Veritas™ Desktop and Laptop Option 9.8

Quick Reference Guide for DLO Installation and Configuration

VERITAS™

Veritas Desktop and Laptop Option: Quick Reference Guide for DLO Installation and Configuration.

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Contents

Introduction

Veritas™ Desktop and Laptop Option is a user centric backup solution that provides flexible implementation and centralized administration for backup and recovery of Windows and Mac desktops and laptops in the organization. This highly scalable solution with distributable components is suitable for environments of any scale, be it single-site, multi-site, or having remote offices, allowing you to protect even the most recent files with your users.

Built-in features include source side deduplication with content aware deduplication of Outlook PST and NSF files, automatic network selection for non-intrusive backup experience which enables switching between the offline, online and backup over internet modes, self-restore capabilities offered through agent, web browser and a mobile application, rollback capabilities for ransomware protection and detailed auto reporting.

This Quick Reference document intends to provide the basic steps in setting up a DLO environment so as to facilitate a smooth product evaluation process. If an administrator is implementing the product for a Production environment, please refer to the latest version of the DLO Administrator's Guide and Best Practices document available here, to understand the various implementation possibilities through DLO.

What's New in DLO 9.8

This section provides a brief introduction about the new features included in this release.

Scanning and Auto-Deleting disabled users in Active Directory

DLO now provides the administrators with the ability to Identify and Auto delete Users from Console who are disabled in the Active Directory, and ensures that the storage space is freed up.

Support Auto configuration for all the Reports

Now, in DLO 9.8, the Auto configuration feature is extended for all the reports. Find the list of newly supported reports below:

- Audit trail - Configuration changes
- Audit trail - Restore and Migration
- Garbage Collection History
- Storage Consumption Per File Type
- Storage Consumption History
- Auto Deleted Users History
- Reports that are customized

Restore Email notification for User

Now, in DLO 9.8, for administrator restores and staging on an alternate computer, an email notification is sent alerting the user that the restore has been initiated.

VxUpdate Enhancement

DLO now automatically notifies administrators when a patch or component update is available.

SSL Certificate Validity Alert

DLO now alerts the administrator, whenever the SSL certificate is about to expire or expired.

Wildcard Certificate support for BOI

DLO now supports pushing Wildcard Certificate for Backup Over Internet (BOI) mode.

DLO Components System Requirements

Veritas DLO is designed with the flexibility of a various possible implementations. However, some factors that affect DLO efficiency and performance should be considered in the planning process for DLO.

Veritas DLO Server has the following components:

1. **DLO Administration Server**: The service responsible for the Administrative activities.
2. **DLO Administration Console**: A graphical user interface for the Administrator to configure, manage and monitor the endpoint backup environment.
3. **DLO Maintenance Server**: Component responsible for revision maintenance and file grooming operations in the storage locations.
4. **Dedupe Server**: Application server that facilitates deduplication by maintaining the Global Hash Table, which helps in identifying unique and duplicate data on the desktop agents.
5. **DLO Storage**: Backup destination where the endpoint data will be stored. Comprises of the DLO Storage Location and Dedupe Storage Location.
6. **DLO Database**: Component that maintains the application information. Comprises of the DLO DB and Dedupe DB.
7. **DLO IO Server:** Application server residing within the corporate network, making the DLO resources accessible over internet.
8. **DLO Edge Server:** Component exposed to internet for front-ending the Application Servers.

Please note that the IO Server and Edge Server components are optional components that need to be configured only when opting for the Backup over Internet (BOI) capability that allows VPN-less backups.

DLO Server components can be installed as a *Standalone* setup in the same machine or can be installed as a *Distributed* setup, across different server machines as well. Within the scope of this document, the

Standalone setup configuration will be discussed, where all these components reside on the same hardware.

Installation of DLO and its components on a VMware ESXi and Hyper-V servers is supported. The administrator can install all DLO Server components on Microsoft Azure and Amazon Web Services (AWS) cloud.

DLO Server Setup System Requirements

The hardware configuration for a Standalone setup for both non-BOI and BOI modes are as follows.

Users	Administration Server, Maintenance Server, Database, Dedupe Server (Excludes Edge Server and IO Server)		Administration Server, Maintenance Server, Database, Dedupe Server, Edge Server, IO Server	
	CPU	RAM	CPU	RAM
<=1000	64 Bit Quad Core Xeon, or compatible	8 GB	64 Bit Quad Core Xeon, or compatible	12 GB

The latest software configuration is preferred for the DLO Server setup as follows.

OS Version	Platform
Windows 2019 Server (Standard, Data Center)	x64
Windows 2016 Server (Standard, Data Center)	x64
Windows 2012 R2 Server – with Update 2919355 (Standard, Data Center)	x64

Desktop Agent System Requirements:

CPU	RAM	OS Version
32/64-bit Pentium, Xeon, AMD, or compatible	2 GB	Windows 11, 10, 8.1, 8 Mac 12.5, 12.4, 12.3, 12.2, 12.1, 12, 11.6, 11.5, 11.4 11.3, 11.2, 11.1, 10.15

For more information on the supported Operating Systems, refer the *Veritas DLO 9.8 Software Compatibility List* document available [here](#).

Downloading Veritas DLO

The administrator can download the latest available version from the Trialware Download link: https://www.veritas.com/content/trial/en/us/desktop-and-laptop-option.html. If already a customer of Veritas DLO, the administrator can find it from the MyVeritas webpage as well.

Note: From the DLO 9.3.1 version onwards, an inbuilt 60-day trialware license is available for the product evaluation.

1. Download the appropriate files into a temporary directory:

   Veritas_Desktop_and_Laptop_Option_Y.Y_xxxxxx_64-bit.zip,

   Where, Y.Y is the product version number and xxxxxx is the build number

2. To extract the files, double-click the .zip file.

Prerequisites for Installing Veritas DLO

The prerequisites for installing and managing a DLO setup are detailed here. Please ensure these prerequisites are taken care before the actual installation begins, to ensure that there are no problems during the installation process.

Item	Description
Domains and Active Directory	The DLO Administration Server, DLO Database Server, DLO Dedupe Server, DLO Edge Server, DLO IO Server and DLO Storage Locations must be in a Windows Domain or Active Directory. Computers running the Desktop Agent can be outside a Windows Domain or Active Directory, but they must authenticate with the domain or directory to access the DLO Administration Server or Storage Locations.
User privileges for installing and managing DLO	Following are the accounts required for installing and managing DLO Components: **Domain User or Domain Administrator account for:** • Veritas DLO Administration Server: This user should have local administrator privilege on DLO Administration Server machine, Storage Server and SQL Server. This user should have read and write access to the registry on the DLO Administration Server machine. • Mindtree Storesmart Dedupe Server service: This user should have local administrator privilege on the DLO Administration Server machine. This account should be the same as DLO Administration Server service account. • SQL Server (instance): This user should have local administrator privilege on DLO Administration Server, SQL Server machine and Storage Server. • SQL Server Browser: This user should have local administrator privilege on the SQL Server machine. • Veritas DLO Web Server Service: This user should have local administrator privilege on DLO Administration Server machine. This account should be the same as DLO Administration Server service account. **Local System Account for:** • Veritas DLO Edge Server Service • Veritas DLO Maintenance Server **Domain User account for:** • Accessing Dedupe Storage Location. This low privilege domain user account is also known as "Dedupe Storage Location Access Credential" and will be used by the Desktop Agent to access the Dedupe Storage Location. A user account with administrator rights is not permitted to be configured as Dedupe Storage Location Access Credential account. The administrator needs to ensure that the password for this user

	account does not expire frequently. If the password expires, then reset the password for the domain user. This user should have the 'Allow log on locally' policy set in the domain controller group policy object.
User privileges for DLO Agents users	• Impersonation privilege is required for the logged on user on the desktop agent machine for impersonating as the Dedupe Storage Location user in order to write the deduped data to the Dedupe Storage Location. • A local system account for the Volume Shadow copy service is required. This service should be up and running in order to provide backup statistics for generation of the Backup Status Report.
Database Selection	By default, DLO installs its own instance of SQL Server 2017 Express. DLO can be manually configured to use an existing local SQL Server instance. The DLO Database Service requires minimum 6 GB hard disk space. Note: Ensure to manually install the Microsoft® SQL Server® 2017 Express Latest Cumulative Update available here. For more information on the supported versions, refer the *Veritas DLO 9.8 Software Compatibility List* document available here. DLO Database can be installed as one of the following options: Option 1 : Local SQL Server 2017 Express Instance Prerequisites: • DLO Database Service requires minimum 6 GB hard disk space. Details: • By default DLO installs its own instance of SQL Server Express edition. • On a 64-bit machine, the DLO and Dedupe databases will be stored on a new local SQL Server 2017 Express instance located on C:\Program Files\Microsoft SQL Server\MSSQL14.DLO. Option 2: Existing SQL Local Server Instance Prerequisites: • For existing local SQL server instance, the named pipes and TCP/IP must be enabled on the computer where the SQL server is installed. Once the named pipes and TCP/IP are enabled, restart the SQL server and SQL server browser services. Ensure that the computer browser services are running. • Ensure that the SQL service is running under domain administrator credentials and provide the same user account credential that was used to install the SQL server, else there can be database connectivity issues. Details: • The DLO and Dedupe databases will be stored on a local existing SQL Server instance on this computer. Select an instance from the list provided. C:\Program Files\Microsoft SQL Server\MSSQL14.DLO. Option 3: Existing Remote SQL Local Server Instance Prerequisites:

	• For existing remote SQL server instance, the named pipes and TCP/IP must be enabled on the computer where the SQL server is installed. Once the named pipes and TCP/IP are enabled, restart the SQL server and SQL server browser services. Ensure that the computer browser services are running. • Ensure that the SQL service is running under domain administrator credentials and provide the same user account credential that was used to install the SQL server, else there can be database connectivity issues. Details: • The DLO and Dedupe databases will be stored on a remote SQL server instance. Provide the IP address or host name of the computer where SQL is installed.
Firewalls	DLO is designed to work in firewall environments. The DLO Desktop Agents can be installed on endpoints that are connected either over the corporate network or in the Backup Over Internet (BOI) mode using the private internet connection. The details of the port configuration for the DLO Server components and DLO Clients in a firewall environment are defined for the following three deployment scenarios: • **Non BOI Deploymen**t: For organizations having endpoints that are always within the organization premises and are connected over the corporate network. • **Exclusive BOI Deployment**: For organizations having endpoints that are always outside the corporate network and connect only using internet connection. • **Occasional BOI Deployment**: For organizations having endpoints that are occasionally outside the organization premises, during which they connect using internet connection, but are otherwise within the organization premises connecting over the corporate network. For more information, refer to the section Port Configuration for DLO Components.
Certificates	This is required for the Backup Over Internet (BOI) capability. In order to configure the BOI capability, an SSL certificate procured from a Trusted CA is a pre-requisite. This certificate is required for the Desktop Agents to communicate with the DLO Edge Server over a public URL. However, for product evaluation scenarios, an inbuilt self-signed certificate is provided in the DLO Installer package for validating the BOI capability. *Note 1: It is recommended to use an SSL certificate procured from a Trusted CA when deploying in production.* *Note 2: With the Veritas DLO 9.3 release, the administrator can configure multiple Edge Servers ensuring an optimized backup flow for the geographically distributed remote office users connected over the internet. For a multiple Edge Server DLO setup, ensure to procure unique certificates from a Trusted CA and the same should be provided while configuring the new Edge Server in the DLO Administration Console.*
Remote Install Considerations	For remote installation of the DLO Maintenance Server and DLO Desktop Agents:

	• To push-install to a computer, you must enable certain items on the destination computer's Windows Firewall Exceptions list. You must enable the following items:
	
	    o File and Printer Sharing
	    o Windows Management Instrumentation (WMI)
	    o Remote Service Management
	    o Remote Registry Service
	
	For more information, refer to the Microsoft Windows documentation https://docs.microsoft.com/en-us/windows/
	
	• To push-install to a computer that runs Symantec Endpoint Protection (SEP) version 11.0 or later, you must configure SEP to share files and printers. The file and printer-sharing feature is turned off by default.

Other Considerations	• The latest service pack should be installed to be able to install the DLO components. *Note: The DLO 9.3.2 version onwards provides support for Transport Layer Security (TLS) 1.2. OS KB articles and SQL related prerequisites required to support TLS 1.2, should be updated manually. TechNote created for this, is also available from the First screen of installer.* • WMI service should be running on all machines where the DLO Server components are installed. • .NET 4.0 or above versions should be installed. http://www.microsoft.com/en-in/download/details.aspx?id=17718 *Note 1: On Windows 2012/ 2012 R2 /2016 Server, it is not mandatory to install .NET 4.0 since .NET 4.5 is installed by default in Windows 2012/2012 R2 Server and .NET 4.6 is installed by default in Windows 2016 Server.*

Port Configuration for DLO Server Components

Process	Port	Port Type	Non BOI Deployment	Exclusive BOI Deployment	Occasional BOI Deployment
DLO Administration Service	3999	TCP/UDP	**Source (Outbound)**: DLO Administration Console **Destination (Inbound)**: DLO Administration Server	**Source (Outbound)**: DLO Administration Console **Destination (Inbound)**: DLO Administration Server	**Source (Outbound)**: DLO Administration Console **Destination (Inbound)**: DLO Administration Server
SQL Server Browser	1434	UDP	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server **Destination (Inbound)**: SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO IO Server **Destination (Inbound)**: SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO IO Server **Destination (Inbound)**: SQL Server
SQL Server	1433 or dynamic port	TCP	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server **Destination (Inbound)**: SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO IO Server **Destination (Inbound)**: SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO IO Server **Destination (Inbound)**: SQL Server
File Sharing/ Browsing	135-139, 445	TCP/UDP	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO Maintenance Server **Destination (Inbound)**: Storage Location Dedupe Storage Location SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO Maintenance Server **Destination (Inbound)**: Storage Location Dedupe Storage Location SQL Server	**Source (Outbound)**: DLO Administration Server DLO Administration Console DLO Dedupe Server DLO Maintenance Server **Destination (Inbound)**: Storage Location Dedupe Storage Location SQL Server

Process	Port	Port Type	Non BOI Deployment	Exclusive BOI Deployment	Occasional BOI Deployment
Dedupe Port	8443	HTTPS	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server
Dedupe Port	8080	HTTP	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Dedupe Server
Dedupe Port	8009	AJP	NA	**Source (Outbound):** DLO Edge Server **Destination (Inbound):** DLO Dedupe Server	**Source (Outbound):** DLO Edge Server **Destination (Inbound):** DLO Dedupe Server
Edge Server Port	443	HTTPS	NA	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Edge Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Edge Server
Edge Server Port	90	HTTP	NA	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Edge Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO Edge Server
IO Server Port	7080	HTTP	NA	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO IO Server	**Source (Outbound):** DLO Administration Console **Destination (Inbound):** DLO IO Server
IO Server Port	7009	AJP	NA	**Source (Outbound):** DLO Edge Server **Destination (Inbound):** DLO IO Server	**Source (Outbound):** DLO Edge Server **Destination (Inbound):** DLO IO Server
Additional Ports for Push Installation	135, 1037, 441,1125 Dynamic Ports (49152 – 65535)	TCP	**Source (Outbound)**: DLO Administration Server DLO Administration Console **Destination (Inbound):** DLO Clients	NA	**Source (Outbound):** DLO Administration Server DLO Administration Console **Destination (Inbound):** DLO Clients

Note: The configuration specified for Storage location will be applicable to Extended Storage Locations as well.

## Port Configuration for DLO Clients

Process	Port	Port Type	Non BOI Deployment	Exclusive BOI Deployment	Occasional BOI Deployment
Edge Server Port	443	HTTPS	NA	**Source (Outbound):** DLO Clients Web Restore Machine **Destination (Inbound):** DLO Edge Server	**Source (Outbound):** DLO Clients Web Restore Machine **Destination (Inbound):** DLO Edge Server
File Sharing/ Browsing	135-139, 445	TCP/UDP	**Source (Outbound):** DLO Clients **Destination (Inbound):** Storage Location Dedupe Storage Location	NA	**Source (Outbound):** DLO Clients **Destination (Inbound):** Storage Location Dedupe Storage Location
Dedupe Port	8443	HTTPS	**Source (Outbound):** DLO Clients **Destination (Inbound):** DLO Dedupe Server	NA	**Source (Outbound):** DLO Clients **Destination (Inbound):** DLO Dedupe Server
Dedupe Port	8080	HTTP	**Source (Outbound):** DLO Clients **Destination (Inbound):** DLO Dedupe Server	NA	**Source (Outbound):** DLO Clients **Destination (Inbound):** DLO Dedupe Server
SQL Server Browser	1434	UDP	**Source (Outbound):** DLO Clients **Destination (Inbound):** SQL Server	NA	**Source (Outbound):** DLO Clients **Destination (Inbound):** SQL Server
SQL Server	1433 or dynamic port	TCP	**Source (Outbound):** DLO Clients **Destination (Inbound):** SQL Server	NA	**Source (Outbound):** DLO Clients **Destination (Inbound):** SQL Server

Note: The configuration specified for Storage location will be applicable to Extended Storage Locations as well.
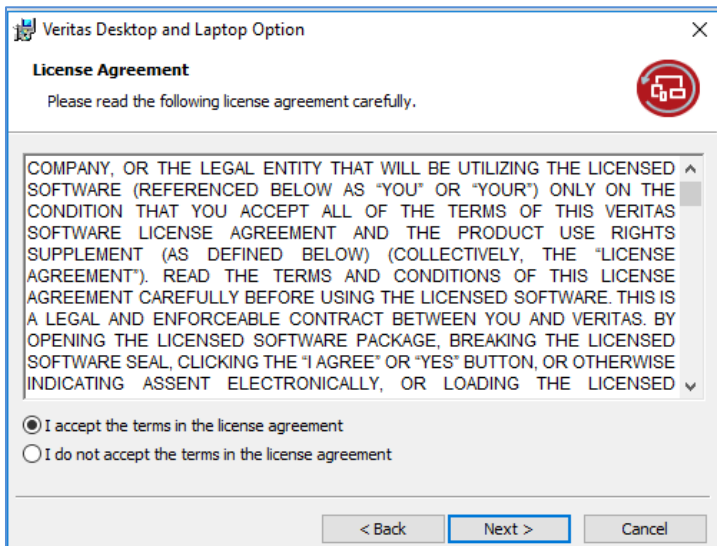
Installing Veritas DLO

The steps to install the DLO setup are as follows:

1. Run setup.exe to start the installation wizard.
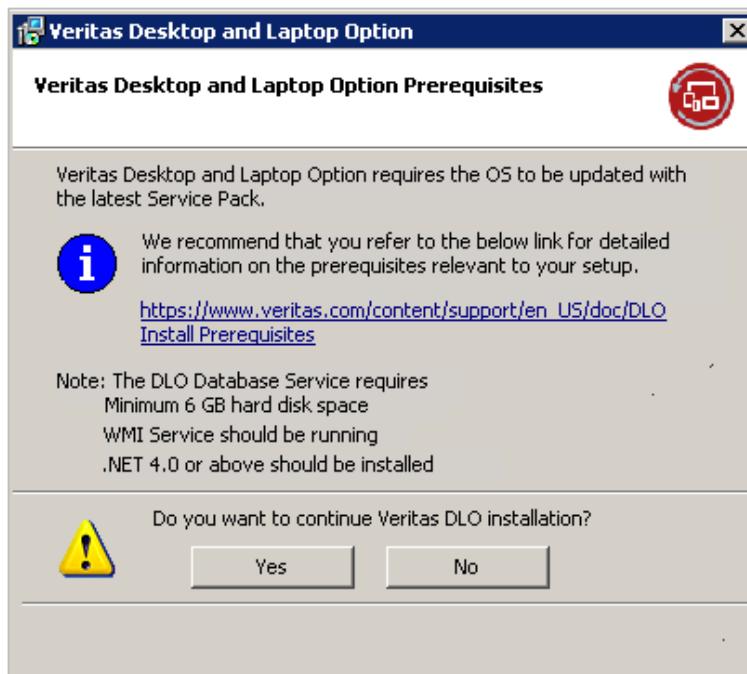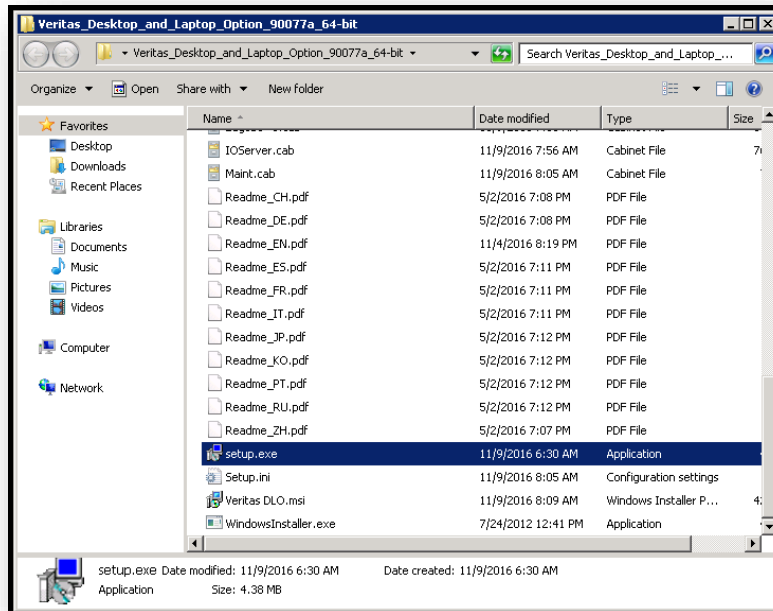
2. View DLO Pre-Requisites and click **Yes** on the DLO prerequisite dialog.
3. Read the license agreement, and if the administrator accept the terms, select **I accept the terms in the license agreement**.
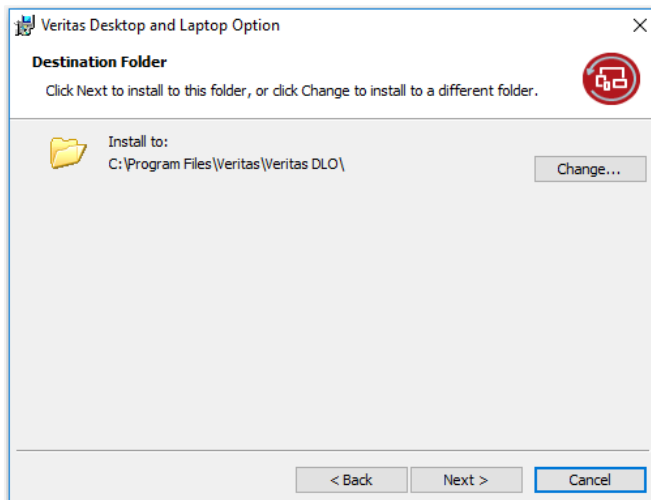
4. Click **Next**.
5. Select the components that the administrator wants to install on the computer.
    - **DLO Administration Console:** Installs the DLO Administration Console.
    - **DLO Administration Server:** Installs the DLO Administration Server.
    - **DLO Maintenance Server:** Installs the DLO Maintenance Server.
    - **DLO Database Service:** Installs the DLO database and Dedupe database.
    - **Dedupe Server:** Installs the Dedupe Server.
    - **Edge Server:** Installs the Edge Server.
    - **IO Server:** Installs the IO Server.

    Note: The administrator can select and install each component on a separate computer, except the DLO Database Service. The DLO Database Service alone cannot be selected for installation; it can be installed along with the DLO Administration Server service.
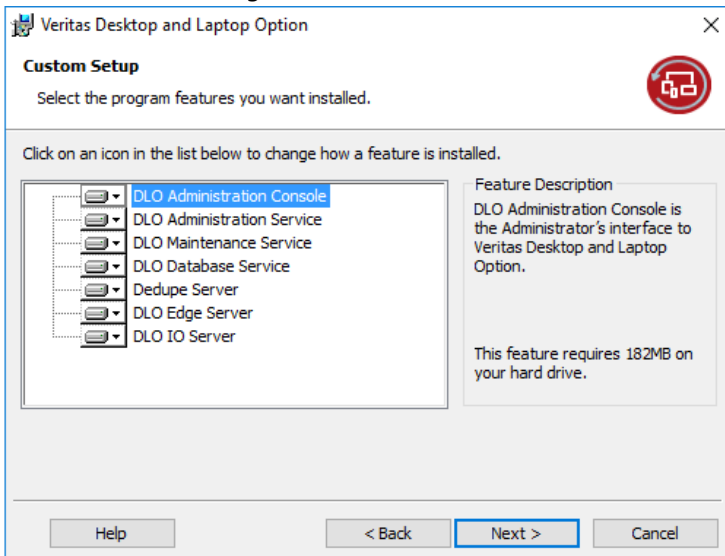
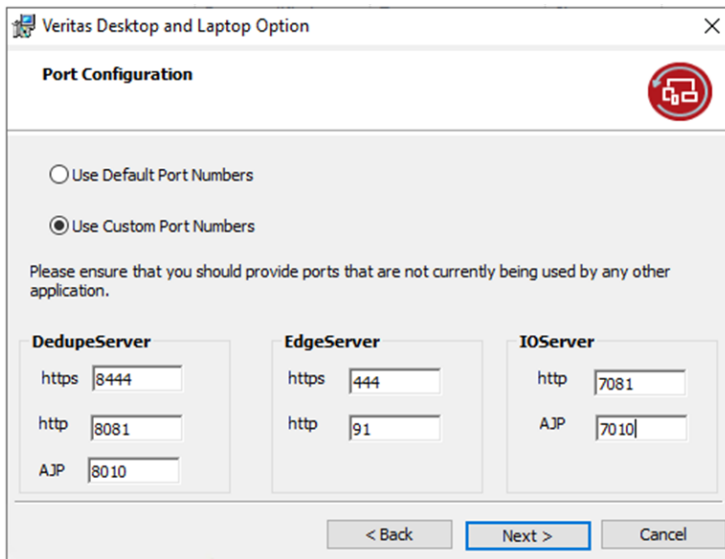6. To install DLO in a different directory, click **Change**.

7. Select the new directory and click **OK**.
8. Click **Next**.
9. Click **Browse** and select the DLO License file.
   Note: DLO provides an inbuilt 60-day trialware license for product evaluation.
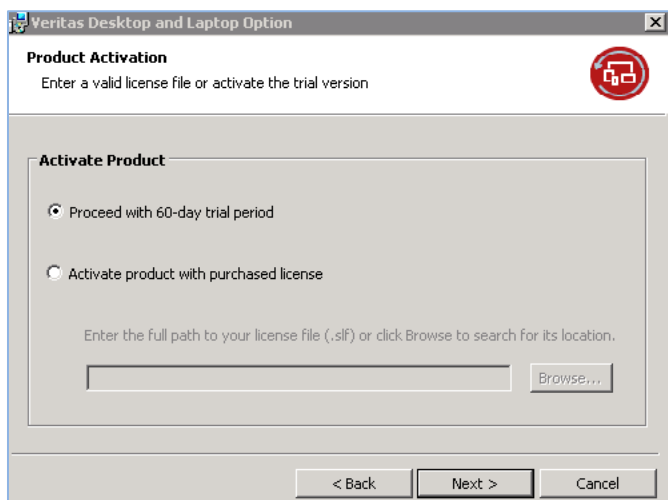
10. Click **Next**.
11. Select Use Default Port Numbers to continue with the default port and click **Next**.
    or
    Select Use Custom Port Numbers to choose customized ports for enabled DLO Server
    Components and click **Next**.

    Note: Customized ports are applicable only for Edge, IO, and Dedupe components which are
    installed on the computer and also please ensure that you should provide ports that are not
    currently being used by any other application.

12. Select one of the following options for the DLO database.
    Note: When you use an existing local or remote database instance, TCP/IP and named pipes must be enabled. Refer the link https://msdn.microsoft.com/en-us/library/ms191294.aspx.

13. Click **Next**.
14. Enter the account credentials, which will be used to create DLO Storage.

15. Click **Next**.
16. Click **Install** to begin the installation.

17. Click **Finish** once installation is completed.
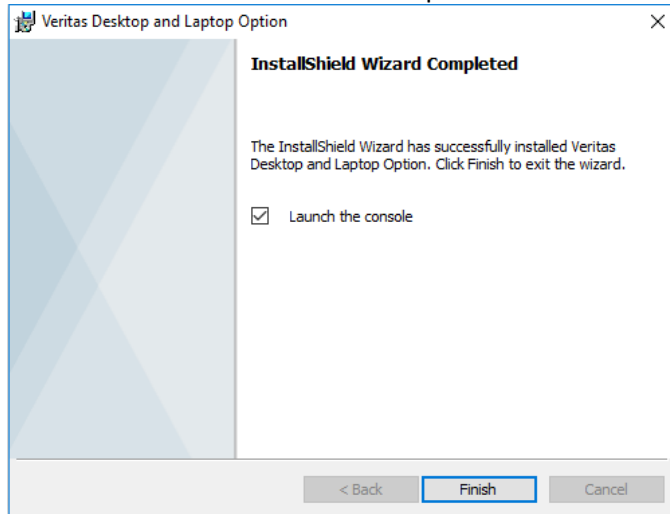
Once the DLO Server components are installed and on the first launch of the DLO Administration Console, the Recovery Password wizard appears. The administrator needs to set the recovery password.

The recovery password enables the administrator to retrieve the backed up data, in case of emergency scenarios where the data can be restored using a point in time database and the storage location, without the need for the DLO Administration Service to be up and running. For detailed information on setting Recovery Password, refer to the section *Setting Recovery Password* in the *Veritas Desktop and Laptop Option Administrator's Guide* available [here](#).

Configuring Veritas DLO

This section provides the administrator with the details to configure Veritas DLO.

On the first launch of the DLO Administrations Console, the 'Desktop and Laptop Option Configuration Wizard' flow automatically pops up. Close the pop up window and proceed with the below steps. Within the scope of this document, the manual configuration of DLO will be discussed.

The steps to configure DLO is elaborated across the below sections:

- Steps to Configure the DLO Server Setup
- Steps to Configure the BOI capability
- Deploying the Desktop Agents

Steps to Configure DLO Server Setup

For DLO to start functioning, follow the below steps in the same order:

1. Add the Dedupe Server to the DLO Administration Server.
2. Add DLO Storage Locations.
3. Create and configure a Profile.
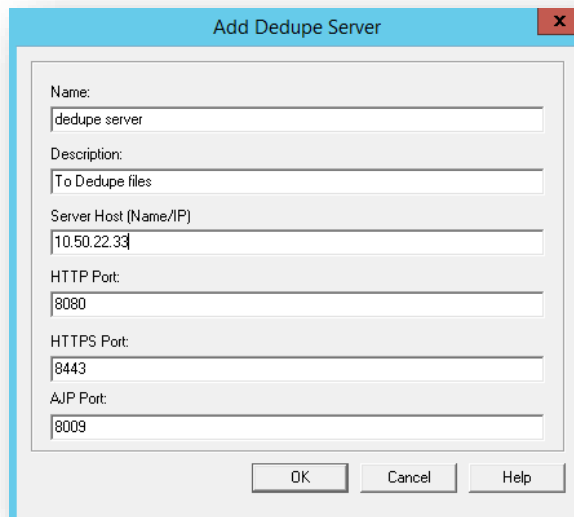4. Configure Users to the created Profile.

The details for each of the configuration steps are covered below:

Step 1 - Add the Dedupe Server to the DLO Administration Server

Dedupe server manages the deduplication of backup files

To add a Dedupe Server
1. Launch the Veritas DLO Administration Console.
2. On the DLO navigation bar, click **Setup**.
3. Select one of the following options to Add a Dedupe Server:
   - In the **Settings** pane, right-click **Dedupe Server**, and select **New Dedupe Server.**
   - In the **Task** pane, under **Setting Tasks**, click **New Dedupe Server.**

Step 2 - Add DLO Storage Locations

Storage location determines where the user data will be stored on the network. Storage Locations should be in the same domain as the DLO Administration Server or in a domain that trusts the administration server's domain.

To create DLO Storage Locations
1. On the DLO navigation bar, click **Setup**.
2. Select one of the following options to create a new DLO Storage Location.

- In the **Settings** pane, right-click **Storage Locations** and select **New Storage Location.**
- In the **Task** pane, under **Settings Tasks**, click **New Storage Location**.

3. Select the appropriate options as described in the following table:

Item	Description
Computer name	Type a computer name or browse to a computer where the administrator wants to create the Storage Location.
Path	Type or browse to a location on the computer where the Storage Location will be created. ***Note***: *Storage Locations should be in the same domain as the DLO Administration Server or in a domain that trusts the administration server's domain.*
Storage Location name	Type a name for the new DLO Storage Location. The name cannot contain any of the following characters: \"@#$%^&*()=+|/{}[]'
Assign Dedupe Properties	Assign the Dedupe Storage Location by selecting the Automatic mode. For extended SL, the Automatic mode option will be disabled, and the user will be able to choose from existing dedupe storage locations or create a new dedupe storage using the Manual option.
Automatic	In the Automatic mode, both the DLO Storage Location and Dedupe Storage Location will be created in the same storage location path that was specified earlier, and the Dedupe Storage Location will be assigned to the default Dedupe Storage Pool. As the administrator is selecting the Automatic mode for the first time provide the user credentials for the Dedupe Storage Location. ***Note***: *For security reasons, read/write access to the Dedupe Storage Locations is not granted to all the users even though they need to read and write data from the Dedupe Storage Locations. Instead, while creating the Dedupe Storage Location, the administrator configures a new user account called "Dedupe Storage Location Access Credential", which is a low privilege domain user account and will be used by the Desktop Agent to access the Dedupe Storage Location. The credentials to be provided as follows DomainName\UserName. A user account with administrator rights is not permitted as a Dedupe Storage Location Access Credential.*

4. Click **OK**.

Storage Location Properties   ✕

Storage Location

Computer name:

A2SYMMD20974

Path:

D:\SL\SL-SL

Storage location name:

SL-SL

☐ Assign Dedupe Properties

Dedupe Server

DedupeServer ▾

Dedupe Storage Location

Default:SL-DSL ▾

◉ Automatic Mode   ◯ Manual Mode   [Create...]

Edge Server:IO Server

[NOT DEFINED] ▾

Summary

Users assigned to this storage location will back up desktop data to user data folders created in the following location and format:

\\A2SYMMD20974\SL-SL\%USERDOMAIN%-%USERNAME%

[OK]   [Cancel]   [Help]

Step 3 - Add DLO Extended Storage Locations

Storage Extension feature lets administrators extend the existing storage location without interrupting the backup process. The Storage Location can be extended before or after the network backup of a Windows or Mac agent user stops in case the storage location or dedupe storage location reaches the maximum disk space available.

To Create DLO Extended Storage Locations
1. On the DLO navigation bar, click **Setup**.
2. In the **Settings pane**, double-click the **Storage Locations** and Click on the name of the Storage Location is displayed.
3. In the Results pane, Right click on SL (Storage Location) and select "**Extend Storage**" to add Extended Storage.
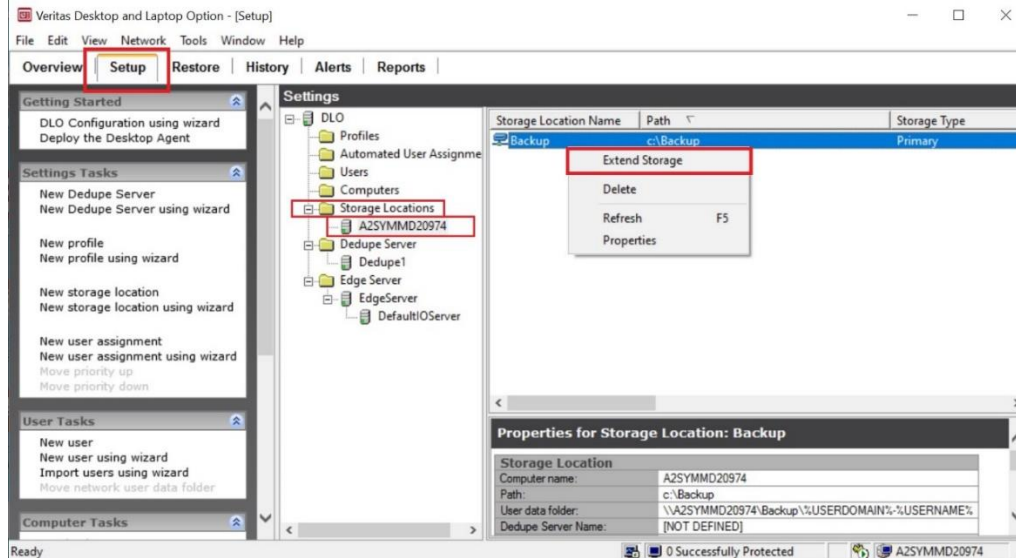
4. The Extend Storage Location Dialogue appears.
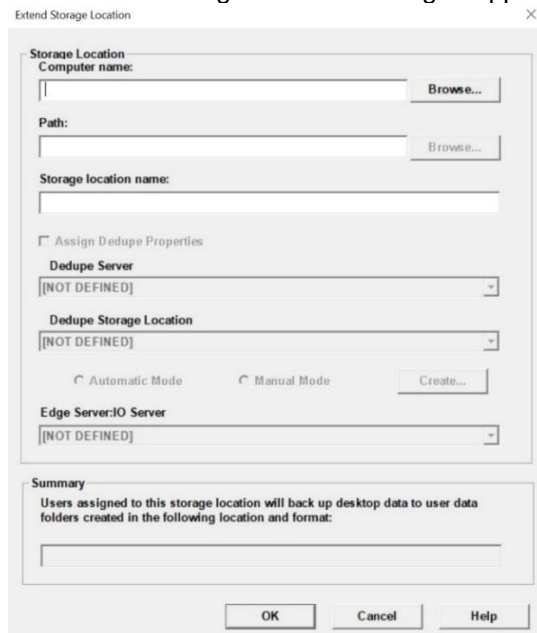
5. Select the appropriate options as described in the Table (Click here).
6. Click **OK**.

Step 4 - Create and configure a Profile

Profiles are used to customize settings for specific groups of similar users. For example, a group of highly technical users may require the option to modify the backup selections and schedules while less experienced users may require a fully automated backup service.

Create a profile, which determines what files are backed up (Backup Selection), when files are backed up (Schedule), and the level of interaction the desktop user has with the Desktop Agent (User Settings).

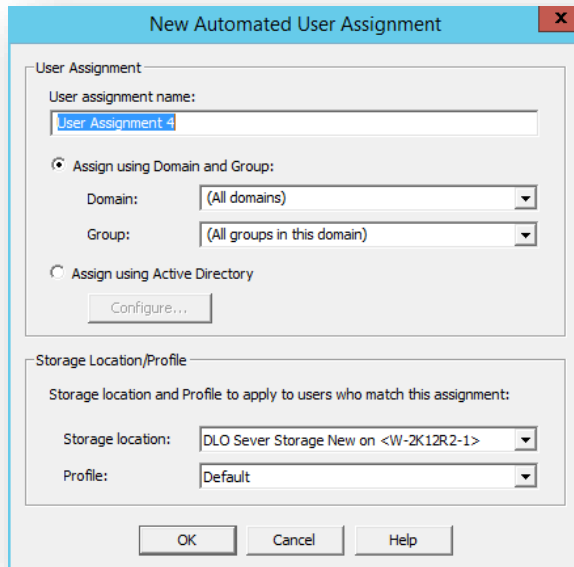In a profile, the administrator can set the following options:

- Backup file and folder selections
- Desktop and network user data folder storage limits
- Backup schedules
- The desktop user's level of interaction with the Desktop Agent
- Logging options
- Network bandwidth usage options for backup and restore operations
- Dedupe backup

Step 5 - Configure Users to the created profile

The users can either be manually added to the profile or the administrator can choose to create an automated user assignment to do this.
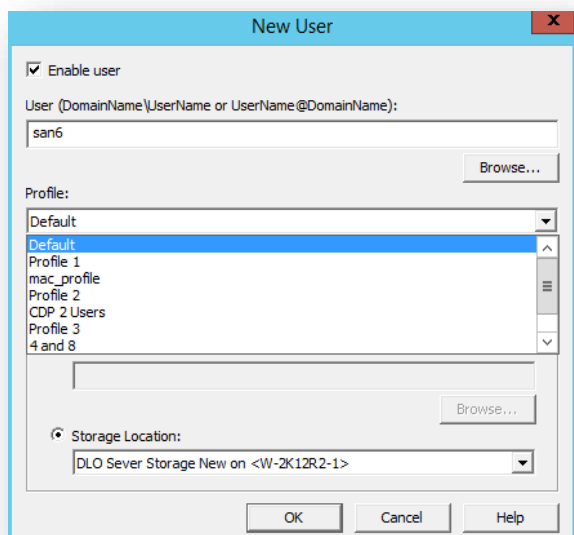
Step 5a -Create Automated User Assignment

Create an Automated User Assignment (AUA) to automatically assign a Storage Location and Profile to new users. Once the administrator selects the Domain and a Group in the domain, selected Storage locations and Profile get assigned to all the users in that Group.

Step 5b Adding user to the profile manually

Instead of using AUA, the administrator can manually add users to DLO and assign a profile and storage location to them. This is particularly useful when network shares already exist for storing user data. Users can be added individually or multiple users can be added at the same time by importing the user names from a list.

Steps to Configure Backup Over Internet (BOI)

This section provides the administrator with the details to configure the BOI capability.

As mentioned in the prerequisites section, an SSL certificate procured from a Trusted CA is required for configuring the BOI setup. However, for product evaluation scenarios, an inbuilt self-signed certificate is provided in the DLO Installer package for validating the BOI capability. Within the scope of this document, the BOI configuration using the inbuilt self-signed certificate will be discussed.

*Note: This section does not include the details for configuring BOI for a DLO setup where multiple Edge Servers are configured. For more details on configuring BOI in a multiple Edge Server setup, refer the **BOI Setup and Configuration Guide** available [here](#).*

For configuring BOI, the below steps need to performed in addition to the [Steps to Configure DLO Server Setup](#).

1. Register a Public IP for the DLO Edge Server.
2. Map the SSL certificate to the Registered Public IP.
3. Map the DLO Edge Server and IO Server to the DLO Storage Location.
4. Test Connectivity to the DLO Edge Server.
5. Enable the BOI option in a Profile.

Step 1 - Register a Public IP for the DLO Edge Server

Register a public IP for the DLO Edge Server, so that Desktop Agents will be able to access the DLO Edge Server over internet.

Note: Once the administrator registers the public IP for the DLO Edge Server, the DLO Edge Server needs to be deployed. Below are listed few options on how the DLO Edge Server can be deployed:

- *Through NAT (Dynamic or static) configured on the firewall.*
- *The DLO Edge Server can reside in Demilitarized zone (DMZ).*
- *Through a Reverse Proxy Server in Demilitarized zone (DMZ) which would redirect all the DLO Agent requests to the DLO Edge Server (residing in the corporate network).*

Step 2 - Map the SSL certificate to the Registered Public IP

Map the SSL certificate (Issued to: dlo.veritas.com) to a registered public IP (of DLO Edge Server) either:
   a. In the Domain Name Server (DNS)
      Or
   b. As a Host entry update in the DLO Edge Server machine.
      Note: If this is a host entry update on the DLO Edge Server, additionally on the Desktop Agents machine, update the host file as below:
      - *Map the **Public IP** to the **Certificate Name***
         - *where the **Public IP** is as present in the **SERVERNAME** entry of the **EdgeServer.ini** file present in the paths*
            - *<Install Path>\Veritas DLO\DLO*

o *where the **Certificate Name** is for the DLO Edge Server. **(Issued to: dlo.veritas.com)***

E.g. : <Registered Public IP> dlo.veritas.com

Step 3 - Map the DLO Edge Server and IO Server to the DLO Storage Location

The DLO Edge Server and IO Server can be mapped to the DLO Storage location either while creating a new storage location or by updating properties of an existing Storage location as below

- **Storage Locations Properties > Edge Server: IO Serve**r

Step 4 - Test Connectivity to the DLO Edge Server
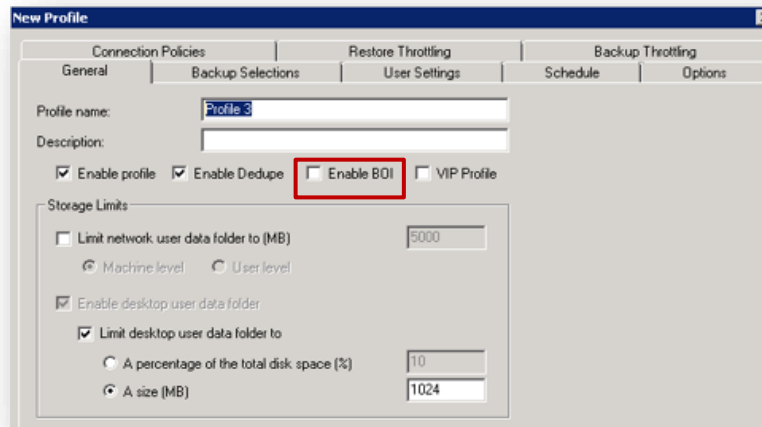
Test the connectivity to the DLO Edge Server by accessing the below URL from any machine with internet connection.

- https://<Public_Edge_Server_IP>

Step 5 - Enable the BOI option in a Profile

The BOI option can be enabled either in an existing profile or while creating a new profile as follows

- **Profile > General > Enable BOI**

Deploying the Desktop Agent

Once the DLO Server is configured, proceed to deploy the DLO Agents on to the endpoints that need to be protected. The Desktop Agent can be deployed through a Pull or Push installation, the details of which are as follows.

Pull Install the Desktop Agent from the Client machines

For client machines that are connected to the corporate network, as part of Non BOI or Occasional BOI deployments, the Desktop Agent package can be obtained from the Server installation directory and installed on the client machines individually as detailed below:

1. Access this path [\\<DLO ServerName\IP>\DLOAgent](\\<DLO ServerName\IP>\DLOAgent) from the client machine where the Desktop Agent needs to be installed.
2. Copy the DLO Agent folder to the client machine.
3. Initiate the Desktop Agent installation.

Pull Install the Desktop Agent from Web Restore page

For client machines that are outside the corporate network and connected using internet connection, as part of Exclusive BOI or Occasional BOI deployments, the Desktop Agent package can be obtained from the Web Restore page and installed on the client machines individually as detailed below:

1. Login to Web Restore using the DLO Edge Server URL https://<Public_Edge_Server_IP> from the client machine where the Desktop Agent needs to be installed.
2. The **DLO Agent** option in the left pane provides the option to download the DLO Desktop Agent package.
3. Download these files and initiate the Desktop Agent installation.

Push Deployment of the Desktop Agent

For client machines that are connected to the corporate network, as part of Non BOI or Occasional BOI deployments, the Desktop Agent can be installed directly for individual or multiple client machines through the push installation as detailed below:

Proceed with the following steps for the Push Deployment:

1. Launch the DLO Administration Console.
2. On Tools, select **Install Agents and maintenance services on remote computers** and click **Next**.
3. On **Install Agent | Maintenance Server to Remote Computers**, select **DLO Agent**.
4. Click **Add**.
5. In Manual Entry of Remote Computer Name, enter the following details:
    a. **Name/IP Address**: Enter the computer name manually or click the **Browse** button to choose the computer name.

b. **Domain Name**: Enter the domain name of the remote computer.

c. Click **OK**

6. Enter the domain user credential through which installation should be proceeded. Make sure this credential has local administrator privileges on the client machines.

7. Click **OK**.

8. In **Remote Computer Selection Window**, click on **Install** to proceed with the installation.
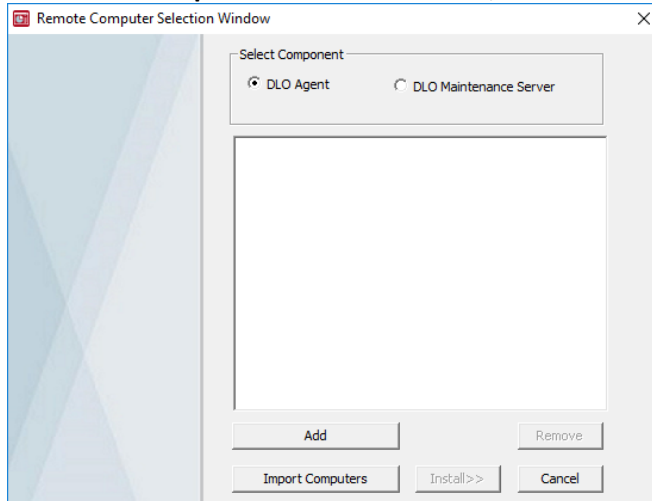
9. To exit, click **Finish**.

Note: *For push installation of the Desktop Agent on a client machine, ensure that the relevant ports are configured as detailed in the **Additional Ports for Push Installation**. For client machines with Windows 8 or later version, ensure that the remote registry services are enabled and running.*

For deploying the Desktop Agents onto the Mac endpoints, refer to the *DLO Mac Getting Started Guide* available here.

Backup and Restore Verification

Once the DLO Agents are deployed on the client machines, the administrator can configure the backup jobs to ensure the endpoints are protected.

Configuring a Backup Job

To configure a backup job, select the appropriate options available for profile creation. For the scope of this document, Enable Dedupe option is selected for the backup profile. In case the Edge Server and the IO server have been configured, Enable BOI option can be selected.
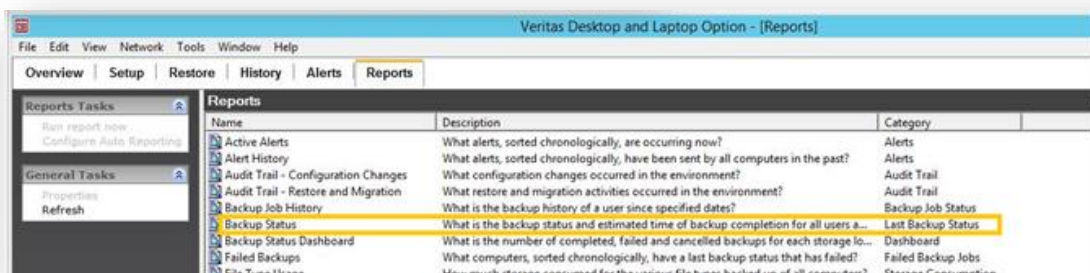
To add a backup selection

1. On the DLO navigation bar, click **Setup**.
2. In the **Settings** pane, click **Profiles**.
3. In the **Results** pane, select the profile for which the administrator wants to add a backup selection.
4. In the **Task** pane, under **General Tasks**, click **Properties**.
5. Click the **Backup Selections** tab in the **Profile** Properties dialog box.
6. Choose the backup selection from the available list and click **Add**.
7. Click **OK**.

Backup Verification

Once the backup job is run, the administrator can verify the endpoint backup status from the Backup Status Report.

For running the Backup Status Report:
1. Launch DLO Server Console.
2. Go to **Reports** tab.
3. Run **Backup Status** Report.

4. Backup Status report appears.

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Backup Status

S. No.	User	Machine	Profile	Time when Agent was Last Active	Time of Last Successful 100% Backup	Files in Backup Selections	Size of Backup Selections (GB)	Backup Completion (% Based on Source Size)	Files Pending for Backup	Estimated Time for Backup Completion (Hours: Minutes)	Average Time Available for Backup (Hours:Minutes per Day)
1	GODAVARI\user1	cat02	Profile 1	2021-06-23 17:08:33.650	2021-06-23 16:44:55.000	29	0.36	100	0	0:00	01:10

Date: 6/23/2021 5:14:28 PM — This report was generated by Veritas Desktop and Laptop Option. Veritas and the Veritas Logo are trademarks or registered trademarks of Veritas Technologies LLC or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners. — Page: 1

Some of the key fields from this report are also displayed in the History and Restore tabs of the DLO Administration Console.

Interpretation of the Backup Status Report

- Time when Agent was Last Active – This column displays DLO Agent's last active time when the Desktop Agent was able to communicate to the server. The DLO agent in a computer interacts with the DLO server every 15 minutes to update the status of that computer and that's when the report gets updated as well. As long as there is network connectivity between the agent and the server, this communication continues and this latest time of interaction is what is displayed here.

- Time of Last Successful 100% Backup – This column displays the last time when the Desktop Agent backed up user's data completely. In simpler terms, this is the time stamp when the machine had achieved a 100% Backed up status (all files in the Backup selection backed up). In case of this column being blank for a computer, it could be interpreted as the first backup, as the computer has not been backed up completely even once.

- Files in Backup Selections– This column displays the Total number of files that are available in the Backup Selections. In case some file extensions were excluded from the backup selection using the filters, these files are not included in the count.

- Size of Backup Selections (GB) - This column displays the Total Size of files that are available in the Backup Selections. . In case some file extensions were excluded from the backup selection using the filters, these files are not included for this size calculation.

- Backup Completion (% Based on Source Size) – This column displays the Percentage of Backups completed. This completion percentage is in terms of the Size of the files in the Backup Selection. For example, 4 Files, namely – A, B, C and D are in backup selection with sizes 1, 1, 2 and 6 GBs respectively. When A, B and C files have been backed up, the Backup completion shows 40%.

- Files pending for backup – This column displays the total count of files in the Backup Selection that are still not backed up. In the above example, file D is still not backed up and hence the count 1 is displayed.

- Estimated time for backup completion - This column displays the amount of time required for the remaining backups to complete. These estimates are calculated based on the time taken for backups taken in that machine in the past 7 days. It is displayed in Hours: Minutes format. This column was added with the DLO 8.0 SP4 version and will not feature for the DLO 8.0 SP3 version.

- Average time available for backup – This column displays the average time that the Desktop Agent is available for a backup in a day. It is calculated based on the average availability of the agent in the past 7 days. It is displayed in Hours: Minutes per Day. Based on this information and the estimated time for backup completion, in the previous column, the Administrator can calculate the Time for Backup completion in Days.

- DLO 100% Backup Completion Report - DLO now provides a complete list of all users/computers in the environment who have successfully completed the backup 100% at least once.

   *Note: Backup Summary fields like Backup Completion may reflect value '0' for some computers in the Backup Status report, History tab and Restore tab. Fields like **Backup Completion** are not*

supported for computers with Windows desktop agent versions prior to DLO 8.0 SP3 and Mac agent versions prior to DLO 9.1. To resolve this issue, the agents need to be upgraded to the latest supported version.

Restore Verification

Restoring files to an Alternate Path on the Same Machine
- Launch the DLO Server Console.
- Go to **Restore** tab.
- Select a User-Machine that needs to be restored.
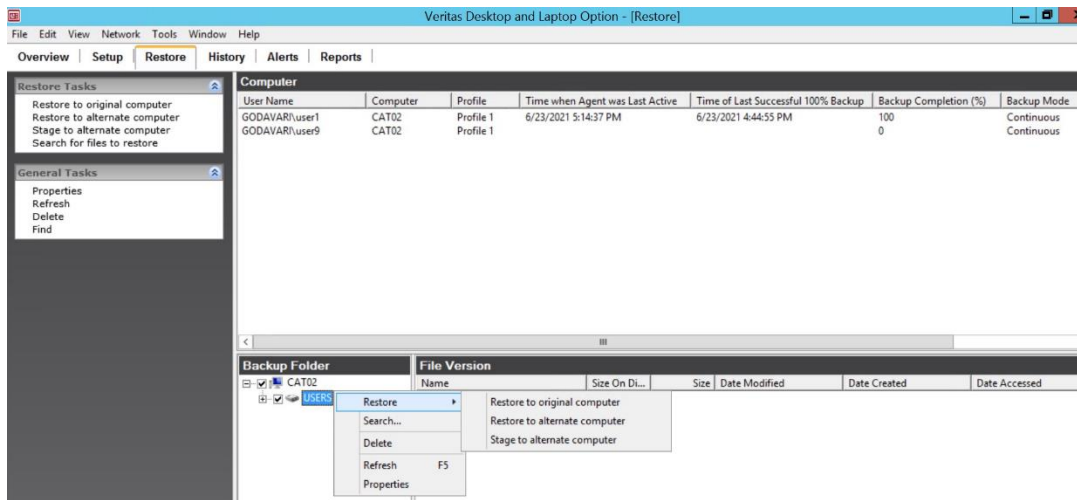
- Traverse to the required folder, select the files right click and select **Restore to Original Computer**, below dialog appears.
  Note: When trying to evaluate restore of an entire machine, ensure that you are selecting a machine that has achieved 100% Backup Completion.
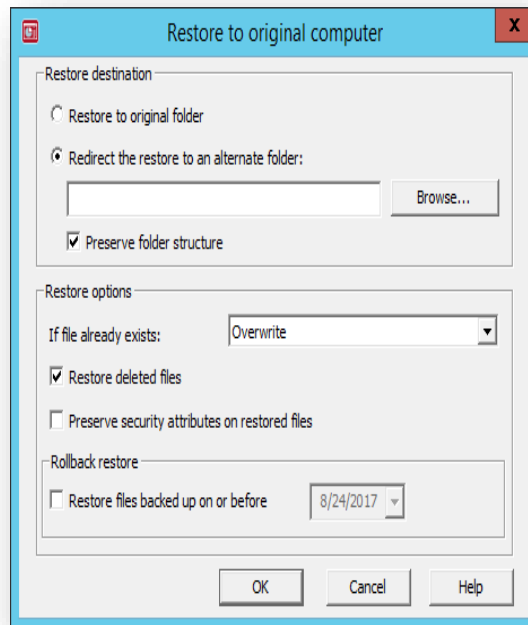
- Select **Redirect the restore to an alternate folder** and specify an alternate folder path.

  Note: *With this option, it is easier to validate the Restore size and Count of files restored.*

- Click on **OK** to initiate and track the restore progress on the Client machine.
- To validate the integrity of the Restore data, compare the File count and File size of the Restored folder with the 'Backup Status' report columns like - Files in Backup Selections and Size of Backup Selections (GB).

In case of any discrepancies, it may be because of:
- All folders are not selected for Restores
- New files would have been backed up after the Backup Status report was generated.

DLO Documents Reference Links

All DLO documents for this release are available here.