

How NETSCOUT is Disrupting the Packet Broker Market

By Jim Metzler

Because of my role as an industry analyst, vendors frequently review new products with me. During the review, it is common for vendors to claim that their product has a fundamentally new architecture or it represents a disruption in the market. Claims like that always raise three key questions in my mind. Those key questions are:

- 1) Is the product targeting an important use case where the existing solutions are weak?
- 2) Does the project really represent a disruption in the market?
- 3) If it does, is the approach that the vendor took to develop the product mainstream or is it highly vendor-specific?

NETSCOUT recently reviewed a new product with me – the nGenius PFS 5000 Packet Flow Switch. I am going to use this blog to discuss that product in the context of the three key questions.

Use Case

The primary use case that the PFS 5000 addresses is providing effective and efficient pervasive visibility for both service assurance and for security. This is clearly not a fundamentally new use case. It has been around for decades. What is new is that providing effective and efficient pervasive visibility is becoming increasingly more central to the success of a business and it is also becoming increasingly more difficult. The increased importance is due in part to the fact that as companies evolve to become a digital business, their key business processes rely on multiple IT services. Hence, if those services aren't performing well, neither are the business processes. The increased importance is also due in part to the large and growing impact that cyber hacking is having on businesses of all types and sizes. For example, according to [an IBM report](#) by 2019 cybercrime will become a 2.1 trillion-dollar problem.

The primary reason why providing effective and efficient pervasive visibility is becoming more difficult is because the IT infrastructure is becoming increasingly more complex. That complexity was discussed in an [article in Network World](#). That article explained that, “As enterprises embrace technologies ranging from virtualization to cloud computing, the focus turns to making networks faster, flatter and more efficient. Today's changing networks must support ever-increasing traffic volumes, higher speeds and more service types, as well as increased requirements for security, analytics and compliance.”

Market Disruption

The initial motivation to adopt SDN was to overcome the limitations of the existing networking equipment which was hardware-based, proprietary, rigid and expensive. These same characteristics apply to the traditional set of packet brokers and because of these characteristics,

the existing solutions struggle to provide effective and efficient pervasive visibility in the increasingly complex IT environment.

The architecture of NETSCOUT's nGenius PFS 5000 Packet Flow Switch represents a fundamentally new approach. As opposed to a hardware-centric solution, the nGenius PFS 5000 Packet Flow Switch disaggregates the software from the hardware and provides either an integrated appliance or software that runs on commodity hardware.

Leveraging Market Trends

While there occasionally are exceptions, I always advise my clients to at least consider adjusting their IT strategy to continually mirror the megatrends in the industry. I don't do that because I want my clients to be lemmings who blindly follow others. I do it because if the IT industry is making big investments in certain new technologies and architectures, then in most cases the biggest improvements in functionality and cost effectiveness will occur in those areas.

NETSCOUT's nGenius PFS 5000 Packet Flow Switch fits in nicely with several industry megatrends. One that was previously mentioned is the movement away from hardware-centric solution and towards disaggregated, software-based solutions. Another important industry trend is the adoption of open hardware solutions typified by the Open Compute Project (OCP). The goal of the OCP, which was initiated by Facebook in 2009 and now has hundreds of member companies, is to redesign hardware technology to efficiently support the growing demands of the compute infrastructure. One of the choices that NETSCOUT is offering to their clients is for them to run NETSCOUT's packet flow operating system (PFOS) on OCP hardware from any reseller.

Conclusions

The packet broker market has been staid for several years. Over that timeframe packet broker vendors have certainly added features to their products, but they haven't fundamentally changed the architecture of those products. That's ok because architectures shouldn't change frequently. They should, however, change when the business and/or technology environment changes significantly.

Given the growing criticality and difficulty of providing effective and efficient pervasive visibility, it's time for a disruption in the packet broker market. In large part because it disaggregates the software from the hardware, NETSCOUT's nGenius PFS 5000 Packet Flow Switch creates such a disruption. However, this is not a disruption just for the sake of disruption. The architecture of the nGenius PFS 5000 Packet Flow Switch is in line with the architectural trends brought to the market by SDN and it also is in line with the movement to open hardware solutions, such as those brought to the market by the OCP.

