

Veritas™ DLO 9.0 Storage Estimation Tool User Guide

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Storage Estimation Tool User Guide

This user guide should be referred while using the *Veritas_DLO_9.0_Sizing_Calculator.xlsx*.

Input Parameters Description

Input variable	Description	Example
Number of years – plan period	Number of years one wishes to plan the Storage Estimate for	5 years
Number of users	The total number of users	100 users
YoY User growth rate	Expected growth rate of the number of users per year	10 %
Data size per user	Enter the average Data size to be backed up per user	15 GB
YoY Data growth rate	Expected growth rate of the average data size per user	10%
Percentage duplicates in Data	Approximate percentage of duplicate data	20 %
Number of backup revisions	Maximum number of revisions of a file need to be kept at storage	3
Percentage of pst size in overall data	Percentage of pst size in overall data	60 %
Estimation Buffer	Additional store size(as percentage of total size) added as buffer	10 %
Site bandwidth to main server	Maximum bandwidth which is supported by the site	30 Mbps
Data Center bandwidth	Maximum bandwidth at data center	1024 Mbps

Default Input Values

Input variable	Description	Default Value
Changing non pst data	Approximate percentage of non pst data which changes over time	10%
Percentage of attachment size in PST	Approximate percentage of attachment size in the overall pst data	70%

Output Description

Output Values	Description	Example
Total Size of Backup Data	Total amount of data to be backed-up ultimately	1.41 TB
Required bandwidth for incremental backups	Bandwidth required for incremental (delta) backup in case of any file change, after the seed backup has already been taken	1.138 Mbps
Total IOPS	Total Input Output operations per second considering both the server and client	655.36 operations/second

Other Details

Output values	Description	Example
DLO Storage	Total backup store size including modified file backup for all users and size of the PST files with Delta for all users	364.4 GB
Dedupe Storage	Chunk store size for normal file backup data and attachment file backup data for all users (for one revision)	1081.97 GB
Dedupe Database Size	Typically chosen as 0.2% of the Dedupe Storage	2.16 GB
Absolute Dedupe Ratio	Ratio of Total backup size for all users and dedupe backup size for all users; Denotes the overall ratio in which data was finally compressed	1.55
Absolute Bandwidth & Storage Savings %	Total savings owing to the overall compression of the data including both normal & pst files (i.e. Total data to be backed up (normal + pst files) vs. data to be backed up after deduplication)	41.4 %
Traditional Backup Size	Total backup size the data would have required for all users and revisions without considering any compression or deduplication etc. It does not consider the proportion of pst or normal files.	5.48 TB
Savings against traditional backup size %	Aggregate savings of the total backup data size with respect to the traditional backup size	74.18 %

Calculation

Single Site Configuration

INPUT DESCRIPTION	Input Value	Range/Metric
<i>(Enter input values in the orange boxes)</i>		
Number of years - plan period	5	Years > 0
Number of users	100	No > 0
YOY user growth rate	10%	0% - 100%
Data size per user	15	GBs > 0
YOY data growth rate	10%	0% - 100%
Percentage duplicates in Data	20%	0% - 100%
Percentage of PST size in overall data	60%	0% - 100%
Estimation Buffer	10%	0% - 100%
Site bandwidth to main server	30	Mbps > 0
Data Center Bandwidth	1024	Mbps > 0

Figure 1

Storage Calculation:

Enter all the inputs as asked for in the 'Site input parameters' section as shown in the figure 1. The final result is displayed on the Results section as shown in figure 2. This backup data size refers to the final storage in terabytes required after taking into consideration DLO storage savings. Further details related to storage benefits are listed in the second tab 'Details' under the 'Storage benefits' section. The storage trend analysis can be seen in the 'Analysis' tab which shows the storage benefit by comparing the traditional backup size required vs DLO storage.

Backup Data Size		
Total Size of Backup Data	3.06	TB

Figure 2

Bandwidth Requirement Calculation:

Enter all the inputs as asked for in the 'Site input parameters' section as shown in figure 1. The final result is displayed on the Results section as in figure 3. This bandwidth requirement refers to the bandwidth required in Mbps during incremental backup of the data. In the 'Details' tab, the bandwidth required for first time full backup of the data is also displayed in addition to the appropriate recommendation.

Bandwidth		
Required Bandwidth for incremental backups	3.07	Mbps

Figure 3

IOPS calculation:

After entering all the inputs as in figure 1, the final Input/ Output operations per second required is

displayed in the results section (as in figure 4), taking into consideration the site bandwidth as well as the data center bandwidth.

IOPS		
Total IOPS	655.36	Operations/sec

Figure 4

Multiple site configuration

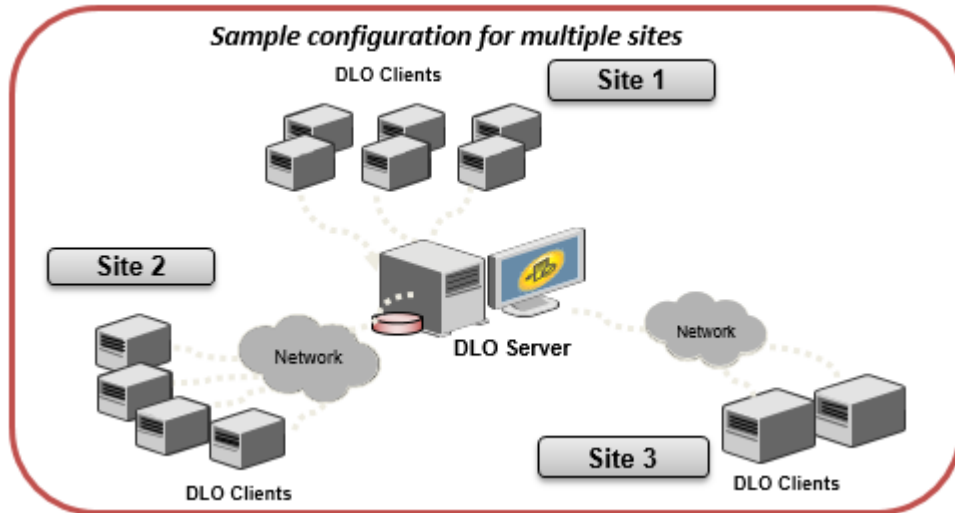


Figure 5

IOPS Calculation:

In case of multiple site configuration, the IOPS value will not be additive. A sample configuration of multiple sites is provided in the above (figure 5).

Another input table is provided for carrying out this calculation. The input required will be the number of users and the site bandwidth (in Mbps) at each of the sites as shown in figure 6. Maximum number of sites as of now in the calculator is kept 10.

Sites	Number of Users	Site Bandwidth (Mbps)
Site 1		
Site 2		
Site 3		
Site 4		
Site 5		

Figure 6

The final IOPS value is shown at the same column i.e. the IOPS heading under Results section, as in case of single site case (figure 4).