5G and new technologies such as NFV and SDN are software enabling the network. How are you leveraging this opportunity?

We see large parts of the network becoming cloud-based, going in the direction of the automation, and that impacts how we deploy our systems. From my perspective as an OSS vendor providing service assurance and management, we can support monitoring and managing virtual network functions and cloud native network functions. Also we are moving to new architecture that has a huge impact on the whole industry.

What are the biggest challenges you face in delivering autonomous networks?

People need to trust the machines and that's not easy! At this stage we're seeing a mix of people working manually and automation but as we progress, it's key that people trust the AI and the two become well integrated. We also have a challenge in ensuring that automation is providing sufficient information to enable decision making, by covering a breath of possible scenarios.

What role will AI and Machine Learning play in the future of Autonomous Networks?

Automation means that each step has to be smarter to replace humans so there's no doubt that AI and machine learning are key. We all want to reach the level where customers will not even be aware that something has gone wrong. We are automating and doing machine learning based root cause analysis. We are doing anomally detection, predictive analytics and we're definitely on the way to autonomics networks. Nothing will work well without smart observations and smart decisions.

What role do you see Edge computing playing in your Autonomous Networks strategy?

As networks become more softwarized, the edge is a key part of the 5G revolution. The new challenges we are observing in the edge are a good indicator of what's to come in other areas of the network. The expected zero touch behavior is that functions can move dynamically from the core to the edge and back. This is one of the places that we see and, of course support, dynamic behavior.

Autonomous Networks have been described as an ecosystem that goes beyond the boundary of Telco and enables digital transformation across many industries – what areas are you pursuing with this opportunity?

Our customers are expanding their businesses to offer more types of digital services so one direction is taking this journey with them and supporting these new types of services. Another option is that, when domains become software, we can apply the knowledge that we have gained directly to the verticals. We're currently working as part of the Intent-driven autonomous networks for smart mobility TM Forum Catalyst team. In this instance, the target customer is toll road operators and municipalities. Vehicle to infrastructure communications can reduce the effort and cost required to manage road tolls. We're using intent-based management methodologies and techniques for autonomous operations of enterprise network and application infrastructure aligned with TM Forum's Autonomous Networks Project and evolving industry standards.