Universal worldwide cloud-based SaaS platform
for 3rd party desktop software

User Manual 5.0

June 22, 2023

Content

GeoCloud proprietary

1. Practical recommendations before you start working.

1. Read the **User Manual** carefully. This will help you to operate the platform efficiently and economically.
2. Visit GeoCloud YouTube channel https://www.youtube.com/channel/UCTZKjxhkl5qd3wu7-y1oGUg?view_as=subscriber. There are videos on English, Spanish and Chinees languages.
3. Start with small projects to understand how the platform works and what to expect from it.
4. Look at **Benchmarks** to estimate the time needed to process your data.
5. Use **Price Estimation calculator** (in the bottom of the SELECT APPLICATION page) to estimate the budget needed for your project.
6. Check your credit card daily and monthly limit to be able to refill your budget if it is needed during your work.
7. **Pay attention!**
   a. The TCP 3389 port must be open on your local computer for RDP connection.
   b. Don't use disk C: of the application computer for your data. Use only GeoCloud storage or Ephemeral disks.
   c. If you use Fixed storage, be sure that you have enough storage for temporary files and final products generated by the software you work with. The Fixed storage can be resized at any time before or after processing. The volume of the temporary files depends on the program you use and may vary from 4 to 10 times the size of your original data.
   d. Elastic storage eliminates the above limitations of Fixed storage but may be used only with Linux computers.
   e. Ephemeral disk has a constant size and cannot be resized. It exists only while an application computer is working. The Ephemeral disks disappear automatically, and all the data deleted after stopping the computer. If you use Ephemeral disk, before stopping the computer, copy relevant data from the disk to GeoCloud storage or download it.
   f. You pay for every hour of use. Every not full hour is considered as a full hour.
   g. If your balance is negative and you have stopped Storage in your account, the Storage will be kept for 24 hours and after that it will be completely deleted with all your data without the possibility for data recovery.
   h. Read the messages that sent to your email by GeoCloud (Section 19) – the platform monitors the behavior of your storage and computers and send you messages at various critical points of your processing.

2. The User Manual and Legal Documents

Read the User Manual before starting to work. You can access the User Manual on each page by clicking the **"?"** located at the top right of each page.

The following legal documents are at the bottom of the main page:

For software vendors | Terms of use | Privacy policy | Software Licenses

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3. Your working environment

There are no special requirements for your local hardware. You can work with any desktop computer, laptop, tablet or even a mobile phone.

Windows, Mac OS, Linux, Android, or iOS can be installed on your local device. Use Remote Desktop (RDP) on your Windows, Android, or iOS device to connect to your virtual computer in Geocloud. Windows typically comes with the Remote Desktop client installed. If you don't have it installed, follow the instructions: https://support.microsoft.com/en-us/help/4028379/windows-10-how-to-use-remote-desktop

Mac OS users can use the following Microsoft Remote Desktop for Mac to work with the virtual computer on Geocloud: https://apps.apple.com/us/app/microsoft-remote-desktop/id1295203466?mt=12
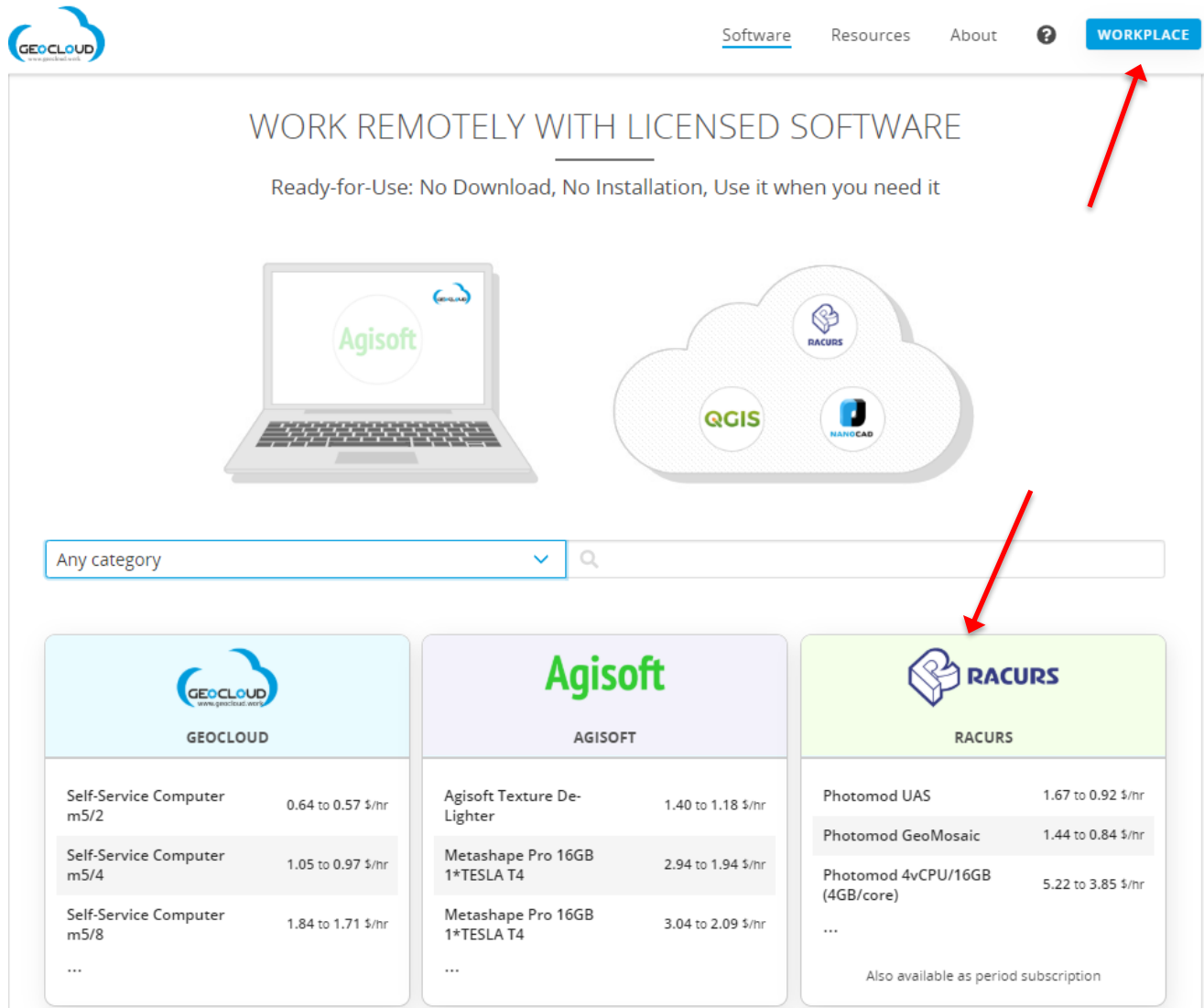
To connect from Linux to Geocloud's virtual computer using Remote Desktop, read the following:
https://opensource.com/article/18/6/linux-remote-desktop
https://www.ubuntupit.com/fast-and-secure-remote-desktop-clients-for-linux/

All work with applications (software products) is performed on remote virtual machines. Each software product is installed on a separate computer with specifications defined by the software vendor. Sometimes the same software is installed on computers with different specifications (Windows, Linux, RAM, CPU, GPU), which makes it possible to provide this software at different prices and with different processing productivity or different functionality.

You use the Internet to connect to GeoCloud and to upload/download data. Your local Internet speed can affect the smoothness of interactive work with applications and the time of data uploading/downloading. Internet speed does not affect processing performance on remote computers.

4. Start working (enter the Workplace)

To start working, click the **Workplace** button or the icon of one of the companies on the main page.

You will be forwarded to the SELECT APPLICATIONS page

5. Registration

New users must register and create an account, and registered users can log in. If you are a registered user and log in from your permanent computer, you will be automatically redirected to your account without any additional logins.
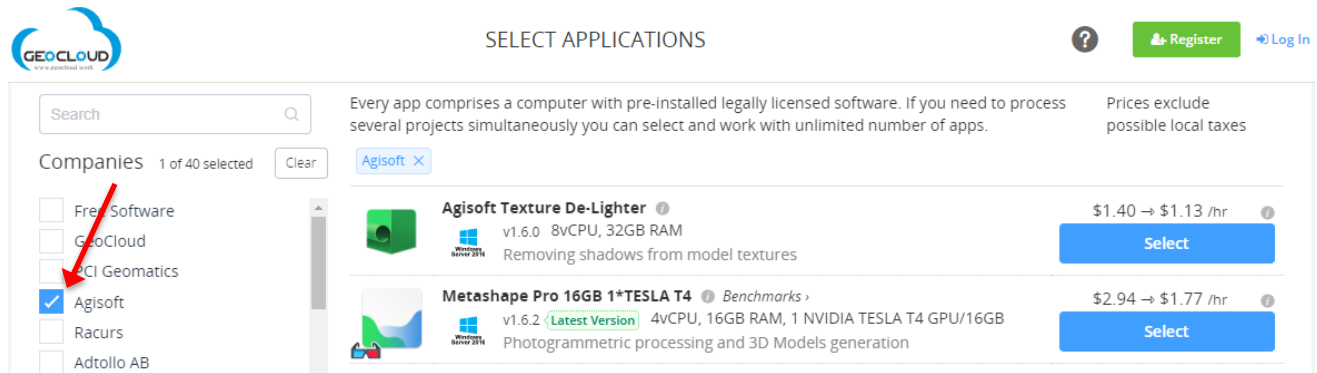

You can register and/or log in with your Google account.

After the registration, you will return to the SELECT APPLICATIONS page.

6. Select Applications

You can search for Applications by company or category, or simply by entering the desired application name in the search box.
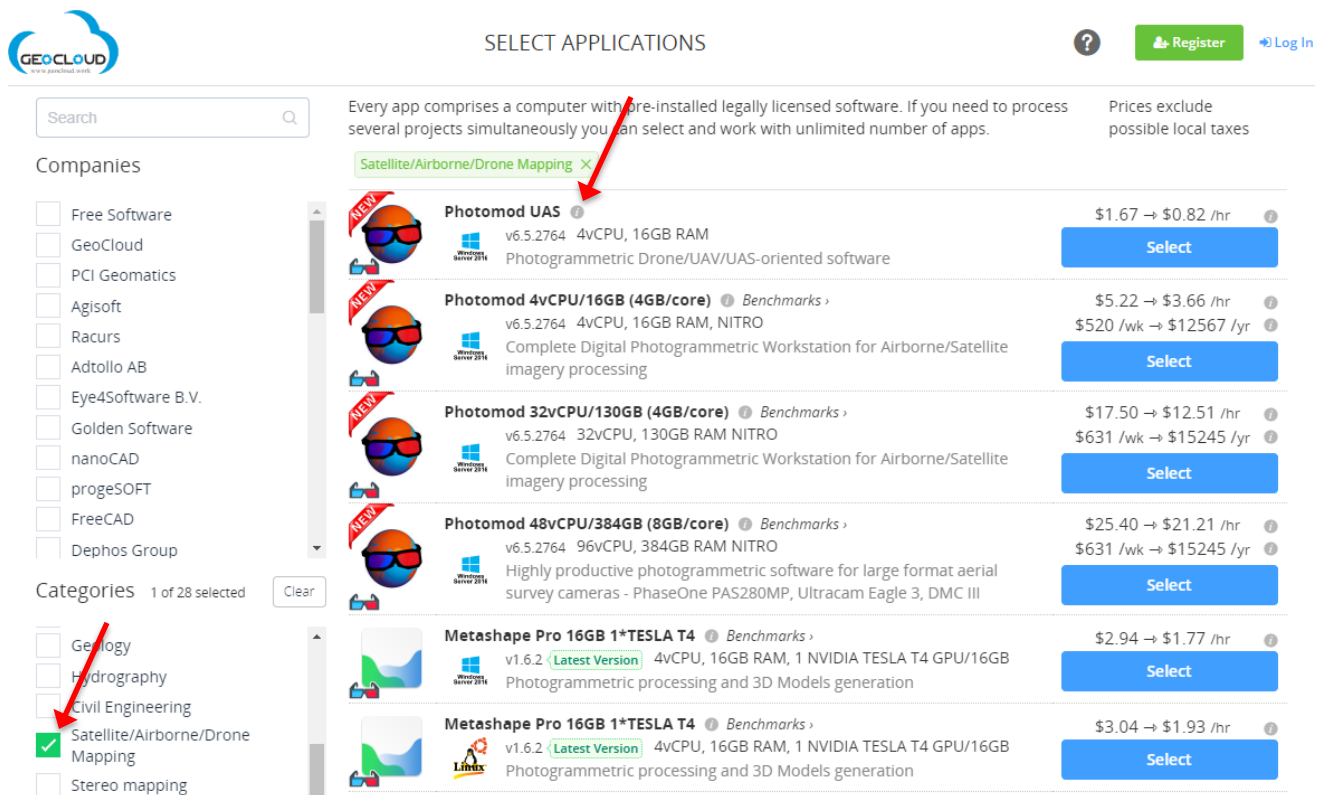

By clicking on the icon , you will get all the main functions of the application and links to the main website of the software vendor and the technical documentation of the software or the support page.
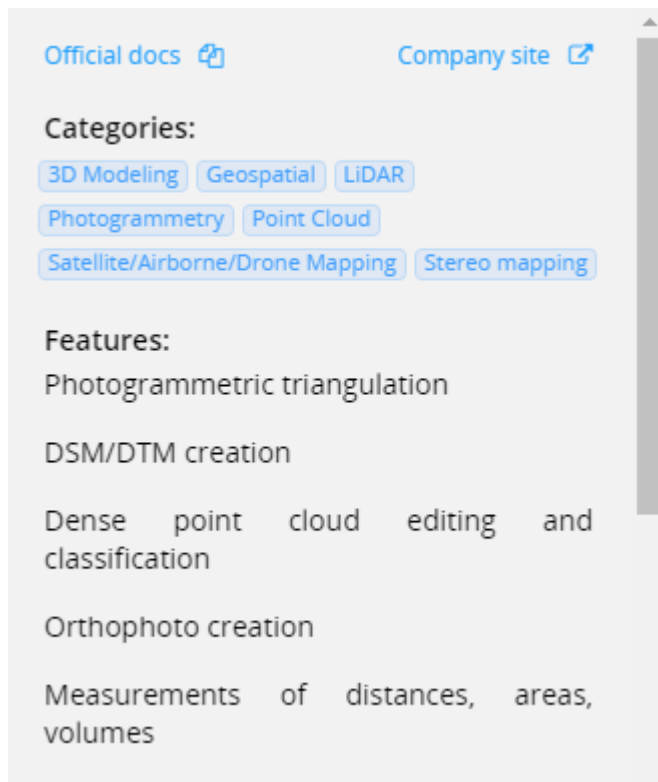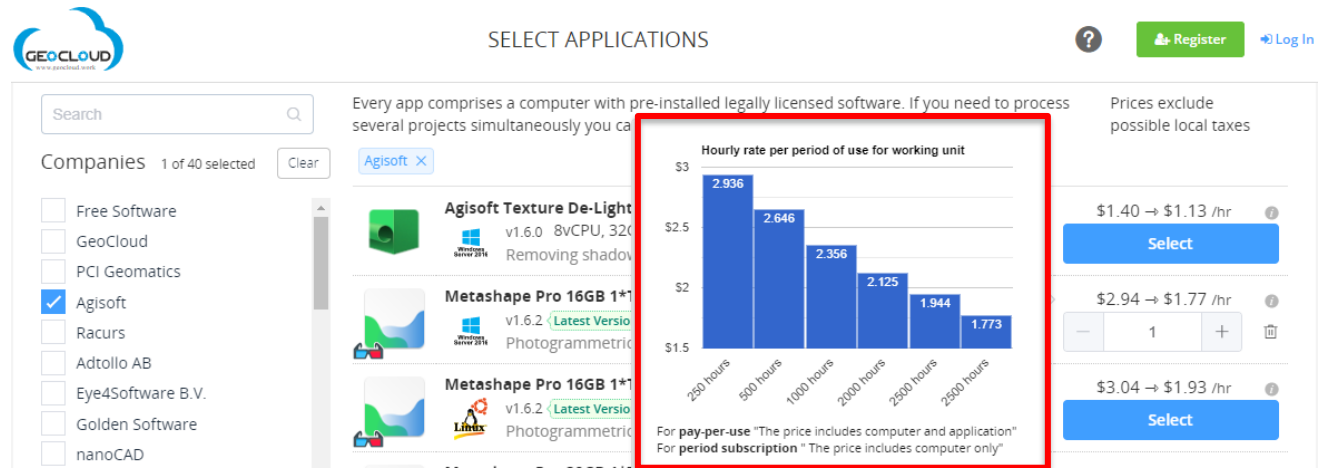
There are Applications available for use in different operating systems (Windows and Linux) and in different computer configurations. You can use them all from your regular PC or MAC computer.

"Benchmarks" next to several Applications provide information about the processing performance of these Applications.
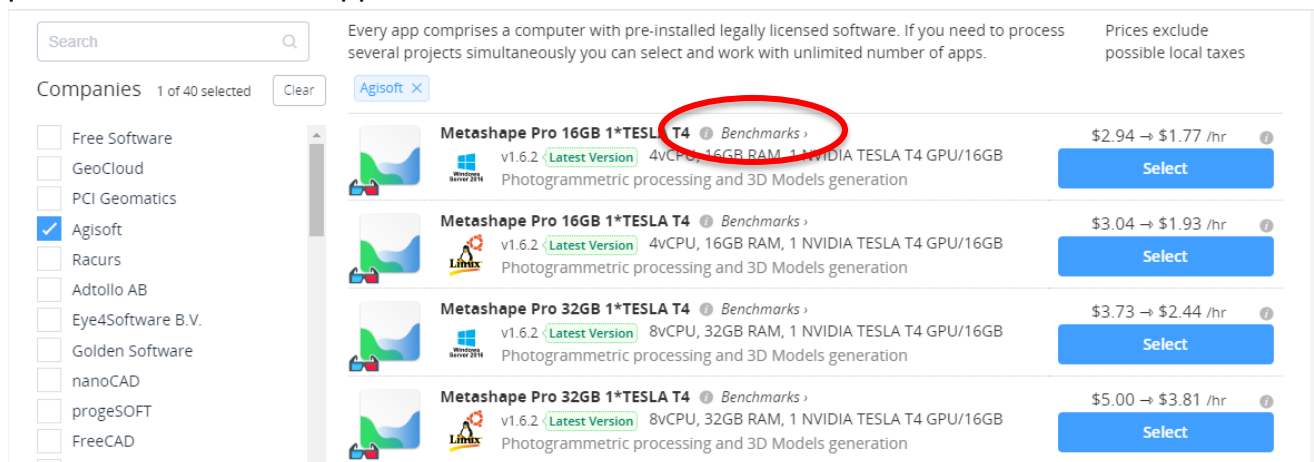
Each application has its own Hourly rate of working (active) application, which is represented by a graph
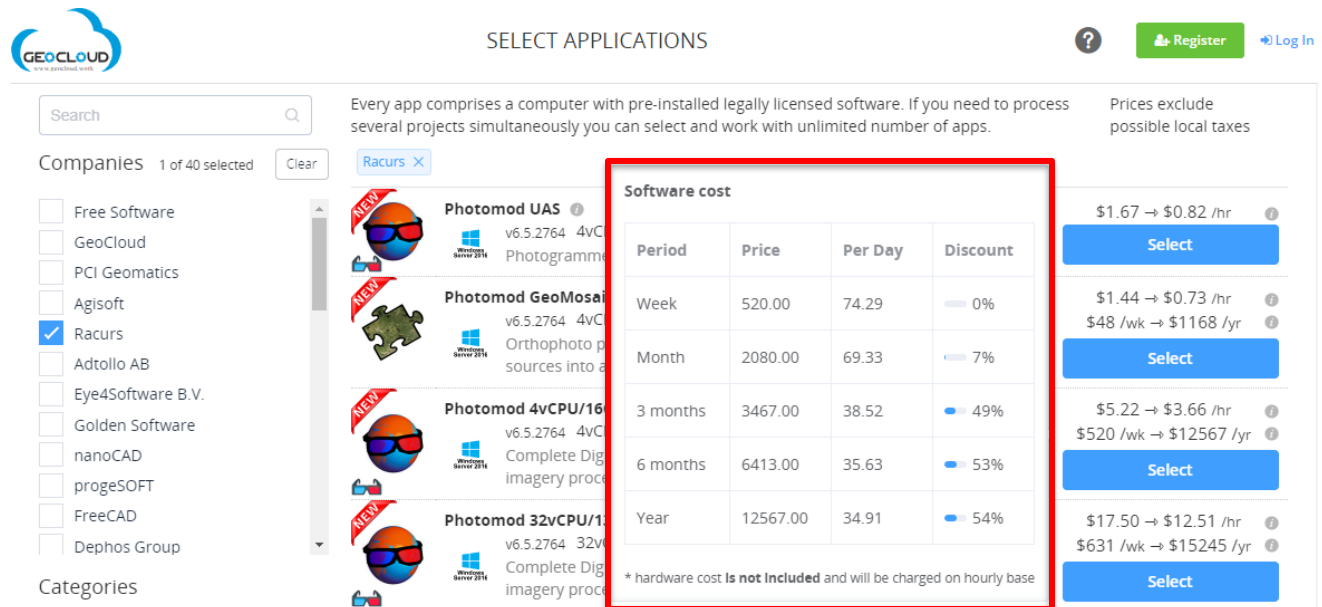
The Hourly rate includes the cost of the software and the computer on which the software is installed.

The hourly rate for the Application depends on the number of hours of work with this Application and decreases with the increase in the number of hours of work. There are 6 groups of working hours: 250, 500, 1000, 2000, 2500, 2500 hours.

Some of Applications may also be used on a Period Subscription model
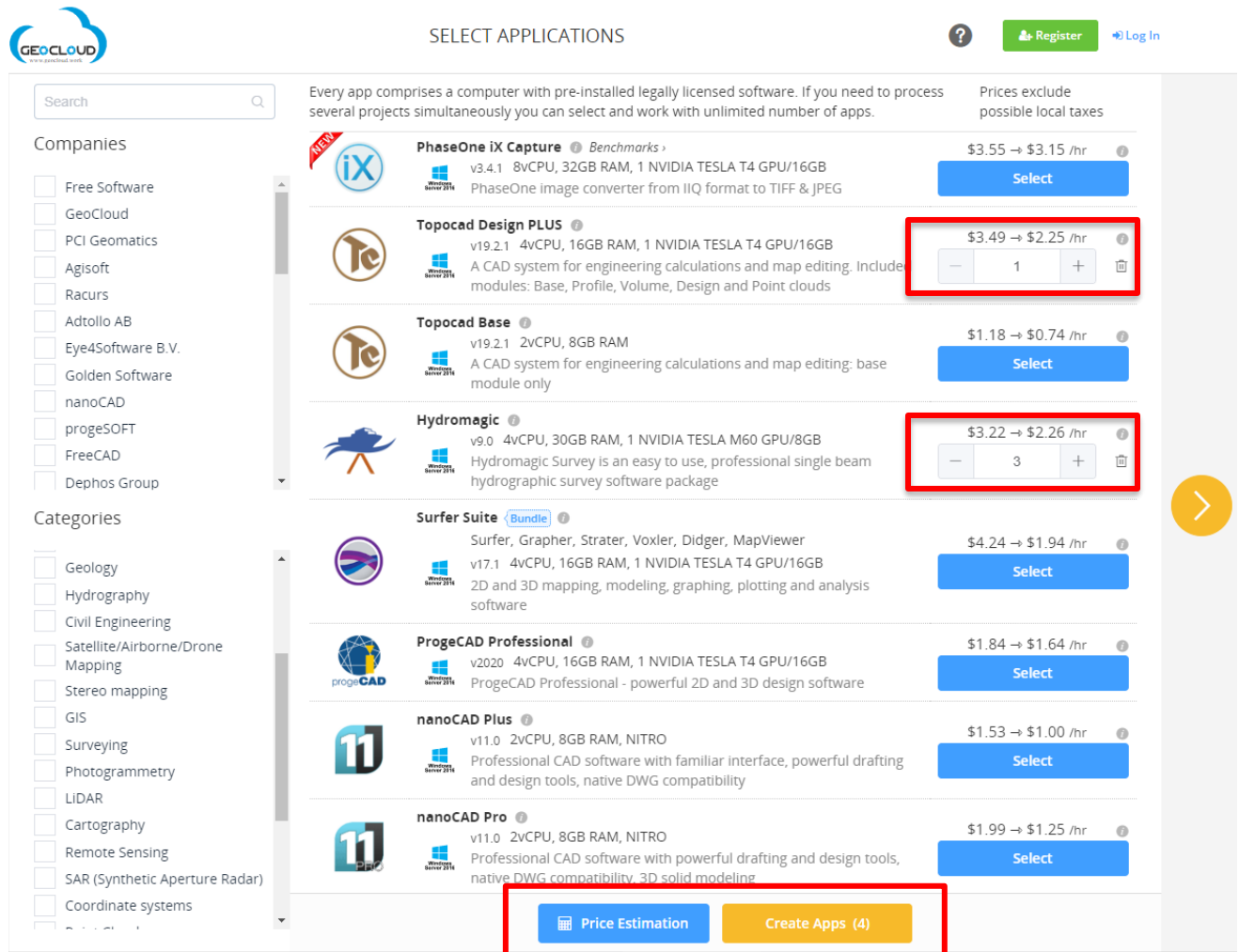
The price in the Period Subscription model includes only the price for the software and the hardware price is charged at the Hourly rate.

Select required Applications:

You can select several different and/or identical Applications. Multiple apps can help you handle multiple projects at the same time or for group or classroom learning.

After selecting the necessary Applications, you can choose **Price Estimation** or **Create Apps**. Clicking on **Create Apps** option you will be asked to define the Storage (Section 9).

7. Prices

There are two prices for Storage and Application – Running hourly price and Stopped hourly price. The Running hourly price is applied when the Storage or App is running, the Stopped hourly price applied when they are stopped. Running status means Storage and App are started and can be in a process of uploading, downloading and Application can be processing the data. Stopped status means Storage and App are not running.

Pay attention, you pay for every hour of use. Every not full hour is considered as a full hour. For example, if you work 3 hours and 1 minute, you will pay for 4 hours. Running and Stopped hours of Storage/Computer are counted from the time of Storage/Computer start and to the time of Storage/Computer stop. It means that it does not worth to stop your computer for the period less than 1 hour – every Start/Stop will cause a 1-hour payment. If you are planning to stop your work for the period larger than 1 hour, you can Stop your computer and even Remove it and save your money.

The GeoCloud Platform continuously monitors the Stopped/Running status and activity of the selected Applications and Storage and sends you different messages/alerts. For example, if your App (only Windows based, not Linux) are in the Running mode, but no processing actually occurs, the Platform will be sending you e-mail warnings.

8. Price estimation

Price Estimation for every Application is based on the Application Running Hourly Rate, Expected Hours of Use, Number of Applications, Storage Volume and Speed (Type). **Price Estimation does not take into account possible costs of stopped Storage and Applications.**

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9. Fixed Storage and Storage resizing

You can select between several Fixed Storage sizes: 1, 5, 25, 50, 100, 250, 500, 750 GB and 1, 2, 3, 5, 7, 10 TB. If you need more Storage size or you don't know what actual size you will need for processing (temporary files and so on), use Elastic storage (section 10).

The selected Storage is shared between all your Applications.

There are three options for Storage Speed (type) – Standard, Enhanced and Fast. Storage type is related to both data transfer and overall processing speed.
Data transfer speed is also limited by your internet speed. If it's less than 30Mbps, Enhanced or Fast types won't give you any benefit in this regard.

Processing speed depends on the size of individual files rather than the overall dataset size. Usually, you can rely on the next relationship between them:

Individual file size	Storage type
Less than 100Mb	Standard
Between 100 and 200Mb	Enhanced
More than 200Mb	Fast

If you are planning to upload a large volume of data (images, raster files), better to use the Enhanced or Fast option, and if you are dealing mainly with ASCII or small binary files use the Standard option.
You can change Storage Speed (type). For example, if your Internet speed is high, you can upload your data using Storage Fast, and then to switch it on Standard, if you are processing images (files) of the size less than 100Mb.

Please refer to Benchmarks of every application regarding to the processing speed and storage type used for different image/file sizes.

Storage volume is defined as **GeoCloud (X)** and is visible for all your Applications.

You can resize and change the type of Storage at any time.
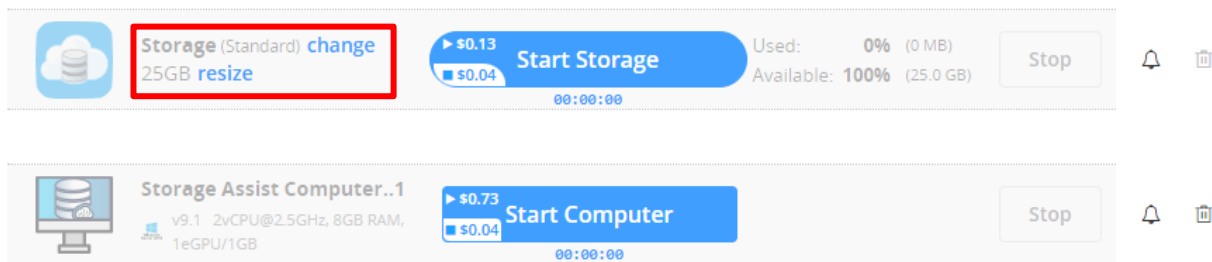
Storage should be in "running" mode, stop all your Apps, click "resize" or "change", select "New size" or "New type".
Resizing takes some time. The larger amount of data you have, the longer it will take to resize.
Resizing takes several steps and each step is displayed on the screen.

10. Elastic for Linux storage

Elastic for Linux offers you flexibility without limiting you to a specific size. You only pay for the space you actually use. Currently, elastic storage only works for Linux-based applications.
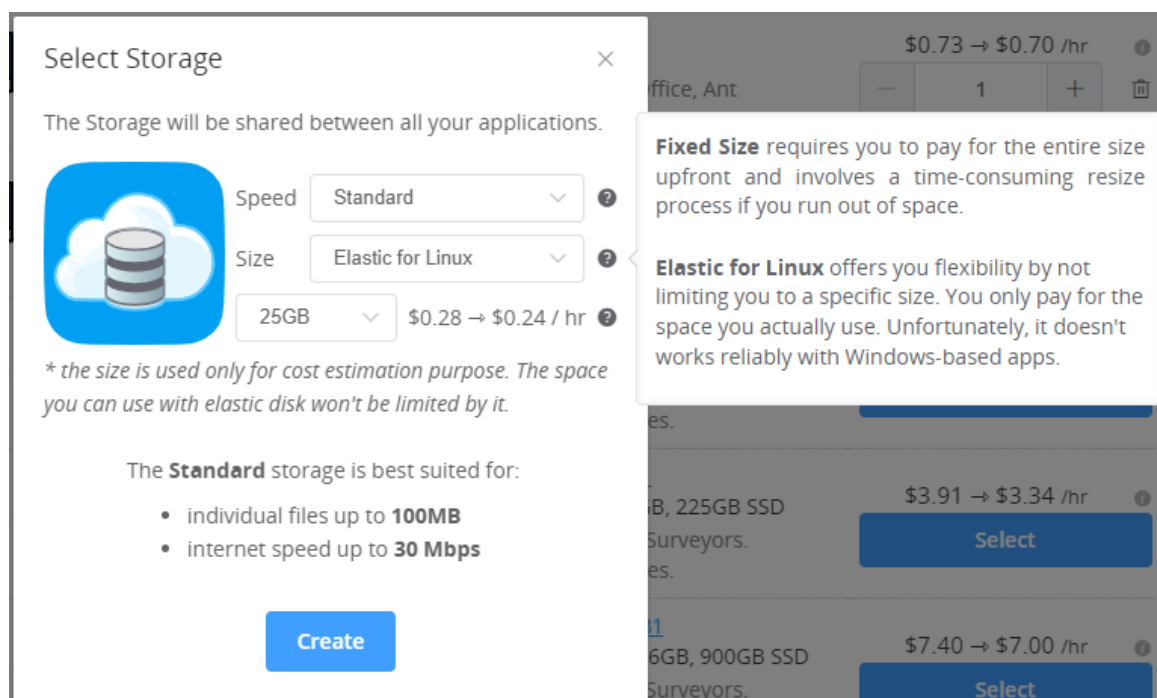
The speed (type) of elastic storage can be selected according to the following rules:

- Data transfer (upload/download) – same rules as for fixed storage.
- Processing speed - does not depend on the type of Elastic storage, the "Standard" option can be used to process files of any size.

11. Ephemeral disks

Ephemeral disks are the SSD disks directly connected to Application computer. If your data is located on this disk, it will provide the fastest processing speed. The larger your files, the larger will be the difference in the processing speed comparing to GeoCloud storage. There is almost no difference for small files of up to 20Mb. Please look at Benchmarks to see the differences.

Ephemeral disks are faster than GeoCloud storage and can be used to increase performance of applications with heavy disk usage. Though the data these drives contain persists only during the Application is in a working status and **will not be preserved** once Application is stopped or deleted.

When working with ephemeral disks, you must copy your data from GeoCloud storage to disk. You can save your project with outputs to the same disk (if it's big enough), but don't forget to copy it to GeoCloud storage before stopping the application. Another option is to store the project and end products in GeoCloud storage, in which case they do not need to be copied after processing. The second option is more secure and prevents the possible loss of your data.

By enabling these disks, **you are taking responsibility** of copying all valuable data from ephemeral disks to your GeoCloud storage before stopping / deleting the Application. All the data you leave on ephemeral disks will be lost permanently.

When you start an App having such a disk (not all Apps have this option), you can enable or disable the disk.

> **Temporary Application Store Volumes (Ephemeral)**
>
> This Application contains a storage device located on an ephemeral disk
>
> - 125 GiB NVMe SSD
>
> Ephemeral disks are significantly faster than GeoCloud storage and can be used to increase performance of applications with heavy disk usage. Though the data these drives contain persists only during the Application is in a working status and will not be preserved once Application is stopped or deleted.
>
> By enabling these disks, you are taking responsibility of copying all valuable data from ephemeral disks to your GeoCloud storage before stopping / deleting the Application. All the data you leave on ephemeral disks will be lost permanently.
>
> Leave them disabled   Enable the drives
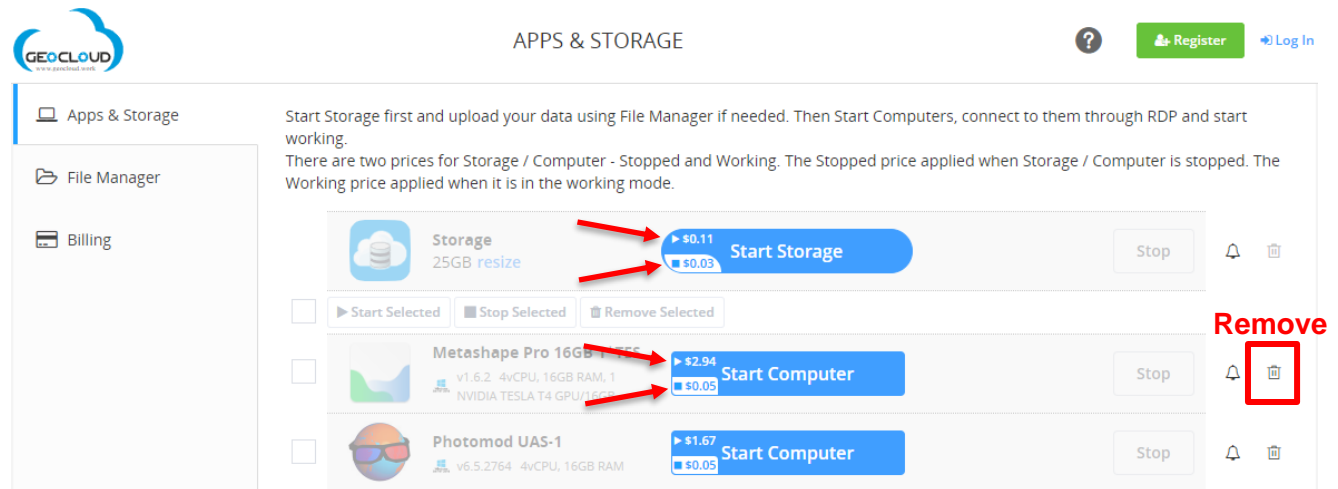
12.   Apps & Storage (Storage and Apps activation)

This page shows the Applications you selected, computer's configuration for each Application, and Storage where all your data will be stored. All selected Applications use the same Storage volume **GeoCloud (X)**

There are two prices for Storage and Application – Running hourly price and Stopped hourly price. The Running hourly price is applied when the Storage or App is running, the Stopped hourly price applied when they are stopped. Running status means Storage and App are started and may be in uploading/downloading process and Application may be processing data. Stopped status means Storage and App are not running. When Storage is not uploading/downloading and not involved in any data processing, you can stop it. Stopped Storage will remain in your possession with all data on it, but hourly price will be much lower. You can start it at any time.

Pay attention! Do not remove your Storage if there is data on it and you still need this data. Download or share data first and then you can remove/delete Storage. There is no way to restore data from deleted Storage.
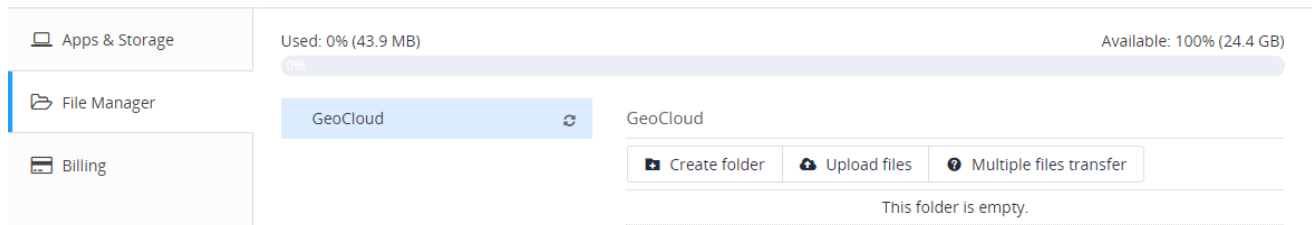
To start working, activate Storage first. Click the button **Start Storage**.
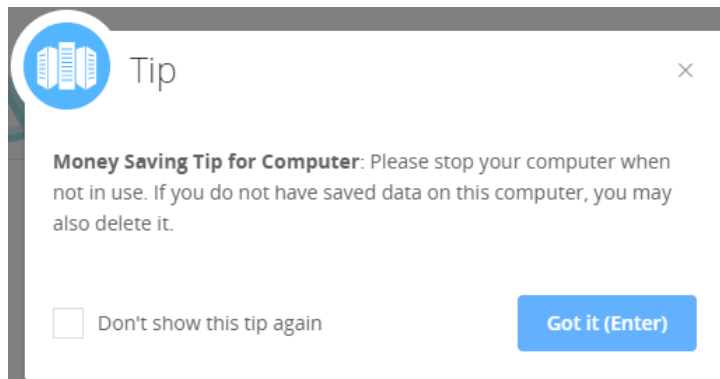
After the message **Storage running** appeared, go to **File Manager** and upload your data for further processing. More information on how to transfer data can be found in Section 13.

After having data uploaded, start selected applications by clicking **Start Computer**

This Money saving tip also points out on the fact that there are two prices for computers (applications) – running and stopped. If Application is not working (processing data), you can Stop Computer or **even delete it**.

Pay attention! You pay for every hour of use. Every not full hour is considerate as a full hour. For example, if you work 3 hours and 1 minute, you will pay for 4 hours. Running and Stopped hours of Storage/Computer are counted from the time of Storage/Computer start and to the

time of Storage/Computer stop. It means that it does not worth to stop your computer for the period less than 1 hour – every Start/Stop will cause a 1-hour payment. If you are planning to stop your work for the period larger than 1 hour, you can Stop your computer and even Remove it and save your money.

The GeoCloud Platform continuously monitors the Stopped/Running status and activity of the selected Applications and Storage and sends you different messages/alerts. For example, if your Storage is in running mode but App is stopped, you will get notification (email) every two hours. If App are in the running mode (only for Windows based Apps), but no processing actually occurs, the notification will be sent every two hours.

When Computer is started and ready for work, the **Open Desktop** button appears:
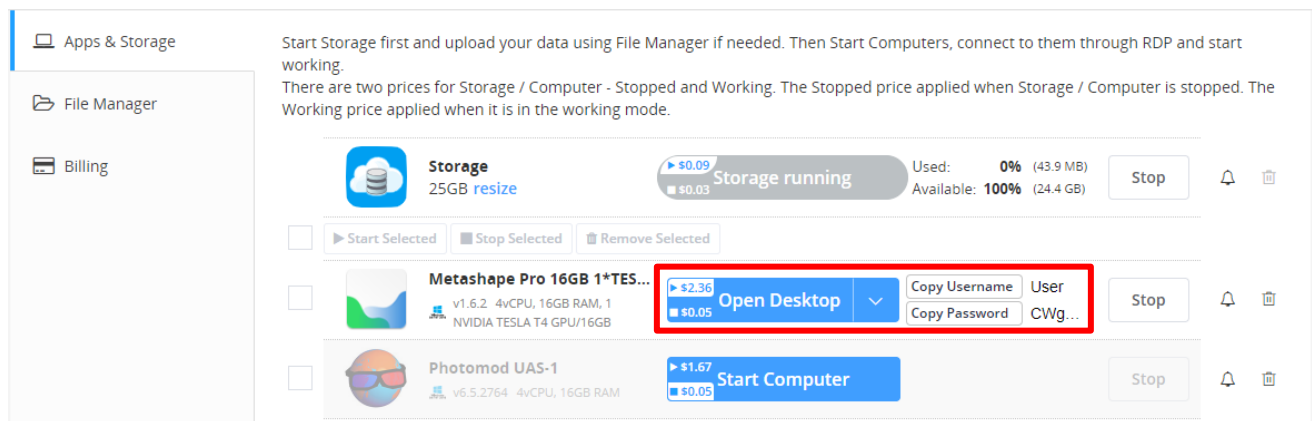
The first start of Windows based computer takes around 3-5 minutes. The first start of Linux based computer takes around 2-3 minutes. Every next start of the previously started and stopped computer takes under 1 minute.

Click the **Copy Password** button – the Password will be copied to the clipboard of your home computer and further will be used to connect to remote computer. In the **Internet Explorer,** the Password should be copied manually.

Click **Open Desktop** and save the RDP file of the selected application on your home computer. The following message will appear in the bottom of the screen

<u>Google Chrome:</u>
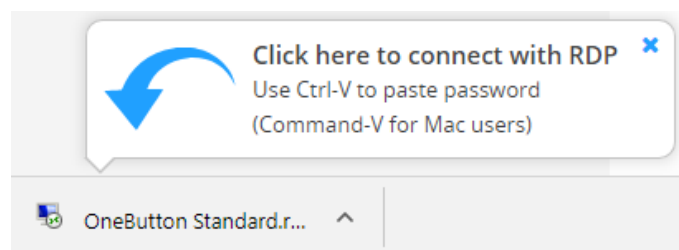
Microsoft Edge
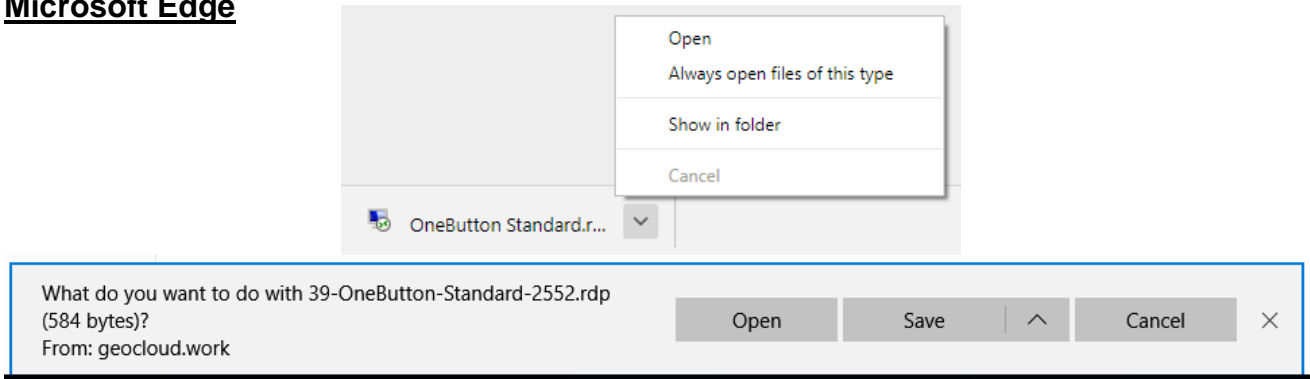
Internet Explorer

After clicking the **Open** button, the **Remote Desktop Connection** window will appear:
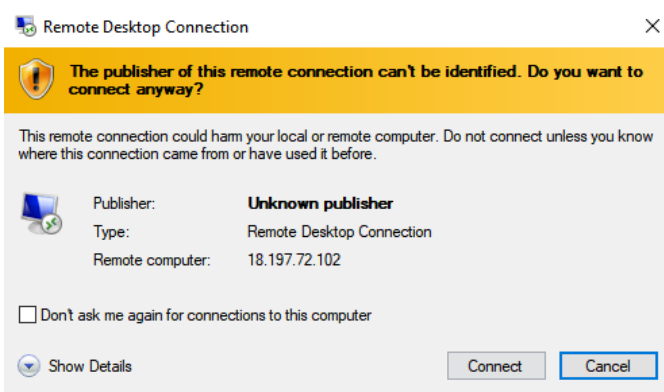
Clicking the **Connect** button, get you to **Enter your credentials** window
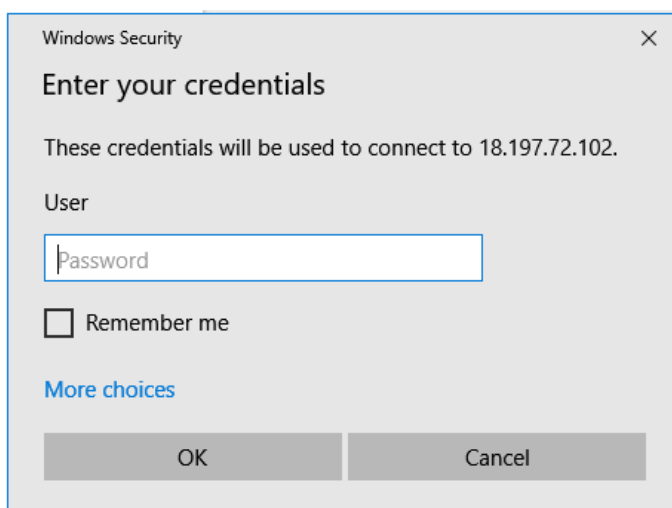
Enter the copied to the clipboard Password using the command Ctrl-V (or Command-V for Mac users).

Click **OK** button and you will be immediately forwarded to the RDP window of the chosen application.

In the open RDP window, you will see the following message. Please wait until the window closes.

After the connection is established, a full RDP window with a **Storage GeoCloud (X:)** icon will appear.

13. File Manager (upload/download/share/transfer data)

The **File Manager** tab serves for uploading, downloading and sharing data:
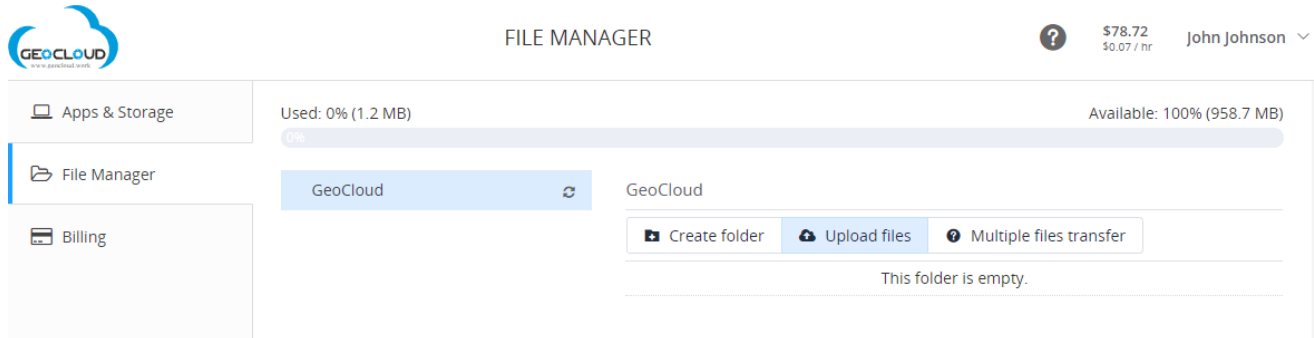
There are three functions for storage and files management:

- **Create folder** - creates folders at **GeoCloud (X:)** volume
- **Upload files -** serves for uploading files of up to **5GB** of size each
- **Multiple files transfer** - dedicated to multiple files and large data upload/download with help of SFTP (SSH File Transfer Protocol or Secure File Transfer Protocol)

Data is uploaded on a storage volume **GeoCloud (X)** and shared between all of selected Applications.

Upload status tab serves to monitor data uploading:
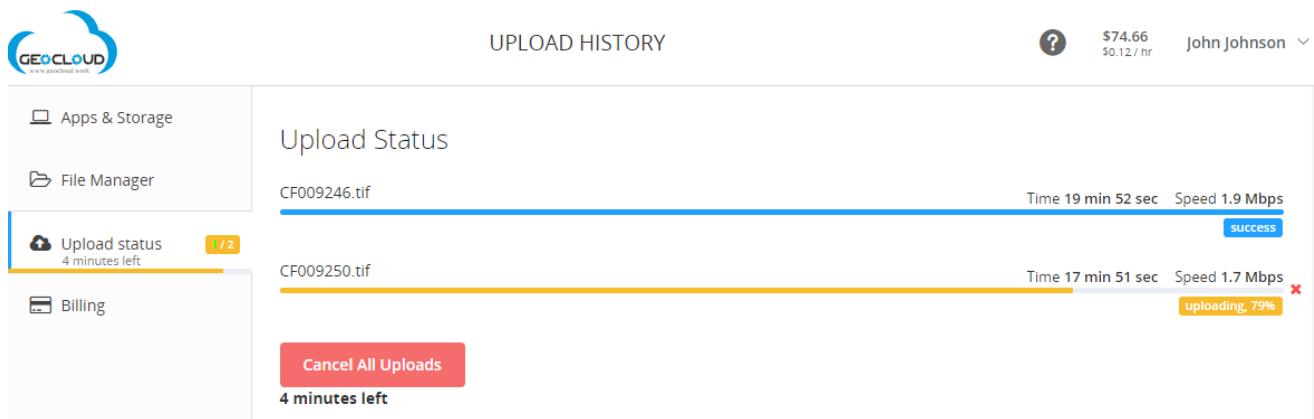
You can cancel uploading of one or all of files at any time. After uploading the files, the **Upload status** tab will change to:

and **File manager** tab will be updated:

The **Multiple files transfer** functions dedicated to multiple files and large data upload/download with help of SFTP (SSH File Transfer Protocol or Secure File Transfer Protocol):

For multiple and large files uploading and downloading you can use any SFTP client, e.g. FileZilla client (https://filezilla-project.org/)

You can install the SFTP client on your local computer or use FileZila available at www.geocloud.work. Use the SFTP credentials – host, port, user and password, to transfer

files. The Copy function from the right side of every bar is used to copy the credentials to the SFTP client program.

The following is a window of FileZilla®, the free FTP solution. Both a client and a server are available. FileZilla is an open source software distributed free of charge under the terms of the GNU General Public License. (https://filezilla-project.org/)
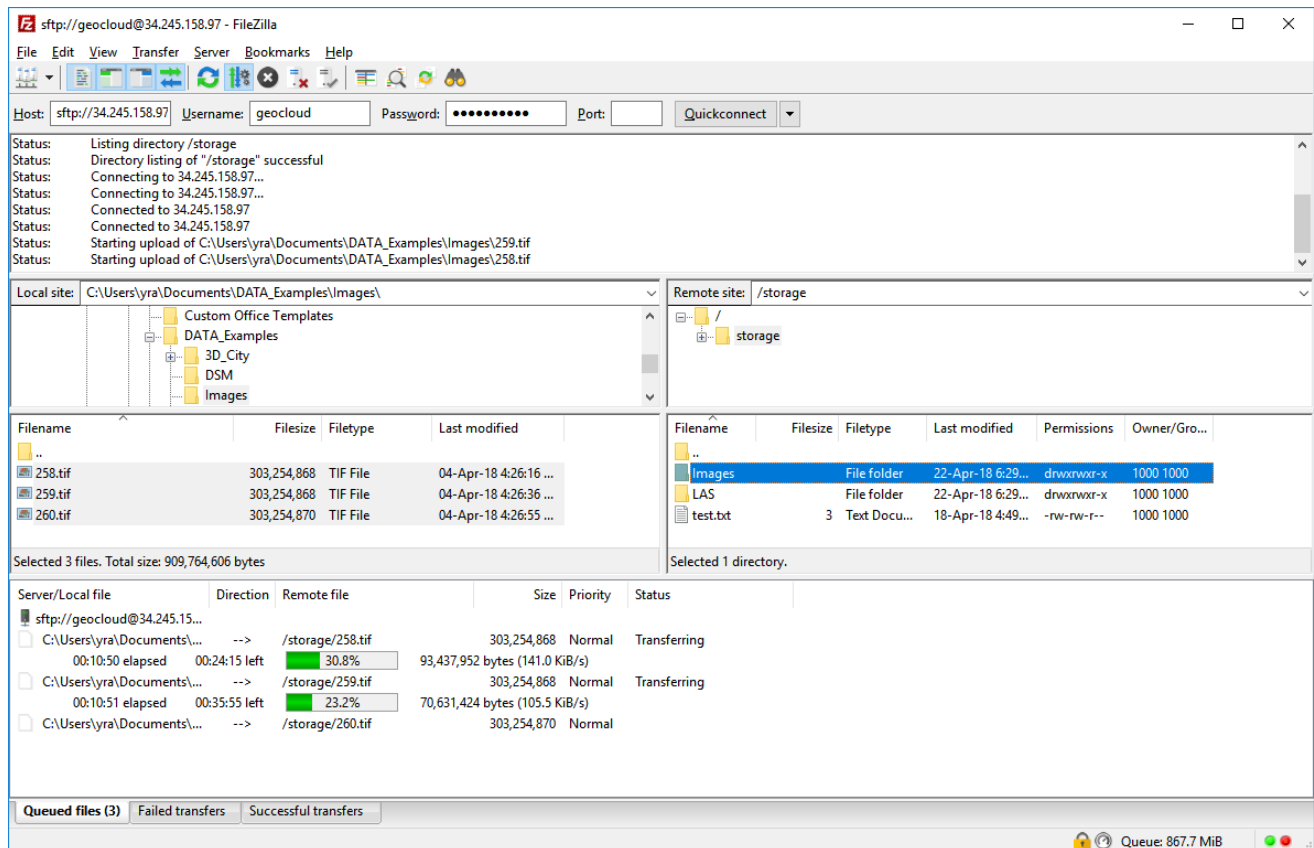
A list of FileZilla's features can be found here: https://filezilla-project.org/client_features.php

Other software products for SFTP access also may be used.
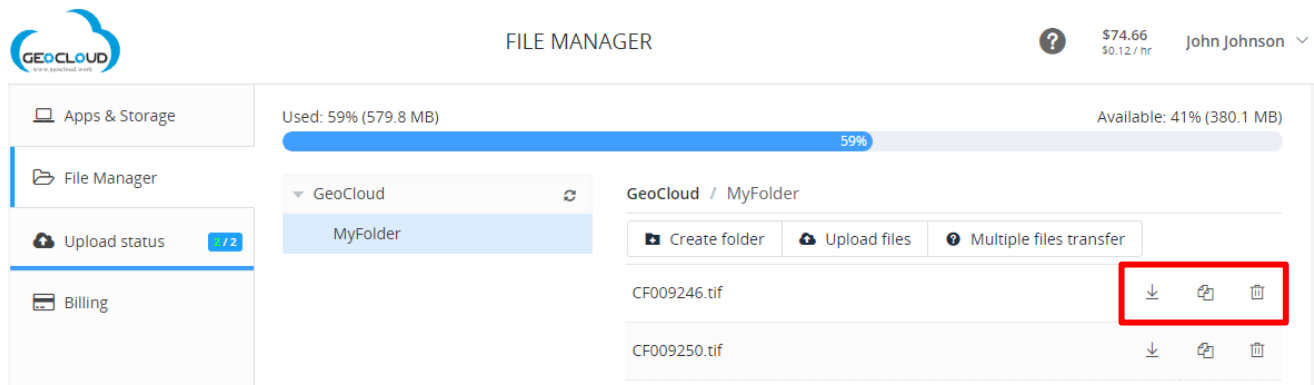
There are three functions applying to a single file on the storage:

- **Download** – download a file to your home computer.
- **Copy Link to Share** – you can send the link to your customer, and he will be able to download the file to his computer
- **Delete** – delete file on **GeoCloud (X:)** volume

14. Other options for data upload/download/share/transfer

Another convenient and fast way to transfer data between different clouds is to use the Internet service for file transfer www.wetransfer or similar.
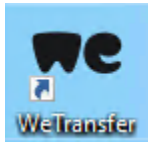
You can select your files from whenever they are, send them to yourself and download files directly to your GeoCloud Storage, being in your GeoCloud account. To get access to your Storage use **Storage Assist Computer**.
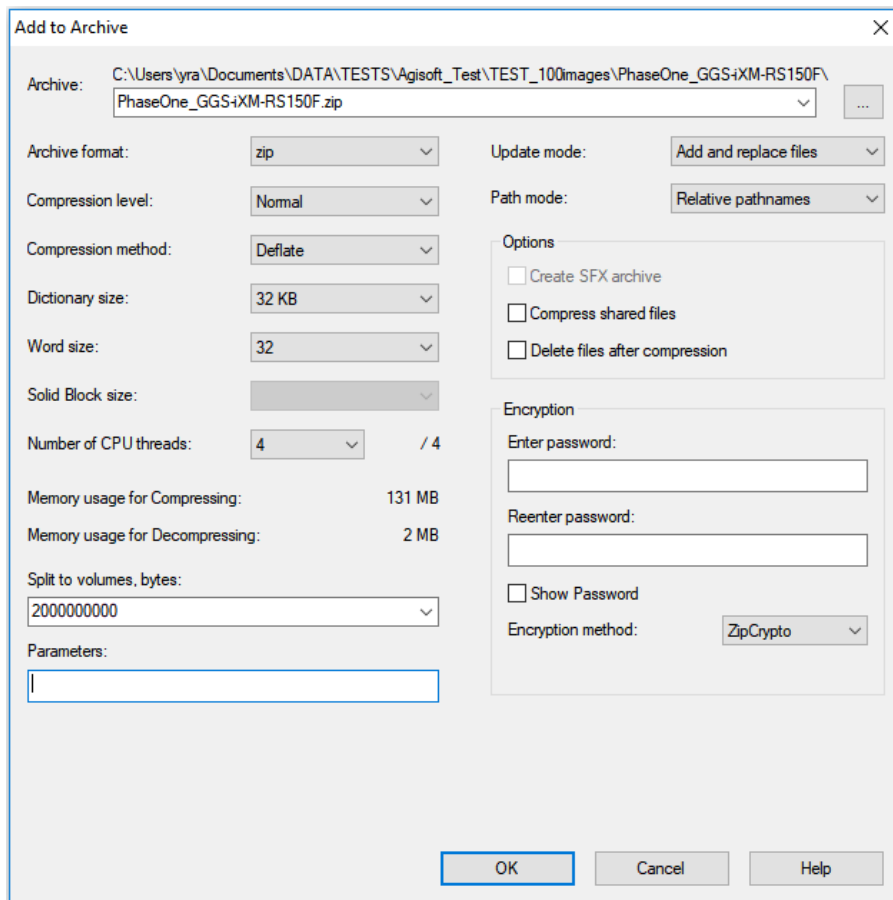
This way of data transfer between different clouds is much faster than a regular Cloud-to-Computer-to-Cloud download and upload. WeTransfer provides this service free of charge for the files of up to 2GB of size. If you have larger data size, you can open your account on WeTransfer, pay some money and transfer of up to 200GB in one file. Another option (free of charge) is to compress your data using 7-zip with split to volumes of 2GB (2000000000) files and transfer every 2GB file independently.

You can also directly transfer your data to your Storage from other data storage services like Dropbox, Microsoft OneDrive, Google Drive and others enabling an internet approach to the data.

Ordering an app, you're essentially getting a remote access to a windows-based computer. So, there's a few options related to Dropbox and others:

- you can share the data by link and download it through browser to the Storage
- you can install the Dropbox app on one of the self-service computers and log in using your credentials
- you can have a separate Dropbox account with different credentials and share data between them if safety of data is your primary concern
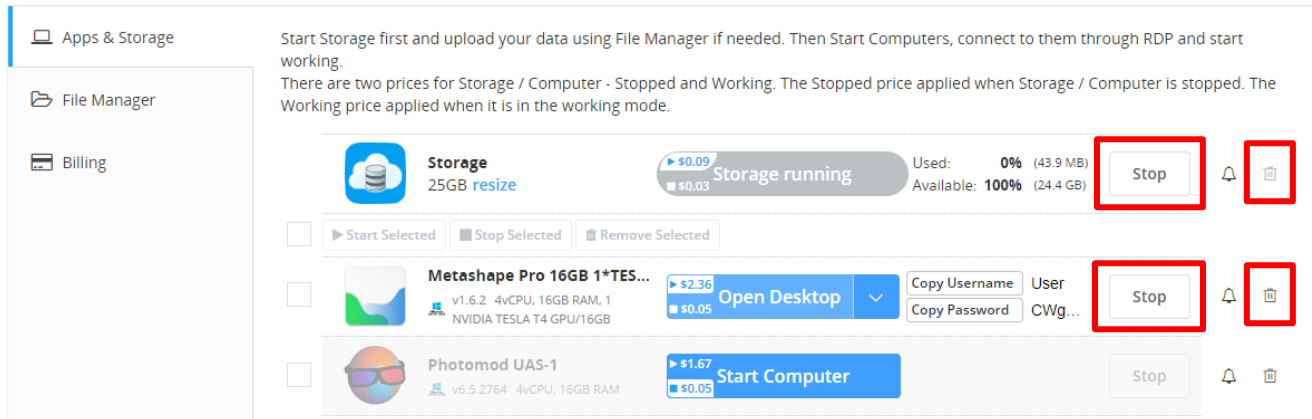
15.   Ending of Remote Session

To end the remote session, close the Remote Desktop Connection window.
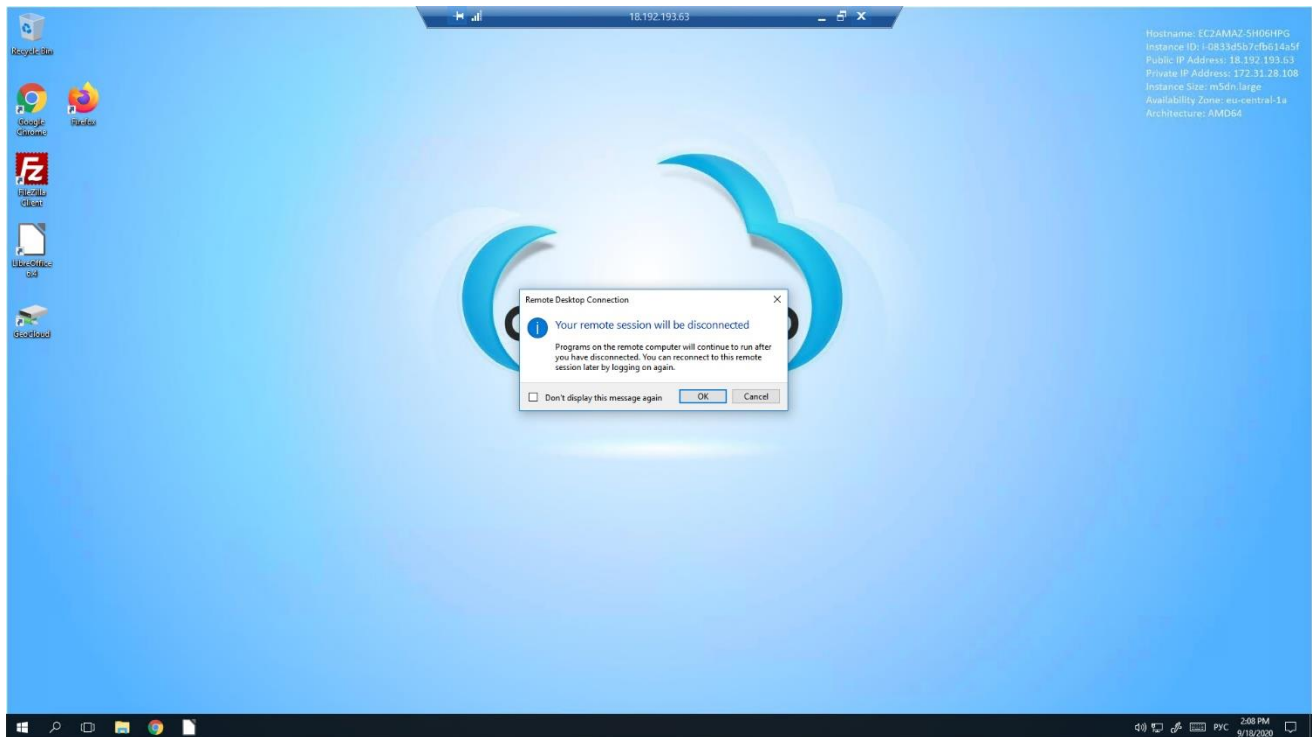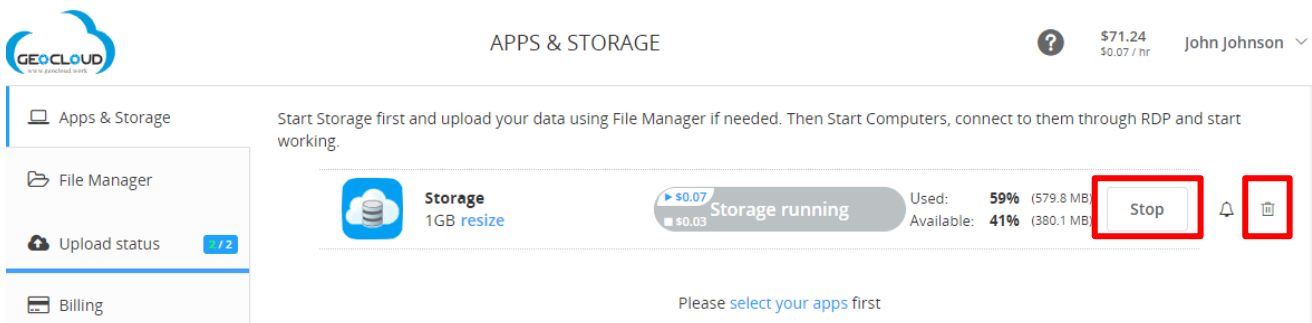
After that you will get to the APPS & STORAGE page
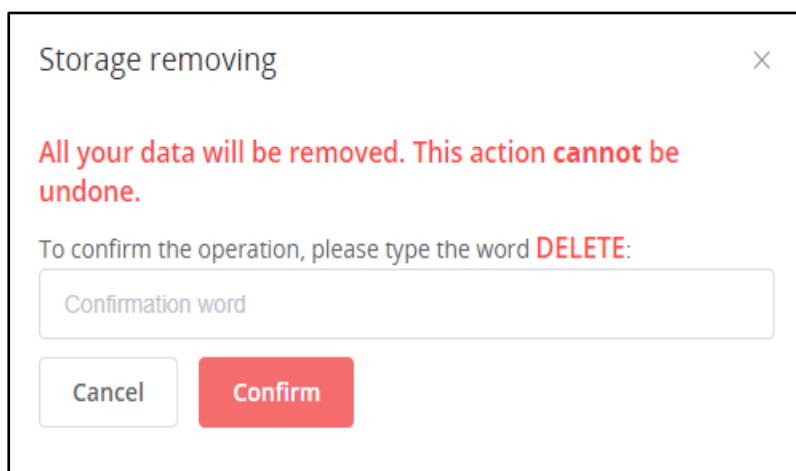
First, stop the running application/s clicking the **Stop button**. The stopping process may take a couple of minutes. Then you can remove Computer/s if you are not going to use them any time soon.

After stopping the Computer/s, you can stop the Storage. It also may take a couple of minutes.

Clicking the Delete basket will bring the following notification:

If you really want to delete your storage, enter manually the word **DELETE** (in English) and click the **Confirm** button.

Be careful! Deleting the storage will delete all your data without a possibility to restore it. If you need the data and still have not downloaded or shared it, **do not delete** your storage.

Pay attention! For the stopped storage and computer, you pay according to the hourly rate of the stopped mode.

16. Billing

The APS & STORAGE page also contains the Billing information and different options for payment settings. There are two sub-pages here: **Monthly charges** and **Payment settings**

17. Monthly charges and Invoices

The Monthly Billing page displays the customer's accumulated hourly expenses in the form of a monthly report. The report is updated every hour according to the actual usage of various applications and storage. The report can be downloaded in PDF format.

| Apps & Storage | Payment settings | Monthly charges | Referral Program |

File Manager

Billing

2020-06

Pay-per-use report: June 2020   ⬇ Download this report in PDF format

Item	Running			Stopped		
	Hours	Price ($)	Total ($)	Hours	Price ($)	Total ($)
Storage (25GB)	1	0.108	0.108			
Storage (500GB)	26	0.926	24.064	7	0.185	1.298
FileZilla	1	0.417	0.417			
PhotoScan	4	11.574	46.294	23	0.053	1.209
Subtotal			70.882			2.507

Deposit *(invoice)*	2020-06-14		150.00
Spent this month		-73.39	
Remaining balance			76.61

The report indicates the monthly amount with which the client will be charged at the beginning of next month, if he works on a subscription model, and all payments (deposits) made during the current month. Each amount in the report is accompanied by an invoice, which the client can download and print.

18. Payment settings

The **Payment settings** page presents a **One-time payment** method of payment.

Payment settings   Monthly charges   Referral Program

Billing contact: Hrishikesh Hippalgaonkar

One-time payment

You'll be charged only once after you confirm the payment.

$5 $10 $50 $100 $200 $300 $500 ...

5

Deposit

The customers spent more than $1000 in total can join a subscription payment model. Thus, your credit card will be charged on a monthly basis for the resources used in the previous month. Feel free to contact our support team if you'd like to use this option.

Emergency Credit   Borrow $100

If your are experiencing temporary problems with the payment system during your work, you can immediately get a one-time emergency loan of **$100** from GeoCloud.

After you receive the loan, your following top-ups, including the subscription fee, will go towards repaying the loan.

Contact us for alternative payment methods

Customer provides his credit card details for a **One-Time Payment (Deposit).** The amount of payment is determined by the customer. The credit card is debited immediately after clicking the "Deposit" button, and the payment amount is credited to the customer's account. The client can choose any Storage / Application and work with it in the frame of his payment.

The customers who spent more than $1000 in total can join a subscription payment model. Customer's credit card will be charged monthly in the end of the month for the resources used in this month. Contact our support team if you'd like to use this option.
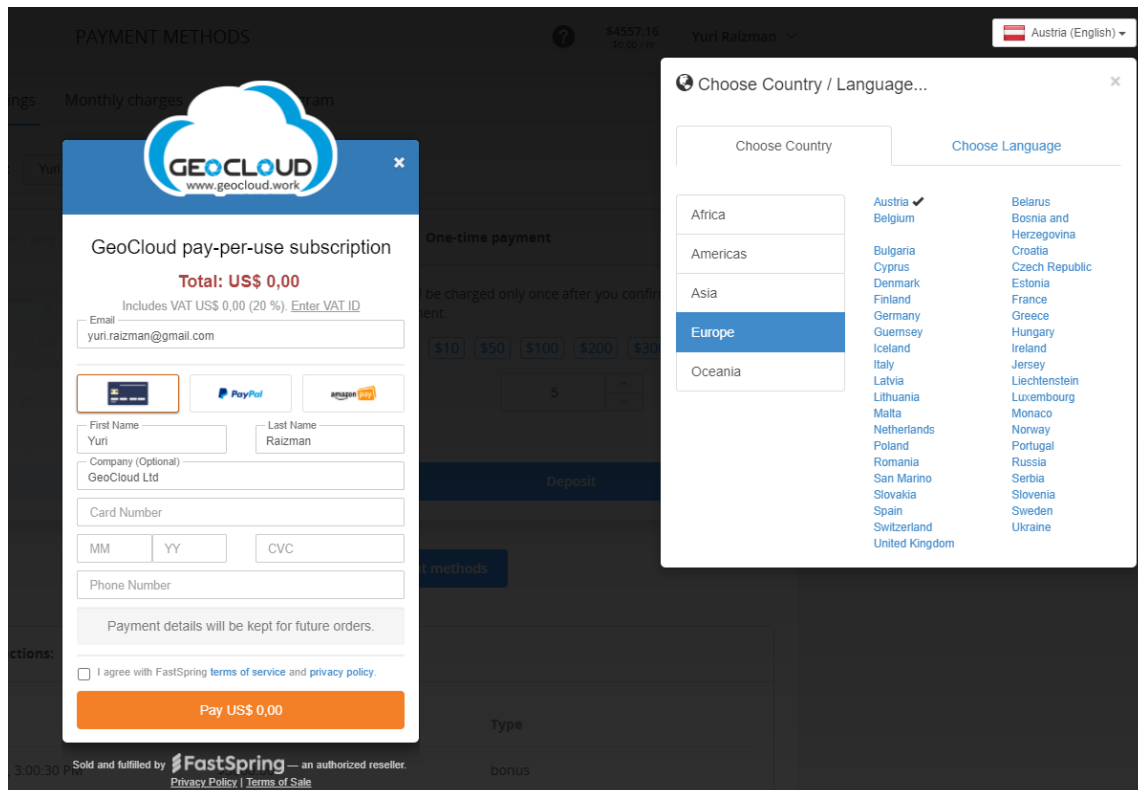
Emergency credit:

If you are experiencing temporary problems with your credit card (it happens mostly due to a credit card daily or monthly limit) during your work, you can immediately get a one-time emergency loan of $50 - $100 from GeoCloud depending on your previous spending. This option works only for running computers (not stopped) and helps to continue processing in the case that your budget is low and at the same time you are experiencing problems with your credit card and cannot top up your budget.

If you stopped the computer while you at the Emergency credit, you cannot start the computer and the storage if your debit is not enough for that. So, you have to make a regular deposit, this deposit will be added to your debit and deducted from your Emergency credit. When Emergency credit will become 0, you will be allowed to take another Emergency credit.

Monthly pay-per-use payment means:

- There is no minimum usage of hours or minimum charge. You pay only for hours you worked.
- You can limit your monthly subscription. You can change it at any time.
- You can cancel subscription or change the credit card.

Clicking the **Deposit** button brings customer to the page where credit card credentials are entered:

GeoCloud proprietary

First, choose your country in the upper right corner of the screen and enter all needed credentials in the center of the scr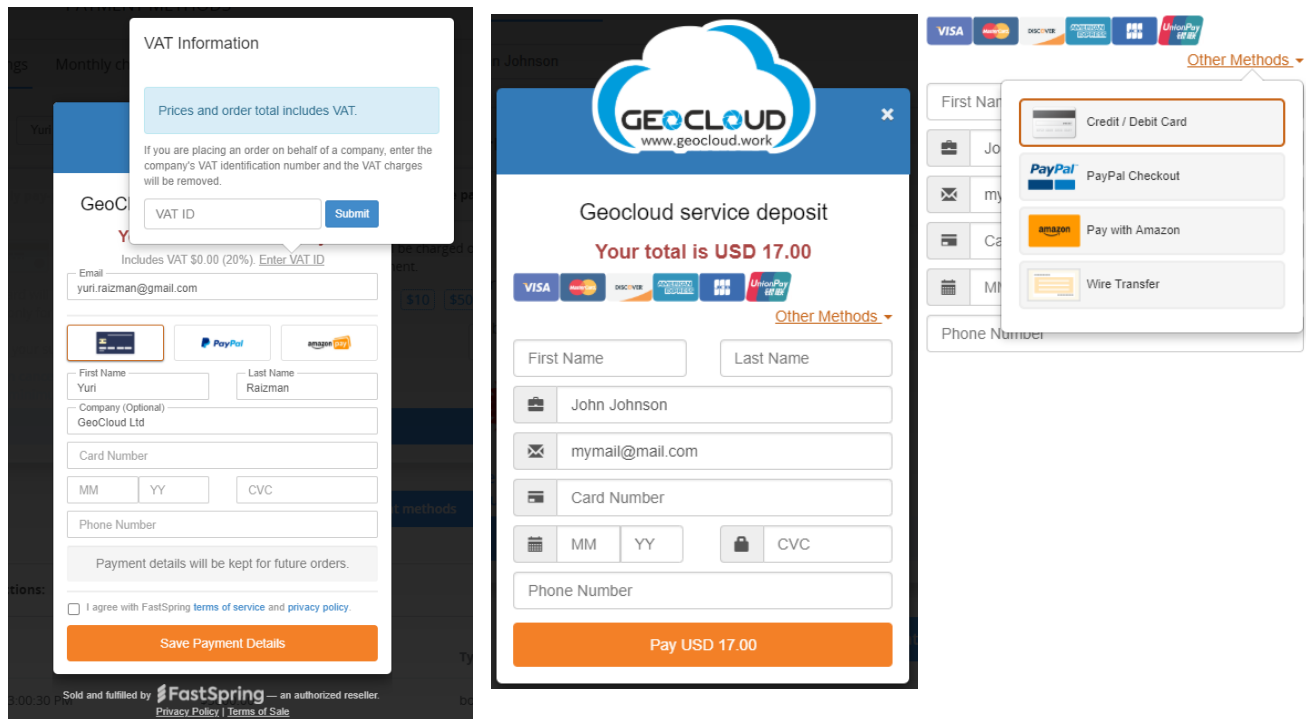een. For European countries there is VAT return option – push "Enter VAT ID" and enter the ID. If you need a retroactive fix for VAT, please contact FastSpring support (https://fastspring.com/consumer-support/).

On the topic VAT and Sales Tax visit https://fastspring.com/docs/about-vat-and-sales-tax/

U.S. Tax Exemptions*: FastSpring can refund the sales tax to tax-exempt organizations after the transaction is complete. At this time, there is no way to prevent the sales tax from being collected on the order initially. Customers can submit a copy of their tax exemption certificate or other supporting paperwork issued by the state government at https://questionacharge.com along with their order reference/order ID. Upon receipt of the paperwork, FastSpring will refund the sales tax back to the original payment account. It can take a few business days for the funds to post back to the customer's payment account.* (from the page VAT and Sales Tax of FastSpring)

For all questions regarding your credit card activation / operation / cancellation, please contact FastSpring support https://fastspring.com/consumer-support/

All charging operations are executed by FastSpring (www.fastspring.com) and all credit card credentials are secured by FastSpring and are never handled by GeoCloud.

19. Monitoring and messages

The GeoCloud Platform continuously monitors the activity of the selected Applications and Storage and e-mails you different messages/alerts. The following is the list of messages you can receive:

	Message	Meaning
1	**Thank You for Subscribing!** Please feel free to contact us if you have any questions. Regards, Support team Email: support@geocloud.work Web-site: www.geocloud.work	Subscribing to mailing list. It is not a registration.
2	**Have you forgotten to turn off your computer?** It seems like you are not using your GeoCloud computer "Computer Name", but it's still running. If you're not planning to use it for some time, you can turn it off or even remove on Applications Page to keep your money.	Computer is in the working mode (working price) but actually is not working. This message is based on the CPU analyzing. Only for Windows based computers.
3	**Have you forgotten to STOP your STORAGE?** It seems like you are not using your GeoCloud STORAGE, but it's still running. If you're not planning to use it for some time, you can STOP it on Applications Page and keep it at lower price.	Storage is in the working mode (working price) but actually is not working. This message is based on the Storage size check. If the size does not change, we periodically send this message. Disregard this message during the time of downloading your data from Storage.
4	**Your GeoCloud storage was removed** Your storage was removed on DD/MM/YYYY at HH:MM UTC by You.	You removed your Storage
5	**Your account balance is low** Dear "Customer name", Your account balance is low and will allow less than two hours of work at your current status. Please refill your account, before the apps and storage will be stopped automatically.	This message will be sent to you if you don't have money on your account enough for 2 hours of work. In this case, if you estimate that your work will take more time, please refill your account. If not, your Storage and Apps will be stopped automatically.
6	**You've ran out of money** Dear "Customer name", Your GeoCloud balance is negative, all your applications and storage have been stopped and will be removed in 24/12/2 hours on DD/MM/YYY at HH:MM UTC.	Your Storage and Apps will be deleted in **24/12/2 hours**. **Pay attention!** It is not possible to recover data in

		To avoid this, you can bind a credit card or make a deposit.	your storage after deleting the storage.
7	**You have less than X% of your storage space available** There are three ways you can clean your storage up: 1. with file manager 2. from your running application 3. or using SFTP access to your storage You can also resize your storage.		Storage space is low. Remove some of your data or resize Storage. This message is relevant only for Fix storage.
8	**Subscription cancelled** Your GeoCloud subscription was canceled by "Name" on DD/MM/YYYY at HH:MM UTC		Subscription cancelled.