GRUPPO TELECOM ITALIA

SDNMO Workshop

Panel

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TELECOM ITALIA

Questions

1. Short statement on your view point on ”softwarization” of networks

- “Softwarization” of networks is about:
  - decoupling software from hardware resources and virtualizing hardware resources (thus getting logical resources, e.g. VMs)
  - developing fully in software any network functions and placing/ executing/moving them dynamically, on-demand, on distributed logical resources
  - Cloud, SDN and NFV are just different instantiation… of the same softwarization trend

Questions

2. What are the available key s/w tools and environment suitable for developing future network features and qualities:

- **A lot of s/w tools are already available (and more will be made available by Open Source Communities), e.g.,:**
  - **A plethora of SDN Controllers…;**
  - **OpenStack... and its related customizations;**
- **…nevertheless we are missing stable and mature s/w solutions for the Orchestration of the logical resources and the software components.**

Questions

3. What are the models / architectures enabling softwarization of networks:

- A number of models and architectures are being designed in the several Standardization Body and Forum dealing with softwarization (e.g. ONF, ETSI NFV, etc.)
- The market will decide the winning model !
  - Not only saving of CAPEX and OPEX, but also enabling new business models and ICT ecosystes.

Questions

4. What are the key missing necessary abstractions and associated s/w tools to make softwarization of networks a reality? Are virtualisation and control separation from data planes sufficient?

- abstractions are needed to extract "simplicity" from a network becoming more and more "complex";
  - processing, storage and networking should be abstracted with the same logical model and should become interchangeable;
- mature solutions for the Orchestration of the logical resources and the software components are also required.

Questions

5. What are the trade-offs which are associated with partial / full softwarization of networks.

- It's simpler starting with the softwarization "at the edge" of current networks…
  - resonance with the ongoing migration of "intelligence" towards the Edge, i.e., smart resources around the End-Users;
  - potential of enabling ICT ecosystems, by addressing socio-economic "problems" (i.e., the fabric of Society);
  - at the edge there will be sharing of investments…

Questions

6. Why ”softwarization” of networks is happening now?

- IT tracks are mature and there is a consolidated trend:
  - growing performance of processing resources at lower and lower costs;
  - processing are being deployed pervasively.
- It’s a great chance for:
  - optimizing any processes (e.g., in Industry, but also in life);
  - creating new business ecosystems and new value chains
    - lowering the threshold for new Players to enter the edge arena;
    - new forms of competition and collaboration among Players.