

Get a Handle on Storage Costs with a Sustainable Chargeback Solution



KEY CHALLENGES

- Collecting storage usage information manually is time consuming and prone to errors
- Special skill set required to interpret advanced storage technologies
- Heterogeneous environments adds complexity to collecting and interpreting data
- Storage information not accessible by the business
- No differentiation between types of users

Manual chargeback solutions are riddled with hidden costs and do not provide complete and accurate information—leading to an unsustainable storage strategy.

Data growth, poor utilization rates and increasing security and data protection requirements are driving storage costs through the roof. Businesses are looking to adopt IT as a Service (IaaS) models as a way of converting this significant expense into its own Profit and Losscenter (P&L) and applying charges to different departments. This assists with the decision-making process to define to whether specific business functions or applications can be run more cost-effectively as an outsourced service or in the cloud. IaaS is becoming a more viable option for executives as applications are becoming more flexible and the underlying infrastructure is becoming less important in the delivery of those business applications.

For certain parts of the infrastructure, charging for IT consumption is easy to associate with departmental head count. Storage, which can account for half of the overall IT budget, is much more difficult to determine an equitable charging mechanism. Over the past two decades, storage has proved to be much more cost effective, reliable, and secure when it is run as a shared infrastructure with high-performance scalable storage systems connected to application servers through fast storage networks. However, complexity makes regular and consistent charging for the storage infrastructure a difficult and time consuming task.

Internally-developed chargeback may seem like a less-expensive option than a turnkey solution. However, organizations should look at the total cost to the business—both capital and on-going—to make an informed decision. The following table outlines these costs and risks and how APTARE® Chargeback provides value and mitigates these risks.

CHARGEBACK EXPENSE	APTARE SOLUTION
Collecting storage usage information manually is time consuming and prone to errors.	Automated regular collection on storage capacity, performance, and connectivity.
The skill set required to understand storage information is always changing. Keeping up and interpreting advanced storage technologies such as thin-provisioning and de-duplication can be difficult.	Built-in intelligence to comprehend the latest storage technologies.
Different storage vendors and platforms cause complexity with collecting and interpreting data.	Single data store with cross-platform comparison intelligence.
Storage information stays in the IT department and is not accessible by management, auditors, application owners, etc.	Automated reports available to a wide audience via email, file, browser, or mobile device.
No differentiation between power users and passive data consumers.	Collection of extensive performance, connectivity, and infrastructure metrics make it easy to charge different types of consumers.

APTARE has been delivering integrated world-class chargeback solutions to customers for more than five years and has seen that making usage transparent is the most influential factor for changing storage consumption habits of users and, ultimately, taming storage growth. Following an implementation of this comprehensive solution, there is a significant increase in consideration around storage requests, the level of data protection required, and even requests for storage reduction plans. It is not uncommon to see double-digit reductions in storage growth.

Implementing a world-class storage chargeback solution.

APTARE Chargeback solution guide walks you through the implementation process and simplifies the work required to achieve a fully-automated and accurate charging system.

An overview of the process has the following simple workflow:



Baseline

This is the discovery process which captures the current design and usage of the infrastructure. During installation, initial data collection will take place and this will determine:

- The storage infrastructure assets including capacities, utilization rates, and performance metrics
- The connectivity with physical and virtual hosts including inter-dependencies
- **Project: Storage Reclamation** - Discovery of any unused or under-utilized assets which can provide an early project win
- Compare and rank storage so that different costs can be applied to assets based on performance, data protection class, location, or other metrics
- Once all of the storage assets have been captured, work can begin on assigning costs with the flexibility of trialing any system of charges.

Business Contextualization

APTARE uses this term to refer to the way that business information is added to storage and host assets to identify where specific charges need to be applied. Most businesses try to maintain a Configuration Management Database (CMDB) to capture this information, but this can be applied manually if nothing exists. APTARE IT Analytics™ can therefore act as a CMDB but it is preferable to link to an external dedicated asset database such as BMC Atrium CMDB or ServiceNow Configuration Management to capture current information. APTARE IT Analytics can identify discovered storage assets that can be fed into a CMDB, and this process often improves the accuracy of this information source.

Business information can be applied to:

ASSET	INFORMATION REQUIRED (OPTIONAL)
Hosts – Physical and Virtual	Application, Business Unit, Location (production/non-production, commissioned date, contact information)
Storage Arrays	Location (Business Unit, Support expiration, commissioned date, contact information)
SAN Fabric Switches	Location (Business Unit, Support expiration, commissioned date, contact information)

WHY APTARE?

- Automates the collection of accurate storage information throughout the environment, including capacity, performance, and connectivity
- Stores information in a single data store for easy viewing, reporting, and analysis
- Automatically calculates storage costs in real-time based on usage, media and backup policies
- Differentiates between various users, departments, and groups for advanced chargeback policies

APTARE refers to this information as “Attributes” and this system has ultimate flexibility on the range and type of information that is collected in the system.

Once this information is loaded it is a simple process to run analytics to:

- Identify and verify hosts that do not have Application/Business Unit/Location information assigned to them (administrators can then apply the correct details to these assets)
- Show storage usage by Application, Business Unit, and/or Location and apply the previously calculated cost/rank to get an early indication of the split of storage costs
- Project: Storage Risk Analysis** – Show that specific applications are running on the correct tier of storage (administrators can then eliminate the associated risk)
- Verify that the proposed chargeback total covers the cost of running storage infrastructure

Chargeback Dashboard Actions ▾

Chargeback Summary By Department Host Group=SAN Hosts
Aug 28, 2014 12:00:00 AM - Sep 1, 2014 2:48:27 PM

Total Rows: 6

Department	Hosts	Backup Volume	Tapes Used	SAN Switch Ports	Tier 1 SAN Allocated	VM Disk Allocated	Oracle DB Size
Accounting	9	545	55	102	652	320	25
Legal	3	2,535	21	0	3,420		
Manufacturing	4	250	11	0	28,362		
Sales	6	413	18	0	1,887	120	25
Finance	2		0	0	30,040		
Marketing	5	1,052	25	0	23		
Total	29	4,774	128	102	65,188	440	50

Chargeback Detail by Department Host Group=SAN Hosts
Aug 28, 2014 12:00:00 AM - Sep 1, 2014 2:48:27 PM

Total Rows: 29

Department	Hostname	Backup Size	# Tapes Used	SAN Switch Ports	Storage Alloc SAN	Storage Used SAN	Virtual # CPDs	Virtual Memory Size	Virtual Machine Size	VM Disk Size	Oracle Alloc Size	Oracle Used Size	MS SQL Alloc Size	MS SQL Used Size	Exchange Size	SIOP Replicated	BCV Allocated	True Copy Replicated
Accounting	lampasa	9	17	0	483	482							0	0	0			
Legal	colts	478	23	0	483	483												
Manufacturing	yoko	21	17	0	483	483												
Accounting	yoko	7	17	0	848	848												
Sales	hay	57	0	0	483	483												
Sales	hayes	962	28	0	483	483					28	20						
Sales	hayward	344	21	0	483	483												
Marketing	wing	1,133	25	0	23													

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Ongoing Management

The Chargeback project is almost complete, but it needs to be sustainable to the business with minimal administration required. A number of scheduled reports and alerts will make sure the solution will provide:

- Regular billing information in the format required
- An official published storage pricing policy
- New unassigned assets to maintain comprehensive billing
- Views for business owners on storage consumption, future forecasts, and compliance with data protection policies

Use APTARE IT Analytics to drive your storage costs down and get real visibility into your storage usage. Visit http://aptare.com/chargeback_and_metering to learn more about the APTARE IT Analytics solution and the other benefits available.