

# 2021-09-17 AI/ML for NFV Meeting Minutes

## Attendees

Beth Cohen

Sridhar Rao

Rohit Singh Rathaur

Akanksha Singh

Kanak Raj

Girish L

Ildiko Vancsa

Jahanvi Ojha

Steven Casey

Sl. No.	Topic	Presenter	Notes
1	AlgoSelector Update	Sridhar Rao	<p>Current Status and Demo.</p> <p><a href="https://github.com/opensource-tnbt/algoselector">https://github.com/opensource-tnbt/algoselector</a></p> <p>Target for 24-September: One category (RL/SL/UL) should be completed.</p> <p>Kanak: Working on the questions - prepared few but not convinced.</p> <p>Jahanvi: Edit the wiki to add questions.</p> <p>Akanksha: Added two graph - will continue to improve it.</p>
2	Failure Emulation Update	Sridhar Rao	<ol style="list-style-type: none"> <li>Running just CPU (matrix mul), Memory, Storage and Network - at high-rate doesn't cause failures.</li> <li>stress-ng: Above 4 + systemcalls, IPC, interrupts, process-mgmt. Remote mgmt of this tool (stress-ng) was missing. It was added by an intern, and we have the complete (client-server) system ready. Client is used to configure and control, multiple instances of stress-ng.</li> </ol>
3	FP Model Development Update	Girish L/ Rohit Singh Rathaur	<p><b>Status:</b></p> <p><b>Implementation of the following models are ready:</b></p> <ol style="list-style-type: none"> <li><b>Existing: decision-tree, xg-boost.</b></li> <li><b>New: lstm, gnn</b></li> </ol> <p>Each will be a separate Jupyter Notebooks.</p> <p><b>Documentation:</b></p> <p>(a) <b>Data</b>, and <b>data-format</b>. - <b>Orange</b> published IMS clearwater VNF data. Application-Failure. Application-Data and Infrastructure-Data. 177000 Rows, VNF: 26 Features. <b>Assumption: Data in the filesystem.</b></p> <p>(b) Usage</p> <p>(c) Interpretation.</p> <p><b>Final Demo: 24-Sept-2021</b></p>

4	Data Extraction Tool Status	<a href="#">Sridhar Rao</a>	<p>Prometheus: Done.</p> <p>Elasticsearch: Implementation is done, testing is pending - RI-1 (airship) pods are down.</p>
5	Data Generation - GANs as an option	<a href="#">Girish L</a>	<p>Data: Textual-Data.</p> <p>Can we use GANs to generate 'Monitoring' Data: There is potential, and the below work should be a good starting point.</p> <p><a href="https://dl.acm.org/doi/10.1145/3419394.3423643">https://dl.acm.org/doi/10.1145/3419394.3423643</a></p> <p>Student Volunteers for Synthetic Data Generation (Vidhyashree, Hemashree, and Renukananda)</p>
6	ONES Summit presentation		<p>Mention of Thoth.</p> <p>Share the WIP document - mention/highlight the sections. Send <a href="#">Sridhar Rao</a> a copy of the EUAG WP on Intelligent Networking. Will be adding a section on Thoth.</p>