The requirement for organizations to distribute infrastructure services has steadily risen as modern applications are commonly deployed in data centers, clouds, and edge locations. And as organizations focus on delivering optimized performance and experiences to their customers, this is only one way the goal is to enhance those services as close as possible to the applications, without impacting the CPUs (compute processing units) supporting the applications.

Organizations need to offload infrastructure services (network, security, visibility, etc.) from the CPU—but deploying individual appliances for each service introduces increased latency and additional costs. Leveraging multiple vendor technologies can also increase complexity.

Optimize Dell VxRail Compute with DPUs (Data Processing Units)

Organizations' top goals for digital transformation (DX) are to improve performance and utilization of appliance-based services introduce latency and costs.

- Bob Laliberte, ESG Principal Analyst

Dell and VMware have partnered to deliver distributed infrastructure services on DPUs (Data Processing Units) called the VxRail Distributed Services Engine™.

Distributed infrastructure service solutions running on DPUs deliver value

- Modern software-based infrastructure services loaded on servers drain expensive CPU resources, impacting performance and utilization.
- Offloading infrastructure services to DPUs ensures optimized application performance and CPU utilization.
- Organizations can leverage familiar tools (NSX, vSphere Distributed Services Engine, vCenter, etc.) for both CPU and DPU.
- Improved customer experiences with more performant applications.

Pre-tested and validated solutions accelerate time to value

- Turnkey solution with choice of integrated DPU and VMware services simplifies and accelerates organizations’ transition to leveraging distributed services. Organizations can quickly gain benefits to deliver differentiated application performance and ensure CPU utilizations optimized.
- Additional efficiencies are gained with a common operational model for both CPUs and DPU leveraging vCenter and automated lifecycle management.

The Bigger Truth

Modern application environments are rapidly gaining ground in the enterprise. However, legacy architectures that require multiple infrastructure services (i.e., network, security, visibility, etc.) hosted on either individual appliances or server CPUs require significant performance, security, and cost efficiency.

Organizations need turnkey solutions that take advantage of DPUs enabled kernels, which enable infrastructure services to be offloaded from the CPUs and deliver optimized performance with a common operational model.

Dell and VMware have partnered to deliver a DPU-enabled VxRail that offers businesses such as NetApp the ability to improve latency and cost.

The software application performance and operational efficiency, along with a jointly engineered and tightly integrated DPU package leveraging a common toolset, can help organizations shrink latency and provide more cost-effective solutions.