Using Backup Protection

If you have yet to purchase Backup Protection via your 100TB Console account or installed the Backup Protection agent, then please read our guide on Getting Started with Backup Protection.

A note on Storage Quota

A key consideration when backing up your data (whether using 100TB's Backup Protection or any other service) is how much storage you need available for your backup. There are several factors that influence this decision:

- **How much source data do you have and how quickly is it growing?** You may wish to purchase enough storage quota to cover several months of expected growth or you may wish to operate a 'just-in-time' approach.
- **How frequently do you wish to create new backups?** Backing up your data every day will result in a higher requirement for storage quota. Even though each backup (beyond your initial backup) only stores the data changes – more backups will always need more storage.
- **How changeable is your data?** If your backup is stable and doesn't change frequently, then each backup will be relatively small in comparison to the original backup, equating to a lower storage requirement. However, if your data changes frequently, then each backup will be larger, hence leading to a bigger overall storage requirement.
- **How long do you need to retain data for?** The longer your data retention period, the more storage quota you will need.

Always make sure to keep an eye on your storage quota consumption. You can manage your storage quota from the Backup Protection tab in the Dedicated Servers area of Console. Backups will fail should you run out of storage quota, so it's important to manage your approach to backups and/or purchase additional storage quota to ensure this doesn't happen.

Running a Backup Now

You can run a backup at any time, by going to the Dedicated Servers area, clicking on the server in question, and clicking the **Backup Protection** tab. To run a backup immediately click **Backup Now**.

Note that depending on how much source data is being backed up, it may take some time to complete your first backup. Subsequent backups should complete much faster, depending on how much data has changed since your last backup. In any case, please do not attempt to run another backup until you've had confirmation that the first backup has completed.

Creating a backup schedule

You can create a backup schedule using either daily, weekly, or monthly backups.

To create or amend a backup schedule:

1. In the **Backup Protection** tab, you will see details of any existing backup schedules previously created. To make changes, click **Edit Schedule**.
2. To create a daily backup schedule – choose the time window you wish to run your backups within.
3. To create a weekly backup schedule – choose the day of the week you wish your backups to run.
4. Click **Save**.

Specifying which files and folders to exclude from backups

By default, all files and folders on your server will be backed up when you use Backup Protection. However, in some circumstances, you may wish to exclude certain files or folders.
To specify which files to exclude from your backup:

1. In the Backup Protection tab, click **Exclude Backup Files.**
2. You will see a file structure showing all folders, sub-folders, and files on your new server. Navigate through the file structure and select the folders and files you wish to exclude from your backup.
3. Click **Exclude Selected.** You'll see a summary of the folders and files to be excluded.
4. Click **Exclude** to confirm the list.

If you want to make changes to the list of excluded files/folders, then you can click Exclude Backup Files at any time to make amendments. You can see a list of previously excluded files/folders below your server's file structure and can stop excluding these as necessary.

A couple of points to note:
All files and folders will be included in your backup unless specifically excluded. This means that new files/folders will always be backed up when added to your server. You will always need to run a full backup of your server initially so that Backup Protection has a complete view of files and folders on your server. After that point, you can specify files and folders to be excluded from subsequent backups.

History Log

Once backups start running on your server, the History Log will show details of recent backups run, including the time, date, and confirmation of whether the backup was successful.

If you see any error messages in the History Log, please refer to the Troubleshooting section below for additional help.
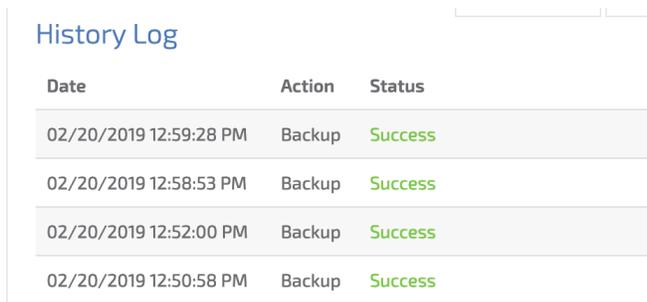
History Log

Date	Action	Status
02/20/2019 12:59:28 PM	Backup	Success
02/20/2019 12:58:53 PM	Backup	Success
02/20/2019 12:52:00 PM	Backup	Success
02/20/2019 12:50:58 PM	Backup	Success

Restoring from a backup

Each time a backup runs on your server, a restore point is created. This is essentially a copy of all data on your server and included in your backup, that you can use to restore from if necessary. Depending on your data retention policy, you may have many different restore points available.

You can choose to either restore the entire backup onto your server or to restore only certain files and folders.

To run a complete restore from a restore point:

1. In the **Backup Protection** tab, click the **Restore Point** button.
2. If you wish to restore the entire backup, then identify the restore point you wish to restore from and click **Restore**.
3. The restore process may take several minutes to complete. Please do not attempt to run another restore during this time.

To restore only certain files and/or folders from a restore point:

1. In the **Backup Protection** tab, click the **Restore Point** button.
2. Find the restore point you wish to restore from, and click **Browse**. This will open a file structure view showing all folders, sub-folders, and files available.
3. Navigate through the file structure to select the files/folders you wish to restore, then click **Restore Selected**.
4. You'll see a list of files to be restored. To confirm this list, click **Restore**.
5. Again, the restore process may take several minutes to complete. Please do not attempt to run another restore during this time.

Bare Metal Restore

A Bare Metal restore is used to restore everything including the server's operating system, software applications, and files stored on the server. If you need to perform a Bare Metal restore, please contact 100TB Technical Support and we will help you with the process.

Troubleshooting

Here are some common problems you may run into. If you're still having problems after referring to the information below, please contact 100TB Technical Support and we will be happy to help you.

The Backup Protection agent won't install on my server.

Ensure that you've entered the correct root credentials (root username and password) for your server. Note that these are not the same as your 100TB account username and password. The root credentials are provided to you when your server was created. However, you may have changed them since. If you've forgotten your credentials please contact 100TB Technical Support.

I'm getting an error saying that backups have not run properly.

It could be that you're running low on storage quota and there isn't enough space to run the next backup. Check how much storage quota you have available in the Backup Protection tab for your server. If you're running low on storage quota, you can either purchase additional storage quota or amend your data retention strategy to keep fewer restore points. Remember that each restore point consumes a portion of your storage quota, so more restore points require more storage quota.

I'm getting an error about a server compatibility issue.

Another reason that backups can fail is due to compatibility issues between the Backup Protection agent and the Linux kernel version in your server's operating system. If you've recently updated your operating system or made changes to your server's kernel version, you may need to install additional drivers to ensure ongoing compatibility with the Backup Protection agent.

To do this, make sure the kernel headers & development packages **for your respective kernel version** are installed, and that all related software packages are using the latest versions available. You can use your operating system's respective software package manager to do this.

Commands to install the additional kernel headers and development packages are shown below for the CentOS and Ubuntu operating system. You may need to restart your Backup Protection agent after these updates.

CentOS:

```
yum install -y kernel-headers-$(uname -r)
yum install -y kernel-devel-$(uname -r)
r1soft-setup --get-module
/etc/init.d/cdp-agent restart
```

Ubuntu:

```
r1soft-setup --get-module
/etc/init.d/cdp-agent restart
```

Alternatively please contact100TB Technical Support and we can help you with this.

My firewall is blocking access to the Backup Servers.

If you're running a firewall on your server then ensure that port 1167 is open – this is the port the Backup Protection agent uses by default to communicate with the backup servers.

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To specify which files to exclude from your backup:

1. In the Backup Protection tab, click Exclude Backup Files.

1. You'll see a file structure showing all folders, sub-folders and files on your server. Navigate through the file structure and select the folders and files you wish to exclude from your backup.

1. Click Exclude Selected. You'll see a summary of the folders and files to be excluded.

1. Click Exclude to confirm this list.

If you want to make changes to the list of excluded files/folders, then you can click Exclude Backup Files at any time to make amendments. You can see a list of previously excluded files/folders below your server's file structure, and can stop excluding these as necessary.

A couple of points to note:

- All files and folders will be included in your backup unless specifically excluded. This means that new files/folders will always be backed up when added to your server.

- You will always need to run a full backup of your server initially, so that Backup Protection has a complete view of files and folders on your server. After that point, you can specify files and folders to be excluded from subsequent backups.