

AI/ML data and model sharing

This is a collective workspace for exploring how to apply open source processes to the development of AI/ML models for use in the operations of intelligent networks.

Ideas on data sharing

Ideas on specific use cases to lead the exploration

- If you are an operator or vendor that would like to propose a use case - please add it to the table
- If you are an operator or vendor that is interested in one of the listed use cases - please add your name to the table together with proposed contributions, if any

Use Case	Description	Interested Developer	Interested Operator
< sample use case >	<In this use case ML is used to predict lightning strikes on cell towers>	Company 1: <Acme Inc.> Contact person1 : <Dr. Emmett Brown> <i>Proposed contribution1:<models, algorithms. etc></i> Company 2: <Hooli Inc.> Contact person2 : <Gavin Belson> <i>Proposed contribution2:<models, algorithms. etc></i>	Company 1: <Western Union> Contact person 1: < Marty McFly> <i>Proposed contribution 1:<access to lab, data lake, anonymized data set, etc.></i>
Congestion Prediction & Mitigation	This use case will demonstrate how AI/ML may be used to predict congestion and perform closed loop automation for executing configuration changes to mitigate.	Company 1: Samsung Contact person 1: Ranny Haiby <i>Proposed contribution 1:</i>O-RAN-SC xApp, non-RT RIC, rAPP & AI server Company 2: Contact person2 : <i>Proposed contribution2:</i>	
Sleeper Cell Detection	Predict a cell going to "sleep" and handover a critical UE (e.g. ambulance) to another cell.	Company 1: Samsung Contact person 1: Ranny Haiby <i>Proposed contribution 1:</i>O-RAN-SC Non-RT-RIC rApp 2020 October Virtual Technical Event Topic Proposals#2020OctoberVirtualTechnicalEventTopicProposals-ONAP: AI Policy enforcement with Non-RTRIC Company 2: Contact person2 : <i>Proposed contribution2:</i>	
Traffic Steering	Improve Quality of Experience (QoE) by steering UE traffic among multiple cells.	Company 1: Samsung Contact person 1: Ranny Haiby <i>Proposed contribution 1:</i>O-RAN-SC xApp Company 2: Contact person2 : <i>Proposed contribution2:</i>	
Soft fault detection and resolution	Detect "soft" faults that are not often caught because they are hidden by the redundant systems. Example, would be faults that bounce for a short time, so are ignored by service assurance. We want to use AI/ML to detect patterns of faults to uncover the ones that might not have an immediate impact on network performance, but will over time as the network degrades.	Company 1: Verizon Contact person 1: Beth Cohen	

Deterministic Predictive capacity planning	Ability to detect usage patterns so that the network can be used more efficiently, don't need to built to peak.	Company 1: Verizon Contact person 1: Beth Cohen	

Ideas on managing privacy of data and models

- One possibility is looking into federated AI learning. For an example, see: <https://github.com/IBM/federated-learning-lib>

Background data

Results from the EUAG "Intelligent Networks" survey [Data_All_210106.pdf](#)

[Notes from 17 Feb 2021 EUAG/TAC discussion](#)

[Notes from 17 Mar 2021 EUAG/TAC discussion](#)

[Telecom Italia Big Data Challenge](#)