

* Dilip on use cases

- + Hierarchical collapsed functions for deciding on placement
- + Mobility-aware VNF placement
- + Q (Sana): We have working on similar matters (presented at ONF recently). Is there any study identifying the KPIs applicable to NFV so decisions can be taken on then
 - R: We are looking at a microservice-enabled architecture for this.
- + Q (Parviz Yegani): What about IoT devices?
 - R: An aggregation point in the network could optimize the scheduling for all these devices, and this point would be a VNF

* Ramki on behalf of Shastri on the model-driven optimization concepts

- + Intro to the ONAP E2E reference architecture
- + Different goals and mechanisms for centralized and edge resource management
- + Q (Diego): Mention to the presentation made on CogNet at the latest NMRG meeting (<https://datatracker.ietf.org/meeting/100/materials/slides-100-nmrg-sessa-the-cognet-report-addressing-data-enabled-network-management-01>)
 - This can be considered as an implementation of these mechanisms, not following the OOF architecture
- + Q (Sana): What about the connection between OOF and Acumos?
 - R: They are separate efforts for now, but worth exploring
- + Q (Nina): How would you generate the data for training
 - R: We need operational data
 - R (Diego): Mention the Telefonica initiative around the Mouseworld (see again <https://datatracker.ietf.org/meeting/100/materials/slides-100-nmrg-sessa-the-cognet-report-addressing-data-enabled-network-management-01>)
- + Q (Sidam): Any data or KPI related to the edge
 - R: There is a really interesting challenge

* Nina on constraint solvers and learning mechanisms

- + Size of the problem is not a good measure of practical hardness
- + Choice of the formal model and the modeling language is essential (inference vs search capability)
- + Solvers able to learn by adding constraints derived from backtracking
- + Q (Ramki): Tradeoff between performance and the number of constraints
 - R: When you hit performance issues you have to dig on it
- + Q (Diego): The idea of integrating solvers (local) and metasolvers (top level). Does it makes sense?
 - R: There are the so-called portfolio solvers, which decide the most appropriate solver for a particular combination of data and constraints

* Siamak on constraint-based optimal routing

- + Routing algorithms with different goals as SDN applications
- + SCOR: a new NBI for SDN-enabled routing able to address practically any network optimization concept currently proposed in literature
- + SCOR models evaluated as ONOS applications
- + Q (Ramki): Do we have any performance numbers on this?
 - R: I have quite a few measurements in different topologies, and they are quite promising
- + Q (Ramki): What is the platform you are running on?
 - R: VMs running on normal machines w 16 GB RAM, nothing exotic
- + Q (Sarah): It would be interesting to see this applied to QUIC flow management
 - R (Ramki): This solution is very much focused on inter-DC flows, not necessarily in

the case of micro-flows