

# NFV/aaS Architectural Framework for Policy Based Resource Placement and Scheduling

draft-krishnan-nfvrg-policy-based-rm-nfv/aaS-04

## IETF 92

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# IETF 91 Recap

- NFVlaaS -- Definition and Challenges
- Architectural Framework
- System Analysis in OpenStack Framework
  - An exemplary NFV Policy (No. 1) is as follows - “For physical servers of type 1, there can be at most only one active physical server with average overall utilization less than 50%.”

# New Additions

- Architectural Framework
  - Reference policy framework draft – <https://datatracker.ietf.org/doc/draft-norival-nfvrg-nfv-policy-arch/>
- Added Policy 2 (another exemplary NFV policy):
  - An NFV exemplary policy (No. 2) is necessary to protect physical servers from failures.
  - Policy 2 is as follows – “Not more than one VM of the same HA group must be deployed on the same physical server”.
- Policy 2 (in Datalog policy language)
  - error(vm) :-
  - anti-affinity\_group(vm1, grp1),
  - anti-affinity\_group(vm2, grp2),
  - grp1 != grp2,
  - nova: vm host mapping(vm1, server-1),
  - nova: vm host mapping(vm2,server-2),
  - server-1 == server-2
- Policy 1 and 2 are simultaneously evaluated for optimized placement

# Next Steps

- Current architectural framework maps to existing OpenStack modules
- Draft Progression
  - Separate OpenStack module for handling placement and scheduling for certain use cases
  - Policy Engine <-> Measurement Collector API information model definition
- WG draft?