v.10 – Testing Configurations

Don MacVittie, 2009-16-04

Note: If you're here for Load Balancing for Developers or Reasons You Need File Virtualization (both iterated on my team page), I took this week and last off to cover v.10, check back next week.

Forest, Trees…

The new functionality in v.10 is so expansive that it's easy to get buried and not see the larger picture right away. That's kind of what happened to me when this blog post came about. Originally I was going to write about using Logical Volume Management (lvm) for testing configurations, but honestly the release of evaluation licensing makes for some other interesting scenarios, so I'm going to make this post about testing new configurations in v.10 with both toolsets – because you don't work in a vacuum.

The challenge in the enterprise is to set up and test new configurations and updates to firmware on boxes that are, quite often, the gateway to the world. While we would love for all of you to purchase an extra set of BIG-IP devices just to test on, the reality is that some of you do and some of you never will. We want to make certain that those who don't have an extra set of boxes lying about have the ability to test things without risking their core network. We know that our updates are solid, and presumably before you roll them into testing you know your configuration changes are solid, but mistakes happen, and we don't know your specific network's quirks when we ship an update. Prudence dictates that if you must test on your core network, you have a path of recovery.

Credit Where Due…

We are aware of your issues, and our Product Management and Product Development folks have stepped up and improved our already solid upgrade/config testing. So while I sound great, remember I'm just the guy with the pen, a lot of other people put their hard work into making this stuff happen, I'm just the lucky stiff that gets to talk about it.

Two Great Tastes…

One of the core advantages of lvm is the ability to create a huge number of volumes on the disks installed in your BIG-IP and then switch to boot from different ones at different times. While the partitioning scheme used prior to v.10 allowed you to have more than one partition, that number was extremely limited. This bit of functionality will be helpful in creating and updating a test volume every time you wish to make high-risk changes to the BIG-IP.

One of the core advantages of Evaluation Licensing is that you can say "I want to try this module out" and it runs for the time period and then expires, leaving the volume and the TMOS install on it otherwise unchanged. This gives you the ability to test functionality in a known good configuration before committing to putting it into production.

But when these to functions are combined… Well how about you copy your current production volume to a new volume called Test1, then you activate Evaluation Licensing on Test1 for the module you're interested in, and then, when things are quiet (are they ever quiet these days?) on the network, you reboot to Test1 and try it out. When done testing, you boot back to your production volume and life continues on – *no matter what you thought of Test1*. Then if you liked the module, you license it in production and delete volume Test1 or the or clean the configuration on it and save it for next time.

And Standalone as Well…

While combined there is power behind these technologies, the wizardry is not (as you probably already guessed) all in the combinatorics. Having the ability to make a bunch of volumes and test on them means that you can try out a whole lot of different configuration changes all at the same time, and keep them between tests. While our secret ability to let you change configurations via iControl and not save them was great, this gives you a more cohesive testing environment where you can make the changes in the UI, save them, and test to your hearts content without fear of running out of time before a reboot. And having the ability to turn on a module that you think you need and test it for a limited time without any worries about the impact to the rest of your configuration is huge too. Like test-driving a car, you have the whole enchilada in your hand for that time period and can make an informed decision about usefulness to your team.

I don't know about you, but assuming you can find the man-hours, try it before you buy it has always been my preference for the short list in any given evaluation. Sales guys are great and all, but every sales person is highly motivated to sell you product that they *truly believe* will solve your problems. Throwing it into your specific environment and kicking the tires is the best way to see if they're right given your circumstances, network architecture, application needs, etc.

There is too much, let me sum up...

I could blather on and delve into deep technical detail here, but it's a blog post, so instead, I'll point you direct to the source of all the great information I would be pulling from to give you more detail. Our Technical Publications team has written a lot about this stuff that is available on ask.f5.com in the v.10 area (ask.f5.com login required), I've already linked to Jeff's Evaluation Licensing article above, I have a short blog on the joys of lvm, Alan Murphy, one of our Technical Management folks, has written a great whitepaper on lvm and the new Live-Install functionality that is also available in audio. That should be enough to get you started, I would think.

The best part of these two bits of functionality, from my perspective, is that they are forward looking. They are designed to enable us to offer you more functionality over time without disrupting your work flow. That's huge in my book, you have quite enough problems already, I love it when we focus on making your life easier.

Don.