Predictive Analytics for Resource Management

Feb 09, 2017

Companies

Champion Confirmed	Champion Tentative	Participant Confirmed	Participant Tentative
SFR		Atos	InfoSim
			Oracle
			EMC
		Ciena	Juniper

We are still looking for: additional VNF vendor confirmation participant to provide real time data

Problem Statement (one-liners)

- As a Communication Service Provider.

- I need trends to predict service utilization based on determined patterns, events,… and also to detect unexpected behavior

- So that I can ensure E2E service management in terms of quality and performance

- To do this, I need to predict changes in service demand and manage resource allocation in real-time

- I know I am successful when detect, warn, suggest actions to modify on going services and its corresponding NFV resources

Why is this an important problem to solve?

- Traditional methods of capacity management – which rely on deterministic models based resource hierarchy models are not sufficiently flexible to deal with NFV environments where there is a higher degree of encapsulation for virtual resources.

- NFV environments require real time analytics in order to provide the resource allocation functions with the correct inputs in order to with short term and longer term fluctuations in demand for the end customers

- Introduction of real-time analytics to provide a real-time feedback loop to the NFV service orchestration functions

- Use of Non deterministic modelling to identify resource bottlenecks which are impacting the quality of delivered services

- Ensure an end to end service quality perspective is maintained in the face of increasingly complex service delivery chains.

- Incorporate information sources form outside the network domain such as customer profitability and social media analytics to help determine longer term trends which could impact service delivery

- Provide customers with more control and transparency

Ideas for Innovation

What new areas do you plan to explore?

- Unleash the value of data and improve business by providing the right insight at the right time using predictive and prescriptive analysis. By combining for example:

  - For end User, and based on future geographical event that leads to a traffic evolution the project is about to help and support

  - Using forecasting of customer behavior patterns and network performance schemas leading to prediction of customer experience and initiation of proactive network & service management.

- The project will look at bringing together gathered network performance patterns as well as the customer behavior scheme data as a reference and help to identify any pattern fluctuation predicting needs of particular service and/or network upgrade actions

- Value proposition targets three streams - Revenue Generation, Revenue Protection and Operational Efficiency . Focus on services schemas and predictive scenario as being new driver for business growth and telco potential B2B sectors