

# UCPE VNF SERVICE CHAIN PERFORMANCE CHARACTERIZATION AND CERTIFICATION

for a Telecommunication Service Provider



**Services:** Cloud, Automation Orchestration, Network Transformation, Edge Computing

## OVERVIEW

The customer is a US-based **130 billion-dollar** Multinational Telecommunication Service Provider. They wanted a flexible operating model for multi-vendor VNF onboarding on uCPE platform. They also wanted Performance Characterization and Benchmarking of uCPE with VNFs running in a service chained manner.

## CHALLENGES



Lack of a platform to verify the humongous task of Validation and Certification of uCPE VNF before onboarding



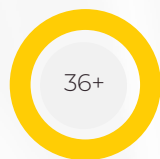
Lack of Performance Characterization and Benchmarking of instances resulting in High Failure rate of onboarding multi-vendor VNF on uCPE platform

## SOLUTION

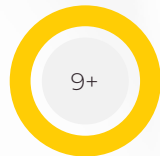
- 1 Design:** Performance Characterization and Benchmark Scenarios for multi-vendor VNF running in a service chained manner
- 2 Build:** Benchmarking and Performance Characterization of solution components on different form-factors. Performance Benchmarking for each form factor by creating multi-vendor service chain scenarios using Palo Alto, Checkpoint and Fortinet firewalls, Viptela and Versa SD-WAN gateway. Used Cisco 1000v as CSR router
- 3 Manage:** DevOps environment for Benchmark Scenario Testing and Automation. Test Automation and Performance Characterization reports



## OUTCOMES



**36+**  
Benchmark scenarios are created and tested for on-demand Performance Characterization



**9+**  
Service chain scenarios for Performance Characterization and Benchmarking

