



Komprise Analysis Overview

See across storage silos and make
data-driven investment decisions.

[White Paper]



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Know First with Komprise Analysis

Komprise Analysis provides strategic insights into unstructured file and object data across your on-premises and cloud enterprise IT infrastructure:

- **Analyze across** all your NAS, NFS, SMB, dual shares, as well as cloud storage.
- **See how much** data you have, how fast it is growing, what is hot/cold.
- **Quickly understand** file data types, top users, top groups, top directories.
- **Perform cost/benefit modeling and capacity planning** for tiering and data management.

With Komprise Analysis, you quickly gain visibility across storage silos and the cloud to make data-driven decisions. Plan what to migrate, what to tier, and understand the financial impact with an analytics-driven approach to data management and mobility. What if you could significantly reduce your data costs by transparently moving/tiering infrequently used data to less expensive storage? What if you could tier data without disrupting users or applications and feed select data to AI and ML analysis tools to help generate revenue? With Komprise you can know first, move smart, extract value and take control of your unstructured data growth and costs. That's the power of Intelligent Data Management.

Fast Data Insights

Komprise Analysis provides consistent unified insights into your unstructured data across many vendors' storage and cloud platforms. Within minutes of specifying shares or buckets, Komprise provides preliminary results on key metrics such as data volume, where it's stored and key characteristics such as time of last access. As the analysis continues, the estimated results are continually refined until the scanning is complete and results are provided.

Komprise scans only the metadata of the file systems and cloud object stores. File or object size and overall capacity do not impact the scan rate as Komprise does not open files or objects to read the data within them. The analysis scan uses an adaptive scan rate technology to remain invisible to user activity and storage performance. In fact, Komprise routinely analyzes petabytes of data at customer environments with no noticeable impact. This is because Komprise adaptively backs off when end-user activity increases to eliminate the impact on user experience.

Using Komprise Analysis for Assessments

Performing a data assessment with Komprise Analysis involves the following steps:

- Connect to the Komprise Director with the custom cloud URL provided for your organization;
- Bring up a minimum of one virtual machine called the Komprise Observer at a location that has network access to the storage you wish to analyze;
- Add network attached storage (NAS) file systems and enable shares to analyze data or to provide the URL of your cloud buckets.

That's it! You are ready to start analyzing, filtering and gathering critical visibility and modeling financial cost savings across your multi-vendor file and object storage environments.

This paper explains the fields, options, and reporting capabilities of **Komprise Analysis** along with an overview of determining unstructured data **total cost of ownership (TCO)** and **return on investment (ROI)** metrics. For simplicity, this paper focuses on analyzing files stored on NAS. The mechanism and features described apply equally to cloud buckets and objects. Komprise customers can review the Deployment Guide in our Support Portal for getting started steps.

Learn more about the Komprise architecture at komprise.com/architecture.

Analyze and Plan Before You Move

The **Plan** page provides an overview of the status of the system, the number of files analyzed and their access time, and so on. Known as “the data donut” by some and the “heatmap” by others, you automatically get insights into the selected file system’s unstructured data, including capacity, file count, charts, the health of the system and cost modeling capabilities. Results are selectable and configurable using the Filter, Custom Data Ranges and Edit Cost Model information.

The **Plan Editor** is where shares are selected for modeling storage scenarios. The cost modeling capabilities of Komprise Analysis are based on the shares selected and policy configured in the Plan Editor. Click on **Edit Cost Model** to customize storage costs.

The screenshot displays the Komprise Plan page for the 'Atlanta' site and 'Assessment' plan. The interface is divided into two main sections: the Plan Editor on the left and Plan Analysis on the right.

Plan Editor: This section allows for configuring data and network policies. It shows '3 Groups In Plan' with a 'Remote Offices' group selected. The 'From Source Shares' section indicates '2 shares selected'. The 'Move' section includes a slider for 'Not accessed over' (set to 6 months) and a checkbox for 'Excluding files'. The 'With dynamic links' section is set to 'Enabled'. The 'To Target' section is currently empty.

Plan Analysis: This section provides a detailed overview of the data. It features a 'Data Heatmap by Time of Last Access' donut chart showing 2.17 PB (25.02M files) of data. The chart is color-coded by last accessed time, with a legend below it: <1 mo (red), 1-3 mo (orange), 3-6 mo (yellow), 6 mo-1 yr (light green), 1-2 yr (green), 2-3 yr (blue), >3 yr (dark blue), and Planned To Move (purple). To the right of the chart, a '3 Year Savings' summary shows: Cost Savings of \$10.11M, Capacity Freed of 2.41 PB, and Backup Reduced of 7.22 PB. A dashed purple box highlights the 'Edit Cost Model' link.

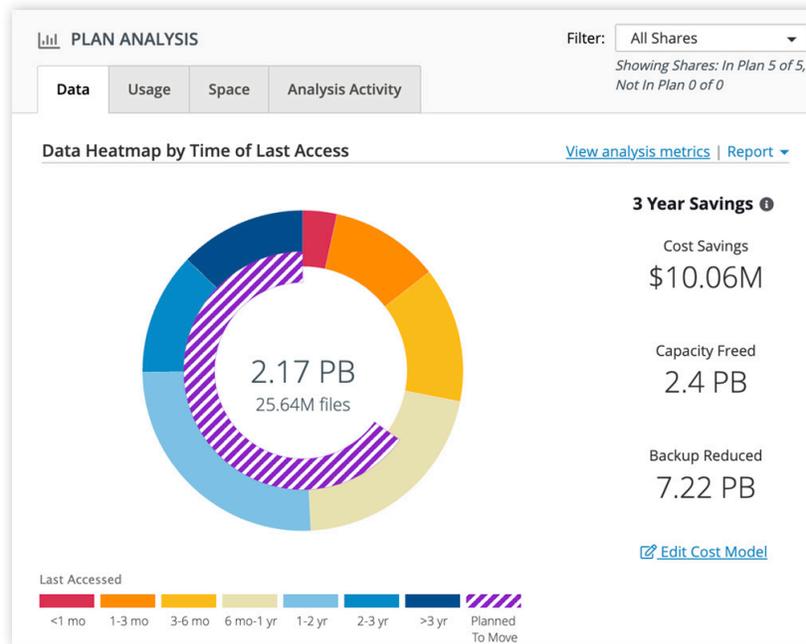
At the bottom, a 'Data Growth Over Time' line chart compares the 'On-prem footprint (TB)' 'Without Komprise' (orange line) and 'With Komprise Plan' (blue line). The 'Without Komprise' line shows a steady increase from approximately 2000 TB to 3800 TB, while the 'With Komprise Plan' line remains flat at 2000 TB.

Plan Analysis

Data Analysis - Summary View

The **Data** tab shows total data analyzed, which is summarized in the center of the donut.

The **outer ring** is made up of the data grouped by the last accessed time for selected shares. The different shades represent the different age date ranges. **Red** indicates hot data and **dark blue** indicates very cold data.



3 Year Savings column, on the right, is an estimate of cost, capacity, and backup capacity savings over 3 years. These savings are based on the costs you've provided.

The **partial inner ring (purple dashes)** displays potential data that could be tiered or moved from source to target based on the age threshold specified in the plan policy.

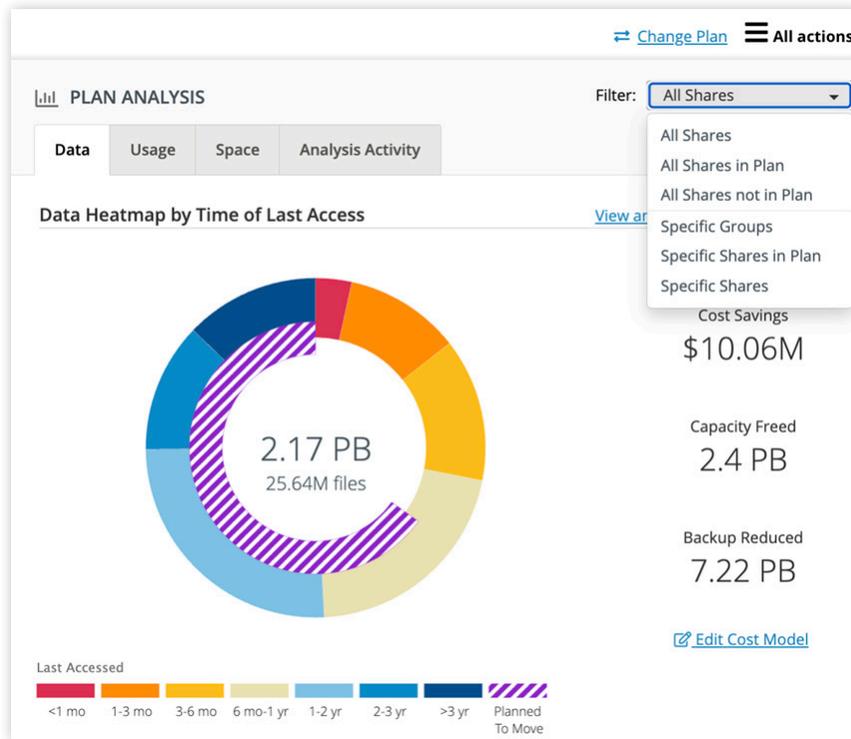
You can mouse over and click sections of the Data Heatmap to view more details.



Tip: Use the Data Heatmap in combination with Filter Shares for a consolidated All Share's view or drill into Specific Group(s) of shares, or Specific Share(s) for a local view (shown in next section).

Filtering Shares for a Better View

To fully understand your environment, **Plan Analysis** supports the ability to view globally and drill down to select systems. The data represented in **Data**, **Usage**, **Space**, and **Metrics** tabs can be broadly viewed across All Shares or reduced to Specific Groups or Shares by using the Filter drop-down.



Filter Options

The following table lists the filters available to modify the data view on all the tabs of the **Plan Analysis** page.

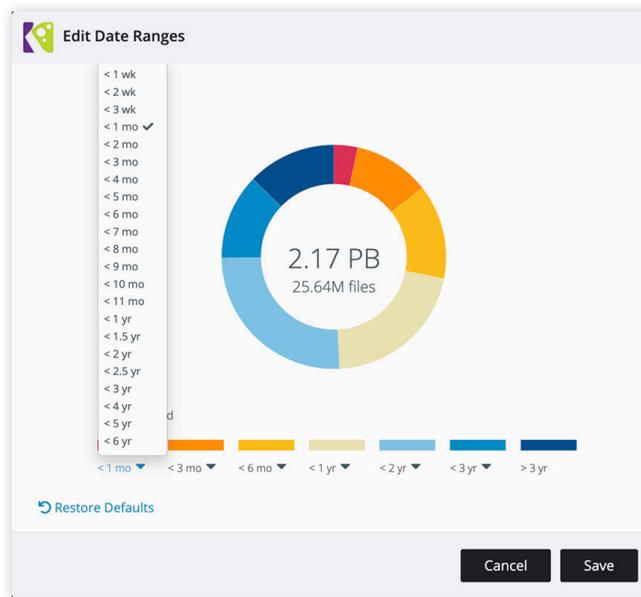
Filter	Description
All Shares	Presents summary information for all source shares enabled for analysis.
All Shares in Plan Section	Presents summary information for only the shares included in the active Plan in the Plan Editor section.
All Shares Not in Plan Section	Presents summary information for only the shares which are not included in the active Plan.
Specific Groups	Presents summary information for shares included in the selected Plan Group(s).
Specific Shares in Plan	Presents summary information for a subset of specific shares included in the active Plan.
Specific Shares	Presents summary information for specifically selected shares.

Customizing Date Ranges

When considering a data management plan, the ability to view the age of data in different ways can help set limits, determine when and where to reposition data or what data to clean up regularly. Date Ranges are changeable to customize the summary information presented in **Data** and **Usage** tabs along with the downloadable reports. Dates can be selected for six of the seven ranges. There are options for as little as a **week** to as much as **> 15 years**. The **Date Ranges** property allows you to customize last access or modified date ranges used in analytics charts.

MANAGE SETTINGS: (ALL SITES)

Property	Setting	Description
Date Ranges	 Last Accessed < 1 mo < 3 mo < 6 mo < 1 yr < 2 yr < 3 yr > 3 yr Edit	Customize last access/ modified date ranges used in analytics charts.



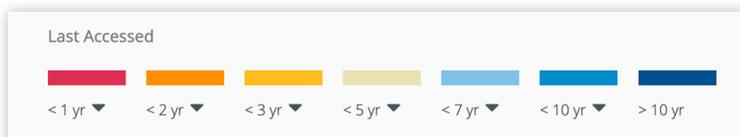
Tip: Try different date ranges to compare amounts of data and growth for time periods important to your organization, projects, groups, and/or end-users. Combine date ranges with filter shares and usage graphs to prompt storage discussions, define a data management strategy or simply show and clean up cold data.

Some options to try in combination with the filter shares:

1. See data growth in a year, for example:



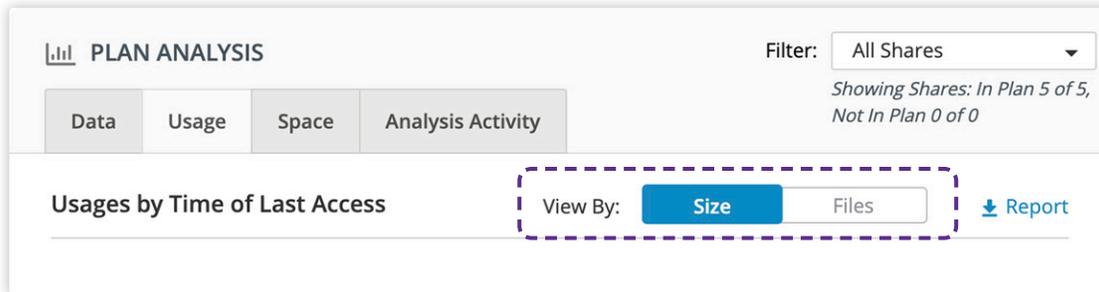
2. Set date ranges for data retention periods to, for example see how much data is older than 3 years, 5 years and 7 years:



Usage Analysis - Charts

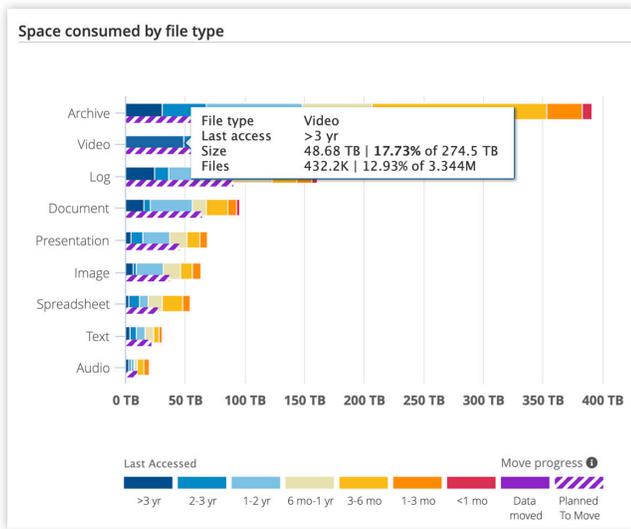
The **Usage** tab provides insights into selected source data across multiple Komprise charts that analyze usage by file type, file size, owners, groups, directories, and shares.

The charts presented are viewable by **Size** (Capacity) or **Files** (Number of Files). This is selectable at the top of the section:



Usage - Viewable by Size

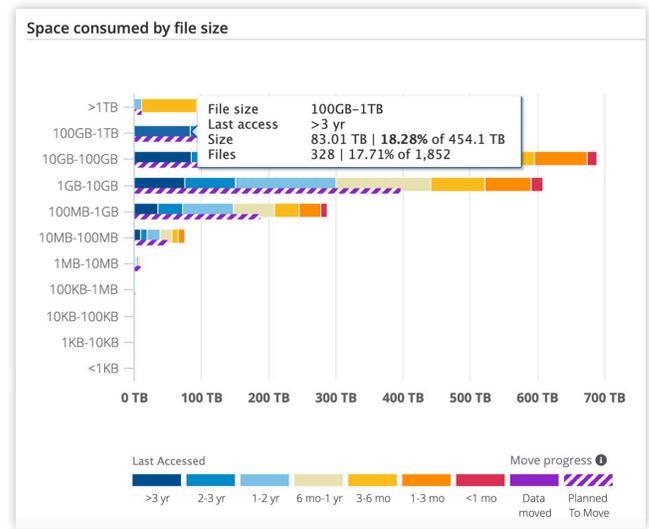
The following tables explain the different graphs that are generated as part of usage analysis filtered on **Size**:



This graph depicts the data distribution based on the file type. For example, the space consumed by video files that have not been accessed for 3 years is 48.68 TB.

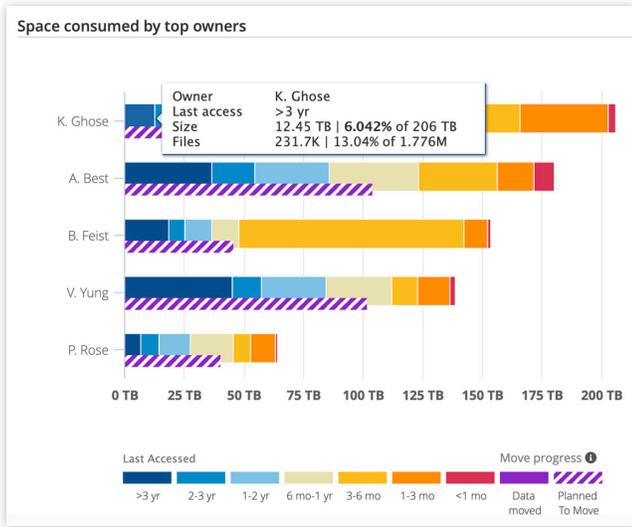
Komprise allows you to customize the file types so that it is specific to your industry and environment.

Tip: This graph can be very helpful when reviewing storage use, new requirements and growth with departments, groups or users. Often the most capacity used by file type or ages of files can be unexpected.

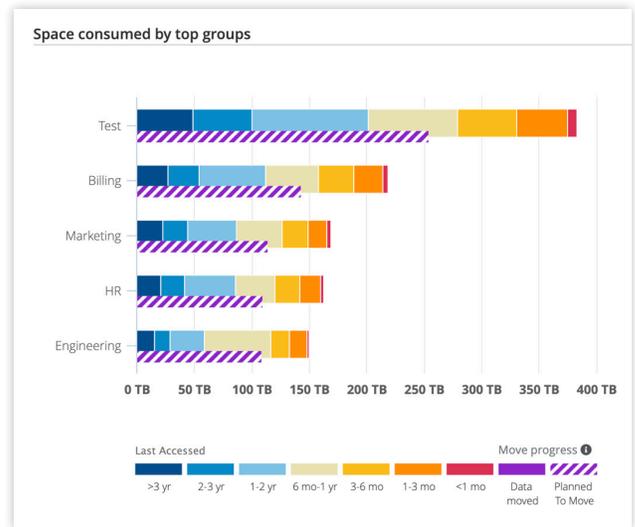


This graph depicts the space consumption based on file size. You can view details such as how many files of specific sizes are present and how long has it been since they were last accessed. For example, 328 files 100GB-1TB in size have not been accessed for more than 3 years.

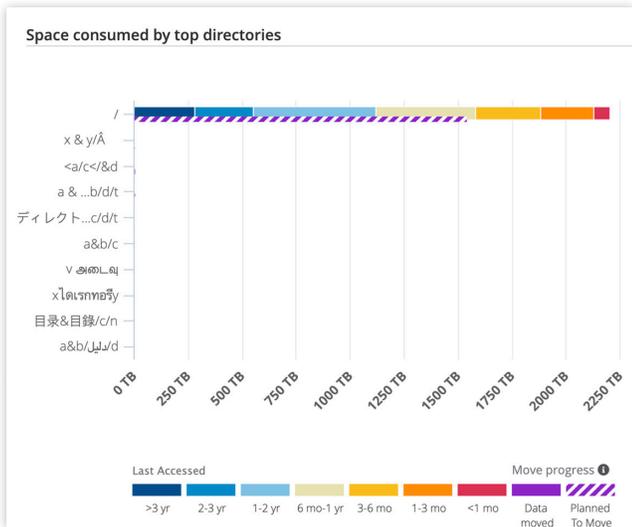
Tip: When planning to tier cold data use this graph to identify files sizes and age ranges that consume the most space in the fewest number of files to process first. By initially excluding less capacity-consuming files, valuable space can be quickly freed. The plan can be updated later to include the additional smaller files and left in place to continually optimize the file server.



The graph shows how the space has been consumed by files created by different owners and when they were last accessed.

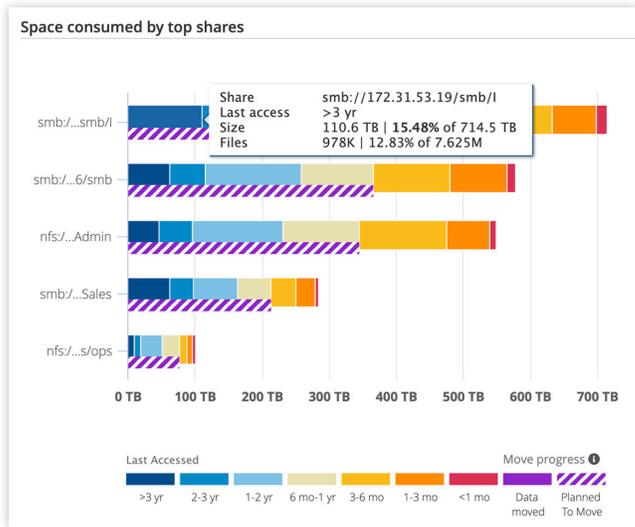


The graph shows how the space has been consumed by files owned by different Active Directory groups, and the time since the files were last accessed.



The graph shows how the space has been consumed by the files residing in different directories and amount of time since last accessed.

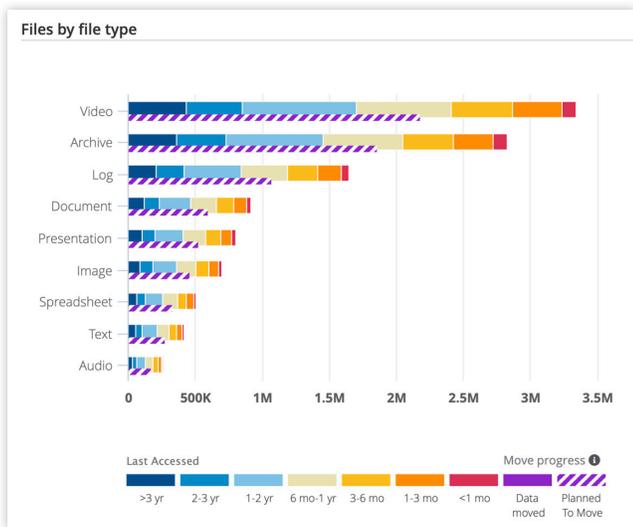
Note: This graph is not displayed when there are more than 50 directories.



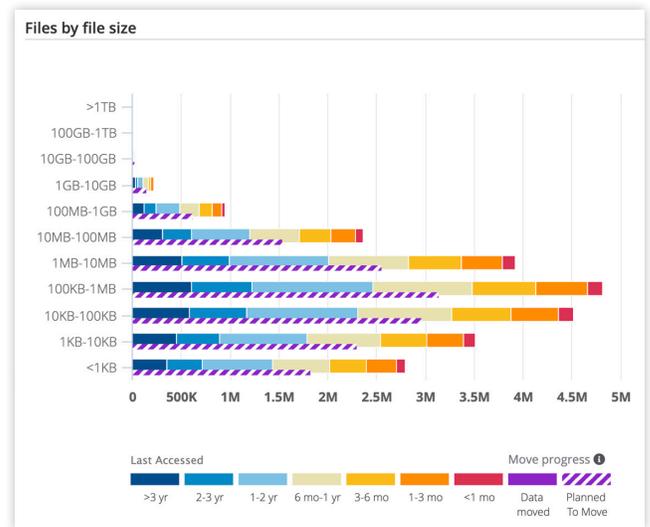
The graph shows how the space has been consumed by different shares and amount of time since last accessed.

Usage - Viewable by Files

The following tables explain the different graphs that are generated as part of usage analysis filtered on **Files**:

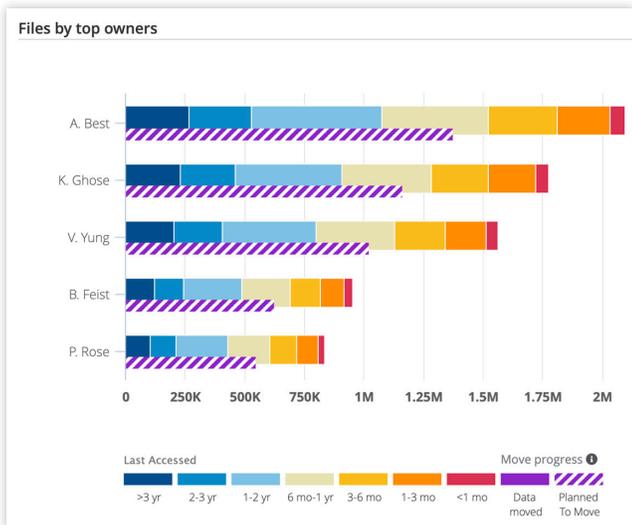


This graph depicts the file distribution based on the file type.

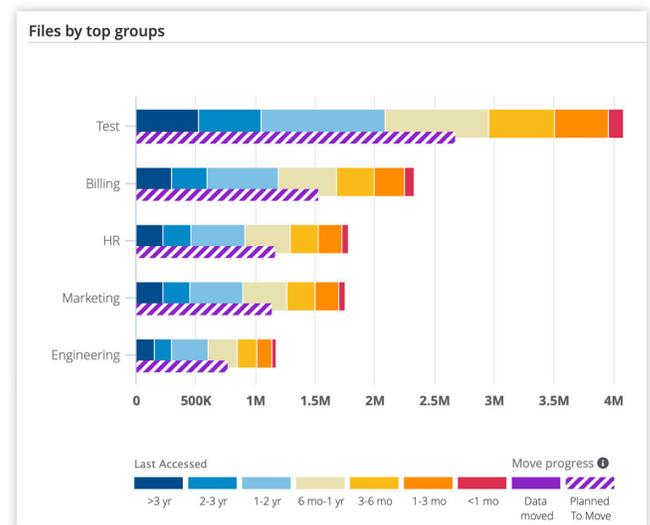


This graph categorizes how many files of specific sizes are available in the share based on their last accessed time.

Tip: When assessing for a migration, check this graph for shares with numerous tiny files. Millions of small files take the longest to migrate. Use this opportunity to discuss migration expectations, duration, and performance before starting the physical migration.



The graph shows how the space has been consumed by files created by different owners and the amount of time since last accessed.



The graph shows how the files are distributed based on the owners and the amount of time since last accessed.

Metrics Analysis - Share Details

The **Analysis Activity** tab contains details such as the number of shares analyzed, total files present in a share, the rate at which the files were analyzed and items analyzed, analysis status and default exclusions. The information presented is a consolidated view of shares selected by the filter option.

PLAN ANALYSIS Filter: All Shares
Showing Shares: In Plan 5 of 5, Not In Plan 0 of 0

Data Usage Space Analysis Activity

[Expand all](#) | [Collapse all](#)

> Analysis Metrics

> Insights into Reported Numbers

This analysis provides a bird's eye view of your shares and directories which can help to resolve performance issues or counteract existing practices that are not ideal. For instance, you can see directories with more than 100K files (which generally perform slowly) or if you have a lot of small directories with just a couple files in each. It will tell you if your data footprint mostly consists of little files which don't take up space but increase analysis times. It also identifies errors encountered during analysis so you can determine if there are issues in your storage landscape. On many occasions, IT teams review this and discover issues and problems which weren't on their radar.

Analysis Metrics

Analysis Metrics provides basic details and forensics of the share(s) analyzed based on the **Filter Shares** setting:

Shares	Size	Files	Files/sec
5	2.175 PB	25.36M	14391

Items Analyzed

Displays the summary of the items found during the analysis of enabled shares. This includes estimated numbers for newly added shares that are undergoing analysis for the first time:

Items	Total	Average files	Average size
Directories	2,520,442	10.06	926.6 MB
Files	25,359,291	-	92.1 MB
Symbolic links ⓘ	140,352	-	-
Komprise file links ⓘ	0	-	-

Note: Data moved/tiered from source shares are not included in the total size and number of files counts.

Analysis Status

Displays the summary of the shares that are being analyzed currently. You can also view the number of shares the system is analyzing for the first time and those being reanalyzed. You can view the shares that are not considered for analysis and the number of shares that are going to be reanalyzed the next day and next week.

	Shares
▼ Total Shares Being Analyzed Now	3
Analyzing for the first time	0
Reanalyzing	3
Total Shares Not Being Analyzed Now	2

Default Exclusions

Lists the system files and directories excluded by default. Certain files and folders are excluded from analysis by default. These include:

- **System directories:** .ckpt, .copy_offload, .snapshot, ~snapshot, .zfs
- **Komprise directories:** kmp_in, .komprise_move_reserved, .komprise_move_test_reserved
- **Komprise directories used for confine operation:** .KompriseTrash, .KompriseTrashAudit
- **System generated metadata files:** Thumbs.db, .DS_Store
- **Directory cycles:** see section below, [Insights into Analysis Rate > Cycles in Directory Structure](#)

Plan Editor

The **Plan Editor** is where shares are selected and cold data policies are identified and used in combination with **Filter Shares** and the **Edit Cost Model** to compare new data management placement, costs and implement storage management strategies.

- Only one Plan can be edited and/or active at any given time per site. However, a Plan can consist of many groups of shares. So within a plan, you can run many policies across different groups of shares simultaneously.
- Multiple Plans can be created with different combinations and groupings of shares for reporting purposes or Plan activation.
- Shares added to the Plan impact the Data Heatmap Graph, 3 Year Savings numbers, Data Growth Over Time chart, and Savings Details.
- Editing and saving a Plan does not perform any actual data transfers, change any files or data on the file servers until it is activated.

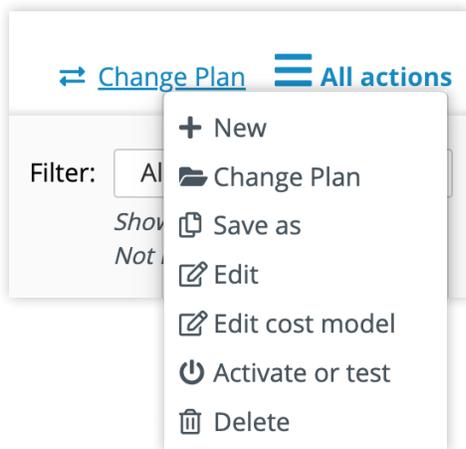
Configuring Data Policies

In a Plan, these are the options to configure:

- Define groups of shares with similar policy settings;
- Select source shares to review and assess;
- Identify a tiering policy for comparison and cost analysis.

Managing Plans Using All Actions

Komprise provides a default Plan to connect to a source and enable shares. Multiple Plans can be created, managed, and deleted. The following table lists these actions:



Actions	Description
New	Creates a new Plan.
Change Plan	Switches to another Plan.
Save as	Saves the Plan with a different name.
Edit	Allows to modify the Plan.
Edit cost model	Allows to edit the cost model.
Activate or test	Activates or tests the selected Plan. <i>Note: this should not be selected when performing analysis only.</i>
Delete	Deletes the Plan.

Note: Only one Plan can be active at a time.

Plan Groups

Not all data is the same and so to effectively analyze your unstructured data, Komprise allows you to organize data sets and actions into Groups so you can specify shares to manage with policies that can differ from those for other Groups.

For example, when identifying tiering policies by department, a Group containing engineering data source shares could be completely different from another Group that contains shares used by the finance department.

Group management:

- A group only exists with the Plan where it is defined.
- Multiple Plans can use the same Group name.

Note:

- A source share can only belong to one Group at a time. Therefore, if a share is unavailable to select in step 4 above, it may need to be removed from the existing Group and then added to the new Group. This restriction prevents conflicting policies from acting on the same file, which would be hard to diagnose.
- A share must be enabled before it can be analyzed and included in Plan Groups.

Plan Analysis Frequency

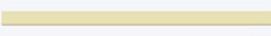
Komprise analyzes each enabled share on a periodic basis, with a time interval between the end of one analysis and the start of the next. (The default analysis interval is seven days, which is configurable by the customer.)

Note: The analysis frequency is maintained at the share level and not system level, so shares may undergo analysis at different times after their week period expires.

Tip: Try different date ranges to compare amounts of data and growth for time periods important to your organization, projects, groups, and/or end-users. Combine date ranges with filter shares and usage graphs to prompt storage discussions, define a data management strategy or simply show and clean up cold data.

Reanalyze a Share

When new data is added, you can manually reanalyze a share:

Status	Protocol	Share ^ Q	Target	Data	Action
 	NFS	 nfs://172.12.98.30/nfs/ops		 101.3 TB	
 	SMB	 smb://172.12.98.30/smb/Sales			

Financial Modeling

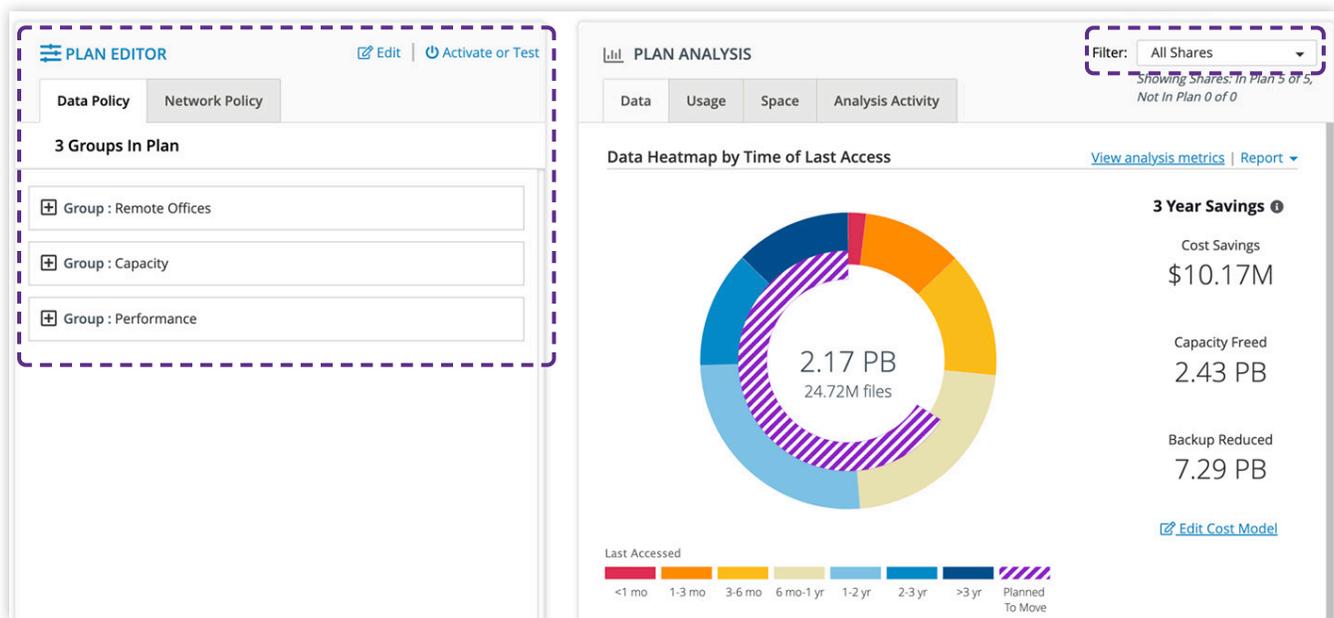
Discussing storage financial modeling is an excellent opportunity to review your actual data ownership costs. Data ownership costs include not just the hardware where the data resides but also the costs to protect the data from mistakes or loss and for future access. Adding up these costs is summarized as the Total Cost of Ownership (TCO).

Komprise provides a place to capture these costs and uses them with the actual amount of unstructured data to calculate the customer specific TCO.

With this information, you can form data management strategies to ensure the right data is in the right place and at the right time to either produce business value or save costs.

Once these values are measured and understood, you can then directly measure the amount of return on a particular storage investment relative to the investment's cost, to project a Return on Investment (ROI) of future storage purchases.

Komprise provides a unique and easy-to-use tool to calculate TCO and then capture reports to compare ROIs for future storage options. Using the combination of the Plan Editor, shares Filter, Cost Model, and the data from the shares analyzed, Komprise projects financial costs of a variety of possible unstructured data management policies. This can be valuable when evaluating changes in storage and data management strategies.



Edit the Cost Model

The **Cost Model** is where the customer's actual storage costs and new storage projected costs can be entered. These cost values are used with analyzed data to calculate potential savings, graph multi-year data growth and expense trending and show cost comparisons for business as usual versus modernizing your storage.

The **Edit Cost Model** default values are based on a comparison of industry-standard costs for storing data on-premises and in the cloud. For best results, these values should be replaced with the customer's storage costs. You can use the **Reset to Default Cost Model** link to restore the default values.

Edit Cost Model

On-Premises Primary Storage

Item	Cost
Storage HW	\$ 500 /TB/yr
Backup HW <small>Will be Multiplied by No. Backup Copies</small>	\$ 350 /TB/yr
Backup SW	\$ 200 /TB/yr
Number of Backup Copies	1
Total	\$1,050/TB/yr

Komprise with **Cloud Target**

Item	Cost
Cloud Storage	\$ 200 /TB/yr
Backup via Redundancy	Included
Komprise Cost <small>Price for 500TB of data or more.</small>	\$ 100 /TB/yr
Cloud Data Transfer Out Cost	\$ 10 /TB
Total	\$310/TB/yr

[Reset To Default Cost Model](#) Savings with Komprise is **\$740/TB/yr** and is **70.48%**

* Savings in costs and space are estimates based on analysis of trends and properties of your data. Exact savings may vary. Estimates do NOT take into account deduplication, cloned files and personnel costs.

Cancel Save

Edit Cost Model

On-Premises Primary Storage

Item	Cost
Storage HW	\$ 500 /TB/yr
Backup HW <small>Will be Multiplied by No. Backup Copies</small>	\$ 350 /TB/yr
Backup SW	\$ 200 /TB/yr
Number of Backup Copies	1
Total	\$1,050/TB/yr

Komprise with **On-Premises Target**

Item	Cost
Storage HW	\$ 200 /TB/yr
Backup via Redundancy	Included
Komprise Cost <small>Price for 500TB of data or more.</small>	\$ 100 /TB/yr
Total	\$300/TB/yr

[Reset To Default Cost Model](#) Savings with Komprise is **\$750/TB/yr** and is **71.43%**

* Savings in costs and space are estimates based on analysis of trends and properties of your data. Exact savings may vary. Estimates do NOT take into account deduplication, cloned files and personnel costs.

Cancel Save

Items	Description
Storage HW	Represents the per terabyte cost of usable storage capacity per viable year of use. Useable capacity is the initial space an end user sees after formatting storage, configuring RAID protection and allocating snapshot protection.
Backup HW	This can be calculated in a variety of ways. A few examples: <ul style="list-style-type: none"> • Tape solutions: includes costs for tape drives, tape cartridges, storage facilities, and personnel to manage the tapes. • Replicated Disaster Recovery system: an identically configured system at a remote location • Dedicated backup storage systems provided by the backup vendor These costs can be totaled and divided by the total useable capacity (TB) for a year.
Backup SW	Backup software costs per managed useable capacity (TB).
Number of Backup Copies	This field is a multiplier of Backup HW. For example, if you keep five years of data and the Backup HW is a per-year cost, then Backup Hardware is multiplied by the number of copies.

Storage Hardware Annual Cost per TB

Determining the annual cost/TB can be a complex value to calculate. First, consider the actual useable capacity. This may be provided in the storage vendor's tools. If not consider the following:

- Often the overall purchase price and raw capacity, before configuration, are easy to determine from a recent order. Was the purchase for a full system or just an expansion to an existing system? It is important to consider the total cost of the full system. When comparing on-premises storage to cloud, cloud systems factor in full system costs, not just drive expansion costs.
- When working with raw capacities, storage vendors use different combinations of disk formatting and minimal data block sizes that may reduce the total useable storage. For example, if the native file system uses data block sizes of 1KB, any file smaller than 1KB would still consume 1KB of capacity. In another example, large clusters of storage head nodes require resources that may lower the useable capacity as well.
- RAID protection consumption: Storage vendors offer a variety of RAID protection schemes. Consider the vendor's RAID methods and implementation. This can vary from as much as 50% capacity loss for mirroring to ~20% or more, for various RAID 5, RAID 6, or RAID DP methods.
- Snapshots consume a percentage of space as well. This will vary by the rate of data changes, the number of snapshots, frequency, and retention periods. A general consumption value to consider is 20%.
- No file system uses 100% of its useable capacity. Most storage vendors highly recommend purchasing additional capacity when the system reaches 80%. Many systems enter a critical warning level at around 90%. At this level system resources are heavily taxed; performance will slow and can negatively influence a business' ability to respond.

To summarize, when determining your useable capacity, the projections above compound to reduce your overall useable capacity. The following table provides a sample of usable capacity:

Usable Capacity Type	Capacity Reduction (%)	Useable Capacity (TB)
Raw Capacity Purchased (TB)		1000
Disk Formatting	-10%	900
RAID Protection	-20%	720
Snapshot Protection	-20%	576
80% is Full, 20% Unused	-20%	461

Note: These values are provided only as an example to demonstrate the hidden data tax many customers don't realize they pay when continuing to purchase more Tier 1 storage. Choose values representative of your storage vendor.

The result being the actual usable capacity is far less than expected and the cost/TB is much higher than realized. Other storage costs to consider are facility costs like space, power, cooling and remote facility assistance. For many enterprise IT organizations, the data center is on your premises, while others leverage remote facilities or cloud services that may add more costs to keeping data on active storage.

Backup Hardware and Software Costs

Enterprise IT teams typically replicate and back up all data that resides in storage systems. This active management process of replication and backups is to prevent the loss of valuable data, but it comes at a high cost. Active management of data accounts for 80% of the true costs of data, not just the storage costs.

Every time a file is created, organizations store these files on your storage hardware, which creates additional copies for DR and backup. Since many organizations do not have an ongoing data management policy, these costs continue forever. If you take daily incremental backups for a month, then keep a monthly backup, an annual backup and have a DR site, you now have four additional copies of every file; this is akin to a 400% data tax on every file that is created.

Given that 75-80% of unstructured data hasn't been accessed in over a year, this is high storage overhead for cold data which doesn't need active data management from continual replication and backups. Newly created and active data needs this level of protection against both system and user failure, but cold data can be protected far more cost-efficiently by tiering it to a resilient data storage platform such as the cloud.

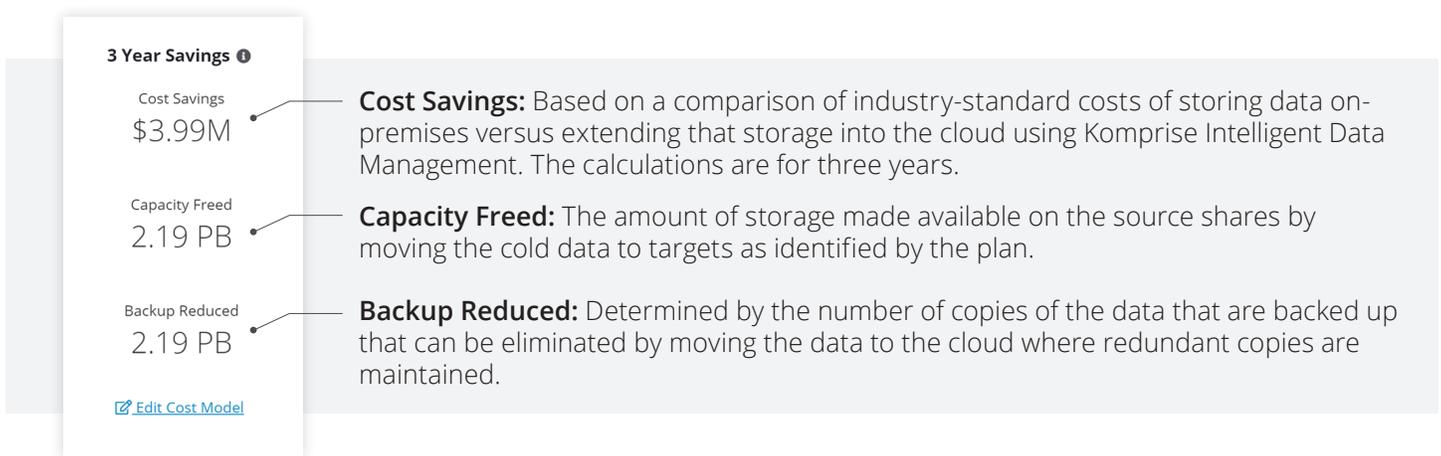
It's important to consider the way you manage cold data. Based on its activity, you should only pay a fraction of the cost you pay to manage your hot data. Repositioning and lowering the cost of cold data helps improve the performance of hot data. The financial modeling capability provides a way to consider your unstructured data protection costs and explore cost reduction alternatives by tiering or copying data to lower-cost platforms such as NAS or object storage.

Using the **Plan Editor** feature to review data's last access, you can select when you consider data cold and where you may move it and compare the costs of both platform types. Should you select to activate the Plan, the storage systems will be periodically scanned by Komprise, looking for cold data to tier and helping maintain the storage hardware at peak efficiency.

Reviewing Financial Modeling Results

Understanding 3 Year Savings

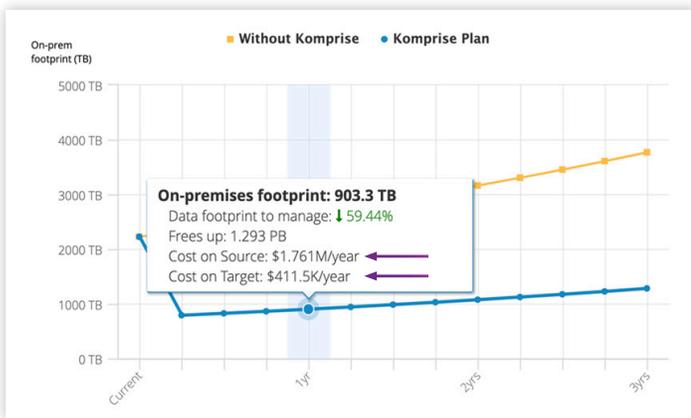
The cost savings are based on a comparison of industry-standard costs of storing data on-premises versus extending that storage into the cloud using Komprise. The calculations are for three years.



Data Growth Over Time

Data Growth Over Time compares the projected storage requirements growth for the next three years (*calculated by Komprise based on historical growth rates*) by showing the plan changes to tier aged data to a target (**blue**) versus no plan changes (**yellow**) to tier data.

Selecting the intersecting data points will show growth and costs details for that point in time.



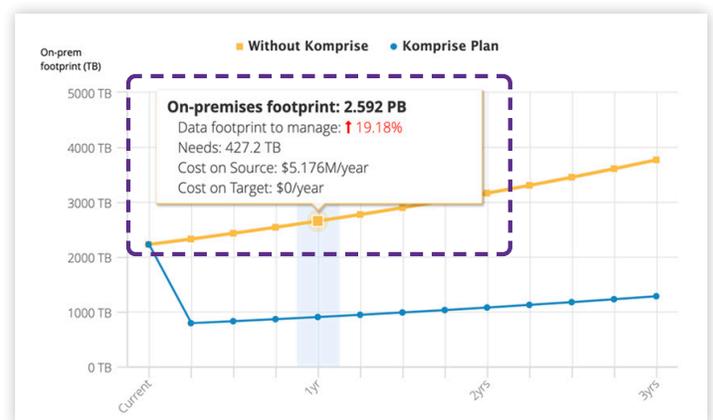
Finding Annual Growth Rate

The annual growth rate can be found in the **Data Growth Over Time** graph. Select the 1-year mark on the **yellow** (without change) line graph to highlight the 1-year information. The data footprint to manage will indicate an **annual growth rate**.

Costs on Source and Target

In the **Data Growth Over Time** graph, select the intersection points on the **yellow** (without change) and **blue** (with change) lines to view the estimated cost of data on source and data on target.

Use the **Filter Shares** to see costs for **All Shares in Plan**, **Specific Groups**, or **Specific Shares** to view a breakdown of cost. Use **Specific Shares** with one share selected to see individual share costs.



Savings Details

Savings Details gives a breakup of the cost and capacity savings based on the difference in the storage requirements for the two plans as shown in the following image:

Data Growth Over Time | Savings Details

3 Year Projection ↑ Needed
↓ Freed

	Without Komprise	Komprise Plan	Difference	
On Premises Primary Storage Cost	\$17.53M	\$5.965M	↓ \$11.56M	65.97%
Total Storage Cost with Target	\$17.53M	\$7.358M	↓ \$10.17M	58.02%
Additional On-Premises Storage	↑ 1.507 PB	↓ 944.2 TB	↓ 2.429 PB	161.2%
Additional Backup/DR Storage	↑ 4.521 PB	↓ 2.766 PB	↓ 7.287 PB	161.2%
On-premises Growth Rate	↑ 42.87 TB/mo	↓ 26.23 TB/mo	↓ 69.1 TB/mo	161.2%

Note: Savings in costs and space are estimates based on analysis of trends and properties of your data. Exact savings may vary. Estimates do NOT consider deduplication, cloned files, and personnel costs.

Comparing Costs of Replacing Tier 1 Storage

Use the financial modeling capabilities to compare data ownership costs of replacing existing storage with alternative solutions. If your existing NAS system needs replacing due to age or performance, compare costs with the alternative systems.

PLAN EDITOR Done Editing | Activate or Test

Data Policy | Network Policy

3 Groups In Plan + Create New Group

Group: Remote Offices

From Source Shares
2 shares selected

Move

Files filtered by
 Age Deep Analytics Query

Not accessed over: Now 3yr

Excluding files

+ Add another filter

With dynamic links: Enabled Disabled

[Learn More](#)

[View analysis metrics](#) | [Report](#)

- ↓ Data analysis summary (PDF)
- ↓ Data by time of last access
- ↓ 3 year cost savings

1175M

Edit Cost Model

On-Premises Primary Storage | Komprise with On-Premises Target

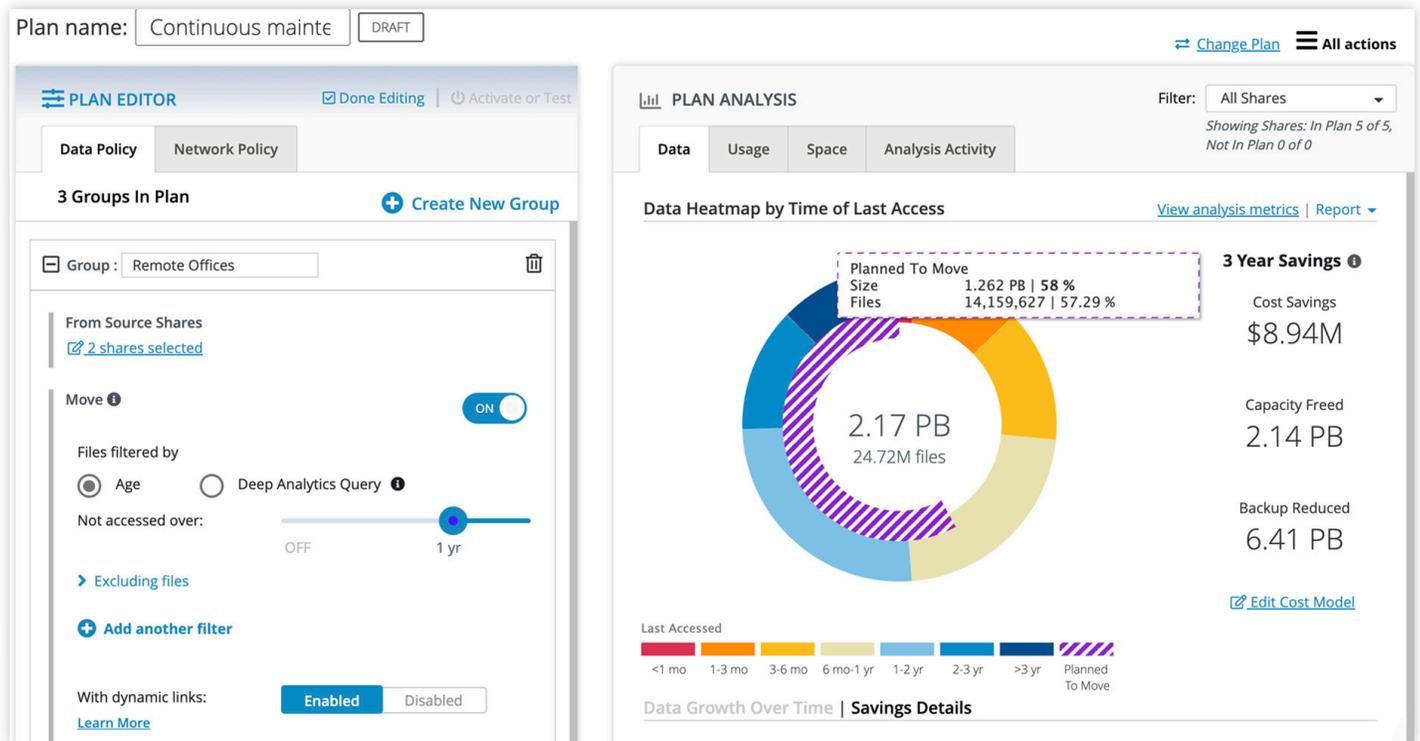
Item	Cost	Item	Cost
Storage HW	\$ 500 /TB/yr	Storage HW	\$ 200 /TB/yr
Backup HW	\$ 350 /TB/yr	Backup via Redundancy	Included
Backup SW	\$ 200 /TB/yr	Komprise Cost	\$ 100 /TB/yr
Number of Backup Copies	1	Total	\$300/TB/yr
Total	\$1,050/TB/yr		

Reset To Default Cost Model Savings with Komprise is \$750/TB/yr and is 71.43%

* Savings in costs and space are estimates based on analysis of trends and properties of your data. Exact savings may vary. Estimates do NOT take into account deduplication, cloned files and personnel costs.

Comparing Costs of Tiering Cold Data

Use the financial modeling capabilities to compare data ownership costs of replacing existing storage with alternative solutions. If your existing NAS system needs replacing due to age or performance, compare costs with the alternative systems.



Capturing Analysis Results

The analysis results are captured in various reports available for download. This section lists the reports generated during data assessments.

Plan Section - Data Analysis Summary Reports

Use the financial modeling capabilities to compare data ownership costs of replacing existing storage with alternative solutions. If your existing NAS system needs replacing due to age or performance, compare costs with the alternative systems.

1. Data Analysis Summary

A PDF report that has the donut, projected cost savings, and status of data move operation. This high-level report may be shared within your organization. The image on the right displays a sample Data analysis summary report.

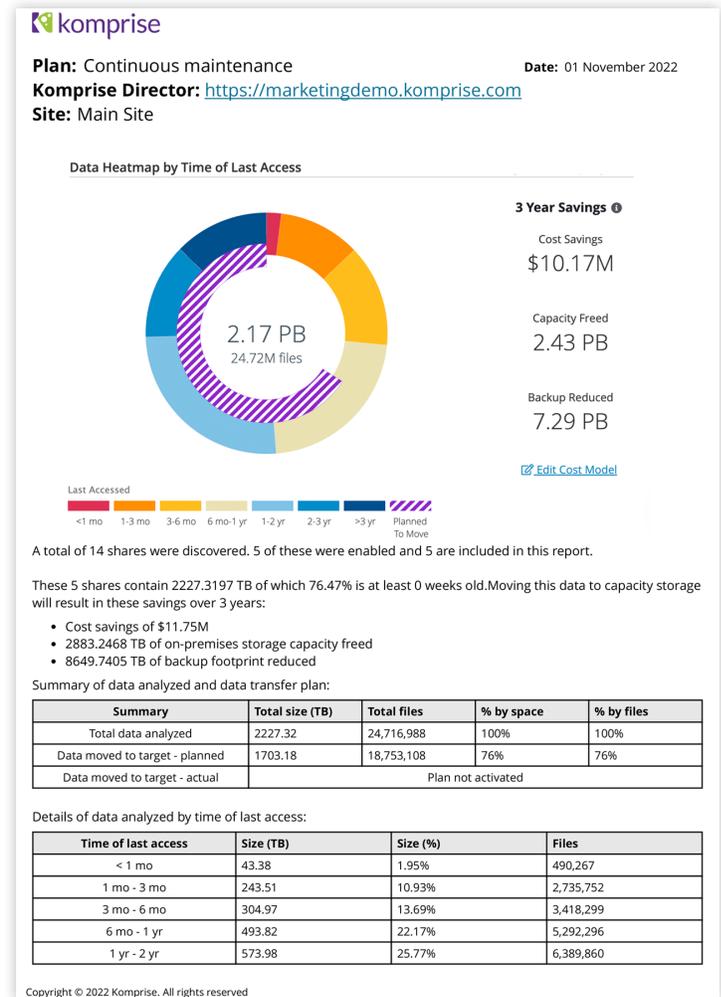
2. Data by Time of Last Access

A CSV report that has the numbers behind the donut including the amount of data and number of files in each of the age buckets as well as planned for target and in the target.

3. 3 Year Cost Savings

A CSV report contains the following details:

- Overall summary of **cost savings** for all data analyzed.
- **Age of data** analyzed, as seen in the donut.
- Cost savings projections for each **group** in the plan.
- Cost savings projections for each **share** in the plan.



Example of a Data Analysis Summary Report.

Usage Section - Data Usage Report

This report is a CSV file that contains a numerical representation of the data based on which Usages by Time of Last Access and Usages by Time of Last Access based on Space Consumption graphs are plotted. The CSV report contains the numerical data based on the file type, time of last access, data by file size, owners, groups, directories, and top shares.

Metrics Reports

There are several file system metric reports on the Plan > Metrics tab. These reports provide helpful share information which can be vital to forming a data management plan. These various reports focus on specific file system conditions and are produced only when the condition is found. This next set of section provide details on the conditions measured and subset of reports generated.

Note: The shares listed in the reports are a sample set provided to help exemplify the issue found. Not every file is listed because, in some cases, there could be possibly millions of files detected generating an unreasonably large report(s).

Tip: Use filter shares to refine the metrics data presented. The data and reports can reflect a summary of all shares, specific groups, or unique to specific share(s) selected.

Possible reports (reports are generated when required condition detected with the share):

- **Sample Analysis Failures Report**, see Insights into Reported Numbers > Analysis Failures
- **Sample Directories and Files with Long Path Names Report**, see Data to be Excluded from Move Plan > Directories and Files with Long Path Names
- **Sample Small Files Report**, see Data to be Excluded from Move Plan > Small Files < 8 KB
- **Sample Move Plan Optimization Recommendation Report**, see Move Plan Optimization Recommendation > Files < 100 MB
- **Sample Directory Size Report**, see Insights into Analysis Rate > Directory Size
- **Samples Cycles in Directory Structure Report**, see Insights into Analysis Rate > Cycles in Directory Structure

Plan Analysis Settings

The **Settings** page allows you to set different properties of the elements you use in a plan. Properties such as cost analysis, analysis rate, and managing data access are set using the **Settings** tab.

Turning on Cost Analysis

Use **Cost Analysis** to set the currency in which you want to generate values of cost savings.

Cost Analysis **ON** Enable analysis of storage cost.

Currency

Slowing Analysis Rate

You can set the rate at which you want to analyze the shares.

Analysis Rate Controls the rate at which shares are analyzed by Komprise. Note that even at 100% Komprise uses an adaptive back-off technique to ensure share utilization is minimal.

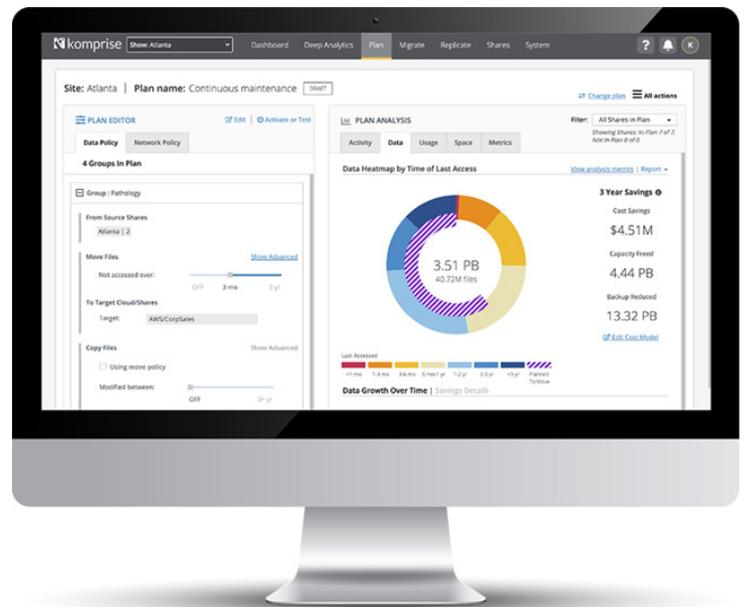
0% 100%

Conclusion

Komprise provides an easy, non-intrusive way to gain visibility across your multi-vendor file storage both on-premises and cloud. You can understand and drill down into your organization's data usage, data growth, and model the financial impact of your data management strategies.

About Komprise

Komprise is a provider of unstructured data management and mobility software that frees enterprises to easily analyze, mobilize, and monetize the right file and object data across clouds without shackling data to any vendor. With Komprise Intelligent Data Management, you can cut 70% of enterprise storage, backup and cloud costs while making data easily available to cloud-based data lakes and analytics tools.



Learn More

For a custom demonstration of Komprise in your environment, visit [Komprise.com/demo](https://komprise.com/demo).



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