

# 2021-12-17 AI/ML for NFV Meeting Minutes

## Attendees

Sridhar Rao

Rohit Singh Rathaur

Girish L

Karthik Ganesh M

Lei Huang

Ildiko Vancsa

Atif Jawed.

Sl. No.	Topic	Presenter	Notes
1	Review 2021 <input checked="" type="checkbox"/> Works <input checked="" type="checkbox"/> Current status <input checked="" type="checkbox"/> Challenges		<p>We have met 22/25 times over last 6 months.</p> <p>Significant Contributors: <a href="#">Rohit Singh Rathaur</a> and <a href="#">Girish L</a> - Our Researchers</p> <p>Published model for Failure prediction (VM) based on Orange Dataset.</p> <p>Published a tool Model-Selector.</p> <p>Published two research works.</p> <p>Ongoing works: <a href="#">Call for Contributions - Potential works for contributors</a></p> <p>Challenges:</p> <ol style="list-style-type: none"><li>1. Availability of the <b>Dataset</b>.</li><li>2. Contributions are only from Students.</li></ol> <p><a href="#">Girish L</a>: Does CM plan to share Problem/Dataset?</p> <p><a href="#">Lei Huang</a>: Internal Evaluation is ongoing, and once completed will update.</p>
2	Thoth - ITU - 2022  (a) Problems	<a href="#">Sridhar Rao</a>	<p>Thoth to Host two problems next year at ITU-AIforGood.</p> <p>Host: Thoth/Anuket/LFN</p> <p>Problems:</p> <ol style="list-style-type: none"><li>1. <b>Packet-Loss Classification in NFV Environments</b>: Start with two categories (a) Lack of resources (b) Transients. Dataset: Packet-loss trends (every 1-5 secs) from traffic-generators. Source: Commercial traffic-generators or opensource. We need to agree on a single data-model. Minimal data: timestamp, pkts-sent, pkts-recvd, pkts-lost,</li><li>2. <b>Synthetic monitoring data generation using GANs</b>: dataset: CollectD metrics of 1-week, openstack-logs for 1 week. Timeseries data.</li></ol>
3	Going Ahead - 2022		<ol style="list-style-type: none"><li>1. Continue to work on building models - Mainly start with ITU-dataset.</li><li>2. MaaS: Right framework to use. <a href="#">Karthik Ganesh M</a> and Atif are working on evaluating - Kubeflow and Acumos. Potential frameworks - <a href="https://github.com/opnfv/thoth/blob/master/research-studies/oss-projects-nfv.md">https://github.com/opnfv/thoth/blob/master/research-studies/oss-projects-nfv.md</a><ol style="list-style-type: none"><li>a. <a href="#">ML Framework for Model As a Service</a></li><li>b. <a href="#">Model As A Service (MaaS)</a></li></ol></li><li>3. Continue to build the tools.<ol style="list-style-type: none"><li>a. 2 and 6 from this link: <a href="#">Call for Contributions - Potential works for contributors</a><ol style="list-style-type: none"><li>i. Log analysis: Pattern Analysis, Anomaly Detection - Using NLP.</li></ol></li></ol></li></ol>
4	Data Summit at BIT Mesra		<p><a href="https://datathon.sdsbitmesra.in">https://datathon.sdsbitmesra.in</a></p>