

# 2021-07-30 AI/ML for NFV Meeting Minutes

## Attendees

Sridhar Rao

Rohit Singh Rathaur

Girish L

Kanak Raj

Al Morton

Akanksha Singh

Sl. No.	Topic	Presenter	Notes																												
1	Committers and Contributors		<p>Girish and Rohit will be Committers.</p> <p>Rest will be Contributors.</p> <p>Sridhar to complete the info.yaml - and accordingly create (a) Slack.</p>																												
2	Data Status		<p><a href="#">Failure Prediction using AI/ML in NFV Environments</a> : The Data description is updated.</p> <p>ToDo: (a) Location of the Node Failure events (b) Location of the Link Failure events.</p> <table><tr><th>Failure Type</th><th>Data Model Status</th><th>Availability</th><th>Creation Possibility</th></tr><tr><td>Node</td><td>IN PROGRESS</td><td>NO</td><td>Difficult</td></tr><tr><td>Links</td><td>IN PROGRESS</td><td>NO</td><td>OK</td></tr><tr><td>VM</td><td>YES</td><td>YES</td><td>Difficult (Experimental WIP)</td></tr><tr><td>Container</td><td>YES</td><td>NO</td><td>Difficult (Experimental WIP)</td></tr><tr><td>Application</td><td>IN PROGRESS</td><td>YES</td><td>Difficult</td></tr><tr><td>Middleware</td><td>IN PROGRESS</td><td>NO</td><td>Difficult</td></tr></table>	Failure Type	Data Model Status	Availability	Creation Possibility	Node	IN PROGRESS	NO	Difficult	Links	IN PROGRESS	NO	OK	VM	YES	YES	Difficult (Experimental WIP)	Container	YES	NO	Difficult (Experimental WIP)	Application	IN PROGRESS	YES	Difficult	Middleware	IN PROGRESS	NO	Difficult
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3	Failure Prediction Implementation Status		<p>2 Approaches to Enhance the model.</p> <ol style="list-style-type: none"><li>1. LSTM - RNN. (ongoing)</li><li>2. GNN -</li></ol> <p>15th – Plan to complete both enhancements.</p> <p>Complete the testing with existing data by End of August.</p> <p>Implementation is Ongoing - Testing will be blocked until we get some data. Continuing with the existing data.</p> <p>Jupyter-Notebooks.</p> <p><b>If Testing of the models with more Real-world data is not possible - consider doing Gap-Analysis on (Trend/Pattern and Anomaly Detection)</b></p>																												
3	Volunteers - AlgoSelector		<p>Kanak: Reinforcement Learning. Going through the articles. Unable to really find right reasoning. When to use which algorithm.</p> <p>List the algorithms that are part of reinforcement learning - Start 2-3 algorithms. Applicability of these algorithms - when to use points.</p> <p><a href="#">Algo-Selector</a></p> <p>Implementation Approach:</p> <p>Chatbot</p> <p>Use: Decision Tree (Rule-Based).</p> <p>Goal: <b>Which Python module/project to reuse.</b></p>																												
4	TVLV-Tool - Update.		<p>APIs to config and start is completed. Stop API is ongoing.</p> <p>ToDo: Containerizing and creating VM.</p>																												

