



## Showback / Chargeback Made Easy with VSI

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With the ability to implement reporting features like chargeback/showback, clients can understand and communicate:

- How much storage Each Business Application is consuming on their storage
- Who is contributing to the storage consumption growth
- Is the right storage being used by each business application

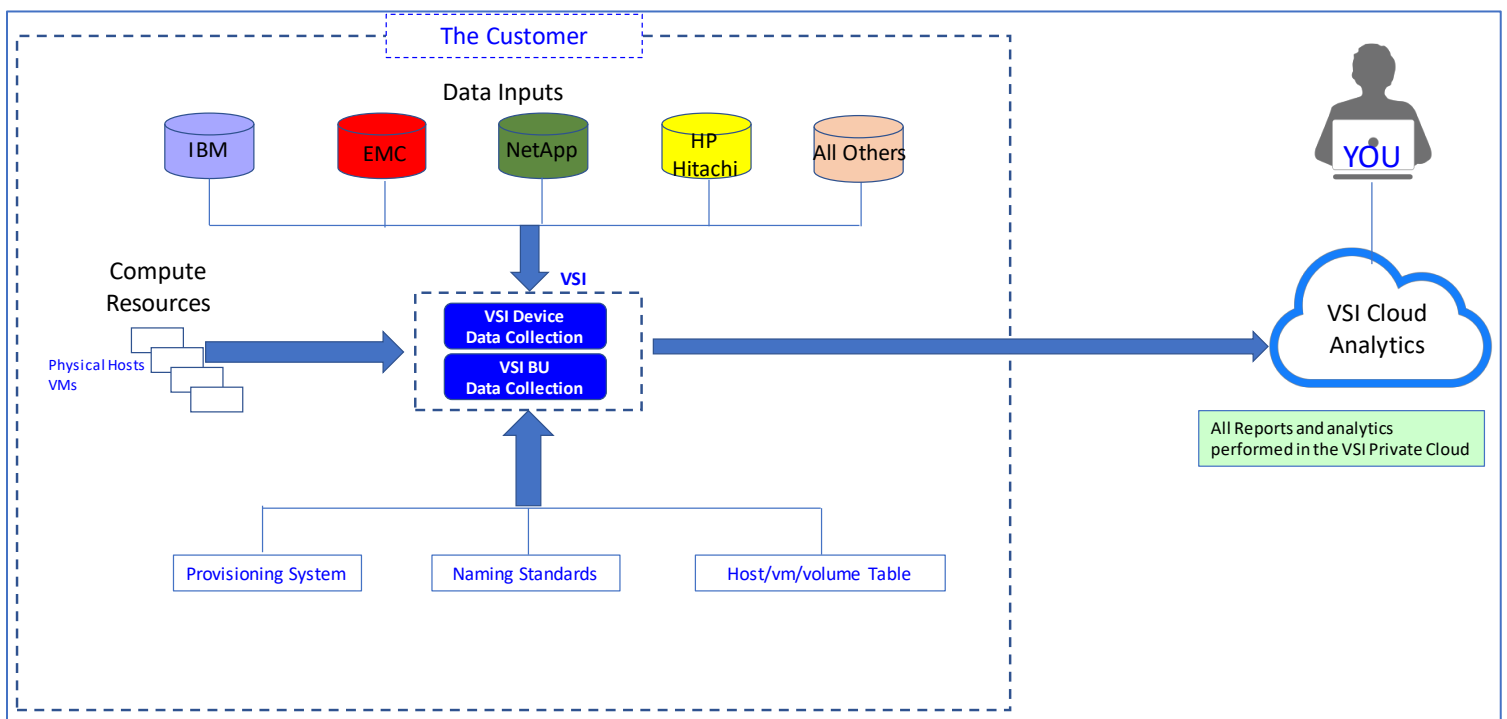
Our clients have expressed that having this information available at their fingertips is extremely valuable in managing storage, compute and network growth.

**How do I implement a system where I can see and track this data that does not require constant manual updates? Do I have to purchase a complex product that requires me to dedicate people just to the care and feeding of that product?** Visual Storage intelligence (VSI) provides these insights without the manual efforts and complexity. VSI makes the Business Unit assignment simple, *automates the data collection, business unit reporting and forecasting - with no human intervention!* These reports and detailed analytics are made available on demand in PDF format or through online viewing on your web browser.

**The Business Application Assignment Process:** Here is how it is done. VSI is designed to be an “easy to use” product - requiring little to no ongoing maintenance. VSI can be “trained” to review data from a variety of tools in the clients infrastructure or customized to utilize customer naming standards if they exist. If none of these items exist, there is the ability to get the list of all:

- Physical Hosts
- Virtual machines
- Volumes or LUNS

From this list assignments can be made and directly fed into VSI on a periodic basis for analysis. If new resources are defined, they can be added to the business unit assignment file and analysis is performed automatically. If this is the process followed, it is generally a one time effort and from that point forward the data is maintained and can be used to build assignment rules based on the artificial intelligence analysis of the perceived naming standards. This process also includes adding your cost data for each device on a \$/GB level.



The VSI data collection process has 2 specific sections as show above. Part 1: The device collection process collects data from the infrastruture components. Part 2: Collect the data used for Business Unit assignment (chargeback/showback). This can be in the form of naming standards, provisioning/inventory systems where the specific chargeback data is kept, or the manual business unit assignment process.

**The Analysis Phase:** Once the data is collected and sent to VSI, the analysis is performed. This analysis is a 4 step process:

1. Device data analysis and reporting
  - a. All devices are analyzed in detailed and their resource data is exported for business unit processing at a later time
2. Business Unit Analytics
  - a. All resources(hosts, vms, volumes) for each specific business unit are collected
    - i. All storage assigned to these resources are collected and aggregated
    - ii. All duplicate storage assignments are eliminated
3. Final Business Unit Planning Data is created
4. Current and Trend Business Unit Reports are generated

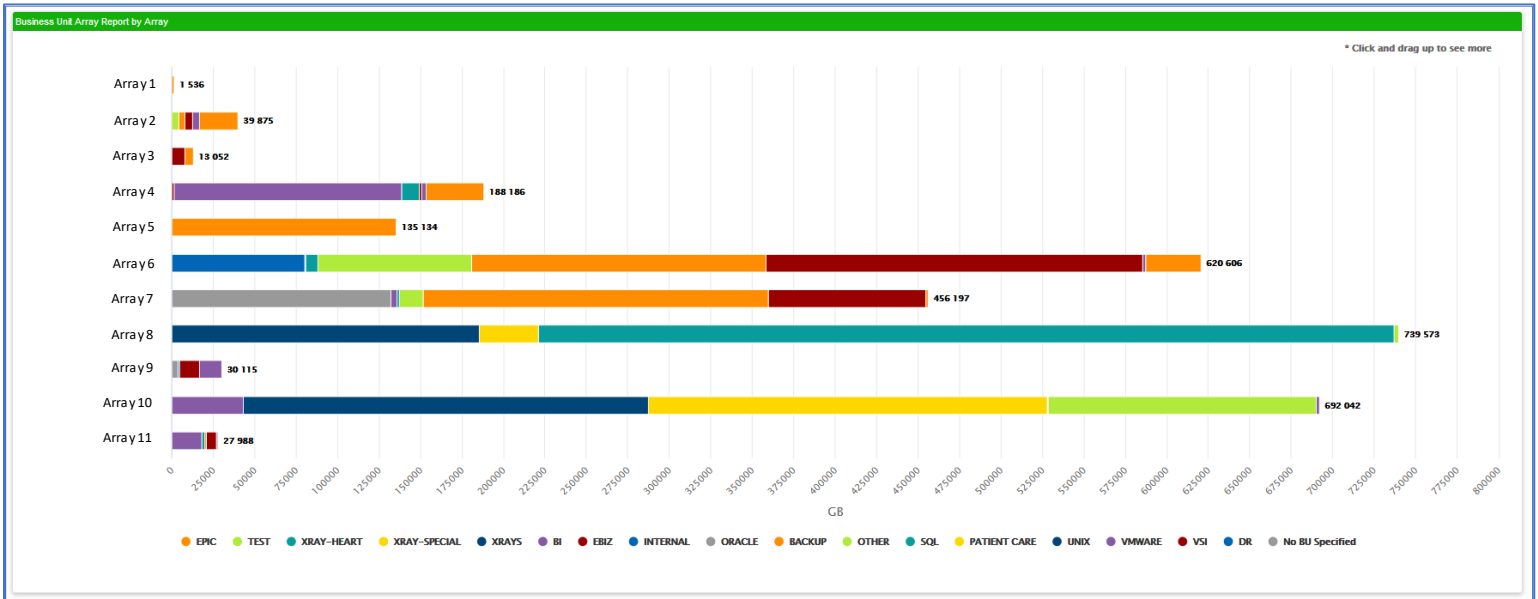
This analysis is performed on a weekly or monthly basis as determined by the customer and it can also be initiated on demand.

**The Business Application ShowBack/Chargeback Reports:** Once this analysis is completed, all business unit reports are available in PDF or via the web browser. Reports are created in the following categories:

- By array by business application
  - o This shows how much of each array the business applications are taking up.
- By Business Unit by Array
  - o This shows, for a specific business unit, where and how much storage is used on each array.
- Charge Back Report
  - o Shows the cost associated with each business unit using the cost data assigned to each array where that business unit is storing data.
- Forecast Model
  - o Shows the projected storage usage based on what and how each business application area has grown in the past. This forecast is across all arrays within the enterprise.

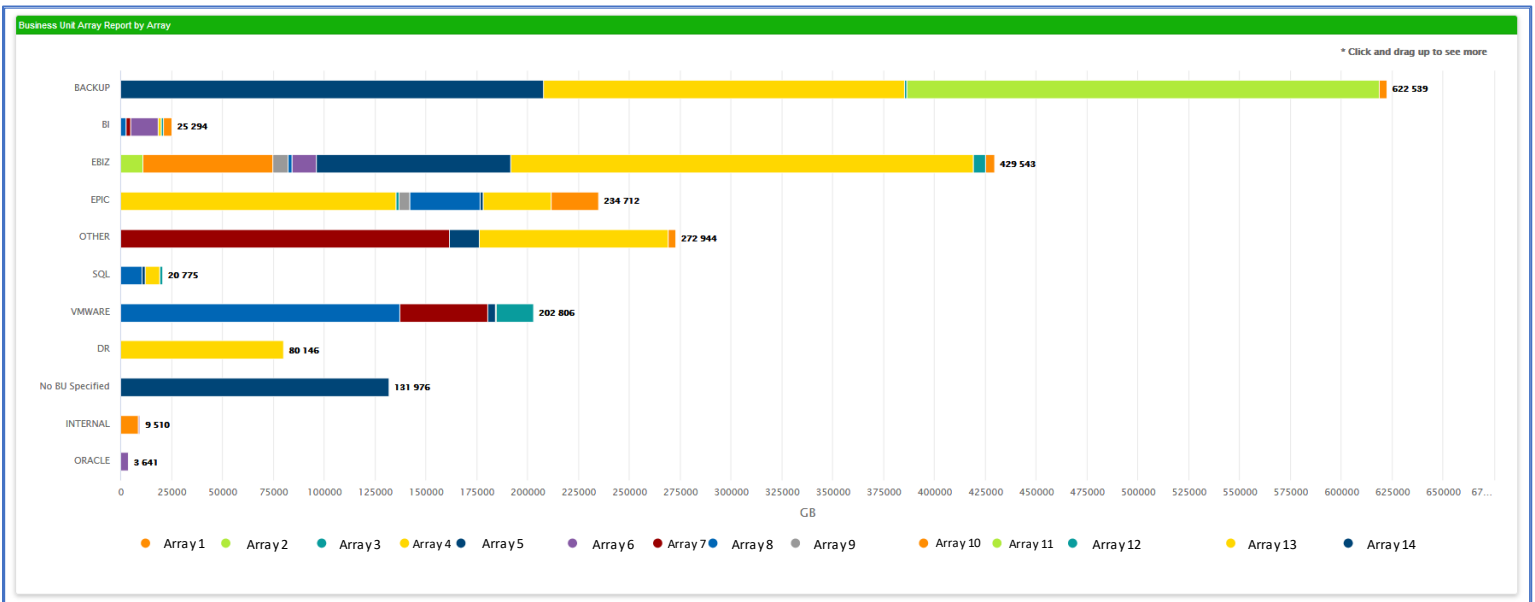
Examples charts for each of these standard reports are shown in the following pages.

## Business Unit Show back Chart: By Array by Business Unit



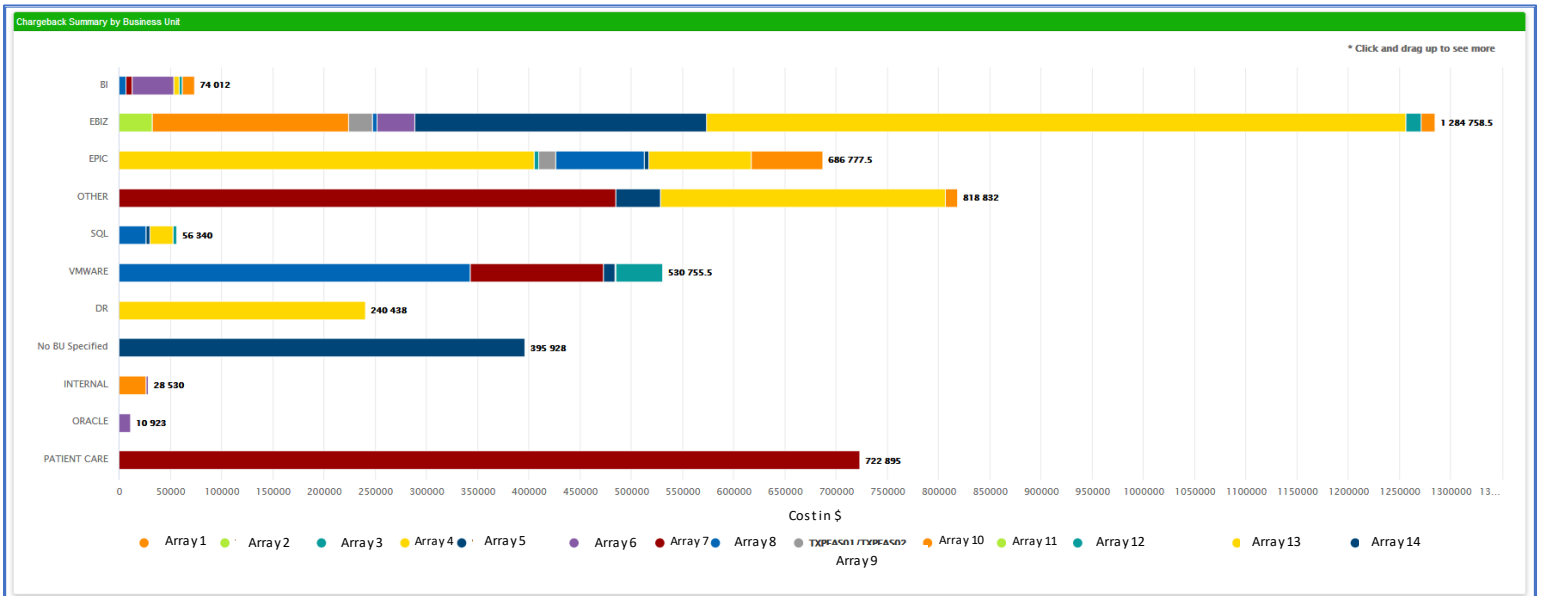
This chart shows how much of an array each business unit is consuming in storage.

## Business Unit Show back Chart: By Business Unit by Array



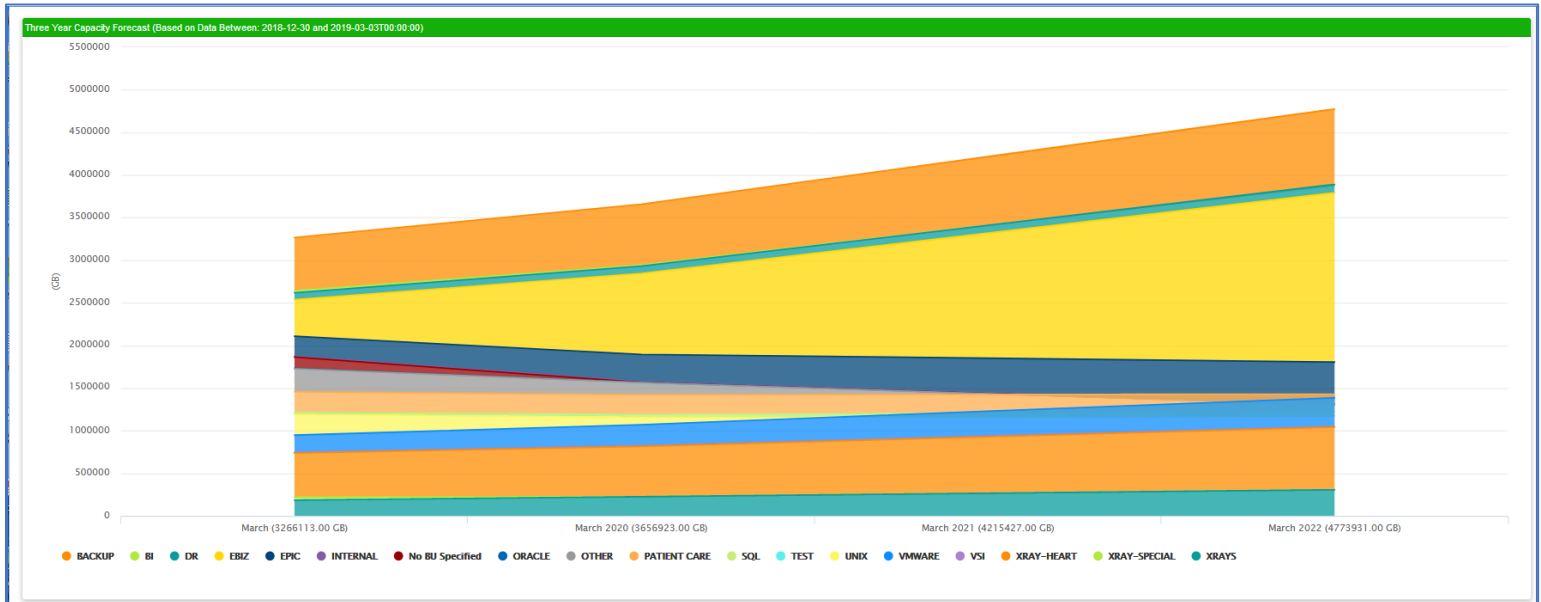
This chart shows how much storage each business unit is consuming across the enterprise and how much of that storage is on each of the arrays within the enterprise.

**Business Unit Chargeback Chart:** Cost for each Business Unit and the cost breakdown by array



This chart shows the costs for each business application and the breakdown by arrays for each business unit.

**Business Unit Forecast Analysis:** Future demand based on historical Trends.



This chart shows forecasted demand by application segment of the next three years.