

PEC 2: SSH Tunneling to

Introduction

Several Spark Web are available thought an internal port of the server eimtcl.uoc.edu. These ports, for security reasons, are not directly accessible worldwide. To access them, we need to configure a SSH tunnel. If you want to know more about it, you can check:

https://en.wikipedia.org/wiki/Tunneling_protocol

Basically, the objective of the SSH tunnel is to connect a local port (in our case our local machine, your computer), let's assume 18088, to a destination port of another machine (eimtcl.uoc.edu in our case), let's assume 18088, through an SSH channel. That is, once configured, whatever is sent to the 18088 of our local machine (localhost:18088) will be accessing the configured port on the destination machine (eimtcl.uoc.edu:18088).

There are many ways in which we can configure the tunnel, but here, we propose the use of Putty for windows users and OpenSSH for Mac and Linux users.

Mac, Linux and Microsoft Windows 10 and newer

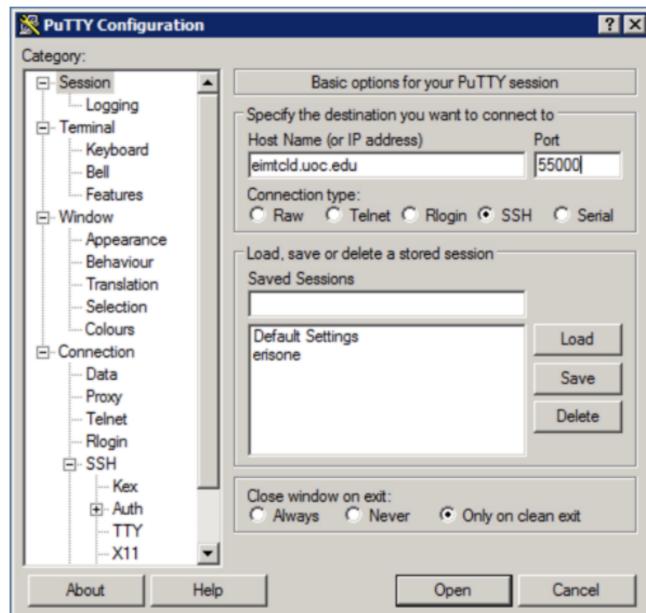
With OpenSSH it is very easy to configure the tunnel, you only need to open a command line session (power shell in Windows or bash in Mac or Linux) and write the following command:

```
ssh -p55000 -L 18088:localhost:18088 <Your_login>@eimtcl.uoc.edu
```

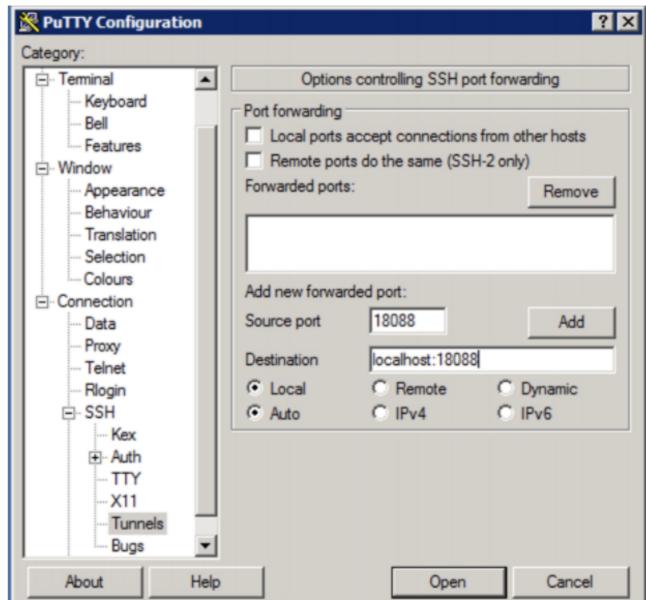
with <Your login> replaced by your actual login.

Older versions of Windows (Putty)

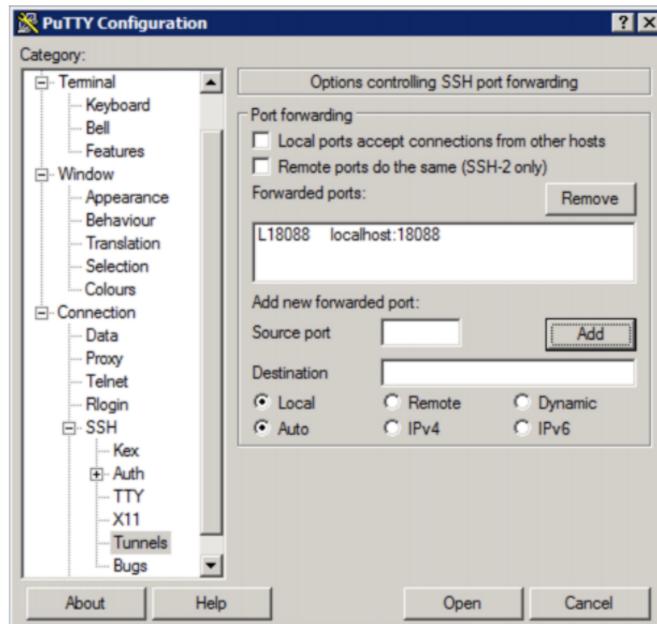
1. Download Putty (putty.exe) from [here](#).
2. Install it.
3. Run Putty.
4. Configure SSH tunnel as follows:
 - a. Configure the SSH connection as follows:



- b. Configure the tunnel as follows:



- c. Click add button.



d. Click Open and start the session with your login and password.

Spark history Server Web UI

Once the tunnel is configured, it is very simple to access the history server. You only need to go to the `http://localhost:18088/` address on your preferred web browser and the requested interface will open. See the following image.

The screenshot shows a web browser window titled 'History Server' with the URL 'localhost:18088'. The page displays a table of application logs. The columns are: App ID, App Name, Started, Completed, Duration, Spark User, Last Updated, and Event Log. The table contains numerous entries, each with a download link. At the bottom, there are links for 'Previous' and 'Next' pages, and a note 'Showing 1 to 20 of 420 entries'.

App ID	App Name	Started	Completed	Duration	Spark User	Last Updated	Event Log
local-1601889973024		2020-10-05 13:56:12	2020-10-05 14:45:27	49 min		2020-10-05 14:45:27	Download
local-1601890500021		2020-10-05 11:35:49	2020-10-05 11:48:17	12 min		2020-10-05 11:48:18	Download
local-1601853419152		2020-10-05 09:36:58	2020-10-05 11:38:22	2.0 h		2020-10-05 11:39:22	Download
local-1601890202887		2020-10-05 11:31:32	2020-10-05 11:37:30	6.0 min		2020-10-05 11:37:30	Download
local-1601879418025		2020-10-05 10:48:01	2020-10-05 11:31:19	43 min		2020-10-05 11:31:20	Download
local-1601801785006		2020-10-04 18:49:37	2020-10-05 11:07:38	16.3 h		2020-10-05 11:07:39	Download
local-1601879389714		2020-10-05 07:39:00	2020-10-05 11:07:37	3.5 h		2020-10-05 11:07:37	Download
local-1601729908685		2020-10-05 14:58:29	2020-10-05 11:07:32	44.2 h		2020-10-05 11:07:32	Download
local-1601873036307		2020-10-05 05:17:15	2020-10-05 11:07:32	5.8 h		2020-10-05 11:07:32	Download
local-1601720206863		2020-10-05 06:27:16	2020-10-05 11:07:32	4.7 h		2020-10-05 11:07:32	Download
local-1601423118023		2020-10-04 22:12:11	2020-10-05 11:07:29	12.8 h		2020-10-05 11:07:29	Download
local-1601832986252		2020-10-05 01:14:47	2020-10-05 11:07:28	8.9 h		2020-10-05 11:07:28	Download
local-1601681326204		2020-10-04 18:15:51	2020-10-05 11:07:28	16.9 h		2020-10-05 11:07:28	Download
local-160182942221		2020-10-04 18:35:42	2020-10-05 11:07:27	16.5 h		2020-10-05 11:07:27	Download
local-1601841164811		2020-10-05 09:48:35	2020-10-05 10:46:13	58 min		2020-10-05 10:46:13	Download
local-1601858534472		2020-10-05 10:17:17	2020-10-05 10:31:34	14 min		2020-10-05 10:31:34	Download
local-1601813969886		2020-10-05 09:01:01	2020-10-05 09:48:28	47 min		2020-10-05 09:48:28	Download
local-1601805797914		2020-10-05 08:49:37	2020-10-05 09:38:51	49 min		2020-10-05 09:38:51	Download
application_1601583854524_0006		2020-10-05 09:20:05	2020-10-05 09:24:43	4.6 min		2020-10-05 09:24:43	Download
application_1601583854524_0005		2020-10-05 09:15:20	2020-10-05 09:16:05	45 s		2020-10-05 09:16:06	Download