

BROCADE AND WIND RIVER

Brocade and Wind River NFV Solutions Deliver Carrier Grade Reliability and Accelerate New Services

Brocade and Wind River® have partnered to integrate the Brocade Vyatta virtual router and virtual application delivery controller (ADC) with Wind River Titanium Server to achieve the following critical benefits for Network Functions Virtualization (NFV):

- **Increase business agility and reduce the service provider's time-to-market:** Deploy virtual infrastructure faster to create new service offerings.
- **Drive revenue:** Introduce new high-value services and increase average revenue per user (ARPU).
- **Improve service reliability:** Meet "always on" expectations of enterprise customers and guarantee six 9s (99.9999%) service reliability to reduce customer churn.
- **Reduce operating expenses (OPEX):** Increase the number of subscribers per blade to decrease OPEX without degrading performance.
- **Improve performance:** Unlock 10x performance gain on Intel® architecture (IA) with the Brocade virtualized network functions (VNFs).

ENABLING VIRTUAL ENVIRONMENTS THAT INCREASE AGILITY AND IMPROVE SERVICE DELIVERY FOR SERVICE PROVIDERS

As service providers seek to reduce costs and accelerate the delivery of new services, they are moving away from a traditional business model built upon the acquisition of proprietary networking equipment from a single vendor. The advent of Software-Defined Networking (SDN) and NFV enables service providers to move toward a model that supports accelerated trials of new services, easier and lower-cost turn-up of sub-market testing, and rapid introduction of services that are attractive to customers.

NFV creates opportunities for cost savings through reductions in capital expenses (CAPEX) and OPEX. CAPEX reduction comes from the use of commodity hardware, simplified customer premises equipment (CPE) devices, and workload consolidation, while OPEX is minimized as a result of reduced provisioning and maintenance costs. The ability to launch new services and accelerate service introduction enables service providers to increase their average revenue per user (ARPU).

Service providers can deliver up to 10x performance improvements with Brocade VNFs on commercial off-the-shelf IA-based systems, providing capacity equal to or better than those purpose-built hardware appliances.



BROCADE

Ecosystem Component
VNF provider

Solutions

- Vyatta vRouter
- vADX

Value

- Scales up performance as demand dictates
- Scales out as customers and services grow
- Reduces operational complexity and costs
- Accelerates the delivery of network services

NFV brings the promise of improved business agility as well—but virtualized environments also create new challenges for service providers. Service providers cannot risk losing high-value customers, increasing churn, and experiencing declines in ARPU if NFV delivers anything less than six 9s reliability. Demands for carrier grade performance necessitate a solution that ensures this reliability at the service level.

Fortunately, new system-level modularity is a key enabler of network-level designs, and with infrastructure designed specifically for carrier grade NFV, service providers can help ensure the business agility they seek with the network performance and reliability their customers demand.

AN ECOSYSTEM ENABLING THE PROMISE OF NFV FOR SERVICE PROVIDERS

Through the Titanium Cloud ecosystem, Wind River has collaborated with industry-leading hardware and software companies to ensure the availability of interoperable standard NFV products optimized for deployment with Wind River Titanium Server. Utilizing solutions from the Titanium Cloud ecosystem will accelerate time-to-market, reduce risk, and significantly improve the deployment of an end-to-end NFV infrastructure.

BROCADE AND WIND RIVER: NFV TO MEET THE PERFORMANCE AND DEPLOYMENT DEMANDS OF SERVICE PROVIDERS

Together, Brocade and Wind River help service providers reap the benefits of NFV while reducing implementation time and risk and enabling the reliable delivery of new services. With a validated solution that combines Brocade Vyatta vRouter and vADX as well as Wind River Titanium Server, service providers can build resilient, reliable, and high-performance networks to support service growth while meeting the demands of enterprise customers.

As a participant in the Titanium Cloud ecosystem, Brocade Vyatta vRouter and vADX are optimized for deployment with Titanium Server. The result is a combined solution that is high-performance, pre-integrated, validated, and available for deployment in live networks.

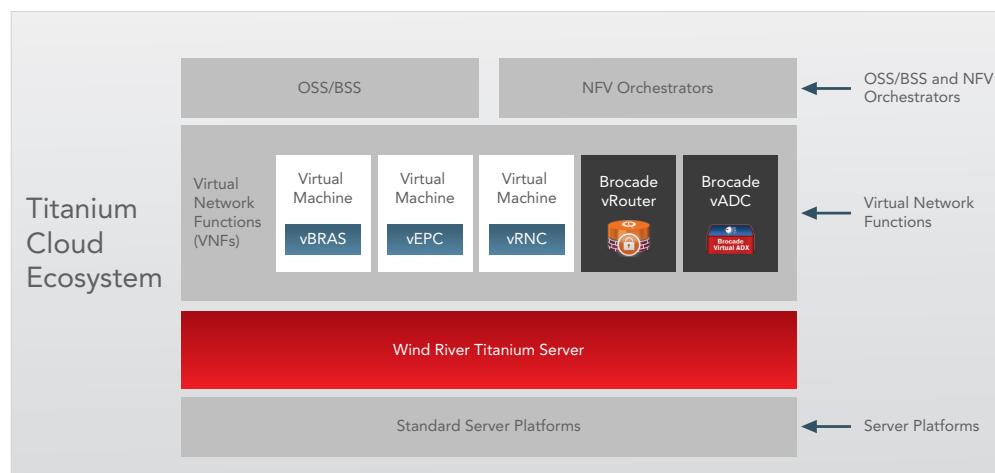


Figure 1: Titanium Cloud components with Brocade Vyatta vRouter and vADX

MORE INFORMATION

Detailed technical information about Brocade can be found at www.brocade.com.

Detailed technical information about Wind River Titanium Server can be found at www.windriver.com/products/cgcs/.

Additional information about the Titanium Cloud ecosystem can be found at http://windriver.com/announces/titanium_cloud_partner_program.

BROCADE: VYATTA VROUNTER AND VADX

Built for NFV, Brocade Vyatta vRouter provides advanced routing and an ADC in software without sacrificing the reliability and performance of hardware networking solutions. Now service providers can quickly and cost-effectively roll out and provision new services to increase revenue streams without increasing costs or complexity. Vyatta vRouter and vADX gives service providers the ability to achieve a high level of performance using readily available, off-the-shelf components and systems.

- **Scale up performance as demand dictates:** The distributed architecture eliminates resource contention and optimizes performance through linear scaling of multiple virtual CPU cores.
- **Scale out as customers and services grow:** Increase per-tenant scalability by simply adding virtual machines as the number of tenants grow with VNFs typically deployed in physical appliances.
- **Reduce operational complexity and costs:** Cost-effective “pay-as-you-grow” pricing avoids wasteful overprovisioning while simplified design, deployment, and ongoing management of services decrease administrative complexity.
- **Accelerate the delivery of network services:** Roll out and support advanced routing, VPN, firewall, NAT, complete L4 and L7 load balancing, application protection, SSL optimization, and networking monitoring services for physical, virtual, and cloud environments.

WIND RIVER: TITANIUM SERVER

As the industry's first fully integrated and feature-complete NFV software platform, Wind River Titanium Server enables an NFV infrastructure to achieve the ultra-reliability and high performance mandated for telecom networks. It delivers six 9s reliability, in contrast to the three 9s of virtualized platforms based on common enterprise software. Combining open source and open industry standards together with required carrier grade features, Titanium Server is the only commercial server solution enabling service providers to maintain the rigorous uptime required as networks transition to a virtualized infrastructure. With Titanium Server, service providers can now meet the “always on” expectations of consumers.

SUMMARY

The partnership between Brocade and Wind River enables service providers to leverage NFV without sacrificing the reliability and performance of hardware networking solutions. By collaborating with Wind River through the Titanium Cloud ecosystem to provide interoperable networking services, Brocade delivers best-in-class performance on an open platform, enabling the rapid creation of innovative and reliable systems.

WIND RIVER