Tech Mahindra VNF-Xchange

Technology accelerators for Rapid Network adoption
Overview
With many years of experience in network transition, operations and transformation, Tech Mahindra has unique insights into network services. Equipped with state of art Global Network Operations Center, well defined framework, robust tools practice and processes accredited by world’s leading standard bodies coupled with resource expertise across multi-domain and technologies, Tech Mahindra's has been offering network services to leading CSPs. TechM has 30 years of experience in providing IT services, 15+ years of providing network service and now involved network of future technologies (NFV/SDN) with a number of pilot projects, maintain SDN/NFV laboratories and are active in this space with good domain understanding.

Tech Mahindra’s VNF Xchange program provides a platform for end to end solution integration, validation, benchmarking & certification of Virtual Network Functions (VNF) and end to end solutions. The VNF-Xchange acts like a facilitator between the partner community and the customer community by integrating and validating the system on a reference platform and determining its functional and performance characteristics.

Business Challenges
With the Onset of 5G and the new technologies Communications Service Providers (CSPs) are under continuous financial, competitive and operating pressures. The demands of service differentiation with better customer satisfaction and challenging timelines CSPs are always under pressure to provide the best to the ever demanding customer. 5G & SDN/NFV will revolutionize the way telecommunications networks are being built and operated.

Challenges faced in Network Adoption
CSPs are investing time and money for continuously refining their network with a goal to enhance customer experience and their level of satisfaction to contain churn. While the NFV & SDN technologies have evolved to a level where they can be implemented, in practice challenges still exist to realize the promise they show. Given the investment involved, lack of widely accepted standards, multitude of implementation alternatives available and unproven nature of inter-working between multi-vendor components & systems, it is becoming difficult for the potential adopters to define their business case and make a choice for implementation suitable for their requirement.
VNF Xchange Platform

VNF Xchange program provides a common platform to define the productized solutions and validate the Virtual Network Function (VNF), the components of the defined reference architecture and more broadly the solutions or use cases to be realized. It is an answer to industry challenges. The VNF-Xchange provides a platform to make this happen.

VNF Certification

Tech Mahindra has been involved for VNFs Certification and engaged with TIER-1 US TSP. We have done 55+ VNF Certifications for various CSPs and OEM partners.

<table>
<thead>
<tr>
<th>VNF</th>
<th>Vendor</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>vEPC(vSAEGW)</td>
<td>Cisco</td>
<td>Certifying all functional and performance requirements of SPGW over virtualized platform.</td>
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<tr>
<td>vPCRF</td>
<td>Cisco</td>
<td>Certifying all functional and performance requirements of PCRF over virtualized platform.</td>
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<tr>
<td>Mobile DNS</td>
<td>RHEL/BIND</td>
<td>Certifying the functional and performance requirements of virtualized DNS servers</td>
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<tr>
<td>Load Balancer</td>
<td>F5 LTM</td>
<td>Certifying functional and performance requirements of virtualized load balancers.</td>
</tr>
<tr>
<td>Firewall</td>
<td>F5 AFM +LTM</td>
<td>Certifying functional and performance requirements of firewall for non port 80/443 traffic.</td>
</tr>
<tr>
<td>JSA</td>
<td>Juniper</td>
<td>Certifying log collection and VNF solution synchronization of virtualized JSA (Juniper Security Analytics)</td>
</tr>
<tr>
<td>Session Director</td>
<td>F5</td>
<td>Intelligently distribute sessions over different zones based on load.</td>
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<tr>
<td>SDN</td>
<td>Juniper</td>
<td>Quantifying the CPS of kernel and DPDK based vRouters</td>
</tr>
<tr>
<td>Zone</td>
<td>Juniper</td>
<td>Re-dimensioning the customer architecture based on the quantified vRouter CPS.</td>
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Benefits

**Benefit for the Partners**

- Solution Validation on multiple environments
- Pre-integration with other NFV eco-system components, thus proving interoperability of the partner components.
- PoCs for potential customers

**Benefit for the Customers**

- Conformance reports of the VNF and E2E solutions
- Reference solution blueprint for jumpstart deployment
- Multi-vendor pre-integrated solution on a reference platform
- Lab availability for potential proof of concept activities