



OPNFV

Model Oriented Virtualization Interface (Movie)

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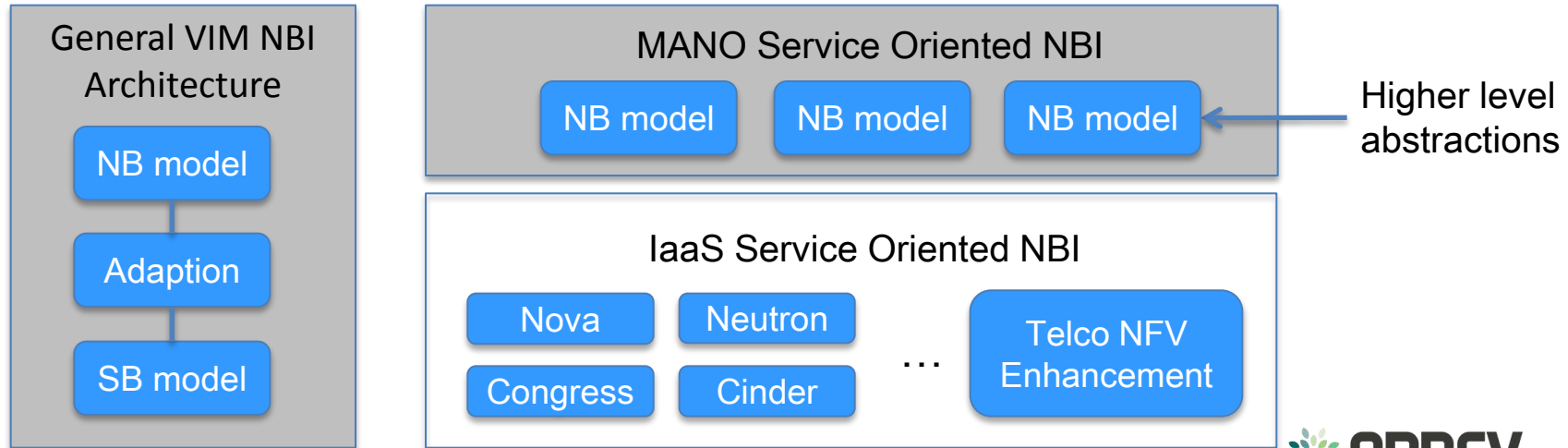
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OPNFV VIM NBI Problems

- Existing OpenStack NBI are IaaS oriented, which is not easy to be used by the MANO.
- OPNFV has many NB related projects providing their own NBI, without consistency.
- OPNFV does not have a generic platform for NBI registration and automation.

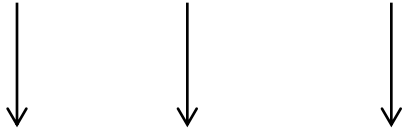
OPNFV: Model Oriented Virtualization Interface (Movie)

- The IaaS service oriented NBI to a more abstract MANO service oriented NBI alternative.
- Compose various scenarios with a same set of abstractions
- Use the MDA approach for NBI consistency and interface automation



Intent Expressions in Real World

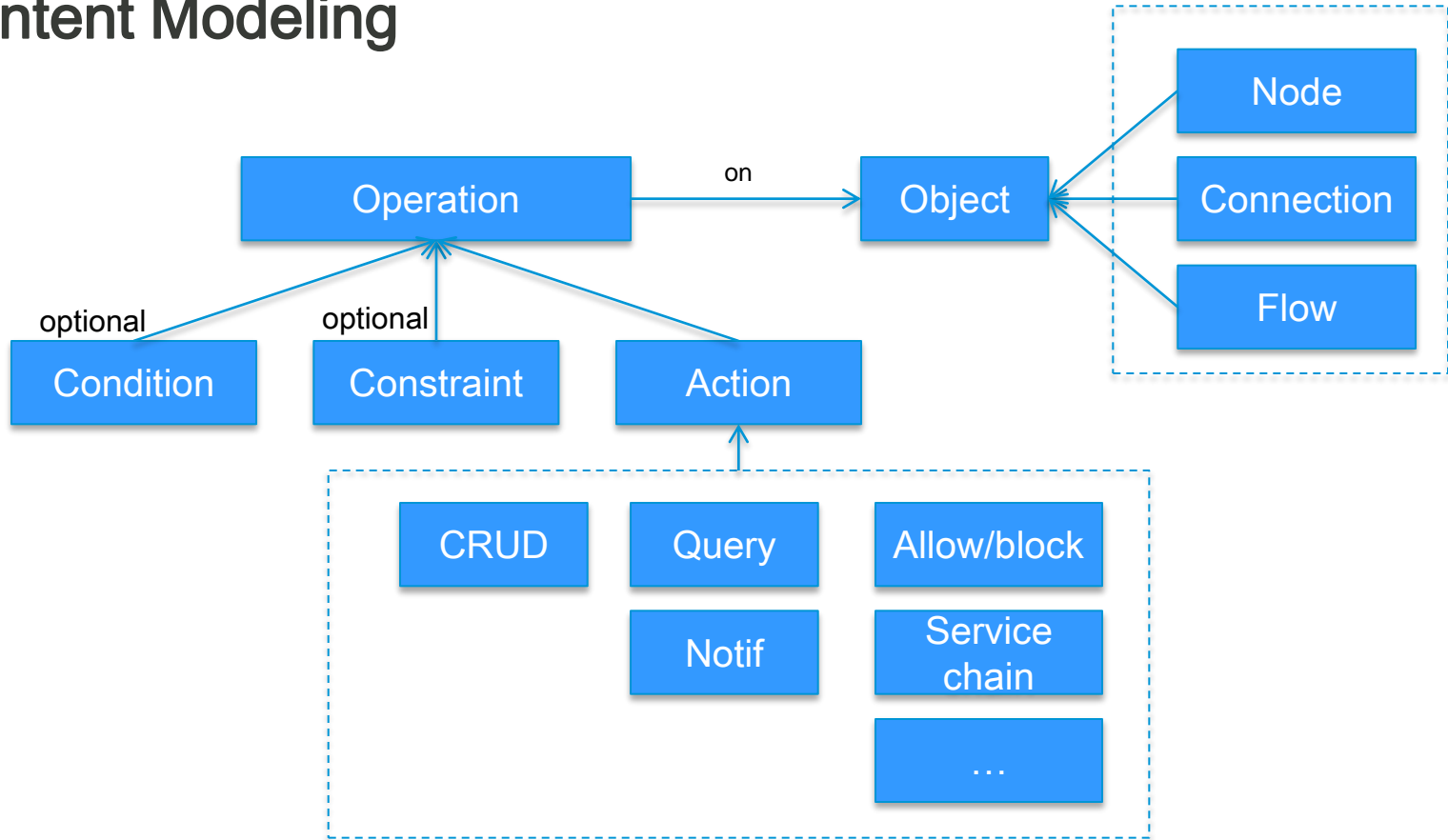
- "I want to watch Harry Potter right now in the living room"



Intent=Operation+Object

- "I want to create a DMZ " Node object
- "I want to block the http flow" Flow object
- "I want to adjust the bandwidth to 10G" Connection object

Intent Modeling



Implementing the MOVIE NBI

- MOVIE framework is going to provide the core information model for intent. More domain specific model can be extended from the core abstraction.
- The concrete abstraction will depend on each project.
 - Create a DMZ
 - Create a Firewall pool
 - From 10-18:00, adjust the link bandwidth to 10G.
 - Create a service chain through firewall, load balancer, Wan optimization

Intent NBI (Expression) maps to Policy Engine

- With the same intent expression model, there are two kinds of intent mapping to real cloud system separately.
 - Service provisioning
 - Operation: action+constraint
 - Triggered directly by application and user from top down
 - Create a DMZ, Create a Firewall pool, Create a connection between A and B
 - May map to component like Nova, Neutron,..., or Heat
 - Automatic service adjustment
 - Operation: condition+action+constraint
 - Triggered by event or other components
 - From 10-18:00, adjust the link bandwidth to 10G.
 - May map to the policy engine, e.g. Congress



Comments?

Please direct any questions or comments to
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