# 2023 meeting minutes

## **Meetings connection details**

available at TransportPCE meetings https://wiki.opendaylight.org/display/ODL/TransportPCE+meetings

## 12/14/2023 (last meeting for 2023)

### **General information**

- New ODL web site is here
- ODL K-SR1 has been been released. TransportPCE release note had not been backported on stable/potassium branch (branch not created yet when change pushed). Guillaume do it on live. Idem for the download page update.
- Guillaume want to raise the GHA issue to the TSC. He will try to connect to today's meeting to explain its position.

## **Code Review**

No change merged these two last weeks.

transportpce changes under review:

- "Spectrum assignment skipped the last node in path": new change proposed by Joakim to fix the PCE bug TRNSPRTPCE-772. Guillaume made a review and even a small refactoring in change PCE graph spectrum assignment slight refactoring (lb4210d7f) · Gerrit Code Review (opendaylight.org). Gilles would like to have at least a JUnit test to check the bug fix.
- "Refactoring of T-API according to 2.4 Release": new change still in WIP to optimize the current code under development.

### 12/07/2023

## **No Meeting**

## 11/30/2023

### **General information**

- New ODL web site
- TransportPCE K-SR1 had been the 17 of November. ODL distribution seems not being released yet in K-SR1...

## **Code Review**

Status on changes merged since last meeting:

• "Bump upstream dependencies to K-SR1"

transportpce changes under review:

- "Migration to TAPI 2.4 Step 1 to 3": Guillaume relaunched is review. Olivier will look at the comment to address them.
- "Don't use NotificationListener (Node registration)": All functional test using Netconf notifications are failing. Gilles checked that everything is
  correct on our side. The problem comes from NETCONF project: we need to wait for the implementation of all related methods in NETCONF
  project.
- New bug on PCE reported by Smartoptics (jira.opendaylight.org/browse/TRNSPRTPCE-772)

## 11/23/2023

## No Meeting (Thanksgiving in U.S.)

## 11/16/2023

## **General information**

· Github actions: We have now a verification through Github action that has been pushed by the LFN. This will complicate a bit the process.

#### **Code Review**

Status on changes merged since last meeting:

- "Bump upstream dependencies to K-SR1" is now passing the gate since some transportPCE models have been updated.
- "Bump igrapht dependencies to 1.5.2"

transportpce changes under review:

- "Migration to Tapi 2.4 Step 1, 2, and 3": Olivier has rebased his changes. Any review is the welcome.
- "Don't use notification listener (nbiNotification)": still needs to be reviewed and reworked.
- "Update transportpce release note": Gilles pushed a release note that needs a little correction prior to be merged

## 11/09/2023

#### General information

- Ar-SR3 was released last Monday
- K-SR1 should has been released but is a bit delayed. Gilles has already backported given number of changes merged on master, but most of them are failing on the gate (big unstability of the gate these last weeks??)
- Gerrit version has changed with given number of drawbacks:
  - a new github action job that just check the yaml file of the projet must deliver a V+1 => we have lost the high and clear visbility we had before on the gerrit wall!
  - Gilles has lost its direct CR+2 shortcut button!! => it's very painful

## **Review**

Status on changes merged since last meeting:

- · Gilles's change on bug-768
  - "Fix Pce bug to select the correct client port". A new bug shall be open to describe the issue of trib-port and trib-slot selection recently raised by Bala.
  - "Complement B100G". Associated tests have been added
- "Update tox documentation link in tox-guide"
- "Fix PortMapping bug for 7.1 device-model"

transportpce changes under review:

- The 3 following changes concerning the PCE are ready to be merged.
  - "Add pce-constraint-mode enum in Pce Yang model" introduces 2 modes to handle the constraint in Path computation (Strict/loose). In strict mode, needed in a second iteration (when GNPY fails in validating the path and propose an alternative one using hard constraints of include type to express it), the constraints need to be handled following a specific order which corresponds to the exact sequence of element.
  - o "Fix PCE bug to select the path proposed by GNPy" solves a recently identified bug in the PCE. It has been reviewed by Guillaume.
- "Bump Jgrapht upstream dependency to 1.5.2": allows relying on more complex graph handling multiple edges.
- "Migration to Tapi 2.4 Step 1, 2, and 3": Olivier has rebased his changes and refreshed the status of comments.

## A.O.B.

• Gilles asked why in 7.1 device configuration has several time exactly the same profile (using same trib-port and trib-slots) with different names (ABCD-3-BY-100G-1/2/3). The explanation may be that there is an issue in oducn-rate (wrong copy paste). Bala will verify and reply to Gilles.

#### 10/26/2023

## **General information**

- Potassium (GA) was officially released last Monday.
- Ar-SR3 was in the process of being approved, but the TSC decided to restart a release process because an issue leads to a too big size of the
  Jar file.

## **Review**

Status on changes merged since last meeting:

- the two changes form Bala, after being x times rebased: "Add json assert dependency" and "Nbi notification support for service-result-rpc"
- 2 changes from Matej on notification listener
- 2 changes related to the project maintenance: "Fix the requirements.txt file for tox" and "Use mvn quick profle in other tests Karaf build"

transportpce changes under review:

"Fix Pce bug to select the correct client port" was pushed by Gilles who would like Bala to test it on his platform.

- "Complement B100G-end2end functional test" provides an additional test that allows verifying that the fix corresponding to previous change really solves the bug. This test applies to OTN. This change and the previous are ready to be merged.
- "Don't use notification Listener (NodeRegistration)": It seems there is a real issues with it (not a false negative V-1 as often): some of the tests did not path (hybrid tests). Gilles will review it next week.
- "Bump project version to 7.3.1 SNAPSHOT" allows starting the next development iteration before releasing Ar-SR3.
- "Fix Pce bug to select the path proposed by GNPY": TRNSPRTPCE 769 describes a new bug that observed Gilles while working on other changes. This change solves associated bug. To make this, he needed to introduce two way of handling a constraint (next change)
- "Add pce constraint mode enum in pce yang model": Gilles introduce an enum that specifies 2 ways of handling a constraint (such as include node), strict and loose. In the strict mode, the constraint shall be expressed in a specific order. In loose mode, the constraint might be partial and not respect a specific order.
- "Bump jgrapht upstream dependency to 1.5.2": we have been using for years 1.2.0 version of jgrapht-core which is very old. Using 1.5.2 allows to use more efficient algorithm to compute the Dijkstra on the graph (YenKShortestPath library). This is required to solve several identified bugs.

#### 10/19/2023

#### **General information**

- ODL Potassium GA should have been released.
- Ar-SR3: TransportPCE artifact were released beginning of this week. Ar-SR3 ODL distribution is under approval by the TSC
- K-SR1should come up very soon now.

#### Review

Status on changes merged since last meeting:

- End of Gilles's relation chain on the migration of the RpcService (JIRA-752)
- Changes from Matej on the equivalent migration for the NotificationListener for the Service Handler module ("Don't use Notification Listener (Service Handler) ")
- One fix on inventory module, linked to the new karaf version already used in Ar-SR3 release: "Fix inventory module configuration file". We have a
  new jdbc dependency update in last Karaf version which introduced an API rupture to connect to Maria DB. This has been fixed in this change.
- Another fix for the bug-766 reported last week by NTT: "Create OC path at 200Gbps and 300 Gbps". Intermediate rates were available for Ethernet services but not for OC service types.
- Few changes related to the project maintenance:
  - o "Update aggregator POMs": skips deploy and install maven steps for feature aggregators
  - "Delay execution of the first PCE functional test" is an attempt to solve an issue we have with PCE tests regularly failing on the gate.
     Execution of this first step is 10 seconds delays. We will see from usage if it improves the gate behavior
  - "Use Maven quick profile in tox-verify job": allows accelerating the compilation process (around 30% less time needed) activating the -Pq
     Profile. This profile disables tests, code analysis, Javadoc generation and so on.
  - "Fix test/requirements.txt" solves an issue with the installation of dict2xml for tox.
- On stable/argon and stable/potassium branches, main important changes from master have been backported.

transportpce changes under review:

- "Don't use Notification Listener": changes from Matej for TapiProvider and NbiNotification are almost ready to merge.
- "NBI notification support for service-result-rpc": Is almost ready to be merged.
- "Add Json assert dependency": is ready to be merged.
- "Migration to TAPI 2.4 Step 1, 2 and 3" was rebased and is ready for review.
- "Fix PCE bug to select the correct client-port" addresses JIRA TRNSPRTPCE-768. Gilles introduced a clientZ and a ClientA to differentiate ports on both the A and Z end. This change seems to solve the bug for OTN. Gilles would like AT&T to test it on real equipment. The bug may still exist for transponder, and would imply deeper refactoring. Given the current XPDRA node configuration, the port-circuit-pack-name will need to be stated in A and Z end of the service-create body. The selection of correct ports implies that the field port-device-name, circuit-pack-name and port-name are correctly filled, otherwise there could have some confusion on the port to use depending on the naming convention used in the devices. During the testing in the labs Bala also discovered that for an OC channel or an optical-tunnel from PP to PP if a specific SRG port is stated, the PCE selects the first available port rather that the one stated in the service-create RPC input. Thus, he would like that we consider also solving this issue (OC/optical-tunnel creation) when we go deeper in the refactoring.

#### A.O.B.

- Bala has an issue handling the requesting-interface-properties container of temp-service-create, since with current code we handle in the same way service-create and temp-service-create.
- Migration of lighty node: Christophe tries to reproduce the problem he experienced with when statement and Maintenance-signal in OpenROADM models. He is working on serializer/deserializer. Bala confirms that the equipment he is working on, have the maint-test-signal container present in the configuration even when enabled is set to false coming.

### 10/12/2023

### **General information**

- · ODL Potassium GA should have been released.
- Ar-SR3 shall be released at the end of the month (At the same time as K-SR1). Gilles started working on preparing Ar-SR3.
- No ODL presentation forecasted for the next DDF at that time.

Status on changes merged since last meeting:

- "Bump upstream dependencies to Ar-SR3" on transportpce-models
- "Do not use RpcService in XXX module" end of FGilles's relation change (same modification made in the different module hosting RPC registrations). It allows changing the way to register RP. We were registering all RPC at one time. We can now register each RPC separately.
- "Update lighty io clone url", "Fix lighty-core build" "Update lighty io build" allow improving the Lighty implementation on the gate.

transportpce changes under review:

- "Bump project version": ready for a while, but could not be merged due to the branch freeze.
- "Don't use Notification Listener (YYY module)" changes are proposed by Matej to complement the work done by Gilles on the implementation of RPCs, and make corresponding changes on the notification registrations.
- "Nbi notification support for service-result-rpc" : Bala still needs to address the Guillaume's comments and will rebase it after.
- "Fixup checkstyle violations": some internal classes changed to final.
- "Migrate device notifications test to lightynode" and "Use Karaf instead of lighty" can be abandoned since they have been integrated in other changes. HoneyNode is still used for device 7.1 tests. (hybrid functional test section)

#### A.O.B.

- We received feedback from NTT that is currently using TransportPCE. They are struggling creating OC-service terminated on ROADMs PPs at 200Gbps. Bala says that this should be supported by TransportPCE for this rate, but we need to check whether the MC will be correctly configured (by default 75 GHz).
- · Bala mentioned he is still experiencing the issue where the port selected by tpce for a service is not the one specified in service-create.

## 10/05/2023

#### **General information**

- ODL Potassium distribution release is about to be approved by the TSC.
  - o stable/potassium branches should be unlocked soon

#### Review

- Status on changes merged since last meeting:
  - "Fix new Pylint 3.00 issues": the lastest version of Pylint detected an issue in our functional test library. Gilles had has to refactor one
    method implementation. He removed the "finally" block.
  - "Update lighty io clone URL" was proposed by Ivan Hrasko to update the lighty repo url. Guillaume merged it quickly, but since the repo strucutre has changed a litle bit, Guillaume pushed a new change to readapt the lighty build inside TransportPCE (https://git. opendaylight.org/gerrit/c/transportpce/+/108252)
  - $^{\circ}\,$  Start of Gilles's new relation chain on the migration of the RpcService to move forward on
    - TRNSPRTPCE-752 Do not use RpcService in TRANSPORTPCE components VERIFIED tichet.
      - contains a refactoring in networkmodel module to convert NetworkUtilsImpl into an OSGi Component
      - Also a complete refactoring of the OlmPowerServiceRpcImplTest class
         migration of RpcService for networkmodel and olm modules
- transportpce changes under review:
  - rest of Gilles's relation chain on the RpcService migration
  - O Matej (Pantheon Technologies) is currently doing the same kind of migration for NotificationListeners.
  - "NBI notifications support for service-result-rpc": after the rebsase, this change has passed the gate. Since then, Guillaume added 2 new comments.
  - "Bump project version" changes are awaiting for the branch unlocking when K distribution will be released

### 09/28/2023

#### **General information**

- · ODL Potassium distribution release is still under progress. TPCE is done, and the release notes are also done
- next LFN Developer & Testing Forum is Nov., 13-16, 2023, in Budapest, Hungary
  - https://wiki.lfnetworking.org/pages/viewpage.action?pageId=101351543
  - https://events.linuxfoundation.org/lfn-developer-testing-forum/
  - o to submit a session proposals before October 23rd!
  - It is free to attend, however registration is required

· Status on changes merged since last meeting:

On transportpce/models:

 $^{\circ}\,$  4 changes related to the K GA release process, and the stable/potassium branch cut

#### On transportpce:

- o Idem, changes related to the K GA release process, new stable/potassium branch cut...
- "Reactivate disabled functional tests"
- transportpce changes under review:
  - 3 changes ready to be merged
    - 2 changes for the project version change on stable/potassium branches, but branches are locked...
    - "Add DS op netconf connector support to test\_utils": related to the migration of functional tests to lightynode
  - Bala's change on IPoWDM use case
    - "NBI notification support for service-result-rpc": the issue compiling the odl-transportpce-tapi feature comes from the fact that the change has not been rebased since the bump to the latest K dependency
  - Gilles has just started to work on the JIRA TRNSPRTPCE-752

### 09/21/2023

#### **General information**

Potassium release is underway. Today should have been the day for releasing K. A critical regression on Restconf was reported last week (see
 AAA-265 - RESTCONF path segment with encoded forward slash returns 400 RESOLVED ). This was solved by Robert. We should be ready by early next week for TransportPCE.

### Review

- · Status on changes merged since last meeting:
  - on transportpce/models, change on bump to the latest K upstream dependencies
  - o on transportpce side, Bala's change on "Fix bug for temp-service-delete" and few Guillaume's changes on refactoring.
- transportpce changes under review:
  - "Skip tests in failure before deps version bump" which disables some test shall not be fully reverted after the correct migration to K is confirmed.
  - "NBI notification support for service-result-rpc" has some Unit tests failing, because of the order of information in Json file. Olivier suggests to follow the last patch of Migration to Tapi2.4 Step3 which corrects this issue.
  - "Add DS op Netconf connector support to test\_utils" is currently WIP but could be now reviewed by Christophe.
  - º "Migrate device notifications tests to lightynode". Sometime tests work sometime not. Gilles has investigated it and think that the modification done in the configuration DataStore induces a notification from the node which is treated to rapidly to update the PortMapping. The device does not have the time to propagate the change to the operational data store, before the controller tries to read it, which leads to a failure.
- One potential bug reported by Tianliang: when mounting a transponder, portmapping tries to get otn information on a client 100GE port. To be investigated by Bala...
- One PCE bug reported during the summer by Bala needs to be investigated...

## 09/07/2023

#### **General information**

- · Venkatrangan is the new TSC chair for ODL
- Final step to release of Ar SR2 ODL distribution has been approved by TSC
- Potassium release is due in 2 weeks. Code freeze is planned next Monday with the branch cut

- · Status on changes merged since last meeting:
  - on transportpce/models, Gilles merged last friday Robert's change (https://git.opendaylight.org/gerrit/c/transportpce/models/+/107642) bumping upstream dependencies on the latest K version. This is probably the reason why everything has failed on the master branch for several days. The equivalent change on TransportPCE side pushed by Gilles is still failing (https://git.opendaylight.org/gerrit/c/transportpce/+/107672).
  - on transportpce side, Gilles merged the 2 changes concerning the upgrade of openroadm service and network models to release 13.1.
  - Given the fact that the gate was broken (with Robert change on transportpce/models, the single-feature-tests of odl-transportpce-tapi feature was failing, etc...), Guillaume pushed the following change "Skip Tapi features and functional test". It was merged but should be reverted. Gilles suspects that the TAPI tests were not passing the gate because we could have a delay in getting upstream dependencies available in tpce from the snapshot repository??
  - "Refactor tox.ini" allows to have compatibility with tox 3 and tox 4. Guillaume uses a syntax in variables declaration that avoid using space or comma.
  - "Clean some functional test comments & logs" & "Refactor Networkmodel test utils" (basic refactoring removing intermediate variables, etc) have been merged.
- transportpce changes under review:
  - some new changes on code style refactoring proposed by Guillaume are ready to be merged ("Fix come compilation warning" &
    "Refactor SH ServiceDataStoreOperationsImpl")

- o functional test migration towards lighty-netconf-simulators: during the summer, Christophe pushed a big change to leverage the development of new simulators based on lighty.io. Guillaume split it into the following changes:
  - "Add lightynode support to testutils.py": Guillaume added some variable so that using a shell we can choice the simulator to use "Switch tests sims to lighty.io by default": in this change default testing environment is set to lighty.

  - "Migrate device notifications test to lightynode" is the last change pushed by Christophe to migrate tests to lighty.io. But this change does not pass the gate.
- o K migration: Gilles pushed 2 changes that are not passing the gate yet.
  - "Bump upstream dependencies to latest version": need to be deeply analyzed...
  - "Declare as final private classes" allows conforming to last checkstyles version. V-1 seems being related to the gate instability.
- Bala reported issues with his changes related to the IPoWDM use case. They need to be rebased again.

## 08/31/2023

### **General information**

master branch of transportpce/models and transportpce have migrated to K

#### Review

- · Status on changes merged since last meeting:
  - on transportpce/models, Gilles merged the two changes migrating openroadm service and network models to release 13.1
  - on transportpce side,
    - "Bump lighty build to 19.0.0-SNAPSHOT for K"
    - "Bump upstream dependencies to Potassium GA"
    - "Declare SuppressFBWarnings in imports"
    - "Skip the temp-service-create if already exists"
- transportpce changes under review:
  - several changes are ready to be merged:
    - "Improve Xtesting installation procedure": ansible improvment where all the necessary catalog to install are specified in the
    - "Use version 13.1.0 of openroadm-service models"
    - "Use version 13.1.0 of openroadm-network models"
  - o "Fix bug for temp-service-delete": still few comments still open
  - migration of functional test to lighty-simulator: 2 initial changes pushed by Christophe ("Use of karaf instead of Lighty" and "Use lightynode sims in tox"). Gilles reworked them and merge them in the first one.
  - o change "Force some ordm models snapshot versions" => shall be abandonned

## 08/24/2023

#### Review

- · Status on changes merged since last meeting:
  - o Gilles reverted on transportpce/models the addition of Service model 13.1 that were blocking the K migration. He has been working on consolidating it. He is now considering also upgrading the Network model, since many objects defined in the common model are used in both the service and the network models. Thus, migrating these two last to the same release will be more convenient. A solution to have R13.1 model of services will be provided soon.
  - Last week, Bala had to quickly merge an extension of the OpenROADM org-openroadm-port-types@2020-03-27.yang to include some interfaces that do not exist in R7.1. He needs this to support the device in his labs. One shall note this is also needed to have the functional test for regen pass.
- · transportpce changes under review:
  - Migration towards Potassium: Gilles reworked Robert's initial change that now passes the gate
  - o "Fix bug for temp-service-delete": Bala is still working on it, and will push a new patchset probably by the end of today.
  - o "NBI notification support for service-result-rpc". NbinotificationListenerImpl needed to be modified (onPublishNotificationProcessService needed to be enriched with AtoZ and ZtoA container). Anyway, if these 2 containers appear in the log, they do not appear in the notification. Javier proposed some additional help to Bala on this topic.
- work in progress:
  - Olivier presented rapidly the migration towards T-API 2.4 (Step1 and Step2). He is working on the JUnit test to provide (Step3) an adaptation so that the relation chain passes the gate.

## 08/17/2023

## **General information**

Gilles released Argon SR2 last weekend and pushed few changes under integration/distribution project to solve CI/CD issues. Remains release note to do.

- · Status on changes merged since last meeting:
  - Bump to the latests Potassium netconf released version on transportpce-models
  - O Bump to Ar-SR2 upstream dependencies

- o "Bug in freq-map topology update"
- "Add regenertor if-cap in 7.1 common models": Bala pushed and merged quickly this very small deviation from the official OpenROADM model to be able to mount real 7.1 device implementing regen functionality. Real device implements this small modification.
- · transportpce changes under review:
  - Migration towards Potassium: netconf dependency has been updated to 6.0.1, but some functional tests are now failing (TAPI, PCE...).
     Under analysis by Gilles
  - "Bump lighty build to 19.0.0-SNAPSHOT for K": allows to activate K lighty build
  - "Skip the temp-service-create if already exists": Gilles reviewed it and added a specific JUnit test to check the code modification. Also he simplified the log message to be more concise.
  - "Fix bug for temp-service-delete": Guillaume made few comments. Gilles is also reviewing it.
  - "NBI notification support for service-result-rpc": Bala modified the yang model to add a-to-z and z-to-a informations computed by the PCE. Unfortunatelly, this information does not appear in the notification received on the kafka serveur. Gilles will test it on his side...
  - o 2 new changes from Christophe related to lightysims. They need to be reworked a little bit to be gather.
- · work in progress:
  - o ATT still working on IPoWDM Use Case demo
  - Bala reported a PCE bug for 4x100G muxponder, especially when client ports on A and Z terminations are differents.

### 07/27/2023

#### **General information**

- · TSC election: news to come
- We are close to release Ar SR2, but not sure the upstream dependencies are ready.

#### Review

Merged changes (Tpce/tpceModels):

- "Bug in Freq map topology updates" and has been merged. The frequency updates were not happening when activating a service after a tempservice create was exercised in a first step. This was because the Boolean variable used to identify the fact that a service is temporary was not refreshed.
- "Update temp-service-list": when a temporary service is migrated to a standard service, exercising a service-create, the service needs to be moved from the temp service list to the standard service list. It was not previously removed from the service list when the service creation was successful. This change replaces the old one which was abandoned since Bala found a way to handle it more efficiently than the way it was proposed in a first step.
- "Add if-cap support for if-OTU4-ODU4 ports (7.1)", presented during last meeting was merged during the meeting.
- "Improve TPCE Xtesting tests cases", "Add a workground note to XTesting INSTALL.txt" and "Add a XTesting entry to combine all test cases" have been merged - they complete the (dummy) tests suite initially proposed and propose a working step-by-step installation notice to perform locally.

#### Changes under review:

• "Add if cap support for if-OTU4-ODU4 ports (7.1)", presented during last meeting is ready to be merged.

## Changes under progress:

• "NBI notification support for service-result-rpc": the service-result-rpc notification is used to notify a higher layer controller and provide details about the optical tunnel activation process. It was used between transportPCE modules, but not sent externally. Bala changed the code so that this notification can be used in the standard way to provide attributes such as operational modes, spectral range and power range to be used on the pluggable to a higher layer controller so that it can relay it to the end-terminal controller.

## A.O.B.

Christophe has pushed a new commit for Lighty including the different version of OpenROADM (1.2.1, 2.2.1, and 7.1) on GitHub. He is currently
upgrading the CI/CD chain from HoneyNode to Lighty.

### 07/20/2023

## **General information**

- · Gilles has applied to be part of the next TSC. Mail have been sent for voting, but the procedure to do so is not that clear!
- Ar SR2 is planned for the 27th but waiting for the release of upstream netconf-5.0.7 version. Gilles will be on vacation during the release of Ar SR2. Guillaume proposed to handle it.

- · Status on changes merged since last meeting:
  - "Add INSTALL.txt and ansible playbook for Xtesting" and "Xtesting Dockerfile init" to automatically set up a complete testing
    environment. For the moment, only pre-commit is launched.
- transportpce changes under review:
  - "Add if-cap-support for if-OTU4-ODU4 ports (7.1)" has been pushed by Bala to support additional equipment. This change should be merged quickly (nothing identified that prevents it).
- changes under work in progress:

- "Bump upstream dependencies to Potassium GA" was pushed by Robert few weeks ago to migrate TPCE to Potassium. The first unitary test was failing. Gilles has reworked this change. The build is successful, but all the functional tests are failing. Gilles noticed that there is a big change in the way the controller connects to the NETCONF device, which currently prevents tpce to connect to devices through NETCONF connector. Gilles sent a mail on the development mailing list about this. He got an answer saying that this had been identified and has already been solved in netconf project. We just need to wait for next NETCONF release (netconf-6.0.1) to benefit from the correction.
- "NBI notification support for service-result-rpc": nothing new on this change pushed by Bala.

### A.O.B.

- · Bala is still investigating the issue associated with the update of frequency map in the topology which seems to depend on the environment.
- · Gilles plans to work on the introduction of latest OR service model before he leaves for vacation.
- Tianliang has seen that some of the equipment of UTD labs are very slow when trying to retrieve the configuration from the devices (operational
  data-store of a ROADM using RESTCONF api), which leads to a timeout exception. He asks if increasing the timer is a good option. The same
  configuration can be retrieved using NETCONF. Gilles answered that the timer can be configured for R/W transactions in ODL.

#### 07/13/2023

#### **General information**

- the deadline for the 2023 election for attending a seat at the OpenDaylight Technical Steering Committee (TSC) is today. Gilles has applied for attending the TSC..
- Argon SR2 is planned for July 27

### **Review**

· nothing new since last week

#### A.O.B.

- Bala reports an issue with topology update: when we create a service, frequency map would no longer be updated, what would make a second service creation failing. Bala will confirm/deny this issue
- · Gilles didn't have time to update new service models 13.1 on transportpce/models project. He will do it next week
- Tianliang raises the question to create with TPCE a service over an hybrid optical infrastructure composed of 2.2.1 and 7.1 ROADMs. Should
  work, but xml config files in 7.1 to load in honeynode simulators are may be not correct. It is possible that some specific 7.1 model configurations
  are missing; the existing configurations had been simply fast-forward migrated from the 2.2.1 configurations.
- Tianliang raises the question of the TPCE compatibility with the service creation on a 7.1 switchponder at 400Gbps. At first sight, some new
  developments should be required in the renderer module. Updating the OpenROADM white papers with the latest model releases would be very
  helpful..

#### 07/06/2023

### **General information**

2023 election process has begun for the ODL TSC. Self-nominations shall be submitted before the 14<sup>th</sup> of July. Gilles will probably submit his
candidature so that we can get at least one representative of TransportPCE as Guillaume is leaving the TSC.

#### Review

- Status on changes merged since last meeting:
  - 3 changes from Robert have been submitted by Robert: one concerns the migration of transportpce models towards Potassium. The second "Migrate nullness adaptations" from Javax to Jdt, which is part of ODL parent, provides some optimizations. The third "Optimize Binding-> normalizedNode Transform" also provides optimization and avoids performing serialization twice
- transportpce changes under review:
  - Guillaume provided 2 changes. "Xtesting Dockerfile init" provides a testing environment that can be installed locally, based on Cross Testing. It provides everything to build a Docker file from an Alpine distribution. It Installs maven to build transportPce over it. "Add INSTALL.txt and ansible playbook for Xtesting" is a complementary change.
  - Robert started the TPCE migration toward Potassium release just after the release of netconf-5.0.0 ("Bump upstream dependencies to Potassium GA"): in this change he modified a lot of things regarding serializer. Some of the tests, notably JsonStringConverterTest, are not working anymore (Robert added a FIXME comment). We will need to check whether he decided to fix him by himself or not.
- · changes under work in progress:
  - Olivier provided a new change "Initial T-API 2.4 PCE link & Nodes Classes": this change complements previous one so that we have the needed PceLink and PceNode classes abstracting topology objects to Graph objects used by the PCE for path computation. The tests are not provided since we are missing TAPI 2.4 compliant topology json file to build them.

#### A.O.B.

- Potassium is due for end of September. We are in time.
- Christophe is working on LightyNode to include OpenROADM device model 7.1. He is facing the same issue as the one experience by Bala on
  Ethernet interfaces. One mandatory leaf is augmented through a When condition and not correctly managed by the Yang tools. As a workaround
  he commented the "mandatory :true" line in the yang file.

## 06/29/2023

#### **General information**

· Nothing to highlight

#### Review

- No change merged since last meeting
- No new change under review

#### A.O.B.

Bala is asking whether we could move to the latest version of service models (13.1). Gilles propose to include them in transportpce/models so
that this can be done before we release Potassium.

## 06/22/2023

#### **General information**

- CI SR4 is under approval by the TSC
- The election cycle for seats at the TSC is in preparation. Majority of TSC members must be committer, but there might be one seat available to a
  non-committer. The TSC impulse a common view for the releases. The chair represents the ODL community at the governing board. There are
  also some representatives of the TAC in the TSC. To self-nominate, you need at least 20 contributions since last TSC election. Guillaume will not
  candidate that time.

#### Review

- · Status on changes merged since last meeting:
  - ° "Add olm support for 7.1 model TPDR with 100G ports"
- · transportpce changes under review:
  - "NBI notifications support for service-result-rpc": thanks to the support of Javier on nbi-notification module, Bala was able to test its code. But the results were not what he expected. NBI notification feature uses a message leaf. It has been conceived for ONAP MDONS use case. Any way the yang model may be adapted to fit with what is needed through the OR notification model.
  - "Initial Tapi-2.1 node and link classes for PCE" was pushed by Olivier. This code is not for review (change in WIP). Code was pushed
    mainly for backup purposes. It provides initial code for the TAPI-PCE Link and Node classes.

## A.O.B.

Bala explains that with IntelliJ, it seems that the models are no more imported properly since we export models aside in a different project. Javier
and Gilles mention that in the project tree, they appear in the external libraries section. Extending it, it is possible to see if the models were
correctly imported.

#### 06/15/2023

## **General information**

- · Gilles made all what's necessary to be ready for CI SR4
- · Election of a new TSC should be launched in a very short time

- Status on changes merged since last meeting:
  - o Changes associated to CI SR4 and the bump to latest corresponding upstream dependencies
  - Changes associated to initial work of Bala on the implementation of the IPoWDM use case
- transportpce changes under review:
  - "Add olm support for 7.1 model TPDR with 100G ports": 7.1 transponders can contain ports that support both 100G and 400G. Bala complemented the OLM code so that relying on port capabilities we can support several kinds of interfaces on these kind of transponders (ifOCHOTU4ODU4 but also ifOtsiOtsigroup)
  - ° "NBI notification support for service-result-rpc": Bala did this change in the scope of handling the Alien wavelength/IPoWDM use case, so that the notification is no more handled internally in tpce but also available through the northbound interface. To test it, a Kafka broker needs to be started (Zookeeper + Kafka server). The nbiNotification feature also needs to be activated in transportPCE, preferably after the Kafka server has been started to limit warning messages in LOGs. The Kafka get started tutorial is very well done and helpful. A topic need to be specified.

## 06/8/2023

## **Meeting canceled**

## 06/01/2023

### **General information**

- ODL wiki was down all the week (authentication issue)
- · CI-SR4 is under development. Some upstream dependencies already released. Idem for Ar-SR2 (planned end of July)

### **Review**

- · No change were merged during the week
- transportpce changes under review:
  - "Path description yang update": change is ready to be merged.
  - "Update path-description data for temp-service list": Bala need to address some Guillaume's comments.
  - o "Add Notification support for service-rpc-result": Guillaume made a new comment to try to optimize a litle bit the current code.

### 05/25/2023

### **General information**

- Argon SR1 has been released on Wednesday the 24.
- Upcoming LFN testing and developing forum will be held remotely from the 6<sup>th</sup> to the 8<sup>th</sup> in June. No session dedicated to ODL.

#### Review

- · No change were merged during the 2 last week
- · transportpce changes under review:
  - "Path description yang update": Bala addressed all Guillaume comments and the comment of Olivier asking to add some attributes in the path description.
  - "Update path-description data for temp-service list": Bala addressed some of the Guillaume's comments. This change allows to complete
    the path description with some details needed to handle Alien wavelength use case
  - "Disable optical-control-mode for temp service": with current code, configuration and interfaces are pushed to device even for temp-service creation. As there is no ingress power at the SRG. To avoid generating an alarm, the control-mode needs to be set off, and the OLM shall not be triggered.
  - "Add Notification support for service-rpc-result": process service-rpc-result notification in the scope of the alien wavelength use case.

### 05/18/2023

## Meeting canceled (Bank Holliday in Europe)

## 05/11/2023

## **General information**

- Argon SR1 should be published soon since it has been approved by TSC. Argon SR2 is planned end of July. Potassium GA is planned end of September
- Upcoming LFN testing and developing forum will be held in June. Submission deadline is on the 19<sup>th</sup> of May
- Bala experienced compilation failure on the master branch which has been updated to Ar SR1 (SingleFeaturetest of odl-transportpce feature).
   Christophe tested it on his side but does not experience that issue...

## Review

- · transportpce changes under review:
  - "Path description Yang Update" and "Update path-description data for temp-service-list": Guillaume and Olivier provided some comments on these 2 changes related to the alien wavelength use case.

#### A.O.B.

Bala made a presentation on his implementation of the alien wavelength use case in transportPCE.

## 05/04/2023

#### **General information**

- A maintenance operation is scheduled Friday the 5<sup>th</sup> of May on the Jenkins servers.
- CI-SR3: ODL distribution should have been released 2 weeks ago, but there was no TSC approval. It still has not been released.
- Argon SR1 is under TSC approval today
- Upcoming LFN testing and developing forum will be held in June. Submission deadline is on the 19<sup>th</sup> of May
- · We need to take care in the way we handle Jira Ticket and specifically the resolution version, because it affects the Release notes.

#### Review

- · Status on changes merged since last meeting:
  - o Bump project versions following CI-SR3 release
  - o Some changes associated to refactoring, and others associated to functional tests were backported to CI stable branch
  - "Enable 400G rate for OC service-format" was also merge on CI stable branch
  - "Update Lighty based URs to RFC 8040" merged on master allows to align lighty and Karaf swagger url
  - Some changes related to lighty were merged on master branch. "Refactor lighty.io build TransportPCEImpl" cleanups the code and
    removes some intermediate variables. "Clean lighty.io build warnings" allows avoiding an number of warnings. "Enforce checkstyle
    warnings in lighty.io build" also contributes in enforcing the check style. "Refactor lighty.io build TransportPCEImpl step 2", complete this
    change suite.
  - "Add functional test for regenerator types"
  - "Migrate Optional.get callers": a consequence of new dependency in Ar-SR1, to prevent from compilation failure. This change use a
    different methods to replace Optional.get().
  - "Bump project version following Ar-SR1 release
- · transportpce changes under review:
  - "Path description Yang Update" and "Update path-description data for temp-service-list": these changes are related to IPoWDM use case. First step is to create a temp service for the tunnel on the ROADM infrastructure. Temp-service being created, some information must be provided to the IP-SDNC to know what is the central frequency to be used. These changes allow populating this information using the path description in the temp service list. Last change is currently failing because line501 of ServiceHandlerImplTest.java was deleted and the temporary service is no more created during the test.
  - "Use List.of() instead of Arrays.list()" makes the code more readable and efficient. List.of() is an immutable list but should contain less than 10 elements.

#### A.O.B.

· After a very quick review of the stories we put in the backlog, Sprint 32 was started!

### 04/27/2023

## **Meeting canceled**

#### 04/20/2023

### **General information**

- · ODL CI-SR3 is a few weeks out, but nevertheless is already under preparation
- ODL Ar-SR1 should be one week delayed
- Next upcoming LFN Developer & Testing Forum will be held virtually from June 6th to June 8th. The deadline for topic submissions is May 19th

#### Review

- · Status on changes merged since last meeting:
  - o In transportpce-models: changes to release transportpce-models-17.3.0 (CI-SR3)
  - In transportpce: ServiceHanlderImplTest refacto
- transportpce changes under review:
  - "Update Lighty baseUrl": change to align lighty url on odl one
  - "Fix tox4 error when passenv value": change to repair the CI due to the migration to tox4
  - Two new changes from Bala on Regen functional tests, and 400G OC services

#### 04/13/2023

#### **General information**

• Argon distribution has been released officially. The release note still needs to be done.

- · Status on changes merged since last meeting:
  - "Refactor SH ServicehandlerImpltest"
  - "CI repare tox.ini for new tox version": some keywords as well as separators have been changed. This change pushed by Matthews has
    been adjusted by Guillaume.
  - o "Remove import-error checks from tox pylint profiles" Guillaume disactivated them temporarily until we solve dependencies issues.
- transportpce changes under review:
  - "Enable 400G rate for OC-service format": Bala tested the change on real equipment. Guillaume rebased the change
  - "Add functional tests for regenerators": Functionally speaking, this change looks OK but looking at the CI, there are some few issues that might be solved through pre-commit.

#### A.O.B.

Bala is working on the IPoWDM use case. Had a discussion on the flow to conform with during the creation of services. For temp-service, in the
specific case of optical-tunnel, the service shall not be created on devices. If it works with simulators, real equipment (SRG/DEG of ROADMs)
may have no way to set up connections and adjust power level through specific control loops as the transceiver are not activated (no input power
on ROADMS). For this reason Olivier suggest that the process of service creation shall be interrupted but all information to setup the optical
tunnel in a second step shall be store in the Database (At least for service, and its path). For what concerns the topology, we need to investigate...

## 04/06/2023

#### **General information**

ODL Argon distribution has been officially released. The TPCE release note still needs to be done. SR1 is planned for the 27<sup>th</sup> of April. It will include all OSGI refactoring and the correction to the developer guide.

#### Review

- Status on changes merged since last meeting:
  - o Changes to update the project version on master (starts the K development iteration) and stable/argon branches
  - Few backports on stable/argon branch, to be part of the Ar GA release
  - Few backports on stable/sulfur branch to restore the CI
  - o Remaining changes in the relation chain concerning OSGI refactoring, replacing Blueprint beans by OSGI components
  - "Catalog RPC implementation" was rebased to adapt to the new OSGI refactoring, and merged
  - Activation of Swagger for lighty" allows compensating the lack of swagger functionality with Karaf. This implies however to adjust urls and Christophe will do it through a separate change.
- transportpce changes under review:
  - İn "RefactorSH Catalog Mapper", "RefactorSHCatalogDataUtil", "RefactorSHCatalogValidation" & "RefactorSH
    serviceHandlerCompliance check", Guillaume made a few adjustments to Roshian change, removing some intermediate variables.
  - ° "Add functional tests for regenerator type" has been pushed by Bala.
  - o "Enables 400G rate for OC service-format" was also pushed by Bala. This change fails because Bala did not signed of his change
  - Chore: Prepare Tox.ini for new tox version" has been pushed by Matthew

## A.O.B.

· Gilles will try to rework the nbi-notification to integrate the change provided by Nathan to add kafka messages, starting week 16.

## 03/30/2023

## **General information**

- Argon release is still ongoing. Netconf released a new version for Ar this week. Gilles took into account this change and released new Ar artifacts
  for both tpce and tpce/models. Apart from the release note we are ready.
- S-SR4 using Java 11 is also about to be released. Gilles started the bump to latest upstream dependencies.

- · Status on changes merged since last meeting:
  - "Bump project version to 18.0.1 snapshot", "Bump Netconf upstream dependency to 5.0.4", "Bump to transportpce-models 18.0.1" &
     "Bump upstream" have been merged to manage the Argon release.
  - "Use Maven 3.8.8 in CI CentOS install script" upgrades the CI/CD
  - Guillaume merged part of the relation chain provided by Gilles to remove blueprint which really complicated the job of upgrading the
    project to Argon dependencies. This will not be included in Argon SR0, as not all the relation chain was merged, also because some
    changes rely on some Lighty snapshot.
- transportpce changes under review:
  - "Activate Swagger for lighty" has been pushed by Christophe. Something in OpenROADM models makes Swagger failing with transportPCE when using Karaf runtime. So this change provides a way to activate Swagger for transportPCE, using a Lighty running

environment. Christophe however observed a side effect due to the upgrade to the latest Netconf version. Before the netconf upgrade, the lighty base url were "/restconf/". With the latest Netconf version, this lighty base url is now the same as with karaf, it means "/rests/".

 The rest of Gilles relation chain is not anymore rebased. Gilles would like that we get rid of that asap so that he can take care of rebasing Roshan's change.

#### A.O.B.

 A discussion about IPoWDM use case, which Bala wants to handle, was engaged, around "Initial support IPoWDM use case for OpenROADM" Jira ticket (https://jira.opendaylight.org/browse/TRNSPRTPCE-739).

### 03/23/2023

### **General information**

ODL Argon release: it seems there are some regressions in the LFN processes due to the migration to Python 3.10. On TransportPCE, just the
release note still needs to be done.

### Review

- Status on changes merged since last meeting:
  - o "Use Maven 3.8.8 in Ci CentOS install script": to update maven binaries used for functional tests
- transportpce changes under review:
  - Roshan proposed a change to implement the 2 RPCs used to fill the operational modes (OpenROADM/specific) in the catalog.
     Guillaume and Olivier made a review. Gilles will make a comment to recommend using in place of the Data Broker the
     NetworkTransactionService, as this last rely on the RequestProcessor that manages concurrent access to the datastore.
  - Gilles pushed a long relation chain of 30 changes associated with the refactoring of OSGI for the project. He removes all Blueprint file
    that manages dependency injections in each module. The Blueprint are now split into several OSGi components. However, since
    Blueprint allowed to instance classes, Gilles did not find the way to do so using component annotations. This means he needs to
    instantiate the classes, which changes the constructor of some of the classes.
  - The controller starts now in a shorter time, and Gilles had to increase the delay before starting the pce functional tests, so that Restconf bundle is correctly started before starting tests.
  - "Unregister DataTreeChangeListener": using the opportunity of the OSGI refactoring, Gilles pushed this change to correct the associated issue he observed.
  - "Bump Lighty build to Argon": Guillaume proposed this change to compile the code associated with Lighty, which is not released at the same time as the ODL distributions, using available Snapshot.
  - Gilles proposed to managed this issue through the change "Adapt lighty build to new OSGi DS based refacto" that he put on the top of
    the relation chain. He is waiting for a global review of all the changes. He will then manage all comments, and merge everything one
    shot
  - Olivier updated the Developer guide.
  - "Quiet and check lighty io build in the CI" is a WIP change proposed by Guillaume to make sure that when a new change is provided it is compatible with Lighty build.
  - "Update transportpce sonar job": Gilles proposed this change on releng/builder project to reactivate Sonar which was de-activated since more than 6 month.

## A.O.B.

- After Gilles has merged his relation chain, he will take care of the Nathan change, refactoring the NBI notifications as soon as possible.
- Since Argon, Java 17 is needed to compile TransportPCE

## 03/16/2023

#### **General information**

- ODL Argon release: we should release ODL Ar today. Last week, Gilles released all artifacts related to transportPCE after having merged all
  pending changes. Will remain the documentation to handle. Olivier will write a paragraph on impairment aware path computation.
- Next deadline is CI SR-3 on the 8<sup>th</sup> of May
- Sulfur shall also be End of Life today. However, ODL community proposed to release Sulfur SR-4 as a courtesy release. We are invited to provide
  the corresponding toce artifacts.
- OFC: Nokia presented a demo "Network Management as code". Javier will share the paper. Nokia also shared in OFC some elements on T-API 2.4. There were almost more than 11000 attendees in OFC this year, which brings it to the level we had before the pandemics. Nathan made different demonstrations based on One Engine and TransportPCE. UTD observed some contention issues with tpce when PMs are also polled by One-Engine. The provisioning of a service then can fail. Nathan changed the code to poll the PM directly from the device rather than passing through tpce. The problems is associated with configuration locking while reading the configuration and potential associated time-out. Guillaume mentions that this could happen when device do not have any candidate Data Store. Gilles mentioned that his recent change on the refactoring of the RequestProcessor class may solve this kind of concurrency issue.

## Review

• Status on changes merged since last meeting:

- on transportpce-models project, several changes related to the addition of new T-API models in 2.4. Gilles highligth the fact that T-api models do not put the revision date in the imports. So, he managed this issue through specific changes so that the last version is not automatically imported if we use 2.1 models. Anyway this did not solve a side-effect issue on transportpce project, so Gilles splited models through two different features in "Split odl-tapi models feature". Actually, T-API modles in R2.1.1 and 2.4.0 are incompatibles. We can not activate features implementing each version on the same time, but must choose either the feature implementing models in 2.1.1, or the feature implementing models in 2.4.0.
- Gilles pulled stable/argon branch, updated releng/builder project to have jenkins jobs available for stable/argon branches, and then released transportpce-models-18.0.0 and transportpce-7.0.0 artifacts for Argon
- o on transportpce project, before releasing, Gilles merged all pending changes that were under review:
  - speed functional tests
  - end of the PostAlgoPathValidator refactoring
  - all the relation chain related to the migration to Junit 5
  - changes related to the handling of the photonic restoration on real device, used for the OFC demo
  - Bala's relation chain on Regen
  - migration to the latest Argon upstream dependencies
- transportpce-models or transportpce changes under review:
  - "Bump project version to 18.1.0 snapshot" on transportpce-models can be merged
  - o Discussion on Nathan's change related to kafka: Gilles proposes to wait for his refactoring of OSGi management inside transportpce. Indeed, he is currently working on the removal of all the blueprints file, leveraging OSGi Declarative Service annotations.

### 03/09/2023

#### No Meeting

#### 03/02/2023

### **General information**

- Argon will be released the 16<sup>th</sup> of March. We are almost ready on transportPCE side. We will just need to bump the upstream dependencies to their latest version. Sulfur will be at that time EOL.
- CI-SR3 is targeted on the 8th of May

#### Review

- · Status on changes merged since last meeting:
  - o "Bump upstream dependencies to Argon" aligns master branch on Argon
  - "Upgrade device 7.1.0 sims version" solves the xslt issue we had for regens
  - Relation chain related to Argon
    - "Change getter in ConvertORTopoToTapiFullTopo" uses a non-null getter to solve some issues
  - Different changes address concurrent access to the Data Stores: "Remove some forced transaction closure", "Reimplement Request Processor", "Remove close method from Request Processor", "Bump Upstream dependencies to Argon".

    o "Speed up functional tests" execution changing some time constant allows saving 20 minutes in the functional test

  - "Refactor impairment aware path computation step3" and "Leverage Map Ref in PCE PostAlgoPathValidator" finalize the refactoring of the PostAlgoValidator and allows reducing drastically the cyclomatic complexity.
- transportpce-models changes under review:
  - "Revert "Revert" Add new T-API 2.4 models" has been merged during the meeting.
  - o Before adding newer version of OpenROADM device models we may wait to know if 10.1 or 12.1 is the best candidate. This may be clarified next week through different meeting in OFC.
- transportpce changes under review:
  - Gilles punsed a new relation chain associated to the migration of all the project Junit tests to Junit 5 (several changes according to the module handled): all unitary tests have been migrated by Gilles to Junit 5 which provides new engine and many interested features.
    - "Fix string issue in OpenRoadmInterfacesException" solves an issue associated with this migration.
    - Gilles also reactivated some Junit test that had been disabled.
    - "Use QName constant" instead of manually create associated container simplify the configuration of the tests when we change a yand module revision.
  - "Update port-mapping data for regen xpdr type": Bala is still working on associated functional tests but considers this change could be merged.

## A.O.B.

UTD question (Nathan) about the issue with Karaf Logs: is it still the case with the latest versions of PCE? The Karaf client, no longer working is an issue we had some time ago, and which is not solved with the current Karaf version. It is an upstream bug in the Apache Karaf project. Karaf server is however still usable. So Karaf client does not need to be launched to observe the logs. However for UTD who wants to extract some messages from the LOG, it could be an issue. Lighty was not deeply tested by UTD. UTD is asking whether they should move to Lighty to solve this issue. Gilles answers that to him the real way to solve the issue is to use the nbi-notification module. However Nathan mentions that a lot of information is needed by their application, which would imply to write a lot of code to complement current implementation. Gilles explained that each TransportPCE module communicates to other modules through the mdsal-notification mechanism. Looking at the logs, it is quite easy to figure out which are the notifications sent through this process, and if need be, complement them and filter them from the Karaf Logs...

### **Review**

- Status on changes merged since last meeting:
  - o "Refactor PostAlgoValidatorStep2": was addressed during last call. It is refactoring to improve Sonar statistics.
- transportpce changes under review:
  - "Refactor PostAlgoValidatorStep3": All further steps have been squashed into the step3. This refactoring shall reduce the cyclomatic complexity. AtoZ and ZtoA directions handling was split into 2 different methods. The first For loop is threating extremities. The second handles intermediate elements.
  - "Leverage Map ref in PCE PostAlgoValidator" is the last step of the refactoring, handling parameters passed to the different methods through maps.
  - "Upgrade device 7.1.0 sims version" was merged during the meeting.
  - Gilles created a new relation chain of changes in the scope of the migration to Argon:
    - "Update tapi device notification functional tests" provides some adjustments to clean up the environment at the end of the test, to improve the behavior of the CI/CD, and get a reproducible environment.
    - "Change getter in covertORTopoToTapiFullTopo" solves a NPE
    - "Remove some forced transaction closures": removes some forcing closures of R/W transactions which are not efficient and lead to some errors if the following change is applied.
    - "Reimplement Request Processor": separates the handling of Read and Write transactions. Also provides some enhancement in the way the different thread access to the datastore, handling the accesses through a map. Adds a block finally to correctly handle the locks associated with the transactions. This solves some issues observed on the gate running the tests, which are associated to concurrent accesses in the data store that were not correctly handled. Commit is now done after any kind of write transactions.
    - "Use networkTransactionService to access to the DS" solves an issue observed with test on GNPy that were not handling transaction using this networkTransactionService.
    - "Bump Upstream dependencies to Argon" will be finally applied after all the issues evoked before are solved.

### A.O.B.

- Since a while, Bala has experienced some issues with the equipment in the labs, on their candidate datastore, deleting interfaces (this is even not using the renderer, but doing it directly on the device pointing to the right url). He will provide more details about it.
- Gilles observed on his side that we regularly lose during the tests some Netconf sessions. Bala observed previously the same kind of issues
  which were solved setting the Time\_To\_leave parameters.

### 02/16/2023

#### **General information**

· Guillaume presented at the LNF virtual developer and testing forum a topic about the migration of transportPCE test to RFC 8040.

## Review

- Status on changes merged since last meeting:
  - "Update upstream dependencies" addresses the upgrade to the latest Argon upstream dependencies, done on transportpce-models project.
  - Robert provided a new relation chain (9 changes) related to the reorganization of the dependency injection for common module. At the
    final step, he removed the autogenerated common-blueprint file, relying on OSGi annotations. Gilles fixed some side effects on the
    project during the week and added a new change ("Fix small issues in nbi notification module") to fix some small issues.
  - o "Fix docs git Hooks dead url" is proposed by Guillaume to avoid docs-link-check failures on the gate.
- transportpce changes under review:
  - Gilles updated 2 changes associated with Argon migration ("Bump upstream dependencies to Argon", "Clean maven files").
  - Last changes proposed by Bala to handle regeneration were rebased by Gilles, who also added a new change "Upgrade device7.1 sims
    version" to use the newest version of HoneyNode code that fixes the xsl transform issue reported last week by Bala.
  - Pce Autonomous impairment aware path computation refactoring is ongoing. Guillaume merged step 1. Step 2 reduces the complexity of
    the checkOSNR method. The global idea is to split checkOSNR in 2 according to the direction (AZ/ZA), which allows removing some
    tests. The main loop has been split in 3 parts (there were many conditions on the extremities of the path). He also created separate
    functions to handle SRGs Degrees and TSP.
  - Gilles would like to merge changes addressing the bugs observed during the demo of restoration on real equipment including "Hack to update degree port on portMapping", which shall be possible after they are rebased.

#### A.O.B.

OpenROADM device model update: it seems more reasonable to update the device model directly to 12.1 rather than 10.1, since it should cover
all required functionality (GCC option, Y cable, 800G modeling...)

## 02/09/2023

### **General information**

LNF virtual developer and testing forum will be held next week. It is free, provided that registration is performed before it starts. There is only one talk concerning ODL, given by Guillaume about the migration of tpce tests to RFC 8040.
 https://teamup.com/ksgw6qzqcmg9zbzsfq?date=2023-02-13&view=md4

#### Review

- · Status on transportpce changes merged since last meeting:
  - o "Autonomous, impairment aware path computation" was merged at the end of last week.
  - o "Fix Pylint issues": solves a small issue in one functional test
  - "Use a coherent style in common InstanceIdentifiers" is the first of upcoming changes.
- transportpce changes under review:
  - "Refactor graph PostAlgoValidator step 1...3": provides some refactoring of the PostAlgoValidator method. Step1 focuses on code style and intermediate variables. Step2 is a real refactoring of the method to reduce its complexity. The problem is that comments might be adjusted as some part of the code has been moved to separate method. Step3 focused on checkOSNR to decrease its complexity.
    Olivier will have a look to them
  - "Refactor networkmodel serv. FrequenciesServiceImpl", "Refactor PCE networkAnalyser PceLink" focus on code style issues, intermediate variables....
  - "Hack to update degree port on portMapping" has been tested by Tianliang on real devices and seems to work in 4 different scenarii.
     This change allows the OFC demo running. It can be merged now.
  - "PortMapping to support regen capabilities" has been adjusted by Bala. A few test files still need to be adapted, and Bala will push them
    in a short time.
  - ° "Support create/delete interfaces for regen" is almost ready to be merged as soon as it will have been rebased. Bala tries to write associated functional test. For this, he needs to adjust the configuration files (transportpce-oper-XPDRA2.xml). However there is an issue: one function does not succeed to find a circuit-pack, whereas this last appears in the operational DataStore when the device is mounted. From some discussions appeared that the Configuration DataStore is however not well populated. Honeynode starts successfully, but an error is generated about the schema. The issue may be related with the XSLT transform that may need to be upgraded with a new parameter, used in regen which is "recolor".
  - o "Remove use of ODL blueprint extensions" has just been submitted by Robert

## 02/02/2023

### **General information**

- · ODL distribution released in CI-SR2
- Annual LFN Operational survey has been launched. Gilles proposes that some of us reply to this survey to provide feedback which would help notably, improving processes (https://linuxfoundation.surveymonkey.com/r/RN6HQYK)

#### Review

- Status on transportpce changes merged since last meeting:
  - "Workaround to install tapi feature in func tests": allows starting karaf with the appropriate configuration file where tapi feature is already installed.
  - o "Unenforce Lighty use in CI": switch from lighty.io runtime to the karaf one
  - "Remote websocket config from post-install scripts"
  - "Add tests utils ODL startup opt-out support" allows disabling the start of the controller when launching test, and associates karaf start
    mode to a variable.
  - "Use karaf client batch mode": Karaf 'client' command has a batch mode option ('-b') to take commands from stdin without requiring TTY. Hence this option makes it possible to run the command without getting affected by the Karaf terminal property setup issue. Gilles is not sure this change may not lead to some issues with Linux terminal, but the change has been merged. Additionally previous change may not be needed anymore, as this one is merged.
  - ° "Restore TAPI feat install w/ Karaf client in tests" will need to be updated
  - "Add test\_utils ODL startup opt-out support"
- transportpce changes under review:
  - o "Slight refactor of common PortMappingVersion2.2.1" is about optimization trying to avoid the use intermediate variables.
  - "Improve functional test launcher pytest support" addresses the difficulty to stop some processes with ^C. Guillaume would like Gilles to test it.
  - "Autonomous Impairment aware path computation": Olivier addressed most of the Guillaume comments. Still a few comments need to be addressed, and some conflicts to be solved, but this change is close to be merged.
  - "PortMapping to support regen capabilities": It took some time to Bala to make some corrections since the creation of interfaces was not
    working with some of the real equipment in the labs.
  - Migration to Argon: nothing new since last week

#### A.O.B.

An equipment manufacturer works on R10.1 of device models. Bala did not identified major changes from 7.1 to 10.1. But the support is required
in PortMapping. Rendering part should not be that much affected. The migration to 10.1 shall be needed to test the product as it will be released
in the Open Lab. Currently UTD has one of their equipment which is a Switchponder with 100G line port. But the new unit shall be a 400G
transponder. Having an example of configuration file for TPCE sims would help a lot.

### 01/26/2023

### **General information**

- Gilles released last week transportpce artifacts for CI-SR2. ODL distribution CI-SR2 should be delivered very soon, on time
- Tomorrow is the deadline for submitting topics to the LFN DDF (13<sup>th</sup> to 16<sup>th</sup> of February) which will be virtual. Registration is free of charge. https://wiki.lfnetworking.org/display/LN/2023-02+LFN+Developer+Event+Topics+February
   Guillaume proposed a contribution about the migration of the tests towards RFC 8040.
- For mentorship (trainees can be funded by LFN), the deadline is the 3rd of March: https://wiki.lfnetworking.org/display/LN/LFN+Mentorship+Program

#### Review

- Status on transportpce-models changes merged since last meeting:
  - o Migration towards Argon
  - o "Update upstream dependencies" (mdsal & Netconf) to use the latest ones
  - Gilles also tried to merge the T-API 2.4.0 but reverted it. He wants to finish the migration to Argon prior to manage the integration of T-API models to avoid conflict/issues.
- · Status on transportpce changes merged since last meeting:
  - o changes related to backports to stable/chlorine to release CI-SR2
- transportpce changes under review:
  - o "Slight refactor of common PortMappingVersion2.2.1" is about optimization trying to avoid the use intermediate variables.
  - o "Hack to update degree port on PortMapping" will not be merged soon as we need some feedback from Tianliang
  - "Improve functional tests launcher pytest support" propose to use pytest from the python interpreter to avoid generating unwanted behavior and so that all associated subprocesses are killed using Ctrl C.
  - O New relation chain concerning the CI:
    - "Workaround to install tapi feature in funct tests" will solve the installation of the T-API feature in Karaf while the identified bug with Karaf is not solved
    - "Unenforce Lighty use in CI"
    - "Remove websocket config from post install script" solves some issues with the obsolescence of some dependencies
  - Migration to Argon: Gilles wanted to make it quickly in order to provide feedback towards kernel projects if some issues were

encountered. Appart karaf issue TRNSPRTPCE-701 (VERIFIED), everything seems OK

- "Bump upstream dependencies to Argon": migration of the master branch to Argon
- "Clean Maven file" solves some compilation warnings

#### A.O.B.

Bala is using Inteligy IDE, but can't see the import of the OpenROADM yang files. This is associated with the move of those to transportpce-models dedicated repository. They should appear in external-dependencies when selecting project files view in this IDE.

## 01/19/2023

## **General information**

- · Gilles released last week transportpce-models artifacts for CI-SR2, and is planning to release transportpce CI-SR2 artifacts tomorrow
- · Casey sent a mail regarding mentorship (accompanying students or other people to work in a LFN opensource project)

#### Review

- Status on transportpce-models changes merged since last meeting:
  - o "Bump upstream dependencies to CI SR2", to release artifacts
- Status on transportpce changes merged since last meeting:
  - "Refactor few LOG messages management" which extracts some modification that can be applied out of the autonomous path computation
  - "Bump upstream dependencies to CI SR2" to use the latest dependencies (especially transportpce-model release version and the latest lighty version)
  - O Relation chain concerning Junit tests refactoring
  - backports on stable/chlorine branch
- transportpce-models changes under review:
  - "Add new T-API-2.4.0 models": Gilles added new tapi models after correcting some trailing spaces. Anyway, Pyang still generates a lot
    of Warning associated with imports. This could be an issue with Pyang. The models however compile correctly on the gate. Would be
    worth adding a yang linter on the CI
  - o "Bump upstream dependencies to Argon" has been updated to align with latest dependencies and can be merged
- transportpce changes under review:
  - o "Slight refactor of CommonPortMappingVersion221" provides some optimization removing some intermediate variables
  - o "Hack to update degree port on portMapping": Guillaume steps back on one of the optimization of previous change
  - o "Autonomous impairment aware path computation" needs to be rebased again, and wait for a last review before being merged

#### A.O.B.

Sprint 31 started at the end of the session



## 01/12/2023

## **General information**

• netconf-5.0.0 being just released, we can start now our migration to Argon

#### Review

- Status on transportpce changes merged since last meeting:
  - o "Use Maven 3.8.7 in CI CentOS install script", was pushed to repair our CI
- · transportpce changes under review:
  - "Autonomous Impairment aware path computation": Olivier has addressed most of Guillaume's comments. Remains some questions
    regarding the log level to see with Guillaume.
  - Jonas proposed a change to make the OLM process stopped when one node is no longer connected to the controller. The change
    makes the JUnit tests associated with OLM failing. In this context, Gilles proposed a relation chain to address this and to improve Junit
    test relevance and efficiency.
    - "Check input node parameters of get PM RPC": It notably solves a NPE when we invoke a node which is not connected
    - "Rewrite Junit tests of PowerMgmt implementation": Gilles rewrote the Junit tests trying to avoid multiple write operations in Data Store to improve the test efficiency, and using Mockito
    - "Rewrite Junit tests of OlmPowerServiceImpl": Gilles also rewrote the Junit tests for the same reason, and in the same way
    - "Remove getNode method from OlmUtils": uses get node method of PortMapping rather than creating a redundant one in OLM Utils.
  - º "Support create/delete interfaces for regen": Bala addressed some comments from Guillaume but he still has some work to do on it.
  - o "Bump Upstream dependencies to CI SR2" can be merged.
  - "Complement sims configuration files" can also be merged

## 01/05/2023

### **General information**

- ODL CI-SR1 distribution was released released en 2022 with transportpce-models and transportpce projects integrated as managed projects.
- Next step are Cl SR2 which is planned for the 23<sup>rd</sup> of January and Argon due for the 16<sup>th</sup> of March.

- Status on transportpce-models changes merged since last meeting: all changes are associated with the integration in CI-SR1, and bump of upstream dependencies to CI-SR2
- Status on transportpce changes merged since last meeting:
  - o same kind of changes related to the integration of the project inside the distribution
  - o backports of changes from stable/chorine branch towards master
  - o backports of few changes from master to stable/chlorine, forgotten for CI-SR1 that will be present in CI-SR2
  - Change from Jonas on LLDP control
- · transportpce changes under review:
  - "Bump upstream dependencies to CI SR2": one shall note that tpce points to transportpce/models upstream dependency, with for the
    moment snapshot version. We could already release transportpce-models right now to use released version...
  - Jira ticket 713 "path restoration fails on multi-hop path":
    - Gilles identified several issues in HoneyNode. 1<sup>st</sup>, current-pm-description was missing from some configuration files. "Complement sims configuration files" solves this issue. Also Gilles noticed that notifications were not sent by some HoneyNode sims when the input power was set back to a standard value. This was because Honeynode code was checking the 24h PM value in place of 15 min one. A new change associated with HoneyNode code corrects this and is currently being verified.
    - "Hack to update degree port on PortMapping" change is also needed to check the correct behavior of restoration on real equipment
  - "Autonomous impairment aware path computation": Olivier provided a new patchset to address Guillaume's comment.
  - "Fail power setup if node is not connected": Jonas proposes a change to update OLM behavior when node does not connect successfully, but he did not adapt the Junit tests, so the change does not pass the gate.

- His other change "Fix persistence when Karaf is restarted" needs to be more deeply evaluated, since some of the ODL native features
- may offer the same service => We should right a Jira ticket to capture this valid requirement.

  Bala is still working on "Update port-mapping data for REGEN xpdr-type" & "Support create/delete interfaces for regen" changes. Since there is an agreement (out of the scope of the OR MSA) with suppliers so that we get Regen feature in 7.1 release, we have no real other alternative to handle the issue associated with if-capabilities of regens, which is not natively present in OR device model 7.1 than the way Bala proposes to handle it.

### A.O.B.

· Sprint 30 shall be finished. We proposed during the meeting to organize the demo next week after the regular tpce meeting. The sprint demo can be recorded. Please contact Gilles if you can not attend and expect it to be recorded or if you prefer that we reschedule it.