6WIND

The Future of Networking Is Cloudy

The networking and telecom industries are undergoing a transformation due to modern advances that promise cost savings and flexibility. This shift from rigid and costly dedicated hardware equipment to virtual and cloud based-architectures towards **software-defined networking (SDN)** and **network functions virtualization (NFV)** has gone well beyond rhetoric to live implementation.
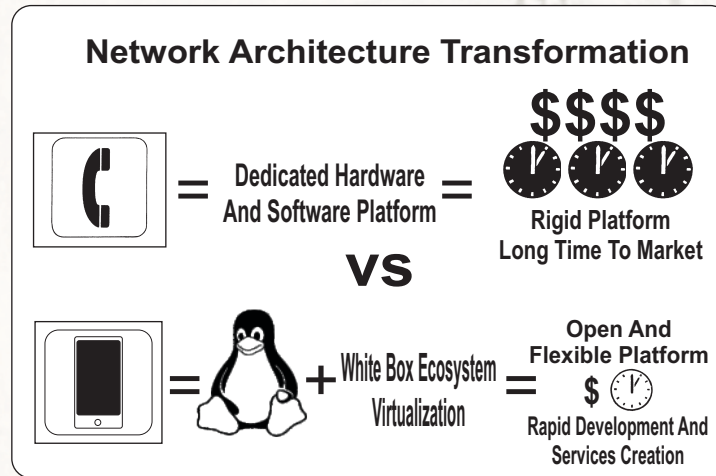
The Winds Of Change Are Blowing

Cloud computing's central premise relies on the distribution of lower-powered, lower cost hardware with virtual applications acting to leverage scale. The past 20 years has seen Linux and virtualization enable this greatly, taking advantage of the white-box computing environment that's been so popular and pervasive. Developers in particular finally have a cost-effective compute platform no longer restrained by proprietary standards. From server to desktop, Linux has been proving itself not only cost-effective, but enterprise capable as well.

As a result, networking and telecom equipment is taking the form of Linux with virtualized servers, and even broader virtualized networking, whereby software can be deployed and customized as needed. Other market externalities, such as the changing nature of network traffic from accommodating voice to increasingly IP-based data bundles, are requiring particular sensitivities to infrastructure performance and hastening the need for this transition.

Networks that delay their shift to virtual and cloud-based architectures are already suffering from higher costs and rigidity to deliver new products and services. Moreover, time-wasting deployments of wasteful hardware systems can result in lost business opportunities for the forward-thinking service vendor. Virtualization offers an answer to this by offering an alternative platform to create services and applications on flexible network architectures.

The Future Is Open

Network Architecture Transformation

Dedicated Hardware And Software Platform = Rigid Platform Long Time To Market $$$$

VS

= Linux + White Box Ecosystem Virtualization = Open And Flexible Platform $ Rapid Development And Services Creation

Having community oriented innovation has the net effect of a large quality assurance team, with the unique quality of peer and user reviews with actual hands-on influence. Much like Darwin's finches or **Wikipedia®**, only the best qualities survive ensuring open-ended compatibility and platform life.

However, if the proper software architecture is not deployed on servers with the transition to new generation architecture, competitive advantage and time-to-market is lost because performance will decrease versus legacy equipment. Any potential cost savings in capital equipment can quickly be erased by increased administration costs and expenses.
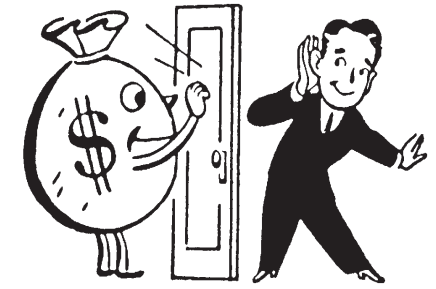
Opportunity Knocks, But I Need More Performance!

Without proper oversight, virtual machines and cloud infrastructure can be real headaches by demanding increasing requirements of hardware to accommodate an increasing software footprint. If you are developing a Linux-based server networking application for the new generation of your architecture, beware of storms ahead.

The Future Is Software

A requirement of this software revolution is that the same or greater performance be achieved with virtualization as with legacy physical equipment to realize cost savings and flexibility, but this is not natively possible. Hypervisors, virtual switches and virtual machines that build the cloud application foundation add layers of software overhead and associated bottlenecks.

6WINDGate™

*Leverage Open Networking

*Ensure Product Roadmap

*Unlock Hidden Performance

*Enable Transition To SDN / NFV

6WIND exists to enable this software transition with technology designed to bypass bottlenecks before they occur. As a result, 6WIND can accelerate your application more than tenfold, whether physical or virtual. It can do this by acting as a transparent network stack that decouples certain network traffic outside of the operating system kernel.

6WIND acceleration occurs linearly with the number of processors that are used while at the same time increasing individual processor efficiency. In this sense, it is very much like Adam Smith's division of labor applied to network processing. Critical network functions can be grouped to perform faster and benefit from economies of scale.

The Future is 6WIND

6WIND's commercial software solves performance challenges for network vendors in telecom, enterprise and cloud infrastructure markets. The company's **6WINDGate** packet processing software is optimized for cost-effective hardware running Linux with a choice of multicore processors to deliver a wide variety of networking and security protocols and features.

By solving critical data plane performance challenges on multicore architectures, **6WINDGate** enables a cost-effective value
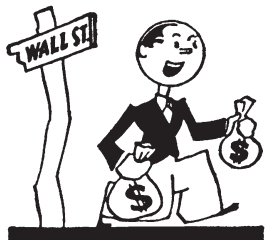
Voilà! 6WINDGate increases performance for my product, and my company!

proposition as we transition to the future with software-defined networking **(SDN)** and network functions virtualization **(NFV)**.

Deployment of 6WIND is easy and universal. It has drop-in portability to any version of Linux or hypervisor, without any change to the existing environment. With 6WIND, you get OEM fitment with aftermarket performance.

6WIND is a founding member of **dpdk.org**, which is a major open source community that enables high performance network applications such as NFV.

6WIND Facts

6WIND is privately held and headquartered in France, with offices in Asia and the US.

6WIND is a software company that makes packet processing software that delivers 10x the network performance for physical and virtual Linux network applications.

Since the first shipment of its **6WINDGate** software in 2007, 6WIND has been selected by Blue Chip companies to unlock hidden infrastructure performance.

6WINDGate is used by developers creating embedded network applications on Linux, such as L2 - L4 acceleration, IPsec VPN gateways, TCP/UDP termination, virtual switching, Intel® DPDK and other advanced network functions.

6WINDGate is the only heterogeneous networking stack to support market-leading hardware platforms including Intel-based with non Intel-based network interface cards (NICs) on Intel® DPDK.

6WINDGate™

Packet Processing Software
Up To 10x Network Performance

Increase Data Plane Performance
No Change To Linux Environments
Portable Across All Major Platforms
Support Extensive Set Of Protocols

fast path

6WIND

OEM Fitment
Aftermarket Performance

www.6wind.com

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