

Go! Elephant Online Backup Frequently Asked Questions

Go! Elephant



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1. Installation

- 1.1. Is software installed on any other machines at the site that we are backing up?**
Only two pieces of software are installed on the customer's LAN either on the source machine or on separate machines: Go! Elephant Backup Client that collects data and sends it to the Go! Elephant Online Backup Data Center, and Go! Elephant Backup User that acts as the user GUI and enables configuration of all backups and restores.
- 1.2. How is the Go! Elephant Backup Client connected to our network?**
The Go! Elephant Backup Client has one network connection to your network and one connection to Go! Elephant's network/internet (with access to the Go! Elephant's DS-System). This flexible approach allows Go! Elephant to integrate fully with your current configuration.
- 1.3. Who installs the Go! Elephant Online Backup service?**
Go! Elephant will install the Go! Elephant Backup Client unit and the Go! Elephant Backup User Console at your site and provide the necessary training. If the installation is particularly complex or remote sites are involved, onsite support is available at a daily rate.
- 1.4. Can Go! Elephant Backup Client be installed through RDP?**
Installation of Go! Elephant Online Backup software can be done through a Remote Desktop Connection. Once installed, Go! Elephant Backup Client can be managed through a remote session or can be managed through a Go! Elephant Backup User GUI installed remotely.

2. Setup of Backup Sets and Schedules

- 2.1. What access permissions does the backup user require?**
The backup user is responsible for backing up and restoring all the data on your network, it is essential that access permissions are of administrative equivalence. Go! Elephant Online Backup can only back up data that this user can access. A less privileged user may be restricted, causing data to be missed from the backup.
- 2.2. Who is responsible for setting up initial backup sets and schedules?**
As part of the installation training, Go! Elephant will ensure that all your main servers are sensibly configured to ensure that all the data to be protected is backed up. Additionally, you will be invited to send your nominated backup administrator for a full day of training at one of Go! Elephant's in-house training courses.
- 2.3. Who is authorized to use the Go! Elephant Backup User GUI?**
Go! Elephant will set up users with access to create and maintain backup sets and schedules. Only people with a user ID on the Go! Elephant Backup Client or on the Domain it belongs to will be able to administer its functions.

2.4. Can users administer backups for their own machines?

Multiple user accounts can be created for use on the Go! Elephant Backup Client and access permissions can be set per backup set. These permissions can be any combination of Backup, Restore, Delete or Modify privileges. For Example, a particular user could be given access to backup and restore only their own machine.

2.5. What frequency of backup can be set?

Backups can be time-based and configured as often as every minute or as infrequently as once a year. More advanced schedule options include the last working day of the month or even one off backups on a particular date. Backups can also be triggered based on events. Continuous Data Protection (CDP) captures each change to a file regardless of the time interval.

2.6. What level of granularity is possible in setting up the backup, i.e. file level/individual database?

A backup set can include a whole server, share/volume, directory or even a single file. The backup set could even include just the registry.

2.7. Can one machine be prioritized over another?

There are 99 different priority levels that can be assigned, ensuring maximum flexibility when organizing your backup schedules.

2.8. Can multiple machines be backed up simultaneously?

Any number of machines can be backed up simultaneously. However, as network bandwidth is a factor, Go! Elephant would recommend 8 at once in a LAN environment with a 32-bit DS-Client and 12 at once in a LAN with a 64-bit DS-Client (default values for a DS-Client installation).

2.9. Can the software be set to stop backing up after a certain time has elapsed?

Yes, the software is designed to fit specific backup windows. Go! Elephant Online Backup can be told what time to stop at, for example at 8:00am when employees are starting their workday, or maybe at 5:00am if there is an important batch process to run.

3. Data Processing & Go! Elephant Backup Client

3.1. If Go! Elephant Online Backup is agentless, how does it access our data?

The Go! Elephant Backup Client uses standard APIs to capture requested data within the LAN. Therefore, the nodes to be backed up are Agentless since the Go! Elephant Backup Client interfaces directly with all supported platforms and application through APIs.

3.2. Is data held on the Go! Elephant Backup Client or does it pass straight through?

The Go! Elephant Backup Client acts as a gateway only, passing data through after it has been compressed, de-duplicated and encrypted. A database showing information on what has been backed up is held on the Go! Elephant Backup Client, but no actual data files are retained. Alternatively a local storage can be configured on Go! Elephant Backup Client LAN. In this case, backup data is also held locally.

3.3. How is the first backup done, given that there will be a lot of data?

For large data volumes, the initial backup may be done utilizing a portable unit, backing up at LAN speeds to a large array of disks. When the full backup of your data is complete, the disks are transported back to Go! Elephant's Data Center. Future backups, which are purely incremental (incremental forever), will be transmitted via the WAN and synchronized with your initial backup data at the Data Center.

- 3.4. Do we need to create a user for Go! Elephant Online Backup on all our servers?**
No, but a dedicated user is recommended and it should be set for no password expiration or if password expiration policies must be enforced, use the DS-Client's Password Rotation feature. In a domain, or NDS environment, a user on each machine isn't necessary as one central user can be created with access to all the resources that require backing up.
- 3.5. Is the Database on the Go! Elephant Backup Client backed up?**
Yes, by default the Go! Elephant Backup Client backs up its own database at 6:00am every morning, although this time can be changed, if desired.
- 3.6. What happens if too much data is passed to the Go! Elephant Backup Client?**
The Go! Elephant Backup Client only requests data as it can process it and will not pull more data across the network than can be processed. The data sits in a queue and as soon as part of the queue frees up, the Go! Elephant Backup Client gets more data for processing.
- 3.7. What is data de-duplication?**
De-duplication is one of the ways that the Go! Elephant Backup Client reduces the raw data from your network servers across all remote offices to a size that can be transmitted over the WAN. It ensures that the same data is never transmitted offsite more than once, thereby saving the bandwidth to transmit only new, unique data. It achieves this simple elimination by generating a digital signature of each file as it is backed up and comparing it against the known details of all previous files. If the digital signature matches a previously backed up file, it must be a duplicate and only a shortcut need be transmitted up the line. Due to the way this technique is applied, it does not matter if the files are on different servers, at different offices or even have different filenames.
- 3.8. What is delta blocking?**
Delta blocking is a technique that divides all files into blocks. When the file is detected to have changed, the digital signature of each block is compared against the last known digital signature for the same block of the same file (stored in the database on the Go! Elephant Backup Client. Any blocks that are different are pulled out to be re-transmitted. These delta blocks will also be compressed and encrypted before transmission.
- 3.9. What happens if a server stops or crashes during backup or if the backup is interrupted for some other reason?**
If the backup is stopped, for whatever reason, it will retry the operation based on the configuration of the Go! Elephant Backup Client. If all retries fail it will continue onto the next backup in its schedule. It will not revisit the failed backup set until the next time it is set to run, e.g. the following night, at which point it will pick up where it left off. If however the problem has been rectified and the backup window allows, the backup can be restarted manually, immediately. However, if the backup set is configured with local storage cache the backup will continue its operation by backing up the data locally to the configured buffer.
Go! Elephant has a dedicated team monitoring the progress of backup events 24x7. If a problem occurs, it will be escalated through the appropriate channels.
- 3.10. Does the Go! Elephant Backup Client hold a connection open to a server all the time?**
No, unless CDP is configured the Go! Elephant Backup Client will only connect to your servers during the specified backup schedule, therefore it will not use valuable connection at other times.
- 3.11. How many versions of my backed up files are held offsite?**
The number of versions is a parameter that the system administrator can set. Unlike a tape backup, where the routine is to rotate tapes in a cycle, Go! Elephant Online Backup will only back up a new version of a file when it changes, guaranteeing that the customer is not wasting space backing up exactly the same version more than once. The number of versions stored can be configured on an individual backup item basis. By default, each backup item stores 30 versions, if applicable. Each backup set can be configured down to include just one file if desired, giving you the ability to maximize the efficiency of the storage.
- 3.12. What platforms are supported?**
Go! Elephant Online Backup offers Agentless support for a range of network platforms.

- Extensive OS Support: Windows 2008, Windows 7, Vista, NT, 2000, XP, 2003, Mac OS X, XenSource, VMware, Novell Netware, IBM AIX, SUN Solaris, HP-UX, HP-Tru64 UNIX, IBM iSeries, Red Hat Linux, Novell Suse Linux, etc...
- Extensive Database/Application Support: MS SQL Server, MS Exchange Server & Outlook 2000/2003/2007, Oracle, IBM DB2, MySQL, PostgreSQL, IBM Lotus Notes/Domino Server, Novell Groupwise, SAP, MS SharePoint

For more details, see Installation and Backup and Restore Support Matrix for the current version of the software.

3.13. Can the software backup Permissions on files?

Yes, Go! Elephant Online Backup can backup local/NFS/SSH supporting Unix permissions, POSIX file names and soft links. Also, for NTFS volumes Go! Elephant Online Backup can backup both permissions and Alternate Data Streams. Permissions and Extended Netware Attributes can also be backed up for Netware.

3.14. If the software is agentless, how are databases such as MS SQL and Exchange backed up?

Microsoft developed SQL and Exchange with the backup requirement in mind. Both products can respond to API calls requesting the services to dump their data, while online, to an external destination. In Go! Elephant Online Backup's case the product simply asks the specified MS SQL or Exchange server to stream the data to the Go! Elephant Backup Client where it is delta blocked and transmitted offsite. This process is a totally supported Microsoft function and guarantees compatibility with your existing Microsoft systems.

3.15. Can Go! Elephant Online Backup run pre and post commands on servers?

Yes, even though Go! Elephant Online Backup is an agentless solution, it is still capable of running commands on remote servers. For example, shutting down a database or application running on a server to back it up and restart afterwards, or perhaps interact with some overnight batch processing.

3.16. How does Go! Elephant Online Backup handle open files?

Open files are an issue in most backup environments. If a file is open exclusively on a workstation, it is the server's responsibility to stop anyone else, including a backup application, accessing that file.

To help counteract these issues Go! Elephant Online Backup has a range of options which handle open files. These options, combined with use of the Pre and Post commands, enable the backup of almost any file. Go! Elephant Online Backup also can use Microsoft VSS which handles access to open files. More complex environments such as Oracle or DB2 can usually be configured to dump their data into a normal file which will be delta blocked and backed up as normal unless the specific Backup Set type is not used.

3.17. How does Go! Elephant Online Backup handle time zones?

Go! Elephant Backup Client and Go! Elephant Backup Server run using the time zone set on the machine clock.

3.18. Does a drive defrag negatively affect deduplication?

Go! Elephant Online Backup performs block-level deduplication on files. File system maintenance tasks do not affect files at the level in which Go! Elephant Online Backup influences them. Disk defragmentation will not negatively affect deduplication in any way.

3.19. What happens if the machine the Go! Elephant Backup Client resides on fails?

First you need to install an operating system on new or repaired hardware. Then, Go! Elephant will re-install the Go! Elephant Backup Client with the same encryption keys and the same account/Go! Elephant Backup Client numbers and recover Go! Elephant Backup Client DBs from Go! Elephant Backup Server. Go! Elephant Backup Client can however be installed as grid, thus offering redundancy in case of failures.

3.20. Is it possible to change Go! Elephant Backup Client features once it has already been installed ?

Yes. This is accomplished through reconfiguring the parameters on Go! Elephant Backup Server. In this case Go! Elephant should be contacted to perform the operation.

- 3.21. Can Go! Elephant Backup Client run on Fedora Linux?**
No, the Go! Elephant Backup Client is not supported running on Fedora Linux. The Linux versions the Go! Elephant Backup Client is supported on are RedHat and SUSE.
- 3.22. How do I specify a “Solaris” backup?**
Using the Linux Go! Elephant Backup Client, in the New Backup Set Wizard, select Local File System, NFS, UNIX-SSH. There are no specific backup types for different versions of Unix or Linux.
- 3.23. Is Go! Elephant Online Backup able to backup an Exchange cluster through just the passive node?**
Yes. There is a feature available in the MS Exchange Database Backup Sets that allows backup of the MS Exchange DB clusters using passive node. This option can be found in the New Backup Set Wizard and is simply a checkbox.
- 3.24. When my Go! Elephant Backup Client connects to the Go! Elephant Backup Server, does it come through as the LAN IP of the Go! Elephant Backup Client or my Public IP?**
The Public IP. The Go! Elephant Backup Client establishes a TCP connection to the Go! Elephant Backup Server IP Address provided or DNS name.
- 3.25. Can Oracle be used as the Go! Elephant Backup Client database?**
No. Windows Go! Elephant Backup Client supports Microsoft SQL Server database instances and Linux Go! Elephant Backup Clients supports PostgreSQL as the back end database.
- 3.26. Can the content of any notification email be changed?**
The content of notification emails cannot be modified. The subject of notification emails can be changed.
- 3.27. Does Go! Elephant Online Backup support third party open file managers when VSS is not available?**
Yes, Go! Elephant Online Backup does integrate with third party open file managers like St. Bernard OFM.

4. Monitoring

- 4.1. How do we control and monitor Go! Elephant Online Backup?**
During installation the Go! Elephant Backup User is installed on as many or as few workstations as required and will require a valid logon, ensuring no unauthorized access. The Go! Elephant Backup User GUI acts as your interface with Go! Elephant Online Backup and enables the configuration of all backups and restores. The DS-Client Monitoring module can also be used to monitor the activities on the DS-Client.
- 4.2. How does the Web Portal module help monitor backup sets?**
The Web Portal module provides a web point of entry for monitoring client backups. It stores client account and configuration information as well as Web Portal logs. Go! Elephant can set up the web portal so each customer is associated with a unique Go! Elephant Backup Server IP address or DNS. Web Portal shows the last backup time and the completion (successful, with errors, premature) for each backup set through its reports. If a backup set completes with errors, the number of errors are shown. A variety of reports can be generated to statistically review backup (the number and duration of their connections, number of activities, number of files, protected size etc.) and restore (number of activities, number of files, over a specified period) activities. The Web Portal can also be used to search and download archive data from BLM Archivers.

5. Compression, Encryption and Security

5.1. Why is encryption done?

Go! Elephant Backup Client performs compression and encryption before sending data to Go! Elephant's Data Center. This ensures security because:

- Data can be restored only by the Go! Elephant Backup Client that backed it up, or by another Go! Elephant Backup Client that was installed using the same encryption types and keys as the Go! Elephant Backup Client that backed up the data.
- Someone monitoring data being transmitted between Go! Elephant Backup Client and Go! Elephant's Data Center would intercept only encrypted data blocks. This ensures that access to confidential file content is not possible.
- Data stored is also encrypted in the Go! Elephant's Data Center. Meaning that only the customer can have access to the backed up data once it has been recovered. The customer is the only person who knows his/her unique encryption keys.

5.2. To what standard is data encrypted?

Go! Elephant Online Backup's encryption is FIPS 140-2 certified. FIPS certification is given through the Cryptographic Module Validation Program (CMVP) that was established by NIST (*National Institute of Standards and Technology*) and the Communications Security Establishment (CSE) of the Government of Canada. Products validated as conforming to FIPS 140-2 are accepted by the Federal agencies of both countries (Canada and U.S) for the protection of sensitive information.

5.3. What do you mean by compression? What happens?

Compression can be likened to letting the air out of a balloon. Although the air has gone, the structure still exists and it can be re-inflated easily. The advantage is that it takes less room. Files, especially databases, are often full of empty space, which can be removed to make the file smaller for transit, whilst making it very easy to recreate. A conservative compression to expect with Go! Elephant Online Backup is 3:1 for the initial backup.

5.4. Why is data compressed?

Compression reduces the amount of data transmitted to the Go! Elephant's Data Center, making backups faster, as well as reducing storage space. Compression is particularly useful for slow communication links and/or very large files.

5.5. Is there added compression on already compressed files (e.g. zip files)?

Zip files and other compressed files are already efficiently compressed. Go! Elephant Online Backup cannot improve on the compression, but the file will only be transmitted once. If the file should change, then delta blocking will be used to ensure only the changed portions of the file are re-transmitted. By default Go! Elephant Online Backup will not perform compression on files that are already compressed.

6. Transmission Off-Site

6.1. Is a WAN connection secure?

The Go! Elephant Online Backup service utilizes a WAN to transmit data offsite. All backup data is compressed, de-duplicated and encrypted prior to transmission. Go! Elephant Online Backup encryption is FIPS 140-2 certified. Additionally, all communication between Go! Elephant Online Backup software is encrypted with a random encryption key. This is infinitely more secure than many current backup policies, e.g. 3rd party couriers taking tapes offsite, onsite storage where tapes are left in cupboards overnight.

6.2. What happens if the communication line breaks?

As part of the Go! Elephant Online Backup solution, software will automatically attempt to reconnect three times at five minute intervals and will continue the backup process at the block level when the communication line is re-established.

6.3. Does all of our data get transferred every time a backup is scheduled?

Only new and unique data will get backed up after the initial backup. Duplicate or unchanged files will not be transmitted.

6.4. At what point is the data deemed to be backed up offsite?

The data is backed up in real time, so when the administration console indicates that the backup is complete - it is also an indication that the backup data is offsite.

6.5. During the backup process are bandwidth notifications available?

Go! Elephant Backup Client can be configured to send notifications if a backup set completes successfully, completes with errors or does not complete. Notifications can be sent via SNMP traps or email notifications. Go! Elephant Online Backup do have a bandwidth throttle which can be scheduled for certain times of the day. However, there is not an alert available to notify if bandwidth usage exceeds some threshold. Use the bandwidth throttle functionality to cap to that threshold.

7. Offsite Storage at Go! Elephant

7.1. Is the backup data held on disk or tape off site?

Go! Elephant Online Backup is a disk to disk solution where data is held on disk for rapid access times and is additionally replicated to an alternate location.

7.2. Is backup data secure and separate from other customers' data?

Yes. Authentication is performed between the relevant Go! Elephant Backup Client and system unit each time they connect to re-verify the authenticity of the Go! Elephant Backup Client. Additionally, the backup data is held encrypted. Only the customers' unique encryption keys will decrypt the data.

8. Restoring Data

8.1. At what point is the data available for restore?

The data is available for restore immediately after it has been backed up and is confirmed to be held offsite.

8.2. Can an individual file be restored?

Yes, you can restore an individual file and also specify which version you want to restore.

8.3. How does Go! Elephant Online Backup handle message level restores for emails?

The Message Level Restore (MLR) module allows users to selectively backup and restore individual mailboxes and email messages for one user or for an entire email server, depending on needs. Using selective filtering, users can save time and resources by restoring only selected mailboxes or emails, instead of having to restore the entire Exchange, Domino or GroupWise servers.

- 8.4. Can you restore a whole backup set to a point in time, e.g. last Monday?**
Yes, Go! Elephant Online Backup will display all the files that were backed up on any given day. Providing the backed up files have not been deleted by an administrator or overwritten by more recent versions, then it is possible to restore up to any given date.
- 8.5. Can data be restored to a different machine on our network?**
Yes, the restore data can be redirected as desired. You are able to browse the network and provide connection credentials for the redirected restore location, just as you do for creating the backup set.

9. Disaster Recovery

- 9.1. Can we prioritize which data is restored in the event of a disaster?**
Yes, you can select easily which files/directories/servers you wish to restore. There is no need to restore non-essential data until a later time if desired.
- 9.2. What happens if the Go! Elephant Backup Client and/or the whole site is lost?**
Go! Elephant can interact closely with your disaster recovery and business continuity plan, providing a portable unit of disks, holding your data and a new Go! Elephant Backup Client to any required site. This site may even be the site of your disaster recovery company. This combination of portable unit and new Go! Elephant Backup Client can enable LAN speed restores to reconstruct servers and workstations.
- 9.3. Can we perform a test re-build of the Go! Elephant Backup Client and restore data?**
Yes, Disaster Recovery drills can be performed periodically if requested.

10. Local Storage

- 10.1. Is it possible to have a copy of the backed up data locally on Go! Elephant Backup Client LAN?**
Go! Elephant Backup Client can be configured to store up to the last 30 days of backup locally to the DS-Client LAN in compressed format. This storage option is in addition to keep the data on the Go! Elephant Backup Server and provides option for fast local restores of large data sets in case of disasters and recoverability of data in the event that the Go! Elephant Backup Server is unavailable.

11. Data Protection

- 11.1. Can Go! Elephant Online Backup backup laptops?**
Absolutely. Go! Elephant Online Backup software can backup laptops with our DS-Mobile Client application that has a small footprint, CPU and bandwidth throttle and secure, efficient transmission of data or with the Go! Elephant Online Backup DS-Client.
- 11.2. How do I backup a NetApp appliance?**
A NetApp appliance is backed up the same way as any other NAS device. You do so by backing up the data through exported shares (i.e. CIFS shares for Windows, NFS shares for Linux).
- 11.3. What is LAN Discovery?**
LAN Discovery is a tool used to discover data within a network that can be protected with a DS-Client in that location. LAN Discovery allows the Go! Elephant to generate reports about data volume, location, duplicate data, access trends and storage space.

11.4. Why is a statistical backup useful?

Statistical-mode backup is a method that performs a “dry run” on a backup set. This process performs 100% of the functionality of a regular backup with the exception of sending data to the Go! Elephant Backup Server. Actual deduplication and compression statistics are generated along with information regarding the amount of net-new data created and backup set completion time. With all of the information contained in reports after running a statistical backup, Go! Elephant can give a customer a real-world costing and performance estimate.

12. Virtualization

12.1. How does Go! Elephant Online Backup protect ESX servers?

Go! Elephant Online Backup uses the Linux Go! Elephant Online Backup DS-Client to perform backup and recovery of virtual machines at the VM-level. The Go! Elephant Online Backup DS-Client interfaces agentlessly with ESX server or Virtual Center to perform backup without the need for any other 3rd party products. Recovery can be performed to any ESX server.

12.2. Can Go! Elephant Backup Client run on a virtual machine?

Yes. Go! Elephant Backup Client can run on Windows, Red Hat or SUSE native or virtual machines.

12.3. If I backup both VMWare ESX host side and guest OS side, will files that are backed up from the guest side be de-duplicated when you backup the VMDK file from the host side?

Go! Elephant Online Backup de-duplicates at the block level. Since all the guest OS files appear as one large VMDK file from the host side, individual files backed up from the guest side will not be de-duplicated within the VMDK file. However, if the same file was stored in multiple different directories on the guest side, these would appear as repeating blocks within the VMDK file and these blocks would be de-duplicated.

12.4. Can I backup VMWare environment with a windows Go! Elephant Backup Client?

If you want to backup the VM from the host side (i.e. backup the VMDK and associated files), you must use the Linux Go! Elephant Backup Client. However, a Windows Go! Elephant Backup Client can backup and restore Windows Virtual Machines through the guest Windows operating system. A Windows Go! Elephant Backup Client can also be used to backup and restore via VMWare Consolidated Backup and File System Backup Sets.

12.5. I want to backup the same VMguests via VMDK and system/file level. If I backup a VMDK, and the same system via file level, that has for example ~100 Word docs, will the VMDK dedupe against the file level backup or just against the other VMDK?

VMDK refers to extension of the files that implement virtual machines. Thus, the VMDK is normally a single file (depending on configuration a VMDK can also be split into chunks) and looks for duplicate VMDK files. It is doubtful that any two VMDK files will be identical. Therefore, VMDK will not dedupe against files backed up from the guest. The incremental VMDK backups will only backup the blocks that change within the VMDK file.

12.6. Is Go! Elephant Online Backup capable of restoring one file within an ESX without restoring the entire guest?

Yes. However, VM-level backups of ESX hosts are recommended for DR purposes and whole machine recoverability. File-level backup sets may be necessary to meet the most granular restoration requirements. Often a hybrid approach of both VM-level and file-level specific backups makes sense.