

# Organization and challenge's for Telecom operators with SDN

## **Progress of SDN and NFV**

- -SDN is moving to services
- Reduce CAPEX/OPEX
- -Create new revenue opportunities

- Requirements for performance and reliability
- internal organization and process
- Disruption of ICT ecosystem





### Impact most operations functions



**Processes** 



The entire operations model including processes, tools and technology,



People and organization needs to be redesigned





### Disruptive!

 "SDN and NFV are disruptive from a management perspective because they require a change at every level: in employee skillsets, process reengineering and automation, and new OSS capabilities"

Heavy Reading, September 2013





#### Hot topics -1-

Activation and provisioning

Change management

End-to-end orchestration via
Management and Orchestration (MANO)

Increased agility



#### Hot topics -1-

Activation and provisioning

• In the NFV and SDN world, inventory management needs to be considered at the service, virtual network application, and resource level (Virtual Machines (VM) and physical server).

**DevOps** 

 Operations is deeply involved with solution design and testing of end-toend capabilities prior to the software drops in the production environment





#### Hot topics -3-

Fault management

SLA/OLA management

• Time To Repair (MTTR) can be greatly reduced.

 End-to-end Service Quality Management (SQM)



#### Conclusion

- Operations will need to evolve from service/ operational silos to standardized cross services operations management.
- □ SDN / NFV will transform both CSP network architecture and the way telcos operate their networks, in the same way that IP and the Internet transformed the sector twenty years ago.

