STORAGE

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FEATURE | RICH CASTAGNA

Users rate Dell and Hitachi as best NAS storage vendors

Storage magazine's eighth Quality Awards service and reliability survey on the best NAS storage systems had Dell besting the enterprise group and Hitachi topping the midrange.

STORAGE MANAGERS trying to dig their way out from growing piles of file data might hate the fact that they need to buy another network-attached storage (NAS) box. But their hate quickly turns into the closest thing to love you'll find in a data center when they actually get that new NAS up and running.

Over the past eight years, our Quality Awards survey measuring user satisfaction with NAS storage products has yielded some of the highest scores among all categories. The latest crop of evaluations continues this trend, with Dell Inc. grabbing its first win for best NAS storage and emerging as the favorite among enterprise-class NAS systems; Hitachi Data Systems Corp., often considered an enterprise vendor, topped the midrange group for the second year in a row.

There were seven product lines qualifying in each group. This year's survey had 403 valid responses offering 594 product evaluations.

About the survey

The *Storage* magazine/SearchStorage.com Quality Awards are designed to identify and recognize products that have proven their quality and reliability in actual use. The results are derived from a survey of qualified *Storage*/SearchStorage.com readers who assessed products in five main categories: sales-force competence, product features, initial product quality, product reliability and technical support. Products are rated on a 1.00 to 8.00 scale, where 8.00 is the most favorable score. This is the eighth edition of the Quality Awards for NAS systems; there were 403 valid responses to the survey providing 594 sets of ratings for vendors' products/product lines.

Products in the survey: These products were included in the Quality Awards for NAS survey. The number of responses for each finalist is shown in parentheses.

ENTERPRISE NAS

- DataDirect Networks Inc. NAS Scaler/GRIDScaler/EXAScaler*
- Dell Inc. PowerVault NS-480, Compellent FS8600 (NAS), EqualLogic FS7500/FS7600 (NAS) (44)
- EMC Corp. VNX 5000/7000/8000 NAS or Isilon X-Series (108)
- Hewlett-Packard (HP) Co. StoreEasy 3000/5000 or StorageWorks EFS Clustered Gateway or StorageWorks X5000/X9000 Storage Systems (25)
- Hitachi Data Systems Corp. Essential NAS Platform 1000 Series or HNAS Platform 3000/4000 Series (13)
- IBM N6000/N7000, Scale Out Network Attached Storage (SONAS) or Storwize V7000 Unified (23)
- NetApp Inc. FAS6000 (with NAS interface) (50)
- Oracle Corp. Sun Storage 74xx Unified Storage System (with NAS), Pillar Data Systems Axiom NAS or Oracle ZFS Storage ZS3-4 (13)
- Panasas Inc. ActiveStor 9 Series/11 Series/12 Series/14 Series*

* RECEIVED TOO FEW RESPONSES TO BE INCLUDED AMONG THE FINALISTS

MIDRANGE NAS

- Coraid Inc. ZX*
- Dell PowerVault NX Series (52)
- EMC VNXe 3000/5000 Series NAS, Isilon S-Series (50)
- Hewlett-Packard StoreEasy 1000 Storage, StorageWorks X300/X500 Data Vault, X1000/X3000 Network Storage Systems (25)
- Hitachi HUS 100 Series with NAS Option, HNAS AMS2000/1000/500/200, WMS100 with NAS Option (20)
- IBM N3000/N5000 (17)
- NetApp FAS2000 or FAS3000/3100 (all with NAS interface) (109)
- Oracle Sun Storage 71xx/72xx/73xx Unified Storage System (with NAS) or Oracle ZFS Storage ZS3-2 (13)
- Overland Storage Inc. SnapServer DX1/DX2/210/410/N2000/SnapScale X2/X4*
- Panasas ActiveStor 7 Series/8 Series*
- Silicon Graphics International Corp. SGI NAS/SGI InfiniteStorage File Serving series*
- Synology Inc. RackStation RS3412 Series*

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Overall Ratings

ENTERPRISE NAS: OVERALL RATINGS

Vendor	Score
Dell	6.94
EMC	6.58
NetApp	6.58
HP	6.50
Hitachi	6.20
IBM	6.12
Oracle	5.70
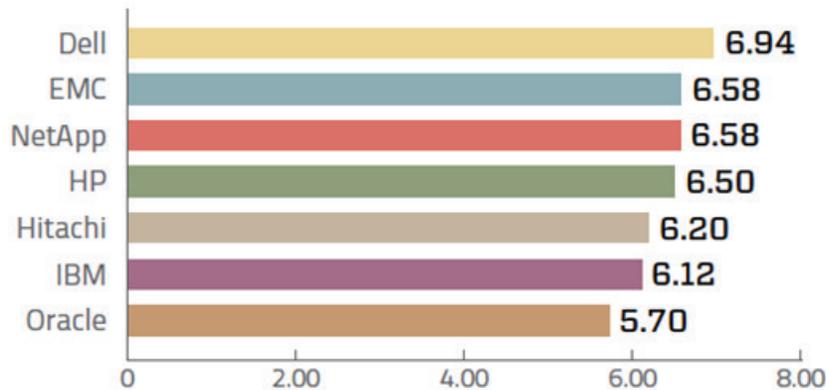
Enterprise. Dell had never come out on top in either the midrange or enterprise NAS groups, but this time it earned top honors in a particularly impressive fashion with the second-highest overall score ever for enterprise NAS products (6.94). That exceptional score was achieved by leading the field in all five rating categories, highlighted by a couple of marks of 7.00 or better for reliability and technical support. But as we've seen in the past, the winner's fine showing was complemented by solid scores among the other six vendors, with EMC Corp. and NetApp Inc. — two stalwarts of enterprise NAS — tying for second with identical scores of 6.58, followed by Hewlett-Packard (HP) Co. (6.50). Midrange winner Hitachi had less success in this group, but still finished with a more than respectable 6.20.

Key stat: 5 of the seven enterprise NAS entries scored at least 6.00 in all five categories.

MIDRANGE NAS: OVERALL RATINGS

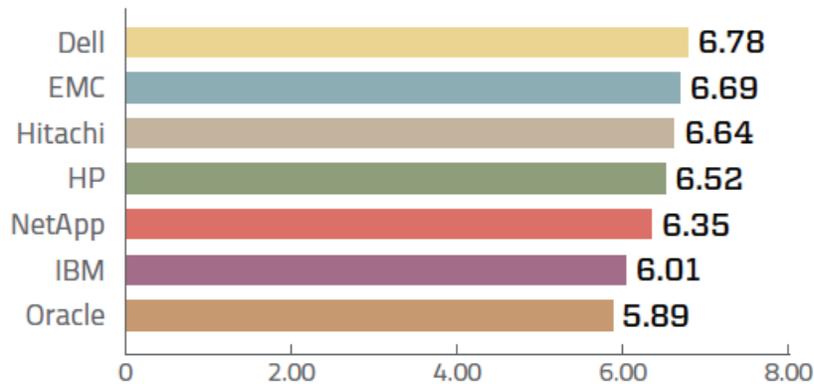| Vendor	Score
Hitachi	7.00
NetApp	6.69
Oracle	6.56
EMC	6.53
Dell	6.43
HP	6.41
IBM	6.25
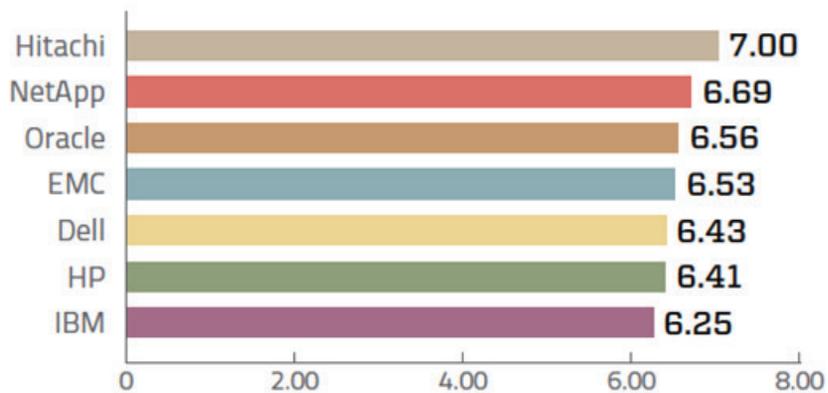
Midrange. Hitachi prevailed in the midrange NAS group last year with a near-7.00 performance, and repeats as a winner this year — attaining the elusive 7.00 level by notching two 7.00-plus category scores and bolstering them with three scores ranging from 6.89 to 6.98. It's a showing that's as impressive for its consistency as it is for the high bar it set for the group. And the group did very well, providing ample competition without a single category score below 6.00. Second-place NetApp was a model of consistency with scores ranging from 6.56 to 6.79 that helped build its overall score of 6.69. Not far off that pace was Oracle Corp. (6.56) and EMC (6.53). Dell's 6.43 placed it fifth, followed by past winners HP and IBM with more than respectable scores.

Key stat: The midrange group's overall average of **6.55** was the third best ever, highlighted by strong ratings for features and reliability.
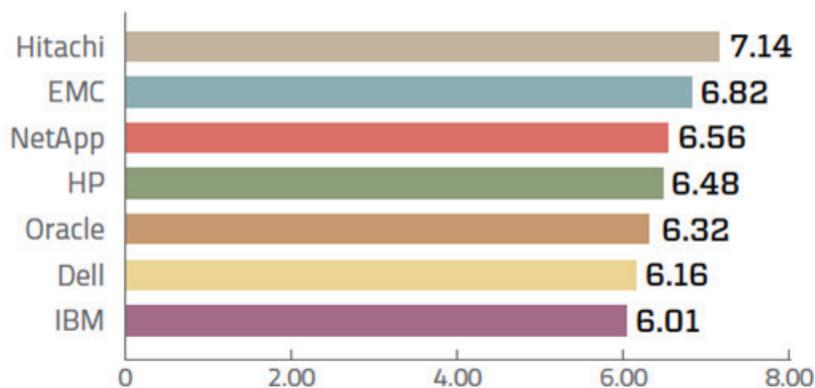
Sales-force competence

ENTERPRISE NAS: SALES-FORCE COMPETENCE

Vendor	Score
Dell	6.78
EMC	6.69
Hitachi	6.64
HP	6.52
NetApp	6.35
IBM	6.01
Oracle	5.89

Enterprise. Sales-force competence measures how well vendors set the table before they serve up storage in a data center. Dell came out on top by a slim margin over EMC (6.78 to 6.69) by scoring highest on four of the six category rating statements. EMC and Hitachi each had top marks for one statement. Dell scored strongly for having flexible sales reps (7.00) and a knowledgeable sales support team (6.93), and had a couple of 6.70s for keeping customers' interests foremost and being knowledgeable about their industries. EMC outscored the field when it came to understanding customers' businesses (6.58), while Hitachi's leading mark was a 6.91 for reps who are easy to negotiate with. Hitachi's rating of 6.64 was its highest category score.

Key stat: The enterprise NAS vendors as a group had their best overall mark — **6.57** — for knowledgeable sales support teams.

MIDRANGE NAS: SALES-FORCE COMPETENCE

| Vendor	Score
Hitachi	7.14
EMC	6.82
NetApp	6.56
HP	6.48
Oracle	6.32
Dell	6.16
IBM	6.01

Midrange. Hitachi's march through the midrange ranks began with a stunning 7.14 for sales-force competence, the second highest mark ever for this category. Hitachi earned 7.00-plus marks for all six statements, with exceptional grades of 7.33 for "My sales rep understands my business" and 7.32 for having a knowledgeable sales support team. EMC's 6.82 ranked among the highest scores we've seen, but was only good for second place in the context of Hitachi's performance. EMC was the only other vendor to achieve a 7.00-plus mark, with a 7.06 for its knowledgeable sales support team. NetApp also did well for that statement (6.85) en route to a category average of 6.56 for third place. Oracle and Dell fared well, with all their ratings topping 6.00.

Key stat: The midrange group's average score of **6.50** for sales-force competence is the highest recorded to date.
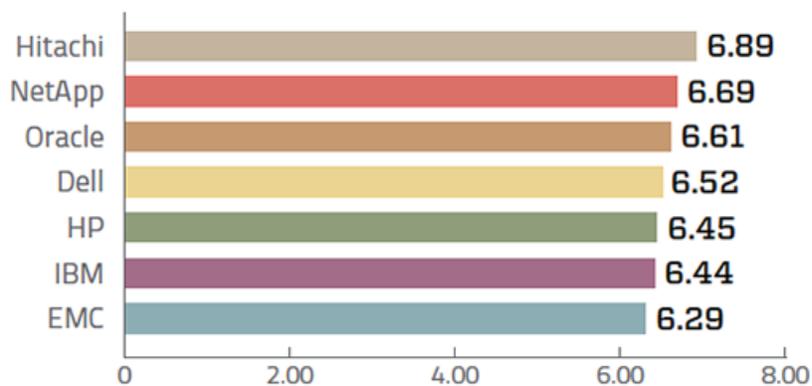
Initial product quality

ENTERPRISE NAS: INITIAL PRODUCT QUALITY

Vendor	Score
Dell	6.97
NetApp	6.62
HP	6.48
EMC	6.39
IBM	6.11
Hitachi	5.94
Oracle	5.83
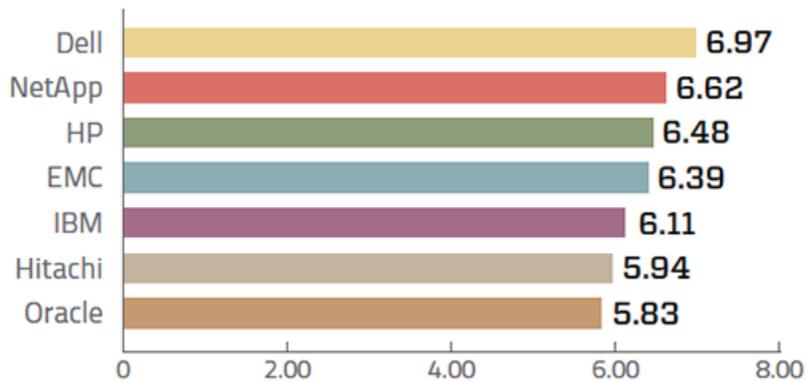
Enterprise. Dell once again flirted with the 7.00 category mark, but had to settle for a still outstanding 6.97, which it achieved by getting top scores for all six statements in this category. Dell picked up a 7.07 for the key statement "This product delivers good value for the money," and a 7.02 for ease of use. NetApp followed Dell with a 6.62 category score, with its best marks coming for satisfaction with the level of professional services required (6.77) and "This product was installed without any defects" (6.70). HP copped third place for initial product quality, with very good ratings for ease of use (6.70) and delivering good value for the money (6.52). EMC also had all 6.00-plus scores, with its best — a 6.50 — coming for ease of use.

Key stat: NAS vendors and users should be pleased that the best average statement score for the enterprise group was a **6.50** for ease of use.

MIDRANGE NAS: INITIAL PRODUCT QUALITY

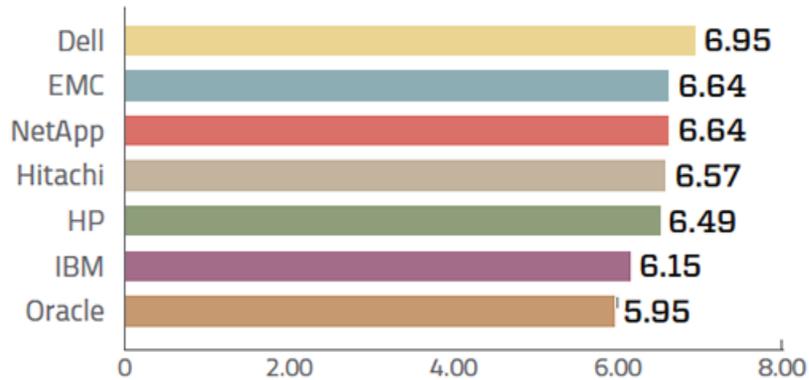| Vendor	Score
Hitachi	6.89
NetApp	6.69
Oracle	6.61
Dell	6.52
HP	6.45
IBM	6.44
EMC	6.29

Midrange. Midrange NAS vendors apparently make good first impressions, as all our entries garnered solid scores in the initial product quality category. Hitachi continued its dominance with a group-leading 6.89, featuring a 7.17 for "This product was installed without any defects" and a 7.06 for not surprising users with the level of professional services required. Hitachi also picked up a 6.94 for products that require very little vendor intervention and had the highest marks on five of the six category statements, with third-place Oracle prevailing on the other with a 6.75 for ease of use. Sandwiched in between, NetApp rode a 6.69 category score into second place, featuring a 6.95 for installing without defects. Every product had marks of at least 6.12 on all the rating statements in the category.

Key stat: The best average score for all midrange NAS products was a **6.64** for products that install without any defects.
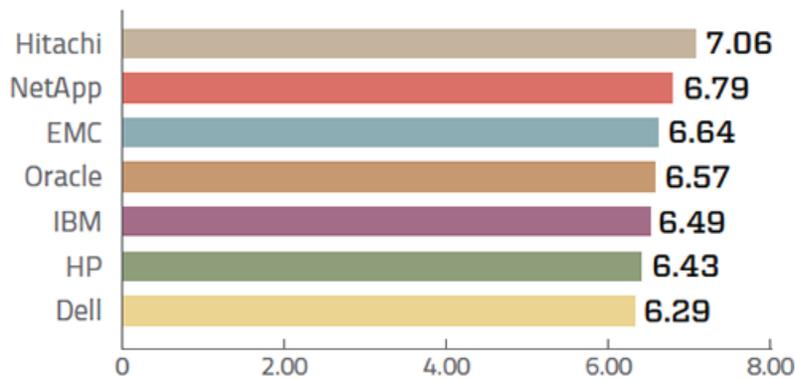
Product features

ENTERPRISE NAS: PRODUCT FEATURE

Vendor	Score
Dell	6.95
EMC	6.64
NetApp	6.64
Hitachi	6.57
HP	6.49
IBM	6.15
Oracle	5.95

Enterprise. Dell's lowest mark in the product features category was 6.71 for interoperability, but it was still good enough to beat the other six vendors. The firm's best scores were for snapshot features (7.10) and scalability (7.07); it also received a 6.90 for replication features, 6.93 for the statement "Overall, this product's features meet my needs" and another top grade for management (6.98). In all, Dell snagged six of the seven rating statements, with Hitachi posting a sterling 7.00 for the seventh statement on mirroring features. NetApp and EMC tallied identical 6.64s to finish in a second-place tie to Dell's category-leading 6.95. Hitachi (6.57) and HP (6.49) were just behind the leaders as the group turned in another solid set of scores.

Key stat: With so much concern about growing data stores, this group's best average was a **6.63** for scalability with all products scoring a 6.08 or higher.

MIDRANGE NAS: PRODUCT FEATURES

| Vendor	Score
Hitachi	7.06
NetApp	6.79
EMC	6.64
Oracle	6.57
IBM	6.49
HP	6.43
Dell	6.29

Midrange. Hitachi secured its second 7.00-plus category score with 7.06 for product features — the third highest for this category ever. Hitachi came out on top for all seven statements in the category, paced by five scores of 7.00 or better, including a dazzling 7.35 for mirroring features, along with excellent results for snapshots and remote replication (7.19 for both), management features (7.00) and a 7.11 for the bellwether statement "Overall, this product's features meet my needs." The rest of the products were hardly slouches, as all received excellent ratings. NetApp's 6.79 was good for second place; living up to its reputation, it copped a 7.00 for snapshot features, along with a pair of 6.94s for mirroring and an overall feature set that meets users' needs.

Key stat: Data protection is key and our midrange group delivers, with averages of **6.72** and **6.68** for mirroring and snapshots.
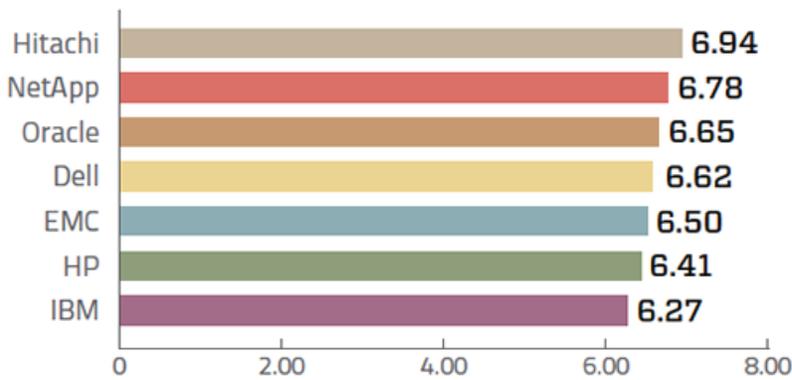
Product Reliability

ENTERPRISE NAS: PRODUCT RELIABILITY

Vendor	Score
Dell	7.02
NetApp	6.66
EMC	6.61
HP	6.50
IBM	6.22
Hitachi	5.86
Oracle	5.32
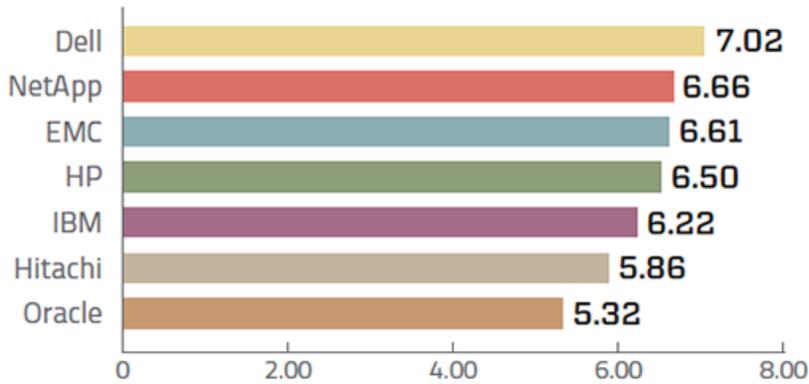
Enterprise. Dell posted its first 7.00-plus category rating for reliability with a 7.02, achieved once again by earning top grades on all five category statements. For three of those statements, Dell snapped up scores above 7.00 — 7.14 for meeting service-level requirements, 7.07 for requiring few unplanned patches and a 7.05 for products that experience very little downtime. NetApp (6.66) nudged out EMC (6.61) for the second spot; NetApp landed a couple of 6.74s for the service-level and downtime statements; EMC's strong suits were for the same statements — 6.76 for very little downtime and 6.68 for meeting service levels. HP (6.50) ran a fairly close fourth, joining the three leaders as the only products to score 6.00 or higher for all the category statements.

Key stat: The **7.02** earned by Dell for reliability is the second highest score for enterprise NAS registered in eight years of surveys.

MIDRANGE NAS: PRODUCT RELIABILITY

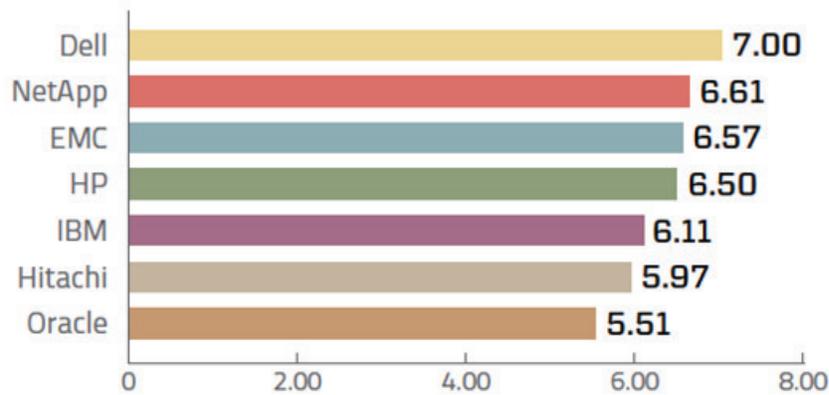| Vendor	Score
Hitachi	6.94
NetApp	6.78
Oracle	6.65
Dell	6.62
EMC	6.50
HP	6.41
IBM	6.27

Midrange. Hitachi prevailed on four of the five statements in the product reliability rating category en route to a leading tally of 6.94. Hitachi's 7.17 for "The product meets my service-level requirement" demonstrates that its products do a good job of meeting expectations, while a 7.06 for very little downtime suggests the firm delivers consistently. Hitachi also led for providing comprehensive upgrade guidance (6.94) and patches that can be applied non-disruptively (6.67). The fifth statement, "This product requires very few unplanned patches," was won by second-place NetApp with a 6.90 — but NetApp did even better on the downtime (6.95) statement. Oracle (6.65) nosed out Dell (6.62) for fourth, also doing well for meeting service levels (6.82) and very little downtime (6.81).

Key stat: The midrange vendors group had their highest group average — **6.81** — for products that experience very little downtime.
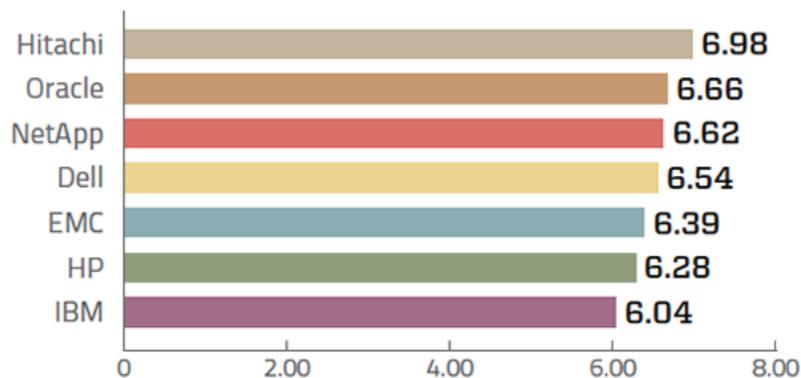
Technical support

ENTERPRISE NAS: TECHNICAL SUPPORT

Vendor	Score
Dell	7.00
NetApp	6.61
EMC	6.57
HP	6.50
IBM	6.11
Hitachi	5.97
Oracle	5.51

(scale: 0 2.00 4.00 6.00 8.00)

Enterprise. Dell earned its second 7.00 category score for technical support, a category that has proven to be a maker/breaker for many vendors on past surveys. Once again, Dell was dominant, winning seven of eight statements and with five 7.00-plus scores. Dell's customers gave the vendor two 7.21s for supplying support as contracted and resolving problems in a timely manner. Dell also stood out for having knowledgeable support staffers (7.19), taking ownership of problems (7.05) and for issues that rarely require escalation. Dell's only "loss" was by a whisker — 6.63 to third-place EMC's 6.64 for the statement "The vendor provides adequate training." NetApp's 6.61 category rating earned it second place between Dell and EMC.

Key stat: Dell's **7.00** rating for technical support marks only the third time that level has been achieved among enterprise NAS products.

MIDRANGE NAS: TECHNICAL SUPPORT

| Vendor	Score
Hitachi	6.98
Oracle	6.66
NetApp	6.62
Dell	6.54
EMC	6.39
HP	6.28
IBM	6.04

(scale: 0 2.00 4.00 6.00 8.00)

Midrange. Hitachi topped off its romp through the midrange rating categories with a 6.98 for tech support, built on five grades of 7.00 or better. Hitachi was high scorer on all eight statements, although Oracle managed to slow down the juggernaut a bit by tying Hitachi for providing adequate training (6.67). Hitachi's best showing was for having knowledgeable third-party support partners (7.14), along with a couple of 7.11s for delivering support as contracted and taking ownership of issues, and a brace of 7.00s for timely resolution of problems and knowledgeable support personnel. Oracle's top grade was for knowledgeable support people (6.94). Excellent tech support can make up for some of the less pleasing experiences a user may have, so the 6.50 overall average our vendors chalked up is good for users.

Key stat: Hitachi's midrange NAS tech support score of **6.98** bettered last year's 6.92.

Would you buy this product again?

After responding to the detailed statements in the rating categories, we ask our survey respondents a simple question: Based on what you now know, would you buy this product again? Sometimes, the results are surprising and run counter to the other evaluation criteria; in other surveys, the buy-again question appears to confirm the respondents' other ratings.

ENTERPRISE NAS: WOULD YOU BUY THIS PRODUCT AGAIN?

Dell	91%
NetApp	88%
EMC	88%
HP	80%
IBM	74%
Hitachi	62%
Oracle	62%
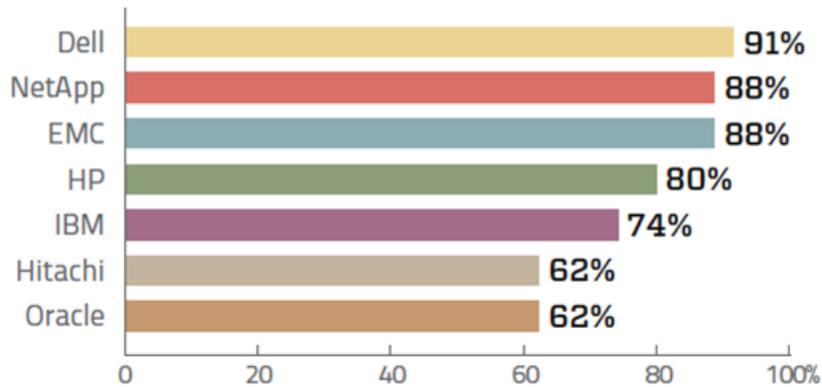
Enterprise. The buy-again results jibed almost exactly with the category ratings as the top four finishers ended up with the top four sets of buy-again percentages. Dell continued its winning streak, with 91% of its users saying they would pony up their bucks again. NetApp and EMC once again tied for second, with 88% of their users voting to buy their products again. And HP mirrored its fourth-place finish with an 80% buy-again rate.

MIDRANGE NAS: WOULD YOU BUY THIS PRODUCT AGAIN?

HP	92%
EMC	90%
Dell	87%
NetApp	85%
Hitachi	85%
Oracle	76%
IBM	65%
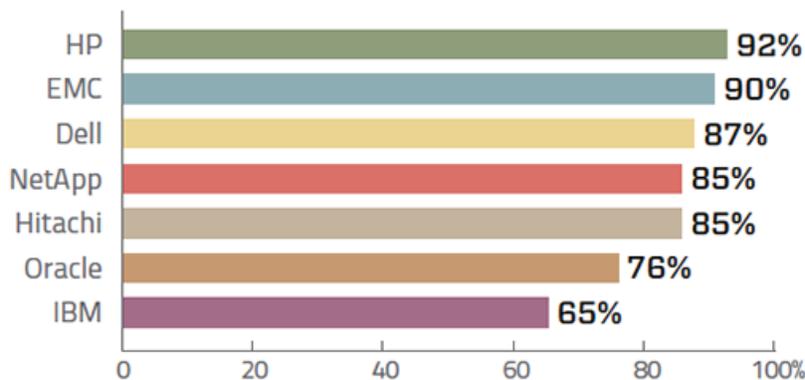
Midrange. The midrange group produced one of those head-scratching anomalies as Hitachi, which cruised through the tough category ratings, failed to land on top for the buy-again question. Overall sixth-place winner HP may have the most loyal users as 92% said they would buy their HP NAS again; EMC (90%) and Dell (87%) ranked next, followed by NetApp and Hitachi tied at 85%. These are all solid percentages, bolstered by strong category scores.