



vEPC to Meet the Highest Performance Demands, Maintain Reliability, and Launch Services Faster

Affirmed Networks and Wind River

WHEN IT MATTERS, IT RUNS ON WIND RIVER

EXECUTIVE SUMMARY

Network transformation, which includes Network Functions Virtualization (NFV) deployment, is a hot topic among communication service providers (CSPs) worldwide. Accelerating the deployment of NFV solutions is crucial to evolution and better utilization through software-defined services.

The partnership between Affirmed Networks and Wind River® unites our best-of-breed solutions to help accelerate this transformation by allowing service providers to leverage NFV without sacrificing the reliability and performance of hardware networking solutions.

Some of the value this virtual EPC (vEPC) solution from Affirmed Networks and Wind River can deliver includes:

- 50% lower total cost of ownership vs. traditional networks
- Accelerated time-to-market for launching services
- Carrier-class performance and reliability

TABLE OF CONTENTS

Executive Summary	2
Introduction	3
Acceleration of NFV deployments	3
An Ecosystem Enabling the Promise of NFV for Service Providers	3
Next-Generation Network Architectures	3
Affirmed Mobile Content Cloud	3
Wind River Titanium Cloud	4
Conclusion	4

INTRODUCTION

As part of the Wind River Titanium Cloud™ Ecosystem, Affirmed Networks and Wind River have partnered to accelerate the deployment of solutions for NFV. Together, Affirmed Networks and Wind River provide a market-ready, end-to-end NFV solution, carrier grade uptime and reliability, and interoperability with other pre-validated NFV elements. Product benefits include:

- 50% lower total cost of ownership vs. traditional networks
- Carrier class reliability
- Sophisticated load balancing and policy control for maximum performance
- Ability to scale capacity up or down on demand, eliminating stranded assets
- Accelerated time-to-market for new services with internal service chaining, easy-to-use GUI, and integrated deep packet inspection (DPI) and value-added service (VAS)

ACCELERATION OF NFV DEPLOYMENTS

A network transformation is underway to enable better utilization through software-defined services. Communication service providers (CSPs) are seeking best-of-breed solutions that can help accelerate this transformation. They are also demanding solutions that provide seamless automation without compromising the “always on” reliability expected from carrier grade systems. Affirmed Networks and Wind River have joined forces through the Titanium Cloud Ecosystem to create solutions that ensure the highest levels of reliability and interoperability.

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 Cloud. 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.

NEXT-GENERATION NETWORK ARCHITECTURES

Affirmed Networks is leading the industry in the deployment of NFV-based solutions for mobile network operators worldwide. The company’s Mobile Content Cloud™ solution is currently deployed in more than 35 customers across the globe, with an additional 40+ trials and deployments underway as operators continue to experience the benefits that NFV can provide in terms of cost and service creation.

AFFIRMED MOBILE CONTENT CLOUD

Affirmed Networks’ unique vEPC solution allows mobile network operators (MNOs) to add network functionality and capacity using software-based solutions that can be deployed on commercial off-the-shelf (COTS) servers and managed virtualized environments for much higher efficiencies of scale and cost.

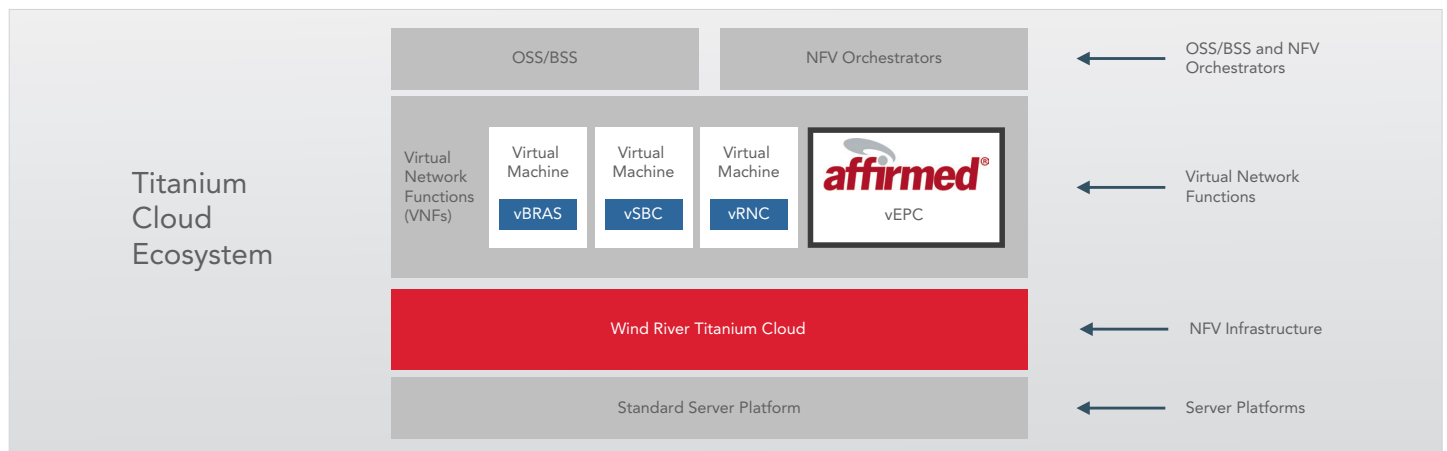


Figure 1. Titanium Cloud components with the Affirmed Mobile Content Cloud EPC

Advantages include:

- 3GPP-compliant Serving GRPS Support Node (SGSN) and Mobile Entity Management (MME) functions to support large-scale network services for 2G, 3G, 4G, LTE, and VoLTE
- 3GPP-compliant Gateway GPRS Support Node (GGSN), Serving Gateway (SGW), and PDN Gateway (PGW) functions with broad protocol support for external networks
- Affirmed Virtual Probe, colocated with the Affirmed vEPC, reduces hardware costs, network complexity, and performance issues associated with separate network appliance probes
- Service orchestration that enables operators to create and launch customized multiservice offerings in days. Affirmed Service Automation Platform (ASAP) allows MNOs to automate new service configurations using predefined “recipes” and seamlessly orchestrate those changes across both physical and virtual elements in their networks
- Evolved Packet Data Gateway (ePDG) and Trusted WLAN Access Point/Gateway (TWAP/TWAG) functions for secure access to trusted and untrusted Wi-Fi networks and EPC to Wi-Fi integration (also known as “heterogeneous networks” or “HetNets”)
- Policy Control (PCRF), Home Subscriber Server (HSS), Online Charging System (OCS), Authentication Authorization and Accounting (AAA), and Policy Control Enforcement Function (PCEF) that feature dynamic policy enforcement, real-time charging, and a multitude of revenue-generating services

The combined Mobile Content Cloud and Titanium Cloud solution ensures that mobile networks meet the highest performance demands, even under peak workloads, while maintaining the reliability needs of a telecommunications solution.

WIND RIVER TITANIUM CLOUD

As the industry’s first fully integrated and feature-complete NFV software platform, Titanium Cloud enables an NFV infrastructure to achieve the ultrareliability and high performance mandated for telecom networks. It delivers six nines (99.9999%) reliability, in contrast to the three nines of virtualized platforms based on common enterprise software. Combining open source and open industry standards, with required carrier grade extensions, Titanium Cloud is the only commercial server solution enabling service providers to maintain the rigorous uptime required as networks transition to a virtualized infrastructure. With Titanium Cloud, service providers can now meet the always-on expectations of consumers.

CONCLUSION

The Affirmed Networks and Wind River partnership 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, Affirmed Networks helps both vendors and operators to truly experience the transformational benefits that NFV can deliver.

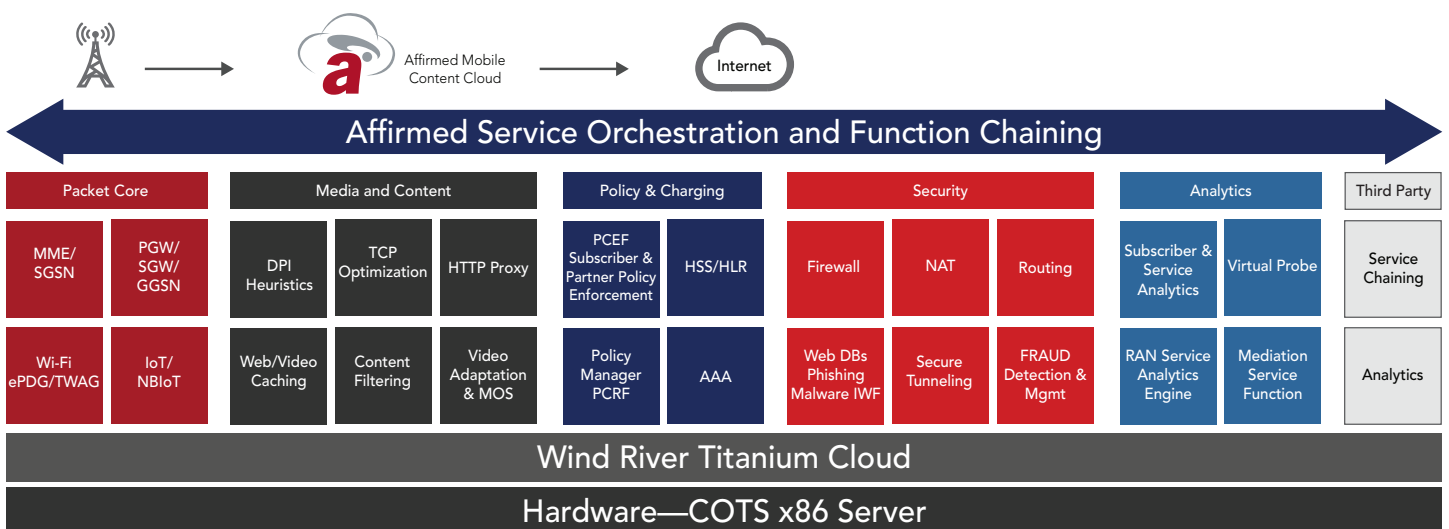


Figure 2. Affirmed Services workflow with Titanium Cloud

