VNF Benchmark-as-a-Service (VBaaS)

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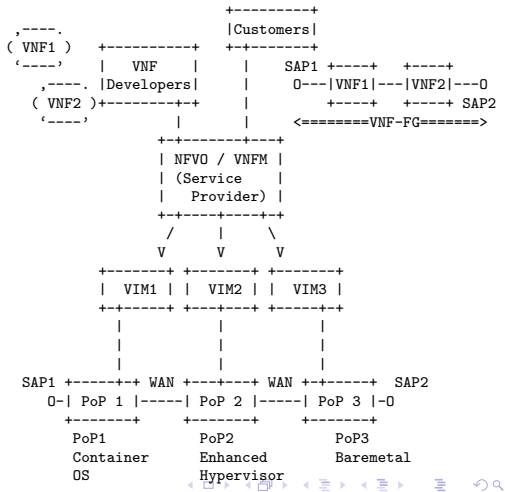
VNF Benchmarking

- Different NFVI PoP/host may perform differently
- VNF development and NFVI upgrades are independent
- Orchestration needs to know how much resources (e.g., cpu, memory, storage) to allocate for given target KPI values (e.g., throughput, latency).



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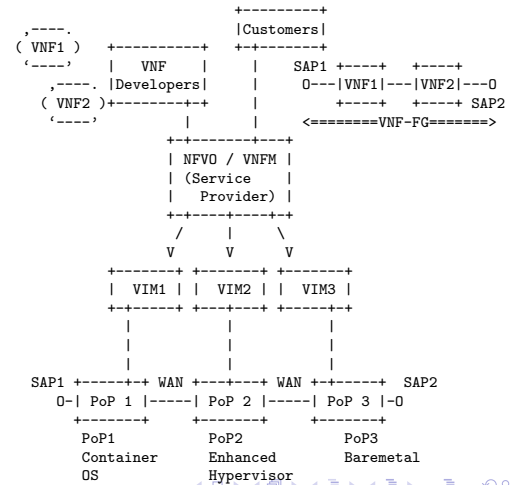
Problem to be solved:

- Gain information *autonomously* about VNFs' benchmark metrics with given reserved resources at a "host" (execution environment).



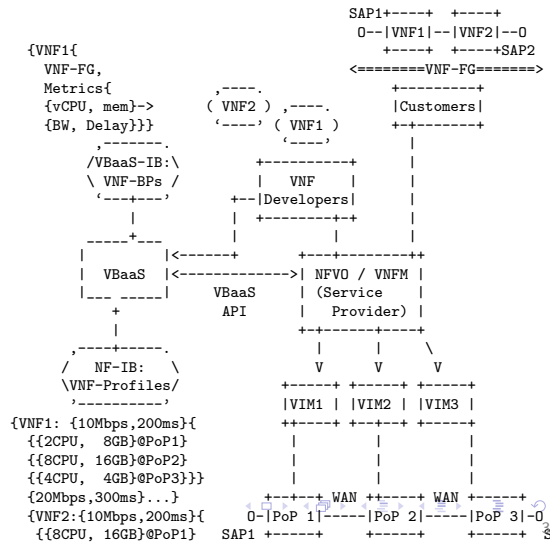
VBaaS Goals

VBaaS aims at

- defining complementary functional components to ETSI NFV and other approaches;
- defining interfaces to the VBaaS service;
- defining possible VBaaS work-flows.

Work-flows

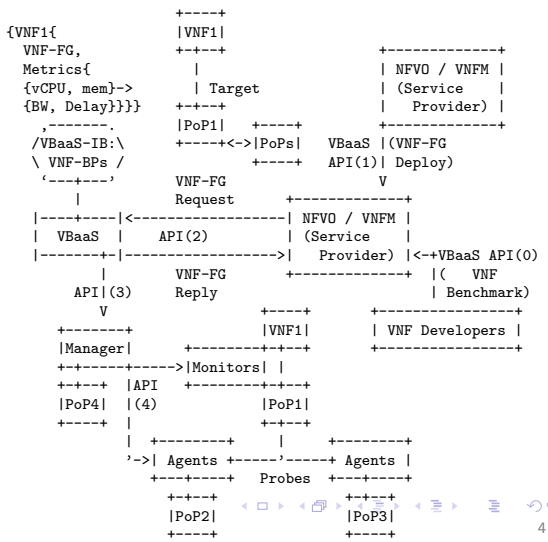
- for ETSI NFVO and VIMs
- for recursive orchestration



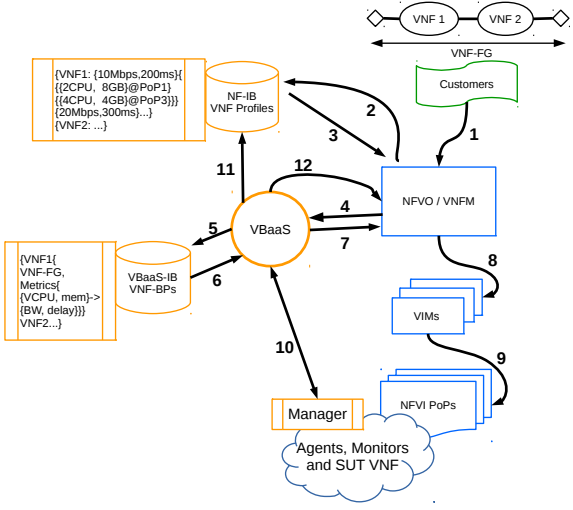
Approach

Components

- VBaaS service function
- VBaaS Information Base for VNF Benchmark Profiles
  - structural
  - functional: manager, monitors and agents
- Different APIs
  - APIs (1) and (2) – External
  - APIs (3) and (4) – Internal



VBaaS Process Walk-through



Applicability to IETF/IRTF discussions

- Resource orchestration/management for NFV (NFVRG)
- DevOps (NFVRG)
- SDN for network control (SDNRG) / SFC DP for deployment
- Benchmarking methodology for VNF@NFVI-PoP (BMWG)

Related I-Ds:

- draft-rorosz-nfvrg-vbaas-00.txt
- draft-rosa-bmwg-vnfbench

Acknowledgements

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