How to run stability tests?

Stability tests are part of the weekly tests. See [https://wiki.onap.org/pages/createpage.action?spaceKey=DW&title=How+to+run+a+weekly+tests](https://wiki.onap.org/pages/createpage.action?spaceKey=DW&title=How+to+run+a+weekly+tests)

Log on the weekly lab

A script shall be able on `/home/debian/run_stability_tests.sh`

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### Stability

```
#!/usr/bin/env bash
#
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#
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#
# This script will do the following:
# 1. prepare the benchmark env
# 2. clone onaptests_bench
# 3. run 2 tests:
#   - 5 // onboarding during 24h (basic_onboard)
#   - 10 // instantiation using a_la_carte bpmn during 24h (basic_vm)
# 4. push results via lftools taking ARCHIVES_LOCATION as argument.
#    Requires CI_PIPELINE_CREATED_AT, $POD, $LF_RESULTS_BACKUP vars to be set
#
# Dependencies:
# - python3-venv
# - libssl-dev
# - onaptests_bench

set -euxo pipefail

STABILITY_TESTS_LOCATION=${STABILITY_TESTS_LOCATION:-$HOME}
ARCHIVES_LOCATION=${ARCHIVES_LOCATION:-/tmp/stability/}
RESULTS_STABILITY_SDC=$ARCHIVES_LOCATION/archives/stability/results_sdc_5_24h/
RESULTS_STABILITY_INSTANTIATION=$ARCHIVES_LOCATION/archives/stability/results_instantiation_10_24h/

prepare_stability_tests() {  
  # current release has bug with image name parsing, need to install
  # from source until release (end of March 2021)
  local stability_tests_location=$1
  mkdir -p $RESULTS_STABILITY_SDC
  mkdir -p $RESULTS_STABILITY_INSTANTIATION
  echo $CI_PIPELINE_CREATED_AT

  cd /tmp
  echo "Create virtualenv to launch stability tests"
  python3 -m venv stability_tests_env
  cd stability_tests_env
  . bin/activate
  echo "Install onaptests_bench as a python module"
  export CRYPTOGRAPHY_DONT_BUILD_RUST=1
  pip install pip --upgrade
  pip install --no-cache-dir git+https://gitlab.com/Orange-OpenSource/lfn/onap/integration/onaptests_bench.git
}

launch_stability_tests() {  
  local stability_tests_location=$1
  cd /tmp/stability_tests_env
  . bin/activate
  # Tests are launched sequentially
  echo "----------> Launch Instantiation stability test"
  run_stability_tests -t basic_vm -s 10 -d 1440 -r $RESULTS_STABILITY_INSTANTIATION
  echo "----------> Launch SDC stability test"
```
run_stability_tests -t basic_onboard -s 5 -d 1440 -r $RESULTS_STABILITY_SDC

push_results() {
    local archives_location=$1
    local nexus_url="https://nexus.onap.org"
    local nexus_path="onap-integration/weekly/$POD/$(date -d$(CI_PIPELINE_CREATED_AT) +'%Y-%m')/$(date -d$(CI_PIPELINE_CREATED_AT) +'%d_%H-%M')"
    sudo chown -Rf debian:debian $ARCHIVES_LOCATION
    echo "===========> Send Result to LF Backend"
    echo "nexus url:"$nexus_url
    echo "nexus_path"$nexus_path
    lftools deploy archives $nexus_url $nexus_path $archives_location
}

echo "Prepare stability tests"
prepare_stability_tests $STABILITY_TESTS_LOCATION
launch_stability_tests $STABILITY_TESTS_LOCATION

echo "push results to LF backend.."
push_results ${ARCHIVES_LOCATION}

# Once the stability tests results have been pushed to LF, we can
# - sync the results of the tests checking the versions
# - start the resiliency tests

# push the versions if results exist
if [ -f /dockerdata-nfs/onap/integration/security/versions/versions_reporting.html ]; then
  mkdir -p /tmp/versions/archives/security/versions/
  push_results /tmp/versions
fi

echo "execute the resiliency tests then push the results to LF backend"
cd /tmp/resiliency
./run_chaos_tests.sh
if [ -f /tmp/resiliency/reporting_chaos.html ]; then
  mkdir -p /tmp/resiliency/archives/resiliency
  push_results /tmp/resiliency
fi

The script includes the fact to push the results to the LF log backend as well as pushing the versions results (CI finished before the end of the test). But concretely running a stability script can be summarized at:

- installing the python module pip install --no-cache-dir git+https://gitlab.com/Orange-OpenSource/lfn/onap/integration/onaptests_bench.git
- executing the command run_stability_tests -t basic_vm -s 10 -d 1440 -r $RESULTS_STABILITY_INSTANTIATION

The run command can be described as follows:
run_stability_script

(venvstability) debian@control01-onap-master:~$ run_stability_tests -h
usage: run_stability_tests [-h]
    [-t {basic_onboard,basic_vm,basic_vm_macro,basic_network,basic_cnf}]
    [-s SIMU] [-d DURATION] [-r REPORTING] [-i IP]

optional arguments:
    -h, --help            show this help message and exit
    -t {basic_onboard,basic_vm,basic_vm_macro,basic_network,basic_cnf}, --test {basic_onboard,basic_vm,
basic_vm_macro,basic_network,basic_cnf}
        Select your test (basic_onboard, basic_vm,
basic_network, basic_cnf). If not set, basic_onboarding
        is considered
    -s SIMU, --simu SIMU  Number of simultaneous tests
    -d DURATION, --duration DURATION
        Test duration (in minutes)
    -r REPORTING, --reporting REPORTING
        Result directory
    -i IP, --ip IP        Cluster IP

It fully assumes that daily tests have been executed...so it reused the resources created in /tmp/xtesting/smoke-usecases/basic_vm and in /tmp/xtesting
/smoke-usecases/basic_sdc.

Onap_tests_bench "just" starts N dockers in parallel, wait for the completion and re-run as long as specified.

At the end of the duration tests, it generates reporting pages

Only the tests whose name is randomly chosen can be used (to be parallelized).