Methodology for VNF Benchmarking Automation

R. Rosa
C. Rothenberg
M. Peuster
H. Karl
Why the draft was updated? Which issues was it trying to address?

- Main changes to approach automation, as discussed in IETF 101
  - New title: “Methodology for VNF Benchmarking Automation”
- We do not aim to explore all possible VNF benchmarking methodologies
  - VNF Developer/Vendor is responsible to specify target metrics and specific benchmarking methodology (able to be automated)

- New Contributors: Manuel Peuster and Holger Karl (Paderborn University)
Which are the major technical changes?

- VNF might be composed of components (VNFC)
- Defined VNF Benchmark Report (VNF-BR) composed of:
  - VNF Benchmark Descriptor (VNF-BD)
    - Procedures Configuration
    - Target Information
    - Deployment Scenario
    - Topology
    - Requirements
    - Parameters
  - VNF Performance Profile (VNF-PP)
    - Execution Environment
    - Measurement Results
VNF benchmarking process inputs and outputs

- Automated Benchmarking Procedures
  - Orchestration
  - Management/Configuration
  - Execution
  - Output
Which issues are unresolved? Which issues needs further discussion.

- Expand and clarify “5.3 Automated Benchmarking Procedures”
  - How each step is clearly defined by automated procedures
- Detail each item as subsection in “5.4 Particular Cases”
  - How deployment scenario and procedures might change in each item
- Discuss a general recommendation to automate upcoming VNF benchmarking methodologies
What is still missing in the draft? Future plans for the draft?

- Detail Agent/Monitor interfaces with Prober/Listener
- Explain actions each component might take on messages /data
  - e.g., Manager might validate Agent/Monitor results and demand new trials
- Specify possible issues of the automation approach in VNF Benchmarking
- In parallel, we develop an information model that represents a VNF-BR
  - Focus on the demonstration of draft ideas following reference implementations:
    - Gym and tng-bench
- Adjust draft in conformance with RFC2119