Back Up

Saturday, 15 April 2023 17:27

Why doing backups?

SSD (Solid State Drive) or HDD (Hard Disk Drive) can fail, in fact, they all have a limited lifetime like anything else, so in case this is happening, you are in risk of losing all your stored data. As long as you have a copy in some other device, you can rely upon that and continue you daily tasks with minimal disruption.

The hardware failure is not the only reason why you should do backups. There are many others among the which are:

1. Your laptop can be lost, stolen or have physical damage.
2. User involuntarily deleting files or making mistakes (you can rollback from those mistakes with the backup).
3. You are victim of a ransomware attack and your hard disk gets encrypted, therefore you cannot access the data anymore.
4. For compliance with certain regulations you are obliged to keep data for a certain period of time.

Why is a backup policy so important?

A backup policy will set the method/s used to backup the data and restore it. It will cover the following topics.

1. Backup Coverage. What needs to be back up.
   This topic has to be discussed and may be changed over time. In principle everything will be backed up
2. RPO (Recovery Point Objective)
   Max amount of data loss the company may accept. In the worst case scenario this can be accepted to be up to 7 days. Due to versioning and retention.
3. Versioning and Retention
   Versioning is referred to the different techniques used to backup. There are mainly 3 different techniques.
   3.1 Full backup. Full copy of the data we want to backup up.
   3.2 Incremental. We don't make full backups everyday. Instead we ¨increment the existing backup¨ with the information that is new.
   3.3 Differential. We make backup of all the new information since the last full backup.
   You can see the differences between incremental and differential below.

Image extracted from https://www.easeus.com/backup-utility/differential-backup-vs-incremental-backup.html

For retention, this is also subjected to change but for the time being that will be 2 years, only for billing.

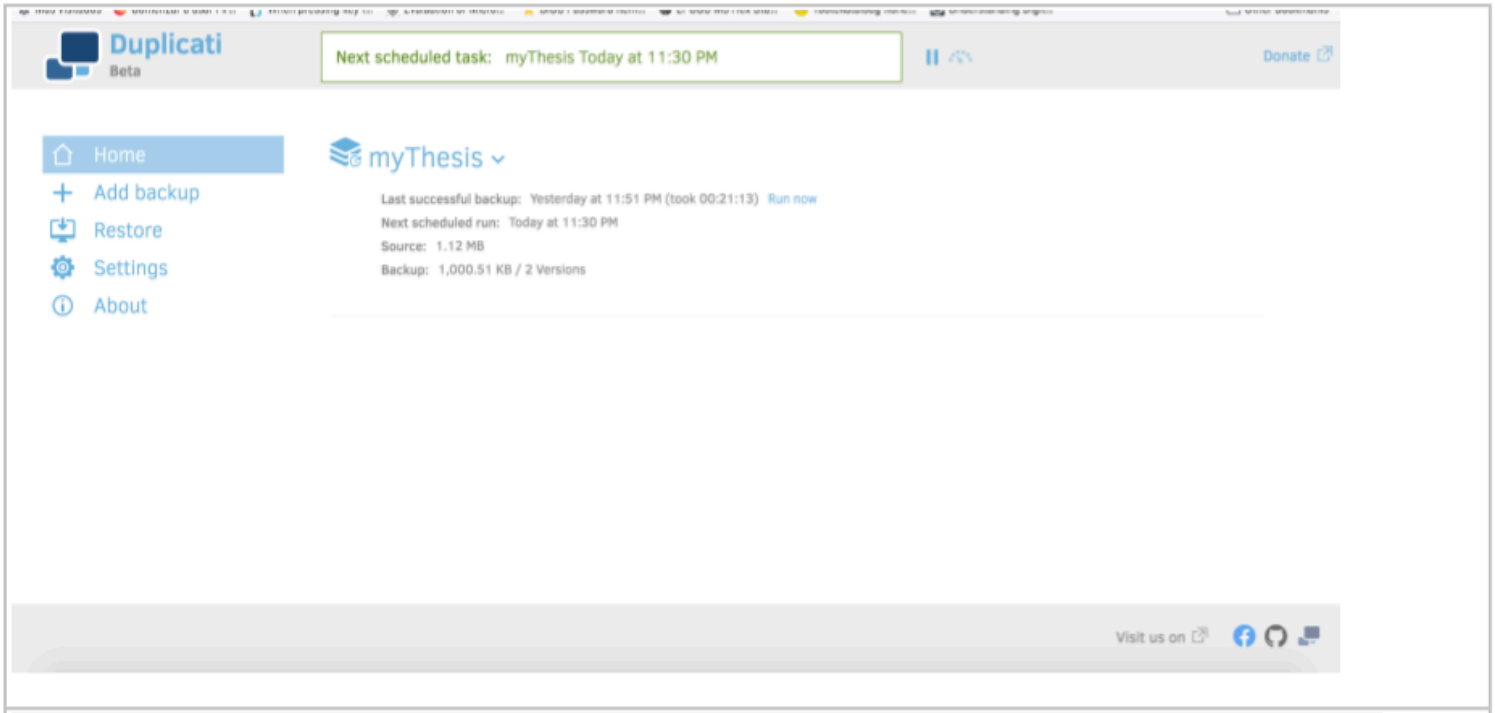
Solution Proposed

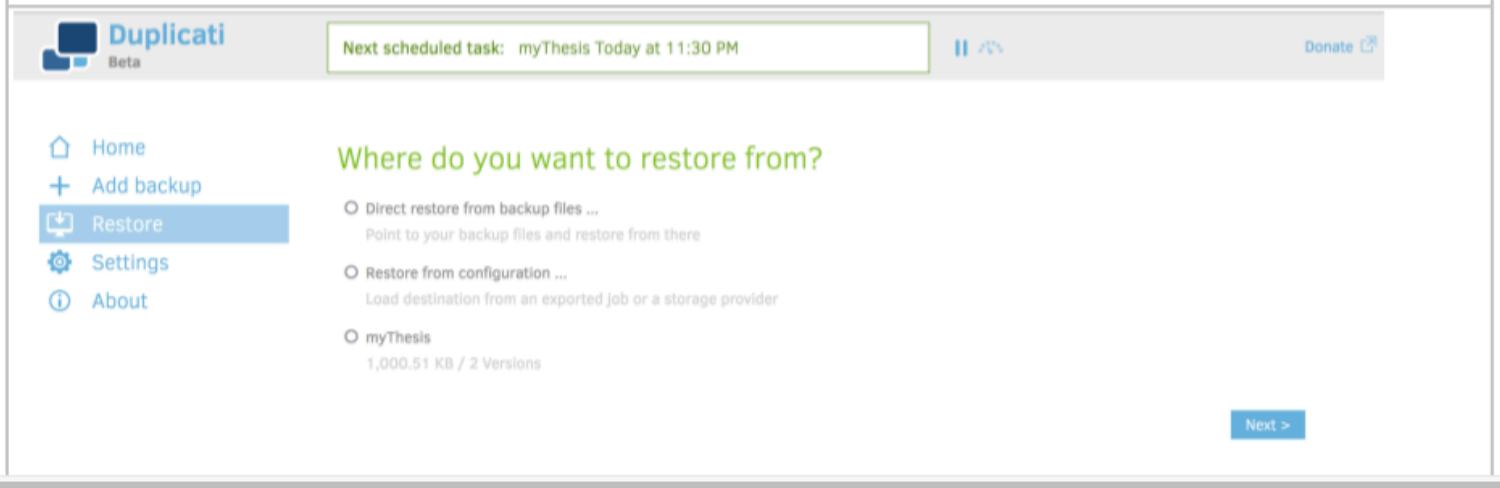
The solution proposed for the purpose of backup is **Duplicati**. It meets some very important requirements and can adjust to the companies' new challenges. It can be scheduled, offers encryption, incremental backup and compression. **Duplicati** can adapt to perform backups to local or remote servers or cloud as well as external physical drives.
It is very convenient to do set up once and not having to manually trigger it or care too much about it.

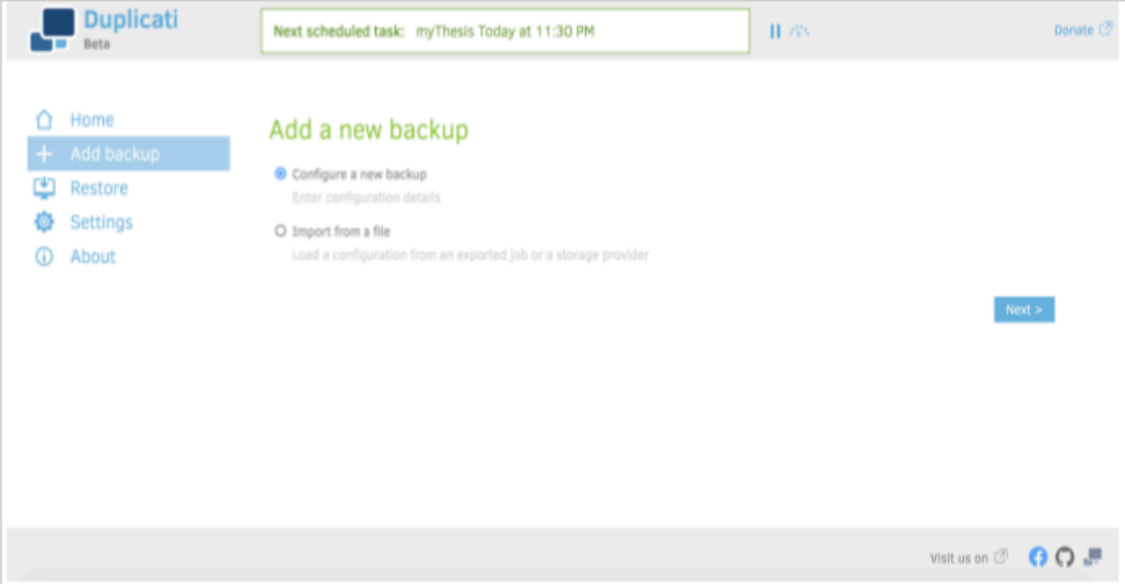
	It is very important to check that the operations are being running successfully from time to time. At least one every week and try to restore data at the beginning with several trials and then once every month.

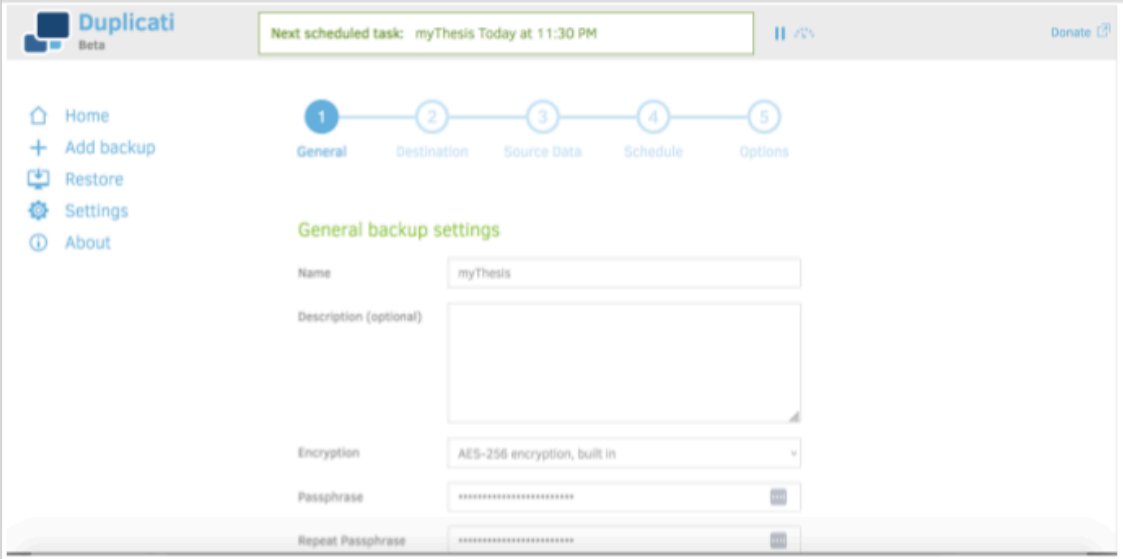
Installation

The installation link here. Below, some screenshots of a trial made. A web interface with the basic menus for create the set up , restore backup and some options of the setup like the encryption used.









For step by step easy guide you can follow this YouTube video tutorial in here