



# Torrent Suite Cloud Plugin

## Table of Contents

<a href="#">Signing up for a Torrent Suite Cloud account.....</a>	<a href="#">2</a>
<a href="#">Preparing your Torrent Suite 2.2 instance to run the plugin .....</a>	<a href="#">2</a>
Creating the “ionian” user home directory.....	2
Installing putty-tools.....	3
<a href="#">Installing / Configuring the Torrent Suite Cloud plugin .....</a>	<a href="#">4</a>
<a href="#">Preloaded references .....</a>	<a href="#">5</a>
<a href="#">Expected runtimes .....</a>	<a href="#">5</a>

## Signing up for a Torrent Suite Cloud account

To sign up for a new Torrent Suite Cloud account, please go to <http://torrentsuite.lifetechnologies.com> and click on the “Register” link on the right-hand side. You will be asked to provide an e-mail account, which you will need to validate, and a password. Remember this password as it will become the password for the “ionadmin” which will be used to access your account and set up your plugin. To complete the registration process you will also need either a valid credit card or a registration code.

## Preparing your Torrent Suite 2.2 instance to run the plugin

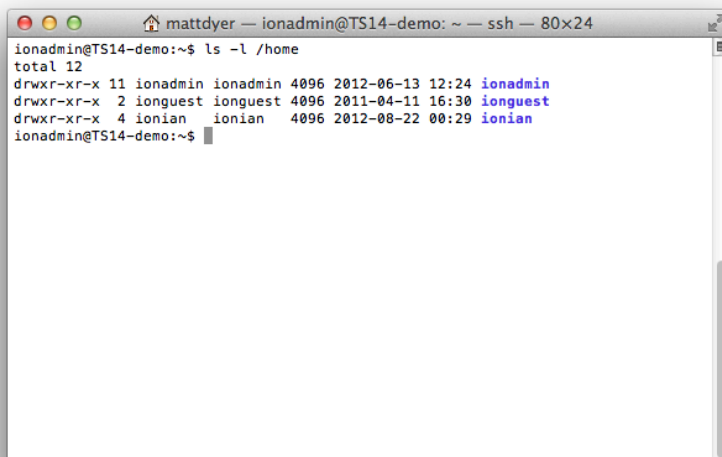
There are two changes that need to be made to your server from which you will want to push data into your new Torrent Suite Cloud account. These changes are required because of the tools the plugin uses to push data into your account. They are only required if you are running Torrent Suite version 2.2 or earlier and these configurations only need to be done once. If you are running Torrent Suite version 3.0 or newer then these modifications are part of the standard software package already.

### Creating the “ionian” user home directory

The Torrent Suite Cloud plugin uses scp and ssh to push data into your cloud instance and to start the import process. These processes require the existence of the home directory for the user that launches them and since “ionian” user is the one who owns the plugin jobs, the directory must be present.

- Log into your local Torrent Server
  - `ssh ionadmin@<your server ip>`
  - Provide password for user “ionadmin” if prompted
- Create the directory for the user ionian
  - `sudo mkdir /home/ionian`
  - Provide password for user “ionadmin” if prompted
- Change the owner of the directory you created
  - `sudo chown ionian.ionian /home/ionian`
  - Provide password for user “ionadmin” if prompted

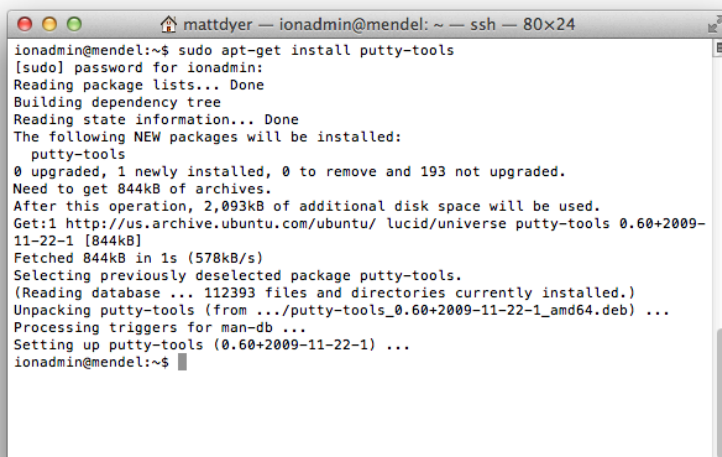
If everything has been configured correctly then when you run a “`ls -l /home`” command you should see something that looks similar to the following.

A terminal window titled 'mattdyer — ionadmin@TS14-demo: ~ — ssh — 80x24'. The user 'ionadmin' is at the prompt 'ionadmin@TS14-demo:~\$'. They have run the command 'ls -l /home', which displays a directory listing for the /home directory. The listing shows three files: 'ionadmin' (11 bytes, permissions 'drwxr-xr-x', owner 'ionadmin', group 'ionadmin', size '4096', date '2012-06-13 12:24'), 'ionquest' (2 bytes, permissions 'drwxr-xr-x', owner 'ionquest', group 'ionquest', size '4096', date '2011-04-11 16:30'), and 'ionian' (4 bytes, permissions 'drwxr-xr-x', owner 'ionian', group 'ionian', size '4096', date '2012-08-22 00:29'). The prompt returns to 'ionadmin@TS14-demo:~\$'.

## Installing putty-tools

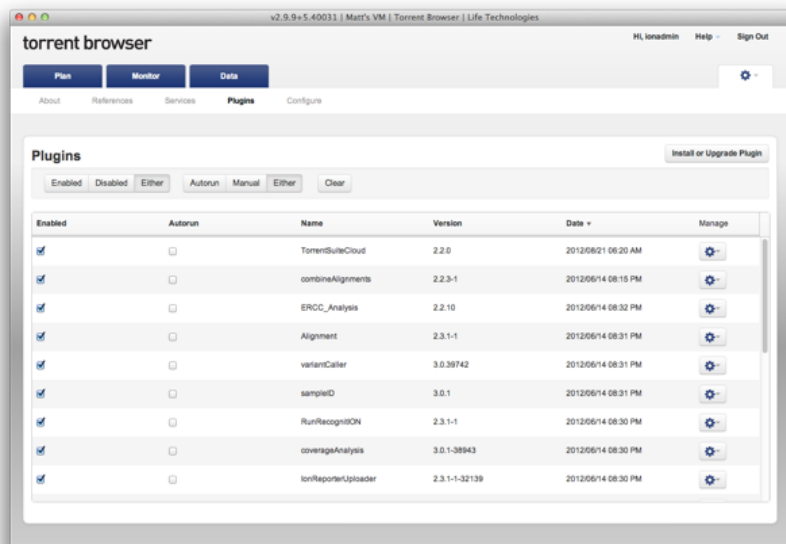
Torrent Suite Cloud plugin uses some extensions of the putty-tools package to automate the usage of the scp and ssh tools.

- Log into your local Torrent Server
  - ssh ionadmin@<your server ip>
  - Provide password for user “ionadmin” if prompted
- Install putty-tools
  - sudo apt-get install putty-tools
  - If prompted to confirm you wish to continue type “y” and hit enter
- You should see the package has installed successfully

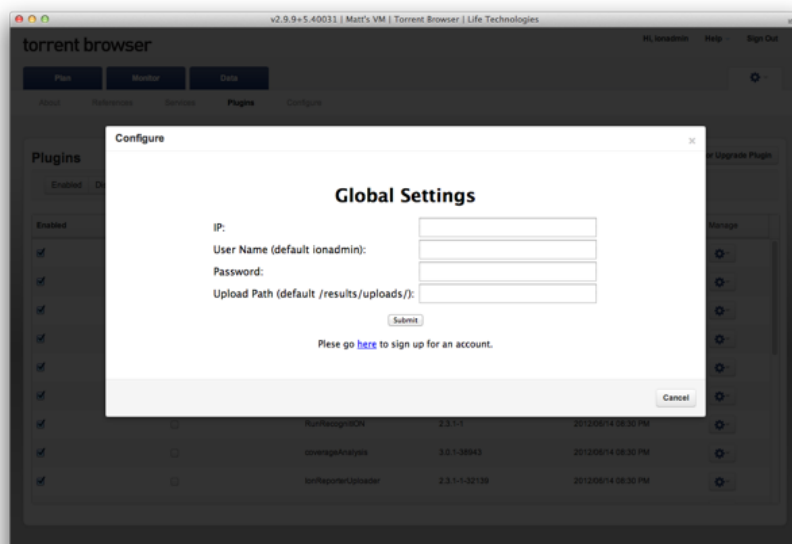
A terminal window titled 'mattdyer — ionadmin@mendel: ~ — ssh — 80x24'. The user 'ionadmin' is at the prompt 'ionadmin@mendel:~\$'. They have run the command 'sudo apt-get install putty-tools'. The terminal shows the following output: '[sudo] password for ionadmin:', 'Reading package lists... Done', 'Building dependency tree', 'Reading state information... Done', 'The following NEW packages will be installed:', 'putty-tools', '0 upgraded, 1 newly installed, 0 to remove and 193 not upgraded.', 'Need to get 844kB of archives.', 'After this operation, 2,093kB of additional disk space will be used.', 'Get:1 http://us.archive.ubuntu.com/ubuntu/ lucid/universe putty-tools 0.60+2009-11-22-1 [844kB]', 'Fetched 844kB in 1s (578kB/s)', 'Selecting previously deselected package putty-tools.', '(Reading database ... 112393 files and directories currently installed.)', 'Unpacking putty-tools (from .../putty-tools\_0.60+2009-11-22-1\_amd64.deb) ...', 'Processing triggers for man-db ...', 'Setting up putty-tools (0.60+2009-11-22-1) ...', and finally the prompt returns to 'ionadmin@mendel:~\$'.

## Installing / Configuring the Torrent Suite Cloud plugin

Getting data from your local Torrent Server to your Torrent Suite Cloud instance is simple and straight-forward. First, download and install the plugin available in the [Torrent Browser Plugin Store](#) on the [Ion Community](#). The [manual](#) and [automated](#) processes of installing the plugin are outlined on the Ion Community as well. Once the plugin is installed you will want to go to the plugins page of your local instance by clicking the settings tab on the far right and then selecting "Plugins".



Then click the settings tab on the right and hit "Configure" and provide the login information for your Torrent Suite Cloud VM.



The IP address is the address associated with your Torrent Suite Cloud VM instance. The password is the password provided when you signed up for your account. For user name and upload path we recommend you use the default values of "ionadmin" and "/results/uploads/" respectively.

## Preloaded references

The Torrent Suite Cloud instances come with two references preinstalled: *E. coli* DH10B and the human genome (hg19). If you need to add additional references to your instance this can be done using the same reference upload process as on your local Torrent Server.

## Expected runtimes

The table below outlines approximate upload and run times for a couple applications. Actual upload times will vary depending upon the speed of your network connection. Running multiple import jobs at the same time will also increase the analysis times.

	AmpliSeq™ HSM	AmpliSeq™ CCP	Resequencing
<b>Chip</b>	314	318	318
<b>Reference</b>	hg19	hg19	<i>E. coli</i> DH10B
<b>Bases</b>	60 Mb	650 Mb	1.8 Gb
<b>Uploading</b>	30 min	4 hrs	7 hrs
<b>Processing</b>	30 min	3 hrs	7 hrs
<b>Variant Calling</b>	30 min	3 hrs	N/A