

Anuket Weekly Technical Discussions - 2021.07.07

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Participants

Please add your name to the list

- [Gergely Csatai](#)
- [Georg Kunz](#)
- [Al Morton](#)
- [Sridhar Rao](#)
- [Jie Niu](#)

Antitrust policies

- [Linux Foundation Anti-Trust Policy](#)
- [GSMA Anti-Trust Policy Notice](#)
- Recorded Policies:
 - <https://zoom.us/rec/play/uMAuluyogG43EtWS4QSDAf4oW9XskP2s1CQW-fYNzXu3VSIGN1L3Z7YSNOX-H7MYUyogBulNABoVavXq?autoplay=true&startTime=1589371628000>

Action item register

- [Trevor Bramwell](#) clarify how can we adopt the current user roles of the CNTT repo to GitLab
 - Ongoing
 - Also plan on clean up of contributors, discuss on TSC, best way to manage GitLab repository
 - [Gergely Csatai](#) to doublecheck with [Trevor Bramwell](#)

Organisation topics

Technical topics

[Thoth: AI/ML for NFV Usecases \(An Incubation Project\)](#) - Sridhar Rao

Domain: Failure Prediction. (for works in this domain, and other domains, please refer to the survey).

Failures of: VMs, Containers/Pods, Nodes, Application* (access), **Network-Services**.

For each of these failure - a separate model is required.

Existing works - Only VM failures are studied very well. All these works consider Infrastructure data.

Data Required:

* Time Series

* Failure Events

* Infrastructure data from 'n'-Days before the failure occurred till the time the failure happened. Infrastructure Data: CPU, Memory, Interfaces, Storage, H/W, VNF-specific resource consumption.

How failure is defined:

1. Nodes - Shutdown/reset
2. VM - Shutdown/reset
3. Containers - Shutdown/reset.
4. Application - Access.
5. Network-Services - Access.

Access to the Data:

1. Current sources - <https://docs.google.com/spreadsheets/d/1QgxIPj8siTLc0ZAggPf1l-GoATqqqOij3GiracwQ3oQ/edit#gid=0>
2. Collaboration - EUAG, OpenInfraLabs - Telemetry WG, Other Researchers.
3. Generate from Testbed - Academic Openstack Testbed, Kubernetes Kuberef-RI2 Testbed (pod18 Intel) – Chaos Engineering + Barometer Collectd - Create Data.
4. Generate Synthetic Data - GANs.

Ongoing Efforts

1. Enlist the operations that are done from VM/Container, and that can make the VM/Container fail – this is to emulate failure event. Time-based, configuration-changing, stress-ng (supports multiple Dimensions).
2. AlgoSelector – Series of Qs that are asked to user about the data and the problem - The tool will suggest the Algorithm to use in in one of (Supervised, Unsupervised, Reinforcement).

Artifacts:

1. Models - Framework Independent (Jupyter Notebooks), Framework Specific - python files
2. Tools - Python Files.
3. Dataset - Kaggle

Network automation project - Sridhar Rao , Jie Niu

- Project page: [Potential Project: Automated Network Device Configuration](#)
- Specification
 - Existing approaches have challenges, so the configuration of networks takes for weeks in a big network
 - To reach the correct configuration there might be several iterations needed. A machine readable description of the whole network configuration would solve this
 - Even with SDN controllers there is not standard way to make an uniform configuration for a whole network. SDN controllers provide de facto standard interfaces, but there is no uniform interface

What governance text should we move from the CNTT repo to the confluence? - Gergely

- We should remove all sections overlapping with the agreed Charter and the Project Operations and Guidelines document.

AoB

- N/A