Installing a local VESPA client

Project co-funded by the *European Union's Horizon 2020 research and innovation programme*		
Dissemination level		
PU	Public	☑
PP	Restricted to other programme participants (including the Commission Service)	☐
RE	Restricted to a group specified by the consortium (including the Commission Services)	☐
CO	Confidential, only for members of the consortium (excluding the Commission Services)	☐

Project Number	654208
Project Title	EPN2020 - RI
Project Duration	48 months: 01 September 2015 – 30 August 2019

Document Number	VESPA-WP6-2-024-TD-v0.3(35)
Delivery date	
Title of Document	Local VESPA client Installation for VESPA Data Provider Tutorial
Contributing Work package (s)	WP6
Dissemination level	PU
Author (s)	Stéphane Erard, Pierre Le Sidaner, Cyril Chauvin

Abstract: Instructions to install a local instance of the VESPA client (for data providers)

Document history (to be deleted before submission to Commission)				
Date	**Version**	**Editor**	**Change**	**Status**
28 Apr 2017	0.1	Cyril Chauvin	First issue (imported from original mail)	DRAFT
20 Dec 2017	0.2	Stéphane Erard, Pierre Le Sidaner	Checked and completed	DRAFT
20 Dec 2017	0.3	Stéphane Erard	Formatting	

Table of Contents

Data providers can check their service during the design phase using DaCHS' query interface. However, this is only a low level ADQL interface which may be difficult to use. In contrast, the more friendly VESPA portal (search interface) can't access services which are not on the network, in particular those installed on a personal Virtual Machine during development.

As a courtesy to data providers, the code of the VESPA portal is made available on request (support.vespa @ obspm.fr). You can install it on your system to access data services in a DaCHS server installed on your local Virtual Machine, if it is not on line (otherwise you can use the standard interface http://vespa.obspm.fr/ in Custom mode, even if the service is not declared in the registry).

Although VESPA uses and supports open source software, the code of user interfaces is not blindly available on the internet. This is the standard practice to limit hacking by external sources.

1. Installing the VESPA interface in your Virtual Machine

• We assume that you've installed DaCHS under Debian in VirtualBox as described in other docs: EPN-TAP Server Installation for VESPA Data Provider Tutorial

DaCHS is on port 8000
Apache is on port 8080

Python 2 is needed but should already be installed, and the python command should point on python2

Install general tools:
sudo apt-get install subversion
sudo apt-get install python-pip
sudo pip install -U pip

Install librairies used by the VESPA client:
sudo pip install Django==1.10.4
sudo apt-get install python-dev
sudo pip install astropy==0.3
sudo pip install geojson==1.3.2
sudo apt-get install libxml2-dev libxmlsec1-dev
sudo pip install lxml==3.5.0
sudo pip install atpy==0.9.7
sudo pip install python-dateutil

You may get error messages during this procedure; in this case, try:
sudo apt-get update
and redoing the above instructions several times (until messages are no longer plotted)

Installation:
You can install the VESPA client, e. g., in a directory /vespa
In this directory, download the client from the PADC svn site (URL on request). It will create a directory europlanet_client in the current directory

2. Configuration

Next, you have to setup VirtualBox to use port 8001 with the server:
In Config / Networks / Advanced / Port forwarding, add a new entry on port 8001:

Name	Protocol	host IP	host port	guest IP	guest port
ssh	TCP		2222		22
web-apache	TCP		8080		8080
web-dachs	TCP		8000		8000
psql	TCP		5433		5432
vespa-server	TCP		8001		8001

If port 8001 is already in use on your Virtual Machine, use another suitable one (8xxx).

3. Using your local VESPA search interface

To start the server on the guest (VM) machine:
cd ~/vespa/europlanet_client
python manage.py runserver 0.0.0.0:8001
(to quit: Ctrl-C)
Use the port number defined above. The URL *has* to be 0.0.0.0

On your host machine:
In your navigator, type URL http://localhost:8001
The VESPA search interface will load from your VM

To query a service installed in your Virtual Machine / local DaCHS server:
Go to the "Custom resource" tab of the interface, and enter:
URL: http://localhost:8000/tap (the "http://" prefix is required; port 8000 is the one configured for your DaCHS server)
Schema name: your_schema

You should get a single green box in the result page

The standard ("All VO") mode of your client works as usual and can reach external services.