



HPE VERTICA ANALYTICS NIMBLE STORAGE

ANALYSTS

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THE BOTTOM LINE

Nimble Storage deployed HPE Vertica Analytics Platform to replace its legacy open-source database management (DBM) system. As with many data management deployments, the company experienced improved productivity and avoided additional hardware costs. However, Nimble Storage was also able to identify and close more deals with the Vertica Analytics Platform, shortening their sales cycle and automating many customer service tasks.

ROI: **287%**

Payback: **0.5 years**

Average annual benefit: **\$13,619,303**

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THE COMPANY

Nimble Storage was founded in 2008 and is based in San Jose, California. They released their first product in 2010 and have since grown to over 10,000 customers globally with an annual revenue of \$322 million. Their main product is their flash storage arrays, but they also offer converged infrastructure and predictive analytics for storage.

The company spawned out of the shift from data storage exclusively on hard disks to flash storage, seeing that consumer-sized flash drives could be scaled for enterprise grade storage. They offer flexible storage methods for different types of applications, and tout predictive analytics as a primary method for maintaining high levels of uptime and consistent customer support.

THE CHALLENGE

As Nimble Storage expanded, they sought to move off their previous database solution to a product that was also more scalable and more robust. They had been using the open-source object-relational database system PostgreSQL. While PostgreSQL is scalable to the multiple terabyte level, Nimble Storage found that it would be a complicated endeavor and preferred a solution that had more flexibility and back-end support.

Cost : Benefit Ratio | 1 : 5.3

The company also sought to better collect and manage data coming from their many storage arrays and use that data to run analytics queries. PostgreSQL had only limited analytics capabilities. With half a trillion pieces of information coming in every day, their daily query jobs were taking longer than 24 hours on their previous system. Additionally, a 600% growth in their customer base over the past four years has brought an ever-growing amount of data.

THE STRATEGY

The company evaluated a few options other than HPE Vertica Analytics Platform such as Hadoop, another open-source system like PostgreSQL, but only seriously investigated Vertica Analytics because they saw that it filled in all the gaps from their previous solution while greatly exceeding their prior analytics capabilities. One additional benefit of Vertica Analytics Platform over other solutions was the flexibility of node scaling, allowing for extra nodes to be added without downtime.

TYPES OF BENEFITS



Nimble Storage started their deployment in 2014 and gradually expanded their number of licenses with Vertica Analytics Platform as they and their customer base grew. They doubled their number of subscriptions in 2015 and increased by a similar amount the year after that.

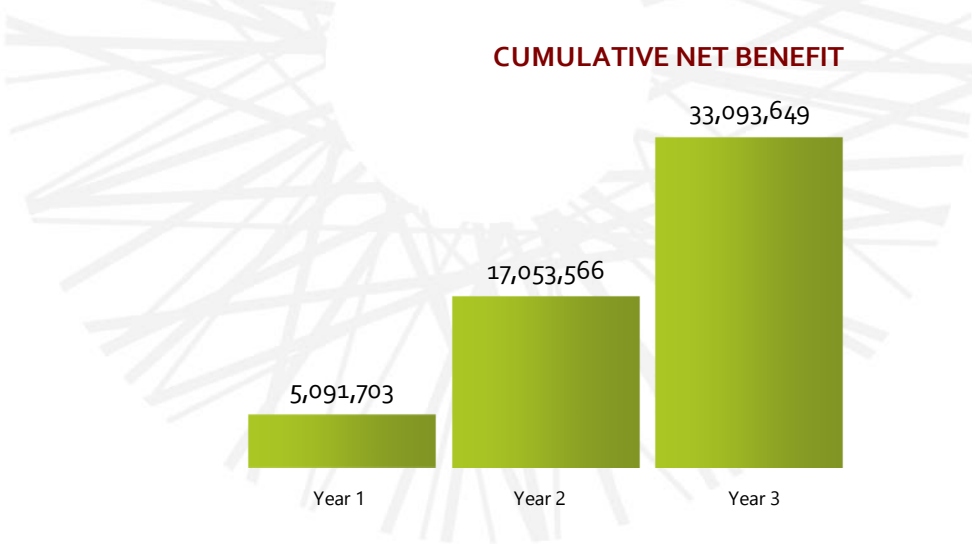
The company was able to mostly reuse hardware that they already had from their previous solution, leading to low hardware costs up front. The company now has an

integrated flow of data from their many flash arrays into the Vertica Analytics engine, allowing for remote monitoring of array status and storage use.

KEY BENEFIT AREAS

Like many data management and analytics solutions, the majority of the benefits came from user productivity gains. However, Nimble Storage also found benefits to their sales cycle and reduced hardware.

- **Avoided support engineers hires.** Due to the increased functionality of Vertica Analytics, the support engineer team is now able to take on three times the amount of work than had they scaled their past solution, leading to a large number of avoided hires as the company grew. Given the high cost of these employees, this was the biggest benefit that the company saw.
- **Reduced hardware costs.** Although Nimble Storage is a storage company, they do still benefit from the greater data compression from Vertica Analytics, as much as five times that of their previous system. This allows for a reduction in the amount of new hardware needed as their data ingest increases.



- **Employee productivity.** Both data scientists and analysts benefit from faster analytics queries and more automated processes within the DevOps cycle. Prior to using Vertica Analytics, for example, data would have to be queried and then reinserted into temporary tables. Depending on the analytics job, they have reduced query times by between 50 to 83 percent.
- **Reduced support cases.** With Vertica Analytics, Nimble Storage is able to close 86 percent of support cases automatically. The support team now needs to

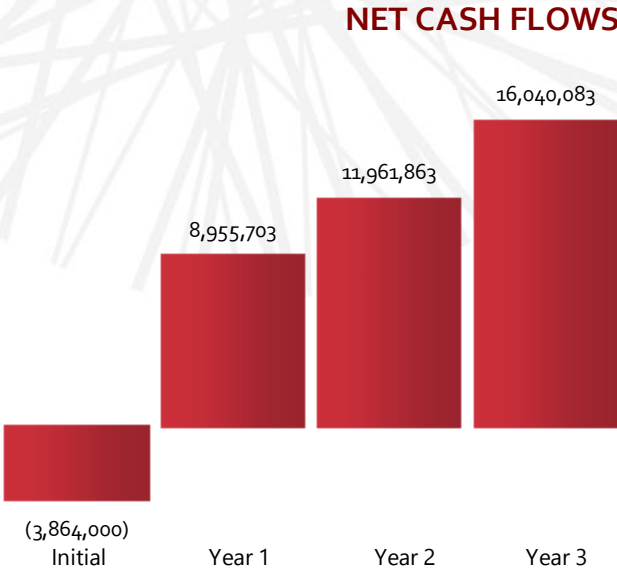
make 19 percent fewer calls each year, again leading to avoided hires as the company grows. Much of this stems from the predictive analytics that help the company be proactive when problems are likely to occur and can help advise customers on CPU sizing.

- Improved sales cycle. The company reported that simplicity of operation and the InfoSight analytics feature based on the Vertica Analytics Platform was the primary win-reason when closing Nimble Storage sales deals. With a sales team of hundreds of members, this boost to their sales cycle had a big impact on increasing revenue.

KEY COST AREAS

Costs of the project included hardware, software, and personnel time.

- Software. Costs here included the initial subscription costs and licensing fees, as well as ongoing expansions to number of licenses.
- Personnel. Wages for both the deployment team and ongoing maintenance personnel make up a significant portion of the cost.
- Hardware. Initially, the company only needed a small increase in hardware as they were able to use much of their previous machinery. As they grew, they gradually increased the amount of hardware over the three-year measurement period as their needs expanded.



BEST PRACTICES

Because Nimble Storage is a newer company, they initially began with an open-source database. For companies using open-source software, it is important to recognize when potential limitations outstrip the cost saving benefits. For Nimble Storage, the benefits of Vertica Analytics exceeded just their initial list of limitations, having a wider impact on the company and achieving a positive ROI across multiple departments.

The biggest portion of the ROI for Nimble Storage came from avoided technical engineer hires. Avoided hires are a common benefit to data management deployments for companies that are scaling out of smaller legacy solutions. Companies should perform cost projections to understand how their current solution scales in terms of price versus functionality, and how their prospective growth will affect their employee headcount. By looking at the productivity benefits in terms of avoided hires, companies may find that getting the right database or analytics engine in place in the early stages of company growth will simplify concurrent personnel growth.

CALCULATING THE ROI

Nucleus quantified the initial and ongoing costs of software subscription fees, hardware, and personnel time to implement and support the application.

Direct benefits quantified included the avoided hiring of additional engineers and avoided hardware costs due to the greater compression capabilities of the new solution. The indirect benefits quantified included the increase in data scientist and data engineer productivity driven by the deployment, calculated based on the average annual fully loaded cost of the employees. These productivity savings were quantified based on the average annual fully loaded cost of an employee using a correction factor to account for the inefficient transfer between time saved and additional time worked. Also quantified was increased revenue stemming from a shortened sales cycle.

FINANCIAL ANALYSIS

Nimble Storage

Annual ROI: 287%

Payback period: 0.5 years

BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	7,950,000	11,250,000	16,500,000
Indirect	0	1,719,303	1,719,303	1,719,303
Total per period	0	9,669,303	12,969,303	18,219,303

COSTS - CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	420,000	338,000	371,000	976,000
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	420,000	338,000	371,000	976,000

COSTS - DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	140,000	252,667	376,333
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	140,000	252,667	376,333

COSTS - EXPENSED	Pre-start	Year 1	Year 2	Year 3
Software	0	75,600	136,440	203,220
Hardware	15,000	300,000	500,000	1,000,000
Consulting	0	0	0	0
Personnel	3,429,000	0	0	0
Training	0	0	0	0
Other	0	0	0	0
Total per period	3,444,000	375,600	636,440	1,203,220

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
All government taxes	45%			
Cost of capital	7.0%			
Net cash flow before taxes	(3,864,000)	8,955,703	11,961,863	16,040,083
Net cash flow after taxes	(2,314,200)	4,836,537	6,525,775	8,552,196
Annual ROI - direct and indirect benefits				287%
Annual ROI - direct benefits only				246%
Net Present Value (NPV)				14,886,931
Payback period				0.5 years
Average Annual Cost of Ownership				2,588,087
3-Year IRR				229%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.

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