Is there any available simulators/emulators I could reuse for my own use case?

- List of simulators by category
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    - PNF simulator
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    - IETF/ACTN PNC Simulator

For the different use cases, people created emulators/simulators. This page aims to reference them and leverage on existing simulators.

In other words before creating yours, check that somebody did not already created it 😊

List of simulators by category

PNF Simulators

**pnf onboarding**

Owner: szabolcs.hutvagner AT ericsson.com  
Repository: [https://git.onap.org/integration/tree/test/mocks/pnf-onboarding](https://git.onap.org/integration/tree/test/mocks/pnf-onboarding)  
Description: PNF Package for Integration Test  
Use cases: <list of use cases using this simulator>  
Compatibility version:

**PNF simulator**

Owner: Krzysztof Kuzmicki  
Repository: [https://git.onap.org/integration/simulators/pnf-simulator/](https://git.onap.org/integration/simulators/pnf-simulator/)  
Description: Core PNF simulator, Netconf simulator, simulator-cli  
Use cases: 5G PNF, 5G PNF PnP  
Compatibility version:

**Sniro simulator**

Owner: georab AT amdocs.com  
Repository: [https://git.onap.org/integration/tree/test/mocks/sniroemulator](https://git.onap.org/integration/tree/test/mocks/sniroemulator)  
Description:  
Use cases: <list of use cases using this simulator>  
Compatibility version:

**Mass PNF Simulator**
**Owner:** Tamas Bakai  
**Repository:** [https://git.onap.org/integration/simulators/masspnf-simulator](https://git.onap.org/integration/simulators/masspnf-simulator)  
**Description:** Mimic the PNF for benchmark purposes  
**Use cases:** <list of use cases using this simulator>  
**Compatibility version:**

**PMSH PNF simulator**  
**Owner:** Rajendra Jaiswal  
**Repository:** [https://git.onap.org/integration/tree/test/mocks/pmsh-pnf-sim](https://git.onap.org/integration/tree/test/mocks/pmsh-pnf-sim)  
**Description:**  
**Use cases:** <list of use cases using this simulator>  
**Compatibility version:**

**RAN simulator**

**Ran simulator**  
**Owner:** Priyadharshini B  
**Repository:** [https://git.onap.org/integration/simulators/ran-simulator/](https://git.onap.org/integration/simulators/ran-simulator/)  
**Description:** RAN-SIM is a Radio Access Network Simulator, it is used to simulate the various functionalities of an eNodeB  
**Use cases:** E2E Network Slicing  
**Compatibility version:** >= Frankfurt

**A1 Policy Enforcement Simulator**

**Owner:** Krystian Kedron  
**Description:** Simulator that supports the A1-P OSC_2.1.0 interface and also provides internal API to manage the RAN elements (Cells, Ues) and allows to customize and send VES Events.  
**Use cases:**  
**Compatibility version:** >= Frankfurt

**Misc**

**EMS simulator**

**Owner:** Enbo Wang  
**Repository:** [https://git.onap.org/integration/tree/test/mocks/emssimulator](https://git.onap.org/integration/tree/test/mocks/emssimulator)  
**Description:**  
**Use cases:** PNF software upgrade  
**Compatibility version:**

**HV VES Simulator**

**Owner:** Marcin Przybysz  
**Repository:** [https://git.onap.org/integration/tree/test/mocks/hvessimulator](https://git.onap.org/integration/tree/test/mocks/hvessimulator)  
**Description:** Heat template for HV-VES simulator deployment  
**Use cases:** 5G Realtime PM and High Volume Stream Data Collection
Netconf PNP simulator
Owner: Eliezio Oliveira
Repository: https://git.onap.org/integration/tree/test/mocks/netconf-pnp-simulator
Description: NETCONF Plug-and-Play Simulator
Use cases: E2E Integration Test for NETCONF/TLS Configuration Test Cases
Compatibility version:

DC simulator
Owner: Xin Miao
Repository: https://git.onap.org/integration/simulators/dc-simulator/
Description: Data Center simulator
Use cases: MDONS
Compatibility version:

ProvMnSPProvider
Owner: Cheng Huang
Repository: https://git.onap.org/integration/tree/test/mocks/prov-mns-provider
Description: Provisioning management service provider for 5G NRM CM
Use cases: 5G NRM CM
Compatibility version:

Datafile-collector
Owner: Björn Magnusson
Repository: https://git.onap.org/integration/tree/test/mocks/datafilecollector-testharness
Description:
Use cases: <list of use cases using this simulator>
Compatibility version:

Core NSSMF Simulator
Owner: Zihao Zhang
Repository: https://git.onap.org/integration/simulators/core-nssmf-simulator
Description: A simulator that exposes standard NSSMF northbound api for 5G network slicing use case. Including allocate, deallocate, activate, deactivate etc
Use cases: 5G Network Slicing
Compatibility version: >= Frankfurt

IETF/ACTN PNC Simulator
Owner: Decheng Zhang
Repository: https://github.com/onap/integration-ietf-actn-tools
Description: A simulator that exposes IETF/ACTN northbound api for physical network domain controller (PNC). This simulator is used to test the Tranport Slicing (i.e., TN NSSMF functionality) in the 5G Network Slicing use case, CCVPN, as well as the Cloud Leased Line service in the IBN use case. Simulator user guide: ACTN Simulator User Guide
Usage Status Update: April 2021

Below table shows current assessment on simulators utilisation. Date of last commitment DOES NOT include PRs regarding verification jobs or repo maintenance, only commitments to the simulator code itself.

Usage assessment done with Code Hound instance to traverse all ONAP repositories. Onap's wiki was also searched through last year time span.

<table>
<thead>
<tr>
<th>Simulator name</th>
<th>Last update</th>
<th>Usecases/projects leveraging simulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNF onboarding</td>
<td>Jul 2019</td>
<td>5G PNF, 5G PNF PnP, sdnc/oam, testsuite, csi.t, pythonsdk-tests, ccsdk/cds</td>
</tr>
<tr>
<td>PNF simulator</td>
<td>Jan 2021</td>
<td>5G PNF, 5G PNF PnP, sdnc/oam, testsuite, csi.t, pythonsdk-tests, ccsdk/cds</td>
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<tr>
<td>Sniro simulator</td>
<td>Mar 2019</td>
<td></td>
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<tr>
<td>Mass PNF Simulator</td>
<td>Dec 2020</td>
<td>pythonsdk-tests</td>
</tr>
<tr>
<td>PMSH PNF simulator</td>
<td>Jul 2020</td>
<td>CDS</td>
</tr>
<tr>
<td>RAN simulator</td>
<td>Apr 2020</td>
<td>E2E Network Slicing, SO, DCAE, SDN-R/CCSDK</td>
</tr>
<tr>
<td>EMS simulator</td>
<td>Apr 2020</td>
<td>PNF software upgrade</td>
</tr>
<tr>
<td>HV VES Simulator</td>
<td>Oct 2018</td>
<td>5G Realtime PM and High Volume Stream Data Collection</td>
</tr>
<tr>
<td>Netconf PNP simulator</td>
<td>Jun 2020</td>
<td>NETCONF Plug-and-Play Simulator</td>
</tr>
<tr>
<td>DC simulator</td>
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<td>MDONS</td>
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<td>ProvMnServiceProvider</td>
<td>Mar 2020</td>
<td>5G NRM CM</td>
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<tr>
<td>Datafile-collector</td>
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<td>CSIT, dcaegen2</td>
</tr>
<tr>
<td>A1 PE Simulator</td>
<td>Mar 2021</td>
<td></td>
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<tr>
<td>Core NSSMF Simulator</td>
<td>Mar 2021</td>
<td>5G Network Slicing</td>
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<tr>
<td>ACTN PNC simulator</td>
<td></td>
<td>5G Network Slicing, IBN, CCVPN</td>
</tr>
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</table>

Legend:

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Simulators not updated for Guilin/Honolulu</td>
</tr>
<tr>
<td></td>
<td>Obsolete simulators</td>
</tr>
<tr>
<td></td>
<td>Continuously maintained</td>
</tr>
</tbody>
</table>