# 2021 meeting minutes

# **Meetings connection details**

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

# 12/16/2021

#### **Code Review**

- Since the last meeting, a large number of changes have been merged:
  - Changes associated with OTN implementation with intermediate switches
  - Migration of some of the functional tests (topology) towards RFC 8040
  - Changes associated with TAPI implementation: the sequence of the changes has been changed. The initial change associated with OTN
    link removal has been modified so that OTN links are not removed from the Abstacted T0 Multi-layer topology.
  - o Reactivation of Unitary test for renderer.
  - "Remove forced revision imports in few tpce models"
  - "Unofficial regenerator capability support in Yang": some identities supported by some suppliers are no more the official one (R7.1). We agreed with Bala to modify the official model but some details need to be provided in a notice so that users understand it. Guillaume made what was needed to close the change which was merged.
  - Power control support for 87.5 GHz spectrum width: Gilles reworked it, rebasing it, and solving issues appeared after the merge of the renderer unitary tests activation.
  - "Increase transportPCE tox verify job timeout" allows solving some issues with the gate
  - Guillaume opened a comment on the already merged change: "Tapi Link creation refactoring": Guillaume solved an issue associated
    with the support to lighty.io in another change. So, the comment may be closed now.
- All these changes have been backported on the stable/phosphorus branch.
- The following changes are still under review:
  - TAPI changes concerning notifications:
    - a new change "Fix few NPE in TAPI implementation" has just been pushed by Christophe and Gilles to fix some NPE in TAPI implementation, when creating 100GE service over TPDR
    - Javier rebase the TAPI series related to TAPI notifications
  - Reactivation of lighty: "Add and fix Phosphorus lighty.io"; A few things have been changed in the PortMapping. Need to be reviewed
    again.
  - "Enforce Pylint in CI via tox is mergeable". The Pylint configuration has been customized to make it fit with our needs. Fix me has been disabled on redundant code. It may however need to be rebased.
  - "Use environment variable for OLM timers": this change proposed by Gilles and Christophe will allow to set specific OLM timer values according to specific environment variable set or not before launching Karaf. It allows decoupling the build step from the runtime step. Thus, we can change OLM timer values without having to recompile again, depending on the usage (test on real equipment versus test on HoneyNode simulators.
- Other Open changes in WIP:
  - Migration to Service model 10.0: we are waiting until R10.1 of OpenROADM is publically released to migrate directly to this last that brings some corrections that will ease the migration.
  - o Final step of the migration of functional tests towards RFC 8040 has been put on hold

#### Q&A

- · Next DDF: preliminary planning has been sent by Guillaume, who is proud to have 5 subjects proposed around transportPCE.
- It was the last meeting of the Year 2021. Next TransportPCE meeting will be hold the 06 Jan 2022. In the meantime, Happy New Year's Eve

# 12/09/2021

# **General information**

- P SR1: approved and available for download. P SR2 is planned for the end of January.
- A question was sent by Santh about a compilation failure issue with TransportPCE. Guillaume answered, considering it was probably a Tail-fissue. The issue has been partially solved, and the device is now correctly mounted. However there are some remaining issues. Guillaume identified that it could be an issue with NETCONF (Santh uses Al distribution). His suggestion is to migrate to a more recent version.

- Since the last meeting, only one change has been merged: "Fix remaining Pylint warnings apart fixme & dup"
- There are more than 40 open changes which are in review.
- Gilles and Christophe have agreed on a strategy for tomorrows demo. The relation chain of changes related with T-API will be split into 2. They
  have reordered some of the changes so that they can merge earlier the 3 following changes: "Adaptation of xpdr mapping from OR to TAPI",
  "Tapi link creation refactoring" and "Fix tapi get-topology-details functional tests". Remaining chain of OTN changes has been put on top of this
  and is in the last review step.
- We are currently experiencing some issues of the gate.

- The fix proposed by Javier to solve the issue associated with test 16 seems not to work. We still experience the issue. Javier is still trying
  to simulate the issue locally.
- Some other changes fail due to either an issue to launch sims121 or an issue launching TransportPCE controller for tests221: according
  to Guillaume, this could be due to resource starvation issue (at the hyperviser level). He suggests we raise a ticket.
- Christophe highlight the fact that any change submitted should include some functional tests as soon as a new functionality is introduced. This
  shall be applied to the case of the change that were initiated by Peter. Javier agrees with this and will work on it.
- "Reintroduce nb-bierman02 support in new functional tests", "Migrate topology funct tests to RFC 8040 step 1, 2 & 3" have been proposed by Guillaume and are under review.
- Migration of Service Model to 10.0: Gilles proposed 3 changes on this topic:
  - "Remove fix revision imports in trace yang models" prepares the migration by removing revision forcing in TransportPCE yang models, and will allow to always retrieve the latest model revision available
  - "Upgrade to service Model 10.0" is the model migration in itself. The issue encountered compiling the new service model has been raised in OpenROADM MSA (Issue 853). PR 855 is solving this. It was presented this afternoon, and nobody complained. So it shall be part of service model 10.1. Olivier suggests to put this change in standby and wait until we get service model 10.1 available. This change breaks the API so that it will proposed for Sulfur.
  - "Remove service-endpoint grouping" does basically what we requested in OpenROADM Service model 10.1 through PR855. As
    observed on gerrit, it solves the compiling issue.
- Guillaume proposes to rework the change proposed by Bala "Model 7.1 change to support regenerator capability" so that we can have an
  "acceptable" solution
- "Power control support for 87.5 GHz spectrum width": Shweta will try to address this changes before going for holidays.

#### Q&A

- Next DDF: 5 subjects have been proposed around transportPCE by Nokia and Orange.
- Last public TransportPCE meeting of the year next week on the 16<sup>th</sup>.

# 12/02/2021

#### **General information**

- P SR1: Christophe successfully released transportPCE in P SR1 the 30th of November.
  - The main features introduced in SR1 correspond to around 50 changes (100GE over OTN switches, T-API improvements, start of migration of functional tests toward RFC 8040, and a number of fixes).
  - P ŠR1 was approved.
  - Gilles updated docs project with the TransportPCE release notes.
  - o P SR2 is scheduled for the 27<sup>th</sup> of January 2022.
- RESTCONF api will change. Guillaume has initiated some work to migrate from Bierman to RFC8040 which will help to support this migration.

#### **Code Review**

- Since the last meeting, the following changes have been merged:
  - o "Fix some/more Pylint warnings" and "bump network dependency to 2.0.11" solves the issue of the Hexadecimal trace in the Logs.
  - Gilles will backport these changes on stable/phosphorus branch
- change 98757: "Set xponder-type in the mapping for transponders":
  - o for Xponders we put the type of xponder (mux or switch) which is embedded in the list of xponder in the device configuration, with the exception of transpornders, we are still not putting anything in the mapping since in Release 1.21.1 this list and types were not provided by the devices. So when we don't have the list of transponder we will put in the portmapping the "tpdr" type.
- change "Fix tapi get topology details functional test": the change instead of using Databroker use network transaction service which allows
  providing a more reliable behavior
- change "Tapil ink creation refactoring": provides a unification of tapicreatelink and TapiLinkUtil and avoids code duplications
- · change "Adaptation of XPDR mapping from OR to TAPI": solves some bugs and provides some modification of the way NEP are created
- change "OTN link deletion from T-API topology": transforms OTN link to TAPI connections to be in line with TAPI implementation
- change "Unification iNodeEdgePoint\_N and iNodeEdgePoint\_N": allows to use the same naming convention for this NEP in both the T0 and the T0 Full Multilayer topology.
- change "OpenROADM Xpdr link TAPI listener": allows creating links directly from the update in the OpenROADM topology rather than using specific rpc to create roadm to roadm links and Transponder to roadm links
  - Christophe raised the question about the deletion of T-API links. => we need to confirm if the rpc delete link runs correctly for openroadm topologies
- change "Tapi connectivity upgrade": Implementation of 100GE services in Tapi as an Ethernet service and OTN services for Muxponders and switchponders
- · Javier has also been working on the TAPI notification services already addressed in the previous meeting.
- OTN switch changes series: Gilles will start addressing the comments received so far very soon.
- Guillaume also pushed 3 changes on Pylint and functional test migration towards RFC8040. "Enforce Pylint in CI via Tox", "Fix remaining pylint warnings apart fixme & dup", "Migrate topology functional tests to RFC 8040"
- Gilles started the work to migrate the service models to R10.0. But we have an issue and Christophe raised the corresponding issue in OpenROADM community.

#### Q&A

- Next DDF:
  - o Gilles and Christophe proposed as a topic, an Overview of transportPCE feature, including a short demo
  - Nokia will also propose 2 topics: one about what they have done in transportPCE, one about what they plan to do next

o Guillaume has proposed one topic on release management, and one about tox jobs parallelization.

#### 11/25/2021

### **General information**

- P SR1: the release has been postponed two weeks later (MRI project not ready yet) to the 2<sup>nd</sup> of December. transportPCE shall then be staged between the 2<sup>nd</sup> and the 9<sup>th</sup> of December
- Releng project shall move to Maven 3.8.
- Transportpce mailing list: a mail was sent by Shanth with regards to issues experienced when connecting to Cisco devices. Some additional logs
  were sent but logs are only partial. Guillaume shall provide an answer.
- · Last TSC meeting summary provides a link to connect to Slack dedicated to discussions with the ODL community.

#### **Code Review**

- · Since the last meeting, the following changes have been merged:
  - o the beginning of the otn suite (merged and backported to stable P branch)
  - the bump to netconf dependencies to 2.09, and then to 2.0.10. As a result, now part of TransportPCE LOG includes Hexadecimal codes when connecting to a NETCONF device. This issue has been raised to Robert who shall fix it very soon.
  - Guillaume made some changes related with migration towards RFC8040, "Migrate portmapping functional tests to RFC8040" (merged, to be backported to P), "Run pre-commit autoupdate", "Enforce Autopep8", "Remove u prefix obsoleted by python 3", "Fix some Pylint profile" (could be merged), "Enforce Pylint with a score >=8.97 in Cl" (not to be merged)
  - Fix null Supported CEP Qual. on TAPI node creation has still one comment to be addressed. A Jira ticket could be created to keep trace, allowing to merge this change
- A lot of changes failed last week, probably due to instability with T-API tests.
  - o "Fix tapi get-topology-details functional test" should solve this issue
  - All Changes related to the use of intermedaite otn-switches shall be rebased on this fix to check on the gate its positive effects.
- T-API changes suite:
  - Tapi link creation refactoring tries to reduce code duplication, and includes latest changes associated with proposed link naming convention
  - Update TAPI connectivity service on port change: Christophe is currently testing it.
- Gilles will backport all recently merged changes on the stable P branch
- Robert recently released Si SR3.4 to address some Netconf issues (Si SR4 is not planned)
  - We may experience an issue with Si SR3, because the test suite for tox parallelization implies to be activated on releng project, what has not been done yet...

# Q&A

- Next DDF:
  - we can submit some topics until the 4<sup>th</sup> of December here: https://wiki.lfnetworking.org/display/LN /2022+LFN+Developer+Event+Topics+January
  - Guillaume will propose a talk on the different way to manage projects (MSI/ MRI/self-managed) and another talk about tox test parallelization
  - Highstreet will probably propose a topic on ONAP and Tpce
  - Guillaume suggest to proposed talk to introduce the tpce roadmap
  - Javier would like to propose a talk about T-API development performed on tpce with probably a small demo and another talk could be about what Nokia plans for next transportPCE contributions.

### 11/18/2021

#### **General information**

- TransportPCE was released on the 5th of November for Si SR3. Since we release TransportPCE (SM project depending only from MRI upstream projects) before MSI projects, it led to exchange on the community, and Robert highlighted that tpce could become an MRI project. We are not so clear on the different commitments that are associated with MRI project. Gilles suggests everyone has a look to the related documentation, and we'll discuss this point again next week.
  - o https://docs.opendaylight.org/en/stable-phosphorus/release-process/managed-release.html
  - OpenDaylight distribution, integrating TransportPCE has been released on the 11th of November in the Si SR3.
  - Gilles proposed a change in the doc project to update the release note from the Jira tickets associated with Si branch.
  - Gilles is not sure that the parallelization of test is effective on stable/silicon branch. According to a mail from Guillaume, we may have to
    update Releng to make this effective. Gilles will discuss this with Guillaume.
- P SR1: Gilles has backported some change from the master branch to P. However, waiting for the unlock of our stable/phosphorus branch before
  merging all associated changes.
  - According to the ODL schedule (Phosphorus SR1 Release Checklist), the branch shall be unlocked tomorrow. Christophe propose to handle P release. (Official distribution with tpce due on the 22<sup>nd</sup> of November)
- An issue was raised by Shanth about the NETCONF connection between TransportPCE and their Cisco equipment. Guillaume shall provide an answer.

#### **Code Review**

- Since our last meeting, almost 20 changes have been merged (T-API related, Tox/functional tests related, SONAR portMapping issues, as well as some changes from the OTN suite).
- Change 97868 (Fix null Supported CEP Qual. on TAPI node creation) was merged while one comment from Guillaume had not been addressed.
   It was decided to open a new Jira Ticket to track the comment which could be long to manage.
- Change 98531 (Bump netconf dependency to 2.0.9) could be merged.
- Status on the OTN switch series:
  - Guillaume already merged 3 of the changes. Gilles has reworked all changes considering the comments made by Guillaume and Christophe.
  - Apart from "New functional test with intermediate otn switch" for which a test needs to be renamed from 12 to 14, the other changes can be merged as they are.
- T-API change suite:
  - o Gilles and Christophe started to test « Update TAPI connectivity service on port Change ».
  - o Javier will send his postman collection associated with T-API so that Christophe and Gilles can test it.
  - In the update of the connectivity-services when a state changes, all services supported by the out of service connectivity service shall be updated. We agree on this expected behavior but it seems that right now, when a photonic layer service is out of service, the upper layer services' state is not refreshed. Javier will check this.
- In "Migrate portmapping functional test to RFC8040", Guillaume changed the url for tox tests. Gilles would prefer to wait until he has merged some of the changes of the OTN suite, prior to merge this one to limit the amount of work.
- Change 98001 (Reactive renderer UT): Gilles would prefer waiting that all series on otn switch would be merged before rebasing this change, to
  minimize conflits to manage.
- Change 97599 (Model 7.1 changes to support regenerator capabilities): Bala needs to elaborate the Jira Ticket before we discuss if something
  more needs to be made.

### Q&A

- We could not demonstrate 2x200G in Supercomputing (no available product at the time of the demonstration). A video was displayed.
- OFC 2022 demonstration: Bala discussed with Andrea. Regen support on devices might shift from January which was first availability to a later date. 3x100G might be supported by some equipment at the time of OFC demonstration. UTD has still in mind to demonstrate path computation relying on GNPy
- DDF will be beginning of January (https://wiki.lfnetworking.org/pages/viewpage.action?pageId=53609047). Subject to be presented must be submitted before the 3<sup>rd</sup> of December. Any proposal is welcome.

### 11/11/2021

November 11 being a public holiday in France, this TransportPCE public meeting is cancelled.

#### 10/28/2021

# **General information**

- ODL Phosphorus Release: Guillaume, as the TSC chair, made a quote for the marketing message. TransportPCE is mentioned.
- · Our Jenkins/Gerrit and JIRA may be unvailable next week due to maintenance operations. Beware, since we must release Si SR3.
- Si SR3: The release date is planned for the 4th of November. The release of Kernel project is planned next Monday. Then the release of self-managed project is planned for the 4th of November. Our stable branch shall be unlocked on Monday. The time slot we have is between the 1st and the 4th of November. Shweta shall cherry-pick today the changes on stable Si branch. She identified 20+ changes to be backported. TransportPCE Project version need to up increased: for Si SR3, it shall be 3.3.0-snapshot (Phosphorus is 4 and S is 5).
   Gilles, Christophe and Guillaume being on PTO next week, Shweta will take care of releasing TransportPCE for Si SR3.
- P SR1 is planned for the 22<sup>nd</sup> of November. Gilles suggest that we regularly (every weeks) backport changes done on master branch to P. Gilles already made this. Currently, most of changes are failing due to a bad project version in one change related to swagger feature.
- Orange made a demo of HoneyNode to UTD. UTD proposes to make some development around PM generation in order to have an optical node
  emulator a little bit more dynamic.

- "Initial OR T-API mapping: topology" is not a new change merged this week, but supports some ongoing discussions on the way to compute the SIP UUID. At the end we decided to follow Javiers approach on the SIP naming convention
- "Refactor KAraf builds for test and tox.Ini" and "Remove upstream dependencies version ordering" have been merged
- Extend T-API feature Documentation needs to be rebased on top of master. Then it can be merged
- Update developer guide for Si and P changes: Olivier will add a comment on the creation of ODUC-4 (comparison with OTUC-4)
- Fix bug in OLM spanloss computation needs to be reviewed before being merged. Christophe proposed to review it.
- Reactive renderer UT: creates a lot of merge conflict. Gilles will work on it after he addresses the OTN serie. It will be put above the otn serie.
- T-API changes chain: all the changes below the T-API functional test, apart from the Junit tests change, solve bugs. They are ready to be
  merged. All the changes above need to be reviewed. Javier is ready to demonstrate their behavior during next meeting. Christophe mentions that
  we may need to do some refactoring to avoid code duplication. This could be made in parallel to code reviews.
- Another change is not in this relation: "Fix rule format for service interface Point". It has been dissociated to simplify its merge.
- OTN switch changes chain: Gilles will move to the bottom the changes associated with bug solving to reduce the relation chain and simplify its
  merge.

### Q&A

 Gilles confirms that ODUC4 and OTUC4 could be created at the same time. We did not identify use cases where OTUC4 and ODUC4 could have different end points. If TransportPCE had to be modified, it would not be so trivial

#### 10/21/2021

#### **General information**

- \_Phosphorus is officially released. We still have a couple of issues with the document but it can be published Later on.
- We will have Si code freeze for SR3 next week.
- \_Gilles has been successfully elected as the new PTL

#### **Code Review**

- \_Gilles pushed a change that removes upstream dependencies version that were overriding versions managed in ODL parent. This is needed notably for Mockito. This change could also be cherry-picked in Si
- \_He has pushed another change to solve a bug raised by Jonas and addressing User story 172 : when not having PM for OTS interfaces in the device, get PM method would generate a NPE.
- \_Javier pushed a number of changes that bring some fixes to some bug we identified implementing MDONs use case. Guillaume is fine with them but wants to wait until Gilles or Christophe
- \_Phosphorus t-api documentation: Javier added the description of the extensions he made for t-api module. This change shall be put at the bottom of the stack so that it can be merged before we merge the other changes associated with fixes.
- \_Olivier also pushed a change associated with the documentation to include both Si and Phosphorus changes.
- \_\_Gilles made a change to reactivate unitary test for the Renderer. It could be cherry-picked on Si. This change shall not be merged before we merge all the change suite (23 changes) associated with end to end handling of high rates OTN services. These 23 changes have passed the gate. Gilles will try to address all comments at the same time to avoid overloading the gate.
- Gilles has observed that some functional test (the one used for T-API) are randomly failing.

We currently experience troubles with the infrastructure

### 10/14/2021

### **General information**

Phosphorus: Gilles took care of releasing P. It will be officially announced and we just need to provide the documentation by the 18<sup>th</sup> of October. Javier will work on the T-API features description, Orange on the update of the documentation to mention that we do not anymore rely on intermediate APIs to create/delete services

Si SR3 is in preparation. The last change addressing the disconnection of nodes will need to be backported as well as some refactoring provided by Guillaume

Shweta volunteered to do the work to release Phosphorus.

Guillaume proposes to roll the role of PTL, and to engage a new PTL election. This will be launched either through a vote in Confluence, or through a mail thread.

\_Javier raised a JIRA ticket MDSAL-694, as he discovered some issues in importing some TAPI models in the MD-SAL which is related with MD-SAL binding (according to Robert).

\_Javier provided some changes to correct some issues with T-API:

- Code refactoring for OR-TAPI mapping (Node NEPs and SIPs states, cleaning)
- Functional tests for new TAPI module (Junit test)
- Fix wrong CEP protocol qualifier (bug fixing)

Last three are based on Peter contribution

- · Update topology Service on port change
- Update TAPI connectivity service on port change
- Send TAPI notification to Kafka

\_Javier also started to update TAPI version from 2.2.1 to 2.2.3 but did not push it.

Christophe has started working on "TAPI functional tests", a functional test suite to test TAPI connectivity service. He noticed in some cases some strange behavior on the topology: sometimes it is not in line with OR topology. HE still needs to investigate to understand the reason for this.

\_Guillaume solved the Swagger issue removing the OpenROADM OSPF models. He has finished the portMapping refactoring which was partially reviewed by Gilles.

\_AT&T is still observing Cisco Mounting issue in its labs. The Bug is probably in Yang tools or MD-SAL. We are asked to raise a bug if we want this to be solved.

\_Model 7.1 change to support regenerator capability: we agreed on keeping proposed solution (added identity in OR model) provided that we mention that the model deviates from original version and that we create a JIRA issue to use augmentation in the next step.

\_Fix: disconnection of netconf node: Gilles provided a bug fix to address an old bug which has been raised by Robert. Trying to connect a node unsuccessfully, as the node is incorrectly connected, it does not appear in PortMapping and in the topology so that when it is disconnected, tpce tries to remove an non existing node (in topo and portmapping) which creates a NPE.

\_Gilles has worked all the week to solve issues with functional tests on the last relation chain he pushed, addressing end to end OTN support in more complex configurations (Intermediate OTN switch on the path, and additional use cases ....). This was also an opportunity to add an additional test suite to test these new use cases.

### 10/7/2021

#### **General information**

Phosporus release was approved last Friday.

We were supposed to release by tomorrow. Guillaume and Gilles made the job, but we experienced a lot of failures with the gates: jobs start but never end.

#### **Code Review**

The changes regarding PortMapping refactoring have been merged (step1 & 2). We are now using constant in PortMapping messages.

Gilles has pushed long series of changes addressing end to end OTN services, using various end terminals (transponders, muxponders, switchponders). Part of the relation chain is dedicated to 100GE over OTN switches, another focuses on managing intermediate OTN switch in the middle of path for low order services.

Swagger removal : the proposed change to reintroduce Swagger does not work. It seems Swagger was removed quite a long time ago : it is already not present in Silicon.

We need to investigate deeper on this subject: Swagger is really needed to debug, but the reason why the proposed change does not work is not that easy to understand.

#### Issues

Regen issue: Bala tried several workaround to solve the issue associated with the lack of identity for regen

Deviation is not supported for identities. Bala also tried to add a file providing needed identity using the same name-space as the file where the base identity is provided, but this does not work.

Guillaume propose to provide the missing identity through an augmentation in an additional file, and to force through a curl command the capabilities of the equipment.

We should also ask to the vendor that use this missing identity in their devices to use an augmentation.

At the end, as this generates a lot of work we decided that we can probably simply add this identity to the file. But we should update the description of the associated Jira ticket

Cisco models issue: Phosphorus bump brings an issue in the way some the tailf-ncs-plan@2019-11-28 yang model is imported (associated with a YangTool issues)

### 09/30/2021

- \_Refactoring of the port Mapping relation chain has been merged. This includes "Add a portMapping Util class", "Fix most PortMapping Sonar Issues", Use constant for PortMapping log messages step1/2/3
- \_Guillaume is still working on other changes to reduce the cyclomatic complexity (PortMapping Refactoring changes)
- \_Christophe worked on B100G E2E functional test that Guillaume considers as ready to merge
- \_"Model 7.1 change to support regenerator capability": deviation to model does not work. Another possibility would be to make an extension to the OR yang models, but Bala did not have the time to test it.

Gilles as created a Jira Ticket about the fact we have lost the swagger interface with transport PCE which is needed to use notably the API doc. Guillaume mentions that it use a lot of ports and might not be needed on every node in case of a deployment. AT&T confirms this is useful for them

# 09/23/2021

### **General information**

Phosphorus is coming soon despite a few failures with BGPCEP project.

#### **Code Review**

7.1 models does not support the regen identity. OR community did not want to create a minor release just for this. It was agreed with the vendors to manually add this identity in 7.1 models (org-openroadm-port-types), to support regen feature.

If we don't add this identity on the controller side, the controller will fail accessing the transponders.

Guillaume suggests we use deviation to add the needed enum, but we may generate some java object that is not exactly structured as the object resulting from manual add in the device models made by OEMs. Bala will try this approach.

For what concerns change 97600 rather than changing the models, removing the deprecated enumerations, we could probably use tox to patch the models and remove the deprecated identities.

Guillaume started working on "switch functional test to RFC 8040 url". He investigated on solving portMapping SONAR issues ("Add a PortMapingUtil class"; "Fix most PortMapping issues")

"Use constants for PortMapping log Message" (step1 & step2) also fix a few SONAR messages and bring some consistency in the way LOG message are handled.

Christophe worked on "Code consolidation for end to end B100G services" which addresses 400G transponder and 100G:400G muxponder use cases. He has also provided on a test suite using 7.1 transponder versions and 2.2.1 ROADM versions: "B100G end to end functional tests".

# 09/16/2021

#### **General information**

Phosphorus code freeze will come soon (still one issue in BGPCEP). Guillaume proposes that we envisage rolling to take on PTL role and ask for potential candidatures

### Code Review

- \_Gilles merged almost all the change associated with P migration
- \_Notification stream selection update is ready to go, now that conflict have been solved.
- Peter has pushed some code that shall be rebased on "Improve container support in tox ini" which solves some docker issues
- \_"Fix portmapping sonar issues" has been pushed by Guillaume as WIP . He will address cyclomatic issues in a different change.

### 09/09/2021

### **Code Review**

"Notification stream selection update": Gilles managed to run the test manually, after making some adjustments, in some specific conditions. "Fix Hybrid functional test race conditions" change allows solving these issues and running the tests in a more stable way.

"Fix GNPy functional test" change made by Guillaume allows to fix the failing of some functional tests associated with GNPy

"Improve container support in tox.ini": promotes podman rather than docker as the solution for container, because Docker .....

Christophe made a review on Phosphorus migration. Everything seemed to be OK, but since this morning he has observed some issues with Phosphorus distribution (associated with NETCONF and Karaf). Nobody on the bridge had to work with Phosphorus so that we don't know if these issues affect others or if it is limited to Christophe's environment.

Christophe also observed another issue with the management of the OLM timer which is now directly injected in the Blueprint. After changing the timer several time, the modifications are not considered. Guillaume mentions that he needs to restart the bundle, since blueprint modification are not take into account if this is not done.

Peter is experiencing some issues in pushing his changes, so that he will need more time to do so.

# 08/26/2021

#### **General information**

We had an infra failure on Jenkins which generated a global failure, but this is solved. Si SR2 has been released.

### **Code Review**

Guillaume has merged all the relation chain related to the parallelization of tox Test. In Jenkins, now, all tests are parallelized. A documentation is included (Change 97194). Locally, by default, tests are not parallelized.

"Refactor NMI notifications and ServiceHandlerImpls" & "Update NBINotifications" doc can be merged.

"Notification support for 7.1 devices" adds notification and tca listeners. This change has been there for a while and can be merged

"Notification Stream selection" has been updated, but Shweta needs some help. Modifying simulator's xml configurations, changing Netconf stream from OpenROADM to Netconf does not solve the issue. Gilles will investigate.

"Power control support for 87.5 GHz spectrum": Guillaume created a Jira ticket. Shweta will add some input to the renderer input container (nmc/mc)

"Use notification switching-pool in portmapping update" can be abandoned since we do not experience anymore the locking issue.

"Patch org-openroadm device 7.1" can also be abandoned since the serialization issue has been corrected in Phosphorus and Si SR2.

Guillaume made a change to fix unused dependencies warning now that we made a bump to phosphorus.

#### 08/19/2021

### **General information**

We are still waiting for LFN staff to release Si SR2. Dependencies have been changed. We will need to restage.

### **Code Review**

- \_Update karaf cache nc-notifications YANG schema : we may be able to use an updated version of the yang models even if they are in draft mode.
- Notification support for 7.1 devices: some comments have been made and need to be checked.
- \_Refactor NBI notifications and ServiceHandlerImpl: Thierry has started addressing the comments and recommendations provided by Guillaume and Christophe. The terminology used shall be in line with the documentation (and reversely).
- Peter is still working on his changes : sending NorthBound notifications as the connectivity context is changing
- \_Guillaume has started writing the documentation associated with the test parallelization.
- OLM management: New comment from Jonas regarding the fact that we use different channel width for 200DPQPSK, 300G QAM8, and 400G QAM16. Jonas is right, as all this rates use the same Baud rate and have the same roll off factor (max 0.20), we should calculate the same width = 63.1\*1.2 = 75.72 GHz

# 08/12/2021

#### **General information**

Si SR2 is not ready yet for managed project. We can expect it to be released soon. Could be next week. No news for Phosphorus (SR0 planned mid-September)

Bala had a discussion with Andrea and Janeth. They want to go for Supercomputing (End of November).

The base of the demo will be the same as the one presented in OFC 2021 with potentially new equipment (400G, 2x100G over a 200G, Regen). We could probably focus on intermediate rate provisioning and on path computation for high rate relying on GNPy for the demo of both Supercomputing & OFC 2022

ODL marketing team (contacts Casey Cain Brandon Wick) is also looking for demo to market: we could talk of the OFC demo (some elements have been publically released by UTD)

Some expectations also about 5G. OpenROADM is supposed to be a good candidate for 5G WDM backbones but this plan was not yet realized or tested yet.

http://www.gazettabyte.com/home/2018/3/28/will-white-boxes-predominate-in-telecom-networks.html https://www.infinera.com/wp-content/uploads/HR-Operator-Strategies-for-5G-Transport-July-2020\_WP.pdf

Power control support for 87.5 Ghz Spectrum width: we need to clarify the constant we use (and probably adjust their names to make it more comprehensible) when we compare them with input.getwidth to make some decision and calculate the power for Flexgrid operation. Fix OLM timer for ROADM crossconnect power setup can be merged

Guillaume has started refactoring the code of the OLM because it was raising a lot of Spotbugs issues and warnings (Refactor OLM PowerMgmtImpl class) Thierry refactored NBI notifications and serviceHandlerImpl to address some comments and correct some issues. He has also updated the docs on NBINotifications

Notification Stream selection update: Shweta updated NetConfTopologyListener to read notification steams (OpenROADM or Netconf) supported by device and adjust the subscription accordingly.

# 07/08/2021

#### **General information**

Guillaume will be on vacation during 3 weeks. Christophe and Gilles will take their vacation in August.

Next week meeting is cancelled.

Phosphorus kernel project are almost ready, so that we could bump the dependencies. The code freeze which was planned beginning of August will be slightly delayed.

Si SR2 will also come at the beginning of August but shall be delayed.

#### **Code Review**

Guillaume has merged a few changes: Remove usless Netconf dependencies from features Remove odl-netconf-connector-all dep from feats Change tapi topology to use correct states

He has also started working on the long relation chain we have to fix minor issues

OTN service delete - B100G, Update configuration files of 400G simus, Renderer Interface delete for B100G TPDR should be ready to merge.

A lot of change have been pushed for Test parallelization: Christophe mentions it is not easy to understand the approach followed, since it includes a lot of changes and the commit message are to succinct to understand the methodology. Christophe would have appreciated to have this work introduced. Guillaume propose to explain the approach during the demonstration.

2 changes from Thierry: Refactor NBI notification & add service listener tests, Add service listener to notify Kafka. Thierry addressed some of the comments but still has to address important comments. This work shall be tagged as WIP.

Christophe pushed 2 changes:

\_Modify spectrum assignment in PCE : refactoring of the way to manage the spectrum assignment using a specific yang models rather than specific Java classes

\_Update path description with OpucnTribSlots (WIP): We still have some issues to solve. Christophe tried to align the path description with what is needed by the renderer. A leaflist is used for the min and max tribslot. Bala agrees on the fact that this shall be split into 2 leaves rather than using a leaflist. The modification will be made tomorrow morning.

### 06/24/2021

#### **General information**

Al SR4 has been officially released. We don't have any news from Phosphorus middle point timestamp.

#### **Code Review**

Peter has pushed a change "Change Tapi topology to use correct states" to use correct operational and administrative state for ROADM to ROADM links, as well as Xponder to ROADM links. This code allows retrieving states from the mapping updates. Functions were added to get the correct state and insert it to the links. Some other functions are provided to convert OR states to T-API states.

#### 7.1 Relation chain status:

Bala has proposed some changes to address comments on the changes of the bottom of the stack. Christophe has continued working on it to address all the chain. Guillaume has then moved the change about the 7.1 versus 71.0 version at the bottom of the stack, feeling it could be merged in a short time. The change hardcoding honeynode node type to avoid an issue with the PRBS test pattern "issue with maint-signal container" has been removed from the relation chain since it cannot be merged as it is.

Christophe thinks we can merge all the changes on the bottom of the task. Bala may still need to address a few comments for the changes on the top, which could be merged in a second step.

Change 96210 "Renderer interface delete for B100G TPDR" may include some dead code that we could remove. Shweta will update the code. As Guillaume was the latest to work on the different changes because he moved the 7.1 change, he would like others to make the final review and merge the different changes of the relation chain.

Guillaume has started working on the test parallelization. This includes several changes ("Refactor tox.ini to prepare parallelized jobs", "outsource PEC test scripts into a separate folder", "Refactor tests launching procedure", "Allow lighty build to listen to alternative ports", "set different controller ports in tox test suites", "Allow tox func tests suites to run in parallel")

### 06/17/2021

### **General information**

Peter Heringer has joined transportPCE dev team. He's a student working with Nokia and will focus on T-API features.

AL SR4: The branch is still locked. Christophe prepared a relation chain but we can't push it.

OFC demonstration ran well, with a good level of attendance.

Developer forum: Gilles had the chance to have some exchanges with Robert about the tox job issues we are experiencing.

### **Code Review**

Guillaume proposed some changes to automate trailing blanks handling and merged some changes associated with linters

Christophe commented on the fact that very long chains lead to complex issues as many contributors are involved, especially when some of the new changes proposed are not correctly rebased on latest ones. We should try to avoid this as far as possible.

Some modifications were pushed on "update PCE for OTUC4 ODU C4 and 100GE Mxpdr". The associated chain is fine

Patch org-openroadm-device 7.1 yang model allows solving temporarily an issue with the MD-SAL, when leafref are used in grouping. In the leaf-list port-list, leafref type has been changed from leafref to string, so that the serialization can be performed. This is a workaround. Gilles raised a bug in JIRA, MDSAL-668 so that the initial issue can be solved.

The change 7.1 Renderer must be put on top of this change.

"Reduce the number of service notifications sent" simplifies the way we handle the MDONS use case.

"Add service listener to notify Kafka ": this change allows sending a notification to a Kafka broker when a service is down. The listener shall be moved from the network model to the service handler, since it does not have any connection with the topology.

Javier mentioned that some code will be released soon for the notification service. He is also working on the functional tests (almost done for the T-API module)

Shweta proposed a change for deletion of B100G services : deleting the muxponder services implies considering cross-connect deletion.

Fix OLM timers: this change proposes to adjust timers and reduce the time associated with some of the operations.

OpenROADM version fix: after some discussion it was decided to keep it where it is in the relation chain. Moving it to the bottom would require a lot of work and does not bring value.

# 06/03/2021

#### **General information**

Next week will be the developer forum happening at the same time as OFC.

Si SR1 shall be approved today. We shall be ready by next Thursday.

Next week meeting will be canceled so that everybody can assist/participate to OFC and the LFN developer forum.

# **Code Review**

Notification support for 7.1 device will allow to capture alarms for 7.1 devices. The change pushed on Master includes changes from Gilles.

Shweta pushed another change for switching-pool mapping update from notifications sent by equipment which solves a locking issue with the equipment that we had in previous version of the code.

Guillaume proposes to merge the changes as well as the one on Power control for 87.5 Ghz channels.

Guillaume merged portmapping functional test on master and cherry picked them on the Si branch

Bala will try to move Port mapping change to support Muxponder capability for B100G to the bottom of relation chain

Add missing if cap type for B100G could be merged.

We won't have time to integrate Port Mapping change to support muxponders capability for B100G on Si SR1

Christophe pushed the functional test associated with the latest modifications brought in the PCE to handle OTUC4, ODUC4, and 100GE supported on ODUCN

The change "Reduce the number of service notifications sent" pushed by Thierry answers a request raised in the context of the MDONS use case to avoid the generation of unnecessary intermediate notifications.

Guillaume is currently working on automation to remove unneeded trailing spaces and tabs.

Gilles mentions we would have an interest in parallelizing tox jobs.

Guillaume agrees but mentions that we will have an issue as this can probably not be done right now with Jenkins Releng which relies on a project that is maintained by the LFN.

This means we would need to do this outside Jenkins Releng and need to manage the updates and maintain it ourselves.

Some solutions relying on python may be used but they are based on detox which is now obsolete.

Gilles can proceed with releasing tpce in Si SR1 as it is.

# 05/27/2021

05/27/21 is rescheduled at 2pm Paris Time to avoid overlap with OpenROADM meetings

### **General information**

Silicon SR1 is in good shape.

Developer forum from the 7 to the 10Th of June is open to registration (free registration). Most sessions on ODL are planned on Tuesday with also some on ONAP. Unfortunately it is at the same time as OFC.

#### **Code Review**

Guillaume rebased OTN topology on top of the fix he provided.

The dependencies for Si SR1 have been bump. We should now use these ones (odl parent 8.1.2, Netconf 1.13.2, mdsal 7.07...).

Guillaume has pushed a change related to this (Bump dependencies to newer Silicon dev versions).

This change and the change "Fix new checkstyle issues found by odlparent 8.1.2" shall be cherry-picked and merged on top of the relation chain for Si SR1.

The change of Bala made on stable Si will also need to be rebased after this has been done.

"Add missing if-cap-type for B100G": has been modified to consider the latest modifications made on other changes

"Device renderer for Muxponder": fixes a bug that was noticed during testing with lab equipment.

"Distinguish flex vs fixed for PCE 400G": also fixes a bug associated with central frequency handling.

"Renderer support for higher rate" is adding support for OTUCn and ODUCn support in muxponder to create infrastructure connection type for OTN high rate services.

For Si SR1 we will have a fix for OTN topology and all what is above this patches in the relation chain.

Gilles pushed a change to update the configuration file for Honey node, providing some adds for 400G transponders and muxponders. This includes profiles. The file has been reorganized

### 05/20/2021

### **General information**

Si SR1 branch is locked. Al SR4 should be coming by 2 or 3 weeks.

Gilles experience some issues but shall be able to prepare tpce staging for Si.

Committers election: Bala and Christophe have been proposed as committers. They got 100% accepts from expressed votes. The election must be now approved by the TSC.

#### **Code Review**

Fix the misplacement of service notifications: Thierry made a change related to service notifications to avoid that notifications for service creation are sent before the service state is updated in the MD-SAL.

Some notifications were added in case the implementation of the service fails.

Guillaume proposed a few commits to fix some remaining build warnings and optimize gates logs and behavior:

Use maven batch and quiet modes inside tox:

Mute snapshots download status :

Fix mockito initMocks deprecation warnings :

Fix Javadocs warning in common PortMapping:

Ignore JsonString converter...

Fix lighty build warnings:

. . . . .

Mute lighty reflective access warning:

Fix deprecated warnings caused by Yangtools update:

OTN-topology creation fix: in this change Shweta moved ifCaptype conversion method for different version of devices in Portmapping. This change is dedicated to Silicon. Change-ids must be changed among the different branches. The change for silicon is ready (Gilles adjusted the commit message) and can be cherry picked to master

OTN topology creation fix shall be abandoned (change id not correct since it is already present on Si branch)

Notification support for 7.1 devices (95985): this change is dedicated to master.

Christophe put 2 changes on top of a serie but forgot to rebase one of the changes on master. He will correct it and push all the relation chain. Gilles has his change with the configuration files for Xponders modifying xponders A2 and C2 ready, but is waiting for this relation chain to be cleaned up before to push it; between Device Renderer for muxponder and PortMapping functional test for B100G muxponder. This could be however pushed in another non optimal way if this induces too much delay.

Renderer interface delete for B100G TPDR change is needed for OFC demonstration.

Shweta pushed some changes to solve a number of issues with the PCE. One fix the issue about the fact that PCE doesn't find SRG for unidirectional configurations. The other solves the fact that PCE picks the wrong a and z end termination points (first available tp even if not connected)

Bala is currently working on the Renderer for 7.1 devices, but did not succeed in solving the issue where the Renderer fails finding list of supporting interfaces. He may need help to understand this behavior observed with HoneyNode.

### 05/13/2021

# **General information**

meeting canceled for Holiday 05/20/21 is rescheduled at 2pm Paris Time to avoid overlap with OpenROADM meetings

# 05/06/2021

#### General information

Silicon SR1 code freeze next monday for Managed projects.

Committers election proposal: 2 candidates Christophe and Bala => Action: Guillaume to prepare a proper poll to get others committers feedback Next Thursday is Holiday and there will be no meeting.

#### **Code Review**

Thierry proposed a fix for some issues with notifications: ongoing optimizations.

Javier's contributions on TAPI have been merged. They cannot be reviewed quickly by Gilles and Christophe.

The fact that there is no regression on current features is ensured. Javier will create JIRA tickets to refactor the code and imporve functioonal tests.

Shweta is backporting to master her contribution on OTN and notifications for 7.1 devices but there are merge conflicts to solve before.

Bala presented his latests development on 7.1 portmapping functional tests and muxponders.

Gilles started also working on muxponder locally. They need to sync.

# 04/29/2021

### **General information**

Si SR1 will be released the 12th of May, Al SR3 on the 6th of June Guillaume wants to proceed to committer elections. Bala is OK to apply.

#### **Code Review**

Guillaume is fine with the relation chain of the changes provided by Javier. Only "Initial OR-TAPI mapping" still has one point to be checked (NPE) prior to be marged

"New functional test for device change notification" is ready to be merged.

The last changes pushed by Bala fail when running the functional tests. It seems that the gate fails downloading the simulator.

Changing 7.1 to 7.10 in Functional tests: as we cannot consider modifying the enum in OpenROADM models from 7.1 to 7.1.0 (some equipment already developed according to 7.1 models) to align with other release naming convention, we decided to abandon that change that would bring confusion since OR must be considered as the reference.

Notification support for 7.1 device: Shweta will address the current comments made on the change.

OTN topology creation fix: Functional test were failing but they now pass.

Followed a discussion on the API between the Renderer and the SH and the adaptations that need to be performed to cope with the OFC 2021 demonstration.

# 04/22/2021

#### **General information**

Guillaume will ask next week for volunteers to the committer roles, as he wants to extend the number of comitter.

Add NBI notification feature documentation: the documentation has been completed.

Depending on the order the test were scheduled and if we were using lighty, some test returned either 201 or 200 code. Guillaume has provided a change to solve this.

Lighty is now supported on the SI branch

Bump deps to new Si dev version, may solve some issues uncounterd by AT&T. AT&T did not have the time to test it.

Shweta provided a change that solve some issues associated with Netconf operations translation (put->replace) on some vendor's devices through "Update device transaction operations" change. Provided change allows solving this issue for power setting (OLM), connection setting and interface creation (Renderer) on all the devices AT&T currently has in their labs

A bug in OLM ServicePower Turndown (TRNSPRTPCE439) has been raised by Gilles, but Shweta explained that the issue raised in fact corresponds to standard operation.

In "Notification support for 7.1 devices" a listener is created for notification that allows to update the mapping when a switching pool has been created on a device. This change was developed on stable Si, but the code has changed since Gilles refactored this part of the code on master branch. Gilles propose to backport part of the code he has refactored (2 changes) to Silicon, and Shweta proposed to rebase her code on this. After that we will cherry-pick the change of Shweta on master branch.

Javier has been handling the comments provided through the different reviews on his code.

"Port mapping functional test for 7.1 device" change pushed by Bala is changing version naming in the different classes (7.1 -> 7.1.0). It is also modified in the xml config file, which leads to an issue in HoneyNode because the enum is not supported in the OpenROADM models. Port capabilities were also adjusted for network port changing if-cap type from if OTUCn-ODUCn to if-otsigroup. Guillaume proposes to split the change into 2, one focusing on 7.1.0 adjustments and the other handling all other adjustments.

### 04/15/2021

#### **General information**

Silicon is officially published and is available on the official download page.

### **Code Review**

Guillaume has merged several changes: "Increase sims startup timeout in functional tests", "Improve docs/conf.py" and some Gilles contribution on changes in portmapping: "Handle notification reception on port state change" as well as "Refactor (un)registration of device listeners" and "Update portmapping on port state notification"

Last changes from Javier were discussed ("T-API common service RPC implementation", "TAPI connectivity service rpcs Impl", "TAPI Netconf topology listener")

Gilles has pushed different changes associated with Honeynode and functional test to check port status update in portMapping and topology:

\_Adapt existing Honeynode config to device 7.1: includes different configuration files compatible with 7.1 OR models (ROADM, transponders and muxponders at that time)

- \_Upgrade Honeynode sim for device 1.2.1 and 7.1 allows to have the same behavior as for device 1.2.1 for port state notification
- \_\_Change way to start simulators is a refactoring of the code that will allow working with hybrid configuration (several config simulationg devices of different releases)
- \_New functional test for device change notification: these new test suite includes different equipment release and allows setting a 100GE service. The change of state on device ports \_triggering port mapping changes and topology updates is checked.
- \_Refactor (un)registration of device listener allows to solve a scalability issue with device listener instantiation and simplifies the topologyListener class.

Guillaume pushed a change that modifies the script to install Honeynode, to improve the Gate behavior.

Thierry has provided the doc section that concerns nbi-notification module in developer and user guides

### 04/08/2021

### **General information**

Silicon release is officially published.

Netconf is now MRI, meaning the project won't use anymore snapshot which will make our life easier to manage dependency.

Guillaume mentions we could in this context, propose to be handled as a managed project for Phosphorus.

Anyway, this does not change the situation about our lack of committers and the way we are staffed. Being handled as a managed project brings a lot of constraints

The developer forum is planned around the 10th of June and it will be a virtual event.

The contribution of Emmanuelle to the documentation on DMaaP client feature has been merged. NBI notification documentation will be provided during next week

Javier has been working on the changes associated with T-API. He has been running locally the test to check the code was not introducing regressions. This week, he has been focusing on the last changes of the 7 that were pushed.

"Initial OR T-API mapping Services": Retrieves the services in the data store and maps them into T-API connectivity service (OC and OTU4-> Photonic, ODU->ODU. Ethernet -> DSR connectivity services)

"TAPI Netconf Topology Listener": populates the T-API topology when there is a change in the mapping for the nodes

"Network Util"s: duplication of the tpce network utils yang models to create the elements in the T-API topology

"TAPI Topology service rpc Impl": implementation of the NBI rpc associated with T-API (Javier is still working on it)

Guillaume provided some indications on the way to handle license models.

Then followed a discussion on B100G Muxponder and switchponders behavior.

### 04/01/2021

#### **General information**

Silicon has been released for managed project. Guillaume has created the branch and has released the artifacts for transportPCE. Mg is officially end of life.

Gilles, would like us to set a rule to rebase the code before we merge it, to simplify things and reduce the list of commits.

Features introduced in Si have not been documented (nbiNotifications, DMaaP-client). A corresponding User story has been created

#### **Code Review**

Renderer for 7.1 devices and Bump project version to 4/.0.0 snapshot have been merged.

Javier has pushed 7 changes for which tests are working locally. The three following changes are ready for review. Others are still work in progress.

\_Creation of the T-API context on feature install

\_\_\_initial OR-T-API mapping: maps the OR to T-API topology on feature install. There are now 3 topologies, but only one is stored in the MD-SAL. This is the one where ROADM are not abstracted.

Initial OR-T-API services: any service is mapped into the corresponding connectivity service in T-API (maintained in the MDSAL).

Javier will develop the Unitary tests if we are OK with these 3 changes.

Bala and Shweta made some tests and have end to end service rendering at 400GE. They demonstrate interoperability of both transponders and ROADMs supporting Flexgrid.

Some patches and further testing with the new Si release to come.

# 03/25/2021

#### General information

Silicon: The marketing message is in preparation. Managed project are still not all ready.

The Silicon marketing message for transportPCE has been reviewed and adjusted during the meeting.

The release note for AI SR3 has been released

#### **Code Review**

OLM and Renderer module to support of 7.1 devices have been merged on both the master and the Al branch.

Javier had a call with Gilles to clarify the implementation of T-API context and topology mapping. A new change will be pushed shortly, so that the multilayer T-API topology is created and does not interacts with the code dedicated to the on the fly generation of abstracted T-API topology.

A set of changes has been pushed by Gilles and Christophe focusing on updating states in both the PortMapping and the topology, as well as for the

- \_Update portmapping on state notifications : This change allows the update the portMapping, using a new method updateMapping from notifications received from equipment
- Handle notification reception on port state change: the code developed by Javier has been refactored in order to handle device 2.2.1 and 7.1 in addition
- Set topology tp states from device port states: set tp states in openroadm-topology and otn-topology according to states of device ports in port-mapping. \_Update portmapping yang models : changes the structure of the portmapping using groupings so that java interfaces are generated to ease the access of each port independently
- Update node-tp and link states on topologies: when portmapping is updated, a listener of the mapping, created in the network module, allows to update the topology accordingly
- \_Refactor network topologies listener of SH: when a tp is supporting a service, a notification is sent to the SH if the operational states of the tp changes and affects the services. This change is derived from the code provided by Javier, with some simplifications focusing on tp state changes.

\_Add new UT for deviceListener221 : this change is still tagged as WIP since some issues need to be solved.

Gilles made at the end of the meeting a presentation on Jenkins tox job issues encountered recently. These issues are related with the tox job duration (when it exceeds 2 hours) and build timeout constant currently defined. This leads to -1 vote on some of the changes. Something needs to be done. Splitting the tests across several tox jobs could be a solution.

### 03/18/2021

### **General information**

- \_We have 2 new TSC members one from Pantheon and another from Verizon.
- \_Silicon code freeze is now effective and the branch is locked. We have not created it yet. We shall be careful when creating it because of the freeze.
- \_TransportPCE has been integrated in AI SR3 which has been released even if no communication made on it
- \_OFC event will be virtual (June 6 to 10), so that the demo will be handled in UTD.

#### **Code Review**

All the relation chain of DMaap client and NBI notification has been merged on the master branch

Guillaume has merged the update of Portmapping for 400G.

Adapt PCE to compute 400G path has a merge conflict. Guillaume would like to Christophe to take care of remaining issues

Updated OLM Module: Guillaume is fine with the change but is waiting for some additional review.

Device Renderer to support transponder for B100G: Bala has addressed all the comments and will start writing the functional tests. Guillaume is also waiting for some additional review of it.

Bug in portmapping : solves some ordering issue sin the port list of the portmapping (v221). Guillaume asks to address the same issue in the portmapping (v7.1) in the same change.

Functional test for 400G: Christophe provided a test suite to verify path computation performed by PCE for 400GE. Shweta is about to complete her review of it

Set topology topo states from what is in the portmapping: states in the portmapping are currently corresponding to the states that come from devices as they are mounted. Some changes to come will update the states in the portmapping from notifications received from devices.

Javier is currently testing his changes on T-API. No issues with the T-API topology saving in the operational topology data store.

He experiences some issues for the tests associated with some other changes (Initial OR-TAPI mapping, and T-API context saving), due to the way the feature is initiated.

# 03/11/2021

#### General information

We are in a self-nomination period for LFN Governing board committers. AL SR3 is still pending. Will need to run the CSIT again.

# **Code Review**

Gilles provided an Upgrade for Honeynode. At that time it is limited to 2.2.1 device. It is a complete refactoring of Honeynode code to generate some notifications on port status changes. At that time Honeynode only send notifications when the status of a port changes (avoiding notification storms). A version for 1.2.1 devices and 7.1 devices will be available in a short time.

Guillaume added a profile in Tox to check any shell script s that may content bashisms.

He has cherry-picked Shweta's works on OLM on master branch.

Gilles pushed 2 changes. The first is an update of the portMapping models in order to includes operational and administrative state of the ports. The second updates the PortMapping from value red in the devices. Next step will be to update portMapping from notification coming from devices.

Christophe has pushed on functional test suite to test the PCE operation at 400 G.

# 03/04/2021

#### **General information**

AL SR3 is not yet released but it shall be approved tomorrow, which means we will need to release next week. Si ready for code freeze.

Gilles contribution on 400G has been merged. Sample device has been put on top of it.

Fix topology link and service update: Javier provided a fix to include in the ttpid the node id so that we can garanty the unicity of it. Guillaume mentioned that it would also make sense to have this change backported on Al.

When correcting the T-API context, Javier experienced a bug which has also been identified by other members of the community (https://lists.opendaylight.org/g/kernel-dev/topic/81062242?p=,,,20,0,0,0::recentpostdate,,,20,2,0,0&allview=1)

OLM Module: Shweta addressed all comments provided by Guillaume.

Both the OLM module and Renderer for 7.1 devices could be put on Al to simplify OFC demo preparation. However it will be pushed only in SR4 release.

NBI notifications and DMaap associated changes have been rebased by Emmanuelle. They shall be ready to merge.

AT&T presented at the end of the meeting some slides on the expected behavior of 400G switch and Mux-ponders, focusing on connection-map and otn switching pools.

#### 02/25/2021

# **General information**

Netconf is now an MRI (Managed Release Integrated) project and does not use anymore snapshots so that we need to adjust dependencies AI SR3 is on track.

Self-nomination period for TSC additional seats.

### **Code Review**

Guillaume merged all changes on portMapping refactoring and cherry-picked them to stable-Aluminium. Emmanuelle made an improvement to the test utils.

"HoneyNode for 7.1 devices" change has been cherry-picked to stable Aluminium to simplify the development of the test associated with the Renderer. AT&T can use the HoneyNode for device 7.1 as well as the 7.1 400G Transponders configuration samples to develop their functional tests for the Renderer.

In "Update Netconf dependencies" (95324), we change the dependencies associated with Netconf, using the artifacts rather than the snapshots (see general information).

"Device Renderer to support transponders for B100G": OpenRoadmInterfaces710 includes methods to create all interfaces needed for B100G (OTSI, OTSIg, OTUC4, ODUC4 and ODUFlex, and 400G EThernet...)

The code for OFC shall be ready by the end of April. Even if we are not willing to push the high rate renderer in Al SR3, we shall try to keep it on the Al stable branch.

OLM also needs to be cherry picked on Al.

Silicon shall be released in March.

# 02/18/2021

### **General information**

The Si code freeze will be next Monday.

Al SR3 could come soon. They have solved the vulnerability issue they had with Al SR2.

Not only the Netconf dependencies may change, some others may also change. Guillaume will ask to the TSC.

Guillaume continued working on the optimization of the code for PortMapping. Several changes have been merged on both Si and Al : Add a portMapping method to retrieve Xpdr port 2, Improve portMapping LCP method to map degree, Fix+ align portMapping protections and log messages, Fix usage of deprecated methods in portMapping. Lists have been changed to Maps to be compliant with Si usages.

Gilles made several improvement to T-API: "Update topology input files for T-API topology UT" focuses on taking into account admin and operational states of openroadm-topology and otn-topology as well as Flexgrid data. "Align tapi topology states on OR topology ones" allows to set the state in the T-API topology from the state that are present in the OR topology (they were hardcoded in the intermediate phase)

Emmanuelle has been working on refactoring the GNPy code, also introducing the Jackson serializer/deserializer missing in Yang Tools.

Manage 400G in portmapping is a preliminary work needed to handle higher rates. A sample of 7.1 device configuration for transponder at 400G has been proposed by Gilles. He would like it to be double checked by AT&T who has the knowledge of equipment. AT&T highlights from what they saw in the labs, that for transponders @400G, most of the time the connection map comes at run-time, because the same devices can be used as transponders or switch-ponders (depending on the type of equipment, we could have either a connection map or a switching pool)

Gilles will populate the repo so that it allows the installation of HoneyNode for 7.1 device.

"Adapt PCE to compute a 400GE path" change allows upgrading path computation, considering port capabilities of transponder and is a preliminary work needed to handle higher rate

AT&T has started working on the renderer for higher rate. They may have an update, maybe not on next week but the week after.

Guillaume confirmed that it is probably better to work from Stable Al branch for OFC, since Si may suffer from instabilities.

# 02/04/2021

# **General information**

Al SR2 might not be officially released (Issue with authentication in NETCONF/RESTCONF)

AT&T wanted to have a discussion on which version we should rely on to perform the demo. Bala propose to make the development on stable Aluminum and later cherrypick it to master. This will allow to rely on a stable branch.

For functional tests on Kafka we use docker compose to create the docker image from a Yaml file. The docker image is not available on Gerrit. The YAML file is available on the change "add test for service notification" (94272).

#### Code review

Gilles has merged recently all changes pushed by Javier on Topology update.

He has proposed a change to bump our dependencies on Silicon.

He has merged a few changes regarding dependency injections to solve some issues with the T-API module.

Guillaume is working on some refactor on the portmapping.

NBI notification for Kafka is still under review. Emmanuelle has solved the issue regarding the NBI notification module

Fix variable name in topology allows fixing a bug we had. The input file used for unitary test in topology have been changed to take into account the admin and the operational state that are now handled

Gilles also made a change to adjust the state in the T-API topology to reflect the state that are in OpenROADM topology.

Emmanuelle worked on a Dmaap client, in the same spirit as the NBI notification module adjusted for operation with the ONAP Dmaap Bus. This will allow to handle the asynchronous process in MDONS.

Javier has pushed some code as Work in Progress

- \_"T-API context creation on feature install" (when the T-API module is installed). He is still working on solving the issues he encountered
- "Initial OR-TAPI mapping Topology" focuses on mapping OR topology to TAPI topology and store it in in T-API context
- \_"Initial OR-TAPI mapping: OpenROADM Services" : OR services are mapped in the T-API context
- TAPI Netconf Topology Listener" provides a TAPI network model service equivalent to Network Model module –
- \_"TAPI network utils" allows the creation of links in tapi

Javier will make a presentation to summarize the content of his changes.

AT&T mentioned that the renderer for B100G might be ready mid of next week.

# 01/28/2021

#### General information

Al SR2 should be announced today.

DDF is starting next the 1st of February. ODL sessions will be on Thursday.

Javier divided the T-API module User story into several topics (Initial mapping, Netconf listener, Service Handler, implementation of T-API notification service). He is working on it locally, and will push the code when it makes sense

OLM Module: Shweta uploaded a new patchset. It has been tested in the labs. This changes addresses PM retrieval for 7.1.0 models, power management for 7.1.0, and power management code to support hybrid network. She also handled the correction of a bug in provisioning MC. This should no longer be considered as Work In Progress.

We are currently experiencing an issue (with yang tools / NETCONF?) when we introduce in the filter the PM resource type extension with HoneyNode.

Gilles has raised a bug on TPCE-JIRA: when we try to install the new feature for notification, the bundle cannot be started. This might be an issue with the MDSAL. The issue description will be sent on the odl mailing list.

Gilles also pushed several changes :

- \_Service datastore instantiation in SH: checks correct instantiation of Service datastore to avoid null pointer exception if this is not the case when the sate of a port is updated.
- \_Fix the SIP UUID generation in Tapi Topology: change the way UUID are generated so that they are created in a deterministic way for the service interface point.
- Set mandatory UUID in TAPI connectivity module: In the t-api connectivity module, sets a mandatory UUID to avoid any compilation issue.
- \_Reorganization of dependency injection in Service Handler : solve the Service Handler instance duplication issue when installing T-API feature. It also removes manuel instantiations from ServicehandlerProvider to let blueprint manage object instantiation as a singleton, adapts constructors of service handler UT accordingly and reorganises dependency injection in lighty to be aligned with blueprint files

Guillaume started to add some intermediate methods in the Port Mapping (This is still WIP)

The meeting ended with a discussion on PortMapping: with 400G equipment when we have a Transponder without any circuit pack provisioned we do not have any connection map populated. This comes up (as well as the switching pool) only when the client and network are introduced in the transponder /muxponder. We should be able to refresh a port mapping on notifications coming from the insertion of a new circuit-pack in a transponder /muxponder unit.

### 01/21/2021

#### **General information**

Al SR2: No news from the LFN staff to publish the Artifact. Robert tried to address this and getting things moving forward. Developer and testing Forum is from the 1<sup>st</sup> to the 4<sup>th</sup> of February. Guillaume will propose some topics about documentation.

#### Code review

Javier contributions have been merged this morning.

Flexgrid has also been merged on Master branch.

Resource deletion issue in OpenROADM topology: following the creation and the deletion of a service, the resources were not correctly released. The bug has been fixed by Gilles.

Shweta is currently working on functional tests on OLM. She is experiencing some issues while trying to access specific PMs using filters.

# 01/14/2021

#### **General information**

Current master branch now based on Si works back again.

AL SR2 Is in good shape, it shall be ready by Monday.

DDF forum is scheduled from the 1st to the 4th of February. Registration is free but needed in case of submission. Submission are due tomorrow.

# Code review

Javier exposed what he plans to work on in the coming weeks. This includes some extension of T-API module to support the topology, the connectivity and the notification service. Javier wants to store the T-API context in the MD-SAL.

Emmanuelle has rebased Flexgrid contribution on the master branch.

Javier thinks he has solved all the comment made on his patches.

Emmanuelle has started integrating Thierry's code on notifications. She worked on NBI notification module. This module is now available as an optional module so that we do not have any issue when no Kafka container is available. She also modified Lighty to activate or not the notification module addressing the same issue.

Emmanuelle presented a summary of the work she did on Flexgrid.



#### 01/07/2021

### **General information**

Current master branch now based on Si is broken.

We are experiencing a compilation issue with newest YangTools.

MDSAL 654 - yang-maven-plugin:6.0.2 error while generating sources RESOLVED

We expect a new delay on Al SR2 releasing (initially planned next Monday).

# Code review

All the changes associated with Flexgrid have been merged on stable Al branch and will be included in Al SR2.

Emmanuelle will cherry pick these changes on Silicon as soon as the yang tools bug has been solved. Gilles confirms we are ready for Al SR2.

Javier has addressed almost all the comment on its changes. He is currently working on the T-API module.

It seems important to store the T-API topology in the MDSAL since Javier will enrich our NorthBound T-API implementation.

There is no objection to do so. This will allow to have a T-API topology stored in the controller directly in the MDSAL rather than in Mongo DB that is not supported in ODL.

Thierry pushed a change concerning the addition of a new maven module to handle notification. The second change is about the implementation of the Kafka notification publishing service.

Last change is concerning the functional tests associated with this new functionality (Kafka notification publishing)

# 12/17/2020

# **General information**

Magnesium SR3 publishing is imminent. CSIT issues have been fixed

Al SR2: the release manager proposed to postpone it to January the 4<sup>Th</sup>. As self-managed project, the deadline for us will be the 11<sup>th</sup> of January.

Next meeting will be the 01/07/20201

### Code review

Christophe cherry-picked all the changes dedicated to OTN on Master branch.

Align and improve Portmapping step 2 an associates changes have been merged.

Javier commented his last works. There is no more any merge conflict with the master branch. Javier has tried to answers most of the comments provided in the review.

Emmanuelle introduced her changes associated with Flexgrid. She is still working on renderer adaptations which were discussed with AT&T to check that we are in line with planned modifications.

Power setting will be handled based on signal width, not the on the slot-width to avoid wrong calculations that may result from rounded values associated slot width.

Bump to Silicon: before merging all changes for Flexgrid and the changes of Javier, Gilles feels it would be good to merge "Bump to Silicon" Change. Guillaume rebased the change on master, and Gilles then will merge it, once the gate will pass.

### 12/10/2020

#### General information

Mg SR3 release should come soon..

### Code review

The bug in the Honeynode about the regex that checks the OpenROADM version has been fixed.

Upgrade to OR 7.1.0 Network models. All associated changes have been squashed, so that all is handled in a single change. Gilles has cherry picked all the changes that make senses (PortMapping, device 7.1 models, upgrade of OR 7.1 Network model) to stable Aluminium.

Deprecated Fec Identities in OR models leads to an issue with Mac and Windows OS compilation because they use by default a case insensitive file-system.

The deprecated Fec and the new ones generates the same file name on such systems even if capitals letter might be displayed on case-preventing FS). A bug has been raised in ODL Jira. In the meanwhile, the fec identities leading to these issues have been removed from the OR R8.1 models.

Christophe has rebased his changes on E2E functional tests including GE port (new configuration files with Switchponder3 and the Fix in the PCE) on stable Aluminium and pushed them to master.

Javier has tried to take into account the relation chain in his pushes. He will address Guillaume's comments by end of the week

Guillaume worked on the second step to align the different versions of the PortMapping.

### 12/03/2020

### **General information**

Mg SR3 branch is still not locked (infra issues more or less fixed but still CSIT jobs failing).

### **Code review**

All the test chain on portMapping has been merged.

Gilles has merged all changes associated with portMapping 7.1 provided by Bala.

He just needs to cherrypick these changes on stable/aluminium now.

Guillaume has been working on adding protection on PortMapping.

Bala is fine with the changes that were performed.

Guillaume also made an alignment of the different versions of the PortMapping.

Gilles made a change to bump Netconf dependencies to Al SR2.

Network models 7.1: Gilles rebased all the change on AL SR2. This change is ready to be merged.

Christophe pushed some changes to have the functional test running with the PCE for GE services. This includes changes in SPDR configuration for Honeynode.

Christophe also proposed a change to handle Port capabilities in the topology.

Christophe and Gilles mentioned the fact that it is very difficult for them now to debug ongoing development on the new test suite due to the last refactoring /mutualization/optimization performed

(information spread in different files that need to be accessed even in case of simple modifications).

Bala and Shweta confirmed they experienced the same issue but agreed that there were advantages to this approach.

Guillaume and Bala proposed that the python code reuses PostMan templates with variables since Postman collections can be run with variables.

Emmanuelle suggests that we use directly Postman and Newman to run the test in command line but this require to have node.js on the gate. This needs to be confirmed first before taking a decision.

Update on HoneyNode simulator: with last version of jdk 11, regex does not work anymore to retrieve the version of the equipment. This has been corrected in this change.

### 11/26/2020

#### **General information**

Mg SR3 branch is still not locked (fixing infra issues).

### **Code review**

Bala's changes on PortMapping and 7.1 models have been reviewed by Guillaume and Gilles.

Only "bug fixes in Portmapping 7.1.0" last patchset still needs to be reviewed. Guillaume suggests that Gilles merges the relation chain.

Align and improve portmapping versions Step2 is ready for review.

Reformat api Yang models with pyang has been reviewed. It could also be merged (after Portmapping).

Javier presented Nokia's latest works.



Honeycomb modifications on 1.2.1 have been pushed to Gitlab.

Changes associated with Netconf notifications handling have been pushed on Gerrit (Step1 to 8).

A thread is created for each notification to avoid bug identified as TRNSPRTPCE-249. Step1 to 6 were introduced during last meeting.

Step7: When a service notification is received by the Service Handler, this last compares the elements of the topology and their states with the elements included in the different path-descriptions of service-path-list.

The state of the services affected by these state changes are refreshed by the SH.

Step8 : Honeynode 1.2.1 simulator has been modified to include the implementation of Circuit Packs notifications in DeviceNotificationProducer and the implementation of CP update datastore in DeviceChange listener.

### 11/19/2020

### **General information**

We are part of AI SR1, though it seems the marketing annoucement are not more brodcasted on the mailing-lists.

Mg SR3: Managed project have still some CIST issues, so we will experience some delay in the code freeze. The cherrypick have been done, but we will need to stage Mg SR3 when ODL Release allows to do do.

#### Code review

PortMapping for 7.1 : A couple of comments have been made on the different changes. AT&T has been testing the code on transponders and 400G muxponders.

At that time only transponders are supported with the current code. It seems that managing muxp-profile (in device model) will take time.

And network model may suffer from limitations that will not ease the management of 400G muxponders.

The proposal is that Gilles or Guillaume address the comments made on Bala changes. Bala will send his presentation on suggestions for adaptation of the Portmapping.

We will then dig into the models and handle the muxponder case at a later step after we make sure everybody is in line with the way to do it.

Nokia / Javier has provided several changes associated with its initial contribution. The changes are WIP and no review is expected yet.

- Step1 focuses on the implementation on the device listener to process notifications from Netconf devices. Every time a new notification is sent a new thread is open.
- Step 2 focuses on adding the operational and administrative state to topological elements.
- Step 3 is focusing on upgrading the states according to the received notifications.

- Step 4 is adding a basic model to provide an interface between the topology manager and the service-handler.
- . Step 5 : when a netconf device generates a notification, this trigs a modification in the topology which is sent to the service handler
- Step6: the test of the port status is introduced in the PCE.

Guillaume added pyang tox profile to check/format api models and the documentation spelling.

#### 11/12/2020

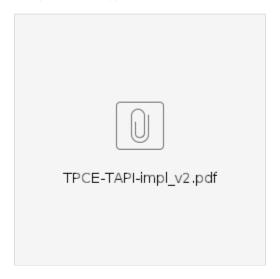
### **General information**

Gilles proceed to release of AI SR1 last week.

Mg SR3: Code freeze for Managed project will start on the 16<sup>th</sup> of November.

### **Code review**

Gilles presented the approach that what used to consolidate the T-API topology export.



Two levels of topology can now be provided: "T0 Multi-layer Topology" provides a global abstraction of otn-network and WDM topology. Only the units that are physically connected to the WDM infrastructure through X-ponder to ROADM link are represented in the topology. "Transponder 100GE" provides a second level of abstraction where only transponders of the WDM layer are represented. The full WDM domain (providing any to any connectivity) is represented as a single node with Node Edge Port that correspond to the client port of the transponders.

Fix a bug in PortMapping: in some devices in the lab the xponder-subtree does not give all details for the connection map (lately inserted pluggable not reported) making PortMapping failing.

Bala solved this, reinitializing the logical connection point for which details are missing.

Emmanuelle has aligned the topology on 7.1 openROADM models (Common, Device, Network models). She split the changes to ease review, meaning a lot of them do not pass the gate.

#### 11/5/2020

#### **General information**

Managed project are ready for Al SR1 since today. Gilles is going to prepare the staging of the release. The latest work done on T-API will not be integrated in Al SR1 since it is still in review.

The TSC election process has been postponed to the end of November (but self-nominations coming soon).

Lighty support in AI: Lighty now works with AI (add annotation dependency, increased memory allocated to make it run, PathComputation service Impl was using BindingDOM codec service from karaf which has been changed to AdaptorContext serializer)

Now that lighty is activated for the test, TPCEUtils also needs to be updated if we change models.

Using Lighty on Al, we will rely on a stable version. But for Silicon, Lighty needs to be uploaded from maven central, and it is not currently available. This is the reason of the change "Lighty support Silicon migration"

Portmapping for 7.1.0 models: Bala changed the portmapping to enable 7.1 models. Supported interface capability implementation has changed. Interface capabilities are now more port childs but are now handled as an augmentation and mc-capbilities are now handle through profiles.

Emmanuelle mentions that she will wait for the portmapping to be merged so that she can rebase her Topology change (common models need to be changed for both).

7.1 Honeynode simulators can be downloaded from

https://gitlab.com/Orange-OpenSource/lfn/odl/honeynode-simulator/-/tags/honeynode-plugin-aggregator-7.0.0

Bump to silicon: Guillaume split the change done by Emmanuelle since he wanted to reuse some of the code changes in AL

T-API : Gilles made a change to strengthen independence between UT in OLM (not strictly related to T-API). A second change allows sharing a common Datastore context for all unitary test in T-API (Static class). The 3 following changes are dedicated to the consolidation of T-API topology. Only ports and node that are attached to the ROADM are considered. Second step allows to build a multilayer topology that includes both transponders and OTN devices. Step3 allows building the same abstraction as we were building in the initial development (only transponders and WDM layer). Last change includes the tests associated with T-API.

### 10/29/2020

#### **General information**

Aluminium SR1 deadline is tomorrow for managed project. The branch has been locked this week.

It will be unlocked when managed project will be ready which will allow us to migrate.

There were a couple of evolutions on dependencies, which have been considered but can't be merged in the current state.

#### **Code review**

A few Jsr305 useless dependencies have been removed from poms.

SH optimization and technical debt: Guillaume proposed a way to handle the rpc pending status. Change Merged.

Bump devs to latest Al SR1 dev platform versions merged.

Without this change, the project was building up to karaf, and crashed because of a mismatch in controller dependencies versions (2.0.4).

Lighty.io build: Guillaume fixed some issues (api contract evolutions, addition on the Flexgrid....).

The call to PathComputationServiceImpl is not solved. A method passing parameters to the GNPY server I using BindingDOMCodec services which cannot easily be retrieved from Lighty.

Changing to AdaptorContext could be a workaround, but this approach still need to be consolidated.

Bump to Silicon :

Emmanuelle updated the Pom to Si as well Junit tests and code to be in line with Si following the introduction of the Mayer Enforcer Pluggin.

The change also takes into account the latest modification made by Robert to solve MDSAL-600 bug (Problem when using two enum with the same name in the same module).

#### 10/22/2020

### **General information**

There will be a TSC election in the coming weeks.

### Code review

Portmapping for release 7.1: Bala has shared with us the way he wants to handle it.

Current PortMapping is importing common-types, switching-pool-types and port-types. A few parameters that were in the common types have been moved to device-type, or common-optical-channel-types.

When upgrading it to 7.1, two approaches can be followed.

First Approach: Create 2 separate yang files for the attributes that have changed in new versions.

Second approach: we would use the most recent model (7.1.0) for all older model as well.

This implies to make some deeper changes. We have a global agreement on the fact that the 2nd approach looks more appropriate.

The migration of network models to 7.1 has been initiated on Orange side by Emmanuelle.

Robert has recommended to use BOM in the POMs. Guillaume initiated some work to use BOM in tpce features. Guillaume also removed some useless findbugs jsr305 dependencies in the common and in the Tapi modules poms.

Add OpenROADM 7.1.0 device and common modules: there is still a few comments to be addressed befor the change get merged. SH handler optimizations and technical debt is ongoing, but Guillaume is expecting feedback on how to manage the pending status.

Lighty.io: Binding DOM codec service is needed by GNPY but not supported by lighty.io. This means some rework is needed on the GNPY API.

Bump to Silicon SR0 version is working. The changes is expected by committer(s) to be split so that other branches benefits from the improvement done (and also to ease their maintenance).

Javier expect to push by tomorrow some part of his work.

### 10/15/2020

#### **General information**

Robert Varga presented his notes on ODL during the LFN events.

There will be some changes in the way notifications are handled in next releases (implementation of RFC8040)

### Code review

Contribution on stable Al branch: We need to be clear on the branch where we want to have the contributions, ortherwhise we won't be able to identify potential merge conflict.

Until further notice, we should post the contribution to master until the migration to Silicon.

This may however be handled differently for specific cases.

For technical debt, changes could be pushed to either Stable Al or the master branch.

For stable AI: we should push feature we already have: Flexgrid, T-API....

New features such as KAFKA shall be pushed on the master because it shall not be pushed to Aluminum.

Bala posted a new change on Gerrit that corrects warnings coming from Pyang analysis on yang files.

Bala would like to organize a meeting about portmapping 7.1 since he wants to discuss about some issues he encountered.

Because of the change in the way port/mc-capabilities are handled in OR 7.1 release (common model),

the PortMapping needs to be deeply modified to fit with the new models. From swagger UI the version of PortMapping does not appear anymore in api-doc.

Emmanuelle pushed some changes on stable/aluminium on technical debt.

She is waiting for netconf silicon migration to migrate master branch to silicon for TPCE

Gilles and Christophe worked this week on the consolidation of T-API topology export:

the topology will include the NEPS of the photonic layer that corresponds to Xponder ports that are connected to the ROADM infrastructure through fibers. ther port (that cannot be commissioned) will not appear in this abstracted topology.

### 10/08/2020

### **General information**

Tpce is officially in Aluminum, even if the official announcement still has not been sent to the mailing-lists.

Next week will be LFN networking technical event (old DDF) handled from the 14<sup>th</sup> to the 15<sup>th</sup> of October. It is a free event but a registration is needed.

#### Code review

#### 7.1 Device model:

In the ModelMappingUtil it seems we have some duplications of the settings of serviceA/Zend where OUT, ODU and clli are affected 2 times. A change is dedicated to this

CleanUp API yang changes (part1/2) look fine.

Augment 7.1 device common model: we have a licence issue with the OpenConfig Models (missing license). As we cannot convert the Apache L2 license into BSD license, the separate license file needs to be added.

#### T-API

Fix bug on transitional link solves a UUID creation issue: 2 devices could have the same UUID for the transitional link leading to the creation of only one link. The creation of UUID has been modified to address this issue.

Add OTN links in TAPI topology: OTU4 and ODU4 links are now provided in the OTN topology. Associated Junit tests were added.

### 10/01/2020

### **General information**

ONES virtual event is ending. Video can be seen offline for people who registered.

CPQD (A Brasilian institute which promotes dirsruptive technology) seems interested and asked some questions on transportPCE

LF Networking (equivalent of DDF for ODL) virtual event is following (13-15 of October): they are still asking for late contributions.

Aluminum official announcement was still not done, as they are waiting for Release Note updates from some projects

#### Code review

Device Model 7.1: now compiling. Bala is expecting a review of it. The change includes refactoring of transportPCE API Func test for Flexgrid: Gilles made a review on it and the test suite has been merged.

Documentation: Guillaume added some elements on the T-API feature to the user guide. The release notes have been updated Python functional test rationalization has been merged

Junit test: Move common DataStore has been merged last week. Guillaume is currently focusing on 92439 "Migrate AI and reactivate some Junit tests". Lighty.io 13 was released on the 18<sup>th</sup> of September. Guillaume started to look at it. GNPY dependencies were forgotten. PathComputationImpl needs BindingDomCodecServices which leads to the same issue as for the Junit tests (92349).

A couple of change waiting for review, from which "do not explicit serial Version UUID anymore" Shweta has identified a number of bugs on the OTN code. Corresponding JIRA ticket have been created.

## 09/24/2020

### **General information**

We will be part of the Aluminum distribution which shall be released today.

Release plans for next Silicon release have been asked to core projects.

In the case of TransportPCE it does not bring that much value since it would concerns mainly functional features, but no API modifications

#### Code review

Forgotten Mg Branch documentation update has been cherry-picked to master and stable/aluminium.

Aluminum Developer guide documentation has been merged, as well as the user guide which was modified regarding the installation of T-API feature Do not explicit Serial Version UUID is ready for reviewal.

Guillaume has been working on rationalizing the Inventory

- \_Junit Tests : Guillaume splitted the change on Junit test
- \_Remove dead code from Junit test has been merged
- \_Fix test-common dependency scope in some pom files has been merged
- \_\_Fix a bug in PceUtils Junit can be merged. The proposed correction was made because initial Junit test was failing
- \_Migrate to Al and reactivate some Junit tests & Move common DatastoreContext and co-test-common lead to some issues

Guillaume fixed pylint configuration, modifying default regex rules and solving some false positive issues.

Use dict instead of elif in functional tests: some dictionaries have been introduced to simplify the code in some test suites

# 09/17/2020

#### **General information**

Managed project are almost ready for Aluminium . A message was send so that the PTL provide their inputs for the marketing message. We should be ready by next week (25<sup>th</sup> of September) The documentation may need to be reworked to include Flexgrid

### Code review

Aluminium bump.

All Aluminium bump have been merged on top of Flexgrid.

Migrate Junit test is still not merged because......

FlexGrid test suite: Gilles made some reviews and comments on the test suite, asking to include the renderer in the interface creation process (MC and NMC). Bala pushed some new tests to address these comment. The test passed the gate.

Rationalization of the inventory code: consolidating the Al migration, Guillaume made some changes on the Inventory.

Functional test rationalization was reviewed by Gilles. However, we will merge this patch after the migration to Al just to make sure there are no side effects.

Update device model to 7.1.0: ODU 4 and OTU4 identity are imported from otn-common types. Some wrong revision are imported leading to mismatch. Still not clear why we observe this behaviour. We do not plan to include this in Al release.

### 09/10/2020

#### **General information**

Al SR0 is planned for next week on the 17<sup>th</sup> (Managed project). We have one week left to finish the migration. ONS is on last week of September and will be a virtual event with limited fees.

#### Code review

Update of device model to 7.1. In the common type, there were some identity that have been added and some have been deprecated. In java classes generated by MD-SAL the dash is suppressed from deprecated identities making this redundant with the new one which leads to issues. This is probably associated with a bug in YangTools. Deprecated identities have been removed. Suggest to raise the issue in OpenROADM to remove deprecated identities from R8.0.

Flexgrid: Potmapping, flexgrid rendering and test suite changes are ready for a functional review.

Guillaume changed the docker image for ROADM D (that includes mc-capabilities)

Functional test cleanup is not completely ready, but a couple of change are ready for review. Pylint configuration have been modified. Simplification of the tests using dictionary with checks to be done instead of elif.

Aluminum migration:

In GNPYBindingDOMCodec services is used instead of direct implementation. GNPY yang models have been adapted to remove the key for the list of include/exclude constraint to solve a problem of ordering in the resulting Maps. The corresponding change is now ready for review.

The PCE has also been changed to solve a number of bugs associated with list and map handling.

Bala is asking for postman collection to help debugging the functional tests

### 09/3/2020

#### **General information**

TransportPCE will be part of the Na SR4 distribution

# **Code review**

Flexgrid: the Mg SR2 dependencies were removed from Nexus, so that Guillaume upgraded the dependency to Mg SR3.

The code can now be rebased (as an intermediate step since at a later step it will need to be rebase on Al). Bala still has some issue passing the functional tests (all 1.2.1 port-mapping related test are failing. Also some of the Junit test are failing.)

Some of the input of Junit tests are hardcoded, so that if new mandatory parameters have been introduced, there must be fed to the Junit tests. Migration to Aluminum ongoing work:

- GNPY feature to reactivate: the problem comes from the Yang Parser factory. The Yang Parser factory has to be reinjected.
- Migration of the functional tests that are now in failure following the API migration. see belo
- Binding context. Karaf tries to load the package mdsal.codec.impl but it is no more exported by mdsal (modification in poms).
- Guillaume is asking for some review on the PCE. He made some modifications to have it working but these modifications are not really on the same line that the initial proposal.
- · Guillaume had to increase the Karaf Java dedicated memory size to have functional test passing.

# 08/13/2020

### **General information**

Magnesium SR2 released. TPCE merge-release job passed tuesday. We should be part of Mg SR2

Sodium SR4 coming soon but what to put into it? most of Mg work is focused on OTN and Na does not have this feature

Alumium branch locked since 08/03.

### Code review

Gilles did most of the premilmary work to bump to Alumium but it is not yet completed.

This was a huge change, Onoging work to split it.

Aluminium does not buit with jdk 11.0.4. The version used must be at least 11.0.6

Among other things, the API change impacts yangtools generated lists.

The type used is now Map instead of List.

Some bugs found on real equipment with Mg SR2. JIRA tickets to come.

Flex grid stll on work, especially functests that needed an update on honeynode (now merged)

#### 07/30/2020

#### **General information**

Magnesium SR2: there are still some issues with some of the Managed project artifacts.

It shall be solved this week, and self managed project shall have one week to release after this has been solved.

The current estimated date to release Magnesium SR2 is of next week. Daniel de La Rosa will send a mail to Shweta as soon tpce can be released.

#### Code review

All changes related to Mg SR2 have been merged .

Orange started working on the migration towards Aluminum, which introduces an API disruption, and changes in the DataStore context. This will be the priority for Orange, coming back from vacation since the migration will imply a lot of work.

Javier is back from vacation. Il we will work on rebasing and splitting changes provided by Nokia but also needs to focus on his master study report.

AT&T is experiencing issues with the Portmapping update in some cases after a configuration has been performed on Xponders. AT&T suggested to create an rpc targeting devices that triggers portmapping updates for debugging purposes.

Some issues in developing the test suite for the flex-grid capability. This requires the device to advertise mc-capabilities for degree/SRG in the operational data. A new operational data file (oper-ROADMD.xml), where these capabilities were added has been created. However, mounting the device using the honeynode-simulator, only the operational data appear.

# 07/23/2020

#### **General information**

The kernel dependencies have been updated this week.

The gate is back and we don't see anymore the karaf issue that were encountered last week.

We will need to check the documentation in case that dependencies are changed again

Once the managed project will freeze we shouldn't see anymore the error stating that the Netconf artifacts are not available.

#### **Code review**

Otn-link update fix: addresses a bug associated with the update of the tp after a new link has been created.

Flexgrid portmapping change: AT&T proposed to introduce in the mapping list of the portmapping yang model a container mc-capabilities with slot-width and center-frequency.

The reason for this is that we could have hybrid node that support only Fix Grid on a degree and FlexGrid on others.

Bump project dependencies to AI: Gilles as started the migration towards Aluminium release.

The last release provides a lot of changes especially in the common modules (Serialization of object toward Json or xml, functions to parse yang models. So this migration will be a difficult exercice.

Missing modulation format for 2.2.1 Och interfaces needs to be reviewed.

# 07/09/2020

#### **General information**

For self-managed project Mg SR2, we have up the 20th of July to stage the project.

Branch lock is anticipated to the 13th of July which may lead to a branch lock that happens very early.

If we want to merge something, this needs to be prepared tomorrow, because of next bank holidays in France.

AT&T would like to check the code on equipment. If a bug is detected and a patch is proposed to solve it, this could be submitted to a super-committer.

### Code review

Functional tests for SH-Renderer new OTN API change has been merged.

Christophe and Gilles pushed a change "Simplify spdra configuration management in tests" to homogenize the configuration files for the test "Integration of end to end services" change that allows to integrate end oth services has been merged.

Enabled Flexgrid support is ready for review.

Javier has split his previous change. Apart from Kafka brocker and T-API implementation that miss made the other changes have been pushed (3 different ones). He has fixed merge conflicts but need to modify some of the python test that fails. He is also working on pushing HoneyNode on GitLab

Functional test for end to end otn services. A test suite is provided for 10GE otn service creation, including the creation of intermediate supporting services (ODU4). The update of the openroadm topology and the otn topology is also tested. To make 1GE tests, the configuration file needs to be adapted to include GE interface. AT&T will also try to have 1GE services tested on equipment. The test will need to be modified to fit with the new approach Guillaume followed (centralizing url in one file). Guillaume will take care of this adaptation.

In "Update docker command" change, Emmanuelle proposes a new way to start the GNPy docker.

### 07/02/2020

#### General information

Na SR4 distribution has been approved. No detailed schedule announced. The team from Nokia has joined the meeting.

### Code review

SH-Renderer API code contribution Step1 and Step2 have been merged. Renderer is now capable to differentiate WDM and OTN services. SAPI and DAPI setting have been included (respecting the 16 characters limit). Functional test have been added. Functional tests related to deletion of the service are missing because it implies the PCE has been modified.

Gilles and Christophe could integrate this changes and continue to work on OTN end to end service handling. They recently pushed a change "Integration of end to end otn services". This change includes the functional service

The work includes 3 changes: 1st addresses the update of path description to 1.6.1. The second one is to set the tribport and tribslot (PCE). Last changes concerns the integration, and includes the deletion of service. This patch is set as WIP, because it does not pass some of the Junit tests.

Guillaume made different changes on the functional tests. One is dedicated to the ability of running it in a Mac environment....

Some other are dedicated to the acceleration of the tests. T-API......

The number of lines in the code has been significantly reduced to improve their efficiency.

AT&T confirmed that functional test are now running locally.

Susmitha has pushed a contribution on Flexgrid and addressed the comments made in the functional code review.

Nokia has provided a huge contribution. This includes the handling of southbound notification, and handling Northbound T-API interface.

The code provided will be divided in 6 parts

- 1: Honeycomb update which will be pushed to the specific branch dedicated to it.
- 2: Notification handling Updating OpenROADM topology
- ...Javier has modified the service model to include a path description in order to correlate notifications coming from topology update and affected services.
- 3 : PCE module where a check of the state of the element of the topology is made before calculationg the path
- 4 : Topology update notification
- 5 : Kafka integration (Hardcoded things will be changed)
- 6: T-API module (Will try to split it) Integration of Mongo DB, Connectivity, ....

Kafka and MongoDB are probably not supported in ODL (dependencies not present in ODL). It will probably need to be put in a separate place.

# 06/25/2020

#### **General information**

This is the DDF / virtual event week .

TransportPCE was presented. Some questions have been raised about GNPY. A session was also handled by Robert Varga and Guillaume about LFN process.

"SH-Renderer API code to handle OTN Step1 & 2":

Apart from trib-port and trib-slot assignment all comments from Olivier were addressed.

ODU4/OTU4 renderer input create has been updated.

Some modification were made in the OLM to support ODU4 implementation where only one network tp is used.

The hashcode method has been adapted to fit with the 16 bytes characters imposed by using Base64 + FNV1-64 algorithm (instead of FNV1-128).

Bala also added some test cases (OTU/ODU/LO ODU services) for SH-Renderer OTN API. Bala experienced some issues with the test when deleting the service.

Gilles and Christophe experienced the same issues and solved the problem working on their side on end to end OTN services creation-deletion. They propose to merge these changes so that they can continue working on end to end OTN services rebasing their code on the latest Patchset. One shall note that only SPDRAv1.xml configuration shall be used when we check the creation of interfaces by the renderer, because this is the only one that does not pre-include interfaces.

Susmitha has been working on flexgrid support. She added FlexGridImpl class and made some changes in the portmapping and in tpce- common-types vang

modules. Running it, some failures appear with the OLM in the functional tests

Emmanuelle upgraded the simulators versions so that they include notifications and fix the MAC OS support problems.

Nokia recently provided a significant contribution to transportPCE. This last extends the support of T-API with:

- The experimental support of a NorthBound Interface (NBI) based on T-API (service-creation, service-status-change notification...),
- The transcription of OpenROADM topology into a T-API compliant topology, persisted in a MongoDB database
- Netconf Device notification handling / Topology update (node/link states)

Many improvements on Functional tests merged. Better process and strat-up sequence management.

Alignment of 1.2.1 and 2.2.1 tests: Guillaume has modified the functional test so that they all use the same approach. A dictionary is used to define all simulators to be launched and the port they will use.

### 06/18/2020

### **General information**

ONES virtual event planned next week.

Orange proposed 1 session for TPCE, 1 for BGPCEP and one about LFN infra migrations and ODL scheules synchronization.

Ongoing talks to propose a Na SR4 release update

#### Code review

Shweta and Susmitha started to prepare the Flex Grid migration. Power control for flexgrid submitted by Shweta has been merged.

Some troubles with running functional tests on MAC OS => ongoing fixes and update of the honeynode zip files

=> Also ongoing refactoring of Functional tests

UUID stabilization on TAPI topo merged

Many update from Orange Labs Egypt and Gi

lles on Junit tests => They started to work on the common modules

Jonas bug fix / improvements merged

Ongoing huge work on the SH-renderer API update

Some bug fixes on the OTN nodes

# 06/11/2020

#### **General information**

There won't be any ONES EU event. It will be replaced by the virtual ONES NA event in September.

LFN is still in the process of releasing Na SR3. We are ready to be part of it

#### Code review

Dependencies have been bumped to Mg SR2 on the master branch.

Thanh made a contribution to remove a dependency that what preventing ..... some jobs/features to be updated. Sonar? Parallelly, there was a discussion to update the image for functionald from 8c 8G to 4c 16G. => cheaper with more RAM!

OLE made several Junit test contributions. This allowed improving significantly the coverage in tpce to 40%. They will focus on the common module in the coming weeks.

Gilles started working on Junit test for network model. Change 90244 has been merged. It does not cover OTN topology which is covered in another change 90372 for which the review is ongoing.

Jonas proposed 2 changes, one to improve the way we handle spanloss, and the other to fix an OTN PCE bug.

Emmanuelle pushed 2 changes on Lighty.io.

In the first, one missing yang model registration has been solved. The pom has also been updated. Now the tapi API can be used with lighty. In Lighty refactoring (90379), she cleaned up some dependencies that were not used, add checkstyle from ODL parent and fix checkstyle violations.

Some functional test have been added for t-api. With lighty.io, it is loaded by default contrary to Karaf.

It appears taht some misconfigaration in bundle/feature tapi configuration prevented it from being loaded correctly by default in the ODL distribution => fixed

Gilles fixed a bug in the PCE OTN node that was introduced when solving spotbugs issues.

Run autopep8 on functional tests.....

Honeynode has been updated to support the interleave capability.

Catch portmapping failure is solving some issues with some of the new OTN switch equipment AT&T has on its platform. PortMapping was failing because there are some mandatory parameters missing in the equipment configuration.

SH-Renderer-API: Bala will start looking to Olivier's comments beginning next week. Guillaume proposes to rebase this change on the current master.

### 06/04/2020

#### **General information**

Artifacts for Na SR3 have been published.

Orange has proposed a discussion on tpce Mg Release at Next DDF Forum (virtual Event)

#### Code review

Ahmed completed some functional test to check the behavior of the PCE in different conditions related to the presence or absence of OMS attributes. The test notably checks that the PCE does not propose path relying on some links that do not contains OMS attributes.

SH-Renderer API code to handle OTN: the code is almost ready. Before Bala starts working on functional tests, Olivier will make a functional review of the code.

Fix tapi execution: Emmanuelle fixed a null pointer exception and adapted the Junit tests.

Emmanuelle has refactored some functional tests. Guillaume would like AT&T to check and give the confirmation that the behavior is still correct in a MacOS environment

NETCONF-666 bug has been corrected and merged on Mg. It may solve the issue we observed with NETCONF notifications generated by devices in case of multiple Netconf sessions.

#### 05/28/2020

### **General information**

We are officially part of Mg SR1. It will be announce today or tomorrow.

Deadline for managed project for Na SR3 is tomorrow. We are ready for integration in this release, but Netconf artifact is still missing, so that we cannot stage the release.

Wiki URL has again changed from wiki.lfn... to wiki.opendaylight.org, which brings a lot of issues. Guillaume sent a mail to highlight this. Ongoing discussion on the virtual ONS summit.

The stable Mg branch is locked. So there will not be any additional change backported to it.

# **Code review**

OLE made some contributions on the PCE to adapt the code in the following of the Junit test they made.

Emmanuelle as developed a GNPY stub to help OLE in developing/running the Junit tests for the PCE.

Bala made a change (WIP) on the service Handler. He added otn-service-path method in SH model-mapping and updated renderer to differentiate WDM and OTN service.

The service-path was also updated with connection type.

Guillaume made some changes related with Spotbug issues on inventory and service handler. Now, except for SH, Spotbug is enforced on every module

Honeynode code is now on Github, and Jar files are downloaded directly. Original code is also available from https://gitlab.com/Orange-OpenSource/lfn/odl/honeynode-simulator.git

This includes last changes made to make it usable in a MacOS environment.

Jamo Luhrsen mentioned that the bug encountered by Javier with Netconf might be similar to NETCONF-666 issue.

### **Next Sprint**

Sprint planning is on next Tuesday. Please make sure all user stories of interest for you in the backlog!

# 05/14/2020

#### **General information**

ODL TSC is working for Mg SR1 releasing, but the branch is clearly not ready to stage the release.

The old Wiki has been migrated to the new Confluence Wiki. All the information is there. Module description and Requirements are at the same level. It will be updated later on.

### Code review

The stable Mg branch is locked. So there will not be any additional change backported to it.

Enforce spotbugs in test-common-module has been merged. Guillaume is waiting for some review on some others equivalent change prior to merge them. The 2 contributions from Jonas on LLDP neighbours and PCE node validations have been merged

OLE has difficulties to understand PCE operation for OTN since no documentation is available.

Christophe sent a mail about the issue we observed with having several applications subscribing to notifications on Netconf device (as an example Honeynode).

Shweta mentioned is that it may be related with support of the interleave capability of Netconf in NETCONF.

Honeynode code has been pushed to https://gitlab.com/Orange-OpenSource/lfn/odl/honeynode-simulator/

Zip files corresponding to Honeynode executable are now available for 1.1.2 and 2.2.1

# **Next Sprint**

Orange will close the sprint on Jira. After everybody has made some refinement on its user stories (acceptance criteria, detailed description...) we will start building the backlog of the next sprint so that we can set a new Sprint-planning meeting. Proposed date for next sprint planning is the 2nd of June. The period for next sprint will be from the 1st of June to the 25th of June.

#### 05/07/2020

### **General information**

No news about the release to come. It seems that the community is pretty late.

# Code review

Additional Junit test have been pushed by OLE, and merged.

SAPI/DAPI patch has been merged.

Bala raise the fact Building Service Handler, SLF 4J SpotBugs are coming up making more difficult the analysis and the set up.

SpotBugs is highlighting some issues, some of them being real, but others being false positive.

Spotbug is analyzing the BiCode. As an example, sometime it says that a method is not used whereas it is used because it can't know it. SupressWB warning can be used in the code to avoid Spotbugs raising some issues that shouldn't.

Guillaume started working on some spotbug issues.

SH-Renderer API code to handle OTN: Bala Added otn-service-path method in SH model-mapping, updated PCE-listener to differentiate WDM and OTN service, and modified ModelMappingUtils to have input for OTN service path.

Device model 7.0 has been tagged as work in progress and will be kept in the next sprint.

Shweta proposed to give help on reviewing the 2 changes pushed by Jonas.

First contribution is about Ildp neighbours discovery, changing some loops behavior.

In the 2<sup>nd</sup>, PCE optical node validation, Jonas corrects the PCE behavior so that if PP ports on an end SRG are already used path, computation fails.

# 04/29/2020

### **General information**

The presentation made in the TWS meeting was appreciated and a question/answer session will be organized next Monday.

Next LFN events: No news from next Developper forum, the ONS America has been postponed to September but it is not canceled

Mg SR1 : we can't stage the project right now, because managed project are not ready. It shall be possible next Monday. Hopefully, we shall have one week then to stage transportPCE

A new version of checkstyle does not allow separation in the import. Stable Magnesium and Master are now pointing to Mg SR1.

# **Coding activity**

Many changes have been cherry-picked so that we are ready for staging.

The changes on the OTN-Renderer /PCE alignment and topology update have been merged as well as a number of Junit test added by OLE for the PCE. Fixing PCE spotbug issues: removed some uncalled method from the PCE and add some decorators to solve 2 false-positives.

Guillaume managed to fix the build error on lighty.io and updated the dependencies version to 12.1.0. It is now building and was merged. This change has been backported to the stable Mg branch.

Update device model to 7.0: functional tests concerning the OLM are failing. The reason could be that some classes associated with the OLM are importing some yang files from common models without stating the version. By default the latest version of the common models are called. As there were a lot of changes in the common models it might be that code is not compatible with some of the elements changed in latest version of common yang models. Some R7.0 equipment may come in the lab in a short time.

SAPI/DAPI: Bala made a change based on both Hashing function proposed by Guillaume and on the contribution from Shweta. It is successfully building but currently failing (PortMapping functional tests), but Bala need additional time to identify where the failure comes from. PortMapping has been modified to include the Hashmap corresponding to the code for SAPI and DAPI.

Guillaume isolated the change related to the portmapping and put it into a separate change (ease the debugging, making easier to identify the impact on the changes of models).

Upgrade to Service Model 6.1: propose to put it on hold and wait until the issue 678 of OpenROADM is solved (bug related on the introduction of mandatory leaves making the subrate-eth-sla container mandatory whereas it is associated to a when statement, which leads to incorrect behavior in ODL). Then rather than integrating R6.1.1 which shall solve the issue, we could directly jump to R7.1 which will also solve this but add nice features to handle MDONS use case (such as the possibility to handle several notifications urls to different ONAP subcomponents.

### 04/16/2020

#### **General information**

The mailing-lists have been migrated, this includes transportPCE dev list.

The presentation about transport PCE for the Tech work stream (public session) will be on the 27th.

It has been asked by the TSC, and shall be technical. A good starting point could be to reuse the presentation made top OpenROADM user Group.

The gate was broken two days ago, this means the project shall be rebuilt if no Maven cache repo is used.

### Coding activity

OLE has added some Junit Tests for the PCE, increasing the overall coverage.

They also provide the Orange Gitlab LFN-dedicated space with the documentation for the GUI.

Gilles has pushed the "bump project version to magnesium SR1" on the stable magnesium branch.

Mg SR1 is planned for the <sup>4th</sup> of May (Managed project). We will have then one week to perform the staging.

The change on SAPI/DAPI shall be adapted (creation of SAPI/DAPI based on a HashMap of 16 Bytes, with preferably the ability to retrieve the original string from the hashmap).

The Change has been rebased (new dependencies) and put as work in progress.

OpenROADM service model 6.1 has been also rebased on new dependencies. The problem is that it modifies the service handler and does not allow to pass the end to end tests.

AT&T will analyze the log and reason for the failure of the functional tests.

Gilles pushed 2 changes to handle topology after an OTN service has been created and to align the Renderer operation with the PCE. This allows notably to update the topology with OTU4, ODTU4 (Structured ODU4) links, used and available bandwidth. ODU0, ODU2e and ODU4 services can be provisioned through otn-service-path and supporting OTU4/Och through service-path rpc.

#### 04/9/2020

### **General Information**

TSC would like to have a transportPCE presentation during a TWS meeting. AT&T is ready to support this.

Proposal to make it next Monday, but this can probably be planned at a later date which better fit with our constraints.

Martin raised the question on whether we shall try to push transportPCE for being a Managed Project.

The lack of effective committers would make it difficult at this date.

Martin suggested to discuss with the TSC this at the end of the presentation (mentioning current elements that may need to be solved).

The LFN has decided to migrate the mailing list. We shall receive of invitation to subscribe to the new mailing list.

For Aluminium we have to think about the old Controller API removal.

This may have an impact, on the code, but most the work was already done on the databroker migration from September for Sodium.

The Wiki shall be migrated before beginning of May.

#### Code review

"Update config files and tests" has been merged. It improves the testing environment for GNPY, modifying the config files.

"Improve HoneyNode Docker script" has been merged. The script to initiate the simulators has been changed.

"update lighty.io build script for Mg SR0 support": Balla made some modifications updating dependencies and was able to build the lighty locally.

Narayan has started working on the support of 2.2.1 Devices in the inventory. He has an issue with the database management.

"Upgrade OpenROADM service model to 6.1": Susmitha has removed old 5.1 service Model.

She suggests to keep old models in common, because a lot of modules are still using them.

### 03/26/2020

#### **General information**

A release note and a marketing announcement have been prepared. All self-managed projects (including transportPCE) will be in the official distribution. GUI source code has been published on Orange public Gitlab, the docs have not been published but exist in Microsoft Word docx format, they must be converted in MarkDown.

#### Code review

"HoneyNode and tox scripts BSD compatible" has been merged: the idea was to rewrite tox scripts and the launcher so that they are BSD compatible and can be used on Mac.

"Calculate Spanloss crashes when OTS is not present": Susmitha add a check on whether the OTS interface is present or not.

"Setting transponder power level when SRG Rx power range does not exist" Susmitha made a change to set transponder power level when SRG Rx power range does not exist.

Javier working with Nokia has pushed a change initiating Device Notification Listener functionality.

They propose to provide contribution that focus on listening to device notifications in order to trigger some network topology updates associated with the state of nodes and tps.

Docker refactoring: HoneyNode Docker refactoring is ongoing.

"Bump project to 2.0.0 and fix feature deployment change" allows bumping Master branch on Aluminum.

Several change have been made to reduce the technical debt and fix different spotbug issues (Separate changes for PCE, Common & Network and Renderer modules).

This changes also allows solving some of the SONAR issues.

# 03/19/2020

### General information

There will be a vote today for Magnesium Release, but they are still experiencing issues with some of the projects. Guillaume did not manage to stage the release because some dependencies are still missing.

#### Code review

Docker refactoring for Java 11: Honeynode has been upgraded to Java11. The Docker that launch the simulators needed also to be upgraded. In the docker file some changes have been made to introduce a hierarchy. Previously as all simulators and configurations were built directly on the image, the dockers used a lot of memory.

Using the Multi-stage feature of Docker, the size of the image went down from 800 to 240 Mbytes. Also only one image is now used for all configurations. A script starts several container with their own configuration file. An option has been added to check the health of the simulators by using the REST API.

Adding SAPI/DAPI to Renderer function has been completed also removing some warnings that were generated previously and hardcoded lines.

"Update configuration files and tests" change is focusing on correcting the clfi and addresses of the nodes, and managing OMS attributes and other deprecated attributes that were moved to the common model.

### 03/12/2020

#### **General information**

Magnesium release is postponed. A bug in karaf prevent some of the modules to start correctly.

Trying to stage the release, it seems that some NETCONF dependencies are not available so that we can't stage it.

#### Code review

Ongoing changes on the master branch:

A change has been provided by Anil related to the documentations (migration to Python 3).

Some Changes can be pushed on Master branch. If a change is OK we can then cherry pick it and propose it for Magnesium.

Gilles is working on some adds to the topology management and the renderer to handle OTN link creation in the topology. This code has not been pushed on the repository.

Bala has been working on checkstyle issues for SAPI/DAPI code and will push it this afternoon.

#### TPCF GUI:

We are working with Fossology to check the licenses associated with the GUI code. After we have checked licenses are compatible, the GUI code will be pushed on Gitlab

# 03/05/2020

# **General information**

Magnesium will probably be postponed but we are ready to integrate the release.

We have received some guidelines about the migration of the Wiki (Casey Cain).

#### Code review

toJava functions introduced by the Magnesium migration do not support null.

The code of GNPy has been changed accordingly (addressing the case where PCE sending a request to GNPy to calculate a path, without sating the wavelength).

The transportPCE features have been reorganized . odltransportpce gathers now all features associated with tpce, ord and api models.

A feature has been added for t-api, as well as an for the inventory. The creation of a t-api bundle was not leading to creation of t-api artifact which breaks karaf.

A change has been proposed to publish the artifact locally, so that they are available to be run in Karaf

The documentations have been reviewed to include OTN support, GNPY, and T-API support (for the export of the topology).

Some example have been provided to explain how to configure OTN devices using intermediate (East/west) APIs, waiting for a full end to end support (planned in later releases of Magnesium).

### 02/13/2020

#### **General information**

We manage to release tpce for Na SR2.

Magnesium code freeze should have been on Monday the 10<sup>th</sup> of February. Bus as BGPCEP project is not ready, Mg shall be stable only on next Monday. Guillaume has bumped the dependency and also migrated tox to use controller with JDK 11 and sims with JDK 8(not merged at that time). Currently the project is building with JDK 8 and 11 with Sodium. JDK 11 is mandatory for Mg.

Maven verified job needs to be migrated to JDK 11 (currently building on JK8). So this should not affect the current code.

A patch has been proposed to releng/builder to migrate. It has been merged during the meeting. So the gate is now using JDK11.

# Code review

When AT&T is pushing code, the building process fails. LFN doc tools needs Python 3.6 . ATT changes need to be rebased on the current master to use the new version of tox.ini

PCE consolidation (according to Jonas comment, and OSNR calculation improvement) has been merged.

The PCE OTN initial code has been reworked through "Adapt PCE code for OTN services" commit which has been merged.

OTN renderer code and PCE code have been put on top of Upgrade to service-path1.7

OTN renderer code was initially rebased on service path 1.7 before it was cleaned-up leading now to a merge conflict. The way to solve this has been identified during the meeting.

Guillaume is currently trying to rebase the Magnesium dependencies on top of the master branch.

There are some changes in the yang tools: they have changed the implementation of yang list leading to the impossibility of sorting correctly these list. This breaks the functional tests.

AT&T has started working on service and network models 6.1 integration. There are some issues, probably coming from common models. Bala has also started working on including SAPI and DAPI field on interface Builders (OTU4 creation) in the renderer but functional test fails (at the Topology level)

AT&T identified an issue with ODL parsing device responses to Netconf config edit. They need to investigate a bit further to understand whether the issue comes from ODL (NETCONF) or from the equipment.

### 02/06/2020

#### **General information**

The next DDF won't be collocated with the ONS. It will be associated with the ONAP event in Seoul.

Magnesium code freeze for Managed project is beginning next week. This means that the API won't change.

#### Code review

Guillaume fixed the problems with tox profiles and the gate works again.

Ahmed managed to finish his work on GNPY and addressed most of Jonas comments on the PCE. The problem of identifier for fiber and EDFA has been fixed.

The only remaining point of discussion concerns the Belmann Ford algorithm and latency management, but Jonas agreed for the merge.

Shweta has addressed all the comments made from a functional view on the renderer which was also realigned to the service-path 1.7. AT&T has started working on the upgrade to Service and Network models 6.1.

Christophe and Gilles pushed the new version of the PCE. They have reviewed all the code and have updated it to perform the path calculation for OTN service (OTU4 from network to network ports on OpenROADM topology, ODU4 from network to network ports on otn-topology relying on an OTU4 link, and 10GE/ODU2 & 1GE/ODU0 from client to client ports relying on an ODU4 link. They had to change the structure to introduce a new interface PceNode where generic methods are defined. These last being implemented by PceOpticalNode (previous PceNode) and PceOtnNode.

The part that misses for Magnesium are:

- OTU/ODU link population in the topology: Christophe and Gilles will work on their side on method in the topology building to create link in topology. Shweta and Bala will focus on renderer
- Service deletion which shall be quite straight-forward

Emmanuelle worked on HoneyNode which can be built and run on Java11. We are currently making tests to validate the solution.

Guillaume managed to make the code build with Magnesium, but still have some issues to solve. The community has introduced spotBugs (similar to SONAR) which raises some errors.