Yes
- 🟩 Maybe
- 🟩 No

3%
14%
83%
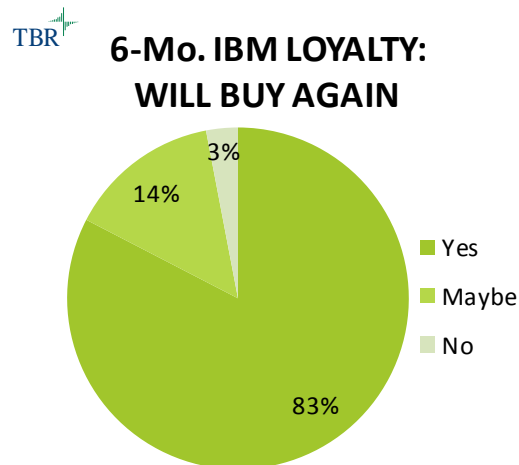
SOURCE: TBR 4Q14

| Yes — Will buy again | % of Yes |
|---|---|
| Servers are reliable | **69.9%** |
| Server performance meets our expectations | **51.2%** |
| Servers integrate well with our IT environment | **39.8%** |

| Maybe/Will not buy again | % of Maybe/No |
|---|---|
| Dissatisfied with TCO | **25%** |
| Servers are not reliable enough | **23.1%** |
| Servers use too much energy | **21.2%** |
| Servers are too expensive | **21.2%** |

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# For the first time since 3Q13, Dell leads server vendors in customers who are likely to recommend

## 6-Mo. VENDOR HISTORICAL SERVER LIKELINESS TO RECOMMEND

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 81.4% | 81.7% | 85.9% | 84.2% | 85.2% |
| HP | 85.0% | 88.8% | 87.1% | 84.0% | 82.8% |
| IBM | 81.6% | 80.4% | 84.8% | 84.6% | 78.9% |

SOURCE: TBR 4Q14

## Top customer recommendations

Likeliness to recommend servers to peers trended similarly to vendors' overall satisfaction scores in 4Q14. While Dell's score has predominantly trended up over the past year, HP's and IBM's scores for likeliness to recommend are lower than the year-ago quarter.

**Dell customer** — *"I have had to call a few times lately for replacement parts on servers both in and out of warranty. They are always fast, helpful and able to communicate well."*

**HP customer** — *"They are there when and where we need them. They know how to isolate issues and resolve."*

**IBM customer** — *"Their online/social media support has exceeded our expectations. IBM hires the most qualified people and train[s] them to become experts on all of their product lines. They are at the top of technology companies today."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Leading services satisfaction scores and loyalty drove Dell to take the No. 1 customer satisfaction spot

## Dell: 6-Mo. Server Performance Dashboard

| Attribute | 4Q14 Satisfaction | Industry Rank | Satisfaction vs. 3Q14 |
|---|---|---|---|
| Purchase Price/Acquisition Cost | 5.2 | ▲ 1 | 0.2% |
| One-time Services and Setup | 5.1 | ▬ 2 | 0.6% |
| Delivery Time and Product Availability | 5.1 | ▬ 2 | -0.8% |
| Sales Responsiveness | 5.0 | ▲ 1 | -0.8% |
| Post-purchase Customer Care | 5.1 | ▲ 1 | 0.0% |
| Online Product Information | 5.1 | ▲ 1 | -1.0% |
| Initial Hardware Quality | 5.4 | ▲ 2 | 1.3% |
| Ongoing Hardware Reliability | 5.4 | ▲ 1 | 1.1% |
| Performance | 5.5 | ▲ 1 | 1.9% |
| Virtualization, Efficiency, Scalability | 5.4 | ▲ 2 | 1.3% |
| Total Cost of Ownership | 5.3 | ▬ 1 | 0.0% |
| Management Capabilities | 5.2 | ▲ 2 | 0.6% |
| Product Design/Features | 5.3 | ▬ 2 | -0.4% |
| Phone Support Availability | 5.2 | ▬ 1 | 1.0% |
| Phone Support Technical Expertise | 5.2 | ▲ 1 | 1.2% |
| On-site Response Time | 5.2 | ▲ 1 | 1.2% |
| On-site Technical Expertise | 5.2 | ▲ 1 | 1.2% |
| Online Technical Support | 5.2 | ▲ 1 | 0.8% |
| Ongoing Services and Maintenance | 5.3 | ▲ 1 | 1.0% |
| Replacement Parts Availability | 5.3 | ▲ 1 | 1.1% |
| Self-support/Automated Support | 5.1 | ▬ 1 | -0.6% |
| Social Media Support | 4.5 | ▬ 2 | -0.4% |

| Loyalty | 4Q14 Loyalty Metric | Industry Rank | Loyalty vs. 3Q14 |
|---|---|---|---|
| Will buy again | 87.4 | ▬ 1 | 1.0% |
| Would recommend | 85.2 | ▲ 1 | 1.2% |

SOURCE: TBR 4Q14

Industry rank indicates position of an attribute's mean satisfaction score compared to industry peers. Arrows represent positive or negative change in industry rank from the previous quarter. For mean satisfaction, positive or negative changes of +/- 5% are highlighted green and red, respectively.

## Dell customers' increased satisfaction resulted in improved rankings in 16 of 22 attributes

Dell maintained or increased its ranking versus competitors in all categories due to increasing customer satisfaction and an inability of other vendors to keep up with its performance. Dell customers reported some marginal declines in sales satisfaction attributes, but kept Dell ahead of competitors. Satisfaction increases in seven of nine service-related attributes boosted Dell's differentiation in service satisfaction, and Dell had a significant advantage over competitors in only service attributes.

## Despite satisfaction improvements, there is room for growth in critical attributes

Dell is improving in product satisfaction attributes. However, it can improve its No. 2 ranking in critical attributes of initial hardware quality; virtualization, efficiency and scalability; and product design/features. Improvements in most critical attribute areas where Dell is No. 2 will help Dell generate a larger advantage versus competitors, as all three vendors are relatively close in overall score.

# Lower sales and support satisfaction continues to keep HP in the No. 3 spot overall despite its high product satisfaction scores

## HP: 6-Mo. Server Performance Dashboard

| Attribute | 4Q14 Satisfaction | Industry Rank | | Satisfaction vs. 3Q14 |
|---|---|---|---|---|
| Purchase Price/Acquisition Cost | 5.0 | ▬ | 3 | 0.0% |
| One-time Services and Setup | 5.0 | ▼ | 3 | 0.8% |
| Delivery Time and Product Availability | 5.0 | ▬ | 3 | -1.2% |
| Sales Responsiveness | 4.8 | ▬ | 3 | 0.0% |
| Post-purchase Customer Care | 5.0 | ▬ | 3 | 0.2% |
| Online Product Information | 5.0 | ▬ | 3 | 0.2% |
| Initial Hardware Quality | 5.5 | ▬ | 1 | -0.2% |
| Ongoing Hardware Reliability | 5.4 | ▲ | 1 | 0.4% |
| Performance | 5.5 | ▲ | 1 | 0.7% |
| Virtualization, Efficiency, Scalability | 5.5 | ▲ | 1 | 0.7% |
| Total Cost of Ownership | 5.2 | ▲ | 2 | 0.2% |
| Management Capabilities | 5.3 | ▬ | 1 | 0.4% |
| Product Design/Features | 5.4 | ▲ | 1 | 0.4% |
| Phone Support Availability | 5.1 | ▲ | 2 | 0.0% |
| Phone Support Technical Expertise | 5.0 | ▬ | 3 | -0.8% |
| On-site Response Time | 5.1 | ▼ | 3 | -0.6% |
| On-site Technical Expertise | 5.1 | ▼ | 3 | -0.8% |
| Online Technical Support | 5.0 | ▬ | 3 | -1.0% |
| Ongoing Services and Maintenance | 5.1 | ▬ | 3 | -0.6% |
| Replacement Parts Availability | 5.3 | ▲ | 1 | -0.2% |
| Self-support/Automated Support | 5.0 | ▲ | 2 | -0.4% |
| Social Media Support | 4.4 | ▼ | 3 | -1.1% |

| Loyalty | 4Q14 Loyalty Metric | Industry Rank | | Loyalty vs. 3Q14 |
|---|---|---|---|---|
| Will buy again | 85.1 | ▬ | 2 | -1.4% |
| Would recommend | 82.8 | ▲ | 2 | -1.4% |

SOURCE: TBR 4Q14

Industry rank indicates position of an attribute's mean satisfaction score compared to industry peers. Arrows represent positive or negative change in industry rank from the previous quarter. For mean satisfaction, positive or negative changes of +/- 5% are highlighted green and red, respectively.

## HP trended closely to Dell and IBM in mean satisfaction, with particular strength in product attributes

HP's satisfaction index score was closer to Dell's and IBM's in 4Q14 than it has been since 1Q14, separated by less than one point. HP ranked highest in product attribute satisfaction with low growth sequentially, all of which were critically important to HP's customers. HP and Dell are essentially on par in this area, while HP had three significant advantages over IBM.

## Sales and support attributes prevented HP from closing the gap between competitors

HP's performance was essentially flat from 3Q14 to 4Q14, allowing Dell to establish significant advantages in six of nine service and support attributes. IBM also maintained significantly higher scores than HP in four of six sales attribute areas, although by a smaller magnitude than the previous quarter. To reclaim the lead HP held in the second half of 2013, it must improve perception beyond the hardware quality via emphasis on its services.

# IBM fell to the No. 2 overall position, closely behind Dell, as its mean satisfaction scores declined sequentially

## IBM: 6-Mo. Server Performance Dashboard

| Attribute | 4Q14 Satisfaction | Industry Rank | | Satisfaction vs. 3Q14 |
|---|---|---|---|---|
| Purchase Price/Acquisition Cost | 5.1 | ▼ | 2 | -3.8% |
| One-time Services and Setup | 5.2 | ▬ | 1 | -1.9% |
| Delivery Time and Product Availability | 5.2 | ▬ | 1 | -2.3% |
| Sales Responsiveness | 5.0 | ▬ | 1 | -4.2% |
| Post-purchase Customer Care | 5.1 | ▬ | 1 | -3.2% |
| Online Product Information | 5.1 | ▬ | 1 | -3.8% |
| Initial Hardware Quality | 5.3 | ▼ | 3 | -2.9% |
| Ongoing Hardware Reliability | 5.3 | ▼ | 3 | -3.6% |
| Performance | 5.4 | ▼ | 3 | -2.9% |
| Virtualization, Efficiency, Scalability | 5.3 | ▼ | 3 | -3.1% |
| Total Cost of Ownership | 5.2 | ▼ | 2 | -3.4% |
| Management Capabilities | 5.2 | ▼ | 2 | -2.8% |
| Product Design/Features | 5.3 | ▼ | 2 | -3.0% |
| Phone Support Availability | 5.1 | ▼ | 2 | -1.9% |
| Phone Support Technical Expertise | 5.1 | ▼ | 2 | -2.3% |
| On-site Response Time | 5.2 | ▬ | 1 | -2.6% |
| On-site Technical Expertise | 5.2 | ▬ | 1 | -3.3% |
| Online Technical Support | 5.1 | ▼ | 2 | -4.0% |
| Ongoing Services and Maintenance | 5.2 | ▼ | 2 | -2.6% |
| Replacement Parts Availability | 5.2 | ▼ | 3 | -3.5% |
| Self-support/Automated Support | 5.0 | ▼ | 2 | -2.1% |
| Social Media Support | 4.7 | ▬ | 1 | -1.7% |

| Loyalty | 4Q14 Loyalty Metric | Industry Rank | | Loyalty vs. 3Q14 |
|---|---|---|---|---|
| Will buy again | 82.6 | ▬ | 3 | -3.5% |
| Would recommend | 78.9 | ▼ | 3 | -6.7% |

**After two strong quarters, IBM's satisfaction scores declined to previous levels, resulting in a highly competitive server satisfaction landscape**

After a spike in customer enthusiasm through 2Q14 and 3Q14, IBM's satisfaction scores returned to levels comparable to its scores in the year-ago quarter, which limited the number of significant advantages IBM holds over competitors. Even with sequential decreases across the board, IBM maintains its No. 1 spot in five of the six sales-related attributes, helping IBM score closely behind the leader in the overall satisfaction index.

**IBM's greatest challenges relative to competitors were in product and support attributes**

Compared to strong satisfaction across product areas in the past two quarters, IBM's No. 2 ranking was primarily driven by its relative performance in product and support attributes. HP was able to establish a lead in the critically important product attributes, creating an area for IBM to improve on to retake the No. 1 overall spot. Dell's sequential improvement in support attribute areas also created some significant advantages over IBM.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

Industry rank indicates position of an attribute's mean satisfaction score compared to industry peers. Arrows represent positive or negative change in industry rank from the previous quarter. For mean satisfaction, positive or negative changes of +/- 5% are highlighted green and red, respectively.

# x86-based Server Attribute Analysis

**TBR**

# Report attributes and statistical significance key

**Sales Attributes**
1. Purchase Price/Acquisition Cost
2. One-time Services and Setup
3. Delivery Time and Product Availability
4. Sales Responsiveness
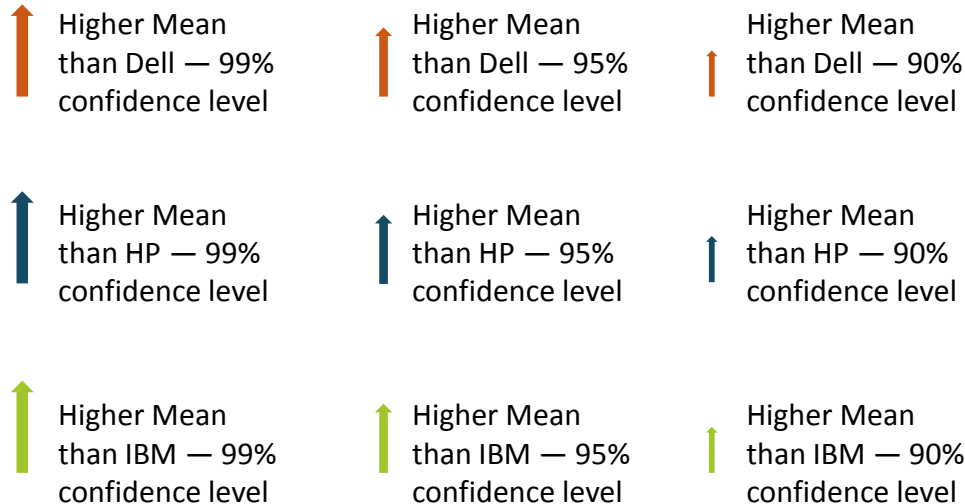5. Post-purchase Customer Care
6. Online Product Information

**Product Attributes**
7. Initial Hardware Quality
8. Ongoing Hardware Reliability
9. Performance
10. Virtualization, Efficiency, Scalability
11. Total Cost of Ownership
12. Management Capabilities
13. Product Design/Features

**Service and Support Attributes**
14. Phone Support Availability
15. Phone Support Technical Expertise
16. On-site Response Time
17. On-site Technical Expertise
18. Online Technical Support
19. Replacement Parts Availability
20. Ongoing Services and Maintenance
21. Self-support/Automated Support
22. Social Media Support

## Statistical Significance Key

Higher Mean than Dell — 99% confidence level

Higher Mean than Dell — 95% confidence level

Higher Mean than Dell — 90% confidence level

Higher Mean than HP — 99% confidence level

Higher Mean than HP — 95% confidence level

Higher Mean than HP — 90% confidence level

Higher Mean than IBM — 99% confidence level

Higher Mean than IBM — 95% confidence level

Higher Mean than IBM — 90% confidence level

Note: Statistical Significance Key applies to slides 19, 20, 21, 23, 26, 29, 32, 35, 38, 42, 45, 48, 51, 54, 57, 60, 64, 67, 70, 73, 76, 79, 82, 85 and 88.

# Even with declining satisfaction, IBM retained its No. 1 spot in most x86-based server sales attributes

**OVERALL SERVER CUSTOMERS' AVERAGE SATISFACTION BY SALES ATTRIBUTE (6 MONTHS)**
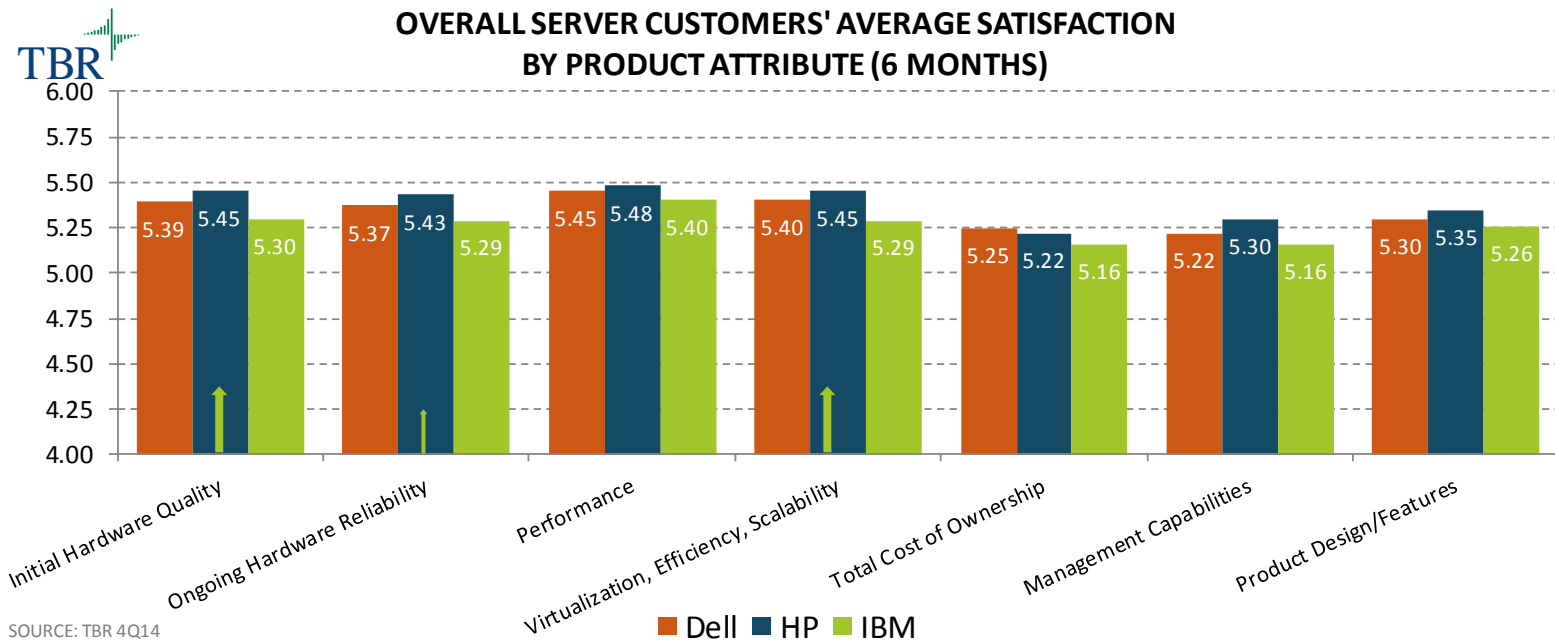


SOURCE: TBR 4Q14

■ Dell  ■ HP  ■ IBM
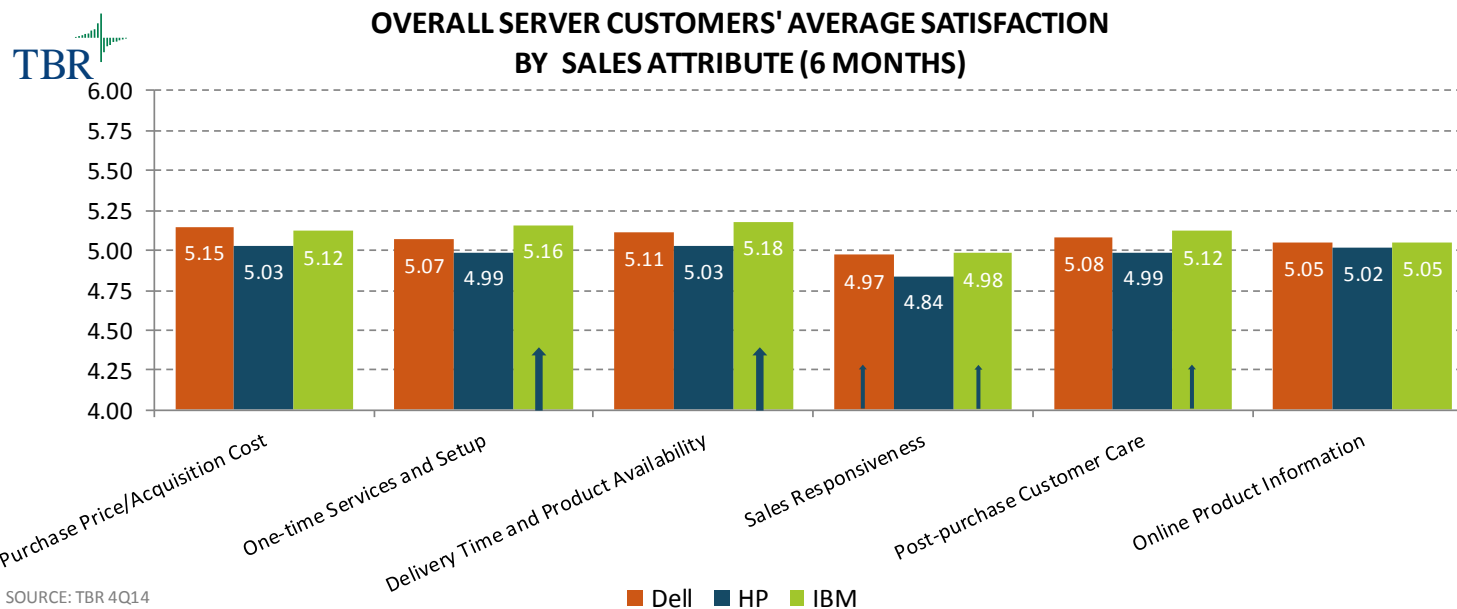
## Sales Satisfaction Drivers

- IBM topped sales satisfaction in all attributes except purchase price/acquisition cost, a critical attribute to customers. IBM retained significant advantage over HP in four of six attributes.

- In the critical attribute of purchase price/acquisition cost, no vendor scored a significant advantage over another.

**Customer Comment**

*"IBM is a quality company, and their sales responsiveness and post-purchase customer care is top-notch. It is one of the main considerations that we make before purchasing servers, and they have exceeded our expectations in all of these areas. We will continue to make purchases of IBM rack servers because they don't forget the customer after the purchase and installation."* **— IBM customer**

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

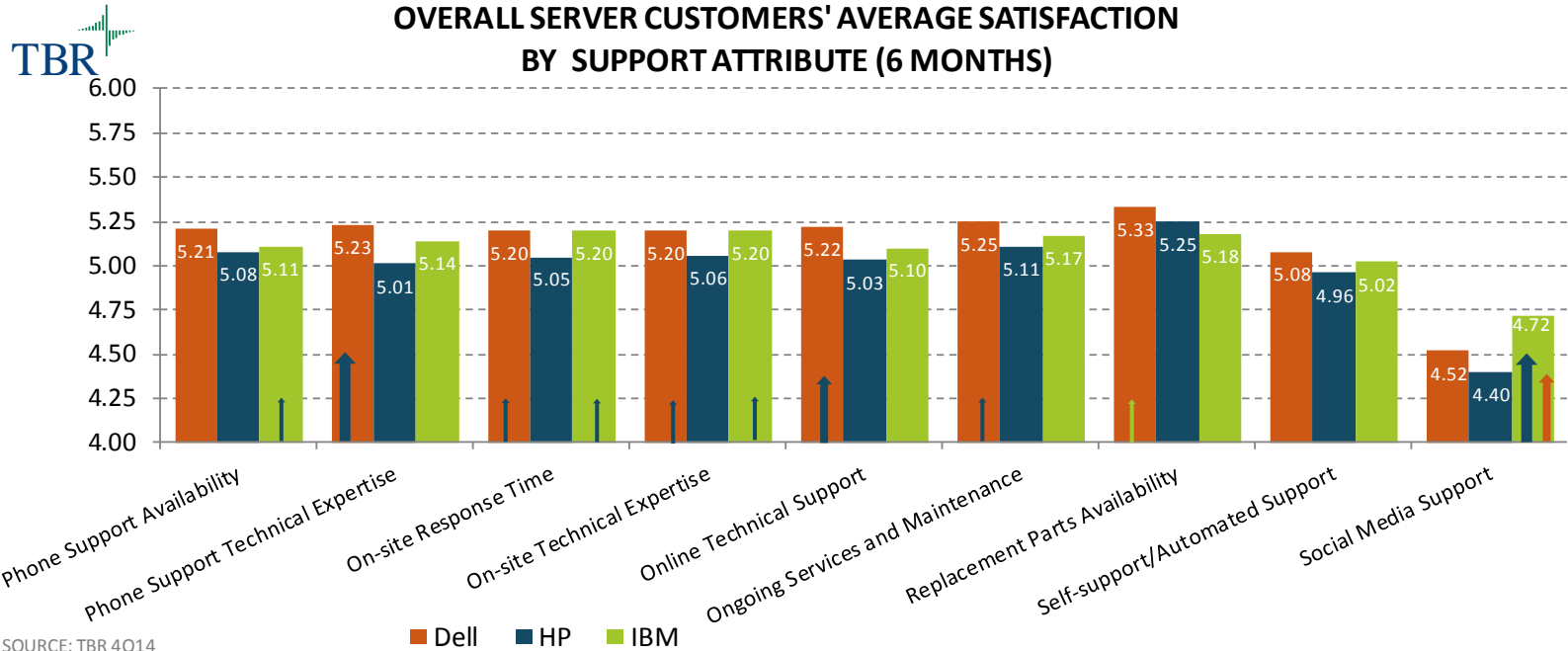# HP leads 6-month satisfaction in every attribute except TCO

**OVERALL SERVER CUSTOMERS' AVERAGE SATISFACTION
BY PRODUCT ATTRIBUTE (6 MONTHS)**



SOURCE: TBR 4Q14

Legend: ■ Dell  ■ HP  ■ IBM

Values by attribute (Dell, HP, IBM):
- Initial Hardware Quality: 5.39, 5.45, 5.30
- Ongoing Hardware Reliability: 5.37, 5.43, 5.29
- Performance: 5.45, 5.48, 5.40
- Virtualization, Efficiency, Scalability: 5.40, 5.45, 5.29
- Total Cost of Ownership: 5.25, 5.22, 5.16
- Management Capabilities: 5.22, 5.30, 5.16
- Product Design/Features: 5.30, 5.35, 5.26

## Product Satisfaction Drivers

- HP scored highest in product-related attributes and had significant advantages over IBM in three of seven attributes critical to customers.

- Customers were most satisfied with performance; initial and ongoing hardware reliability; and virtualization, efficiency and scalability. Customers were least satisfied with total cost of ownership, a critical attribute for customers.

**Customer Comment**  *"Online services allow us to spec things out in advance and avoid getting features we don't need."*  **— Dell customer**

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Dell had a significant advantage in 7 of 9 support attributes, making the vendor No. 1 in support satisfaction

**OVERALL SERVER CUSTOMERS' AVERAGE SATISFACTION BY SUPPORT ATTRIBUTE (6 MONTHS)**



Legend: ■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

| Attribute | Dell | HP | IBM |
|---|---|---|---|
| Phone Support Availability | 5.21 | 5.08 | 5.11 |
| Phone Support Technical Expertise | 5.23 | 5.01 | 5.14 |
| On-site Response Time | 5.20 | 5.05 | 5.20 |
| On-site Technical Expertise | 5.20 | 5.06 | 5.20 |
| Online Technical Support | 5.22 | 5.03 | 5.10 |
| Ongoing Services and Maintenance | 5.25 | 5.11 | 5.17 |
| Replacement Parts Availability | 5.33 | 5.25 | 5.18 |
| Self-support/Automated Support | 5.08 | 4.96 | 5.02 |
| Social Media Support | 4.52 | 4.40 | 4.72 |

## Service Satisfaction Drivers

- Overall, customers were most satisfied with phone replacement parts availability and ongoing services and maintenance, important value-added attributes.

- Dell held significant advantages over other vendors in seven of nine support-related attributes.

**Customer Comments**

*"Very rarely is there a misdiagnosis, and they are quick with getting the system back up."* — **HP customer**

*"The time between purchase and delivery and setup of IBM rack servers has been phenomenal. We are very pleased with the time they take to deliver the rack servers and set them up."* — **IBM customer**

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
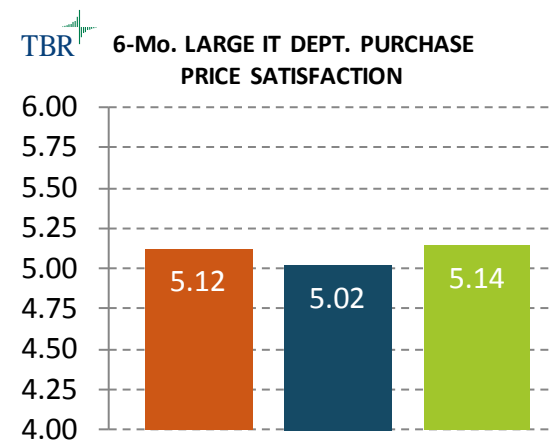
# Appendix A
## x86-based Server Attribute Analysis: Sales Satisfaction

TBR

# Dell reclaimed the top spot in purchase price/acquisition cost in 4Q14, an attribute its users rated critical

### 3-Mo. PURCHASE PRICE/ACQUISITION COST SATISFACTION TRENDS

TBR

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.04 | 4.98 | 5.24 | 5.05 | 5.25 |
| HP | 5.00 | 4.95 | 5.08 | 4.98 | 5.08 |
| IBM | 5.03 | 4.92 | 5.48 | 5.16 | 5.08 |

SOURCE: TBR 4Q14

### 6-Mo. PURCHASE PRICE/ACQUISITION COST SATISFACTION TRENDS

TBR

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.08 | 5.01 | 5.11 | 5.14 | 5.15 |
| HP | 5.05 | 4.97 | 5.01 | 5.03 | 5.03 |
| IBM | 5.05 | 4.98 | 5.20 | 5.32 | 5.12 |

SOURCE: TBR 4Q14
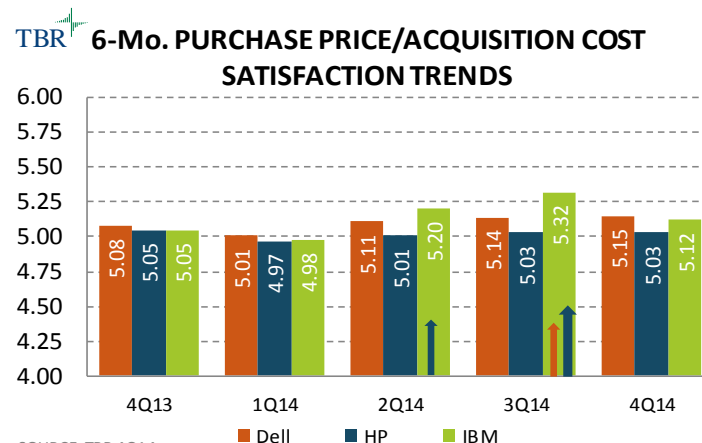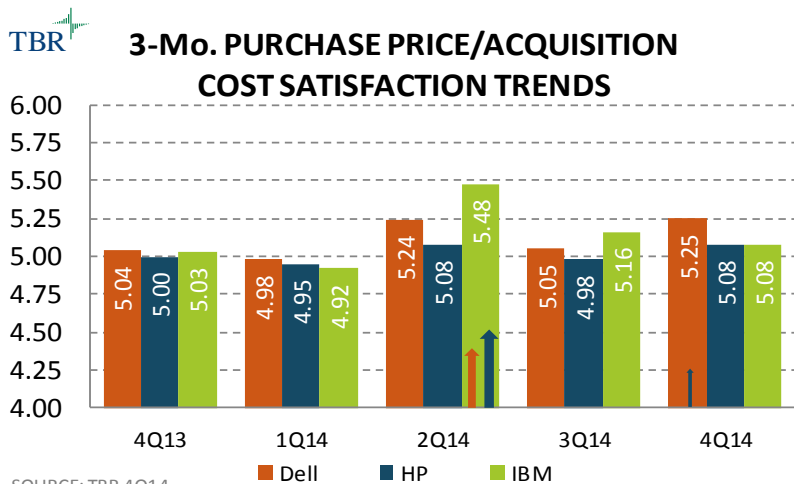
## Dell

- Dell's six-month purchase price/ acquisition cost satisfaction score increased from 3Q14 to 4Q14, enabling Dell to move up to the No. 1 position over IBM.

- Dell blade and rack server customers considered the purchase price/ acquisition cost of x86 servers to be critical, but rack customers were slightly more satisfied.

## HP

- HP's six-month purchase price/ acquisition cost satisfaction score remained flat for the fourth consecutive quarter, resulting in a No. 3 finish for 4Q14.

- HP customers in small IT departments were more satisfied than those in medium or large IT departments; however, HP customers in all sized departments were the least satisfied when compared to competitors.

## IBM

- IBM's six-month purchase price/ acquisition cost satisfaction decreased in 4Q14, which resulted in it dropping to the No. 2 position behind Dell. This is the first time in three quarters IBM's score has decreased.

- IBM server users on average considered purchase price/ acquisition cost as critical, compared to HP's customers, which considered the attribute important.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Purchase Price/Acquisition Cost: Analysis by IT Department Size
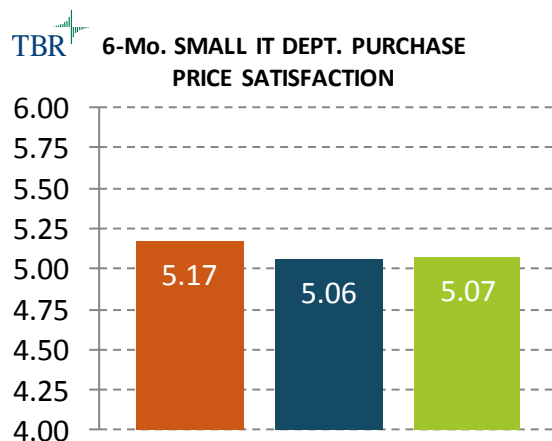
**TBR 6-Mo. SMALL IT DEPT. PURCHASE PRICE SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| | 5.17 | 5.06 | 5.07 |

SOURCE: TBR 4Q14

**TBR 6-Mo. MEDIUM IT DEPT. PURCHASE PRICE SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| | 5.15 | 5.02 | 5.11 |

SOURCE: TBR 4Q14

**TBR 6-Mo. LARGE IT DEPT. PURCHASE PRICE SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| | 5.12 | 5.02 | 5.14 |

SOURCE: TBR 4Q14

Legend: ■ Dell ■ HP ■ IBM
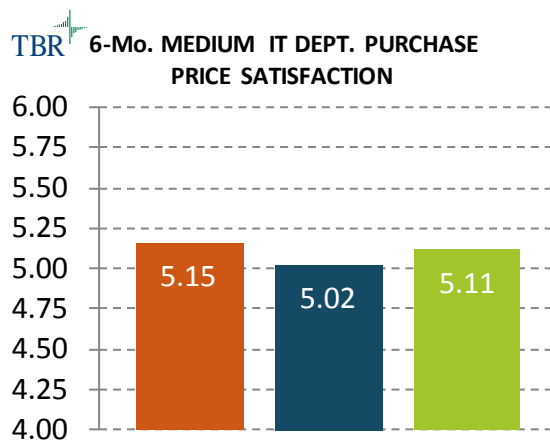
## Customer Comments

**Small IT Customers**

**HP:** *"They are not nearly as expensive as many of the other brands."*

**IBM:** *"They are understanding of our business needs and make everything possible."*

**Medium IT Customers**

**Dell:** *"Lowest [cost] in the industry, and still good quality."*

**HP:** *"Best quality and price for the type of the server."*

**Large IT Customers**

**Dell:** *"[Dell's] price performance index can't be beat."*

**IBM:** *"We have been a longtime, dedicated customer of IBM products, and we are able to negotiate excellent prices on their rack servers."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Purchase Price: Blade vs. Rack Server Rankings

## Customer Comments

*"Pricing is competitive with others; more performance for the money."*
**— Dell rack customer**

*"HP costs are low, and quality is good. The performance is also good for the money, and in general, I feel I get a good value."*
**— HP rack customer**

*"Since we have been a dedicated customer of IBM for many years we are able to negotiate very competitive prices for their blade servers. Management has been totally satisfied with the price that we pay for all of their products."*
**— IBM blade customer**

*"You get what you pay for. It is totally worth it. For the price, it works great."*
**— HP blade customer**

### 6-Mo. PURCHASE PRICE/ACQUISITION COST SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▨ Rack

### 6-Mo. PURCHASE PRICE/ACQUISITION COST IMPORTANCE
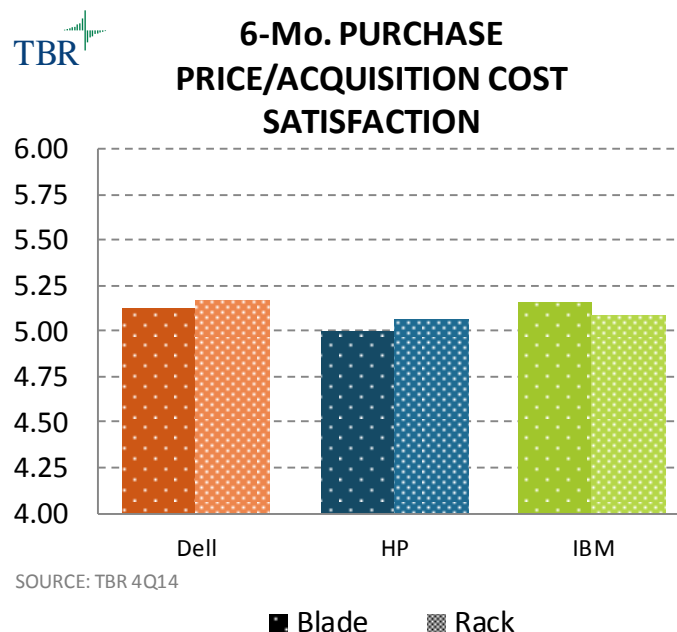
|        | Dell     | HP        | IBM      |
|--------|----------|-----------|----------|
| Server | Critical | Important | Critical |
| Blade  | Critical | Important | Critical |
| Rack   | Critical | Critical  | Critical |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# IBM maintained its No. 1 position and significant differentiation in one-time services and setup for the 5th consecutive quarter in 4Q14

### 3-Mo. ONE-TIME SERVICES AND SETUP SATISFACTION TRENDS



SOURCE: TBR 4Q14

### 6-Mo. ONE-TIME SERVICES AND SETUP SATISFACTION TRENDS



SOURCE: TBR 4Q14
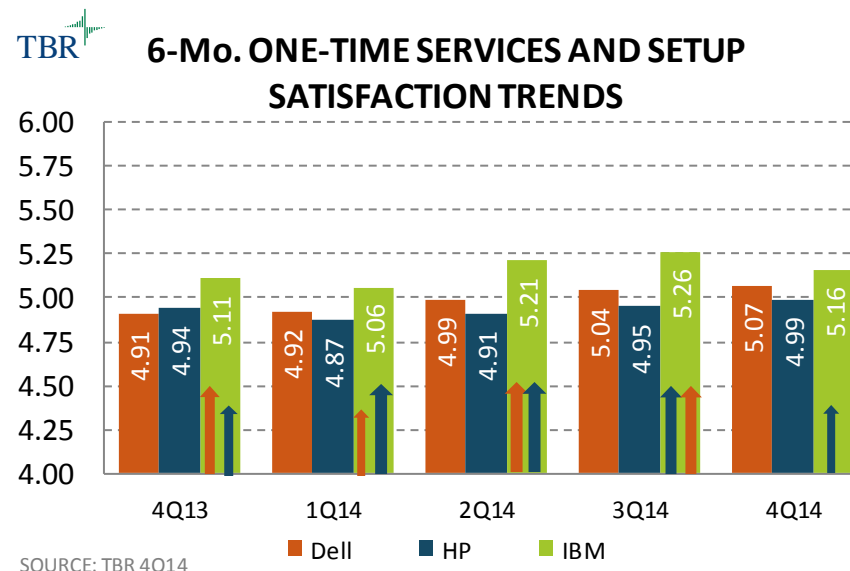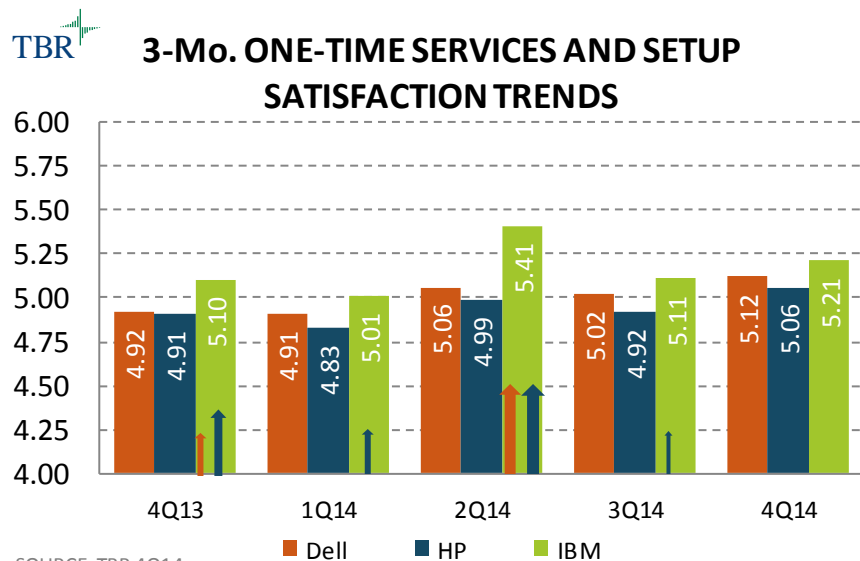
## Dell

- Dell's six-month one-time services and setup satisfaction score increased slightly from 3Q14 and greatly year-to-year, resulting in Dell's No. 2 finish in 4Q14.

- Blade users reported higher satisfaction with Dell's one-time services and setup than rack server customers, opposite of other vendors.

## HP

- HP's six-month one-time services and setup satisfaction score remained flat in 4Q14, and it fell to the No. 3 position behind Dell.

- HP's satisfaction scores from customers in medium IT departments were on par with other vendors.

## IBM

- IBM's six-month one-time services and setup scores decreased sequentially in 4Q14; however, it finished in the No. 1 position for the fifth consecutive quarter.

- IBM rack customers were more satisfied with one-time services and setup than IBM blade server customers.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# One-time Services and Setup: Analysis by IT Department Size
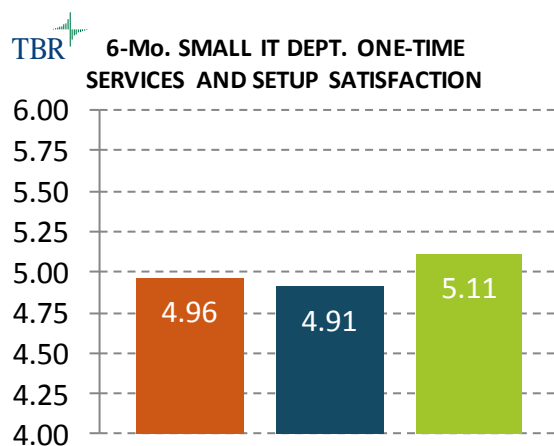
**TBR** 6-Mo. SMALL IT DEPT. ONE-TIME SERVICES AND SETUP SATISFACTION



SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. ONE-TIME SERVICES AND SETUP SATISFACTION



SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. ONE-TIME SERVICES AND SETUP SATISFACTION
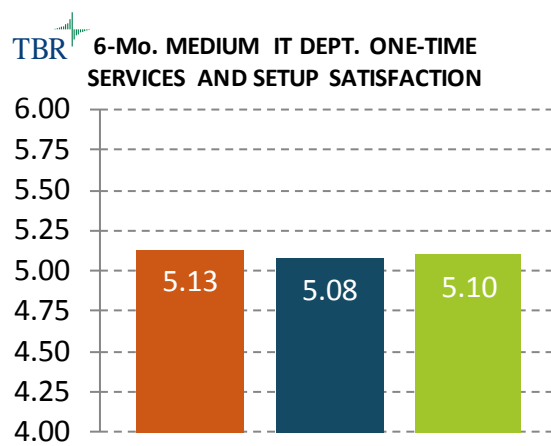


SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM
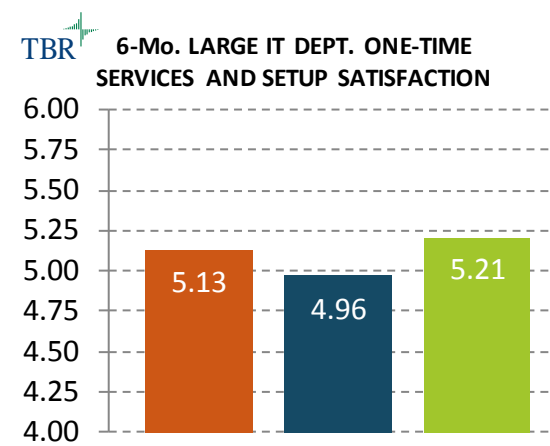
## Customer Comments

**Small IT Customers**

**HP:** *"[HP] went above and beyond with initial setup support."*

**Dell:** *"When we have issues and need parts, shipping is fast and we have no downtime."*

**Medium IT Customers**

**Dell:** *"Very satisfied with setup time."*

**IBM:** *"The setup on their servers is simple and easy to install."*

**Large IT Customers**

**IBM:** *"Quick response times and a support team dedicated to our company."*

**HP:** *"Quick response to last-minute upper management concerns/ questions."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

TBR

# One-time Services and Setup: Blade vs. Rack Server Rankings

## Customer Comments

*"Delivery can be less than four hours. Setup is quick."*
**— Dell blade customer**

*"We are totally and completely satisfied with IBM blade server ongoing maintenance, self-support features and replacement parts availability because we have never been disappointed with IBM in any of these areas. They are a top-notch technology company because they take care of their customers long after the purchase and installation of their blade servers."*
**— IBM blade customer**

*"Techs are knowledgeable and get the server set up properly."*
**— HP rack customer**

*"I cannot commend IBM enough for their ongoing maintenance, self-support features and replacement parts availability. Since we are a good customer of IBM, we have dedicated people from IBM to meet all our need in these areas."*
**— IBM rack customer**

TBR **6-Mo. ONE-TIME SERVICES AND SETUP SATISFACTION**



SOURCE: TBR 4Q14

■ Blade ▨ Rack
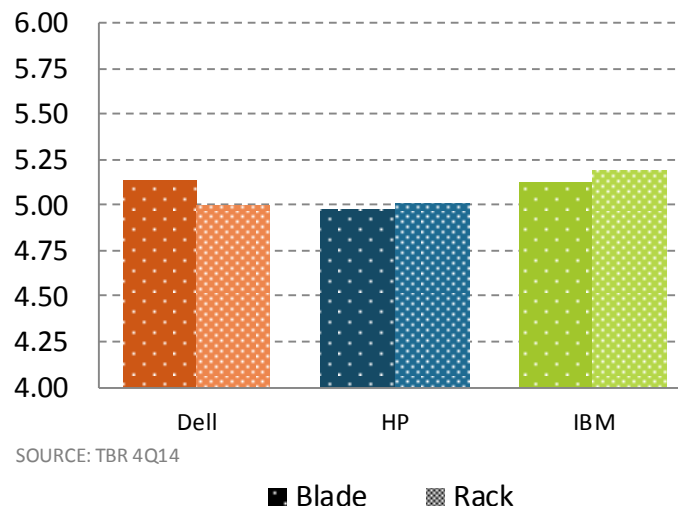
| 6-Mo. ONE-TIME SERVICES AND SETUP IMPORTANCE | | | |
|---|---|---|---|
| | Dell | HP | IBM |
| Server | Less | Less | Less |
| Blade | Less | Less | Less |
| Rack | Less | Less | Less |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Relatively high satisfaction among large IT departments helped IBM maintain its No. 1 spot in delivery time and product availability in 4Q14

**TBR**

### 3-Mo. DELIVERY TIME AND PRODUCT AVAILABILITY SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 4.99 | 4.98 | 5.25 | 5.06 | 5.15 |
| HP | 5.05 | 4.88 | 5.13 | 5.05 | 5.01 |
| IBM | 5.14 | 5.04 | 5.46 | 5.13 | 5.23 |

SOURCE: TBR 4Q14

**TBR**

### 6-Mo. DELIVERY TIME AND PRODUCT AVAILABILITY SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.01 | 4.98 | 5.12 | 5.15 | 5.11 |
| HP | 5.09 | 4.96 | 5.00 | 5.09 | 5.03 |
| IBM | 5.16 | 5.09 | 5.25 | 5.30 | 5.18 |

SOURCE: TBR 4Q14
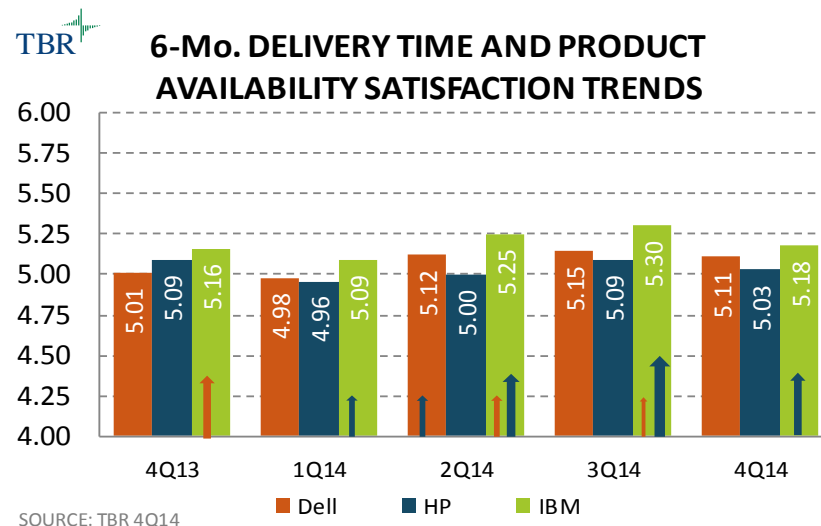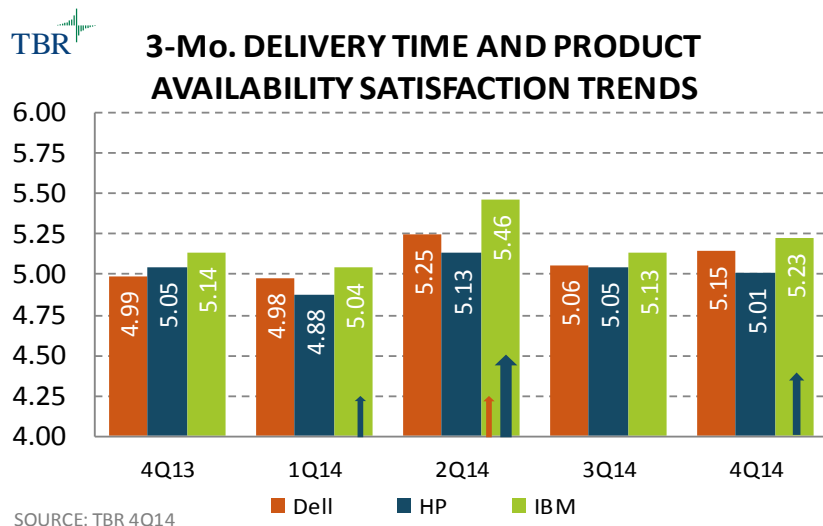
## Dell

- Dell's six-month delivery time and product availability satisfaction score decreased from 3Q14; however, it increased year-to-year, resulting in Dell's No. 2 finish.

- Dell scored relatively high for satisfaction in delivery time and product availability among customers in large and medium IT departments.

## HP

- A decrease in year-to-year satisfaction in six-month delivery time and product availability resulted in a No. 3 finish for HP in this attribute.

- Compared to competitors, HP's delivery time and product availability satisfaction levels were lower for both rack and blade server customers.

## IBM

- IBM maintained its No. 1 position in the important six-month delivery time and product availability attribute for the fifth consecutive quarter, even after a sequential decrease in satisfaction.

- Satisfaction in delivery time and product availability was highest among IBM's large IT departments, with the highest scores among competitors for rack servers.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Delivery Time and Product Availability: Analysis by IT Department Size



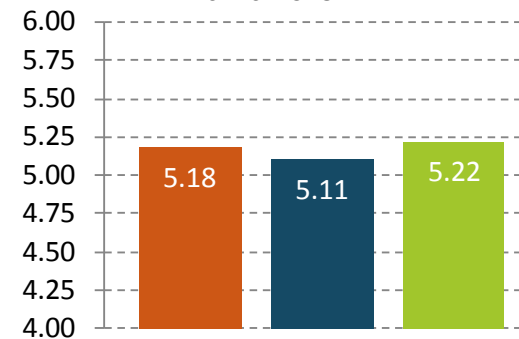TBR 6-Mo. SMALL IT DEPT. DELIVERY TIME SATISFACTION

Dell 4.97 | HP 4.91 | IBM 5.15
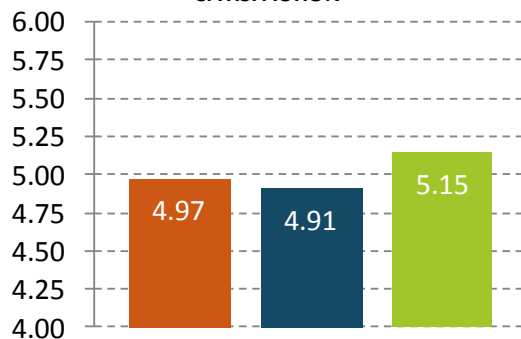
SOURCE: TBR 4Q14

TBR 6-Mo. MEDIUM IT DEPT. DELIVERY TIME SATISFACTION

Dell 5.18 | HP 5.05 | IBM 5.11
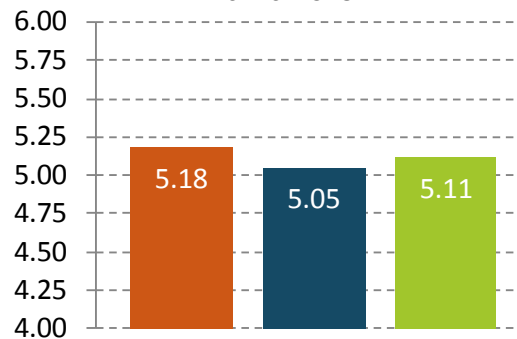
SOURCE: TBR 4Q14

TBR 6-Mo. LARGE IT DEPT. DELIVERY TIME SATISFACTION

Dell 5.18 | HP 5.11 | IBM 5.22

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**HP:** *"They arrive quickly and are ready to be used."*

**Dell:** *"Products arrive quickly."*

**Medium IT Customers**

**Dell:** *"Easy setup and configuration, better self-guided installation."*

**IBM:** *"Very efficient delivery, and IBM met all our requirements."*

**Large IT Customers**

**IBM:** *"Delivery is fast, and setup is easy."*

**HP:** *"Professional setup — systems [are] ready for configuration in a short amount of time."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

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# Delivery Time and Product Availability: Blade vs. Rack Server Rankings

## Customer Comments

*"They are very professional and provide a newer no-effort delivery."*
— **HP rack customer**

*"It was simple, fast, tracked, systematic, impressively packaged."*
— **Dell rack customer**

*"They arrive quickly and are ready to be used."*
— **HP blade customer**

*"The delivery time and setup time have exceeded our expectations after we purchased IBM blade servers. Their employees are efficient and knowledgeable."*
— **IBM blade customer**

### TBR 6-Mo. DELIVERY TIME AND PRODUCT AVAILABILITY SATISFACTION



SOURCE: TBR 4Q14

■ Blade ▨ Rack

### 6-Mo. DELIVERY TIME AND PRODUCT AVAILABILITY IMPORTANCE

|        | Dell | HP | IBM |
|--------|------|------|------|
| Server | **Important** | **Important** | **Important** |
| Blade  | **Important** | **Important** | **Important** |
| Rack   | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Even with IBM's drop in sales responsiveness satisfaction, it retained its significant advantage over HP

## 3-Mo. SALES RESPONSIVENESS SATISFACTION TRENDS

Chart — Sales responsiveness satisfaction scores by quarter (Dell, HP, IBM):

| Quarter | Dell | HP | IBM |
|---------|------|------|------|
| 4Q13 | 4.87 | 4.86 | 4.95 |
| 1Q14 | 4.83 | 4.72 | 4.99 |
| 2Q14 | 5.10 | 4.90 | 5.49 |
| 3Q14 | 4.93 | 4.78 | 4.91 |
| 4Q14 | 5.01 | 4.90 | 5.05 |

SOURCE: TBR 4Q14

Legend: ■ Dell ■ HP ■ IBM

## 6-Mo. SALES RESPONSIVENESS SATISFACTION TRENDS

Chart — Sales responsiveness satisfaction scores by quarter (Dell, HP, IBM):

| Quarter | Dell | HP | IBM |
|---------|------|------|------|
| 4Q13 | 4.93 | 4.91 | 4.97 |
| 1Q14 | 4.85 | 4.79 | 4.97 |
| 2Q14 | 4.96 | 4.81 | 5.24 |
| 3Q14 | 5.01 | 4.84 | 5.20 |
| 4Q14 | 4.97 | 4.84 | 4.98 |

SOURCE: TBR 4Q14

Legend: ■ Dell ■ HP ■ IBM

## Dell

- Dell's six-month sales responsiveness satisfaction score was flat sequentially and rose year-to-year, resulting in it tying for the No. 1 position with IBM in 4Q14.

- Although sequentially flat, Dell's satisfaction rating maintained its significant differentiation over HP in the value-added sales responsiveness attribute for the third consecutive quarter.

## HP

- HP's 4Q14 six-month sales responsiveness satisfaction declined year-to-year and was flat sequentially, resulting in its No. 3 finish.

- HP tied with Dell for the highest satisfaction score from customers in medium IT departments.

## IBM

- IBM's six-month sales responsiveness satisfaction score was flat year-to-year but decreased from 3Q14 to tie with Dell for the No. 1 position.

- Large IT department customers of IBM were more satisfied with sales responsiveness compared to customers in small and medium departments.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Sales Responsiveness: Analysis by IT Department Size
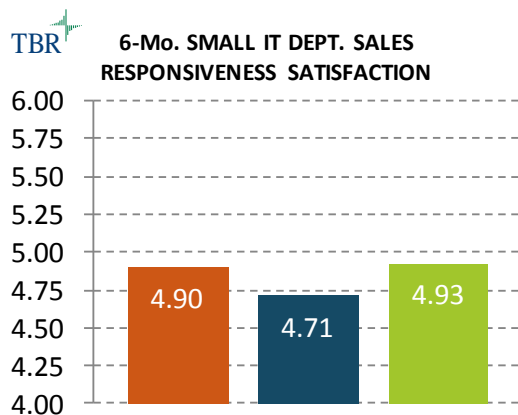
**6-Mo. SMALL IT DEPT. SALES RESPONSIVENESS SATISFACTION**

Dell: 4.90
HP: 4.71
IBM: 4.93

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. SALES RESPONSIVENESS SATISFACTION**

Dell: 5.03
HP: 4.95
IBM: 4.93

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. SALES RESPONSIVENESS SATISFACTION**

Dell: 4.98
HP: 4.82
IBM: 5.02
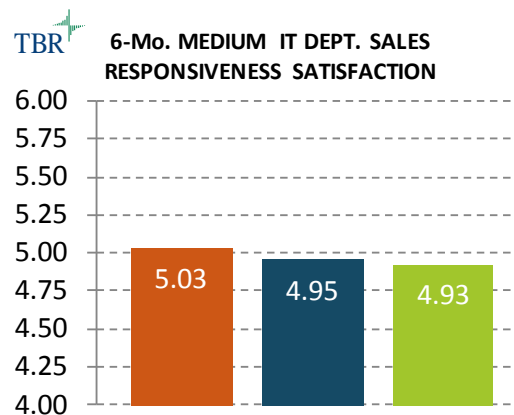
SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM
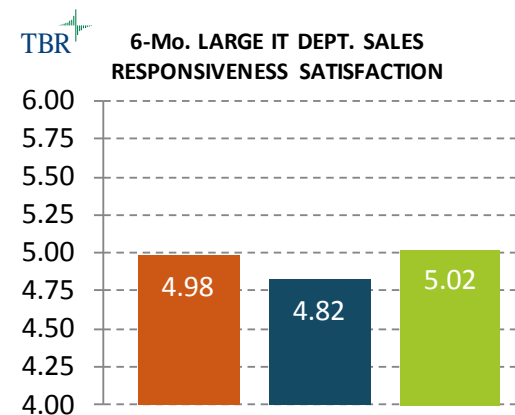
## Customer Comments

**Small IT Customers**

**IBM:** *"They stand by their products and are always willing and ready to help."*

**Dell:** *"The Dell technicians are typically well-trained and quick to offer value-added services, such as knowledge transfer."*

**Medium IT Customers**

**Dell:** *"Quick response and follow up by knowledgeable staff."*

**IBM:** *"IBM overall has among the best customer service for servers."*

**Large IT Customers**

**Dell:** *"I can call in with questions, speak to someone right away and be sure my problem will be solved."*

**HP:** *"High-end applications that are down have a 24-hour turnaround to get the application back up and running."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

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# Sales Responsiveness: Blade vs. Rack Server Rankings

## Customer Comments

*"HP phone support is great; can get results with first call."*
— **HP blade customer**

*"Expertise of technicians is above-average."*
— **Dell blade customer**

*"They have a large social media platform that allows contact to be easily made."*
— **IBM rack customer**

*"Very knowledgeable and helpful; usually solves the problem on the first call."*
— **HP rack customer**

### TBR — 6-Mo. SALES RESPONSIVENESS SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▦ Rack
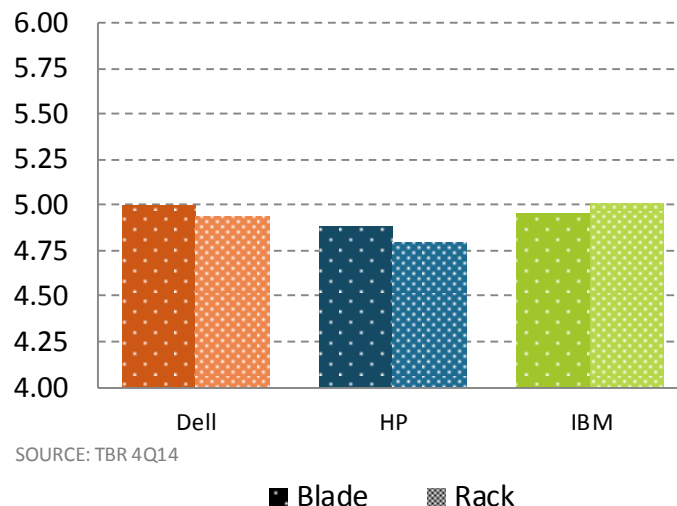
### 6-Mo. SALES RESPONSIVENESS IMPORTANCE

|        | Dell | HP   | IBM  |
|--------|------|------|------|
| Server | Less | Less | Less |
| Blade  | Less | Less | Less |
| Rack   | Less | Less | Less |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# High satisfaction among rack server users resulted in IBM's No. 1 finish in post-purchase customer care, which its customers rate as important

**3-Mo. POST-PURCHASE CUSTOMER CARE SATISFACTION TRENDS**
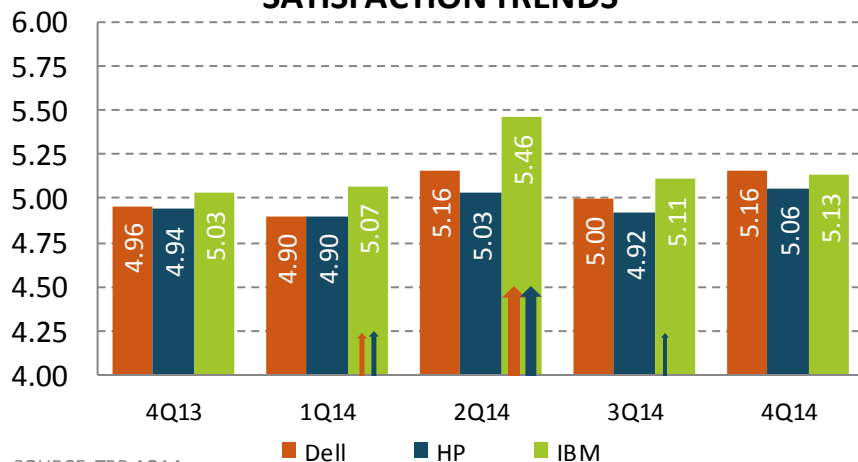


SOURCE: TBR 4Q14

**6-Mo. POST-PURCHASE CUSTOMER CARE SATISFACTION TRENDS**
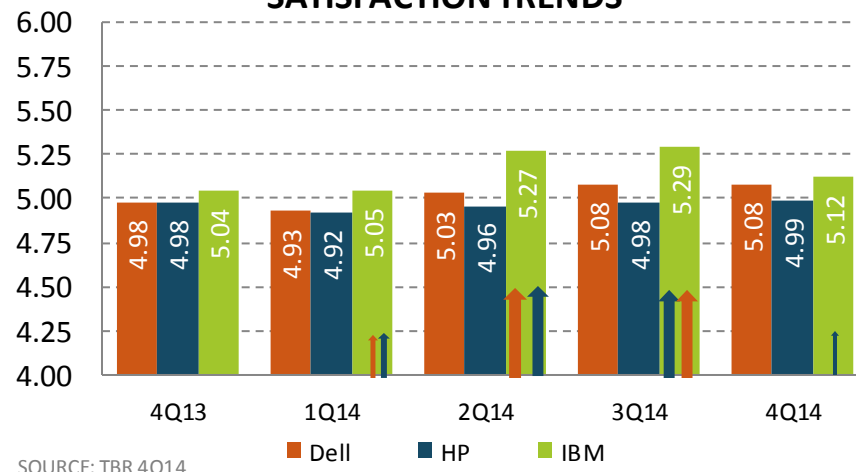


SOURCE: TBR 4Q14

## Dell

- Dell's six-month post-purchase customer care satisfaction score was flat sequentially but grew year-to-year, putting Dell into a tie for the No. 1 position with IBM.

- Dell's post-purchase customer care satisfaction was highest among competitors for blade server users.

## HP

- HP's six-month post-purchase customer care satisfaction score was flat sequentially and year-to-year, resulting in a No. 3 finish for 4Q14.

- Like in sales responsiveness, HP's customers within medium IT departments scored HP higher than those in small and large departments.

## IBM

- IBM's six-month post-purchase customer care score decreased from 3Q14, which dropped IBM into a tie for the No. 1 position.

- IBM rack server customers, the only customer group to rate the attribute as important as opposed to value-added, were the most satisfied in the area in 4Q14.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Post-purchase Customer Care: Analysis by IT Department Size
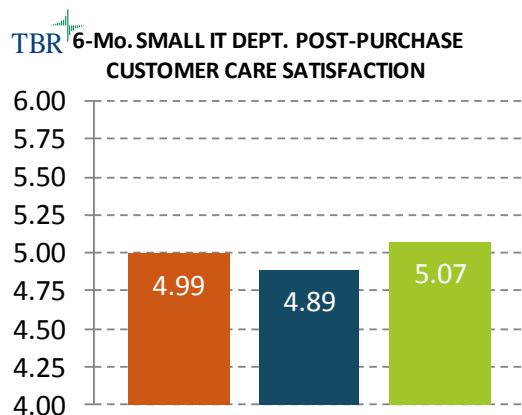
### TBR 6-Mo. SMALL IT DEPT. POST-PURCHASE CUSTOMER CARE SATISFACTION



SOURCE: TBR 4Q14

### TBR 6-Mo. MEDIUM IT DEPT. POST-PURCHASE CUSTOMER CARE SATISFACTION



SOURCE: TBR 4Q14

### TBR 6-Mo. LARGE IT DEPT. POST-PURCHASE CUSTOMER CARE SATISFACTION
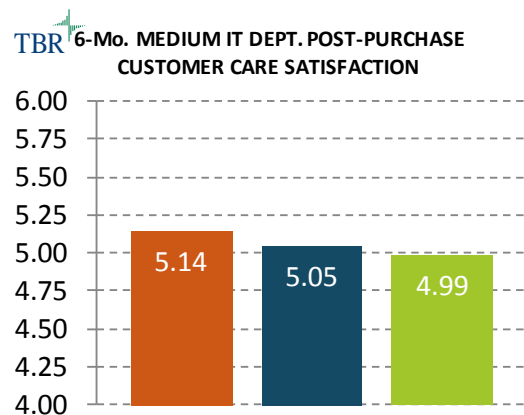


SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM
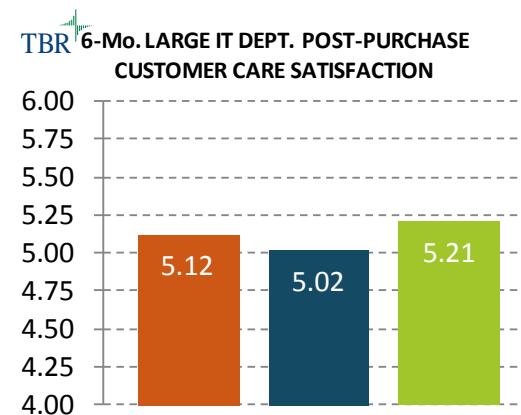
## Customer Comments

**Small IT Customers**

**Dell:** *"Our inside sales rep has always been very responsive, and his sales team has been very accommodating and competitive on pricing when we would bring in lower quotes from other vendors like HP."*

**HP:** *"Tech was able to quickly resolve issue."*

**Medium IT Customers**

**Dell:** *"We almost always get our first choice of appointment times. Also, techs are able to resolve issues."*

**IBM:** *"The few times we've needed them they have been prompt and the quality of service has been good."*

**Large IT Customers**

**HP:** *"Sales reps have been fantastic."*

**IBM:** *"Never had issues with post-sales support."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

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# Post-purchase Customer Care: Blade vs. Rack Server Rankings

## Customer Comments

*"The support team is extremely knowledgeable, and escalations move smoothly."*
**— Dell rack customer**

*"Their customer service on the phone is very strong, and [there are] typically very low wait times."*
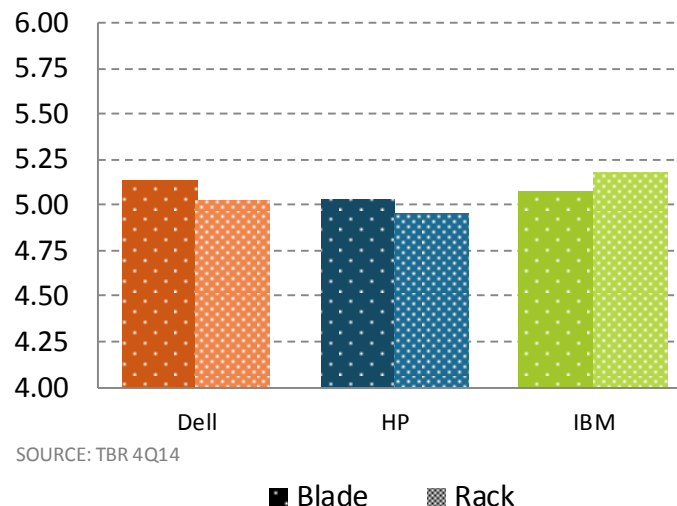**— IBM rack customer**

*"When we have to use it, [it is] very responsive and usually solves the problem on the first call."*
**— HP blade customer**

*"They are extremely well-trained and knowledgeable of issues and fixes."*
**— IBM rack customer**

TBR **6-Mo. POST-PURCHASE CUSTOMER CARE SATISFACTION**



SOURCE: TBR 4Q14

■ Blade ▨ Rack

### 6-Mo. POST-PURCHASE CUSTOMER CARE IMPORTANCE

|  | Dell | HP | IBM |
|---|---|---|---|
| Server | Less | Less | **Important** |
| Blade | Less | Less | **Important** |
| Rack | Less | Less | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
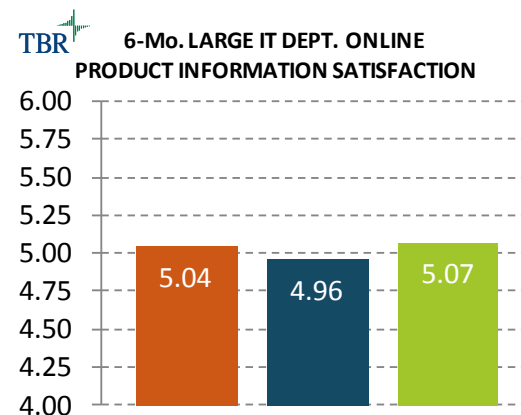
©2015 Technology Business Research Inc.

# Dell and IBM marginally beat out HP in online product information satisfaction

### 3-Mo. ONLINE PRODUCT INFORMATION SATISFACTION TRENDS

Dell, HP, IBM values by quarter:
- 4Q13: Dell 5.01, HP 4.92, IBM 4.96
- 1Q14: Dell 4.90, HP 4.83, IBM 4.81
- 2Q14: Dell 5.23, HP 5.06, IBM 5.41
- 3Q14: Dell 4.96, HP 4.95, IBM 5.08
- 4Q14: Dell 5.14, HP 5.08, IBM 5.02

Legend: ■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

### 6-Mo. ONLINE PRODUCT INFORMATION SATISFACTION TRENDS

Dell, HP, IBM values by quarter:
- 4Q13: Dell 5.00, HP 5.03, IBM 4.93
- 1Q14: Dell 4.95, HP 4.88, IBM 4.89
- 2Q14: Dell 5.07, HP 4.94, IBM 5.11
- 3Q14: Dell 5.10, HP 5.01, IBM 5.25
- 4Q14: Dell 5.05, HP 5.02, IBM 5.05

Legend: ■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

## Dell

- Dell's six-month online product information satisfaction score was flat sequentially in 4Q14; however, the vendor finished in a tie for the No. 1 position with IBM.

- Unlike HP and IBM, Dell's medium IT departments were most satisfied with the online product information attribute.

## HP

- Though HP again finished in the No. 3 spot in six-month online product information satisfaction, the vendor maintained its score and closed the gap with the other vendors.

- HP customers in small IT departments were more satisfied than customers in both competitors' small IT departments as well as HP customers in medium and large IT departments.

## IBM

- IBM's online product satisfaction score decreased greatly on a sequential basis; however, satisfaction increased year-to-year, and IBM remained No. 1 in this value-added attribute.

- Medium and large IT departments were relatively more satisfied with IBM compared to small IT departments.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Online Product Information: Analysis by IT Department Size
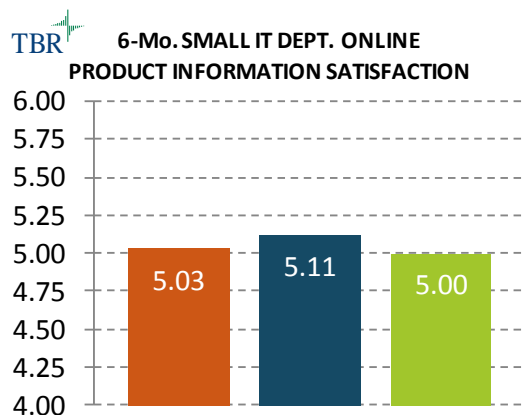


**6-Mo. SMALL IT DEPT. ONLINE PRODUCT INFORMATION SATISFACTION**

Dell 5.03 | HP 5.11 | IBM 5.00

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. ONLINE PRODUCT INFORMATION SATISFACTION**

Dell 5.09 | HP 5.00 | IBM 5.05

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. ONLINE PRODUCT INFORMATION SATISFACTION**

Dell 5.04 | HP 4.96 | IBM 5.07
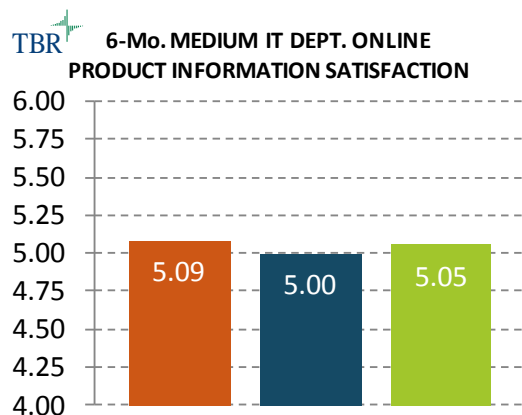
SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**HP:** *"I can always find the documentation or drivers that I'm looking for."*

**Dell:** *"We can always find the information we need. Every document is online and easily findable through the hierarchy and search."*

**Medium IT Customers**

**IBM:** *"Online support is just as strong as the other areas."*

**HP:** *"[We are] able to find what we need online."*

**Large IT Customers**

**Dell:** *"[The] website provided adequate tools to perform task."*

**IBM:** *"IBM's site is easy to navigate and search through their problem database."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Online Product Information: Blade vs. Rack Server Rankings

| Customer Comments |
| --- |

TBR **6-Mo. ONLINE PRODUCT INFORMATION SATISFACTION**

*"The IBM website gives me reference material on even older machines that we have when I need to go back and look up system specs or make a memory change and no longer have a manual for that server. I found this easy to do online myself and was useful."*
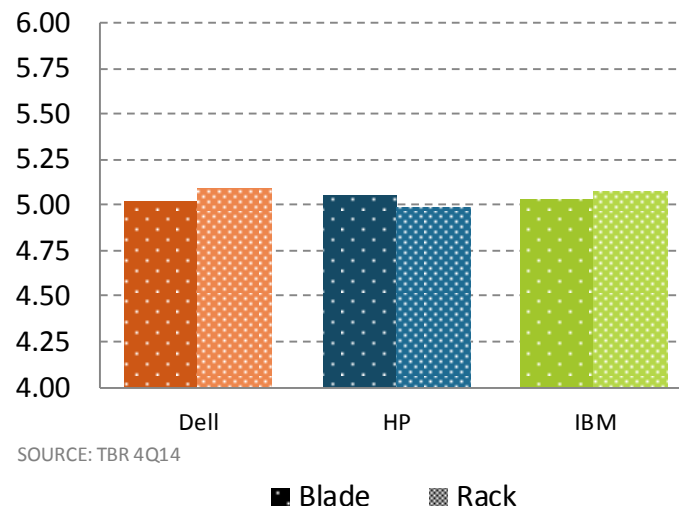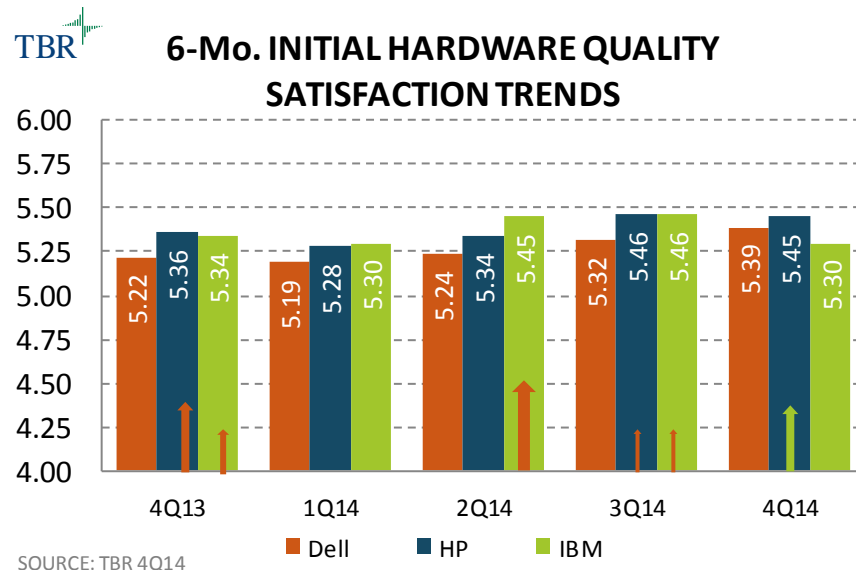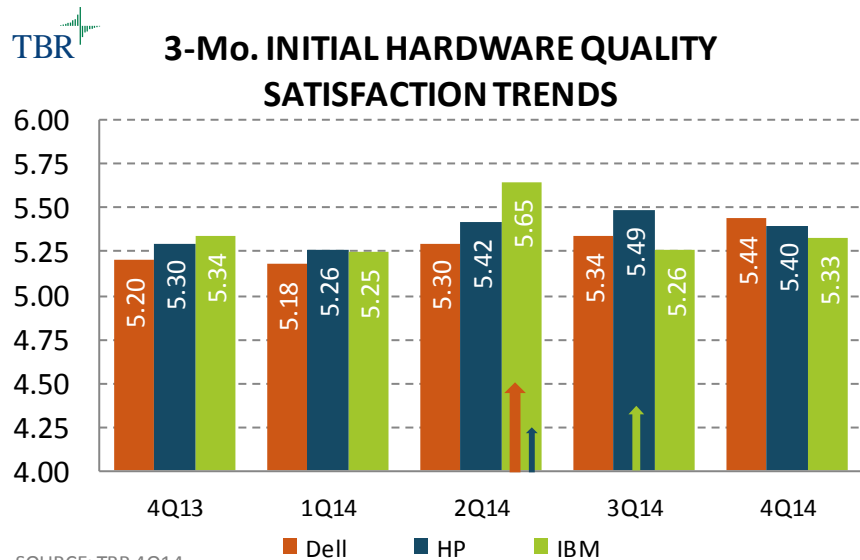**—IBM rack customer**

*"I can always find what I need online."*
**— HP blade customer**

*"Good breadth of resources that is easy to use based on service tag."*
**— Dell rack customer**

SOURCE: TBR 4Q14

■ Blade ▨ Rack

### 6-Mo. ONLINE PRODUCT INFORMATION IMPORTANCE

|  | Dell | HP | IBM |
| --- | --- | --- | --- |
| Server | Less | Less | Less |
| Blade | Less | Less | Less |
| Rack | Less | Less | Less |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
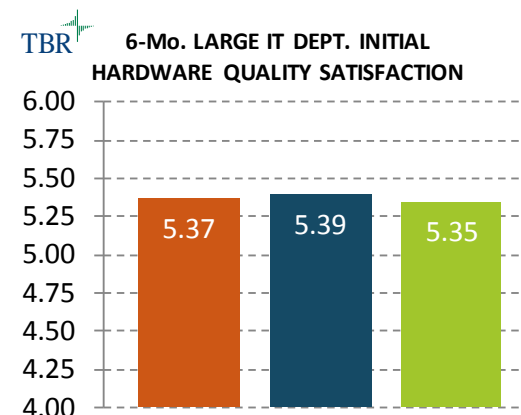
# Appendix B
**x86-based Server Attribute Analysis: Product Satisfaction**

# HP improved initial hardware quality satisfaction year-to-year, enabling it to become the No. 1 vendor in a critical buying attribute for all users

### 3-Mo. INITIAL HARDWARE QUALITY SATISFACTION TRENDS

Dell, HP, IBM scores by quarter:

- 4Q13: Dell 5.20, HP 5.30, IBM 5.34
- 1Q14: Dell 5.18, HP 5.26, IBM 5.25
- 2Q14: Dell 5.30, HP 5.42, IBM 5.65
- 3Q14: Dell 5.34, HP 5.49, IBM 5.26
- 4Q14: Dell 5.44, HP 5.40, IBM 5.33

Legend: Dell, HP, IBM

SOURCE: TBR 4Q14

### 6-Mo. INITIAL HARDWARE QUALITY SATISFACTION TRENDS

Dell, HP, IBM scores by quarter:

- 4Q13: Dell 5.22, HP 5.36, IBM 5.34
- 1Q14: Dell 5.19, HP 5.28, IBM 5.30
- 2Q14: Dell 5.24, HP 5.34, IBM 5.45
- 3Q14: Dell 5.32, HP 5.46, IBM 5.46
- 4Q14: Dell 5.39, HP 5.45, IBM 5.30

Legend: Dell, HP, IBM

SOURCE: TBR 4Q14

## Dell

- Dell's six-month initial hardware quality satisfaction score improved sequentially, enabling the vendor to move to the No. 2 position for 4Q14.

- Those in small IT departments scored Dell higher in this critical attribute than those in medium and large departments.

## HP

- HP's six-month initial hardware quality satisfaction score was flat sequentially in 4Q14, enabling the vendor to keep the No. 1 position in this critically important category.

- HP established an advantage over IBM in this attribute, as the vendor finished with sole possession of No. 1 for the first time since 4Q13.

## IBM

- IBM's six-month initial hardware quality satisfaction score decreased in 4Q14, forcing IBM to the No. 3 position and matching its score in 1Q14.

- IBM scored highest among those in large IT departments but on par with other vendors.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Initial Hardware Quality: Analysis by IT Department Size
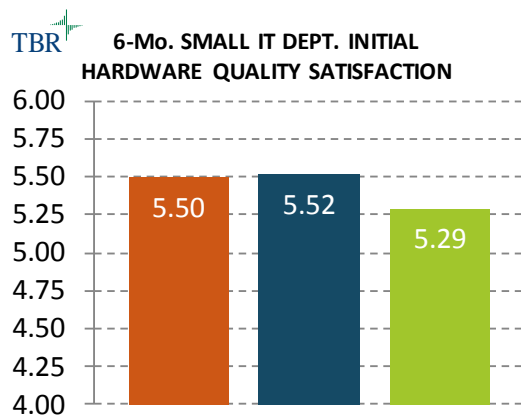
**TBR**
**6-Mo. SMALL IT DEPT. INITIAL HARDWARE QUALITY SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| Score | 5.50 | 5.52 | 5.29 |

SOURCE: TBR 4Q14

**TBR**
**6-Mo. MEDIUM IT DEPT. INITIAL HARDWARE QUALITY SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| Score | 5.30 | 5.45 | 5.20 |

SOURCE: TBR 4Q14

**TBR**
**6-Mo. LARGE IT DEPT. INITIAL HARDWARE QUALITY SATISFACTION**
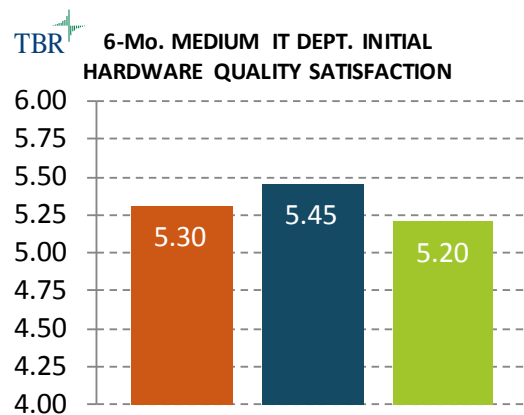
| | Dell | HP | IBM |
|---|---|---|---|
| Score | 5.37 | 5.39 | 5.35 |

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"For the amount of work they perform, failure is minimal."*

**HP:** *"They work great and last for years."*

**Medium IT Customers**

**Dell:** *"Fewer failures and more stability; offers multiple options for interoperability."*

**HP:** *"The servers perform well and are very stable."*

**Large IT Customers**

**IBM:** *"Been using IBM for nearly 10 years without any major issues."*

**HP:** *"Very reliable hardware."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Initial Hardware Quality: Blade vs. Rack Server Rankings

## Customer Comments

*"These servers are very durable. We never have to mess with them, and we have some 7-year-old Dell servers."*
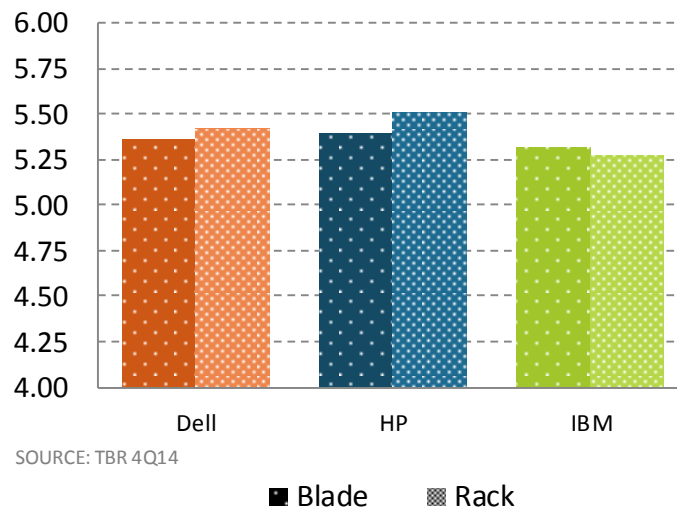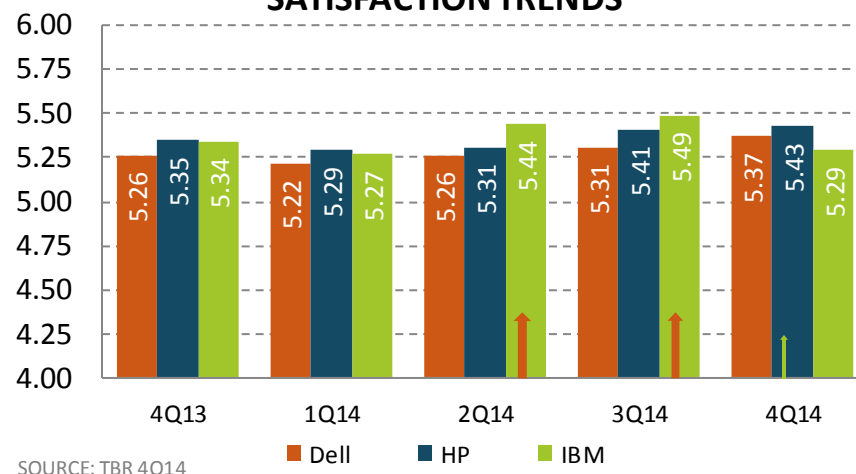— **Dell rack customer**

*"We rarely have any problems with new HP blades."*
— **HP blade customer**

*"It has been our experience that IBM blade servers are very reliable, and their performance has exceeded our expectations. They are designed well and require very little maintenance, but when they do, IBM professionals are right there to solve the problems. Management has been very satisfied with the IBM blade servers that we have purchased and have given the go-ahead to purchase more of them."*
— **IBM blade customer**

**TBR 6-Mo. INITIAL HARDWARE QUALITY SATISFACTION**



SOURCE: TBR 4Q14

■ Blade  ▦ Rack

### 6-Mo. INITIAL HARDWARE QUALITY IMPORTANCE

|        | Dell     | HP       | IBM      |
|--------|----------|----------|----------|
| Server | **Critical** | **Critical** | **Critical** |
| Blade  | **Critical** | **Critical** | **Critical** |
| Rack   | **Critical** | **Critical** | **Critical** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
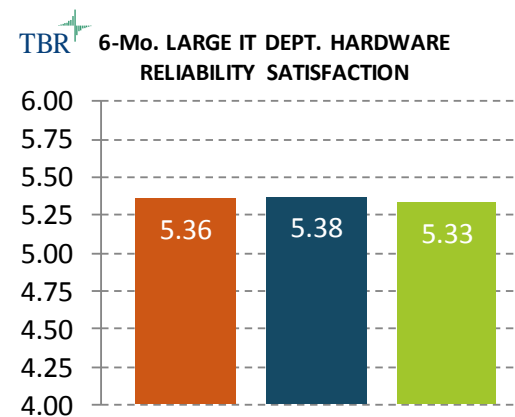
# HP's high satisfaction among rack customers in the critically important ongoing hardware reliability attribute resulted in HP's No. 1 finish

TBR **3-Mo. ONGOING HARDWARE RELIABILITY SATISFACTION TRENDS**
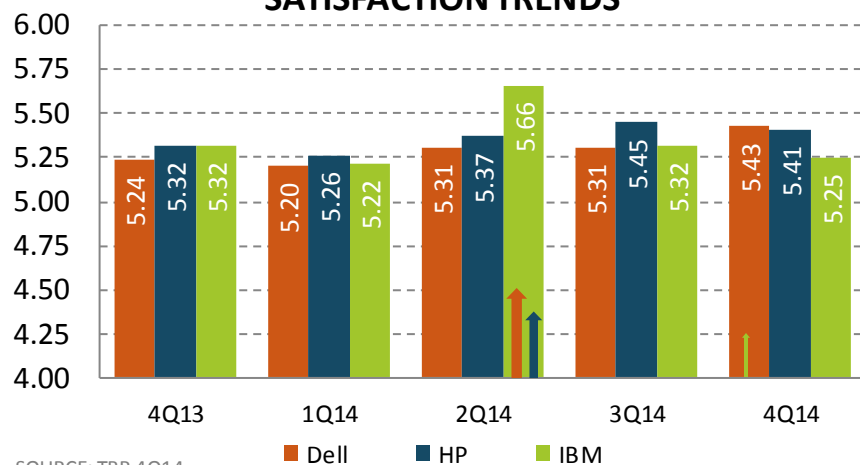
Chart data (3-Mo.):

| Quarter | Dell | HP | IBM |
|---|---|---|---|
| 4Q13 | 5.24 | 5.32 | 5.32 |
| 1Q14 | 5.20 | 5.26 | 5.22 |
| 2Q14 | 5.31 | 5.37 | 5.66 |
| 3Q14 | 5.31 | 5.45 | 5.32 |
| 4Q14 | 5.43 | 5.41 | 5.25 |

■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

TBR **6-Mo. ONGOING HARDWARE RELIABILITY SATISFACTION TRENDS**

Chart data (6-Mo.):

| Quarter | Dell | HP | IBM |
|---|---|---|---|
| 4Q13 | 5.26 | 5.35 | 5.34 |
| 1Q14 | 5.22 | 5.29 | 5.27 |
| 2Q14 | 5.26 | 5.31 | 5.44 |
| 3Q14 | 5.31 | 5.41 | 5.49 |
| 4Q14 | 5.37 | 5.43 | 5.29 |

■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

## Dell

- Dell's six-month ongoing hardware reliability satisfaction score increased sequentially and year-to-year in 4Q14, resulting in its tie with HP for the No. 1 position.

- Relatively high satisfaction among small and large IT departments contributed to Dell's finish in the critically important attribute.

## HP

- HP maintained its six-month ongoing hardware reliability satisfaction score from the previous quarter to pull ahead of Dell and IBM for No. 1, with an advantage over IBM.

- HP rack customers were more satisfied than blade customers in this attribute.

## IBM

- IBM's score in ongoing hardware reliability decreased sequentially, moving the vendor to the No. 3 position for 4Q14.

- IBM received its highest score among customers within small and large IT departments, but scored lower compared to other vendors.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Ongoing Hardware Reliability: Analysis by IT Department Size
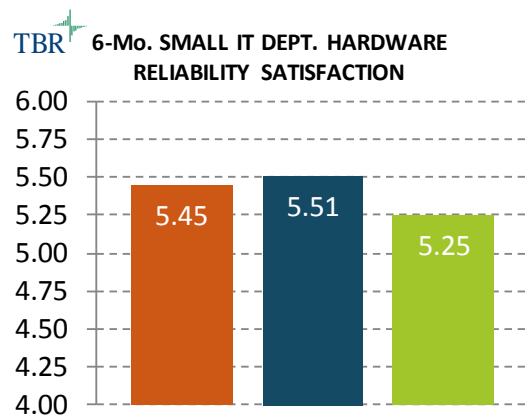
**TBR** 6-Mo. SMALL IT DEPT. HARDWARE RELIABILITY SATISFACTION

**TBR** 6-Mo. MEDIUM IT DEPT. HARDWARE RELIABILITY SATISFACTION

**TBR** 6-Mo. LARGE IT DEPT. HARDWARE RELIABILITY SATISFACTION

Small IT Dept:
- Dell: 5.45
- HP: 5.51
- IBM: 5.25

Medium IT Dept:
- Dell: 5.29
- HP: 5.42
- IBM: 5.21

Large IT Dept:
- Dell: 5.36
- HP: 5.38
- IBM: 5.33
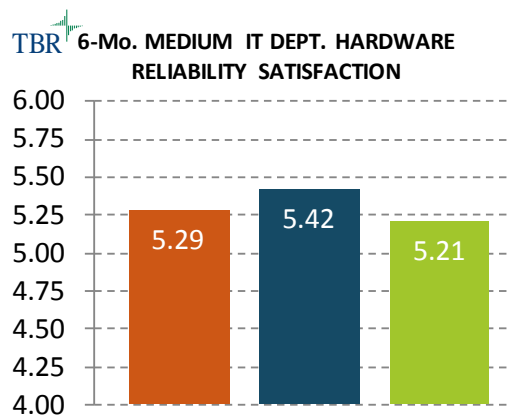
SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**IBM:** *"The machines are very reliable. They are good-performing machines."*

**Dell:** *"Dell servers perform well past their publicized life expectancy. They are extremely reliable and easy to maintain."*

**Medium IT Customers**

**IBM:** *"IBM quality of servers are among the best. Their performance hasn't let us down yet."*

**HP:** *"We have been using these in production with very few issues."*

**Large IT Customers**

**Dell:** *"So far the Dell servers have held up as very reliable and not given us any trouble."*

**HP:** *"We've used HP for many years and can't imagine a better vendor. Our teams have done the research. It would not be cost-efficient at this point to switch."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Ongoing Hardware Reliability: Blade vs. Rack Server Rankings

## Customer Comments

*"Highly [satisfied] with features and product design. I think [Dell's rack server] is one of the best."*
— **Dell rack customer**

*"We operate in a high-availability environment, and Dell servers have always performed very well."*
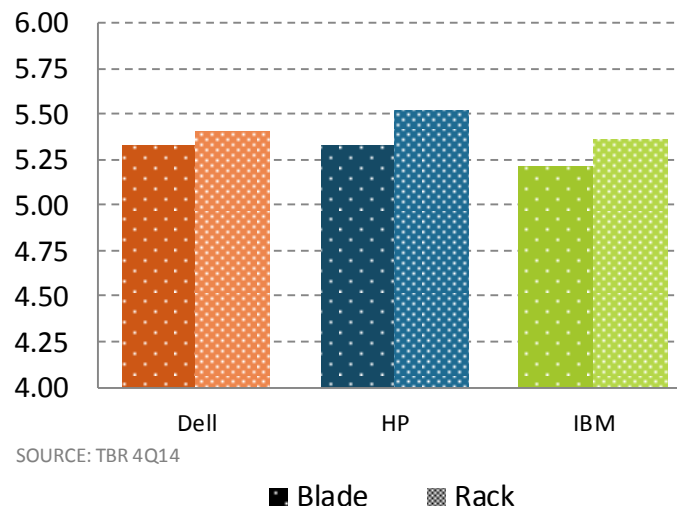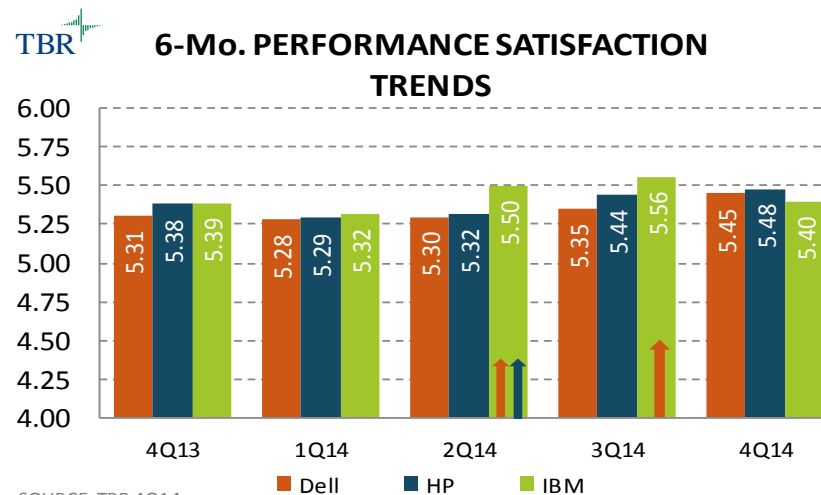— **Dell blade customer**

*"The value is beyond what other manufacturers of rack servers could ever offer."*
— **IBM rack customer**

*"Blades are a very expensive platform, and HP blade servers are reliable, high-performance pieces of equipment."*
— **HP blade customer**

**6-Mo. ONGOING HARDWARE RELIABILITY SATISFACTION**



SOURCE: TBR 4Q14

■ Blade    ▨ Rack

6-Mo. ONGOING HARDWARE RELIABILITY IMPORTANCE

|  | Dell | HP | IBM |
|---|---|---|---|
| Server | **Critical** | **Critical** | **Critical** |
| Blade | **Critical** | **Critical** | **Critical** |
| Rack | **Critical** | **Critical** | **Critical** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
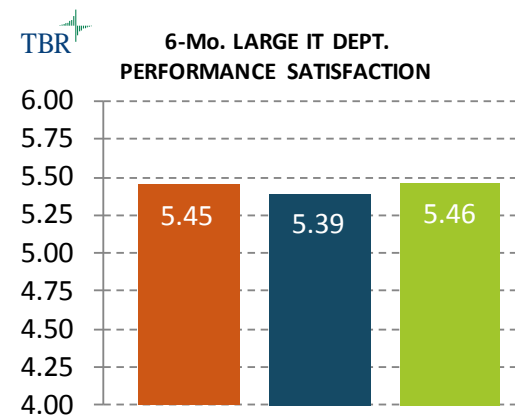
# High satisfaction in small and medium IT departments helped HP earn No. 1 in performance satisfaction in 4Q14

**3-Mo. PERFORMANCE SATISFACTION TRENDS**

| Quarter | Dell | HP | IBM |
|---------|------|------|------|
| 4Q13 | 5.28 | 5.34 | 5.33 |
| 1Q14 | 5.27 | 5.25 | 5.31 |
| 2Q14 | 5.32 | 5.39 | 5.68 |
| 3Q14 | 5.38 | 5.49 | 5.44 |
| 4Q14 | 5.51 | 5.47 | 5.37 |

SOURCE: TBR 4Q14

**6-Mo. PERFORMANCE SATISFACTION TRENDS**

| Quarter | Dell | HP | IBM |
|---------|------|------|------|
| 4Q13 | 5.31 | 5.38 | 5.39 |
| 1Q14 | 5.28 | 5.29 | 5.32 |
| 2Q14 | 5.30 | 5.32 | 5.50 |
| 3Q14 | 5.35 | 5.44 | 5.56 |
| 4Q14 | 5.45 | 5.48 | 5.40 |
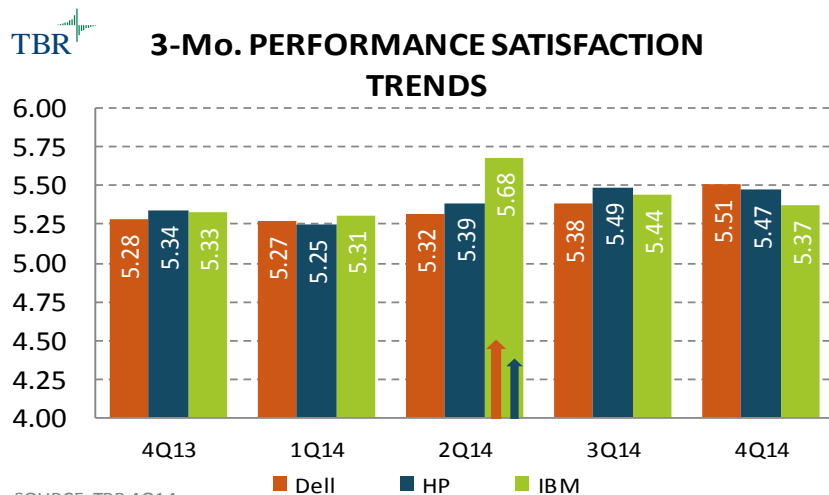
SOURCE: TBR 4Q14

## Dell

- Dell's six-month performance satisfaction score increased sequentially for the second consecutive quarter, pushing the vendor into a tie for No. 1 with HP.

- Similar to other product-related attributes, performance satisfaction among Dell customers in small IT departments was higher than performance satisfaction of customers in large IT departments.

## HP

- HP's six-month performance satisfaction score increased sequentially for the second consecutive quarter, putting the vendor in a tie for No. 1.

- As with other product-related attributes, HP's small IT departments were considerably more satisfied with performance than large IT departments.

## IBM

- IBM six-month performance satisfaction score was flat year-to-year but fell sequentially, putting the vendor in the No. 3 position.

- Large IT departments were the most satisfied with IBM's performance.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Performance: Analysis by IT Department Size
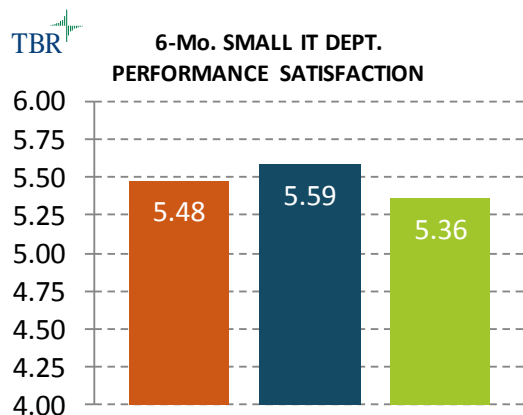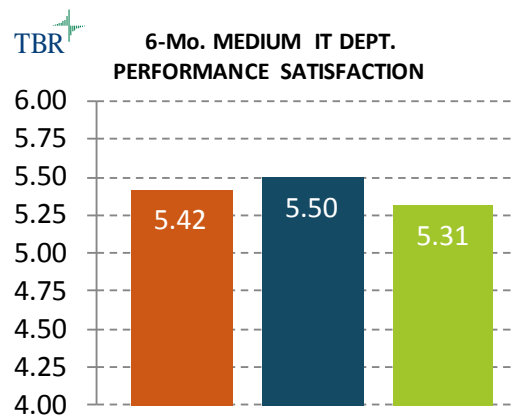
### 6-Mo. SMALL IT DEPT. PERFORMANCE SATISFACTION

Dell: 5.48
HP: 5.59
IBM: 5.36

SOURCE: TBR 4Q14

### 6-Mo. MEDIUM IT DEPT. PERFORMANCE SATISFACTION

Dell: 5.42
HP: 5.50
IBM: 5.31

SOURCE: TBR 4Q14

### 6-Mo. LARGE IT DEPT. PERFORMANCE SATISFACTION

Dell: 5.45
HP: 5.39
IBM: 5.46

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"Easy servers to work with, parts readily available."*

**HP:** *"Very reliable systems hardly ever break down."*

**Medium IT Customers**

**IBM:** *"IBM isn't the cheapest option, but for our business needs they give the best performance."*

**HP:** *"Servers have great reliability with little failures that are easy to diagnose, and HP gets us the parts fast."*

**Large IT Customers**

**Dell:** *"Performs well with little maintenance."*

**IBM:** *"Very little downtime and failure rates."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Performance: Blade vs. Rack Server Rankings

## Customer Comments

*"They have always been very reliable with low failure rates during expected server lifetimes. Performance is always exactly as expected for configurations chosen. Dell Open Manager is a great admin tool."*
**— Dell rack customer**

*"They work great and can be upgraded when and if it is necessary."*
**— HP rack customer**

*"They have met or exceeded our expectations of how our servers should perform. Their uptime and overall reliability are very good."*
**— IBM blade customer**

*"Our blade servers host over 5,000 VMs, so replacing failing parts quickly and keeping availability 99%-plus is critical to us. We have no issue here."*
**— HP blade customer**

### TBR 6-Mo. PERFORMANCE SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▩ Rack
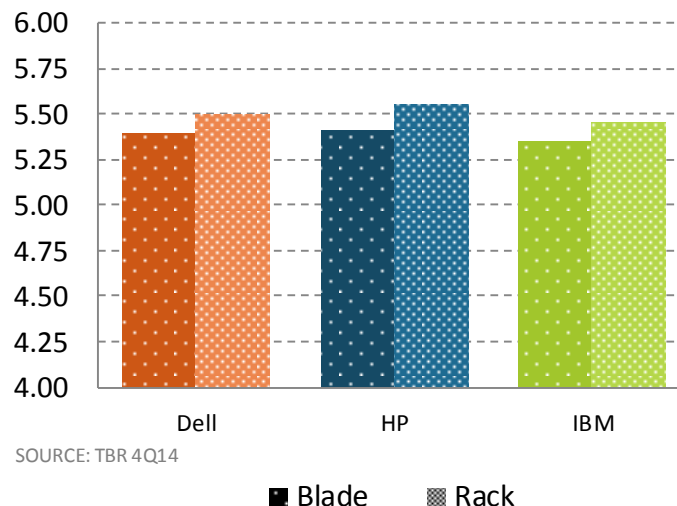
### 6-Mo. PERFORMANCE IMPORTANCE

|  | Dell | HP | IBM |
|---|---|---|---|
| Server | **Critical** | **Critical** | **Critical** |
| Blade | **Critical** | **Critical** | **Critical** |
| Rack | **Critical** | **Critical** | **Critical** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# HP edged out a rising Dell for the No. 1 satisfaction rating in the critically important virtualization, efficiency and scalability attribute in 4Q14
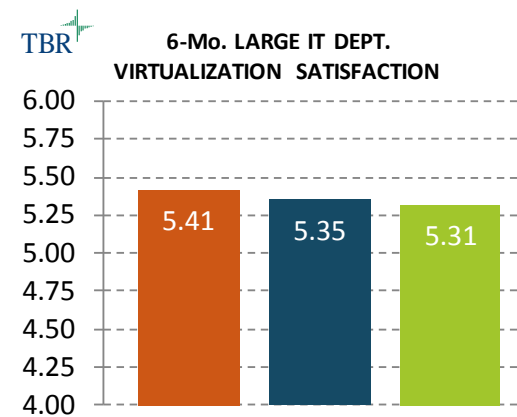


**3-Mo. VIRTUALIZATION, EFFICIENCY, SCALABILITY SATISFACTION TRENDS**

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.19 | 5.20 | 5.32 | 5.34 | 5.47 |
| HP | 5.27 | 5.19 | 5.36 | 5.45 | 5.44 |
| IBM | 5.34 | 5.23 | 5.66 | 5.27 | 5.31 |

SOURCE: TBR 4Q14

**6-Mo. VIRTUALIZATION, EFFICIENCY, SCALABILITY SATISFACTION TRENDS**

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.21 | 5.19 | 5.26 | 5.33 | 5.40 |
| HP | 5.35 | 5.23 | 5.27 | 5.41 | 5.45 |
| IBM | 5.33 | 5.29 | 5.44 | 5.46 | 5.29 |
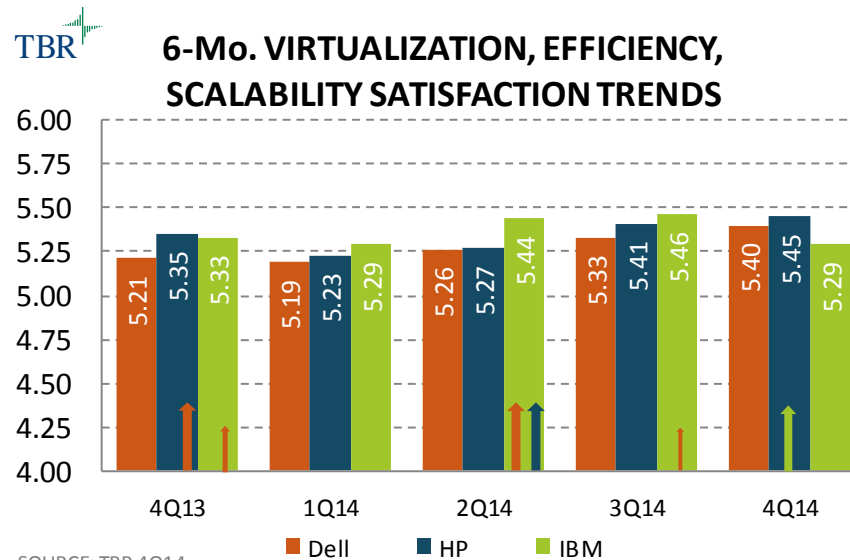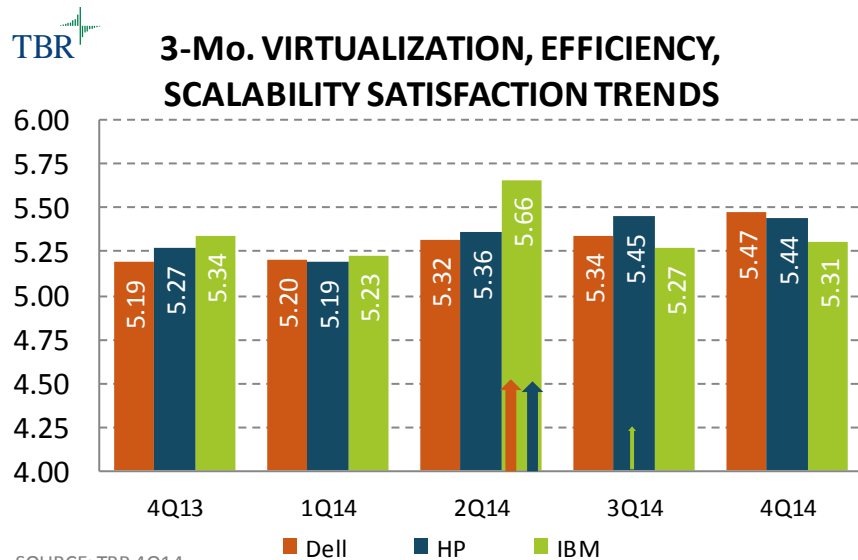
SOURCE: TBR 4Q14

**Dell**

- Dell's six-month virtualization, efficiency and scalability satisfaction score rose sequentially, resulting in a No. 2 finish in the attribute for 4Q14.

- All sizes of IT departments scored Dell similarly in this attribute.

**HP**

- HP's six-month virtualization, efficiency and scalability satisfaction score increased sequentially for the third consecutive quarter in 4Q14, placing HP in sole possession of No. 1 in this attribute.

- HP's scores stood along as the highest among vendors in small and medium IT departments.

**IBM**

- IBM's six-month virtualization, efficiency and scalability satisfaction score declined for the first time since 1Q14, resulting in its drop to No. 3.

- Satisfaction was relatively flat across IT department sizes.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Virtualization, Efficiency, Scalability: Analysis by IT Department Size
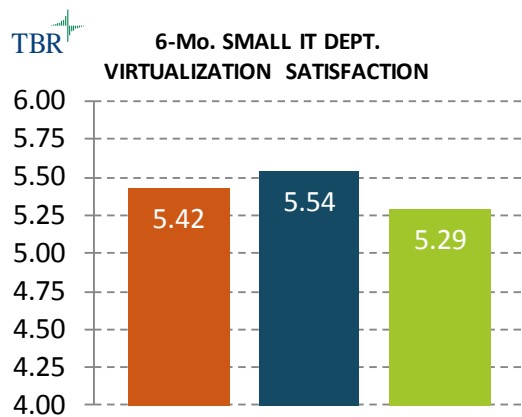
**6-Mo. SMALL IT DEPT. VIRTUALIZATION SATISFACTION**

- Dell: 5.42
- HP: 5.54
- IBM: 5.29

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. VIRTUALIZATION SATISFACTION**

- Dell: 5.37
- HP: 5.48
- IBM: 5.25

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. VIRTUALIZATION SATISFACTION**

- Dell: 5.41
- HP: 5.35
- IBM: 5.31

SOURCE: TBR 4Q14

Legend: ■ Dell ■ HP ■ IBM
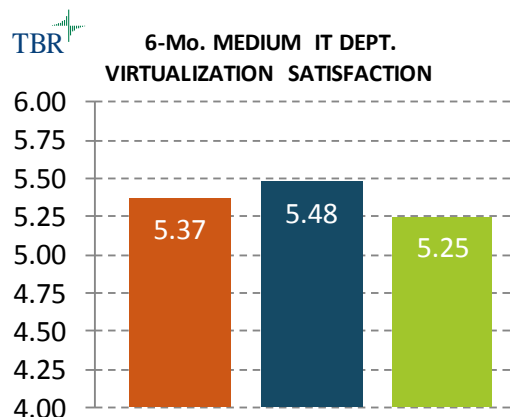
## Customer Comments

**Small IT Customers**

**HP:** *"Every time we need to add on to our capabilities, it is easy to upgrade and scale up."*

**Dell:** *"It is versatile, easy to operate, set up, understand and to upgrade."*

**Medium IT Customers**

**HP:** *"Easy and cheap to add more to our environment."*

**Dell:** *"Fewer failures and more stability; offers multiple options for interoperability."*

**Large IT Customers**

**IBM:** *"Quick and easy to implement."*

**HP:** *"We can scale up or down in our VM environments easily."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Virtualization, Efficiency, Scalability: Blade vs. Rack Server Rankings

## Customer Comments

*"Very easy to scale the blades; easy to add blades as well as provision existing blades differently as needed."*
**— IBM blade customer**

*"They scale to our Citrix and virtualized environments perfectly."*
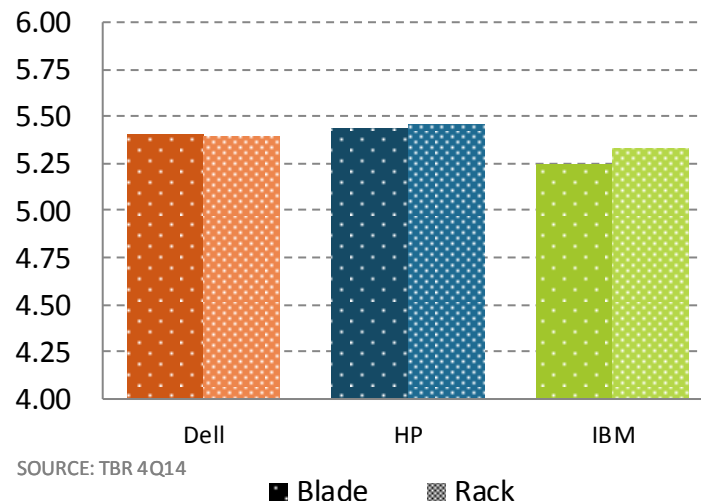**— HP blade customer**

*"Great performance and reliability."*
**— HP rack customer**

*"The scalability has been unmatched."*
**— Dell blade customer**

### 6-Mo. VIRTUALIZATION, EFFICIENCY, SCALABILITY SATISFACTION



SOURCE: TBR 4Q14

■ Blade ▨ Rack

### 6-Mo. VIRTUALIZATION, EFFICIENCY, SCALABILITY IMPORTANCE

|        | Dell | HP | IBM |
|--------|------|------|------|
| Server | Critical | Critical | Critical |
| Blade  | Critical | Critical | Critical |
| Rack   | Critical | Critical | Critical |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
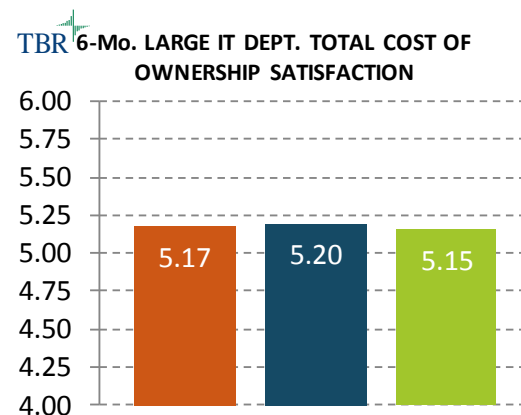
# Dell's high satisfaction among medium IT departments boosted the vendor to the No. 1 position in TCO satisfaction

### 3-Mo. TOTAL COST OF OWNERSHIP SATISFACTION TRENDS

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.19 | 5.17 | 5.32 | 5.18 | 5.31 |
| HP | 5.10 | 5.03 | 5.20 | 5.22 | 5.22 |
| IBM | 5.19 | 4.99 | 5.46 | 5.22 | 5.11 |

SOURCE: TBR 4Q14

### 6-Mo. TOTAL COST OF OWNERSHIP SATISFACTION TRENDS

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.15 | 5.18 | 5.25 | 5.25 | 5.25 |
| HP | 5.15 | 5.06 | 5.11 | 5.21 | 5.22 |
| IBM | 5.09 | 5.09 | 5.23 | 5.34 | 5.16 |

SOURCE: TBR 4Q14
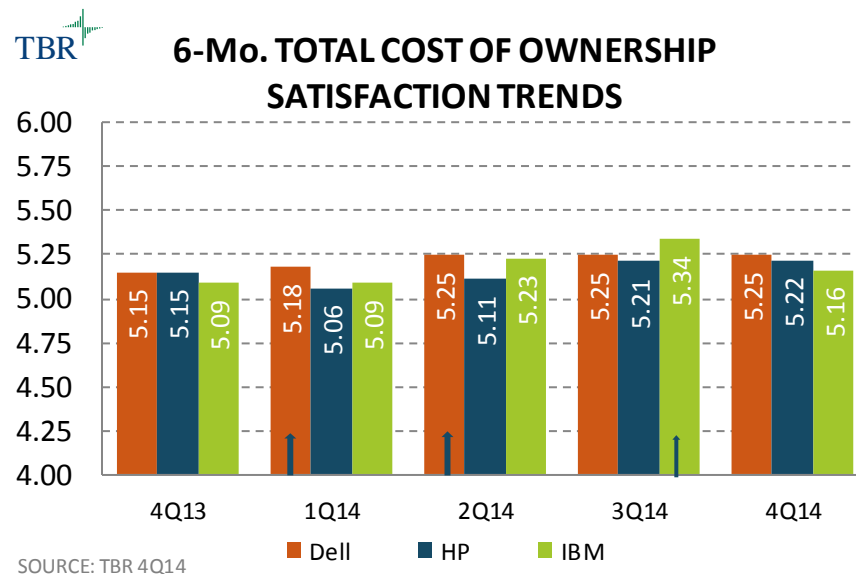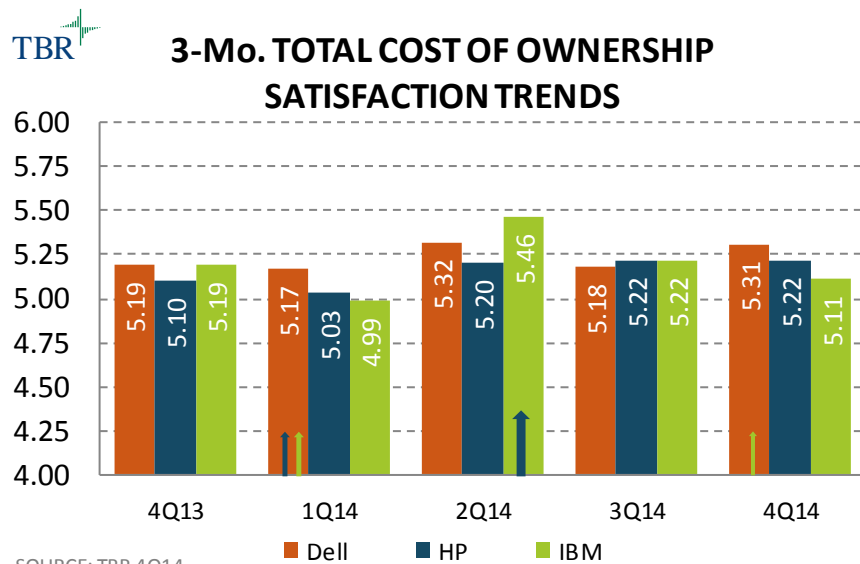
### Dell

- Dell maintained its satisfaction score in six-month TCO for the third straight quarter to earn it the No. 1 position in the critically important buying attribute.

- Dell scored highest among small and medium IT departments for TCO satisfaction.

### HP

- HP's six-month TCO satisfaction score was flat sequentially and year-to-year, resulting in HP moving up to a tie for No. 2.

- HP's rack customers considered this attribute important, unlike blade customers who rated it critical, and scored TCO marginally higher.

### IBM

- IBM's six-month TCO satisfaction score declined for the first time since 4Q13, moving IBM from No. 1 to a tie for No. 2.

- IBM's decrease in its TCO satisfaction score was a result of flat satisfaction scores across IT department sizes.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Total Cost of Ownership: Analysis by IT Department Size
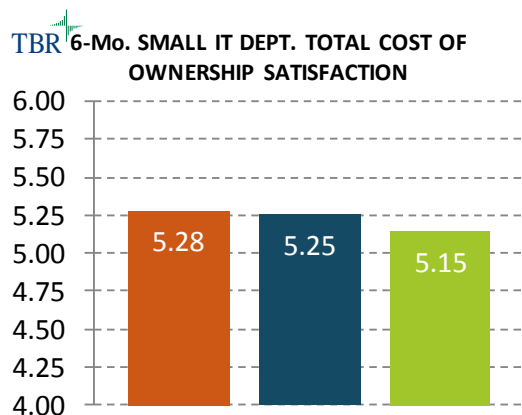


**6-Mo. SMALL IT DEPT. TOTAL COST OF OWNERSHIP SATISFACTION**

Dell: 5.28, HP: 5.25, IBM: 5.15

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. TOTAL COST OF OWNERSHIP SATISFACTION**

Dell: 5.27, HP: 5.22, IBM: 5.19

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. TOTAL COST OF OWNERSHIP SATISFACTION**

Dell: 5.17, HP: 5.20, IBM: 5.15

SOURCE: TBR 4Q14

Legend: ■ Dell ■ HP ■ IBM
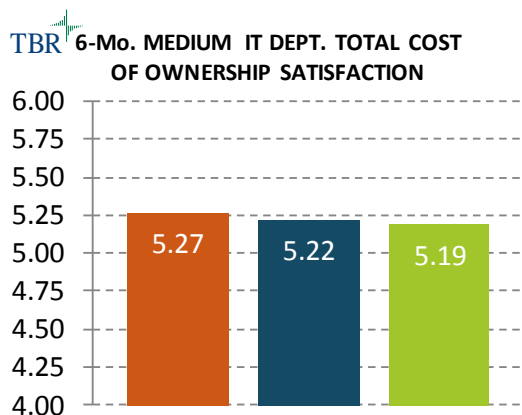
## Customer Comments

**Small IT Customers**

**IBM:** *"The quality of what was received was in line with the budget we had."*

**HP:** *"The right machine for the right price."*

**Medium IT Customers**

**Dell:** *"Competitive price and fast turnaround compared to competitors."*

**HP:** *"We were able to negotiate pricing that met our needs and was fair."*

**Large IT Customers**

**IBM:** *"Great price considering support and performance."*

**Dell:** *"Was lowest cost of devices evaluated with the capabilities required."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Total Cost of Ownership: Blade vs. Rack Server Rankings

## Customer Comments

*"Not that expensive compared to performance."*
— **IBM blade customer**

*"It is easy to add servers and increase CPUs and memory."*
— **HP rack customer**

*"I trust the HP brand. I am happy with the functions and features because there's more flexibility."*
— **HP blade customer**

*"It is usually not an issue with upgrading the processing capability of a Dell server. We configure our server purchases with room for growth options."*
— **Dell rack customer**

### TBR 6-Mo. TOTAL COST OF OWNERSHIP SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▨ Rack
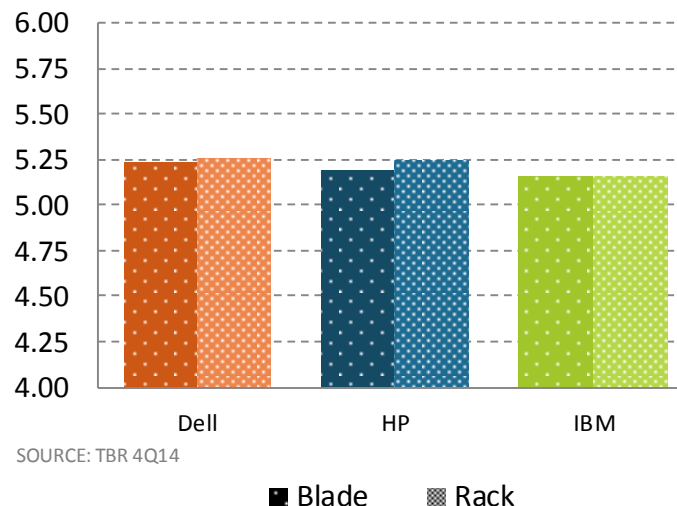
### 6-Mo. TOTAL COST OF OWNERSHIP IMPORTANCE

|        | Dell     | HP        | IBM      |
|--------|----------|-----------|----------|
| Server | Critical | Critical  | Critical |
| Blade  | Critical | Critical  | Critical |
| Rack   | Critical | Important | Critical |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# HP's sequentially flat management capabilities satisfaction score stayed No. 1 in a buying attribute its customers deem critically important

### 3-Mo. MANAGEMENT CAPABILITIES SATISFACTION TRENDS

Dell, HP, IBM values by quarter:

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.12 | 5.13 | 5.22 | 5.16 | 5.28 |
| HP | 5.21 | 5.08 | 5.27 | 5.30 | 5.30 |
| IBM | 5.20 | 5.05 | 5.48 | 5.14 | 5.18 |

Legend: ■ Dell ■ HP ■ IBM

SOURCE: TBR 4Q14

### 6-Mo. MANAGEMENT CAPABILITIES SATISFACTION TRENDS

| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.12 | 5.13 | 5.17 | 5.19 | 5.22 |
| HP | 5.24 | 5.15 | 5.17 | 5.28 | 5.30 |
| IBM | 5.13 | 5.13 | 5.27 | 5.31 | 5.16 |

Legend: ■ Dell ■ HP ■ IBM
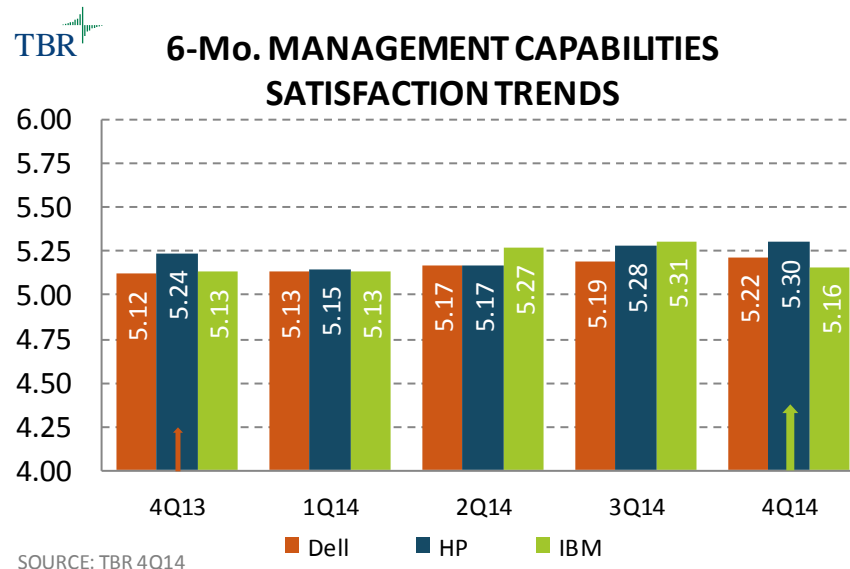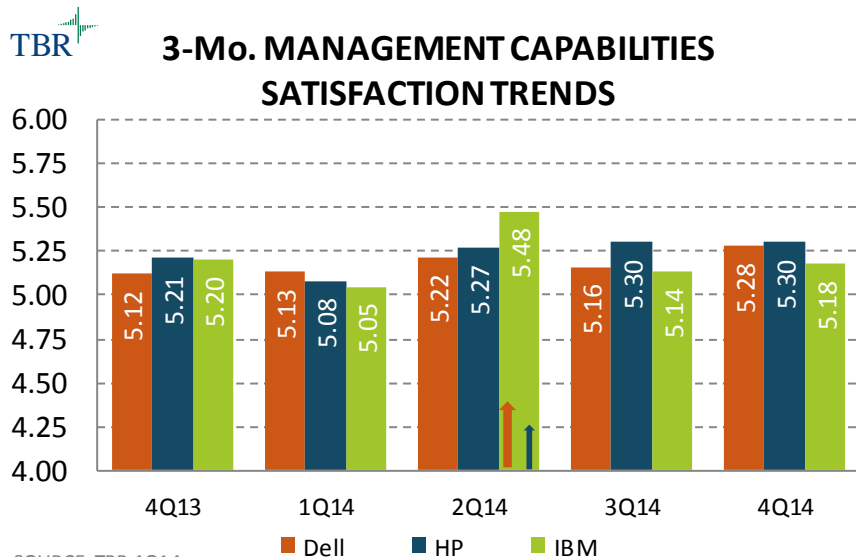
SOURCE: TBR 4Q14

## Dell

- Dell's six-month management capabilities satisfaction score was flat sequentially, resulting in a No. 2 finish in 4Q14.

- Dell received its lowest score in this attribute with customers in medium IT departments.

## HP

- HP's six-month management capabilities satisfaction score was flat sequentially, but IBM's falling score pushed HP ahead for the No. 1 position in an important buying attribute for HP customers.

- Like other product attributes, rack server users scored HP much higher than blade users.

## IBM

- IBM scored lower than Dell and HP in six-month management capabilities satisfaction in 4Q14, dropping the vendor from first to the No. 3 position.

- IBM earned the lowest satisfaction score among customers in medium IT departments.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Management Capabilities: Analysis by IT Department Size



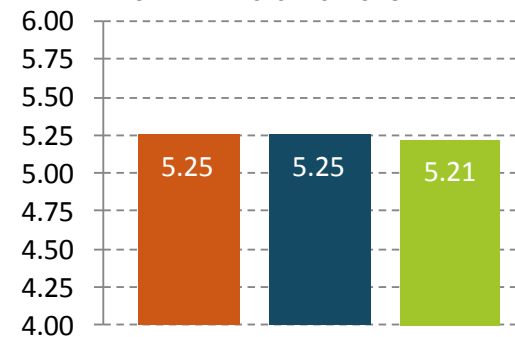**TBR** 6-Mo. SMALL IT DEPT. MANAGEMENT CAPABILITIES SATISFACTION

Dell: 5.27  HP: 5.34  IBM: 5.16
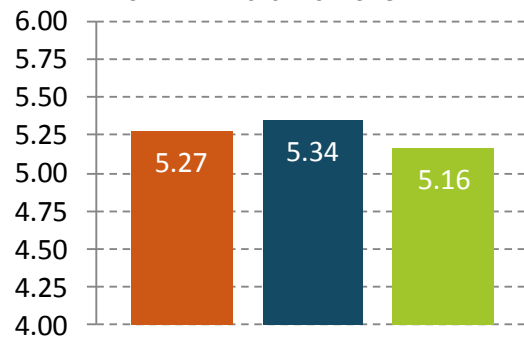
SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. MANAGEMENT CAPABILITIES SATISFACTION

Dell: 5.13  HP: 5.32  IBM: 5.04
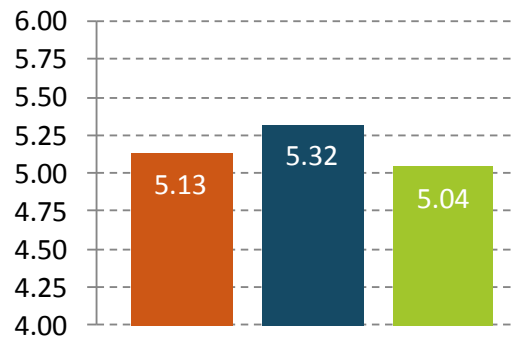
SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. MANAGEMENT CAPABILITIES SATISFACTION

Dell: 5.25  HP: 5.25  IBM: 5.21

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"We've had very low downtime on the servers. They run very reliably for us."*

**IBM:** *"We don't seem to have any problems with anything, and we know that if we do, then support will take care of it quickly."*

**Medium IT Customers**

**Dell:** *"Maintenance has been excellent."*

**HP:** *"Severs have great reliability with little failures that are easy to diagnose, and HP gets us the parts fast."*

**Large IT Customers**

**Dell:** *"Performs exceptionally in our environment and rarely experience outages."*

**HP:** *"We self-maintain, and features are excellent to support this."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Management Capabilities: Blade vs. Rack Server Rankings

## Customer Comments

*"Ability to swap out blades without impacting system."*
— **Dell blade customer**

*"It has been our experience with IBM rack servers that they have the best hardware, reliability, performance features and management capabilities of any servers on the market today. The prices are cost-competitive and you cannot beat the reliability of IBM rack servers. I would highly recommend IBM rack servers to any business."*
— **IBM rack customer**

*"Can fill the chassis using various configurations, number of blades, size of blades."*
— **HP blade customer**

**TBR** **6-Mo. MANAGEMENT CAPABILITIES SATISFACTION**



SOURCE: TBR 4Q14

■ Blade   ▨ Rack
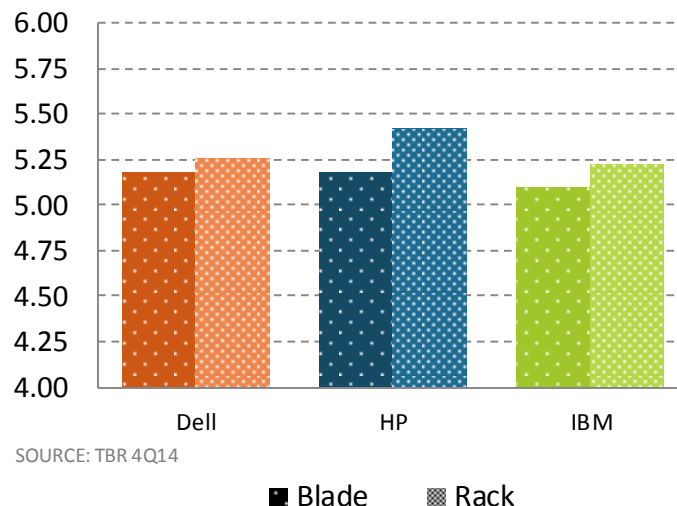
### 6-Mo. MANAGEMENT CAPABILITIES IMPORTANCE

|  | Dell | HP | IBM |
|---|---|---|---|
| Server | **Important** | **Critical** | **Important** |
| Blade | **Important** | **Critical** | **Important** |
| Rack | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# HP marginally improved its 6-month product design/features satisfaction to finish No. 1 in the critical buying area

## 3-Mo. PRODUCT DESIGN/FEATURES SATISFACTION TRENDS



SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## 6-Mo. PRODUCT DESIGN/FEATURES SATISFACTION TRENDS



SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM
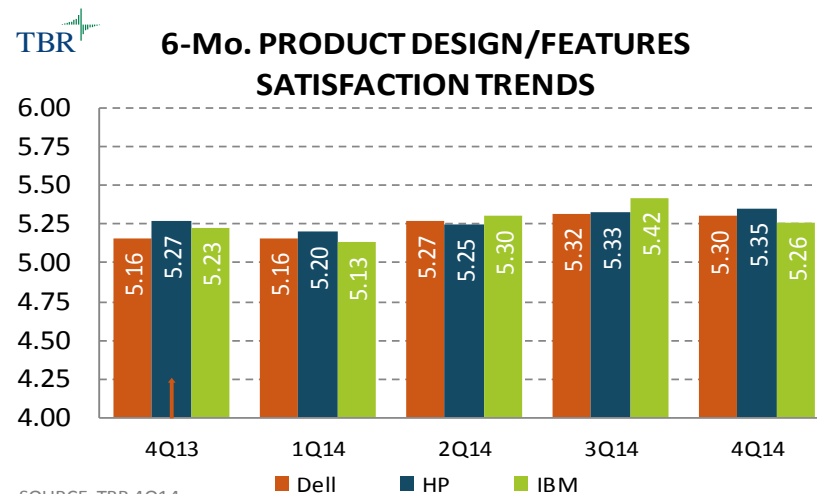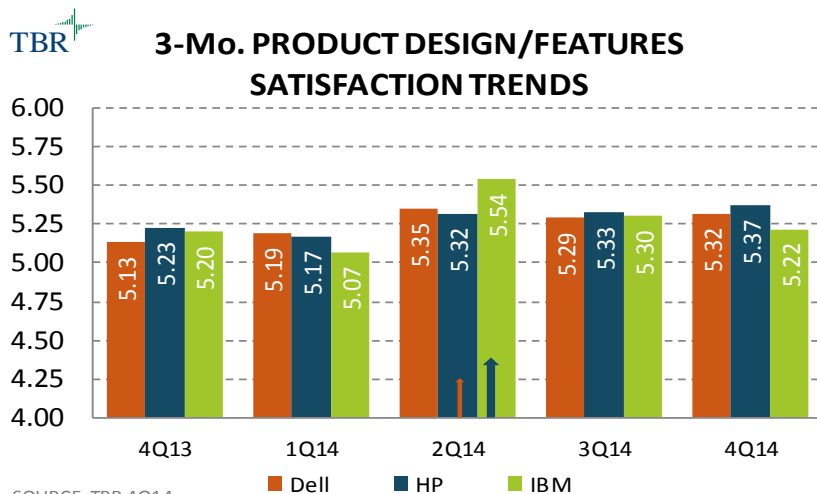
## Dell

- Dell's six-month product design/features satisfaction score was flat sequentially in 4Q14, keeping the vendor in the No. 2 position.

- Dell rack server customers, which were the only customers across vendors to rate product design/features as important rather than critical, were slightly more satisfied with the attribute than blade server users in 4Q14.

## HP

- HP's six-month product design/features satisfaction score increased sequentially and year-to-year, earning HP sole possession of No. 1 for the first time since 4Q13.

- HP scored highest in satisfaction among all competitors in small, medium and large IT departments for product design/features.
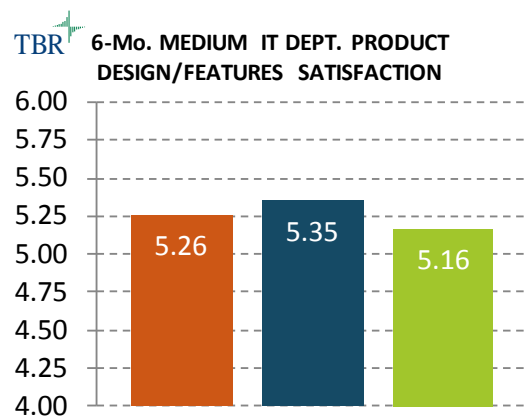
## IBM

- IBM's six-month product design/features satisfaction score decreased sequentially, pushing IBM out of the No. 1 position to a tie for No. 2 with Dell.

- Similar to other product attributes, rack server customers were more satisfied with IBM product design/features than blade server users.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
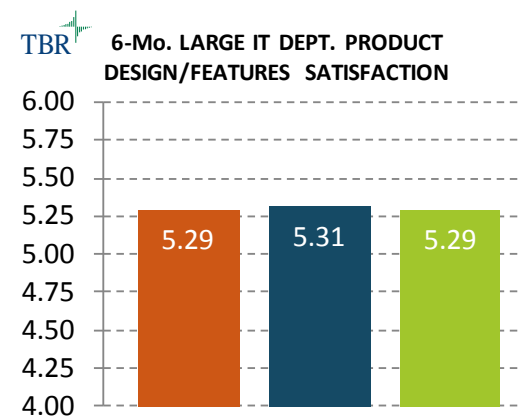
# Product Design/Features: Analysis by IT Department Size
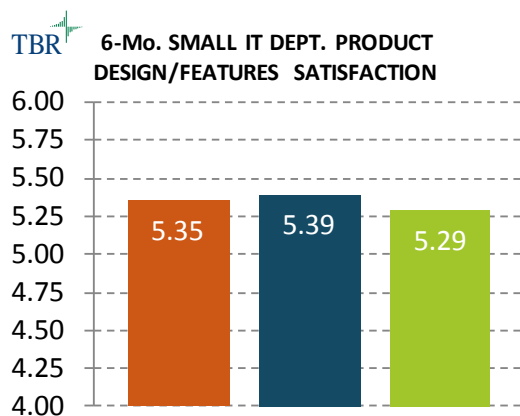
**TBR** 6-Mo. SMALL IT DEPT. PRODUCT DESIGN/FEATURES SATISFACTION

SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. PRODUCT DESIGN/FEATURES SATISFACTION

SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. PRODUCT DESIGN/FEATURES SATISFACTION

SOURCE: TBR 4Q14

Small IT: Dell 5.35, HP 5.39, IBM 5.29

Medium IT: Dell 5.26, HP 5.35, IBM 5.16

Large IT: Dell 5.29, HP 5.31, IBM 5.29

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**IBM:** *"We have been able to make it achieve what it was intended for, and we have the ability to improve that if necessary."*

**Dell:** *"They have some very powerful servers with low power and space requirements."*

**Medium IT Customers**

**IBM:** *"The servers perform at optimum levels."*

**Dell:** *"We have been able to double our processing volume in the last six months."*

**Large IT Customers**

**HP:** *"They don't have many problems under constant heavy use."*

**Dell:** *"Quick SLA on parts means less or no downtime for us."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Product Design/Features: Blade vs. Rack Server Rankings

## Customer Comments

*"Everything is exactly what we expected when getting the product. We can only have a small window of downtime, and this allows us to achieve that in a way that is quick and comfortable."*
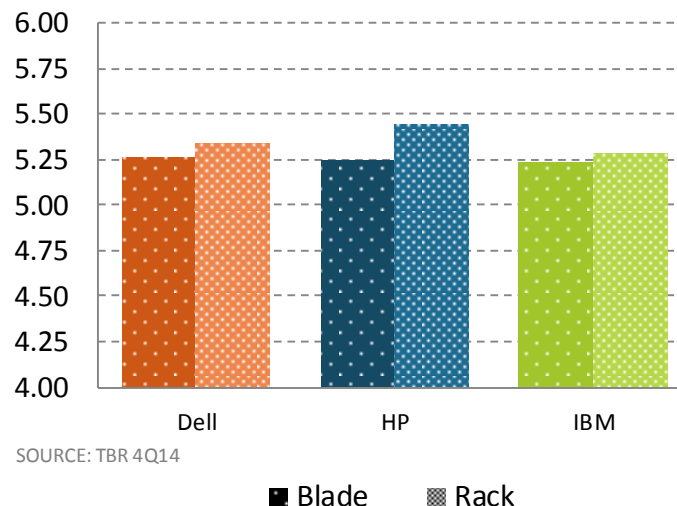**— IBM rack customer**

*"Extreme uptime; system never seems to get overloaded."*
**— Dell blade customer**

*"Servers stay up and work great for our applications."*
**— HP blade customer**

### TBR 6-Mo. PRODUCT DESIGN/FEATURES SATISFACTION



SOURCE: TBR 4Q14

■ Blade    ▦ Rack

### 6-Mo. PRODUCT DESIGN/FEATURES IMPORTANCE

|        | Dell      | HP       | IBM      |
|--------|-----------|----------|----------|
| Server | Critical  | Critical | Critical |
| Blade  | Critical  | Critical | Critical |
| Rack   | Important | Critical | Critical |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
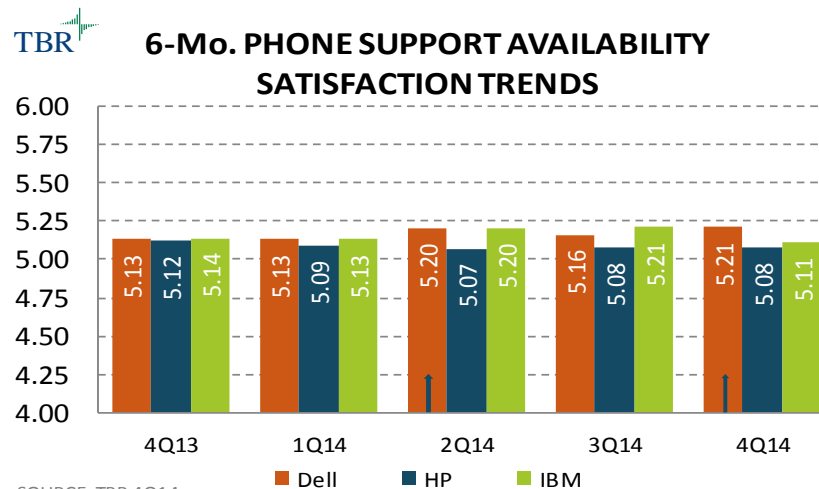
# Appendix C

**x86-based Server Attribute Analysis:
Service and Support Satisfaction**

# Dell's and HP's phone support availability satisfaction scores remained flat sequentially in 4Q14
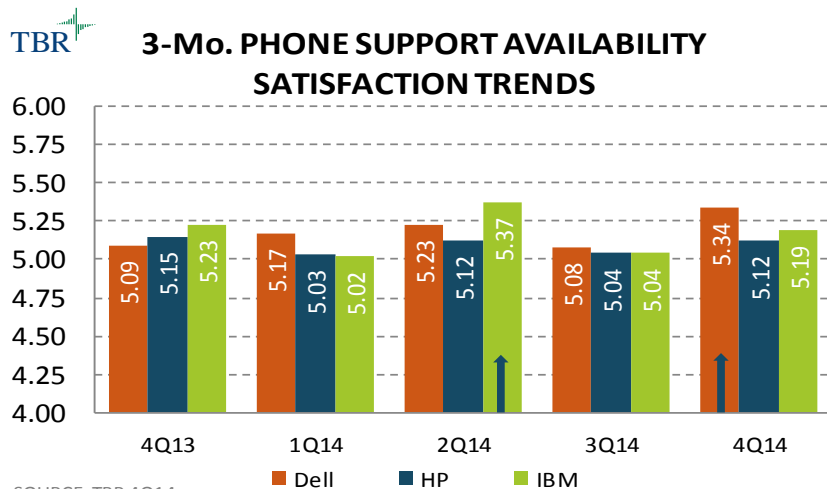
### 3-Mo. PHONE SUPPORT AVAILABILITY SATISFACTION TRENDS



SOURCE: TBR 4Q14

### 6-Mo. PHONE SUPPORT AVAILABILITY SATISFACTION TRENDS



SOURCE: TBR 4Q14

## Dell

- Dell maintained its six-month phone support availability satisfaction score from the previous quarter, resulting in its fifth consecutive No. 1 finish in the important category.

- Dell rack and blade server customers were the most satisfied with the service and support attribute.
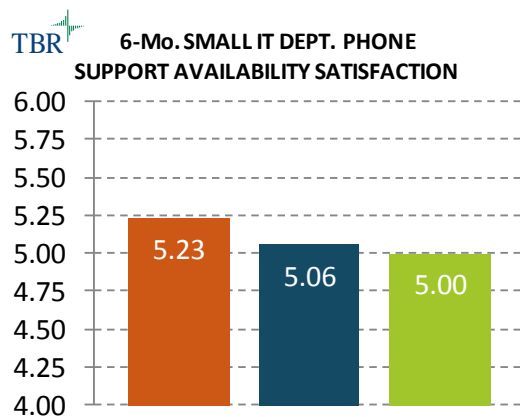
## HP

- While its satisfaction score was flat sequentially and from the year-ago quarter in 4Q14, HP was able to move from the stand-alone No. 3 position to a tie for No. 2 with IBM.

- Though HP blade customers were the least satisfied among competitors, the vendor experienced flat satisfaction levels across departments of all sizes.
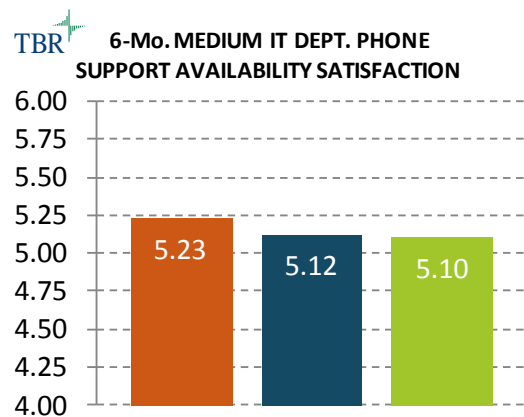
## IBM

- IBM's satisfaction score was flat year-to-year; however, its six-month phone support availability satisfaction score fell sequentially from No. 1 to a tie for No. 2.

- Whether customers purchased blade or rack servers had no impact on IBM's relatively low satisfaction among small and medium IT departments in this attribute.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
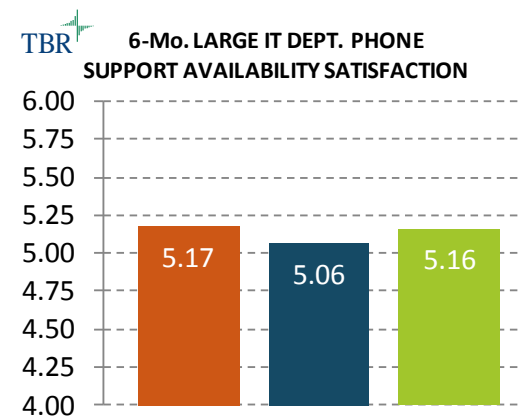
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# Phone Support Availability: Analysis by IT Department Size

**6-Mo. SMALL IT DEPT. PHONE SUPPORT AVAILABILITY SATISFACTION**

Dell: 5.23
HP: 5.06
IBM: 5.00

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. PHONE SUPPORT AVAILABILITY SATISFACTION**

Dell: 5.23
HP: 5.12
IBM: 5.10

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. PHONE SUPPORT AVAILABILITY SATISFACTION**

Dell: 5.17
HP: 5.06
IBM: 5.16

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**IBM:** *"They have the answers we need, and it is explained in an understandable way."*

**Dell:** *"For models in current production or current maintenance with our four-hour, 7x24-level packages, we have always had very quick resolution of part failures."*

**Medium IT Customers**

**Dell:** *"Support are responsive and able to resolve my issues."*

**HP:** *"Responsive and good track record of first-time resolution."*

**Large IT Customers**

**IBM:** *"We are completely satisfied with IBM blade server phone support. Every time we needed to call with a problem, their technicians were able to solve the problem in a very reasonable time frame."*

**HP:** *"Short wait times and knowledgeable staff."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Phone Support Availability: Blade vs. Rack Server Rankings

## Customer Comments

*"Every problem we have had, phone support was very helpful."*
— **Dell blade customer**

*"Great phone support and knowledgeable team."*
— **HP blade customer**

*"They always have the most qualified people manning their Rack Serve phone support lines. They are professional and handle all our technical problems in a very reasonable amount of time."*
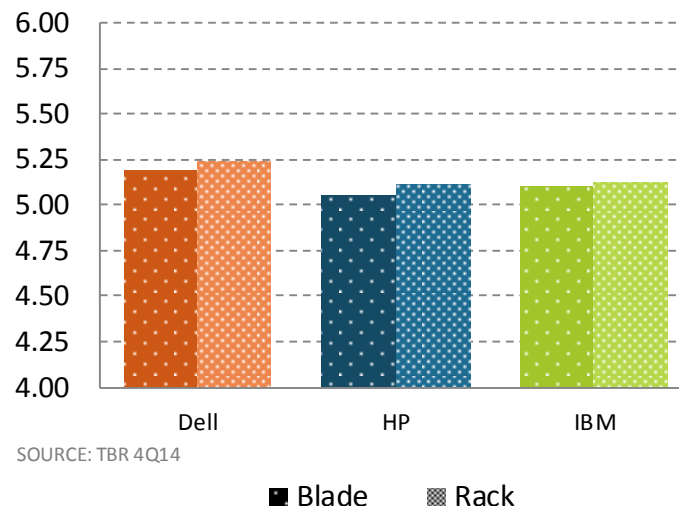— **IBM rack customer**

*"Quick SLA and turnaround time; very professional techs on the phone as well as very knowledgeable."*
—**Dell rack customer**

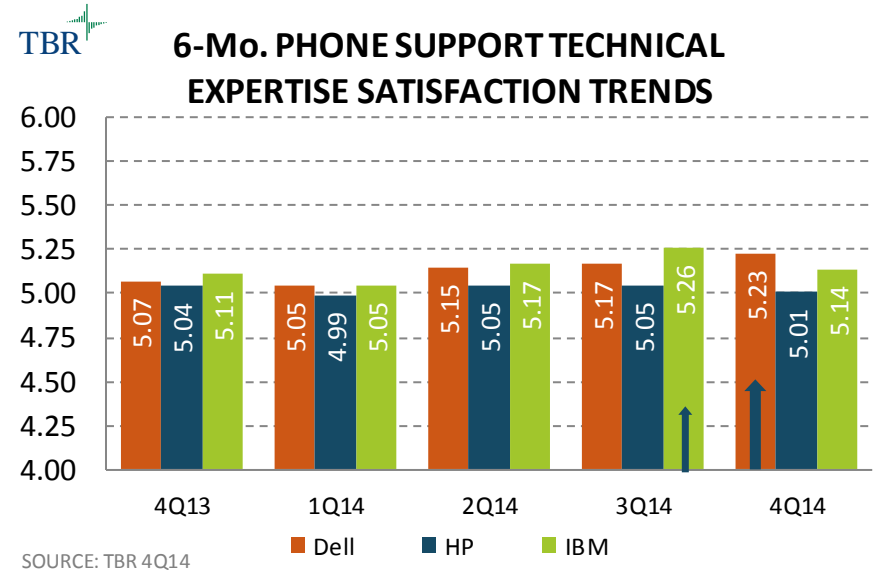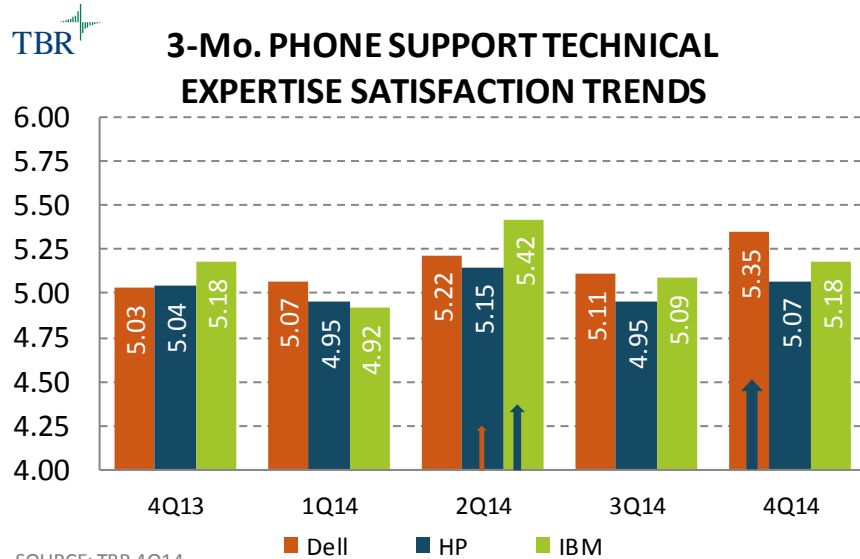TBR  **6-Mo. PHONE SUPPORT AVAILABILITY SATISFACTION**



SOURCE: TBR 4Q14

■ Blade    ▓ Rack

**6-Mo. PHONE SUPPORT AVAILABILITY IMPORTANCE**

|        | Dell      | HP        | IBM       |
|--------|-----------|-----------|-----------|
| Server | **Important** | **Important** | **Important** |
| Blade  | **Important** | **Important** | **Important** |
| Rack   | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Dell saw a year-to-year increase in phone support technical expertise in 4Q14, establishing a significant advantage over HP

**TBR**

### 3-Mo. PHONE SUPPORT TECHNICAL EXPERTISE SATISFACTION TRENDS

| | Dell | HP | IBM |
|------|------|------|------|
| 4Q13 | 5.03 | 5.04 | 5.18 |
| 1Q14 | 5.07 | 4.95 | 4.92 |
| 2Q14 | 5.22 | 5.15 | 5.42 |
| 3Q14 | 5.11 | 4.95 | 5.09 |
| 4Q14 | 5.35 | 5.07 | 5.18 |

SOURCE: TBR 4Q14

**TBR**

### 6-Mo. PHONE SUPPORT TECHNICAL EXPERTISE SATISFACTION TRENDS

| | Dell | HP | IBM |
|------|------|------|------|
| 4Q13 | 5.07 | 5.04 | 5.11 |
| 1Q14 | 5.05 | 4.99 | 5.05 |
| 2Q14 | 5.15 | 5.05 | 5.17 |
| 3Q14 | 5.17 | 5.05 | 5.26 |
| 4Q14 | 5.23 | 5.01 | 5.14 |

SOURCE: TBR 4Q14

## Dell

- Dell maintained its six-month phone support technical expertise satisfaction score from the previous quarter, enabling the vendor to become the sole vendor in No. 1.

- Dell's satisfaction scores were highest across all sized departments compared to HP and IBM.
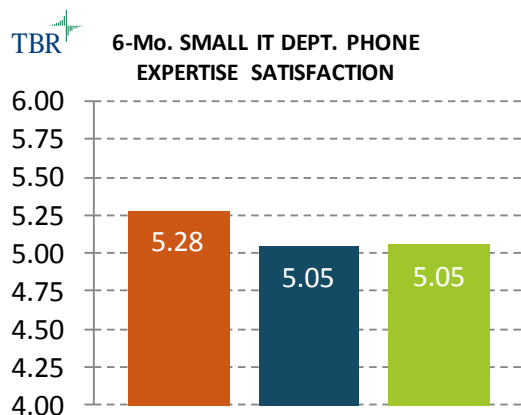
## HP

- HP's six-month phone support technical expertise satisfaction score decreased from 3Q14, resulting in another No. 3 finish for HP in an important attribute for all customers.

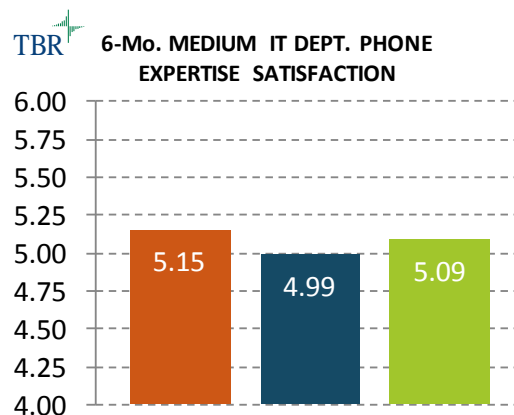- HP's blade customers were more satisfied than rack customers.

## IBM

- IBM's six-month phone support technical expertise satisfaction score decreased to match its score in the year-ago quarter, resulting in a No. 2 finish in this attribute.

- Customers in large IT departments boosted IBM's satisfaction score.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
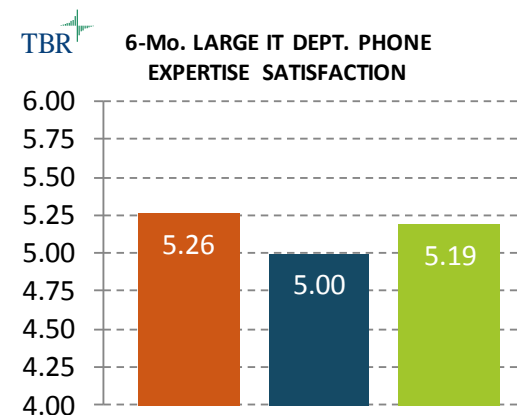
# Phone Support Technical Expertise: Analysis by IT Department Size



**6-Mo. SMALL IT DEPT. PHONE EXPERTISE SATISFACTION**

Dell: 5.28 | HP: 5.05 | IBM: 5.05

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. PHONE EXPERTISE SATISFACTION**

Dell: 5.15 | HP: 4.99 | IBM: 5.09

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. PHONE EXPERTISE SATISFACTION**

Dell: 5.26 | HP: 5.00 | IBM: 5.19

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"They provide all the answers I need."*

**IBM:** *"IBM telephone support is the best of the best."*

**Medium IT Customers**

**Dell:** *"Whenever we have had to call, the tech was knowledgeable and motivated."*

**HP:** *"Able to assist quickly in getting parts or a tech dispatched."*

**Large IT Customers**

**HP:** *"High-end equipment is met with high-end phone support."*

**Dell:** *"Available 24/7 and can always resolve problems quickly."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

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TBR

# Phone Support Technical Expertise: Blade vs. Rack Server Rankings

## Customer Comments

TBR **6-Mo. PHONE SUPPORT TECHNICAL EXPERTISE SATISFACTION**

*"The online chat function helped me diagnose the problem quickly."*
— **Dell rack customer**

*"Short wait times and pretty responsive support teams."*
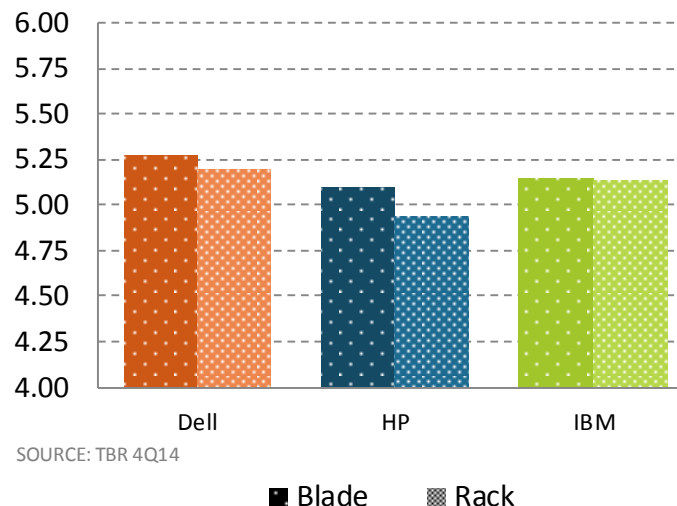— **IBM blade customer**

*"Phone support is good, and we usually have good turnaround times."*
— **HP blade customer**

*"Very helpful, with excellent skill set."*
— **IBM rack customer**

SOURCE: TBR 4Q14

■ Blade    ▧ Rack

| 6-Mo. PHONE SUPPORT TECHNICAL EXPERTISE IMPORTANCE | | | |
|---|---|---|---|
| | Dell | HP | IBM |
| Server | **Important** | **Important** | **Important** |
| Blade | **Important** | **Important** | **Important** |
| Rack | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Dell increased its satisfaction score sequentially and year-to-year in the important on-site response time attribute for 4Q14

TBR
## 3-Mo. ON-SITE RESPONSE TIME SATISFACTION TRENDS

TBR
## 6-Mo. ON-SITE RESPONSE TIME SATISFACTION TRENDS



SOURCE: TBR 4Q14

SOURCE: TBR 4Q14

## Dell

- Dell's six-month on-site response time satisfaction score rose sequentially and year-to-year, moving it into a tie for the No. 1 position with IBM.

- Large IT departments were considerably more satisfied with Dell on-site response time than small and medium IT departments.
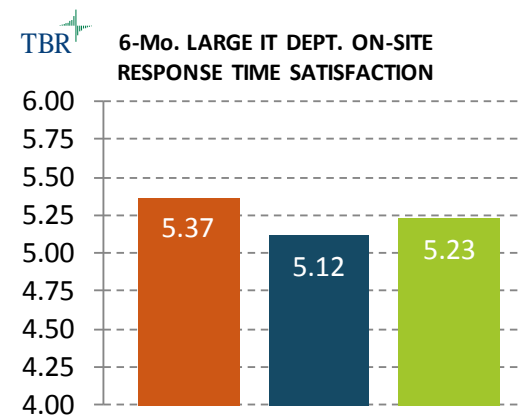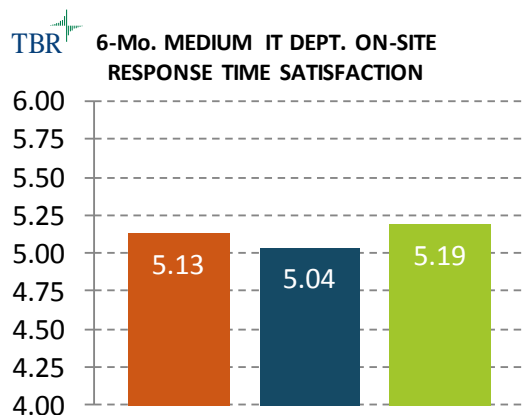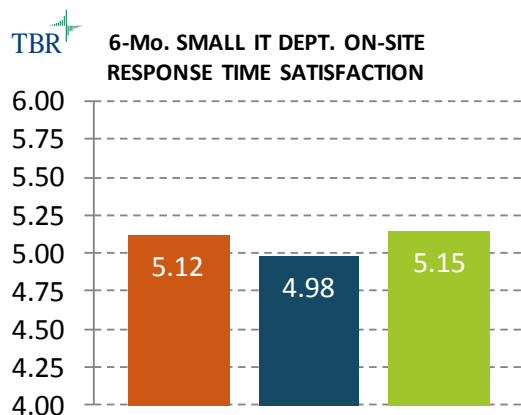
## HP

- HP maintained its six-month on-site response time satisfaction score for the third straight quarter; however, Dell's higher score pushed HP into the No. 3 position.

- As with rack server customers, blade server customers were slightly less satisfied with HP's on-site response time than Dell's or IBM's customers.

## IBM

- IBM's six-month on-site response time satisfaction score dropped sequentially, enabling Dell to tie the vendor for No. 1.

- In 4Q14 IBM finished with a higher score in on-site response time than Dell and HP for both small and medium IT departments.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# On-site Response Time: Analysis by IT Department Size



**6-Mo. SMALL IT DEPT. ON-SITE RESPONSE TIME SATISFACTION**

Dell: 5.12  HP: 4.98  IBM: 5.15

SOURCE: TBR 4Q14

**6-Mo. MEDIUM IT DEPT. ON-SITE RESPONSE TIME SATISFACTION**

Dell: 5.13  HP: 5.04  IBM: 5.19

SOURCE: TBR 4Q14

**6-Mo. LARGE IT DEPT. ON-SITE RESPONSE TIME SATISFACTION**

Dell: 5.37  HP: 5.12  IBM: 5.23

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"The techs are always prompt and maintain contact if there is any delay due to parts availability."*

**IBM:** *"They show up and get the job done exactly when we need them to."*

**Medium IT Customers**

**HP:** *"Techs are able to resolve our problems in a timely manner."*

**Dell:** *"Quick and usually ends with first visit."*

**Large IT Customers**

**HP:** *"Gets the systems up and running with little downtime."*

**IBM:** *"Excellent technical skills."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# On-site Response Time: Blade vs. Rack Server Rankings

## Customer Comments

*"Techs are available and can answer questions."*
— **Dell blade customer**

*"Highly responsive."*
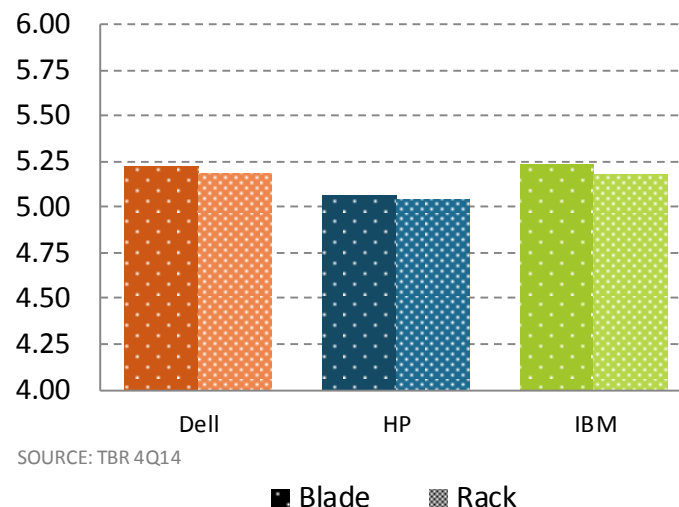— **IBM blade customer**

*"Had tech dispatched to replace defective parts; was on time and quick."*
— **HP rack customer**

*"They are very fast and professional."*
— **HP blade customer**

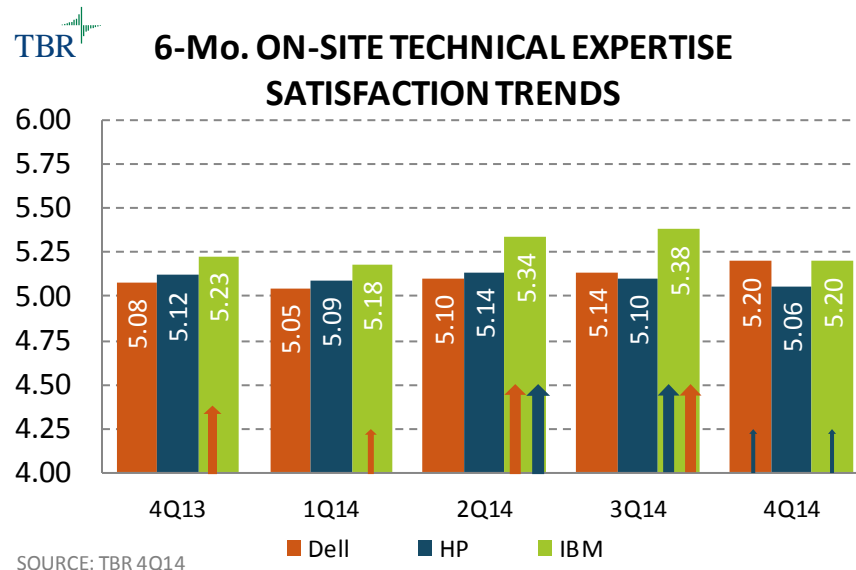**TBR** **6-Mo. ON-SITE RESPONSE TIME SATISFACTION**



SOURCE: TBR 4Q14

■ Blade    ▨ Rack

6-Mo. ON-SITE RESPONSE TIME IMPORTANCE

| | Dell | HP | IBM |
|---|---|---|---|
| Server | **Important** | **Important** | **Important** |
| Blade | **Important** | **Important** | **Important** |
| Rack | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# As in on-site response time, Dell raised its score sequentially and year-to-year in on-site technical expertise satisfaction in 4Q14

### 3-Mo. ON-SITE TECHNICAL EXPERTISE SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.07 | 5.02 | 5.19 | 5.08 | 5.32 |
| HP | 5.10 | 5.08 | 5.19 | 5.01 | 5.12 |
| IBM | 5.21 | 5.15 | 5.54 | 5.21 | 5.19 |

SOURCE: TBR 4Q14

### 6-Mo. ON-SITE TECHNICAL EXPERTISE SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 5.08 | 5.05 | 5.10 | 5.14 | 5.20 |
| HP | 5.12 | 5.09 | 5.14 | 5.10 | 5.06 |
| IBM | 5.23 | 5.18 | 5.34 | 5.38 | 5.20 |
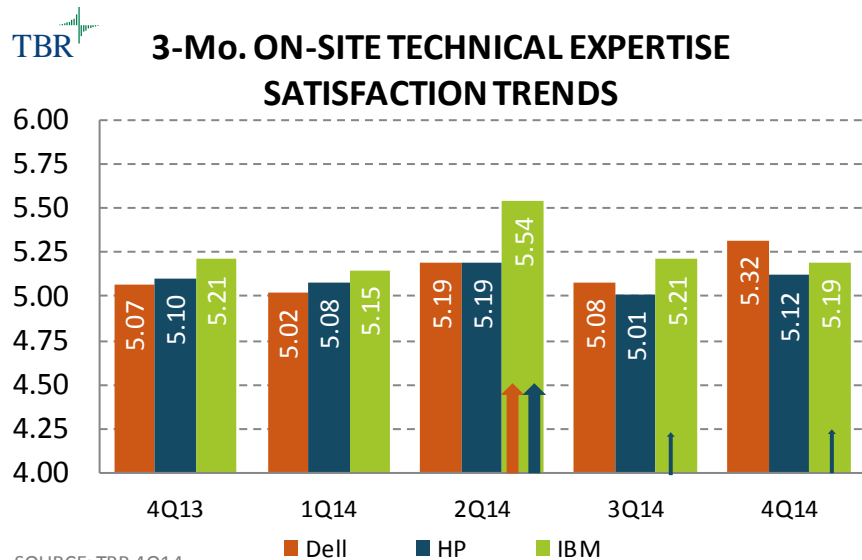
SOURCE: TBR 4Q14

## Dell

- Dell's six-month on-site technical expertise satisfaction score rose sequentially for the first time in five quarters, enabling Dell to tie IBM for the No. 1 position.

- Dell's small and large IT department customers were the most satisfied with on-site technical expertise among all vendors.
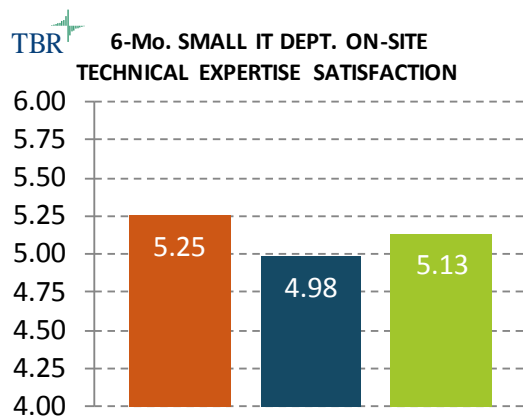
## HP

- HP's flat six-month on-site technical expertise satisfaction score resulted in a No. 3 finish.

- HP's on-site technical expertise satisfaction scores were lowest among competitors for blade and rack server customers.
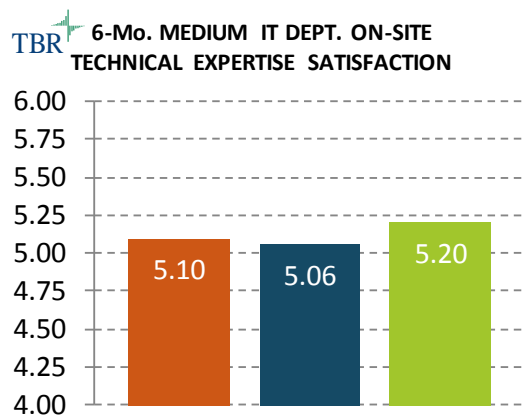
## IBM

- IBM's six-month satisfaction scores dropped from the previous quarter in the important on-site technical expertise attribute to tie with Dell for the No. 1 spot.

- Medium IT departments scored IBM's on-site technical expertise highest among all vendors.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# On-site Technical Expertise: Analysis by IT Department Size



**TBR** 6-Mo. SMALL IT DEPT. ON-SITE TECHNICAL EXPERTISE SATISFACTION

Dell: 5.25
HP: 4.98
IBM: 5.13

SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. ON-SITE TECHNICAL EXPERTISE SATISFACTION

Dell: 5.10
HP: 5.06
IBM: 5.20

SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. ON-SITE TECHNICAL EXPERTISE SATISFACTION

Dell: 5.27
HP: 5.14
IBM: 5.23

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"The team is knowledgeable and quick to repair."*

**HP:** *"Highly competent engineers."*

**Medium IT Customers**

**HP:** *"High quality and knowledgeable tech."*

**IBM:** *"Knowledge is high, and they understand how to solve problems."*

**Large IT Customers**

**IBM:** *"Superb support, always helpful."*

**HP:** *"Highly technical and arrive in the four-hour support window."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
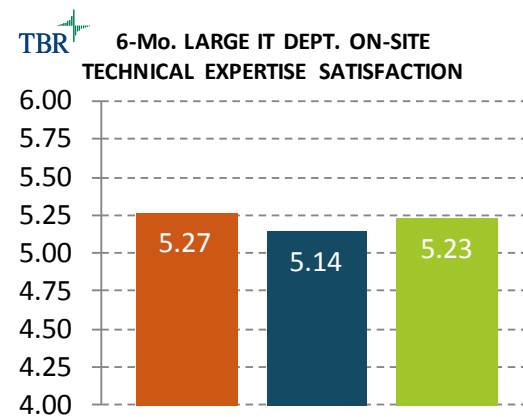
For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# On-site Technical Expertise: Blade vs. Rack Server Rankings

## Customer Comments

*"We have experienced little need for on-site support, but when we did, IBM sent technicians that were able to solve the problems and get our servers back up in a record amount of time. We are very satisfied with our purchase of IBM rack servers and will continue to buy them in the future."*
— **IBM rack customer**

*"Very knowledgeable on-site support staff."*
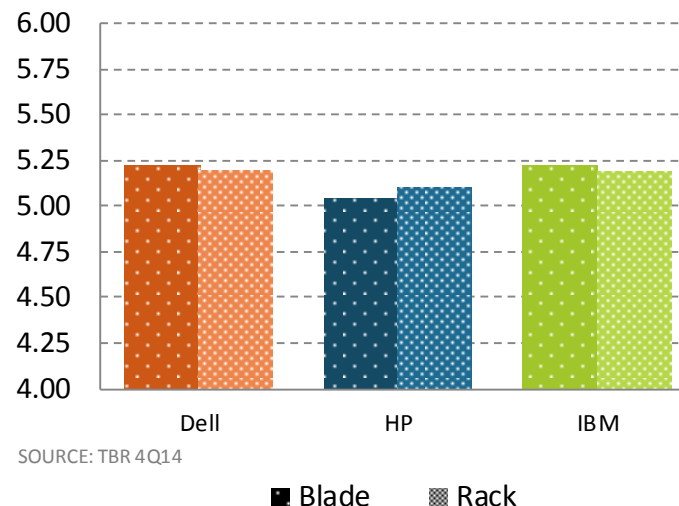— **Dell blade customer**

*"The support engineers are quite competent."*
— **HP rack customer**

*"IBM hires the most qualified people, and then trains them to become experts on all of their products. They have the best on-site support of any technology company today."*
— **IBM blade customer**

### TBR 6-Mo. ON-SITE TECHNICAL EXPERTISE SATISFACTION



SOURCE: TBR 4Q14

■ Blade    ▨ Rack

### 6-Mo. ON-SITE TECHNICAL EXPERTISE IMPORTANCE

|        | Dell      | HP        | IBM       |
|--------|-----------|-----------|-----------|
| Server | **Important** | **Important** | **Important** |
| Blade  | **Important** | **Important** | **Important** |
| Rack   | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Dell's ability to meet blade and rack server customers' demand for quality online technical support helped it achieve the No. 1 spot in 4Q14

### 3-Mo. ONLINE TECHNICAL SUPPORT SATISFACTION TRENDS



SOURCE: TBR 4Q14

### 6-Mo. ONLINE TECHNICAL SUPPORT SATISFACTION TRENDS



SOURCE: TBR 4Q14
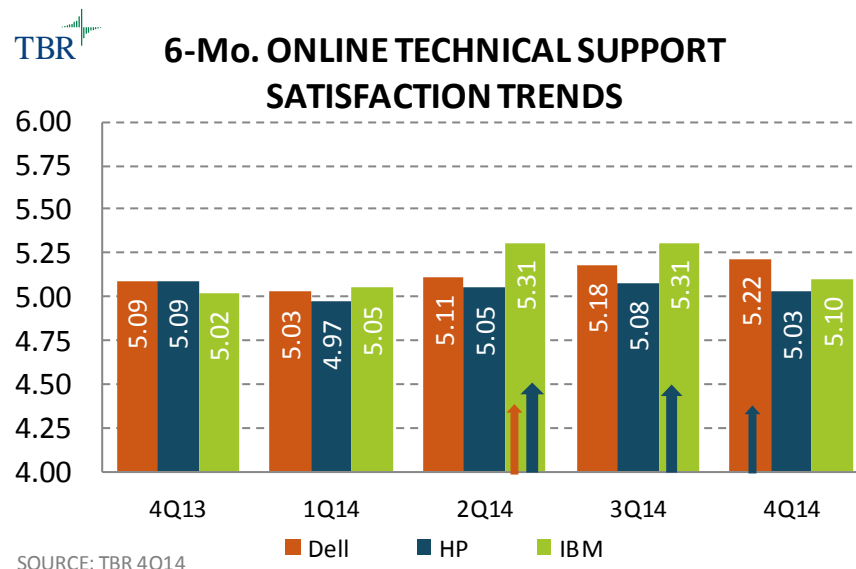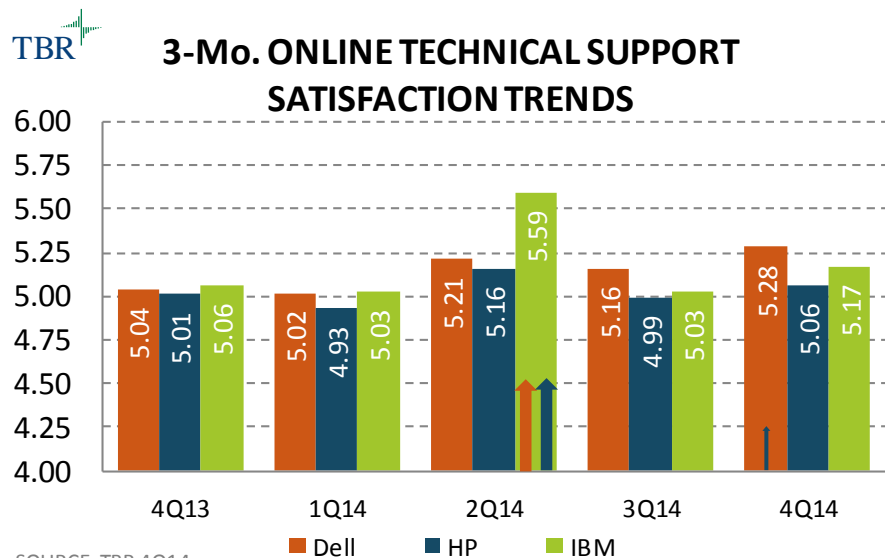
## Dell

- Dell's six-month online technical support satisfaction score was flat sequentially, erasing IBM's marginal advantage from 3Q14.

- Dell's small and large IT departments were the most satisfied with online technical support across all vendors.
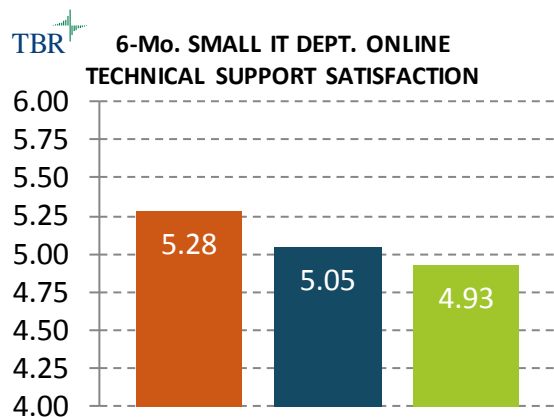
## HP

- HP remained in the No. 3 position for six-month online technical support satisfaction in 4Q14, as its satisfaction score was down from the year-ago quarter.

- Similar to Dell and IBM customers, HP's blade customers were more satisfied than its rack server users.

## IBM

- IBM lost its No. 1 position for six-month online technical support satisfaction in 4Q14; however, its score increased year-to-year to lock in the No. 2 position ahead of HP.

- IBM's medium IT department online technical support satisfaction scores were highest among all vendors.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Online Technical Support: Analysis by IT Department Size

**TBR**
**6-Mo. SMALL IT DEPT. ONLINE TECHNICAL SUPPORT SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| | 5.28 | 5.05 | 4.93 |

SOURCE: TBR 4Q14

**TBR**
**6-Mo. MEDIUM IT DEPT. ONLINE TECHNICAL SUPPORT SATISFACTION**

| | Dell | HP | IBM |
|---|---|---|---|
| | 5.11 | 5.05 | 5.14 |

SOURCE: TBR 4Q14

**TBR**
**6-Mo. LARGE IT DEPT. ONLINE TECHNICAL SUPPORT SATISFACTION**
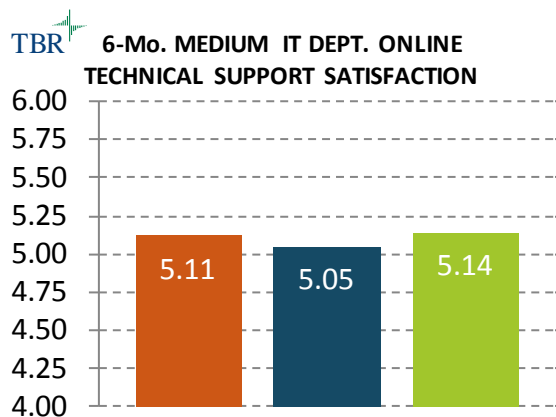
| | Dell | HP | IBM |
|---|---|---|---|
| | 5.25 | 4.99 | 5.14 |

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"Very responsive online services staff."*

**IBM:** *"Good support and knowledge sharing."*

**Medium IT Customers**

**Dell:** *"We've had to do price checks and spec checks, and some of the info has been available. We don't do social media support."*

**HP:** *"Online support to create tickets is very easy and doesn't require a phone call."*

**Large IT Customers**

**Dell:** *"We can get quick turnaround on issues that may be common but foreign to us."*

**IBM:** *"Good online info and updates."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
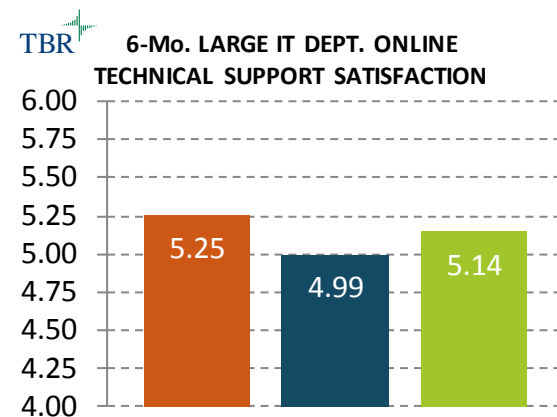
For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Online Technical Support: Blade vs. Rack Server Rankings

## Customer Comments

*"For less-critical issues, I can find the information I need."*
— **Dell rack customer**

*"Great content, very useful."*
— **IBM rack customer**

*"We are able to research any technical information that we need on IBM blade servers through online and/or social media support. They have some excellent blogs available."*
— **IBM blade customer**

*"We can find answers for most issues online."*
— **HP blade customer**

**6-Mo. ONLINE TECHNICAL SUPPORT SATISFACTION**



SOURCE: TBR 4Q14

■ Blade  ▨ Rack
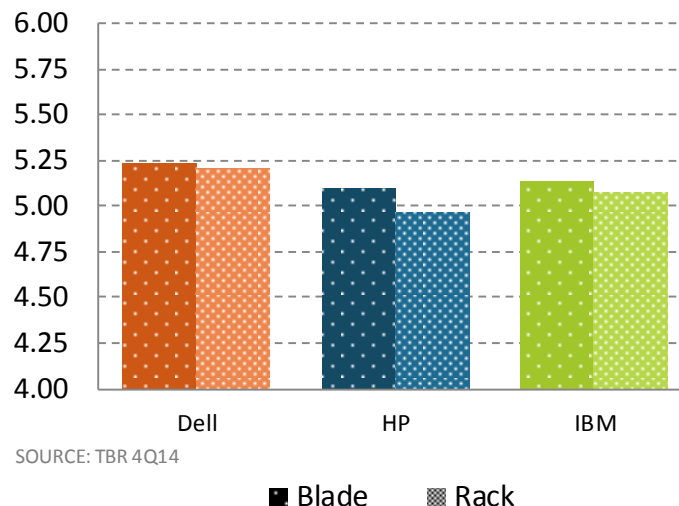
| 6-Mo. ONLINE TECHNICAL SUPPORT IMPORTANCE | | | |
|---|---|---|---|
| | Dell | HP | IBM |
| Server | **Important** | **Important** | **Important** |
| Blade | Less | **Important** | Less |
| Rack | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

TBR

# Dell improved sequentially and year-to-year to take the No. 1 spot in ongoing services and maintenance satisfaction

TBR

### 3-Mo. ONGOING SERVICES AND MAINTENANCE SATISFACTION TRENDS

| | Dell | HP | IBM |
|---|---|---|---|
| 4Q13 | 5.07 | 5.12 | 5.21 |
| 1Q14 | 5.08 | 5.02 | 5.11 |
| 2Q14 | 5.26 | 5.23 | 5.50 |
| 3Q14 | 5.14 | 5.05 | 5.13 |
| 4Q14 | 5.36 | 5.17 | 5.21 |

SOURCE: TBR 4Q14

TBR

### 6-Mo. ONGOING SERVICES AND MAINTENANCE SATISFACTION TRENDS

| | Dell | HP | IBM |
|---|---|---|---|
| 4Q13 | 5.14 | 5.12 | 5.24 |
| 1Q14 | 5.08 | 5.07 | 5.16 |
| 2Q14 | 5.17 | 5.13 | 5.30 |
| 3Q14 | 5.20 | 5.14 | 5.31 |
| 4Q14 | 5.25 | 5.11 | 5.17 |
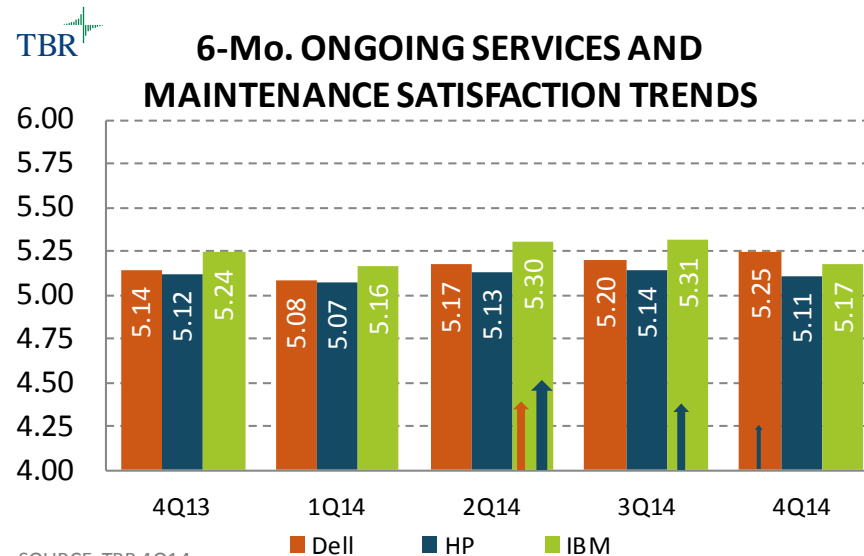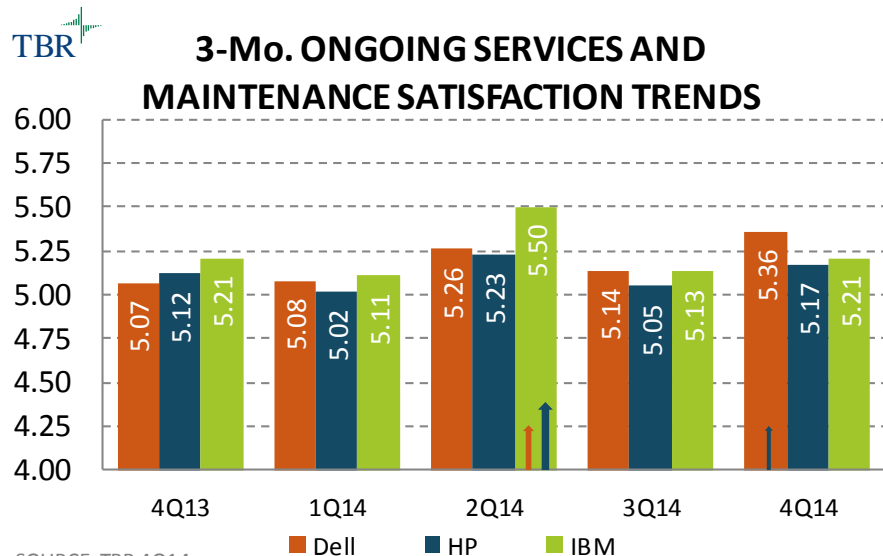
SOURCE: TBR 4Q14

**Dell**

- Dell improved its six-month ongoing services and maintenance satisfaction score from 3Q14, which, combined with IBM's falling score, was enough to erase IBM's significant differentiation and earn Dell the No. 1 position.

- High satisfaction with all IT department sizes and blade and rack server users drove Dell's No. 1 ranking.
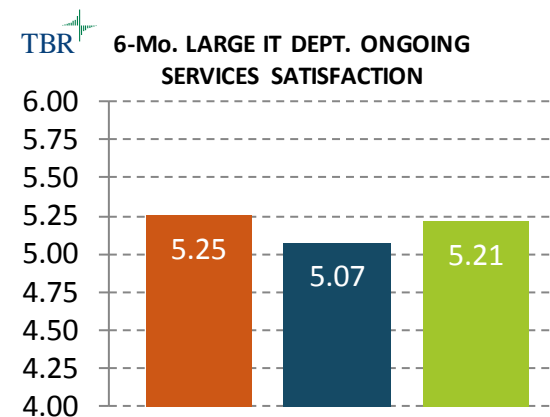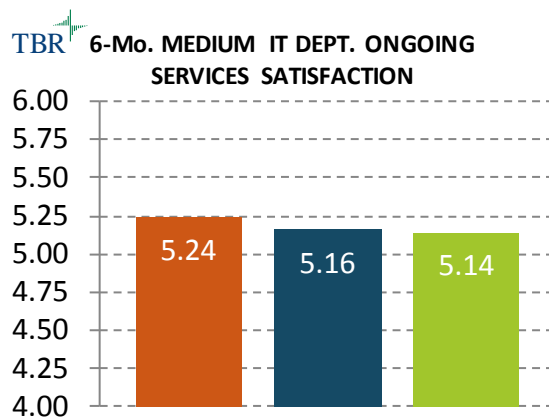
**HP**

- HP's six-month ongoing services and maintenance satisfaction score was flat sequentially for the fifth consecutive quarter, keeping it in the No. 3 position.

- HP tied with Dell for highest satisfaction among medium IT departments in this attribute.

**IBM**

- IBM's six-month ongoing services and maintenance satisfaction score dropped from 3Q14, pushing the vendor to the No. 2 position.

- IBM rack and blade server customers were equally satisfied with IBM's ongoing services and maintenance.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Ongoing Services and Maintenance: Analysis by IT Department Size
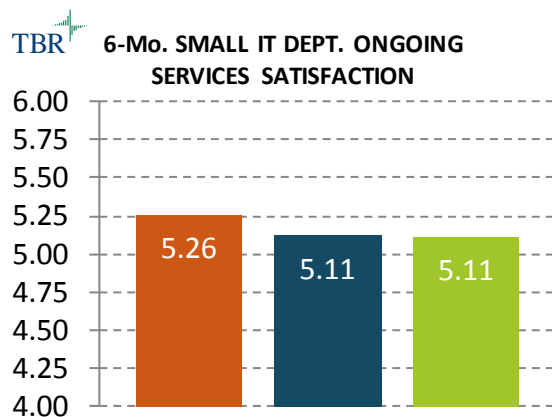
**TBR** 6-Mo. SMALL IT DEPT. ONGOING SERVICES SATISFACTION

| Dell | HP | IBM |
|------|-----|-----|
| 5.26 | 5.11 | 5.11 |

SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. ONGOING SERVICES SATISFACTION

| Dell | HP | IBM |
|------|-----|-----|
| 5.24 | 5.16 | 5.14 |

SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. ONGOING SERVICES SATISFACTION

| Dell | HP | IBM |
|------|-----|-----|
| 5.25 | 5.07 | 5.21 |

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**Dell:** *"Parts and maintenance are readily available."*

**IBM:** *"The best experience we have ever had in a business relationship."*

**Medium IT Customers**

**HP:** *"Parts are always available, and there is little needed to get replacement parts."*

**IBM:** *"Very reliable and parts are always in stock."*

**Large IT Customers**

**Dell:** *"No other price point did we see such performance and features and the support structure to boot."*

**HP:** *"Parts are available locally when necessary."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Ongoing Services: Blade vs. Rack Server Rankings

## Customer Comments

*"Did not have to wait more than a day to get systems back up to full capacity — ever."*
— **HP rack customer**

*"Parts are always available, and the support team is excellent."*
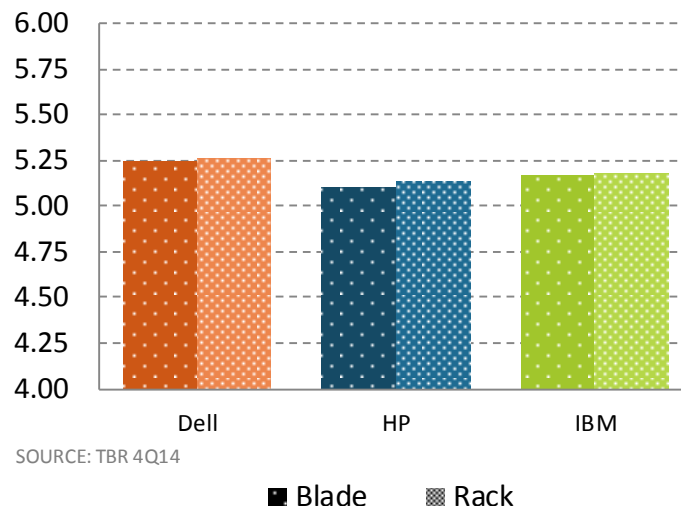— **IBM blade customer**

*"Replacement parts are usually available in less than four hours."*
— **Dell blade customer**

*"I like many of the self-support features on products which have them. Our ongoing maintenance up until product end of life has always met our expectations, at which point we switch to a third-party maintenance provider, which has continued excellent levels of coverage for us."*
— **Dell rack customer**

### TBR — 6-Mo. ONGOING SERVICES AND MAINTENANCE SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▨ Rack

### 6-Mo. ONGOING SERVICES AND MAINTENANCE IMPORTANCE

|         | Dell      | HP        | IBM       |
|---------|-----------|-----------|-----------|
| Server  | **Important** | **Important** | **Important** |
| Blade   | **Important** | **Important** | **Important** |
| Rack    | **Important** | **Important** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Despite Dell customers rating replacement parts availability less critical than HP's, both vendors earned the No. 1 spot in this attribute for 4Q14

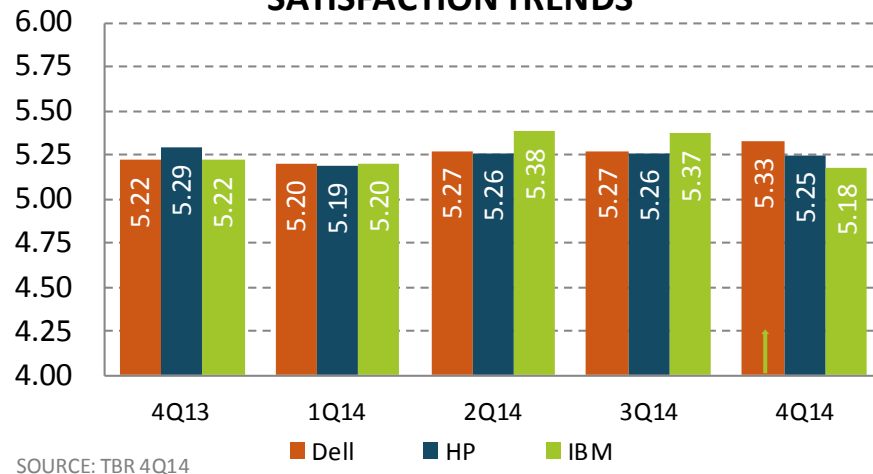## 3-Mo. REPLACEMENT PARTS AVAILABILITY SATISFACTION TRENDS
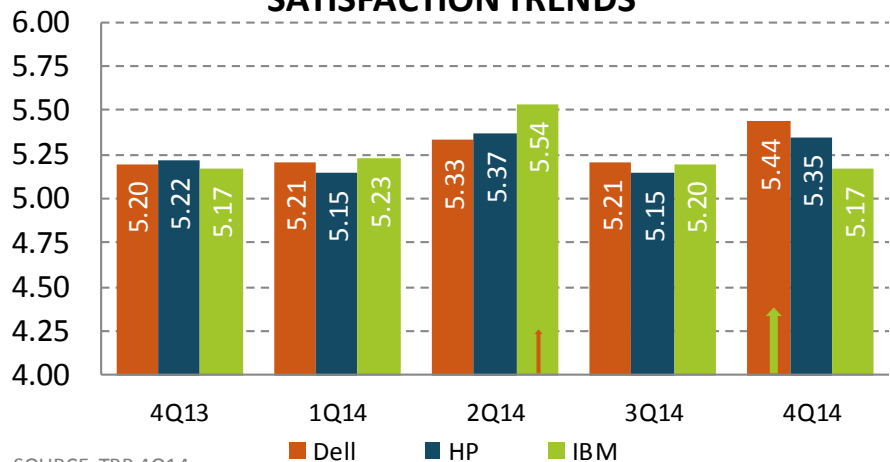
Dell / HP / IBM scores by quarter:
- 4Q13: Dell 5.20, HP 5.22, IBM 5.17
- 1Q14: Dell 5.21, HP 5.15, IBM 5.23
- 2Q14: Dell 5.33, HP 5.37, IBM 5.54
- 3Q14: Dell 5.21, HP 5.15, IBM 5.20
- 4Q14: Dell 5.44, HP 5.35, IBM 5.17

SOURCE: TBR 4Q14

Legend: Dell, HP, IBM

## 6-Mo. REPLACEMENT PARTS AVAILABILITY SATISFACTION TRENDS

Dell / HP / IBM scores by quarter:
- 4Q13: Dell 5.22, HP 5.29, IBM 5.22
- 1Q14: Dell 5.20, HP 5.19, IBM 5.20
- 2Q14: Dell 5.27, HP 5.26, IBM 5.38
- 3Q14: Dell 5.27, HP 5.26, IBM 5.37
- 4Q14: Dell 5.33, HP 5.25, IBM 5.18

SOURCE: TBR 4Q14

Legend: Dell, HP, IBM

## Dell

- Dell's six-month replacement parts availability satisfaction score was flat sequentially but rose year-to-year, earning Dell a share of the No. 1 position.

- Dell's rack customers considered this attribute more critical than Dell's blade customers and were more satisfied with the support service.
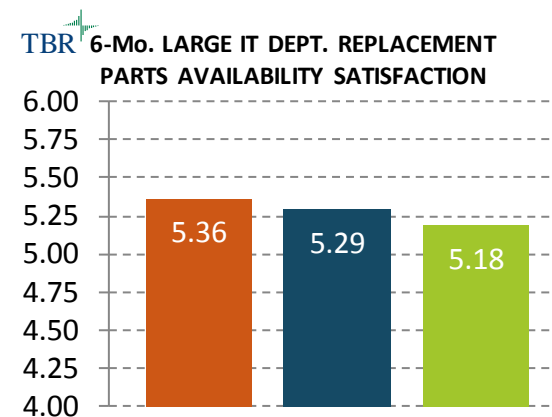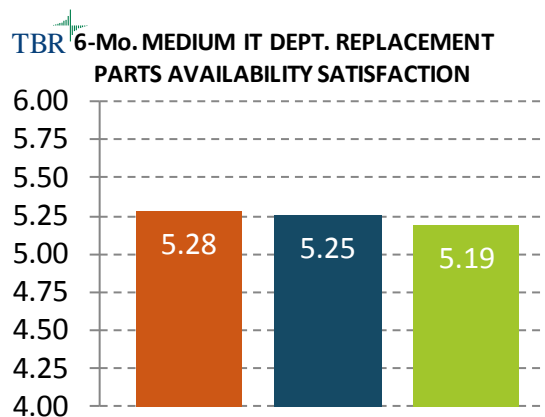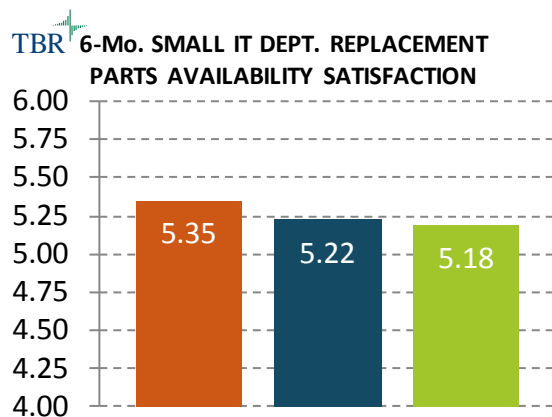
## HP

- Although HP's six-month replacement parts availability satisfaction score was flat sequentially and year-to-year, the vendor moved into a tie with Dell for first place in this attribute.

- HP was the only vendor to have both blade and rack customers rate the attribute as critical, reflecting a greater need to invest in the area.

## IBM

- IBM's six-month replacement parts availability satisfaction score dropped from 3Q14 to move the vendor to the No. 3 position in an attribute its blade customers consider critically important.

- IBM earned the lowest scores in replacement parts availability satisfaction across all IT department sizes and server types.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Replacement Parts Availability: Analysis by IT Department Size



**TBR** 6-Mo. SMALL IT DEPT. REPLACEMENT PARTS AVAILABILITY SATISFACTION

5.35 5.22 5.18

SOURCE: TBR 4Q14

**TBR** 6-Mo. MEDIUM IT DEPT. REPLACEMENT PARTS AVAILABILITY SATISFACTION

5.28 5.25 5.19

SOURCE: TBR 4Q14

**TBR** 6-Mo. LARGE IT DEPT. REPLACEMENT PARTS AVAILABILITY SATISFACTION

5.36 5.29 5.18

SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**HP:** *"Parts for older hardware are still available."*

**IBM:** *"The IBM website lets me purchase replacement parts for even older machines."*

**Dell:** *"Parts highly available and delivered in timely manner."*

**Medium IT Customers**

**Dell:** *"Parts get here quick."*

**HP:** *"Parts [have] been easily available."*

**IBM:** *"Replacement parts come quick."*

**Large IT Customers**

**Dell:** *"Parts are available when needed."*

**HP:** *"Replacement parts work at first resolution."*

**IBM:** *"Never any issue with getting replacement parts quickly in stock."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Replacement Parts Availability: Blade vs. Rack Server Rankings

## Customer Comments

*"Hardware always available; problems will automatically call home."*
— **IBM rack customer**

*"Dell parts are standard and widely available. Components are standardized and have long runs. This makes replacement parts easy to obtain for a very long period of time."*
— **Dell rack customer**
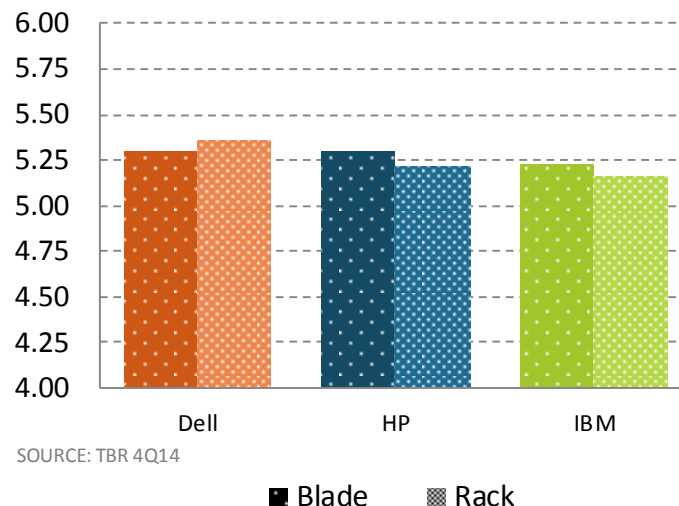
*"Replacement parts seem to always be available."*
—**HP blade customer**

*"They work well, and any issues are resolved with a hot swappable part."*
— **HP rack customer**

TBR **6-Mo. REPLACEMENT PARTS AVAILABILITY SATISFACTION**

SOURCE: TBR 4Q14

■ Blade  ▨ Rack

6-Mo. REPLACEMENT PARTS AVAILABILITY IMPORTANCE

| | Dell | HP | IBM |
|---|---|---|---|
| Server | **Important** | **Critical** | **Important** |
| Blade | **Important** | **Critical** | **Critical** |
| Rack | **Critical** | **Critical** | **Important** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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TBR

# Dell maintained its self-support/automated support satisfaction score in 4Q14, finishing No. 1 in an attribute its customers deemed important

TBR

### 3-Mo. SELF-SUPPORT/AUTOMATED SUPPORT SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 4.94 | 4.93 | 5.23 | 4.98 | 5.18 |
| HP | 4.91 | 4.82 | 5.03 | 4.93 | 5.00 |
| IBM | 4.98 | 4.87 | 5.28 | 4.99 | 5.05 |

SOURCE: TBR 4Q14

TBR

### 6-Mo. SELF-SUPPORT/AUTOMATED SUPPORT SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 4.97 | 4.93 | 5.08 | 5.11 | 5.08 |
| HP | 5.01 | 4.87 | 4.93 | 4.98 | 4.96 |
| IBM | 4.97 | 4.92 | 5.07 | 5.13 | 5.02 |

SOURCE: TBR 4Q14
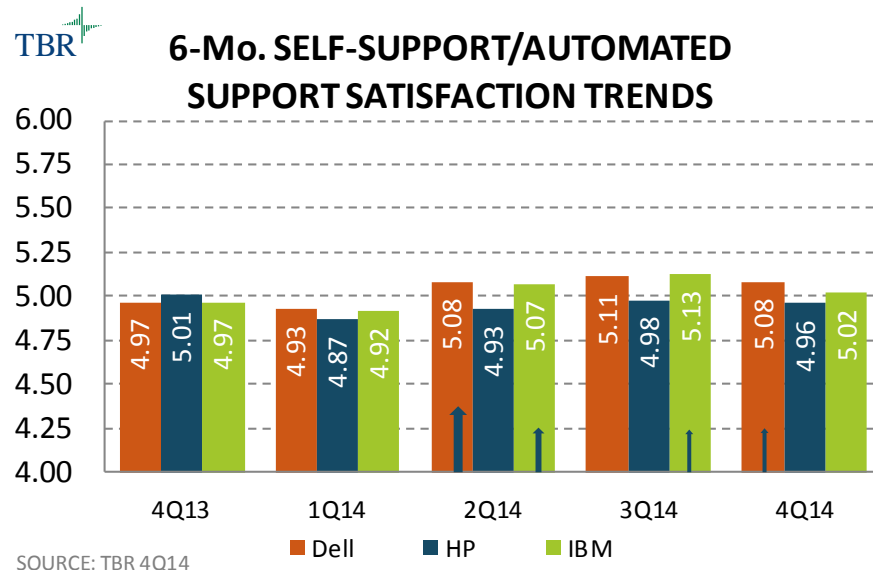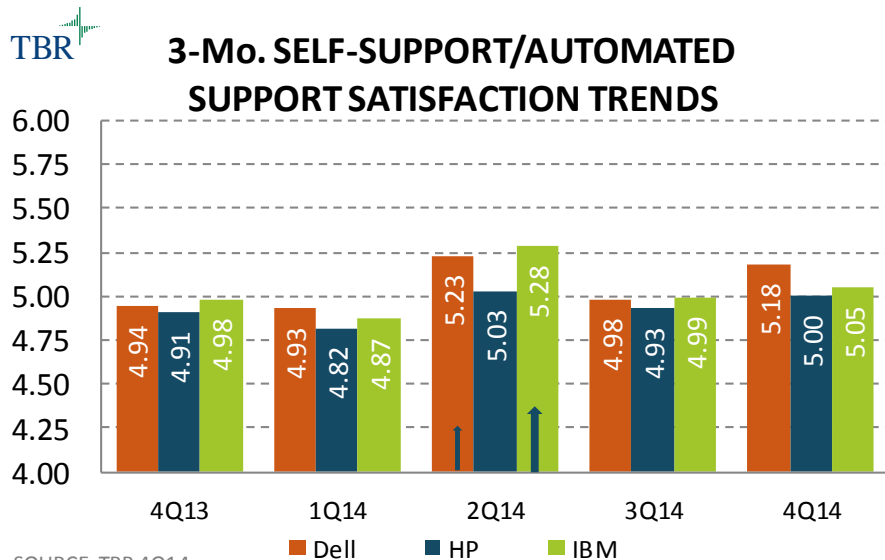
## Dell

- Dell maintained its six-month self-support/automated support satisfaction score from 3Q14 to become the stand-alone No. 1 vendor in 4Q14.

- Similar to other value-added attributes, the satisfaction score was highest among all IT department sizes compared to other vendors.
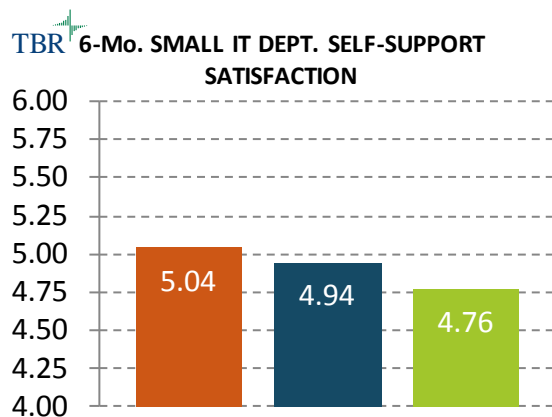
## HP

- HP's six-month self-support/ automated support satisfaction score was flat sequentially. Due to IBM's score falling sequentially, HP landed in a tie for No. 2.

- Rack and blade server users scored HP similarly.

## IBM

- IBM was unable to maintain its six-month self-support/automated support satisfaction score from 3Q14 and moved from a first-place tie with Dell to a second-place tie with HP.

- IBM blade users were more satisfied with in self-support/automated support than rack users.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Self-support/Automated Support: Analysis by IT Department Size

### 6-Mo. SMALL IT DEPT. SELF-SUPPORT SATISFACTION

Dell: 5.04
HP: 4.94
IBM: 4.76

SOURCE: TBR 4Q14

### 6-Mo. MEDIUM IT DEPT. SELF-SUPPORT SATISFACTION

Dell: 5.05
HP: 4.99
IBM: 5.06

SOURCE: TBR 4Q14

### 6-Mo. LARGE IT DEPT. SELF-SUPPORT SATISFACTION

Dell: 5.17
HP: 4.96
IBM: 5.09
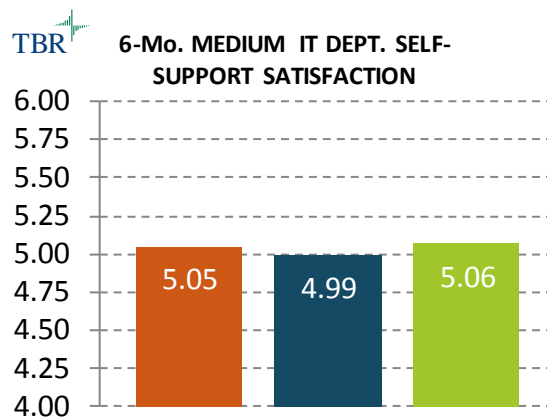
SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**IBM:** *"Lots of information available online."*

**Dell:** *"They rarely have issues [and] are easy to understand; it is easier to speak to IT while working on this even as a novice; user-friendly."*

**Medium IT Customers**

**IBM:** *"IBM blade servers are easy to maintain."*

**HP:** *"Great VAR; good support website."*

**Large IT Customers**

**HP:** *"Information we need is available."*

**Dell:** *"Easy to use, and accurate and reliable information."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
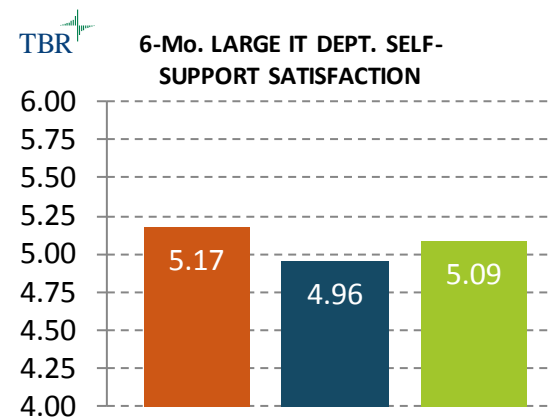
For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Self-support/Automated Support: Blade vs. Rack Server Rankings

## Customer Comments

*"Self-support is simple and easy to implement."*
— **Dell rack customer**

*"There is a wealth of info available to us as a resource."*
— **HP blade customer**

*"The online product information is good. I can find specs on specific serial number machines. I can already research all the machines available and what feature sets they have."*
— **IBM rack customer**

### TBR 6-Mo. SELF-SUPPORT/AUTOMATED SUPPORT SATISFACTION



SOURCE: TBR 4Q14

■ Blade  ▦ Rack
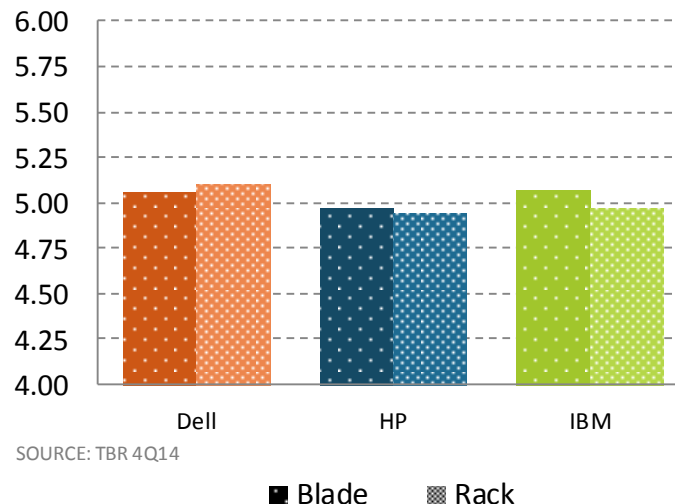
### 6-Mo. SELF-SUPPORT/AUTOMATED SUPPORT IMPORTANCE

|        | Dell      | HP   | IBM  |
|--------|-----------|------|------|
| Server | **Important** | Less | Less |
| Blade  | **Important** | Less | Less |
| Rack   | Less      | Less | Less |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Customers remained largely neutral toward social media support compared to other satisfaction attributes evaluated by TBR

## 3-Mo. SOCIAL MEDIA SUPPORT SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 4.45 | 4.33 | 4.65 | 4.42 | 4.61 |
| HP | 4.50 | 4.37 | 4.55 | 4.36 | 4.45 |
| IBM | 4.70 | 4.57 | 4.98 | 4.62 | 4.81 |

SOURCE: TBR 4Q14

## 6-Mo. SOCIAL MEDIA SUPPORT SATISFACTION TRENDS



| | 4Q13 | 1Q14 | 2Q14 | 3Q14 | 4Q14 |
|---|---|---|---|---|---|
| Dell | 4.51 | 4.39 | 4.49 | 4.54 | 4.52 |
| HP | 4.50 | 4.44 | 4.46 | 4.45 | 4.40 |
| IBM | 4.65 | 4.63 | 4.77 | 4.80 | 4.72 |

SOURCE: TBR 4Q14
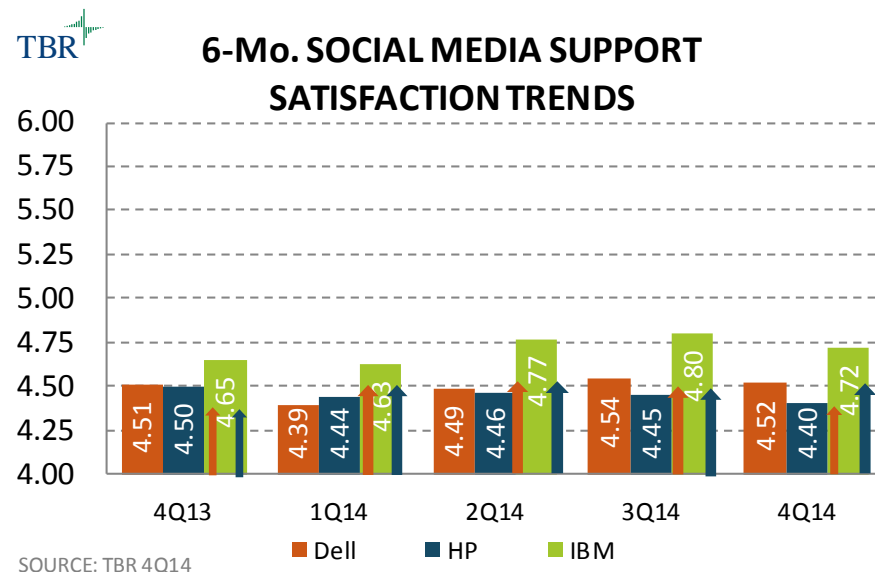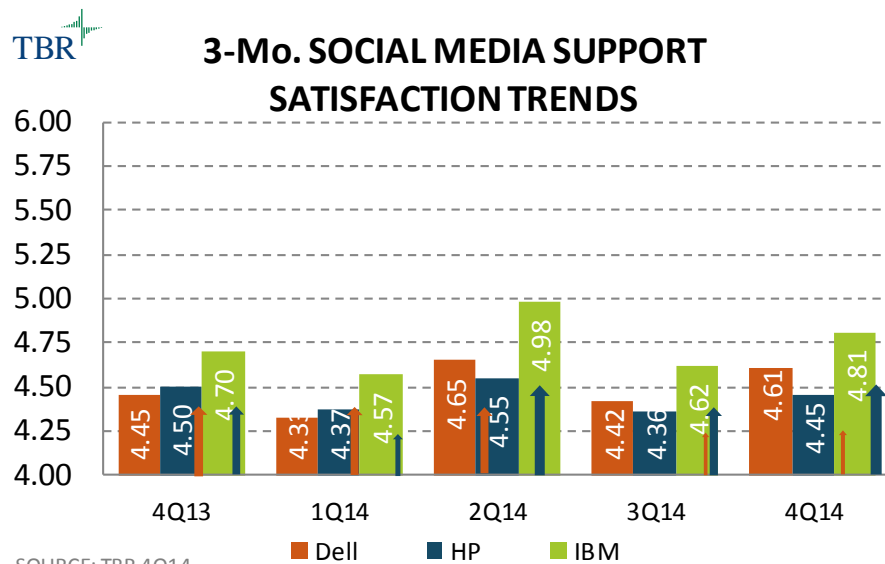
## Dell

- Dell's six-month social media support satisfaction score was flat sequentially in 4Q14, earning it the No. 2 position in the attribute.

- Like HP and IBM, Dell's social media support satisfaction score was higher for blade servers compared to rack server users.
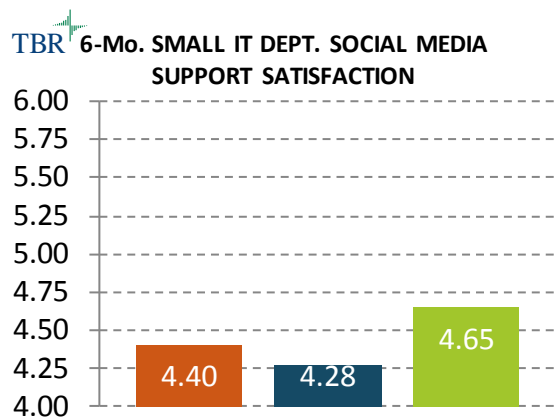
## HP

- HP's six-month social media support satisfaction score declined in 4Q14, moving HP to the No. 3 spot.

- Satisfaction among large IT departments boosted HP's overall social media support satisfaction score.

## IBM

- IBM's six-month social media support satisfaction score fell marginally in 4Q14; however, it was able to maintain its fifth consecutive No. 1 rating by a significant margin over Dell and HP.

- Large IT departments were the most satisfied with IBM in social media support, similar to what HP and Dell experienced.

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Social Media Support: Analysis by IT Department Size

**TBR 6-Mo. SMALL IT DEPT. SOCIAL MEDIA SUPPORT SATISFACTION**

| Value |
|---|
| Dell: 4.40 |
| HP: 4.28 |
| IBM: 4.65 |

SOURCE: TBR 4Q14

**TBR 6-Mo. MEDIUM IT DEPT. SOCIAL MEDIA SUPPORT SATISFACTION**

| Value |
|---|
| Dell: 4.55 |
| HP: 4.37 |
| IBM: 4.59 |

SOURCE: TBR 4Q14

**TBR 6-Mo. LARGE IT DEPT. SOCIAL MEDIA SUPPORT SATISFACTION**

| Value |
|---|
| Dell: 4.62 |
| HP: 4.54 |
| IBM: 4.80 |
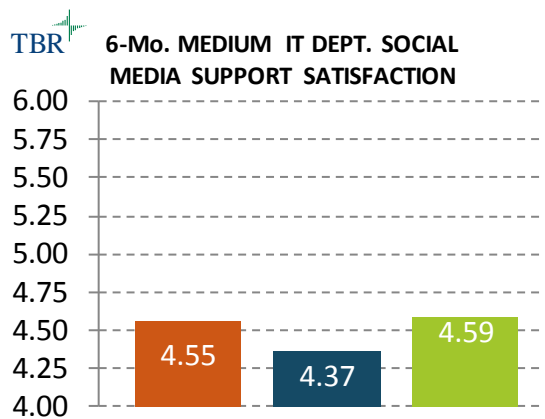
SOURCE: TBR 4Q14

■ Dell ■ HP ■ IBM

## Customer Comments

**Small IT Customers**

**IBM:** *"Knowledge sharing."*

**Dell:** *"Online services has a good level [of help.] I do not use social media support."*

**Medium IT Customers**

**HP:** *"Online services are complete. We do not use social media much, so we are satisfied with it."*

**IBM:** *"Have not used [it] much."*

**Large IT Customers**

**HP:** *"Lots of info is available online."*

**Dell:** *"Allows much of service to be done without a visit."*

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.
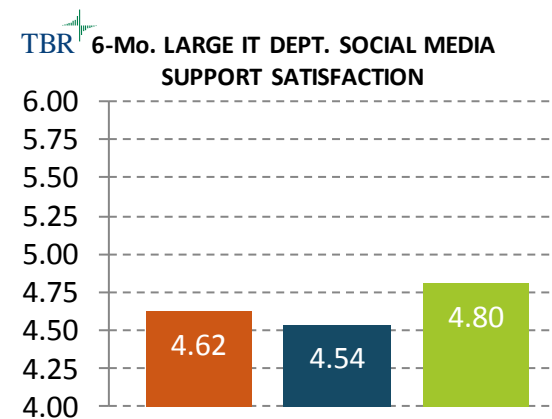
For this study, TBR defines IT department size in the following brackets: Small IT, 50 or fewer employees; Medium IT, 51 to 300 employees; Large IT, more than 300 employees.

# Social Media Support: Blade vs. Rack Server Rankings

| Customer Comments |
|---|

TBR **6-Mo. SOCIAL MEDIA SUPPORT SATISFACTION**

*"[We] never use social media support."*
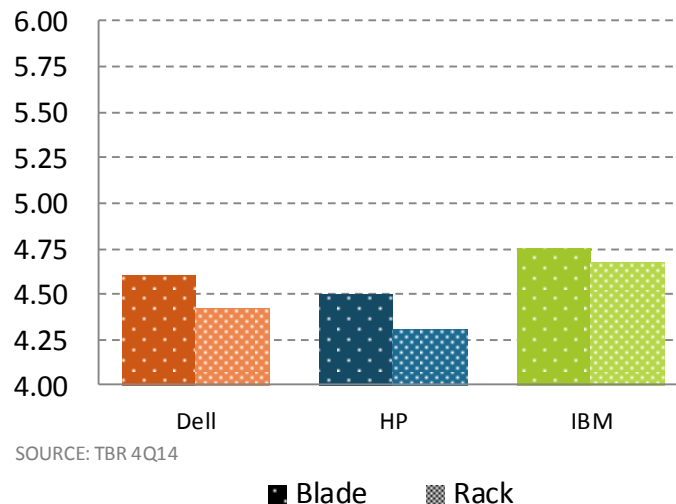— **Dell rack customer**

*"[We] don't use social media support much, but the online services are pretty extensive, and our in-house staff can make good use of the troubleshooting tips to help get issues resolved quickly."*
— **HP rack customer**

*"[We] don't use social media."*
— **IBM blade customer**



SOURCE: TBR 4Q14

■ Blade  ▩ Rack

**6-Mo. SOCIAL MEDIA SUPPORT IMPORTANCE**

|  | Dell | HP | IBM |
|---|---|---|---|
| Server | Less | Less | Less |
| Blade | Less | Less | Less |
| Rack | Less | Less | Less |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

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# Appendix D
## Firmographics

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# 4Q14 Sample Overview

## Surveys collected between July 9, 2014, and Dec. 30, 2014

6-Mo. QUARTER SAMPLE: SERVER RESPONDENTS BY FORM FACTOR

|  | Dell | HP | IBM | Total |
|---|---|---|---|---|
| **Blade Servers** | 154 | 154 | 149 | 457 |
| **Rack Servers** | 156 | 154 | 150 | 460 |
| **Total** | **310** | **308** | **299** | **917** |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

# Servers Installed and Purchased

6-Mo. QUARTER SAMPLE: SERVER INSTALLS AND PURCHASES

| | |
|---|---|
| Servers Installed Currently | **886,264** |
| Servers Purchased in the Past 12 Months | **102,421** |
| Average Percent of Installed Servers Purchased in the Past 12 Months | **12%** |
| Server Purchases Planned in the Next 12 Months | **104,328** |
| Average Percent of Installed Servers Planned for Purchase in the Next 12 Months | **12%** |

SOURCE: TBR 4Q14

# Company Size by Annual Revenue

6-Mo. QUARTER SAMPLE: COMPANY SIZE BY ANNUAL REVENUE

|  | Dell | HP | IBM | Total |
|---|---|---|---|---|
| I don't know | 6% | 5% | 1% | 4% |
| Less than $100 million | 13% | 14% | 9% | 12% |
| $100 million – $249 million | 13% | 12% | 11% | 13% |
| $250 million – $499 million | 11% | 5% | 8% | 8% |
| $500 million – $999 million | 10% | 10% | 14% | 11% |
| $1 billion – $4.9 billion | 21% | 24% | 22% | 22% |
| $5 billion – $9.9 billion | 13% | 12% | 15% | 13% |
| $10 billion or more | 13% | 19% | 19% | 17% |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

Note: 4Q14 firmographic data based on information provided by x86-based server sample only.

Totals that do not add to 100% are due to rounding.

# Company and IT Department Size by Number of Employees

**6-Mo. QUARTER SAMPLE: COMPANY SIZE**

|  | Dell | HP | IBM | Total |
|---|---|---|---|---|
| 500 - 999 employees | 12% | 11% | 8% | 11% |
| 1,000 - 4,999 employees | 35% | 29% | 25% | 30% |
| 5,000 - 9,999 employees | 16% | 15% | 17% | 15% |
| 10,000 or more employees | 37% | 45% | 50% | 43% |

SOURCE: TBR 4Q14

**6-Mo. QUARTER SAMPLE: IT DEPARTMENT SIZE**

|  | Dell | HP | IBM | Total |
|---|---|---|---|---|
| Small — 50 or fewer IT employees | 39% | 29% | 22% | 31% |
| Medium — 51 - 300 IT employees | 35% | 31% | 27% | 32% |
| Large — Over 300 IT employees | 26% | 39% | 51% | 37% |

SOURCE: TBR 4Q14

Note: 4Q14 firmographic data based on information provided by x86-based server sample only.
Totals that do not add to 100% are due to rounding.

# Respondents' Titles

6-Mo. QUARTER SAMPLE: RESPONDENT TITLE

|  | Dell | HP | IBM | Total |
|---|---|---|---|---|
| CIO/CTO | 12% | 12% | 14% | 13% |
| IT EVP/SVP/VP | 6% | 9% | 13% | 9% |
| IT Director | 25% | 22% | 28% | 25% |
| IT Manager | 34% | 39% | 31% | 34% |
| IT Analyst/Specialist | 21% | 16% | 13% | 17% |
| Other | 1% | 2% | 0% | 2% |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

Note: 4Q14 firmographic data based on information provided by x86-based server sample only.
Totals that do not add to 100% are due to rounding.

# Industry

**6-Mo. QUARTER SAMPLE: INDUSTRY**

| | Dell | HP | IBM | Total |
|---|---|---|---|---|
| Aerospace/Defense | 5% | 4% | 4% | 4% |
| Banking/Financial Services | 6% | 11% | 12% | 10% |
| Business and Legal Services | 2% | 2% | 3% | 2% |
| Computer Services/IT Consulting | 9% | 7% | 20% | 11% |
| Computer Software | 11% | 2% | 3% | 5% |
| Construction/Engineering/Env Services | 1% | 0% | 1% | 1% |
| Consumer Packaged Goods | 1% | 1% | 3% | 2% |
| Education – Private/Training | 5% | 1% | 3% | 3% |
| Education – Public | 10% | 6% | 2% | 7% |
| Electronics Manufacturing | 1% | 1% | 0% | 1% |
| Energy/Utilities | 5% | 4% | 3% | 4% |
| Government – Federal | 6% | 4% | 3% | 4% |
| Government – State/Local | 7% | 6% | 4% | 6% |
| Hospital/Healthcare – Private | 2% | 11% | 4% | 5% |
| Hospital/Healthcare – Public | 4% | 5% | 4% | 4% |
| Insurance | 3% | 4% | 9% | 5% |
| Industrial Manufacturing | 6% | 6% | 2% | 5% |
| Manufacturing – Other | 6% | 7% | 4% | 7% |
| Media/Publishing | 0% | 1% | 0% | 1% |
| Pharmaceuticals/Life Sciences | 1% | 2% | 3% | 2% |
| Retail/Wholesale | 3% | 4% | 7% | 4% |
| Telecommunications | 1% | 3% | 4% | 3% |
| Transportation/Logistics | 3% | 3% | 3% | 3% |
| Other | 2% | 6% | 1% | 4% |

SOURCE: TBR 4Q14

Note: IBM results reflected in this report refer to IBM x86 server customer purchases and experiences prior to Oct. 1, 2014, when Lenovo completed its purchase of the IBM x86 server business, including the System x product line.

Note: 4Q14 firmographic data based on information provided by x86-based server sample only.
Totals that do not add to 100% are due to rounding.

# Appendix E
## Analytical Procedures and Survey Instrument

# Satisfaction

- At the beginning of the survey, respondents select what brand of servers they purchased most in the past 12 months. This brand is their "primary brand" for the remainder of the server survey questions.

- Respondents rate their satisfaction with servers from their primary brand on 24 attributes using a seven-point Likert scale. Respondents rate satisfaction separately for blade and rack x86-based servers.
  - o Question: How satisfied are you with each of the following attributes of {Primary Brand} {Blade/Rack} servers?

| Value | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|---|---|---|---|---|---|---|
| Scale | Extremely Dissatisfied | Very Dissatisfied | Dissatisfied | Neutral | Satisfied | Very Satisfied | Extremely Satisfied |

- The mean satisfaction scores (S) for each attribute by vendor are calculated for both server types, and for blade and rack servers separately.

- TBR uses an independent sample t-test assuming unequal variances or the standard student's t-test. Three $\alpha$ levels are used in the analysis: 0.1 (90%), 0.05 (95%) and 0.01 (99%).

# Importance

- Respondents rate the importance of the 24 attributes when making their purchase decision for blade and rack x86-based servers separately.
  - o Question: When making your last {blade/rack} server purchase, how important were the following attributes to your organization? Please move each attribute on the left into one of the categories on the right by dragging and dropping them. You can move as few or as many attributes into one particular category as you like.
  - o Categories:

| Value | 1 | 2 | 3 |
|-------|-----|-----|-----|
| Scale | Less Important | Important | Critical |

- Importance ratings are used for three key analyses in understanding customer perceptions and are applied to each vendor's combined server responses as well as the blade and rack respondents separately.
  1. <u>Importance Multiplier by Brand</u> — Average importance across all attributes for that specific brand (I) is divided by the average importance across all attributes of all brands to determine an Importance Multiplier (M). The Importance Multipliers are used to help determine the TBR Weighted Satisfaction Index.

$$M_{Brand\,x} = \frac{\left(\sum_{n=1}^{22} Brand\,x\right)/22}{\left(\left(\sum_{n=1}^{22} Brand\,x\right) + \left(\sum_{n=1}^{22} Brand\,y\right) + \left(\sum_{n=1}^{22} Brand\,z\right)\right)/66}$$

  2. <u>Attribute Importance Weight by Brand</u> — Each attribute mean importance score by brand (I) is divided by the sum of that brand's mean importance scores to determine a relative Importance Weight (W). The Importance Weights are used in the TBR Satisfaction Indices.

$$W_{Attribute\,x,\,Brand\,y} = \frac{I_{Attribute\,x,\,Brand\,y}}{\sum_{n=1}^{22} I_{Attribute\,n,\,Brand\,y}}$$

  3. <u>Attribute Importance Level by Brand</u> — To determine what attributes are "Critical," "Important" and "Less Important" for each brand, the following methodology is applied.
     - o Important Cut-off: Average $W_{Brand\,y}$ — ½ the standard deviation of the 21 $W_{Brand\,y}$
     - o Critical Cut-off: Average $W_{Brand\,y}$ + ½ the standard deviation of the 21 $W_{Brand\,y}$
     - o Less Important Attribute: An attribute with an importance weight that is less than the Important Cut-off
     - o Important Attribute: An attribute with an importance weight that is greater than the Important Cut-off and less than the Critical Cut-off
     - o Critical Attribute: An attribute with an importance weight that is greater than the Critical Cut-off

# TBR Satisfaction Index

- The TBR Weighted Satisfaction Index comprises four indices:

  ((0.3*Product Sat. Index + 0.3*Sales Sat. Index + 0.3*Service Sat. Index)*Importance Multiplier) + 0.1*Loyalty Index

- Attribute Scores: TBR uses the mean satisfaction score of all respondents by vendor to compare vendor performance by attribute.

- Attribute scores are aggregated into three distinct indices (Note: If a vendor receives a perfect seven mean satisfaction score for all attributes within an index, the index score would equal 100):

  1. **Sales Satisfaction Index** — The sum of the sales attribute scores by vendor (six satisfaction attributes)
  2. **Product Satisfaction Index** — The sum of the product attribute scores by vendor (seven satisfaction attributes)
  3. **Service Satisfaction Index** — The sum of the service attribute scores by vendor (nine satisfaction attributes)

- The fourth element of the TBR Weighted Satisfaction Index is a measure of loyalty:

  4. **Loyalty Index** — The average percent of respondents who indicated they would buy servers from that vendor again and percent of respondents who indicated they would recommend it to a professional peer, all multiplied by 100.

$$100 * \frac{\% \, Buy \, again + \% \, Would \, recommend}{2}$$

# Key Survey Questions

**When deciding which {segment}{notebooks/desktops/servers} to purchase, how important are the following attributes to your organization?**

*Please move each attribute on the left into one of the categories on the right by dragging and dropping. You can move as few or as many attributes into one particular category as you like.*

| Items (order is randomized) |
|---|
| Initial Hardware Quality |
| Ongoing Hardware Quality & Reliability |
| Performance |
| Virtualization, Efficiency, Scalability |
| Total Cost of Ownership (TCO) |
| Purchase Price/Acquisition Cost |
| Management Capabilities |
| One-time Services and Setup |
| Product Design/Features |
| Delivery Time and Product Availability |
| Sales Responsiveness |
| Phone Support Responsiveness |
| Phone Support Technical Expertise |
| On-site Response Time |
| On-site Technical Expertise |
| Online Technical Support |
| Post-purchase Customer Care |
| Ongoing Services and Maintenance |
| Replacement Parts Availability |
| Online Product Information |
| Self-support/Automated Support |
| Social Media Support |

Critical

Important

Less Important

# Key Survey Questions

**Would you recommend {Brand} {segment} {notebooks/desktops/servers} to a professional peer?**

Yes

Maybe/Undecided

No

**Will your organization buy {Brand} {segment} {notebooks/desktops/servers} again?**

Yes

Maybe/Undecided

No

**If "No" or "Maybe/Undecided" to Buy Again**

**Which of the following reasons best describes why your organization is not likely to purchase {Brand} {segment} {notebooks/desktops/servers} again?**

*Please select up to five*.

[Brand] [form factor] are not reliable enough

[Brand] [form factor] performance did not meet our expectations

[Brand] [form factor] did not meet our efficiency expectations

[Brand] [form factor] use too much energy

[Brand] [form factor] did not integrate well with our IT environment

Dissatisfied with the total cost of ownership (TCO)

[Brand] [form factor] are a poor value

[Brand] [form factor] are too expensive

Dissatisfied with the management capabilities

[Brand] [form factor] are difficult to set up

[Brand] [form factor] are lacking necessary features

[Brand] [form factor] are poorly designed

[Brand] [form factor] have long delivery times

[Brand] sales staff is not responsive enough

Dissatisfied with phone support

Dissatisfied with on-site support

[Brand] [form factor] have inadequate online technical support

[Brand] [form factor] have insufficient remote managed services

Dissatisfied with ongoing services and maintenance

Replacement parts are not available quickly enough

We do not need to buy [form factor] because we are using cloud computing/on-demand services

We are buying another brand of [form factor] instead

# Key Survey Questions

How satisfied are you with each of the following service and support attributes of {Brand} {segment} {notebooks/desktops/servers}?

| Order is randomized. | Extremely Dissatisfied | Very Dissatisfied | Dissatisfied | Neutral | Satisfied | Very Satisfied | Extremely Satisfied |
|---|---|---|---|---|---|---|---|
| Phone Support Responsiveness | | | | | | | |
| Phone Support Technical Expertise | | | | | | | |
| On-site Response Time | | | | | | | |
| On-site Technical Expertise | | | | | | | |
| Online Technical Support | | | | | | | |
| Ongoing Services and Maintenance | | | | | | | |
| Replacement Parts Availability | | | | | | | |
| Self-support/Automated Support | | | | | | | |
| Social Media Support | | | | | | | |
| Initial Hardware Quality | | | | | | | |
| Ongoing Hardware Quality & Reliability | | | | | | | |
| Performance | | | | | | | |
| Virtualization, Efficiency, Scalability | | | | | | | |
| Total Cost of Ownership (TCO) | | | | | | | |
| Management Capabilities | | | | | | | |
| Social Media Support | | | | | | | |
| Purchase Price/Acquisition Cost | | | | | | | |
| One-time Services and Setup | | | | | | | |
| Delivery Time and Product Availability | | | | | | | |
| Sales Responsiveness | | | | | | | |
| Online Product Information | | | | | | | |
| Post-purchase Customer Care | | | | | | | |

# Key Survey Questions

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH PHONE SUPPORT RESPONSIVENESS OR EXPERTISE**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} phone support.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH ON-SITE RESPONSE TIME OR EXPERTISE**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} on-site support.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH ONLINE SUPPORT**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} online services and/or social media support.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH REPLACEMENT PARTS, SELF-SUPPORT/AUTOMATED SUPPORT OR ONGOING SERVICES**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} ongoing maintenance, self-support features or replacement parts availability.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH PHONE SUPPORT RESPONSIVENESS OR EXPERTISE**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} phone support.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH ON-SITE RESPONSE TIME OR EXPERTISE**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} on-site support.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH ONLINE SUPPORT OR REMOTE MANAGED SERVICES**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} online services.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH REPLACEMENT PARTS, SELF-SUPPORT/AUTOMATED SUPPORT OR ONGOING SERVICES**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} ongoing maintenance, self-support features or replacement parts availability.

# Key Survey Questions

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH INITIAL HARDWARE QUALITY, ONGOING HARDWARE QUALITY & RELIABILITY, PERFORMANCE, MANAGEMENT CAPABILITIES OR PRODUCT DESIGN/FEATURES**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} hardware reliability, performance, features or management capabilities.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH PURCHASE VIRTUALIZATION, EFFICIENCY, SCALABILITY OR TCO**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} scalability or value.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH INITIAL HARDWARE QUALITY, ONGOING HARDWARE QUALITY & RELIABILITY, PERFORMANCE, MANAGEMENT CAPABILITIES OR PRODUCT DESIGN/FEATURES**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} hardware reliability, performance, features or management capabilities.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH PURCHASE PRICE OR TCO**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} scalability or value.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH DELIVERY TIME OR ONE-TIME SERVICES AND SETUP**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} delivery or setup.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH SALES RESPONSIVENESS, ONLINE PRODUCT INFORMATION OR POST-PURCHASE CUSTOMER CARE**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} online product information, sales responsiveness or post-purchase customer care.

**IF "VERY SATISFIED" OR "EXTREMELY SATISFIED" WITH PURCHASE PRICE**
Please explain why you are highly satisfied with {Brand's} {segment} {servers} purchase price.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH SALES RESPONSIVENESS, DELIVERY TIME, OR ONE-TIME SERVICES AND SETUP**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} ease of doing business, delivery or setup.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH SALES RESPONSIVENESS, ONLINE PRODUCT INFORMATION OR POST-PURCHASE CUSTOMER CARE**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} online product information, sales responsiveness or post-purchase customer care.

**IF "EXTREMELY DISSATISFIED," "VERY DISSATISFIED" OR "DISSATISFIED" WITH PURCHASE PRICE**
Please explain why you are dissatisfied with {Brand's} {segment} {servers} purchase price.

# TBR Quarterly Industry Coverage

## Computing, Storage & Devices

**12 Vendors Covered**

Acer*
Apple
Asus*
Dell
EMC
Fujitsu
Hewlett-Packard
IBM
Intel
Lenovo Group
NetApp
Samsung Devices*

## Cloud

**23 Vendors Covered**

Accenture Cloud*
Amazon Web Services
Atos Cloud*
Capgemini Cloud*
Cognizant Cloud*
CSC Cloud*
Dell Cloud*
Deloitte Cloud*
Fujitsu Cloud*
Google Cloud*
HP Cloud*
IBM Cloud*

Infosys Cloud*
Microsoft Cloud*
Oracle Cloud*
Rackspace*
Salesforce
SAP Cloud*
ServiceNow*
TCS Cloud*
Verizon Cloud*
Wipro Cloud*
Workday

## Software

**12 Vendors Covered**

CA Technologies
Citrix*
Dell Software*
HP Software
IBM Software
Microsoft
Oracle
Red Hat
SAP SE
SAS Institute*
Symantec
VMware

## Professional IT Services

**23 Vendors Covered**

Accenture
Atos
Bain & Co.*
Boston Consulting
 Group*
Capgemini
CGI*
Cisco Services
Cognizant
CSC
Dell Services
Deloitte
 Consulting*
EMC Services*
Fujitsu
HCL Technologies
HP Services
IBM Global Services
Infosys
McKinsey & Co.*
PwC*
T-Systems
Tata Consultancy
 Services
Unisys

Wipro IT Services
Xerox

### Public Sector IT Services

**10 Vendors Covered**

Booz Allen Hamilton*
CACI International*
General Dynamics
 IS&T*
L-3 Communications*
Leidos*
Lockheed Martin
 IS&GS*
ManTech*
Northrop Grumman
 IS&TS*
Raytheon Intelligence,
 Information &
 Services*
SAIC*

### Healthcare IT Services

**5 Vendors Covered**

Accenture HITS*
CSC HITS*
Dell HITS*
HP HITS*
IBM HITS*

## Networking & Mobility

**12 Vendors Covered**

Alcatel-Lucent
Cisco Systems
Ericsson
Google
Hewlett-Packard Telecom & Mobility*
Huawei*
IBM Telecom & Mobility*
Juniper Networks
Microsoft Telecom & Mobility*
Nokia Networks
Samsung Networks*
ZTE*

**5 Enterprise Operators Covered**

AT&T Business Solutions*
BT Global Services*
Orange Business Services*
Verizon Enterprise Solutions*
Vodafone Enterprise Services*

**6 Operators Covered**

| AT&T | T-Mobile USA |
| Comcast* | Time Warner Cable* |
| Sprint | Verizon |

## Corporate IT Buying Behavior & Satisfaction Studies

| Desktops | Services & Support |
| Notebooks | x86-based Servers |

*Semiannual publication  **Annual publication  ©2015 Technology Business Research, Inc.

# TBR Quarterly Industry Benchmark and Forecasting Coverage

**TBR**

## Computing, Storage & Devices

Computing Devices Benchmark[1]
**19 Vendors Covered**

Data Center Benchmark[1]
**17 Vendors Covered**

Data Center Server and Storage Market Forecast[1]

Devices Market Forecast[1]

Enterprise Security Benchmark*[1]

## Software

Applications Software Vendor Benchmark[1]

Business Intelligence Market Forecast[1]

Business Intelligence Software Vendor Benchmark*[1]
**31 Vendors Covered**

Infrastructure Management Software Vendor Benchmark[1]

## Customer Research Program

Ad Tech Customer Buying Behavior*

Ad Tech Vendor Profiles

Business Intelligence Professional Services Customer Research*

Business Intelligence Software Customer Research*

Cloud Customer Research *

Cloud Professional Services Customer Research*

Digital Marketing Services Customer Buying Behavior*

Digital Marketing Services Vendor Profiles

Enterprise Security Customer Research*

Hybrid Cloud Customer Research*

Innovators and Disruptors Vendor Profiles

Private Cloud Customer Research*

## Professional IT Services

Ad Tech Benchmark*[1]

Business Intelligence Services Vendor Benchmark*[1]

Digital Marketing Services Benchmark*[1]

Global Delivery Benchmark*[1]
**14 Vendors Covered**

Healthcare IT Services Benchmark[1]
**19 Vendors Covered**

IT Services Market Forecast[1]

IT Services Vendor Benchmark[1]
**30 Vendors Covered**

Management Consulting Benchmark*[1]
**15 Vendors Covered**

Public Sector IT Services Benchmark[1]
**20 Vendors Covered**

## Cloud

Carrier Cloud Benchmark*[1]
**13 Vendors Covered**

Cloud Components Benchmark*[1]
**10 Vendors Covered**

Cloud Market Forecast[1]

Managed Private & Professional Services Cloud Benchmark* [1]
**29 Vendors Covered**

Public Cloud Benchmark[1]
**48 Vendors Covered**

*Semiannual publication

**Annual publication

[1]XLS data available

## Networking & Mobility

### Enterprise Networking

Enterprise Network Vendor Benchmark*[1]
**15 Vendors Covered**

Enterprise Networking Market Forecast[1]

Network Infrastructure Services Benchmark[1]
**12 Vendors Covered**

Network Infrastructure Services Market Forecast[1]

### Telecom Vendor

Expanded Telecom Infrastructure Services Benchmark[1]
**40 Vendors Covered**

Telecom Infrastructure Services Benchmark[1]
**40 Vendors Covered**

Telecom Infrastructure Services Global Market Forecast[1]

Telecom Infrastructure Services Margin Benchmark[1]
**5 Vendors Covered**

Telecom Infrastructure Services North America Market Forecast[1]

Telecom Vendor Benchmark[1]
**11 Vendors Covered**

### Operator

U.S. & Canada Mobile Operator Benchmark[1]
**9 Vendors Covered**

## SourceIT

SourceIT BFSI: Applications Consulting and Systems Integration Customer Research
**4 Segment Views Covered (4 Reports)****

SourceIT BFSI: Business Applications
**4 Segment Views Covered (4 Reports)****

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