

CASE STUDY

APTARE Drives Intelligent Storage Provisioning

Host Capacity and Utilization Report delivers visibility into storage capacity allocation and utilization, eliminating over provisioning, saving millions in storage purchases, and boosting IT productivity

The storage administrator's greatest challenge is making accurate and economical decisions on allocating and purchasing capacity. A traditional lack of visibility into the storage currently allocated to and used by a host or application is a significant limitation, hindering decision making when users request additional storage capacity. Unless the storage administrator (SA) has a couple of days to research the situation, they are forced to provision storage blindly, which typically leads to over-provisioning.

The storage team of a leading health care company faced this challenge on a weekly basis. They were constantly receiving requests for additional storage capacity from the storage operations team, capacity management planning team, business units, and other end users across the company. The SA team was responsible for responding to these requests and provisioning additional storage rapidly to support the stakeholders and keep the business running smoothly.

However, the storage team did not have easy access to data on the amount of storage that had been allocated per host or the capacity actually being used. Administrators only knew how much total storage was currently allocated, but they could not assume all that storage was being used, leading to having limited information on which to base provisioning decisions. Consequently, they were forced to provision the additional storage right away without questioning the amount requested.

The storage team did have some tools—such as Device Manager, ECC, SANscreen, and multiple home-grown tools—to find out the number of allocated LUNs, allocated capacity, and number of arrays, but these tools could not provide the host-level information such as the number of seen LUNs, capacity seen by host, or the amount of allocated capacity actually used. Searching for that information was a time-consuming and laborious task.

Customer:

Health Care Company

APTARE Solution:

APTARE StorageConsole
Capacity Manager

APTARE StorageConsole
Virtualization Manager

Problem:

- Continuous requests for storage must be resolved quickly to support the business
- No visibility into allocation versus actual utilization of storage capacity
- Research on major requests took eight hours per request over a three to five day period
- Most requests approved without validation of accuracy

Technology Environment:

Storage: ESX Servers

Amount of Data: 65 PBs

"Having the host level data is something our storage administrators have never had easy access to before. This has proven to be very valuable for the company."

- Senior Executive, Health Care Company

Key Challenges

- Continuous requests for storage must be resolved quickly to support the business
- No visibility into allocation versus actual utilization of storage capacity
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Business Results and Technical Benefits

- Delivers complete visibility in host-level capacity allocation and utilization
- Reduces report processing time from days to minutes
- Potentially saves thousands—or even hundreds of thousands—of dollars per storage request
- Saves millions of dollars, over time, by eliminating unnecessary capacity purchases
- Increases storage administrator productivity
- Saves \$28,000 in OpEx annually

For example, administrators would have to ask the application owners to run a script and report back. Anywhere from one to four people would be involved in collecting the data, and it took about eight hours per request over a three to five day period to complete the process. In the end, this would only provide data on one of more than 5,500 servers. The team only had time to perform this task four to five times per month, so it only made sense for huge capacity requests. It was not practical as a standard process. In most cases administrators would simply fulfill the requests for more storage without any validation, which resulted in massive over-provisioning.

It was obvious that the company needed a new tool that would make it easier to eliminate over-provisioning, improve storage utilization, and minimize storage growth and costs.

Providing Visibility Into Host-Level Capacity and Utilization

The health care company deployed APTARE StorageConsole Capacity Manager and now leverages APTARE's Host Capacity & Utilization Report (see Figure 1), which delivers visibility into host-level data including number of used LUNs, capacity seen by host, related hosts, and all of the volume data such as number of volumes, shared and unshared capacity, and most importantly, total capacity used.

Host Capacity & Utilization
 Server Group: Global Storage Infrastructure | May 24, 2013 03:40:28PM
 Page 1 displaying 1,000 Hosts Host

Host	# of Allocated LUNs	Allocated Capacity	# of Used LUNs	Seen by Host	# of Arrays	Related Host	SAN/DA	NAS	Ad Risk	Shared	Unshared	Total DA/SAN	DA/SAN	NAS	DA/SAN	NAS
172.16.1.175	0	0.00 GB	0	0.00 GB	0		1	0	0.00 GB	65.75 GB	65.75 GB	65.75 GB	N/A	11.55 GB	N/A	
172.16.1.148	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
172.16.2.211	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
75_PROD_Demo_console_43	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
APT_PilotTest_145	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
AgneidL1PC	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Allen	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Alraham	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Amrison	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Amoon	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
App-Webserver70	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
App1-SQL	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Aptare	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Arata	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Atascadero	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Atlanta	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Aurora1	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bakersfield	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Barstow	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Benson	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bethel	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bethel	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Birmingham	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bloomington	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Boston	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bradenton	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Bridgeport	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Burlington	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Burlingame	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Cambridge	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Carrollville	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	
Carlisle	0	0.00 GB	0	0.00 GB	0		0	0	0.00 GB	0.00 GB	0.00 GB	0.00 GB	N/A	0.00 GB	N/A	

Figure 1 – Example: Host Capacity and Utilization Report

APTARE empowers administrators with intelligent provisioning of storage. Reports only take 10 to 30 minutes to run compared to eight hours of work over multiple days to produce previous reports. Now administrators can easily identify how much of the capacity previously allocated to any end user is actually being used before granting that user's request for additional storage. If the allocated capacity is underutilized, administrators can avoid over provisioning and drive greater utilization by guiding users on more efficient storage usage practices.

Why APTARE?

- Provided complete visibility into host-level capacity and utilization visibility
- Streamlined reporting process; reduced from days to minutes
- Provided accessible reporting to executive management and all stakeholders

The most advantageous benefit of APTARE is that the storage team can now research every request for storage and take total control of the provisioning process. In fact, the Host Capacity & Utilization Report is so easy and fast, stakeholders throughout the company can leverage this vital data for a variety of business objectives, such as advanced planning and budgeting.

Saving Millions of Dollars with Intelligent Provisioning

Intelligent storage provisioning, enabled by the Host Capacity & Utilization Report, eliminates excessive allocations of storage, drives increased utilization rates of provisioned storage, and ultimately saves millions of dollars in storage for the health care company.

For example, on just one single storage request, their new APTARE reports enabled the company to avoid unnecessary provisioning of \$500K worth of storage.

Even more significant cost savings will be achieved when the company evaluates their next storage purchase. Storage needs will be greatly reduced or deferred to a new budget year, resulting in millions of dollars in savings. But the ROI does not end there as these cost savings are ongoing. More significant reductions in CapEx will be achieved quarter over quarter as less storage capacity is allocated and intelligent provisioning becomes embedded in the corporate culture.

Boosting IT Productivity with Streamlined Reporting

In addition to the enormous CapEx savings, APTARE also delivers substantial OpEx reductions as well. First, all the time administrators used to spend chasing capacity data across the enterprise can now be spent on more productive tasks. Second, the Host Capacity & Utilization Report—which the company runs 90 times per month—can be executed by storage managers, capacity planners and forecasters, and even the end users, without taking the IT team's valuable time. By speeding up the reporting process and providing a self-serve option for stakeholders, the company achieves about \$28,000 in OpEx savings annually.



1359 Dell Avenue
Campbell, California 95008

Tel +1 408.871.9848
Fax +1 408.871.9858
sales@aptare.com
www.aptare.com