JMeter – Private Remote Servers Or a Service?

Over the past year I have spent a lot of time in close collaboration with Apache JMeter. I used JMeter as a standalone platform, in collaboration with several tools out there and with my own servers. Over the next few posts I will elaborate a bit more on what I have learned from working with tools like BlazeMeter, Loadosophia as well as working with your own remote servers and Jmeter. On top of that I will share some things I consider good practices to use when working with JMeter and building elaborate test scenarios in it.

JMeter and remote servers

JMeter is great as a stand-alone load generator, however the moment you need to generate a substantial load or a distributed load, you will require the use of more servers. There are several possibilities to add external servers to JMeter. You can use a loadgeneration platform such as BlazeMeter and Flood.io or you can choose to use your own machines. (Disclaimer: I have only worked with Flood and BlazeMeter as services, so I only mention these two. There may very well be other services out there I am not (yet) aware of).
Why use your own remote servers?

Although there are several commercial options to run JMeter tests from a cloud-platform, it might be useful to have your own servers running. Your own machines, for example Virtual Private Servers, will give you at least the following advantages, please bear in mind these are the main reasons for me to run private servers. It may very well be that you have different reasons for doing the same (I’d be happy to hear them btw!):

- **Availability within firewalls**: Not all applications are available outside of firewalls. For quite a lot of companies it is not an option to allow external addresses, especially cloud services, within their firewalled environment. When this is the case in your organisation it can be very useful to have your own load generator hosted inside the firewall.

- **Geographical location**: Not each and every country has platforms available for load generation. Although platforms like Blazemeter have a lot of different locations available, it may very well be that your particular country is not available through a service provider. However getting your own, hosted, machines within a country is generally not too difficult to do. Keep in mind though whenever you want to use something like a Virtual Private Server to verify with the hosting company whether they allow load generation from within their network!
Control: a fairly straightforward reason is in order for you to have full, unlimited control over the load generating servers. If you have your own (virtual) servers running you can easily adjust settings, properties and other things in order to make it fully match your (customers) needs.

Why use a service?

Even though there are quite some reasons for using your own machines, the advantages of using a service like BlazeMeter or Flood.io are plenty, I will just highlight the few that for me have tipped the scales several times in favor of a service.

- **Maintenance:** Setting up your own servers is time consuming and therefore not cheap. These servers need maintenance even though you quite likely do not constantly need them. A Service is just there. You buy a subscription, be it with a time constraint (monthly) or a load constraint (max amount of concurrent users) or something like that, but the service is simply at your fingertips. The moment you need it, you have it.

- **Multiple locations:** the JMeter based services generally make use of the Amazon AWS cloud, thus giving you, the user, an immense amount of servers at your disposal. With this comes a huge worldwide distribution, which can be very advantageous for big world-wide used applications.

- **Support:** both mentioned platforms have a very solid support base for their customers. If you have questions, if your tests seem to not run properly or you simply have issues getting something done, there generally is a good support platform available. You can
use forums or the actual helpdesk, but either way, there is a good, solid, commercial support-base to help resolve your issues.

In the end, I choose per assignment what best fits my needs. Sometimes I use the VPS, sometimes I use a service. It is important you at least think about what best suits your needs for the test you are about to build and execute.

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